BID DOCUMENTS AND TECHNICAL SPECIFICATIONS

LAKE STREET
COMPLETE STREETS PROJECT

ST. ALBANS – TCSP TCSE(16)

CITY OF ST ALBANS

COUNTY OF FRANKLIN

PREPARED FOR

THE CITY OF ST ALBANS
100 NORTH MAIN STREET
ST ALBANS, VERMONT 05478

February 12, 2016

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INVITATION TO BID
ST. ALBANS – TCSP TCSE(16)

Sealed bids from pre-qualified contractors shall be accepted until 12:00 pm, prevailing time on Monday, March 15, 2016 at St. Albans City Hall Auditorium (use rear entrance off of Hudson Street), 100 North Main Street, St. Albans, for construction of the project hereinafter described. Bid opening will occur immediately after the bid submittal deadline. The time of receiving and opening bids may be postponed due to emergencies or unforeseen conditions.

Sealed BIDS shall be marked in the lower left hand corner:

Bid Documents: **ST. ALBANS – TCSP TCSE(16)**

Each BID must be accompanied by a certified check payable to the City of St. Albans for five percent (5%) of the total amount of the BID. A BID bond may be used in lieu of a certified check.

PREQUALIFICATION OF CONTRACTORS: All bidders on this project shall be on the Agency of Transportation's prequalified list under the category(ies) Roads and Highway Construction or shall have submitted a complete prequalification application to the Agency of Transportation, Contract Administration, a minimum of 10 working days prior to the bid opening. For information contact Jon Winter at 802-828-2643.

LOCATION: Beginning at a point on US Route 7 (North Main Street) in downtown St. Albans, at the intersection of North Main Street and Lake Street and continuing westerly on Lake Street for approximately 550 feet to the intersection of Lake Street and Federal Street.

TYPE OF CONSTRUCTION: Work to be performed under this project includes: Cold Planing and overlay of existing streets, new signs, striping, landscaping and lighting, as well as new curbing, sidewalk, sewer, water and drainage improvements.

CONTRACT COMPLETION DATE: The Contract shall be substantially complete on or before November 15, 2016, with stone paver pull out area, sidewalks, brick pavers, street lights and curbing in front of the new hotel completed by March 31st, 2017, and minor landscape and lighting items in the immediate vicinity of the proposed hotel including street trees and street furniture completed by the final completion date of May 30, 2017.

OBTAINING PLANS: Plans may be obtained from the Blueprints Etc., 20 Farrell Street, South Burlington, VT 05403. Phone: 802-865.4503 at a cost of $160.50 per set including taxes made payable to Blueprints Etc. Plans are not returnable or refundable. Shipping is available on a case by case basis.

ENGINEERS ESTIMATE: For this Proposal the Engineers Estimate falls between $1,000,000 and $1,500,000.

PLANS, SPECIFICATIONS AND PROPOSAL MAY BE SEEN AT THE OFFICE OF:

1. Ciy of St. Albans, Planning and Zoning Office (temporarily in the City Hall Auditorium, with an entrance to the rear of City Hall), St. Albans, VT 05478.
2. *Blueprints Etc., 20 Farrell Street, South Burlington, Vermont 05403*

PREBID CONFERENCE: A non-mandatory pre-bid conference will be held for the project on Tuesday March 2, 2016 at 10:00 am in the St. Albans City Hall Auditorium (rear entrance off of Hudson Street), 100 North Main Street, St. Albans, VT.

STANDARD SPECIFICATIONS: This contract is governed by the Vermont Agency of Transportation ("VTrans") 2011 Standard Specifications for Construction. **QUESTIONS:** During the advertisement phase of this project all questions shall be addressed solely to Mr. Chip Sawyer, St. Albans City Hall, 100 North Main Street, St. Albans, VT 05478, Phone: 802-524-1500 x 259.

EQUAL EMPLOYMENT OPPORTUNITY (EEO) CERTIFICATION: 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. Generally only contracts and subcontracts of $10,000 or under are exempt as set forth in 41 CFR 60-1.5. See Appendix A for Contractors EEO Certification Form (CA-109).

NON-COLLUSION AFFIDAVIT: All bidders are required to execute a sworn statement, certifying that the bidder 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 such contract. See Appendix B for Debarment and Non-Collusion Affidavit (CA-91). This affidavit must be submitted with the bid.

DEBARMENT AFFIDAVIT: All bidders are required to execute a sworn statement, certifying that the bidder has not within the last three (3) years been, 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 civil judgment 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. See Appendix B for Debarment and Non-Collusion Affidavit (CA-91). This affidavit must be submitted with the bid. All subcontractors for bidder must also submit this affidavit before commencement of their portion of work.

NON-DISCRIMINATION IN FEDERALLY ASSISTED CONTRACTS: The City of St. Albans, VT hereby notifies all bidders that it will ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the basis of race, color, religion, sex or national origin for an award. This is consistent with the Town's requirement to comply with provisions of Title VI.

DAVIS BACON WAGE REQUIREMENTS: Bidders agree to abide by the Davis Bacon Wage Rate Schedule, which are appended to these Contract Documents. Bidder will also ensure that all subcontractors abide by the Davis Bacon Wage Rate Schedule. Bidder and subcontractors must submit timely records of wages paid to workers and submit to periodic interviews of workers concerning their wages.

BUY AMERICA REQUIREMENTS: Buy America requirements of 23 CFR 635.410 are applicable to all Federal-aid construction projects. All steel or iron products permanently incorporated into Federal-aid projects, shall be products that have been entirely manufactured within the United States. All manufacturing processes of the steel or iron material, in a product, must occur within the United States to be considered of domestic origin. This includes process such as rolling, extruding, machining, bending, grinding, and drilling. The action of applying a coating to a material is deemed a manufacturing process subject to Buy America. Coating includes epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of the material.

This requirement does not prevent a minimal use of foreign materials, provided the cost of foreign materials used does not exceed 0.1 percent of the total Contract price or $2,500, whichever is greater. The cost of foreign steel or iron is defined as its value delivered to the project.

INSTRUCTIONS TO BIDDERS
ST. ALBANS - TCSP TCSE(16)

1. Bid Preparation and Submission

a. Bidders are expected to examine the specifications, drawings, all instructions and, the construction site. Failure to do so will be at the bidders' risk.

b. All bids must be submitted on the forms provided by the municipality. Bidders shall furnish all the information required by the solicitation. Bids must be signed and the bidders name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of the agent's authority. (Bidders should retain a copy of their bid for their own records.)

c. All bids shall be sealed in an envelope which shall be clearly marked with the words "Bid Document," the Invitation to Bid number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.

d. This solicitation requires bidding on all items, failure to do so will disqualify the bid.

e. Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.

f. Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph, facsimile (fax) machines, or electronically via the internet or email will not be considered.

g. All blank spaces under the page(s) headed "Bid Form" must be filled in with ink or typewriter in both words and figures indicating the unit price for each respective bid item. The bid total shall also be entered in words and figures.

h. In case of a discrepancy between a unit price written in words and one entered in figures, the price written in words shall govern.

i. In case of a discrepancy between the bid total written in words and that entered as a figure, the adjusted figure shall govern.

j. The estimated quantities are not guaranteed and can be adjusted as needed during the project, but are given as a basis for the comparison of bids.

k. Electronic Bids are not permitted for Municipal Assistance Bureau Projects at this time.

2. Explanation and Interpretation to Prospective Bidders

a. Any prospective bidder desiring an explanation or interpretation of the solicitation, specification, drawings, etc., must request it at least 10 days before the scheduled time for bid opening. Requests may be oral or written. Oral requests must be confirmed in writing. The only oral clarifications that will be provided will be those clearly related to solicitation procedures, i.e., not substantive technical information. No other oral explanation or interpretation will be provided. Any information given to a prospective bidder concerning this solicitation will be furnished promptly to all other prospective bidders as a written addendum to the solicitation, if that information is necessary in submitting bids, or if lack of it would be prejudicial to other prospective bidders.

b. Any information obtained by, or provided to, a bidder other than by formal addendum to the solicitation shall not constitute a change to the solicitation.

3. Addendum to Invitation for Bids

a. If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

b. Bidders shall acknowledge receipt of any addendum to this solicitation by identifying the addendum number and date on the bid form. Bids which fail to acknowledge the bidders receipt of any addendum will result in the rejection of the bid if the addendum (addenda) contained information which substantively changed the municipality's requirements.

c. Addenda will be on file in the offices of the Municipality at least 5 days before the bid opening.

4. Responsibility of Prospective Contractor

a. All prospective contractors shall be pre-qualified under the appropriate work category by the Vermont Agency of Transportation, Contract Administration. For this project a current annual prequalification is necessary. The contact for pre-qualification is Jon Winter, Tel: (802) 828 2643. Please note that applications for pre-qualification must be made at least 10 working days prior to the bid opening.

b. The VERMONT AGENCY OF TRANSPORTATION "POLICIES AND PROCEDURES FOR PREQUALIFICATION, BIDDING, AND AWARD OF CONTRACTS", latest edition, Sections 1-6 and 9 are hereby incorporated in these specifications and the contract by reference. Sections 1 through 6 shall not be subject to the changes to the definitions in the Special Provisions.

c. The Method of Measurement and Basis of Payment for all contract items shall follow the Vermont Agency of Transportation's ("VTrans") 2011 Standard Specification for Construction, unless modified in these Contract Documents.

d. If a bidder submits a unit bid price of zero for a contract bid item, the bid will be declared informal.

e. A bidder may submit a unit bid price that is obviously below the cost of the item. If the Municipality awards and enters into a contract with a Bidder that has submitted a unit bid price that is obviously below cost, the contractor shall be obligated to perform the work under such item as indicated in the contract documents and/or as directed by the Engineer.

f. When "Optional Bid Items" are indicated in the proposal bidders shall bid on only one pay item in each group of options, leaving the other pay items in the group without a bid price. If a bidder enters more than one unit price bid in a group of options, only the lowest total price will be considered as the basis of calculation for determining the low bidder and used in the contract.

g. When "Alternate Bid Items" are indicated in the Proposal bidders must bid on all pay items in each set of "Alternate Bid Items". Failure to bid on all of the "Alternate Bid Items" in the proposal may result in rejection of the bid.

h. When the schedule of items for a contract contains one or more pay items which have a quantity of one (1) and a unit price and total price entered, the Municipality has set a unit price in the event that such item is used. If such item is determined to be needed by the Engineer, the work will be performed by the contractor according to the contract documents at the unit price listed.

i. When it is indicated in the contract documents that payment or costs of work and/or materials are incidental to one or more other contract items (but not to specific other items), such costs shall be included by the bidder in the price bid for all other contract items.

5. Errors and/or Inconsistencies in Contract Documents

a. By submitting a bid, a prospective bidder/contractor certifies that it shall assert no claim, cause of action, litigation, or defense against the Municipality unless notice was provided to the Municipality in writing of any error or

inconsistency discovered in the plans, proposal, specifications, and/or contract documents immediately upon discovery of such error or inconsistency.

b. By submitting a bid, a prospective bidder/contractor certifies that it shall assert no claim, cause of action, litigation, or defense against the Municipality unless notice was provided to the Municipality in writing of any error or inconsistency found in the plans, proposal, specifications, and/or contract documents immediately upon discovery of such error or inconsistency.

6. Availability of Lands for Work, Etc.

a. The lands upon which the Work is to be performed, rights of way and easement for access thereto and other lands designated for use by the contractor in performing the Work are identified in the contract documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the work are to be obtained and paid for by the Contractor. Easements for permanent structures or permanent changes in the existing facilities are to be obtained and paid for by the Municipality unless otherwise provided for in the contract documents.

7. Familiarity with Laws, Ordinances and Regulations

a. By submitting a bid an entity certifies that it is familiar with all Federal, State and local laws, ordinances and regulations which affect in any way the materials, equipment, haul roads used in or upon the work, the conduct of the work, and the persons engaged or employed in the performance of the work to be performed pursuant to the contract.

b. By submitting a bid an entity certifies that it shall forthwith report in writing to the Municipality any provision in the plans, proposal, specifications or proposed contract that the bidder/contractor believes is in conflict with or inconsistent with any Federal, State or local law, ordinance, or regulation.

c. By submitting a bid a prospective Bidder certifies that if, during its investigation of the work in the process of preparing its bid, it discovers or encounters subsurface or latent physical conditions at a project site differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, it shall notify in writing the Municipality of the specific differing conditions immediately upon discovering or encountering the differing site conditions.

d. An entity further certifies that if it fails to notify the Municipality of any differing site conditions as described above, it shall waive any and all rights that it might have to additional compensation from the Municipality for additional work as a result of the differing site conditions and that it shall not bring a claim for additional compensation because of differing site conditions.

e. By submitting a bid a prospective bidder/contractor certifies that no claim or defense of ignorance or misunderstanding concerning Federal, State or local laws, ordinances and/or regulations will be employed by a bidder/contractor or considered by the Municipality in claims, litigation, alternative dispute resolution procedures, or other matters concerning the contract for which the bid is submitted.

8. Late Submissions, Modifications, and Withdrawal of Bids

a. Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered**.**

b. Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a.) of this provision.

c. The only acceptable evidence to establish the time of receipt at the Municipality is the time/date stamp of the Municipality on the proposal wrapper, or other documentary evidence of receipt maintained by the municipality.

d. Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids: provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized agent if , before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

9. Bid Opening

All bids received by the date and time specified in the solicitation will be publicly opened and total bid amounts read aloud. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present. In the event of unforeseen circumstances (severe weather, etc.) the Municipality reserves the right to postpone the reading of the bids for that contract. All bids for a contract will be opened at the same time and location at a later date.

10. Protests

a. This Section sets forth the exclusive protest remedies available with respect to this solicitation. Each Bidder, by submitting its bid, expressly recognizes the limitation on its rights to protest contained herein, expressly waives all other rights and remedies and agrees that the decision on any protest, as provided herein, shall be final and conclusive unless wholly arbitrary. These provisions are included in this solicitation expressly in consideration for such waiver and agreement by the Bidders. Such waiver and agreement by each Bidder are also consideration to each other Bidder for making the same waiver and agreement.

b. A Bidder may protest any determination regarding the proposed award of a Contract by filing a notice of protest by hand delivery or courier to the St. Albans City Council. Such notice shall be provided: (a) no earlier than the day of City of St. Albans issuance of the Notice of Award; and (b) no later than five (5) business days after City of St. Albans issuance of the Notice of Award. The notice of protest shall specifically state the grounds of the protest.

c. Within seven (7) calendar days of the notice of protest the protesting Bidder must file with the Municipality a detailed statement of the grounds, legal authorities and facts, including all documents and evidentiary statements, in support of the protest. Evidentiary statements, if any, shall be submitted under penalty of perjury. The protesting Bidder shall have the burden of proving its protest by clear and convincing evidence.

d. Failure to file a notice of protest or a detailed statement within the applicable period shall constitute an unconditional waiver of the right to protest the evaluation or qualified process and decisions there under.

e. Unless otherwise required by law, no evidentiary hearing or oral argument shall be provided, except the St. Albans City Council, in its sole discretion, may decide to permit a hearing or argument if it determines that such hearing or argument is necessary for the protection of the public interest. The St. Albans City Council shall issue a written decision regarding the protest within thirty (30) calendar days after it receives the detailed statement of protest. Such decision shall be final and conclusive.

f. If the St. Albans City Council concludes that the Bidder submitting the protest has established a basis for protest, the St. Albans City Council will determine what remedial steps, if any, are necessary or appropriate to address the issues raised in the protest. Such steps may include, without limitation, withdrawing or revising the decisions, issuing a new solicitation or taking other appropriate actions.

11. Rejection of Proposals

a. The Municipality may declare a Proposal “Informal” and hence rejected if the proposal shows any alteration of form, omissions or additions not called for in the proposal, lacks proper signatures, is a conditional bid, has alternate bids unless required in the proposal, has irregularities of any kind, has changes to the printed content, is submitted on a form not furnished by the Municipality, is incomplete, fails to acknowledge receipt of one or more addendums, or includes a clause in which the bidder reserves a right to accept or reject the contract award.

b. The Municipality may reject a proposal at the time of bid opening or following analysis to confirm the proposal.

c. The Municipality may reject any or all proposals, waive any or all technicalities, and/or advertise for new proposals if the municipality, in consultation with VTrans, determines that the best interests of the Municipality, or the awarding authority, will be served.

d. The Municipality will reject a proposal submitted without a completed Debarment and Non-Collusion Affidavit.

e. The Municipality will reject a proposal submitted without a signed Contractors Equal Employment Certification Form.

f. The Municipality will reject a proposal submitted without a Bid Bond.

g. The Municipality will reject bids which fail to acknowledge the bidder’s receipt of any addendum if the addendum (addenda) contained information which substantively changed the municipality’s requirements.

h. The Municipality will decide whether any bid prices are unbalanced above or below a reasonable cost analysis value as determined by its Municipal Project Manager. Proposals in which bid prices are unbalanced, mathematically and/or materially, may be rejected at the sole discretion of the Municipality. For purposes of this subsection “mathematically unbalanced bid” and “materially unbalanced bid” shall have the same meaning as in 23 CFR Part 635 – Construction and Maintenance.

i. Prospective bidders may be disqualified for various reasons including (a) Submission of more than one proposal for the same work by an entity under the same or different names, (b) Evidence of collusion among bidders, or (c) Any other cause for suspension or debarment as detailed in the Agency’s policy and Procedures on Debarment, Code of Vermont Rules (CVR), Volume 8A, 14 010 004, pages 1-10.

12. Contract Award

a. The municipality will evaluate bids in response to this solicitation without discussions and will award a contract to the lowest responsive and responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the municipality considering only price and any price related factors specified in the solicitation.

b. Opened proposals will be considered and submitted bids confirmed on the basis of the summation of the products of the quantities shown in each proposal's Schedule of Items multiplied by the unit prices bid. In the event of a discrepancy between the written bid amount and the alpha numeric figure, the written amount shall govern. In the event of a discrepancy between a unit price and the calculated extension, the product based on the unit price bid and the mathematically correct summation of the products shall govern.

c. The municipality may reject any and all bids, waive any or all technicalities, and/or advertise for new proposals if the municipality, in consultation with VTrans, determines that the best interests of the municipality will be served.

d. The municipality may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

e. A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either party.

f. Prior to signing a construction contract, the successful bidder must submit a current Certificate of Good Standing from the Vermont Secretary of State's office.

13. Bid Guarantee

a. All bids must be accompanied by a negotiable bid guarantee which shall not be less than five percent (5%) of the amount of the bid. The bid guarantee may be a certified check, bank draft, U.S. Government Bonds at par value, or a bid bond secured by a surety company acceptable to the U.S. Government and authorized to do business in the State of Vermont. Certified checks and bank drafts must be made payable to the order of the municipality. The bid guarantee shall insure the execution of the contract and the furnishing of a method of assurance of completion by the successful bidder as required by

the solicitation. Failure to submit a bid guarantee with the bid shall result in rejection of the bid. Proposal guarantees of the two lowest bidders that have submitted proposals that comply with all the provisions required to render them formal will be retained until the contract and bonds have been signed by all parties. Bid guarantees submitted by the remaining unsuccessful bidders will be returned as soon as practicable after bid opening. Should no award be made within thirty-one calendar days following the opening of bids, thirty-two if the thirty-first day is a state holiday, all proposals may be rejected and all guarantees may be returned.

14. Contract Bonds

a. A successful bidder entering into a contract for any portion of the work included in a proposal shall provide the City sufficient surety in the form of; 1) a labor and materials bond, and 2) a compliance bond, both as required by 19 V.S.A. Section 10(8) and (9).

b. Each bond shall be in a sum equal to one hundred percent (100%) of the contract awarded.

c. The labor and materials bond shall guarantee the payment in full of all bills and accounts for materials and labor used in the work as well as other obligations incurred in carrying out the terms of the contract.

d. The compliance bond shall guarantee the faithful performance and completion of the work to be done under the contract as well as compliance with all provisions of the contract.

e. The form of the bond shall be that provided by the Municipality, and the surety shall be acceptable to the State. The bonds shall be procured from an insurance company registered and licensed to do business in the State of Vermont.

15. Signing the Contract

a. The entity to which the Contract has been awarded shall sign the contract documents and return them the Municipality within 30 calendar days from the date of the Notice of Award. No contract shall be considered effective until it has been fully executed by all parties.

b. Failure to comply with any of the requirements of these provisions relative to signing the contract or failure to furnish the required surety within fifteen (15) calendar days after notice of award shall be just cause for the annulment of the award or of the contract and/or forfeiture of the proposal guarantee/bid bond. Further, if the award or the contract is annulled, or if the contract is not awarded due to in(action) of the lowest responsible bidder that has submitted

a proposal that complies with all the provisions required to make it formal, the proposal guaranty accompanying the proposal shall become the property of the Municipality, not as a penalty but as liquidated damages.

c. If the award or the contract is annulled, the Municipality may award the contract to the next lowest responsible bidder that has submitted a proposal that complies with all the provisions required to make it formal or advertise a new request for bids for the contract(s).

d. Failure by the contractor to sign the contract within the time provided by this Subsection shall not be reason for an extension of the contract completion date.

16. Taxes and Insurance Requirements

Taxes and insurance for this project shall be in conformance with Section 103 of the VTrans 2011 Standard Specifications for Construction.. For this project the following limits for Commercial Liability and Automobile coverage apply:

Commercial Liability:

$1,500,000	Each Occurrence
$2,000,000	General Aggregate applying, in total, to this project only
$2,000,000	Products/completed Operations Aggregate
$250,000	Fire Damage Legal Liability

Automobile Liability:

Bodily Injury	$1,000,000	Each Person
	$1,000,000	Each Occurrence
Property Damage	$500,000	Each Occurrence
	OR	
Combined Single Limit	$1,500,000	Each Occurrence

17. Prompt Pay Compliance

a. Vermont's Prompt Pay Statute requires payment from primes to subs within 7 days of primes receiving payment. Vermont State Statutes Annotated, Title 9, §4003 provides: "Notwithstanding any contrary agreement, when a subcontractor has performed in accordance with the provisions of its contract, a contractor shall pay a subcontractor, and each subcontractor shall in turn pay its subcontractors, the full or proportional amount received for each such subcontractor's work and materials based on work completed or service provided under the subcontractor, seven days after receipt of each progress or final payment or seven days after receipt of the subcontractor's invoice, whichever is later."

18. Preconstruction Conference

a. After award of a contract under this solicitation and prior to the start of work, the successful bidder will be required to attend a preconstruction conference with representatives of the Municipality, Design and/or Resident Engineer, MPM, and the VTrans Project Supervisor, and other interested parties convened by the Municipality's engineer/representative. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The municipality will provide the successful bidder with the date, time and place of the conference. Note: If the specific material testing and certification requirements are not included elsewhere in the contract documents, they will be provided by the Design Consultant to the contractor at the preconstruction conference

19. Waste Borrow and Staging Areas

a. The opening and use of offsite waste, borrow and staging areas shall follow the provisions of Section 105.25 of the VTrans Standard Specifications for Construction, 2011 Edition.

b. The Contractor and/or property owner shall obtain all necessary permits and clearances prior to using off site waste, borrow or staging areas. In addition all off site waste borrow and staging areas must be reviewed and approved by the VTrans Environmental Section prior to use. Application should be made at least 21 calendar days prior to planned utilization. No work will be performed at offsite waste borrow or staging areas without written approval of the Engineer. The forms for either documenting an exempt site or applying for review of a site may be found on the VTrans web site at **http://vtransengineering.vermont.gov/sections/environmental/off_site_activity**

20. DBE Requirements

a. There are to be no mandatory Contract goals for DBE compliance on this project.

21. Contaminated Soils

a. If contaminated soils are encountered during the course of construction, the Contractor is directed to immediately notify the Engineer and to contact: Mr. Andy Shively, Hazardous Material and Waste Coordinator, of the Vermont Agency of Transportation at (802) 229-8740.

22. Contract Documents

The following documents are included in this proposal and are effective for this contract. Proposal holders are reminded to check the contents of this proposal against the following index. In the event that you suspect or determine the proposal is incomplete, notify Mr. Chip Sawyer, St. Albans City Hall, 100 North Main Street, St. Albans, VT 05478. Phone: 802-542-150 x259.

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BID FORM
LAKE STREET – COMPLETE STREETS PROJECT
ST. ALBANS – TCSP TCSE(16)

Proposal of _____
(hereinafter called Bidder), organized and existing under the laws of the State of
_____ doing business as
_____
(a corporation, a partnership, of an individual)

To the City of St. Albans, Vermont (hereinafter called Owner)

The Bidder represents that this bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation. The bidder has not directly or indirectly induced or solicited any other bidder to submit a false bid. Bidder has not solicited or induced any person, firm or corporation to refrain from bidding and the bidder has not sought by collusion to obtain for himself any advantage over any other bidder or Owner.

It is essential that all forms that require signature as part of the final Bid Submission be signed or the Bid itself will be invalid:

- Contractors EEO Certification Form CA-109 – Appendix A
- Debarment & Non-Collusion Affidavit CA-91 – Appendix B

The undersigned bidder proposed and agrees, if this bid is accepted, to enter into an agreement with Owner to furnish all materials and to complete all work as specified or indicated in the Contract Documents for the contract price and within the contract time indicated in this bid and in accordance with the Contract Documents.

Bidder hereby agrees to commence Work under this contract on the date of issuance of the Notice to Proceed and that the Substantial Completion date for this contract is **November 15, 2016** with stone paver pull out area, sidewalks, brick pavers, street lights and curbing in front of the new hotel completed by **March 31st, 2017**, and minor landscape and lighting items in the immediate vicinity of the proposed hotel including street trees and street furniture completed by the final completion date of **May 30, 2017**.

Bidder acknowledges receipt of the following Addenda (if any):____

_____
(Authorized Contractor signature)

Bidder agrees to perform all the Work described in the Contract Documents for the following schedule of prices. Unqualified bids will not be acepted.

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
203.15	COMMON EXCAVATION	CY	950		
UNIT PRICE IN WORDS:					
203.16	SOLID ROCK EXCAVATION	CY	130		
UNIT PRICE IN WORDS:					
203.31	SAND BORROW	CY	200		
UNIT PRICE IN WORDS:					
204.20	TRENCH EXCAVATION OF EARTH	CY	2200		
UNIT PRICE IN WORDS:					
204.21	TRENCH EXCAVATION OF ROCK	CY	10		
UNIT PRICE IN WORDS:					
204.22	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	CY	160	**$75.00**	**$12,000.00**
UNIT PRICE IN WORDS:	**SEVENTY-FIVE DOLLARS AND NO CENTS**				
204.25	STRUCTURE EXCAVATION	CY	360		
UNIT PRICE IN WORDS:					
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY	240		
UNIT PRICE IN WORDS:					
210.10	COLD PLANING-BIT.PAVEMENT	SY	2350		
UNIT PRICE IN WORDS:					
301.35	SUBBASE OF DENSE GRADED CRUSHED STONE	CY	1075		
UNIT PRICE IN WORDS:					
404.65	EMULSIFIED ASPHALT	CWT	6		
UNIT PRICE IN WORDS:					
406.25	BITUMINOUS CONCRETE PAVEMENT (PG 58-28)	TON	620		
UNIT PRICE IN WORDS:					
406.50	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	LU	1	**$1.00**	**$1.00**
UNIT PRICE IN WORDS:	***ONE DOLLAR AND NO CENTS***				
507.11	REINFORCING STEEL, LEVEL I	LB	20		
UNIT PRICE IN WORDS:					
541.25	CONCRETE, CLASS B	CY	50		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
601.2610	15" CPEP(SL)	LF	330		
UNIT PRICE IN WORDS:					
601.2615	18" CPEP(SL)	LF	340		
UNIT PRICE IN WORDS:					
604.20	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	EACH	10		
UNIT PRICE IN WORDS:					
604.21	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER	EACH	1		
UNIT PRICE IN WORDS:					
604.22	SANITARY SEWER MANHOLE	EACH	5		
UNIT PRICE IN WORDS:					
604.42	CHANGING ELEVATION OF SEWER MANHOLES	EACH	2		
UNIT PRICE IN WORDS:					
604.45	CAST IRON GRATE WITH FRAME, TYPE A	EACH	1		
UNIT PRICE IN WORDS:					
604.55	CAST IRON COVER WITH FRAME	EACH	1		
UNIT PRICE IN WORDS:					
608.31	POWER BROOM RENTAL, TYPE II	HR	10		
UNIT PRICE IN WORDS:					
609.10	DUST CONTROL WITH WATER	MGAL	73		
UNIT PRICE IN WORDS:					
616.21	VERTICAL GRANITE CURB	LF	1400		
UNIT PRICE IN WORDS:					
618.30	DETECTABLE WARNING SURFACE	SF	115		
UNIT PRICE IN WORDS:					
628.35	PVC SEWER PIPE (12" SANITARY SEWER)	LF	540		
UNIT PRICE IN WORDS:					
628.35	PVC SEWER PIPE (4" SANITARY SEWER SERVICE)	LF	20		
UNIT PRICE IN WORDS:					
628.35	PVC SEWER PIPE (6" SANITARY SEWER SERVICE)	LF	110		
UNIT PRICE IN WORDS:					
628.35	PVC SEWER PIPE (8" SANITARY SEWER)	LF	45		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
628.42	TRANSFER TO NEW SYSTEM, SANITARY SEWER	LS	1		
UNIT PRICE IN WORDS:					
629.23	SEAMLESS COPPER WATER TUBE (3/4")	LF	250		
UNIT PRICE IN WORDS:					
629.24	DUCTILE IRON PIPE, CEMENT-LINED (12" CL 52)	LF	525		
UNIT PRICE IN WORDS:					
629.24	DUCTILE IRON PIPE, CEMENT-LINED (8" CL 52)	LF	35		
UNIT PRICE IN WORDS:					
629.25	EXTENSION SERVICE BOX AND CURB STOP	EACH	7		
UNIT PRICE IN WORDS:					
629.27	GATE VALVE WITH VALVE BOX (12")	EACH	2		
UNIT PRICE IN WORDS:					
629.27	GATE VALVE WITH VALVE BOX (8")	EACH	1		
UNIT PRICE IN WORDS:					
629.28	HYDRANT	EACH	1		
UNIT PRICE IN WORDS:					
629.30	REMOVE HYDRANT	EACH	1		
UNIT PRICE IN WORDS:					
629.35	TAPPING SLEEVE AND VALVE WITH VALVE BOX	EACH	1		
UNIT PRICE IN WORDS:					
629.39	CORPORATION STOP	EACH	7		
UNIT PRICE IN WORDS:					
629.42	TRANSFER TO NEW SYSTEM, WATER SYSTEM	LS	1		
UNIT PRICE IN WORDS:					
629.44	PIPE INSULATION (4" THICK, RIGID)	LF	200		
UNIT PRICE IN WORDS:					
629.54	CRUSHED STONE BEDDING	CY	275		
UNIT PRICE IN WORDS:					
630.10	UNIFORMED TRAFFIC OFFICERS	HR	40		
UNIT PRICE IN WORDS:					
630.15	FLAGGERS	HR	200		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
631.10	FIELD OFFICE, ENGINEERS	LS	1		
UNIT PRICE IN WORDS:					
631.16	TESTING EQUIPMENT - CONCRETE	LS	1		
UNIT PRICE IN WORDS:					
631.17	TESTING EQUIPMENT - BITUMINOUS	LS	1		
UNIT PRICE IN WORDS:					
631.26	FIELD OFFICE TELEPHONE (N.A.B.I.)	DL	3000	**$1.00**	**$3,000.00**
UNIT PRICE IN WORDS: ***ONE DOLLAR AND NO CENTS***					
635.11	MOBILIZATION / DEMOBILIZATION	LS	1		
UNIT PRICE IN WORDS:					
641.10	TRAFFIC CONTROL	LS	1		
UNIT PRICE IN WORDS:					
641.15	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	4		
UNIT PRICE IN WORDS:					
646.400	DURABLE 4 INCH WHITE LINE	LF	320		
UNIT PRICE IN WORDS:					
646.410	DURABLE 4 INCH YELLOW LINE	LF	860		
UNIT PRICE IN WORDS:					
646.480	DURABLE 24 INCH STOP BAR	LF	50		
UNIT PRICE IN WORDS:					
646.490	DURABLE LETTER OR SYMBOL	EACH	14		
UNIT PRICE IN WORDS:					
646.500	DURABLE CROSSWALK MARKING	LF	125		
UNIT PRICE IN WORDS:					
646.600	TEMPORARY 4 INCH WHITE LINE	LF	110		
UNIT PRICE IN WORDS:					
646.610	TEMPORARY 4 INCH YELLOW LINE	LF	860		
UNIT PRICE IN WORDS:					
646.680	TEMPORARY 24 INCH STOP BAR	LF	40		
UNIT PRICE IN WORDS:					
646.690	TEMPORARY LETTER OR SYMBOL	EACH	12		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
646.700	TEMPORARY CROSSWALK MARKING	LF	80		
UNIT PRICE IN WORDS:					
646.76	LINE STRIPING TARGETS	EACH	115		
UNIT PRICE IN WORDS:					
656.30	DECIDUOUS TREES (ACER FREEMANI "SIENNA GLENN") (2.5-3" CAL.) (B&B, 6' BRANCHING HT.)	EACH	3		
UNIT PRICE IN WORDS:					
656.30	DECIDUOUS TREES (ACER RUBRUM "ARMSTRONG") (2.5-3" CAL.) (B&B, 6' BRANCHING HT.)	EACH	4		
UNIT PRICE IN WORDS:					
656.30	DECIDUOUS TREES (GINGKO BILOBA "AUTUMN GOLD") (2.5-3" CAL.) (B&B, 6' BRANCHING HT.)	EACH	2		
UNIT PRICE IN WORDS:					
656.30	DECIDUOUS TREES (TILIA TOMENTOSA "GREEN MOUNTAIN") (2.5-3" CAL.) (B&B, 6' BRANCHING HT.)	EACH	1		
UNIT PRICE IN WORDS:					
656.35	DECIDUOUS SHRUBS (CALAMAGROSTIS X ACUTIFLORA "KARL FORESTER") (2 GAL.)	EACH	45		
UNIT PRICE IN WORDS:					
656.41	PERENNIALS (HEMEROCALLIS "STELLA DORO") (1 GAL.)	EACH	610		
UNIT PRICE IN WORDS:					
675.20	TRAFFIC SIGNS, TYPE A	SF	105		
UNIT PRICE IN WORDS:					
675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF	165		
UNIT PRICE IN WORDS:					
675.50	REMOVING SIGNS	EACH	14		
UNIT PRICE IN WORDS:					
675.60	ERECTING SALVAGED SIGNS	EACH	2		
UNIT PRICE IN WORDS:					
678.23	WIRED CONDUIT (1-1/2") (PVC)	LF	1400		
UNIT PRICE IN WORDS:					
678.23	WIRED CONDUIT (1-1/2") (RGS)	LF	200		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
678.23	WIRED CONDUIT (3") (PVC)	LF	70		
UNIT PRICE IN WORDS:					
678.25	PULL BOX, STANDARD	EACH	6		
UNIT PRICE IN WORDS:					
678.30	ELECTRICAL CONDUIT SLEEVE (8") (PVC)	LF	80		
UNIT PRICE IN WORDS:					
679.21	LIGHT POLE BASE (STREET LIGHTS)	EACH	13		
UNIT PRICE IN WORDS:					
679.21	LIGHT POLE BASE (TREE UPLIGHTING)	EACH	10		
UNIT PRICE IN WORDS:					
690.50	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	LU	1	**$1.00**	**$1.00**
UNIT PRICE IN WORDS: ***ONE DOLLAR AND NO CENTS***					
900.608	SPECIAL PROVISION (EXCAVATION OF PETROLEUM CONTAMINATED SOILS, CLASS I)	CY	20		
UNIT PRICE IN WORDS:					
900.608	SPECIAL PROVISION (HEMLOCK BARK MULCH)	CY	13		
UNIT PRICE IN WORDS:					
900.608	SPECIAL PROVISION (LANDSCAPE BACKFILL)	CY	145		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (24" POT)	EACH	21		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (36" POT)	EACH	7		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (42" POT)	EACH	4		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (HANGING BASKET)	EACH	13		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (LIGHT POLE BANNER)	EACH	39		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (LIGHTING CONTROL PANEL)	EACH	1		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (ORNAMENTAL STREET LIGHT-FIXTURE A)	EACH	9		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
900.620	SPECIAL PROVISION (ORNAMENTAL STREET LIGHT-FIXTURE B)	EACH	4		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (PET WASTE DISPENSER)	EACH	3		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (RECYCLING TRASH RECEPTACLE)	EACH	3		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (REMOVE EXISTING LIGHT POLES)	EACH	4		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (STONE BENCH)	EACH	4		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (TRASH RECEPTACLE)	EACH	3		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (UP LIGHT-LIGHTING CONTROLS)	EACH	1		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (UP LIGHT FIXTURE C)	EACH	10		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (WAYFINDING SIGN, "PDL/PDR")	EACH	1		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (WAYFINDING SIGN, "PGL")	EACH	2		
UNIT PRICE IN WORDS:					
900.620	SPECIAL PROVISION (WAYFINDING SIGN, "PGR")	EACH	1		
UNIT PRICE IN WORDS:					
900.645	SPECIAL PROVISION (CONSTRUCTION VIBRATION AND CRACK MONITORING)	LS	1		
UNIT PRICE IN WORDS:					
900.645	SPECIAL PROVISION (MAINTENANCE OF PEDESTRIAN TRAFFIC)	LS	1		
UNIT PRICE IN WORDS:					

VTrans ITEM #	ITEM DESCRIPTION	UNIT	EST. QTY	UNIT PRICE	TOTAL
900.670	SPECIAL PROVISION (BRICK PAVERS)	SF	2660		
UNIT PRICE IN WORDS:					
900.670	SPECIAL PROVISION (STONE PAVERS)	SF	1110		
UNIT PRICE IN WORDS:					
900.675	SPECIAL PROVISION (HAND PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	SY	90		
UNIT PRICE IN WORDS:					
900.675	SPECIAL PROVISION (PORTLAND CEMENT REINF. CONCRETE SIDEWALK, 6 INCH)	SY	1345		
UNIT PRICE IN WORDS:					
900.675	SPECIAL PROVISION (PORTLAND CEMENT REINF. CONCRETE SIDEWALK, 8 INCH)	SY	55		
UNIT PRICE IN WORDS:					

TOTAL BASE BID: $ _____

TOTAL BASE BID WRITTEN: _____

_____

The above unit prices shall include all labor, materials, removal, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for on the drawings and specifications. We hereby certify that we did not enter into any agreement, participate in any collusion, or otherwise take any action in restraint of free competitive bidding.

The lowest responsive and responsible bidder will be determined by the Total Base Bid.

THE ABOVE PROPOSAL IS HEREBY RESPECTFULLY SUBMITTED BY:

CONTRACTOR

BY

TITLE

BUSINESS ADDRESS

CITY **STATE** **ZIP CODE**

DATE

ATTEST _____

LS = LUMP SUM
EA = EACH
SY = SQUARE YARD
SF = SQUARE FEET
CWT = HUNDRED WEIGHT
GAL = GALLON
HR = HOUR

LU = LUMP UNIT
CY = CUBIC YARD
LF = LINEAR FOOT
TON = TON
MGAL = THOUSAND GALLONS
LB = POUND

SPECIAL PROVISIONS

In case of discrepancy, precedence of the Contract Documents will follow be determined by Section 105.05 of the latest edition of the VTrans Standard Specifications for Construction**.**

STANDARD SPECIFICATIONS. The provisions of the most current VTrans STANDARD SPECIFICATIONS FOR CONSTRUCTION, as modified herein, shall apply to this Contract.

CONTRACT COMPLETION DATE. The Contract shall be substantially complete on or before **November 15, 2016**, with stone paver pull out area, sidewalks, brick pavers, street lights and curbing in front of the new hotel completed by **March 31st, 2017**, and minor landscape and lighting items in the immediate vicinity of the proposed hotel including street trees and street furniture completed by the final completion date of **May 30, 2017**.

UTILITIES. The Contractor is advised to use caution when working around aerial or underground utilities to protect the facilities from damage.

Employees or agents of utility 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, relocate, and remove their facilities.

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

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 adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.07 of the Standard Specifications for Construction.

Current utility contact information is provided as follows, and Contractor may maintain additional and/or more up to date contact information as needed.

City of St. Albans Director of Public Works
Allen Robtoy: 802-524-1500 x267
a.robtoy@stalbansvt.com

Green Mountain Power
Rose Dubois: 802-527-6348 x190
rose.dubois@greenmountainpower.com

Vermont Gas
Lee Brown: 802-863-4511
lbrown@vermontgas.com

Fairpoint
Laura Szabelski: 802-863-0703
lszabelski@fairpoint.com

Comcast
Conrad Ritchie: 802-846-2414
conrad.ritchie@cable.comcast.com

Existing underground facilities owned by Fair Point Communications and Vermont Gas are known to exist in the area. The Contractor is advised to use caution while working around underground utility lines. **The contractor is also advised that temporary shoring and support of underground utilities may be required when performing trench excavations so as to prevent damage to these utilities.**

Existing telephone manholes owned by Fair Point Communications may require minor adjustments to match the new finished pavement elevations. Necessary elevation adjustments to these telephone manholes by the Contractor shall be coordinated with representatives from Fair Point.

Existing sewer manholes owned by the City of St. Albans may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to City-owned sewer manholes will be performed by the Contractor in accordance with Contract item 604.42.

Existing water valves owned by the City of St. Albans may require adjustments to match the new finished pavement elevation. Necessary elevation adjustments to City-owned water valves will be performed by the Contractor in accordance with Contract item 629.20.

Employees or agents of those owning aerial or underground facilities 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, relocate, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the owners of these utility facilities.

The Contractor is advised that exploratory excavation to locate existing underground facilities will 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.

If gas line relocations are necessary the Contractor shall accommodate the gas company needs with respect to excavation and backfill for the existing and relocated gas lines. This work shall be paid under the respective contract items for trench excavation and backfill.

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 adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.07 of the Standard Specifications for Construction.

NOTICE TO BIDDERS. All temporary construction signs shall meet the following requirements:

A. All sign stands and post installation shall be National Cooperative Highway Research Program Report (NCHRP) 350 compliant.

B. As a minimum, roll up sign material shall have ASTM D 4956-01 Type VI fluorescent orange retroreflective sheeting.

C. All post-mounted signs and solid substrate portable signs shall have ASTM D 4956-01 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 Type III sheeting.

E. All stationary signs shall be mounted on two 3 lb/ft flanged channel posts or 2 inch square steel inserted in 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 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 10 mph below existing posted speeds. Temporary speed limit certificates must be approved by the St. Albans City Council.

NOTICE TO BIDDERS. All retroreflective sheeting on permanent signs (signs to remain after the project is completed) shall be at a minimum ASTM Type III sheeting, unless otherwise shown on the Plans.

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. All trucks or equipment so stopped or parked shall be at least 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 or workers will not be permitted to stop or park on the shoulders or right-of-way of the roadway.

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.

NOTICE TO BIDDERS - BUILDING INSPECTION. For the protection of the Contractor and all property owners, before beginning any construction activities, the Contractor shall deliver to the Engineer a copy of the Contractor's Insurer Inspection Report, inside and out, of all buildings within 50 feet of the project limits that may be affected by any construction operations.

The contractor shall provide the services of a qualified consultant to conduct the pre-construction building inspections with at least 5 years of verifiable experience in conducting commercial building condition assessment. The inspection shall document existing conditions of adjacent properties and shall include a

combination of hand sketches, still photographs and video with annotation and narratives of interior and exterior conditions. The Contractor shall pay special attention to building facades, doorways, windows, entry walkway surfaces, railings, ramps, steps, foundations, basements, lights and signs. The Contractor shall complete the building inspections before beginning any construction activities within 75 feet of the buildings to be inspected. The Contractor shall maintain a log of completed inspections and shall provide weekly updates to the Engineer until all inspections are completed. The entire project shall be inspected and the Insurer's Inspection Report and all inspection records shall be delivered to the Engineer within 90 calendar days of Notice of Award. The Contractor shall make all arrangements with building and business owners to gain access to the buildings for the inspections and shall coordinate a meeting with the property owner or property manager, a representative from the firm that conducted the inspection and a representative from the City to review the inspection report and reach agreement with the information contained in the final inspection report.

Upon completion of project construction the Contractor's insurer shall again completely inspect, inside and out, and make a complete video record of all buildings as part of the inspection. A written copy of the complete inspection report and a copy of the complete video record shall be delivered to the Engineer by the Contractor.

The City will not accept the project until the Engineer has received all reports and all video records. The Engineer will forward the reports and the video records to the City's Project Manager for safekeeping.

All members of the Insurer inspection team shall personally identify themselves to the Engineer prior to beginning each inspection.

All costs involved in performing this work, including labor and materials, shall be considered incidental to Item 900.645 – Special Provision (Construction Vibration and Crack Monitoring).

NOTICE TO BIDDERS – ROADWAY LIGHTING. The Contractor shall provide continuous adequate roadway lighting on Lake Street within the project limits to at least the existing illumination levels for the duration of the project, including adequate temporary street lighting during the changeover from the existing to the new street lighting systems. The Contractor shall coordinate with Green Mountain Power (GMP) for them to schedule removal of their poles, and the Contractor may consider using any functional existing GMP poles during a phased electrification of the existing and proposed lights to provide the required continuous lighting. Maintaining adequate lighting during the project will be considered incidental to the work under the Contract.

NOTICE TO BIDDERS – DEWATERING FOR DRAINAGE WORK. Dewatering for installing new drainage facilities, if required, shall be incidental to the respective drainage items.

NOTICE TO BIDDERS – REQUIREMENTS FOR NIGHTTIME WORK. The Contractor is hereby notified that all final (surface course) paving operations that take place in 2016 shall be performed at night at the same contract unit prices as daytime work.

In order to minimize daytime traffic disruptions, night work may be required for certain disruptive work, including underground utility installations across the roadway and other work that will cause constrained travel ways.

If traffic delays exceed 15 minutes through the work zones due to the Contractor's operations the Engineer may suspend daytime work and the operations shall be completed during nighttime work hours at the standard daytime contract prices. In addition, no work will be allowed within the roadways in the Lake/Main Street intersection during weekday peak traffic hours, which are defined as 6:45AM - 8:45 AM and 3:30PM - 5:30PM.

For the purposes of this Contract, "night" shall mean from the hours of 8:00 p.m. until 6:30 a.m. of the following day. Any deviation from these hours of operation must be approved in advance by the Engineer. With prior approval of the Engineer, night work may be performed on Sunday nights.

The Contractor is required to maintain two-way Lake Street traffic during non-nighttime hours from 6:00 a.m. to 8:00 p.m. except where one-way traffic is called for in the contract traffic control plans and as allowed by the Engineer.

Night work shall be performed in accordance with the National Cooperative Highway Research Program (NCHRP) Report 476 – "Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance and Construction". A copy of this guideline specification may be downloaded from the following website: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_476.pdf.

Prior to beginning night work, the Contractor shall design a lighting system and present it to the Engineer for approval. The Contractor shall not perform any night work or activities within the project limits until the lighting system has been fully approved and is in place on the project.

The designed lighting system shall be mobile, shall be mounted separately from other construction equipment, shall illuminate the entire work area to daylight intensity with minimal glare, and shall be a surrounding design that minimizes shadows in the work area as much as possible. The locations at which Flaggers and/or Uniformed Traffic Officers are stationed, whether within, on the edge of, or

outside of the work area, shall be separately illuminated to the same intensity, minimal glare, and minimal shadow requirements as the work area.

All costs associated with the lighting system will be considered incidental to Contract item 641.10.

SPECIAL CONSTRUCTION REQUIREMENTS.

A. Standard Hours of Operation for this project shall be **7:00 a.m. through 8:00 p.m., Monday through Friday**.

Unless otherwise permitted in writing by the Engineer, The Contractor shall not work during the holiday periods for Memorial Day, July Fourth and Labor 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.

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.

In addition, the Contractor is hereby notified that the City of St. Albans has special events throughout the year that may require suspending work (for parades) or limiting work so as not to interfere with the events. The City will advise the Engineer and Contractor of the specifics of each event and the Engineer will direct the Contractor on what actions, if any, are necessary on its part to minimize impacts to the event. This Notice constitutes adequate warning of potential suspension of construction activities due to the events and Contractor's project schedule shall consider such potential, and special events shall therefore not constitute cause for claims of delay. The event schedule is as follows and actual dates will vary year to year:

- Maple Festival: April weekend, 2016. Encompasses Main Street from Center Street to Lake Street, and a large parade on that Sunday from Lake Street to Lower Newton.

B. The Contractor shall maintain a minimum of two-way traffic through the project at all times except during approved traffic control phases that include one-way traffic.

The Contractor shall coordinate with businesses to schedule access for their delivery vehicles in active work zones. To the extent possible, the Contractor shall minimize the amount of on street parking disrupted at any one time, depending on the available width and extents of the ongoing construction during each phase.

C. The Contractor shall maintain a safe access to all commercial drives during business hours and intersecting side roads at all times during the construction of this project with the exception of unavoidable short duration (less than 8 hours) closures for work directly in front of the entrances.

D. Pavement drop-offs at the end of driveway aprons and side road approaches shall be backed up the same working day as the apron is placed using either the aggregate materials designated for shoulders and/or road surfaces or shall have additional bituminous concrete pavement placed to provide a smooth transition from the new pavement to the existing surface beyond the apron.

E. The Contractor shall position Portable Changeable Message Signs at locations determined by the Engineer properly warning motorists of the roadway conditions ahead. As directed by the Engineer, these locations may change during construction as needs arise based on daily work activities. The message to be displayed shall be submitted to the Engineer in advance for approval. The displayed message should accurately reflect what motorists can expect to encounter through the project area. The cost of providing the Portable Changeable Message Signs shall be paid for under Contract item 641.15. The Contractor shall also install and maintain appropriate construction signing warning the traveling public of the expected roadway conditions.

F. Damage by the Contractor's equipment, including tracked or wheeled vehicles, to new or existing pavement areas to remain shall be repaired by the Contractor by resurfacing the pavement to the satisfaction of the Engineer at no additional cost to the City.

G. Unless otherwise directed by the Engineer, the Contractor shall begin and end the wearing course of pavement for the project with a full depth butt joint constructed as directed by the Engineer. The costs of cutting the butt joint will not be paid for directly, but will be considered incidental to Contract item 210.10.

H. Except as directed by the Engineer, all work outside the paved portion of the roadways, including excavation, pipe extensions, grading, filling, curbing, sidewalks, trees, lights, sign installation,

guardrail construction, topsoil, and turf establishment shall be completed prior to placing the wearing course of pavement.

I. Where possible, a 50 mm (2 inch) space should be maintained between all final pavement markings and parallel joints in bituminous concrete pavement. The Contractor shall conduct paving operations such that the paving joint between the travel lane and adjacent shoulder will be outside of the 100 mm (4 inch) white line.

J. At the end of each day's work, all excavated pavement shoulder areas adjacent to travel ways that will be open to traffic shall be backfilled up to and level with the existing edge of pavement with properly compacted shoulder roadway base materials as directed by the Engineer, or alternately protected as detailed on Standard Drawing T-35. The Contractor may alternatively utilize steel plates to temporarily cover trench excavations rather than backfilling at the end of each day. The Contractor assumes all responsibility for providing plates of adequate size and strength to completely and safely cover exposed excavations, and shall take measures to ensure that the plates do not move under traffic. Excavations in paved roadway areas and drive accesses that are open to traffic shall be paved smooth within 48 hours of backfilling and in all cases before opening to weekend or holiday traffic. Excavations in sidewalk areas shall be backfilled up to a smooth and stable surface prior to allowing pedestrian traffic on them, and shall be paved with temporary pavement within 48 hours of backfilling.

K. Two-way radios shall be provided by the Contractor when requested by the Engineer for use by traffic control personnel, and the Contractor shall provide the Engineer two additional two-way radios for the duration of the project. All costs for furnishing and using two-way radios will not be paid for directly, but will be considered incidental to Contract item 641.10.

L. 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 (SHS) Book. Information for obtaining these publications may be found at: http://mutcd.fhwa.dot.gov/index.htm.

M. The Contractor shall make provisions to allow oversized vehicles through the work zones where possible and when provided 24-hour advance notice.

N. The Contractor shall at all times make provisions for emergency vehicles to access the work zones, and shall also allow delivery

vehicles to make deliveries to businesses within the work zones, where possible and where delivery trucks will not obstruct emergency or local vehicle access. The Contractor shall meet with abutting businesses to coordinate their delivery schedules (if any) with the construction operations within the Lake Street lane closure zones to allow deliveries while minimizing disruption to the construction.

O. The Contractor shall minimize unnecessary obstructions to on-street parking along Lake Street, especially outside the work zones, where construction is not taking place. The Contractor shall not park employee vehicles or construction vehicles in on-street parking spaces that are outside of the defined work zones. The Contractor may park construction vehicles and equipment within the work zones during non-work hours at its own risk.

P. The Contractor shall coordinate with the City of St. Albans for the use of City owned land near the project that will be made available for the Contractor to use for staging, construction trailer and mobilization purposes.

Q. The Contractor is advised that construction of a new hotel building will be ongoing in 2016 and 2017 on the north side of Lake Street adjacent to this project. The Contractor will be required to yield control of portions of the Lake Street work zone to the hotel contractor during certain building construction operations that require access from Lake Street. The Contractor shall therefore coordinate all construction scheduling and traffic control with the Hotel construction project manager: PeakCM, LLC 450 Weaver St #3, Winooski, VT 0540; Phone:(802) 988-1092. The City reserves the authority to resolve scheduling conflicts between the two projects.

The following work directly in front of the proposed hotel shall not commence until early 2017 and shall be completed by March 31, 2017:

- Stone paver pull out area including granular and concrete base materials and stone pavers (the flush granite curb dividing the pull out area from the paved road shall be installed in 2016)
- Vertical granite curbing between the pullout area and the new sidewalk, and granite planting border along the hotel
- Sidewalk base and concrete sidewalk
- Stone paver installation
- Brick paver installation
- Street lights, including foundations and up lighting
- All Incidentals such as street signs and granite seating

Landscaping at the hotel frontage, including trees and all plantings, shall be completed by May 30th 2017. The Contractor shall provide whatever heating methods are necessary to ensure that the 2017 sidewalk and curbing work occurs on frost free ground. All costs associated with heating shall be subsidiary to the work.

The Lake Street Contractor shall ensure that all subcontractors are scheduled in advance of the above work in front of the hotel, and that the work will be completed expeditiously once the Lake Street Contractor has access to the area. No separate payment will be made for winter shutdown and remobilization in 2017.

R. During construction the Contractor shall maintain a clear pathway from the northwest emergency exit of the State Courthouse at 36 Lake Street to a safe place of assembly outside the building. This will be accomplished by maintaining a path from the courthouse through the construction area to the street when feasible, or by creating a temporary pedestrian path on the Courthouse land, or some other method, as agreed upon by the City, to get around the area of construction.

SECTION 101 – DEFINITIONS

101.02, DEFINITIONS, are hereby modified by deleting the existing following definitions and replacing as follows:

ACTUAL COMPLETION DATE – Date noted in the Completion and Acceptance memorandum on which designated responsible Municipal personnel have reviewed the project and determined that all Contract work is complete and all Contract requirements have been met, generally considered to be the last day the Contractor performed physical work on any contract item.

AGENCY – Wherever the word Agency appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the City of St. Albans, VT, except when referenced to documents or publications.

BOARD – Wherever the term Board or Transportation Board appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Transportation Board of the State of Vermont or its successor.

CALENDAR DAY – Any day shown on the calendar, beginning and ending at midnight.

CHANGE ORDER – A document recommended by the Engineer, signed by the Contractor and the Municipality, and approved by the Agency of Transportation authorizing changes in the plans or quantities or both, establishing the basis of payment and time adjustments for the Work affected by the changes.

CHIEF OF CONTRACT ADMINISTRATION – Wherever the term Chief of Contract administration appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean, the Local Project Manager.

CONSTRUCTION ENGINEER – Wherever the term Construction Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Local Project Manager and/or Full Time Employee in Responsible Charge.

COMPLETION – Completion of the project occurs when the Contractor has completed all work required by the Contract and has satisfactorily executed and delivered to the Engineer all documents, certificates and proofs of compliance required by the contract. (Also see Substantial Completion)

CONTRACT – The written agreement between the Municipality and a contractor setting out the obligations of the parties to the contract for the performance of the work described therein.

CONTRACT BOND(S) – The approved forms of security signed and furnished by the contractor and the contractor's surety or sureties, guaranteeing signatures on the contract, performance of and compliance with the contract, and the payment of all legal debts pertaining to the construction of the contracted project.

CONTRACTOR(S) – An entity that has Annual Prequalification status and/or an entity that has a contract with the Municipality to perform construction work, including but not limited to an individual, partnership, firm, organization, association, corporation, or joint venture; a representative, trustee, or receiver of a contractor appointed by any court of competent jurisdiction.

DIRECTOR OF PROJECT DEVELOPMENT – Wherever the terms Director of Project Development, director of Engineering and Construction, Director of Construction and Maintenance, Director, or Chief Engineer appear on the plans, in any specification, or in the Contract, they shall be read as and shall mean; the Director of the Program Development Division of the Agency of Transportation.

DIRECTOR OF PROGRAM DEVELOPMENT – Wherever the term Director of Program Development appears on the plans, in any specification, or in the contract it shall read as , and shall mean; The Director of the Program Development Division of the Agency of Transportation.

ENGINEER – Wherever the term Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Resident Engineer (RE).

FINAL ACCEPTANCE DATE – Wherever the term Final Acceptance Date appears on the plans, in any specification, or in the Contract, it shall mean the date that the Municipality signs the Final Completion Certificate.

GENERAL SPECIAL PROVISIONS – Approved additions and revisions to the Standard Specifications for Construction.

MATERIALS AND RESEARCH ENGINEER – Whenever the term Materials and Research Engineer appears on the plans, in any specification, or in the Contract, it shall be read as, and shall mean; the Resident Engineer.

PROPOSAL FORM – Whenever the term Proposal Form appears on the plans, in any specification, or in the Contract it shall be read as, and shall mean; the BID FORM unless specifically referenced otherwise in these Special Provisions.

REGIONAL CONSTRUCTION ENGINEER – Whenever the term Regional Construction Engineer appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the Resident Engineer **OR** other municipally appointed representative who is acting on behalf of the municipality responsible for administering and overseeing the construction contract.

RESIDENT ENGINEER – An entity employed by the Municipality to perform supervisory duties including the oversight of testing services on the project.

SECRETARY – Wherever the term Secretary appears on the plans, in any specification, or in the contract it shall be read as, and shall mean; the Local Project Manager.

SPECIAL PROVISIONS – Additions and revisions to the Standard Specifications for Construction, Supplemental Specifications, General Special Provisions, Plans, or other documents that are part of a particular contract.

SPECIFICATIONS – The compilation of provisions and requirements for the performance of prescribed work including the Standard Specifications for Construction, Supplemental Specifications, General Special Provisions, Special Provisions, Plans, and other documents that are part of a particular contract.

STANDARD SPECIFICATIONS – The Vermont Agency of Transportation book entitled Standard Specifications For Construction and the specifications included therein, as approved for general and repetitive use and application in Agency/Municipal projects.

STATE – Wherever the term State appears on the plans, in any specification, or in the contract, it shall be read as, and shall mean; the St. Albans City Council.

SURETY – An individual or legal entity acceptable to the Town executing the bond or bonds furnished by the bidder or contractor.

WORK – The furnishing of all labor, materials, equipment, and incidentals necessary or convenient to the successful completion of a project and the carrying out of all duties and obligations imposed by a contract.

WORKING DAY – A calendar day during which normal construction operations could proceed for a major part of the daylight hours, and specifically excluding Saturdays, Sundays, and those days of the standard work week on which holidays are celebrated.

ADD TO DEFINITION LIST IN 101.02, DEFINITIONS, the following definitions:

ADDENDUM (addenda) – Contract revisions developed after advertisement and before opening bids.

ADVERTISEMENT – A public announcement, inviting bids for work to be performed or materials to be furnished.

AGREEMENT – The written instrument which is evidence of the agreement between the Municipality and the Contractor.

AWARD – The formal acceptance by the Municipality of a proposal.

BID – The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

BID BOND – A proposal guarantee as outlined in the Instructions to Bidders for Contracts.

BIDDER – The individual, partnership, firm, corporation, or any combination thereof, or joint venture, submitting a Bid in accordance with the bidding requirements.

CONTRACT TIME – The time allowed for completion of the contract including authorized time extensions.

INCIDENTAL AND INCIDENTAL ITEM – These terms are used to indicate work for which no direct payment will be made. Such work is considered to be incidental to items having contract prices, and the bid prices submitted by the

contractor shall be sufficient to absorb the cost of all work designated as incidental or as incidental items.

INVITATION FOR BIDS – An advertisement for receiving proposals for all work and/or materials on which bids are invited from prospective contractors.

LOCAL PROJECT MANAGER – A person or firm employed or appointed by the Municipality to provide administrative services for the project.

NOTICE OF AWARD – The written notice of the acceptance of the Bid from the Owner to the successful Bidder.

OWNER – City of St. Albans, VT.

PREQUALIFICATION:

> **Annual Prequalification** – The Agency of Transportation process by which an entity is generally approved to bid on contracts advertised by the Local Project Sponsor. Depending on the project size annual prequalification may be the only prequalification necessary.
>
> **Contract Specific Prequalification** – The process by which an entity is approved to bid on a specific contract determined by the Municipality to be of a size or scope to warrant more than an Annual Prequalification.

PREQUALIFICATION ADMINISTRATOR – An Agency of Transportation employee charged with administration of the prequalification process for the Prequalification Committee.

PROPOSAL – The offer of a bidder, on the prescribed form, to perform work and/or provide materials at the price quoted in the offer.

PROPOSAL FORM – The prescribed form on which the Municipality requires the Bid be submitted.

PROPOSAL GUARANTEE – The security furnished with a bid to ensure that the bidder will enter into a contract if the bidder's proposal is accepted by the Municipality.

SUBCONTRACTOR – An individual or legal entity to which the contractor sublets a part of the work included in the contract.

SUBSTANTIAL COMPLETION – The contract will be considered substantially complete when all paving, curbing, sidewalks, utilities, signing, pavement markings, traffic controls, landscaping and miscellaneous items have been

completed, but work may remain on minor agreed upon items and punch list items prior to final Completion and acceptance.

TESTING FIRM – An independent firm employed by the Municipality or Resident Engineer to perform all sampling and testing of materials as specified in the Contract Documents.

SECTION 105 CONTROL OF THE WORK

105.09 CONSTRUCTION STAKES, Part (a) Initial Layout, (b) Layout of Subgrade and (c) Permanent Marking Layout delete these paragraphs in their entirety and replace with the following:

Horizontal and vertical control information for the project is shown on the project plans or shall be based on existing conditions. The information is sufficient to enable the Contractor to stake the project. The Contractor shall perform all staking requirements for the proposed work and the cost will be incidental to the project bid. The Contractor will be responsible for the accuracy and preservation of the staking for the duration of the work.

105.20 CLAIMS FOR ADJUSTMENT , (c) Claims Procedure; Delete the second, third and fourth sentence and replace with the following:

Claims must be evaluated first by the Engineer and then by the Local Project Manager. Should a claim be ruled in favor of the Contractor, it will be allowed, in whole or in part, and paid as provided in the Contract. Should a claim be denied in whole or in part by the Local Project Manager the Contractor may appeal to the governing body of the project sponsor. Should a claim be denied in whole or in part by the governing body of the project sponsor, the Contractor may appeal to the Director of Program Development.

(d) Claims Documentation Requirements; In the first sentence, replace Construction Engineer with Local Project Manager.

SECTION 106 – CONTROL OF MATERIAL

106.03 SAMPLES AND TESTS, Add the following two paragraphs to the beginning:

A qualified independent testing firm hired directly by the Municipality *or* indirectly by the Municipality through its Resident Engineer shall be responsible for all acceptance sampling and testing of materials and completed work.

The Contractor shall be responsible for their Quality Control. The cost of their Quality Control shall be considered incidental to the payment items in the bid. Any sampling, testing, retesting, and submission of reports and certifications by the Contractor as required by the contract documents and plans shall be considered incidental to the payment items in the bid.

Change the last word in the first paragraph from Agency to Municipality.

Delete the first sentence of the second paragraph and replace with the following:

Samples will be taken and testing performed by qualified personnel of the testing firm in accordance with the requirements of the latest edition of the Vermont Agency of Transportation's Quality Assurance Program and Material Sampling Manual for level 3.

Modify the last sentence of the third paragraph to read as follows:

Copies of all test results shall be forwarded directly to the Resident Engineer and the Contractor by the testing firm.

Notice to Bidders: This project shall be subject to Avoidance and Minimization Measures to protect the habitat and hibernacula of the northern long-eared bat. Measures applicable to this project include, Time-of-Year (TOY) restrictions for any potential impacts to suitable bat habitat, which include, but are not limited to trees ≥ 3" and/or habitat features on bridge structures.

This project's design does not identify any tree cutting or bridge related activities within the project limits as part of the work and therefore neither a habitat assessment nor an acoustic survey has been performed. If during construction, cutting trees ≥3" diameter and/or bridge related activities are deemed necessary, further review will be required and TOY restrictions may apply. In such cases, the Engineer will coordinate further environmental review with the Construction Environmental Engineer.

The Contractor is hereby made aware of the potential for TOY restrictions related to proposed Waste, Borrow and Staging areas. Cutting trees outside of the contract project limits shall require review under Section 105.25 Control of Waste, Borrow, and Staging Areas.

SECTION 635 - MOBILIZATION/DEMOBILIZATION

DESCRIPTION. The work under this Section shall be performed in accordance with these provisions and Section 635 of the Standard Specifications.

METHOD OF MEASUREMENT. The quantity of Mobilization/Demobilization to be measured for payment will be on a lump sum basis.

BASIS OF PAYMENT. The accepted quantity of Mobilization / Demobilization will be paid for at the Contract lump sum price. Payment will be full compensation for performing the work specified and for furnishing all labor, tools, materials, equipment, and incidentals necessary to complete the work.

For the purposes of computing payment under the Contract item Mobilization/Demobilization, the adjusted Contract price will be a summation of all items bid, excluding the amount bid specifically for the Mobilization/ Demobilization item.

The Basis of Payment will be modified to be as follows:

(a) The first payment of **30** percent of the lump sum price for Mobilization/Demobilization or 5 percent of the adjusted Contract price, whichever is less, will be made with the first biweekly estimate as determined by the work on other contract items.

(b) The second payment of **70** percent of the lump sum price for Mobilization/Demobilization or 5 percent of the adjusted Contract price, whichever is less, will be made on the first estimate following the completion of 10 percent of the Contract, excluding Mobilization/Demobilization.

(c) Payment of any remaining amount bid for Mobilization/Demobilization will be made after the acceptance date.

No separate payment will be made for demobilization and remobilization due to winter shutdown at the conclusion of work completed in 2016.

Payment will be made under:

Pay Item		**Pay Unit**
635.11	**Mobilization/Demobilization**	**Lump Sum**

REMOVE EXISTING LIGHT POLE

DESCRIPTION. This work shall consist of removing existing light pole(s) at the location(s) indicated in the Plans and as directed by the Engineer.

CONSTRUCTION REQUIREMENTS. The Contractor shall remove and dispose of the existing light pole assembly, including the luminaire, bracket arm, and pole; and any associated wired conduit; pull box; and concrete base. Existing wires in conduit that is not removed shall be capped.

Excavated areas shall be backfilled with material acceptable to the Engineer.

METHOD OF MEASUREMENT. The quantity of Special Provision (Remove Existing Light Pole) to be measured for payment will be the number of each light pole removed in the complete and accepted work.

BASIS OF PAYMENT. The accepted quantity of Special Provision (Remove Existing Light Pole) at the location specified will be paid for at the Contract unit price per each. Payment will be full compensation for removing and disposing of the existing light pole assembly, wired conduit, pull box, and concrete base; capping existing wired conduit; performing any required excavation and backfilling; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item		**Pay Unit**
900.620	**Special Provision (Remove Existing Light Pole)**	**Each**

WAYFINDING SIGN

1. DESCRIPTION. This work shall consist of furnishing and installing wayfinding signs as shown 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 675 of the Standard specifications

2. MATERIALS. Materials shall conform to the specifications as described in the Plans and as directed by the Engineer. The Engineer reserves the right to reject any material that does not meet the requirements as described in the Plans.

3. GENERAL REQUIREMENTS. Prior to manufacturing the wayfinding signs, the Contractor shall submit Fabrication Drawings, including paint and wood samples, to the Engineer and City in accordance with Section 105.

   The signs shall be fabricated in accordance with the details shown in the Plans, and all work shall be free of blemishes or defects which could affect durability, strength, or appearance. All signs shall be installed at the location(s) indicated in the Plans, and as directed by the Engineer. The wayfinding signs shall be installed true to line and grade.

   The Contractor shall protect all parts of the wayfinding signs and maintain them in an undamaged condition until they are installed and accepted for payment.

4. METHOD OF MEASUREMENT. The quantity of Special Provision (Wayfinding Sign, "PGL"); (Wayfinding Sign, "PGR"); (Wayfinding Sign, "PDL/PDR") to be measured for payment will be the number of each installed in the complete and accepted work.

5. BASIS OF PAYMENT. The accepted quantity of Special Provision (Wayfinding Sign, "PGL"); (Wayfinding Sign, "PGR"); (Wayfinding Sign, "PDL/PDR") will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified, including sign post foundations at the sign's final location and position; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

   The cost of clearing and grubbing, excavation and backfill for sign posts will not be paid for separately, and will be considered incidental to the Wayfinding Signs.

   Payment will be made under:

Pay Item	**Description**	**Pay Unit**
900.620	**Special Provision (Wayfinding Sign, "PGL")**	**Each**
900.620	**Special Provision (Wayfinding Sign, "PGR")**	**Each**
900.620	**Special Provision (Wayfinding Sign, "PDL/PDR")**	**Each**

CONSTRUCTION VIBRATION AND CRACK MONITORING

1. Description. This work shall consist of the installation of vibration monitoring devices to record pre-construction vibration conditions within the project work corridor and facilitate vibration monitoring during construction to evaluate and assess screening of construction equipment that may create excessive disturbance to surrounding buildings and structures and restricts their use. It also includes the installation of crack monitoring equipment at locations of concern with existing pre-construction damage or locations that develop damage and cracks as a result of new construction. It also identifies the Contractor's responsibilities for protecting the properties in and around all work zones from possible damage during construction. Vibration producing activities such as blasting, pile driving, vibratory compaction, pavement breaking or operation of heavy construction equipment required for the construction of this project have the potential for creating damage to surrounding infrastructure. The Contractor is advised that structures are located in close proximity to the proposed work and that construction activities shall be conducted so as to preclude damage to these structures. The Contractor is responsible for all damage caused by their activities.

2. Materials. The Contractor shall provide amplitude/frequency vibration monitors capable of measuring, recording and producing a hard copy of the frequency and peak particle velocity in three mutually perpendicular axes. ("Vector sum" instruments are not acceptable). These instruments shall be capable of measuring Linear Scale (dB-L) sound levels.

   The Contractor shall provide crack monitoring equipment from the following or approved equal.

   Tell-Tale Crack monitors, RST Instruments Ltd. 800-665-5599, www.rstinstruments.com

   Crack monitoring Equipment, Geotest Instrument Corp., 866-430-7645, www.crackgauge.com

   Avongard Crack Monitor, Avongard Products U.S.A.,800-244-7241, www.avongard.com

3. Monitoring Criteria.

   (a) The Contractor shall provide the services of a qualified geotechnical consultant to monitor the vibrations along active work zones and any crack monitoring identified as necessary during pre-construction building inspections or created by current construction. The geotechnical consultant shall have at least 5 years of verifiable experience in conducting vibration and structure monitoring.

   (b) The Contractor shall provide a description of their proposed construction methods including amplitude descriptions of each vibration producing activity, and a vibration monitoring plan for

each activity including the format for reporting the vibration readings. A minimum of two construction vibration monitoring devices will be placed within or along each active construction zone. These devices shall be placed at locations nearest buildings or structures closest active construction to optimize evaluation and assessment of potential damage to surrounding features. A minimum of two additional devices will be required along each work zone where buildings are continuous or more than four buildings exist within 25 feet of a work zone. Additional devices may be required as directed by the Engineer.

(c) If the Contractor's construction means and methods create ground vibrations that result in damage to surrounding buildings or structures, the Engineer will direct that all activities related to those causing the vibration be stopped. The Engineer may also, at any time, halt construction activities if vibration levels exceed Maximum PPV for Continuous/Frequent Intermittent Sources for Surrounding Structures and Features as indicated in the Transportation and Construction Induced Vibration Guidance Manual (www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf). or that indicate the potential to damage surrounding buildings and structures. In the event of work being stopped as a result of ground vibrations, the Contractor shall submit to the Engineer a report giving the construction parameter data and include the proposed corrective action for future construction events. In order to proceed with any further vibration producing activities, written permission must be obtained from the Engineer.

(d) Vibration monitoring equipment shall be capable of continuously recording the peak particle velocity and providing a permanent record of the entire vibration event. Copies of all vibration records and associated construction activity (blasting, pile driving, pavement breaking, compaction, etc.) data shall be provided to the Engineer in format approved by the Engineer.

(e) The consultant shall measure the magnitude of each vibration event with at least two vibration instruments, generally located adjacent to the closest or most critical structures. The vibration monitors shall be amplitude and frequency sensitive and shall be operated during vibration producing activities that produce measurable ground vibrations. In the event that the Contractor chooses to have concurrent vibration producing activities at more than one location adjacent to buildings, the Contractor shall notify the Engineer prior to the commencement of such activities. The Engineer may require additional vibration monitoring instruments at each location depending on site parameters. No vibration producing activities may be started until the appropriate instrumentation is provided by the Contractor and approved by the Engineer.

(f) All vibration instruments shall be powered with rechargeable batteries, and the Contractor shall supply extension geophone and microphone cables so that the instruments can be placed within structures if outside temperatures drop below 32 degrees Fahrenheit.

(g) All vibration instruments shall be supplied with current calibration documents and shall be recalibrated on approximately a six-month use interval. At a minimum, instrument specific calibration curves of peak particle velocity input to peak particle velocity output shall be provided over the specified frequency ranges at both 0.5 and 1.0 ips for each instrument.

(h) The Contractor shall be responsible for instrument maintenance. If the Contractor does not maintain a sufficient number of instruments to monitor the buildings/structures adjacent to the vibration producing activity, the Engineer may direct that all vibration activities cease until a sufficient number are working. Recording tape shall be supplied by the Contractor and at least a two-week supply maintained. The Contractor shall designate an individual in his organization or under contract to him, who will be responsible for instrument coordination. The Contractor's consultant will be responsible for placing the instruments at measuring locations designated in the monitoring plan, and reading and recording the pertinent vibration event data.

(i) Crack displacement monitoring gages will be installed as appropriate across any significant existing cracks in buildings or structures identified and deemed necessary by the Contractor and Engineer during the Pre-Construction Building Inspections and agreed to by the Property Owner. Initial readings shall be taken before any excavation or vibration inducing activities. The consultant shall take and record readings of all instrumentation a minimum of once per week during the performance of the work and a report shall be provided to the engineer within 24 hours of completing the readings.

(j) The Contractor shall also be required to install additional crack monitoring devices as necessary and directed by the Engineer as a result of cracks that are identified or develop during construction.

(k) Pre-Construction vibration monitoring devices shall be placed along Lake Street to record existing vibration levels at the following locations:

Station 40+50 Right
Station 41+00 Left
Station 42+00 Right
Station 44+50 Left and Right

These devices will be required to record both peak AM (6:30 – 8:30) and peak PM (3:30 – 5:30) disturbances for three continuous days. A full report of this information will be provided to the Engineer prior to any construction activities beginning.

4. Submittals. The Contractor shall submit their proposed construction vibration and settlement monitoring plan for the structural health of the buildings and structures listed herein to the Engineer for review and

approval in accordance with Section 105, 7 days before the start of any trench excavation or vibration producing activities would occur within 100 feet of buildings. The submittals shall include the following:

(a) Qualifications and procedures for the detection of movement and vibrations as specified under Monitoring Criteria.

(b) Protection measures for existing structures and facilities, instrumentation and monitoring procedures to check vibration levels and monitor any damage or settlement of structures.

(c) Contingency plans for excessive wall or foundation movement.

5. Public Relations. The Contractor is required to contact residents and owners or operators of the buildings along Lake Street or within 100 feet of active construction work zones. This contact will be made prior to the beginning of any vibration producing activity. The Contractor shall furnish a list of those contacted to the Engineer.

   The Contractor shall maintain a complaint log of all vibration related complaints, contacts and actions, and shall furnish copies to the Engineer on request.

6. Method of Measurement. The quantity to be measured for payment will be on a lump sum basis for Construction Vibration and Crack Monitoring.

7. Basis of Payment. Payment of Construction Vibration and Crack Monitoring will be made as follows:

   A payment of 10% of the lump sum bid price will be made at the time of the first bi-weekly estimate.

   A payment of 10% of the lump sum bid price will be made every month thereafter or prorated as necessary based on construction schedule.

Payment will be made under:

Pay Item		**Pay Unit**
900.645	**Special Provision (Construction Vibration and Crack Monitoring)**	**Lump Sum**

MAINTENANCE OF PEDESTRIAN TRAFFIC

1. DESCRIPTION. This work shall consist of establishing and maintaining pedestrian traffic and accessibility measures to protect pedestrians and assist pedestrians of all abilities traveling through and within the project limits.

2. CONSTRUCTION REQUIREMENTS. The Contractor shall provide measures that establish and maintain Temporary Pedestrian Access Routes (TPAR) through the work zones in compliance with the most current Americans with Disabilities Act Accessibility Guidelines (ADAAG) and Public Right of Way Accessibility Guidelines (PROWAG). The various devices and/or features shall be installed in a uniform manner to provide a consistent accessible route for pedestrians through the work zones.

   The Contractor shall follow the 2009 Federal MUTCD PART 6 Standards and Guidance for Pedestrian and Worker Safety and TTC Devices.

   When existing pedestrian facilities are disrupted, closed, or relocated in a construction zone, the temporary pedestrian accommodation facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility. Pedestrian access shall be maintained to existing Lake Street businesses. The Contractor shall provide ADA compliant temporary pedestrian walk surfaces to business entrances during sidewalk reconstruction operations or other operations that would otherwise inhibit access.

   The Contractor shall refer to figure 6H-28 – "Sidewalk Detour or Diversion", and figure 6H-29 – "Crosswalk Closures and Pedestrian Detours (TA-29)" in the 2009 MUTCD for guidance on managing pedestrians in the vicinity of work zones within sidewalk areas. The Contractor shall provide as a minimum these levels of temporary pedestrian signing and protection measures for this project. The Contractor shall provide a Temporary Pedestrian Access Route plan to the Engineer for review and approval prior to the construction.

   Temporarily installed or relocated crosswalks shall include temporary ADA accessible curb ramps, including detectable warning devices (truncated domes) to access sidewalks.

3. METHOD OF MEASUREMENT. The quantity of Special Provision (Maintenance of Pedestrian Traffic) to be measured for payment will be on a lump sum basis for providing temporary pedestrian traffic control and accessibility measures throughout the duration of the project.

4. BASIS OF PAYMENT. The accepted quantity of Special Provision (Maintenance of Pedestrian Traffic) will be paid for at the Contract lump sum price. Partial payments will be made as follows:

   (a) The first payment of 10 percent of the lump sum price upon initiation of work in the first bi-weekly estimate.

   (b) Prorated payments of 10 percent of the lump sum price every 4 weeks or two bi-weekly estimates after the original payment pending

approval of the engineer based on progress and duration of work remaining.

Payment will be full compensation for preparing, implementing, inspecting, maintaining, adjusting, and removing the applicable pedestrian traffic control plan and necessary pedestrian traffic control devices; materials and measures required to protect pedestrians and to maintain pedestrian access routes through the project at all times; installing, adjusting, relocating, and removing aids to pedestrian accessible routes, including channelizing devices, handrails, detectable edging, temporary curb ramps, detectable warning devices, temporary pedestrian signing, and pavement markings; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Description	Pay Unit
900.645	**Special Provision (Maintenance of Pedestrian Traffic)**	**Lump Sum**

HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES

DESCRIPTION. This work shall consist of the placement of one or more courses of bituminous concrete material by hand (non-mechanical) methods on a prepared foundation in conformance with the Plans or as directed by the Engineer.

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

GENERAL. This work will include only that bituminous concrete material placed by hand methods as required at public and/or private drives measured from the outside edge of shoulder to outside limit of drive, within the project limits as identified on the Plans or as directed by the Engineer. Bituminous concrete material placed by mechanical methods at these locations is excluded.

All other bituminous materials placed within the project limits, whether by hand or mechanical methods, shall be paid under the appropriate Contract pay item for bituminous mix or as otherwise specified in the Contract Documents.

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

Subbase, RAP.....301.02
Aggregate Shoulders, RAP.....402.02
Performance-Graded Asphalt Binder.....702.02
Emulsified Asphalt.....702.04
Crushed Gravel for Subbase.....704.05
Aggregate for Surface Course and Shoulders.....704.12

Bituminous concrete material of the type specified in the Contract or as specified by the Engineer shall meet the requirements of Section 406 or Section 490, as applicable. For the purpose of this Section, bituminous concrete material to be used shall be of the type specified in the Contract or, by default, of a matching material to that adjacent material placed by mechanical methods.

CONSTRUCTION REQUIREMENTS. The existing surface and/or bed (subbase) upon which the bituminous concrete material is to be placed shall be compacted to the line, grade, and shape shown on the Plans or as directed by the Engineer. All vegetation and soft, yielding, or unsuitable material shall be excavated and replaced with properly compacted material meeting the requirements of Section 301 for Subbase of Crushed Gravel, Fine Graded. Crushed RAP generated from the project may be substituted for Subbase of Crushed Gravel, Fine Graded.

The existing edge of pavement shall be saw cut to provide a vertical edge for placing the hand-placed bituminous concrete material.

Emulsified asphalt shall be applied uniformly and completely to all vertical and horizontal surfaces to be paved. All surfaces shall be free of moisture, dust, and debris prior to applying emulsified asphalt.

If cross slope allows, as determined by the Engineer, existing paved

drives shall be cold planed the entire drive width to the depth of the wearing course, not to exceed 50 mm (2 inches). Unless the drive is to be paved that day, all cold planed vertical edges shall have temporary fillets placed the same day cold planing takes place.

All existing paved drives shall have all temporary fillets removed; any existing joints, cracks, and holes cleaned; all vertical and horizontal surfaces to be paved coated with emulsified asphalt; all holes filled with bituminous concrete material compacted to the level of the existing surface; and be thoroughly cleaned and dried prior to any hand-placed bituminous concrete material being placed.

Hand-Placed bituminous concrete material shall be rolled with a 1 metric ton (1 ton) mechanical roller with steel drums, or approved equal, until compacted to the satisfaction of the Engineer.

METHOD OF MEASUREMENT. The quantity of Special Provision (Hand-Placed Bituminous Concrete Material, Drives) to be measured for payment will be the number of square meters (square yards) complete in place in the accepted work.

Hand-placed bituminous concrete material placed less that 12.5 mm (½ inch) thick will not be measured for payment.

When any portion or all of Special Provision (Hand-Placed Bituminous Concrete Material, Drives) is removed from the project under any provisions of the Contract or as directed by the Engineer, no payment will be made for the removal, disposal, or replacement of said material.

BASIS OF PAYMENT. The measured quantity of Special Provision (Hand-Placed Bituminous Concrete Material, Drives) will be paid for at the Contract unit price per square meter (square yard). Payment shall be full compensation for furnishing, mixing, hauling, placing, compacting, and finishing the material specified and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Emulsified asphalt used as specified and backfill material meeting the requirements specified in the Plans will be considered incidental to Special Provision (Hand-Placed Bituminous Concrete Material, Drives).

When not specified for payment under separate Contract item(s), the costs of placing subbase material, cleaning existing paved surfaces, including power equipment, and for filling joints, cracks, and holes will not be paid for directly, but will be considered incidental to Special Provision (Hand-Placed Bituminous Concrete Material, Drives).

Payment will be made under:

Pay Item	Pay Unit
900.675 Special Provision (Hand-Placed Bituminous Concrete Material, Drives)	Square Yard

PORTLAND CEMENT REINFORCED CONCRETE SIDEWALK

1. DESCRIPTION. This work shall consist of the construction of Portland cement reinforced concrete sidewalk and curb ramps.

   The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 618 of the Standard Specifications.

2. MATERIALS. Sidewalk reinforcement shall be 150 mm x 150 mm (6 inch x 6 inch) 10 gage welded wire steel grid meeting the requirements of Subsection 713.05.

   Dowels shall be 600 mm (2 foot) long No. 16 (No. 5) reinforcing bars meeting the requirements of Subsection 713.01.

   Forms shall meet the requirements of Section 618.03(b). Forming shall include additional provisions for concrete sidewalk set underneath the brick pavers and sand cushion as detailed in the plans.

3. CONSTRUCTION REQUIREMENTS. Welded wire steel grid and dowels shall be placed at mid-depth of the concrete sidewalk. Dowels shall be placed across all sidewalk construction joints, 600 mm (2 feet) on center. Prior to placing concrete that is adjacent to existing buildings, walls, stairs or landscaping the Contractor shall place 6 mil polyethylene protective sheeting over adjacent surfaces to protect them from concrete splatter, spraying and any surface treatment operations that may stain adjacent surfaces. Sheeting shall be temporarily attached to hard surfaces by taping and to landscaped areas by staking. Care shall be taken not to harm adjacent surfaces during removal of tape. In addition, sawcutting equipment that is used for sawing sidewalk joints shall employ vacuum attachments to control dust.

4. METHOD OF MEASUREMENT. The quantity of Special Provision (Portland Cement Concrete Reinforced Concrete Sidewalk) to be measured for payment will be the number of square meters (square yards) of the specified depth of sidewalk installed in the complete and accepted work.

5. BASIS OF PAYMENT. The accepted quantity of Special Provision (Portland Cement Reinforced Concrete Sidewalk) will be paid for at the Contract unit price per square meter (square yard) for the specified depth. Payment will be full compensation for furnishing, transporting, handling, and placing the materials specified, including reinforcing, dowels, and expansion joint material, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

   Bed course material will be paid for under the appropriate Contract item in Section 301.

   Excavation, unless otherwise specified, will be paid for under the appropriate Contract item in Section 203.

   Payment will be made under:

Pay Item	Description	Pay Unit

900.675	**Special Provision (Portland Cement Reinforced Concrete Sidewalk, 6 Inch)**	**Square Yard**
900.675	**Special Provision (Portland Cement Reinforced Concrete Sidewalk, 8 Inch)**	**Square Yard**

SECTION 900.608

SPECIAL PROVISION HEMLOCK BARK MULCH

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included: Provide planting of trees, shrubs, groundcover, perennials and bulbs complete as shown and as specified.

1.02 PROTECTION OF EXISTING PLANTS TO REMAIN

A. General:
1. Contractor shall make every effort to minimize or prevent tree damage that may result from proposed construction activities.
2. Trees to be saved or removed shall be clearly identified in the drawings. Removal of designated trees shall also include stump grinding.

1.03 SUBMITTALS

A. Samples: Submit prior to delivery to site. Attach product name, address of manufacturer and/or supplier to each sample.
1. Mulch: One (1) pint.

PART 2 - PRODUCTS

2.01 MULCH

A. Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:
1. Type: Ground or shredded hemlock bark, dark brown in color.

PART 3 - EXECUTION

3.01 MULCHING

A. Install a 2 inch deep layer of specified mulch over all planting areas including tree and shrub watering basins unless otherwise noted on drawings.

3.02 CLEAN-UP

A. Keep all areas of work clean, neat and orderly at all times.

B. Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance.

3.03 METHOD OF MEASUREMENT

A. The quantity of Special Provision (Hemlock Bark Mulch) will be paid for on a per cubic yard (CY) basis to mulch the designated landscape areas and trees, measured within the limits shown on the plans.

3.04 BASIS OF PAYMENT

A. The accepted quantity of Special Provision (Hemlock Bark Mulch) will be paid for at the Contract unit price per CY. The mulch and installation of the mulch in all designated landscape areas and trees will be paid under this item.

Payment will be made under:

Pay Item	Pay Unit
900.608 Special Provision (Hemlock Bark Mulch)	CY

END SECTION

SECTION 900.608

SPECIAL PROVISION SOIL PREPARATION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Related Requirements: Review the General Contract Conditions and Division One, General Requirements, which contain information and requirements that apply to this Section.

B. Work Included: Provide all products and execute all labor to achieve soil preparation for tree planting areas, shrub and perennial planting areas, and areas to be seeded complete as shown and as specified.

C. Related Work in Other Sections:
Special Provision Trees, Shrubs and Groundcover – 900.620
Special Provision Landscape Maintenance – 900.620

1.02 QUALITY ASSURANCE

A. Submit certificates of inspection required by law for transportation with invoice. File copies of certificates after acceptance of material.

B. Perform all work in accordance with recommendations included in the geotechnical reports produced for this project.

1.03 PROJECT CONDITIONS

A. Protection of Existing Plants to Remain: See Section 01 5639 - Tree Protection and Pruning

1.04 SUBMITTALS

A. Upon forty-five (45) days minimum, prior to start of installation of items in this section, the Contractor shall provide submittals required in this section to the landscape architect for review and approval.

B. Product Data: For each type of product, submit manufacturer's product literature with technical data sufficient to demonstrate that the product meets the requirements of the specification.

C. Material Certificates: Submit material certificates for all natural and bulk material indicating that the material meets the requirements of the specification.

D. Soil test analysis: Submit a minimum of (3) samples of both topsoil and compost, providing the soil testing results from an approved soil-testing laboratory for each soil and planting soil mix for approval.

1. All testing will be at the expense of the Contractor. The resident engineer or landscape architect may request additional planting soil mix tests on different mix component ratios in order to attain results that more closely meet the mix requirements.

2. The testing laboratory shall be a member of the Soil Science Society of America's, North American Proficiency Testing Program (NAPT).

3. All testing shall comply with the requirements of the Methods of Soil Analysis Part 1 and 3, published by the Soil Science Society of America and in accordance with ASTM D2487.

4. Soil testing shall be as required for each product as defined below:
   a. Physical analysis.
      1. Particle size analysis shall be provided for gravel, clay, silt, and sand fractions
      2. USDA soil texture
      3. Fines Modulus Index for each sand source
      4. Infiltration testing shall be done at 75 - 80% compaction at proctor density using ASTM D 698-91. Test Results shall include bulk density

   b. Chemical analysis. Note that nutrient levels and chemical analysis shall include recommendations from the testing laboratory for ranges of each element appropriate for the types of plants to be grown in the plant soil mix.
      1. Nutrient levels by parts per million including phosphorus, potassium, calcium, magnesium, manganese, iron, copper, zinc and calcium
      2. Percent organic content
      3. pH
      4. Soluable salt by electrical conductivity
      5. Cation Exchange Capacity (CEC)

E. Samples for Verification: Submit samples of each product and material where required by the specification to the landscape architect for approval. Label samples to indicate product, source location, specification number, characteristics, and locations in the Work. Samples will be reviewed for appearance only. Compliance with all other requirements is the exclusive responsibility of the contractor. Delivered materials to the site shall closely match the samples.

1. Imported Topsoil: 1 Gal
2. Compost: 1 Gal.
3. Organic Amendments: 1 pint for each type
4. Soil Mixes: 1 Gal for each type, labeled as to the percentage of each component in the mix.

4. Sand: ½ pound
5. Chemical Additives: 1 pint for each type

1.05 DEFINITIONS

A. Landscape Backfill: Soil, of a variety of textures, defined in this section, intended to fill the Planting bed areas and other planting spaces to support the growth of trees and other plants.

B. Soil Peds: Clumps of soil that naturally aggregate during the soil building process. Creating a soil mix shall be done in a way that maintains the soil peds. Refrain from over-mixing.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, if applicable. Protect materials from deterioration during delivery and while on the project site.

B. Bulk Materials: Do not deliver or place backfill, soils and soil amendments in frozen, wet, or muddy conditions.
   1. Bulk materials shall be stored and staged in a location approved by landscape architect or as indicated on the plans and in a manner that prevents damage to the site or the stored materials.
   2. Provide protection including tarps, plastic and or matting between all bulk materials and any finished surfaces sufficient to protect the finish material.

C. Provide erosion-control measures to prevent erosion or displacement of bulk materials and discharge of soil-bearing water runoff or airborne dust to adjacent properties, water conveyance systems, and walkways. Provide additional sediment control to retain excavated material, backfill, soil amendments and planting mix within the project limits as needed.

1.07 ANALYSES OF SAMPLES AND TESTS

A. Sampling: Samples of materials must be taken and analyzed for conformity to specifications at any time. Furnish samples as requested.

B. Rejected Materials: Remove rejected materials immediately from the site at Contractor's expense.

C. Testing Agency: Pay cost of soil testing and of materials not meeting specifications.

D. Refer to Part 3-Execution, section 3.03 Soil Compaction for compaction testing requirements during installation.

1.08 SOIL INSTALLATION MOCK UP AND COMPACTION EVALUATION

A. Prior to the installation of planting soils, construct a mock up of an area defined by 10 x 10.. The installation of the mock up shall be in the presence of the landscape architect.

1.09 PRECONSTRUCTION MEETING

A. Prior to the start of the installation of Planting Soils, meet at the site with the landscape architect, general contractor and the subcontractor to review installation layout, procedures, means and methods.

1.10 FINAL ACCEPTANCE

A. Acceptance: Work will not be accepted until satisfactory completion of all soil preparation work.

B. Notification: Give notification of completion of soil preparation prior to proceeding with planting operations.

PART 2 - PRODUCTS

2.01 TOPSOIL, IMPORTED

A. Fertile, friable, loamy soil, free from subsoil, refuse, roots, heavy or stiff clay, stones larger than 1 inch, contaminants, noxious seeds, sticks, brush, litter, and other deleterious substances; suitable for the germination of seeds and the support of vegetative growth. Soil source location and extent of area suitable for harvest shall be approved by the landscape architect and shall comply with all local regulations governing the removal of topsoil. Frozen topsoil is not acceptable

B. Topsoil texture shall be loam, sandy loam to sandy clay loam, suitable for the germination of seeds and the support of vegetative growth, which is a naturally produced soil.

C. Physical Requirements for Topsoil

Parameter Units Acceptable Range

- Gravel > 2mm % Dry Weight Less than 10%
- Silt .002-.05 mm & % Dry Weight 15-30%
- Clay < .002mm % Dry Weight 20-35

Sieve Designation	Percent by weight passing square mesh sieves
#4	100
#10	85-100

#49	35-85
#200	10-35

D. Chemical Requirements for Topsoil

Parameter Units Acceptable Range

- Organic Matter Dry Weight 2-5%
- pH Units 6.0 to 7.5
- Soluble Salt* mmhos/cm or dS/m 3.5 or less
- Cation Exchange Capacity meQ/100g >8
- Nutrient Analysis PPM As required for the plants specified

* by electrical conductivity of a 1:1 soil water sample at 25 degrees

E. Submit soil testing results for approval by the Landscape Architect, as defined in Section 1, that the material meets the above physical and chemical requirements.

F. Areas to receive imported topsoil shall include tree planting areas, shrub and perennial planting areas, backfill mix for trees and shrubs, and lawn areas.

G. Imported Topsoil: Furnish imported topsoil from sources accepted by the Landscape Architect which meets the standards specified under "General Qualifications" above.

1. Verification: Quantity of topsoil to complete the work shall be calculated by the Contractor and included in their base bid price.
2. Analysis: Obtain an agricultural suitability analysis and soil texture analysis of the proposed topsoil from an accredited soils laboratory at Contractor's cost.
3. Acceptance: Submit soils analysis and recommendations to the Landscape Architect for acceptance. Amend topsoil per accepted soils analysis report.
4. Samples: The Landscape Architect reserves the right to take samples of the imported topsoil delivered to the site for conformance to the Specifications.
5. Rejected Topsoil: Immediately remove rejected topsoil off the site at Contractor's expense.
6. Stockpiling: If stockpiling is requested, locations and amounts of stockpiles will be designated by Landscape Architect.

2.03 COMPOST

A. Compost shall meet the requirements of the US Composting Council “Landscape Architecture/Design Specifications for Compost Use”, section “Compost as a Landscape Backfill Mix Component”, with the following additional requirements:

1. Compost feedstock shall be yard waste trimmings and/or source separated municipal solid waste to produce a fungi dominated compost. Compost shall not be derived from biosolids or industrial residuals.

B. Compost testing and analysis: Compost analysis shall be provided by the Compost supplier. Before delivery of the Compost, the supplier must provide the following documentation:

1. A statement that the Compost meets federal and state health and safety regulations.
2. Compost testing methodologies and sampling procedures shall be as provided in Test methods for the Examination of Composting and Compost (TMECC), as published by the US Composting Council.

C. Submit supplier's literature and material certification that includes physical analysis and chemical analysis of the compost.

2.04 SAND

A. Sand, as defined below, may or may not be used depending on the outcome of the soils agricultural suitability report.

B. Coarse concrete sand, ASTM C-33 Fine Aggregate, with a Fines Modulus Index of 2.8 and 3.2.
1. Sands shall be clean, sharp, natural sands free of limestone, shale and slate particles.

2. Sand PH shall be lower than 7.0

3. Provide the following particle size distribution:
Sieve Percent Passing
- 3/8" (9.5mm) 100
- No 4 (4.75mm) 95-100
- No 8 (2.36mm) 80-100
- No 16(1.18mm) 50-85
- No30 (.60mm) 25-60
- No50 (.30mm) 10-30
- No100 (.15mm) 2-10

C. Submit manufacturer's testing data for approval that the material complies with the above requirements.

2.05 CHEMICAL ADDITIVES

The following additives may or may not be used depending on the outcome of the soils agricultural suitability report.

A. Ground Limestone: Agricultural limestone containing not less than 85% of total carbonates, ground to such fineness that 50% will pass #100 sieve and 90% will pass #20 sieve.

B. Dolomite Lime: Agricultural grade mineral soil conditioner containing 35% minimum magnesium carbonate and 49% minimum calcium carbonate, 100% passing #65 sieve. "Kaiser Dolomite 65 AG" as manufactured by Kaiser, Inc. Mineral Products Department, or equal.

C. Gypsum: Agricultural grade product containing 80% minimum calcium sulphate.

D. Iron Sulfate (Ferric or Ferrous): Supplied by a commercial fertilizer supplier, containing 20% to 30% iron and 35% to 40% sulphur.

E. Sulphate of Potash: Agricultural grade containing 50% to 53% of water-soluble potash.

F. Single Superphosphate: Commercial product containing 20% to 25% available phosphoric acid.

G. Ammonium Sulphate: Commercial product containing approximately 21% ammonia.

H. Ammonium Nitrate: Commercial product containing approximately 34% ammonia.

I. Calcium Nitrate: Agricultural grade containing 15-1/2% nitrogen.

J. Urea Formaldehyde: Granular commercial product containing 38% nitrogen.

K. I.B.D.U. (Iso-Butyldiene Diurea: Commercial product containing 31% nitrogen.

2.06 HERBICIDE

A. Post Emergent Herbicide: Non-selective, systemic type herbicide.

A. Pre-Emergent Herbicide

PART 3 - EXECUTION

3.01 SOIL PREPARATION

A. General:

1. Moisture Content: Do not work soil when moisture content is so great that excessive compaction will occur, nor when it is so dry that dust will form in air or that clods will not break readily. Apply water, if necessary to bring soil to an optimum moisture content for tilling and planting. Maintain within 2 percent above or below optimum moisture content at all times during the work.
2. Clearing of Debris: Clear all planting areas of stones 2 in. diameter and larger, weeds, debris and other extraneous materials prior to amending existing soil and incorporating imported topsoil.
3. Weed Control: Weeds may require spraying for eradication prior to cultivating them into the soil.

3.02 SOIL INSTALLATION

A. General:
1. Install Landscape Backfill material in 12" lifts.
2. Blend the topsoil and compost together per the specified ratios outlined below.
3. Maintain macro pores and peds in the soil mixture, avoid overworking the soil, which breaks them down.
4. Avoid excessive compaction, refer to 3.03 Soil Compaction.

3.03 SOIL COMPACTION

A. General:
1. All tree, shrub and perennial areas planting areas shall have a minimum compaction of 75%, but shall not exceed 80% compaction.
2. The contractor will be responsible to provide test results of the soil compaction for all planting areas at the contractor's cost. The contractor will be required to perform a bulk density test using a penetrometer to determine the soil compaction.
3. Contractor will be required to receive written approval by Landscape Architect that compaction requirements are met prior to continuing surface or underground work that would prohibit any necessary corrective actions.
4. If it is determined the soil compaction does not meet the specified requirements, the contractor shall be required to take corrective actions at no additional cost to the project.

B. Preparation of Existing Soil to be Soil Conditioned:

1. Verification of Existing Grades: Verify that grades are within 1 in. plus or minus of the required finished grades or finish sub-grades. Report all variations.
2. Cultivation: Rip or cultivate all areas to be soil conditioned to a depth of 6 in. for all lawn and grass area and 10" for all perennial and ground cover immediately prior to amending existing soil.
3. Trees to Remain: Hand cultivate within the dripline of existing trees to remain. Depth of cultivation shall not exceed 2 in. Cultivate immediately prior to amending existing soil.

3.04 SOIL CONDITIONING

A. Landscape Backfill Mix for Tree Planting Areas (identified on Landscape Planting Plans):

1. **Excavate all tree planting areas to a depth of 30" below finished grade. At proposed tree locations, DO NOT excavate beyond the depth of the rootball. Rootball should rest on existing subgrade.**
   Contractor is responsible to install all planting beds so they are continuous as identified on grading and landscape/planting plans.
2.. Backfill with mixture consisting of the following:
   90% Imported Topsoil (with necessary amendments per analysis)
   10% Organic compost (with necessary amendments per analysis)

B. Landscape Backfill Mix for Perennial Planting Areas (identified on Landscape Planting Plans):

1. **Excavate all perennial planting beds to a depth of 18" below finish grade.**
   Contractor is responsible to install all planting beds so they are continuous.
2. Backfill with mixture consisting of the following:
   90% Imported Topsoil (with necessary amendments per analysis)
   10% Organic compost (with necessary amendments per analysis)
3. Dispose of excess native site soil excavated from plant bed.

3.05 WEED CONTROL

A. Apply pre-emergent weed control to all areas to receive woody, non-lawn ornamental planting after amendment of topsoil.

B. Spray all weeds that may have established prior to planting or sodding operations with post emergent herbicide. If rain occurs within 6 hours of application, reapply the product. Wait at least 7 days after last application to rake, till, or re-plant.

C. Apply strictly according to manufacturer's current printed specifications.

3.06 DETRIMENTAL DRAINAGE, SOILS AND OBSTRUCTIONS

A. Notification: Submit in writing all soils or drainage conditions considered detrimental to growth of plant materials. State condition and submit proposal and cost estimate for correcting condition.

B. Correction: Submit for acceptance a written proposal and cost estimate for the correction before proceeding with work.

C. Obstructions: If rock, underground construction work, tree roots or other obstructions are encountered in the performance of work under this section, submit cost required to remove the obstructions to a depth of not less than 6 in. below the required soil depth.

3.07 CLEAN-UP

A. Keep all areas of work clean, neat and orderly at all times.

B. Clean up and remove all deleterious materials and debris from the entire work area prior to final acceptance.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT

A. The quantity of Special Provision Landscape Backfill will be paid on a cubic yard (CY) basis to install the landscape backfill material in the designated locations within the limits shown on the plans.

4.02 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Landscape Backfill will be paid for at the Contract CY price. The landscape backfill, soil testing, amendments, and installation shall be paid for incidental to this pay item. The Landscape Backfill is meant for all planting areas as noted in the drawings and details.

Payment will be made under:

Pay Item	Pay Unit
900.608 Special Provision Landscape Backfill	CY

END OF SECTION

SECTION 900.620

SPECIAL PROVISION HANGING BASKET

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the following:
   1. Hanging Baskets
   2. Cocoanut liners
   3. Fiberglass inserts
   4. Chains and hardware
   5. Watering Well
   6. Annuals
   7. Potting soil

1.2 SUBMITTALS

A. Product Data: For each product indicated

B. Samples: For exposed finish and color specified.

C. Maintenance Data.

D. Shop drawings

1.3 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract apply to this Section.

PART 2 - PRODUCTS

2.1 MANUFACTURERS ORDERING SUMMARY

A. Products: Subject to compliance with requirements, provide product that meets the requirements as indicated in the drawings and details.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Complete field assembly of hanging baskets and annuals, where required as per Manufacturer's specifications.

B. Unless otherwise indicated, install one hanging basket for every ornamental street light pole.

C. See drawings for installation method.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT.

A. The quantity of Special Provision (Hanging Basket) will be measured by the number of units installed, complete with stainless steel hardware painted black, steel chains, liners, fiberglass inserts, annuals, potting soil, watering wells, accessories and incidentals.

4.02 BASIS OF PAYMENT.

A. The accepted quantity of Special Provision (Hanging Basket) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and installing the materials specified.

B. Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Hanging Basket)	Each

900.620

SPECIAL PROVISION LIGHT POLE BANNER

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the following:
1. Printed Fabric Banner

1.2 SUBMITTALS

A. Product Data: For each product indicated

B. Samples: For banner finish and color specified.

C. Maintenance Data.

D. Shop Drawings/Catalog Data

1.3 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract apply to this Section.

PART 2 - PRODUCTS

2.1 MATERIAL SUMMARY

A. Products:

1. Exterior Banners:

9.0 Oz. solution dyed acrylic thread fabric for awning and marine applications. Artwork as either inkjet print using eco solvent UV inks or printing process of high temperature vinyl transfer. Sewing threads shall be ePTFE fiber construction or similar rated for resistance to UV and extreme weather exposure.

Double sided banners shall be dual play, having opaque backgrounds to insure against shadowing from opposite surfaces. An extra middle layer of shadow block material shall be provided in light colored background applications.

2. Size:

Refer to detail in Contract Plans.

3. Color / Design:

The artwork design will be provided in electronic format.
Refer to detail in Contract Plans for color selection and graphics.

B. Installation Method: As indicated on drawings. Comply with all manufacturers recommendations unless noted otherwise.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install Light Pole banners in accordance with manufacturer's recommendations.

B. Contractor to provide shop drawings of banner for review and approval by Resident Engineer.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT.

A. The quantity of Special Provision (Light Pole Banner) will be measured by the number of units installed. 8 banners per season, for three seasons.

4.02 BASIS OF PAYMENT.

A. The accepted quantity of Special Provision (Light Pole Banner) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and installing the materials specified.

B. Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Light Pole Banner)	Each

SECTION 900.620

SPECIAL PROVISION ORNAMENTAL STREET LIGHT

PART 1 – GENERAL

1.01 DESCRIPTION. This work shall consist of furnishing and installing ornamental street light poles, fixtures, lights, foundations, wiring, and all incidentals, as shown 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 679 of the Standard specifications.

1.02 MATERIALS. Materials shall be in accordance with Section 679 and the following requirements:

(a) Concrete: Concrete shall meet the requirements of Section541 for Concrete, Class B.

(b) Light Poles: Poles shall be decorative 12 fluted, mandrel formed, aluminum tapered shaft 6 & 7" round welded to a 6-5/8" round extruded aluminum pole base which is welded top and bottom to a cast aluminum anchor plate. The pole shall include a 4-1/2" x 10" maintenance opening. The pole shall have a 14 foot mounting height.

(c) Base Cover: The decorative base cover shall be made from two cast-aluminum pieces fastened together with stainless steel hardware around the base of the light pole. The base cover shall be complete with a door to access the pole maintenance opening.

(d) Finish: The light poles, bases, base covers and fixture adapters shall be a "black textured (BKTX)" surface treatment, thermosetting polyester resin based powder coating.

(e) Light Fixtures: The luminaires shall have a glass globe, with decorative base adaptor, with finials, with decorative band and vertical support. Each luminaire shall include a photoelectric cell. All Type B light fixtures will require a decorative twin mounting arm.

(f) Fixture/Lamps: The lamp wattage for the luminaires shall be 90-100watt LED with a kelvin rating of 4,500 or lower. The prismatic optical systems shall be asymmetrical prismatic glass globes with a Type III distribution. *Acrylic or polycarbonate globes are not acceptable.*

(g) Wiring: The Contractor shall provide and install all wiring for the proposed lighting system. The wire shall be copper, 600 volt insulated, type XHHW-2 to the gages specified on the contract plans.

(h) Banner Arms: The banner arms shall be able to accommodate banners that are 24"x48". The banners arms shall be designed to fit on a fluted pole, using a central tubing insert through two opposite holes. All connecting hardware should be stainless steel. Bottom banner arm is to be a breakaway arm.

(i) Duplex Receptacle: The light fixture/pole shall include a 120V duplex receptacle with common ground fault interrupter.

(j) Plant Support Arm: The 16" plant support arm shall be designed to fit on a fluted pole, using a central tubing insert through two opposite holes. Provide a 1/2" eyebolt set 3" back from the end of the support arm. All connecting hardware should be stainless steel.

Manufacturer Ordering Summary

The ordering information for equivalent ornamental street lights for Fixture Typed A and B are as follows:

Lumec Lighting – Fixture A:

Luminaire	S56 Serenade (Glass Globe)
LED Wattage	80W48LED
Lamp Temperature	4,000K
Optical System	LE3
Voltage	208
Adapter	SFX
Options	FN10 (Finial), PH8 (Photocell), C2 (Decorative band)
Pole	RTA906V-14
Pole Options	GFI
Banner Arms	BASB(2)24 (Two Arms; spaced to accommodate 48" banner)
Plant Support Arm	PSS (Single plant support)
Finish	BKTX (Black textured)

Lumec Lighting – Fixture B:

Luminaire	S56 Serenade (Glass Globe)
LED Wattage	80W48LED
Lamp Temperature	4,000K
Optical System	LE3
Voltage	208
Adapter	SFX
Options	FN10 (Finial), PH8 (Photocell), C2 (Decorative band)
Pole	RTA906V-16
Pole Options	GFI
Banner Arms	BASB(2)24 (Two Arms; spaced to accommodate 48" banner)
Plant Support Arm	PSS (Single plant support)
Finish	BKTX (Black textured)

LUMEC
www.lumec.com

Local Contact/Sales Representative:
Apex Lighting
1200 Elm Street. Unit 412
Manchester, NH 03101
Dan Carnevale
dcarnevale@apexltg.com

PART 2 - EXECUTION

2.01 CONSTRUCTION REQUIREMENTS.
The Contractor shall submit manufacturer's descriptive literature for materials specified in accordance with 105.03.

Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

Ornamental light poles shall only be installed in the locations specified on the plans and in accordance with manufacturer's instructions.

2.02 SUBMITTALS.
The Contractor shall submit shop drawings of light fixture, pole, banner arms and plant support arm for review and approval by Resident Engineer. All manufacturer warrantee information on the materials that are provided shall be included with the submittal and shall be conveyed to the City and backed by the Contractor for the durations provided by the manufacturer.

PART 3 - PAYMENT

1.04 METHOD OF MEASUREMENT. The quantity of Special Provision (Ornamental Light) will be measured by the number of units installed, complete with all poles, light fixtures, lamps, anchors, grounding, receptacles, wiring, photocells, banner arms, plant supports, accessories and incidentals. Conduit, concrete pole bases, pull boxes and lighting conduit will be measured and paid separately.

1.05 BASIS OF PAYMENT. The accepted quantity of Special Provision(Ornamental Light) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified.

Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Ornamental Street Light-Fixture A)	Each
900.620	Special Provision (Ornamental Street Light-Fixture B)	Each

END OF SECTION

SECTION 900.620

SPECIAL PROVISION PET WASTE DISPENSER

PART 1 - GENERAL

1.1 SUMMARY

A. This section includes the following:
   1. Pet Waste Dispensers
   2. Pet Waste Bags

1.2 SUBMITTALS

A. Product Data: For each product indicated

B. Samples: For exposed finish and color specified.

C. Maintenance Data.

D. Shop drawings

1.3 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract apply to this Section.

PART 2 - PRODUCTS

2.1 MANUFACTURERS ORDERING SUMMARY

A. In other Part 2 articles where subparagraph titles below introduce list, the following requirements apply for product selection:
   1. Products: Subject to compliance with requirements, provide products from one of the manufacturers specified.

B. Products:
   1. Manufacturer: Pet Waste Eliminator
      Product: Budget Pet Waste Eliminator Station
      Website: petwasteeliminator.com
      Contact Number: 1-800-790-8896

   2. Manufacturer: Zero Waste USA
      Product: Zero Waste Dispenser
      Website: zerowasteusa.com
      Contact Number: 1-800-789-2563

3. Manufacturer: Dogipot
Product: Aluminum Dogipot Header Pak Junior Bag Dispenser (Item #1002HP-4)
Website: www.dogipot.com
Contact Number: 1-800-364-7681

4. Or Approved Equal

C. Installation Method: As indicated on drawings. Comply with all manufacturers recommendations unless noted otherwise.

D. Finish/Color: Green

PART 3 - EXECUTION

3.1 INSTALLATION

A. Complete field assembly of pet dispenser, where required as per Manufacturer's specifications.

B. Unless otherwise indicated, install pet dispensers after landscaping and paving have been completed.

C. See drawings for installation method.

D. Install pet dispensers level, plumb, and true at locations directed by the City unless noted otherwise on drawings.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT.

A. The quantity of Special Provision (Pet Waste Dispenser) will be measured by the number of units installed, complete with stainless steel hardware, waste bags, accessories and incidentals.

4.02 BASIS OF PAYMENT.

A. The accepted quantity of Special Provision (Pet Waste Dispenser) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and installing the materials specified.

B. Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Pet Waste Dispenser)	Each

SECTION 900.620

SPECIAL PROVISION POTS (24”, 36” and 42”)

PART 1 – GENERAL

1.01 DESCRIPTION. This work shall consist of furnishing and installing fiberglass pots, liners, and all incidentals, as shown in the Plans.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 679 of the Standard specifications.

1.02 MATERIALS. Materials shall be in accordance with Section 679 and the following requirements:

(a) Fiberglass Pot and Liners:
All parts shall be constructed of glass fiber reinforced polyester resin.
1. Glass fibers shall be 1/2” to 3/4” long.
2. Polyester resin shall be compounded by a reputable manufacturer.
3. Glass matting shall have a chrome finish.

(b) Construction:
Fiberglass parts, planter liners or liner components shall be fabricated by the spray laminate method using suitable molds to attain the desired surface finish. The finished reinforced plastic material shall be not less than 5/32” thick and thicker in those areas requiring additional structural strength. Where ribs or stiffeners are to be fabricated to planter or liner sections by spray laminating over premolded forms, the stiffeners or ribs shall be located and spray laminated into position before the section to which they are to be attached has passed the gel state of curing and the finished joint shall be strong and durable.

(c) Finish:
Fiberglass part finish: semi-gloss, smooth matte, sand or orange peel gelcoat standard or custom colors.
Liner finish: natural fiberglass with option of on-site spraying of exposed surfaces

(d) Sizes:
24”, 36”, and 42”

Manufacturer Ordering Summary

The ordering information for equivalent street clocks is as follows:

Old Town Fiberglass:

Pot Grecian Urn

Old Town Fiberglass
www.oldtownfiberglass.com

Local Contact:
Stephan Johnson
Lantz of New England
70 Frenchtown Road #340
No. Kingstown, RI 02818
401-884-7026
Stephan57@cox.net

Tournesol Siteworks:

Pot Metro Collection

Tournesol Siteworks, LLC
www.tournesolsiteworks.com

Contact:
Tournesol Siteworks, LLC
30955 San Antonio Street
Hayward, CA 94544
1-800-542-2282

Terracast:

Pot Contemporary Planters

Terracast Products, LLC
www.terracastproducts.com

Local Contact:
Megan O'Brien
O'Brien and Sons
508-359-4200
obrienandsons@terracastproducts.com

OR APPROVED EQUAL

PART 2 - EXECUTION

2.01 CONSTRUCTION REQUIREMENTS.

The Contractor shall submit manufacturer's descriptive literature for materials specified in

accordance with 105.03.

Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

2.02 SUBMITTALS.

The contractor to provide shop drawings for review and approval by landscape architect. Shop drawings to include but not limited to:

A. Product Data: Manufacturer's standard catalog cut sheets.
B. Samples: As required for color/finish selection or material thickness.
C. Shop drawings for custom planter liners as necessary, showing critical sizes and dimensions for installation and integration with other work.
D. Final pot style, color, and finish options will be selected by landscape architect once vendor is selected by contractor.
E. Sample of proposed potting soil mix to be used to fill the pots.

PART 3 - PAYMENT

1.04 METHOD OF MEASUREMENT. The quantity of Special Provision (Pots) will be measured by the number of units installed, complete with all liners, insulation, potting soil and incidentals.

1.05 BASIS OF PAYMENT. The accepted quantity of Special Provision(Pots) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified.

Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (24 inch Pot)	Each
900.620	Special Provision (36 inch Pot)	Each
900.620	Special Provision (42 inch Pot)	Each

END OF SECTION

SECTION 900.620

SPECIAL PROVISION RECYCLING TRASH RECEPTACLE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Recycling Trash Receptacle

1.2 SUBMITTALS

A. Product Data: For each product indicated.

B. Samples: For exposed finish and color specified.

C. Text: Font options for Recycling information on lid and side of receptacle.

D. Shop Drawings

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:

1. Products: Subject to compliance with requirements, provide products from one of the manufacturers specified.

2.2 MATERIALS

A. Steel: Bid and Contract Procedures Buy America provisions for all steel and iron products.

1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
2. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester-TGIC, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

B. Anchors, Fasteners, Fittings, and Hardware: Commercial quality; tamperproof, vandal and theft resistant**;** concealed, recessed, and capped or plugged. Provide as required for site furnishings' assembly, mounting, and secure attachment.

1. Material: Manufacturer's standard, corrosion-resistant-coated or non-corrodible materials.

2.3 TRASH RECEPTACLES

A. Products:
1. 24 Gallon Receptacle w/ Recycling Signage (refer to detail)
Manufacturers:
a. Victor Stanley
b. DuMor Inc.
c. Landscape Forms
d. Or Approved equal

B. Installation Method: As indicated on Drawings. Comply with all manufacturers recommendations.

C. Finish: Powder Coated.

1. Color: Black

PART 3 - EXECUTION

3.1 INSTALLATION

A. Unless otherwise indicated, install recycling trash receptacles after landscaping and paving have been completed.

PART 4 – PAYMENT

4.1 METHOD OF MEASUREMENT

A. The quantity of Special Provision Recycling Trash Receptacle will be paid on an each (EA) basis to install the trash receptacles in the designated locations within the limits shown on the plans.

4.2 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Recycling Trash Receptacle will be paid for at the Contract EA price. The trash receptacles, installation, and all necessary anchoring materials shall be paid for incidental to this pay item.

Payment will be made under:

Pay Item	Pay Unit
900.620 Special Provision Recycling Trash Receptacle	EA

END SECTION

SECTION 900.620

SPECIAL PROVISION STONE BENCH

PART 1 – GENERAL

1.01 SUMMARY

A. Extent of stonework is shown on drawings and in the schedules. The work includes but is not necessarily limited to furnishing and installing the following:
   1. Stone Benches

1.02 SUBMITTALS

A. Product Data: Submit specifications and other data for each type of stonework required. Include instructions for handling, storage, installation and protection of each type.

B. Samples: Submit sets of samples not less than 6” X 6” in size of each different color, grade and finish of stonework required. Include in each set full range of exposed color and texture to be expected in completed work. Submit samples of silicone joint sealant used in conjunction with stonework.

C. Shop Drawings: Submit cutting and setting drawings showing sizes, dimensions, sections and profiles of stonework units, arrangement and provisions for jointing, anchoring, and fastening, supports and other necessary details for lifting devices and reception of other work. Indicate location of each stonework unit on setting drawings with number designation corresponding to number marked on each unit.

1.03 QUALITY ASSURANCE

A. Source Quality Control:
   1. Obtain stone from quarry with consistent color range and texture throughout the work.
   2. Subcontract fabrication of stone to a firm which has successfully fabricated stone similar to the quality specified for a period of not less than 5 years and is equipped to provide the quantity shown and specified.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Protect stone during storage and construction against moisture, soiling, staining and physical damage.

B. Handle stone to prevent chipping, breakage, soiling or other damage. Do not use pinch or wrecking bars without protecting edges of stone with wood or other rigid materials. Lift with wide-belt type slings; do not use wire rope or ropes containing substances which might cause staining. If required, use wood rollers and provide cushion at end of wood slides.

C. Store stone covered with non-staining, waterproof covers. Place and stack stones to distribute weight evenly and to prevent breakage or cracking of stones. Protect stored stone from weather with waterproof, non-staining covers or enclosures, but allow air to circulate around stones.

D. Protect mortar materials and stonework accessories from weather, moisture and contamination with earth and other foreign materials.

1.05 JOB CONDITIONS

A. Installer must review installation procedures and coordination with other work, with Subcontractor, and other Sub-contractors and sub-contractors whose work will be effected by stonework.
   1. Cold Weather Protection:
   2. Remove any ice or snow formed on stonework bed by carefully applying heat until top surface is dry to touch.
   3. Remove stonework determined to be damaged by freezing conditions.
   4. Protect completed stonework and partially completed stonework not being worked on as follows:

B. Do not use frozen materials mixed or coated with ice or frost. Do not use salt to thaw ice in anchor holes or slots. Do not lower the freezing point of mortar by use of admixtures or anti-freeze agents, and do not use calcium chloride in mortar or grout.

C. Do not build on frozen work; remove and replace stonework damaged by frost or freezing.

PART 2 - PRODUCTS

2.01 STONE

A. Stone Bench:
   1. Material: Granite
   2. Color/Type: Woodbury, Barre, or Swensen granite, or approved equal.
   3. Finish: Thermal finish on all vertical sides, sawn bottom. Top and vertical edges to have an eased edge.

2.02 STONEWORK ACCESSORIES

A. Use stainless steel dowels to secure stone sections to concrete sub-slab and in some cases the concrete sub-slab below the brick pavers. Install dowels using a commercial grade non-shrink epoxy grout suitable for use with stone, concrete and metal.

2.04 FABRICATION

A. General: Fabricate as shown and as detailed on final shop drawings and in compliance with recommendations of applicable stone association.

B. Cut accurately to shape and dimensions shown on final shop drawings, maintaining fabrication tolerances of applicable stone associations.

PART 3 - EXECUTION

3.01 PREPARATION

A. Clean stone before setting by thoroughly scrubbing with fiber brushes followed by a thorough drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh fillers or abrasives.

3.02 INSTALLATION

A. Set bench in accordance with drawings and final shop drawings for stonework.

3.03 ADJUST AND CLEAN

A. Clean bollard stonework not less than 6 days after completion of work, using clean water and stiff-bristle brushes. Do not use wire brushes, acid type cleaning agents or other cleaning compounds with caustic or harsh fillers.

B. Provide protection for finished stonework and maintain conditions which ensures stonework being without damage, discolorations, or deterioration during subsequent construction and until time of substantial completion.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT

A. The quantity of Special Provision Stone Bench will be paid on an each (EA) basis to install the stone benches in the designated locations within the limits shown on the plans.

4.02 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Stone Bench will be paid for at the Contract EA price. The stone bench, stainless steel dowels, epoxy, and installation shall be paid for incidental to this pay item.

Payment will be made under:

Pay Item	Pay Unit
900.620 Special Provision Stone Bench	EA

END SECTION

SECTION 900.620

SPECIAL PROVISION TRASH RECEPTACLE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Trash Receptacle

1.2 SUBMITTALS

A. Product Data: For each product indicated.

B. Samples: For exposed finish and color specified.

C. Shop Drawings

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:

1. Products: Subject to compliance with requirements, provide products from one of the manufacturers specified.

2.2 MATERIALS

A. Steel: Bid and Contract Procedures Buy America provisions for all steel and iron products.

1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
2. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester-TGIC, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

B. Anchors, Fasteners, Fittings, and Hardware: Commercial quality; tamperproof, vandal and theft resistant**;** concealed, recessed, and capped or plugged. Provide as required for site furnishings' assembly, mounting, and secure attachment.

1. Material: Manufacturer's standard, corrosion-resistant-coated or non-corrodible materials.

2.3 TRASH RECEPTACLES

A. Products:
1. 36 Gallon Receptacle w/ Steel Formed Dome Top (refer to detail)
Manufacturers:
a. Victor Stanley
b. DuMor Inc.
c. Landscape Forms
d. Or Approved equal

B. Installation Method: As indicated on Drawings. Comply with all manufacturers recommendations.

C. Finish: Powder Coated.

1. Color: Black

PART 3 - EXECUTION

3.1 INSTALLATION

A. Unless otherwise indicated, install trash receptacles after landscaping and paving have been completed.

PART 4 – PAYMENT

4.1 METHOD OF MEASUREMENT

A. The quantity of Special Provision Trash Receptacle will be paid on an each (EA) basis to install the trash receptacles in the designated locations within the limits shown on the plans.

4.2 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Trash Receptacle will be paid for at the Contract EA price. The trash receptacles, installation, and all necessary anchoring materials shall be paid for incidental to this pay item.

Payment will be made under:

Pay Item	Pay Unit
900.620 Special Provision Trash Receptacle	EA

END SECTION

LIGHTING CONTROL PANEL

DESCRIPTION. This work shall consist of furnishing, installing, and testing street lighting control panel(s) including foundations, cabinet, internal electrical components, power meter, and wiring, as shown 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 679 of the Standard Specifications.

MATERIALS. Materials shall meet the requirements of Section 679 and the following:

Prior to ordering any components, the Contractor shall submit Fabrication Drawings in accordance with Section 105. The submittal shall contain, as a minimum, the following information:

(a) Cabinet. Size, manufacturer, model, accessories, material, and finish.

(b) Concrete Foundation or aluminum post mount with foundation, including mounting hardware. Dimensions to match cabinet, reinforcing, and material.

(c) Electrical Components and Controls. Make, model, and applicable electrical capacities and settings.

CONSTRUCTION REQUIREMENTS. The Contractor shall coordinate the installation with the City of St Albans and/or Green Mountain Power which shall supply power at the source control cabinet in the St Albans Garage. The Contractor shall install conduit, sweeps, riser and wire to enable the power supply connection, which shall be made by the City of St Albans and/or Green Mountain Power.

METHOD OF MEASUREMENT. The quantity of Special Provision (Lighting Control Panel) to be measured for payment will be the number of each unit installed in the complete and accepted work.

BASIS OF PAYMENT. The accepted quantity of Special Provision (Lighting Control Panel) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, testing, and placing the materials specified, including foundations, anchors, grounding, receptacles, cabinet, mounting panels, internal electrical components, power meter, transformer(s), heat source, fan, light, and wiring, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
900.620 Special Provision (Lighting Control Panel)	Each

SECTION 900.620

SPECIAL PROVISION UP LIGHT

PART 1 – GENERAL

1.01 DESCRIPTION. This work shall consist of furnishing and installing fixtures, lights, foundations, wiring, and all incidentals, as shown 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 679 of the Standard specifications.

1.02 MATERIALS. Materials shall be in accordance with Section 679 and the following requirements:

(a) Concrete: Concrete shall meet the requirements of Section541 for Concrete, Class B.

(b) Light Fixtures: The fixtures shall have a glass lens, with a machined aluminum body. Fixtures will include an internal driver capable of 120V through 277V. All machined faceplates and screws will be stainless steel.

(c) Finish: The light fixtures, shall be a black surface treatment, thermosetting polyester resin based powder coating.

(e) Lamps: The lamp wattage for the luminaires shall be 15watt LED with a kelvin rating of 4,000 or lower. The distribution of the light will be a medium flood.

(g) Wiring: The Contractor shall provide and install all wiring for the proposed lighting system. The wire shall be copper, 600 volt insulated, type XHHW-2 to the gages specified on the contract plans.

Manufacturer Ordering Summary

The ordering information for equivalent Up Lights for Fixture Type C are as follows:
This fixture is a custom built light and will require working with the manufacturer to meet the specification requirements and information shown in the details. Refer to detail B\LA-5.2 for fixture information.

BK Lighting
www.bklighting.com

This is not a non-participating FHA item.

PART 2 - EXECUTION

2.01 CONSTRUCTION REQUIREMENTS.
The Contractor shall submit manufacturer's descriptive literature for materials specified in accordance with 105.03.

Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

2.02 SUBMITTALS.
The Contractor shall submit shop drawings of light fixture showing complete fixture assembly, attachment system, LED lamp wattage, kelvin and lamp spread for review and approval by Resident Engineer. All manufacturer warrantee information on the materials that are provided shall be included with the submittal and shall be conveyed to the City and backed by the Contractor for the durations provided by the manufacturer.

PART 3 - PAYMENT

1.04 METHOD OF MEASUREMENT. The quantity of Special Provision (Up Light) will be measured by the number of units installed, complete with all light fixtures, lamps, anchors. Conduit, concrete pole bases, pull boxes and lighting conduit will be measured and paid separately.

1.05 BASIS OF PAYMENT. The accepted quantity of Special Provision(Up Light) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified.

Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Up Light Fixture C)	Each

END OF SECTION

SECTION 900.620

SPECIAL PROVISION UP LIGHT – LIGHTING CONTROLS

PART 1 – GENERAL

1.01 DESCRIPTION. This work shall consist of furnishing and installing fixtures, lights, foundations, wiring, and all incidentals, as shown 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 679 of the Standard specifications.

1.02 MATERIALS. Materials shall be in accordance with Section 679 and the following requirements:

(a) Timer:
1. Manufacturer: Unison Echo Time Clock
2. Model: E-ATC

(b) Controllers:
1. Manufacturer:

(c) Heater:
1. Manufacturer: Hoffman Electric Heater
2. Model: Final model will be determined based on the final specification and sizing of the cabinet enclosure. The criteria is to prevent the ambient temperature from dropping below 32 degrees F.

This is not a non-participating FHA item.

PART 2 - EXECUTION

2.01 CONSTRUCTION REQUIREMENTS.
The Contractor shall submit manufacturer's descriptive literature for materials specified in accordance with 105.03.

Transport, storage, and handling of products shall be in accordance with manufacturer's instructions.

2.02 SUBMITTALS.
The Contractor shall submit shop drawings of all control system components, including but not limited to the timer, controllers and wiring for review and approval by Resident Engineer.

PART 3 - PAYMENT

1.04 METHOD OF MEASUREMENT. The quantity of Special Provision (Up Light - Lighting Controls) will be measured by the number of units installed, complete with all timers, controllers, dimmers and heaters. Control Cabinet, conduit, concrete bases and pull boxes will be measured and paid separately.

1.05 BASIS OF PAYMENT. The accepted quantity of Special Provision(Up Light - Lighting Controls) will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing, transporting, handling, assembling, and placing the materials specified.

Payment will be made under:

Pay Item		Pay Unit
900.620	Special Provision (Up Light – Lighting Controls)	Each

END OF SECTION

SECTION 900.670

SPECIAL PROVISION BRICK PAVERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Clay pavers set in bituminous setting bed

B. Joint sand.

C. Sand joint stabilizer

D. Edge restraints

1.2 RELATED SECTIONS

A. Concrete Section 541

1.3 REFERENCES

A. American Society of Testing and Materials (ASTM) (latest edition):
   1. C 33 Specification for Concrete Aggregates.
   2. C 136 Method for Sieve Analysis for Fine and Coarse Aggregate.
   3. C 140 Sampling and Testing Concrete Masonry Units.
   4. C 144 Standard Specifications for Aggregate for Masonry Mortar.
   5. C 936 Specifications for Solid Interlocking Concrete Paving Units.
   6. C 979 Specification for Pigments for Integrally Colored Concrete.
   7. D 698 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5 lb (24.4 N) Rammer and 12 in. (305 mm) drop.
   8. D 1557 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (44.5 N) Rammer and 18 in. (457 mm) drop.
   9. D 2940 Graded Aggregate Material for Bases or Subbases for Highways or Airports.

1.4 QUALITY ASSURANCE

A. Installation shall be by a contractor and crew with at least one year of experience in placing interlocking pavers on projects of similar nature or dollar cost. Contractor should be prepared to provide references from past project work they have completed verify their relevant experience.

1.5 SUBMITTALS

A. Shop or product drawings and product data shall be submitted for the following:

1. Clay Pavers

2. Bituminous setting materials

3. Joint Sand

4. Sand Joint Stabilizer

B. CERTIFICATIONS: Submit certifications that all brick pavers will meet or exceed designated specifications.

C. Full size samples of paving units shall be submitted to indicate color, finish and shapes.

D. Sieve analyses for grading of joint sand shall be submitted.

E. The layout, pattern, and relationship of paving joints to fixtures and project formed details shall be indicated.

1.6 MOCK-UPS

A. **Mockups: Before installing unit pavers, build mockups for each form and pattern of unit pavers required to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for the completed Work, including same base construction, special features for expansion joints, and contiguous work as indicated:**

1. Build mockups in the location and of the size indicated or, if not indicated, as directed by Resident Engineer.
3. Notify Resident Engineer seven days in advance of dates and times when mockups will be constructed.
4. Demonstrate the proposed range of aesthetic effects and workmanship.
5. Obtain Resident Engineer's approval of mockups before starting unit paver installation.
6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

B. This area will be used to determine the amount that the pavers settle into bedding sand after compaction, joint sizes, lines, laying pattern, color, and texture of the project.

C. <u>This area shall be maintained as the standard from which the work will be judged</u>.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Pavers shall be delivered to the site in steel banded, plastic banded, or plastic wrapped cubes capable of transfer by fork lift or clamp lift. The pavers shall be unloaded at the job site in such a manner that no damage occurs to the product.

B. Joint sand shall be covered with a secure waterproof covering to prevent exposure to rainfall or removal by wind.

1.8 ENVIRONMENTAL CONDITIONS

A. Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

B. Weather Limitations for Bituminous Setting Bed: Comply with the following requirements:

1. Apply asphalt adhesive when ambient temperature is above 50 deg F (10 deg C) and when temperature has not been below 35 deg F (2 deg C) for 12 hours immediately before application. Do not apply when base is wet or contains excess moisture.
2. Install bituminous setting bed only when atmospheric temperature is above 40 deg F (4 deg C) and when base is dry.

PART 2 - MATERIALS

2.1 CLAY PAVERS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a) <u>Brick Pavers:</u>

- Style: Straight Edge - Heavy Duty
- Color: Standard Colors **(Final color of brick pavers to be selected by Resident Engineer once the final brick vendor is selected.)**
- Size: 4”x8”x2-3/4”
- Rated for heavy vehicular use.
- Manufacturers:
    1. Pine Hall
    2. Whitacre Greer
    3. Endicott
    4. Redland
    5. Or Approved Equal

2.2 BITUMINOUS SETTING BED MATERIALS

A. Primer for Base: ASTM D 2028, cutback asphalt, grade as recommended by unit paver manufacturer.

B. Fine Aggregate for Setting Bed: ASTM D 1073, No. 2 or No. 3.

C. Asphalt Cement: ASTM D 3381, Viscosity Grade AC-10 or AC-20.

D. Neoprene-Modified Asphalt Adhesive: Paving manufacturer's standard adhesive consisting of oxidized asphalt combined with 2 percent neoprene and 10 percent long-fibered mineral fibers containing no asbestos.

2.3 JOINT SAND

A. The joint sand shall be clean, non-plastic, and free from deleterious or foreign matter. It can be natural or manufactured from crushed rock. Do not use limestone screenings or stone dust that do not conform to the grading requirements in Table 4.

B. Apply a sand joint stabilizer to the paver joints.

- Manufacturers:
  1. Prosoco
  2. SandLock
  3. Gator Sand
  4. Or Approved Equal

1. The joint sand shall conform to the grading requirements of ASTM C 144 as shown in Table 4 below:

TABLE 4
JOINT SAND
GRADING REQUIREMENTS

ASTM C 144		
	Natural Sand	Manufactured Sand
Sieve Size	Percent Passing	Percent Passing
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 – 100	95 to 100
No. 16 (1.18 mm)	70 – 100	70 to 100
No. 30 (600 µm)	40 - 75	40 to 75
No. 50 (300 µm)	10 - 35	20 to 40
No. 100 (150 µm)	2 - 15	10 to 25
No. 200 (75 µm)	0	0 to 10

2.4 EDGE RESTRAINTS

A. The provision of suitable edge restraints is critical to the satisfactory performance of interlocking pavers. The pavers must abut tightly against the restraints to prevent rotation under load and any consequent spreading of joints. The restraints must be sufficiently stable that, in addition to providing suitable edge support for the paver units, they are able to withstand the impact of temperature changes, vehicular traffic and/or snow removal equipment.

B. Curbs, gutters or curbed gutter, constructed to the dimensions of municipal standards (noting that these standards generally refer to cast-in-place concrete sections), are considered to be acceptable edge restraints for heavy duty installations. Where extremely heavy industrial equipment is involved such as container handling equipment, the flexural strength of the edge restraint should be carefully reviewed, particularly if a section that is flush with the surface is used and may be subjected to high point loading.

C. Edge restraints shall be used along all unrestrained paver edges, examples include lawn and landscaped areas.

D. Paver edge restraints should be commercial grade, rated for heavy duty use and be made of a black polymer plastic. Paver edge restraint should be able to be applied in reverse mode, per the details.

E. Refer to layout plans and details for installation requirements.

2.5 SAND JOINT STABILIZER

A. Apply the sand joint stabilizer per the manufacturer's requirements and recommendations. The sand joint stabilizer should be applied to all brick surfaces.

B. Protect neighboring surfaces to avoid spillage or transfer of sand joint stabilizer, which might cause staining or discoloration.

2.6 BITUMINOUS SETTING-BED MIX

A. Mix bituminous setting-bed materials at an asphalt plant in approximate proportion, by weight, of 7 percent asphalt cement to 93 percent fine aggregate, unless otherwise indicated. Heat mixture to 300 deg F (149 deg C).

PART 3 - EXECUTIONS

3.1 EXAMINATION

C. Examine areas indicated to receive paving, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Vacuum clean concrete substrates to remove dirt, dust, debris, and loose particles.

C. Remove substances, from concrete substrates, that could impair mortar bond, including curing and sealing compounds, form oil, and laitance.

E. Proof-roll prepared subgrade surface to check for unstable areas and areas requiring additional compaction. Proceed with unit paver installation only after deficient subgrades have been corrected and are ready to receive subbase for unit pavers.

3.3 PAVER INSTALLATION, GENERAL

A. Initiation of paver placement shall be deemed to represent acceptance of the pavers.

B. Pavers shall be free of foreign material before installation.

C. Pavers shall be inspected for color distribution and all chipped, damaged or discolored pavers shall be replaced.

D. The pavers shall be laid in the pattern(s) as shown on the drawings. String lines or chalk lines on bedding sand should be used to hold all pattern lines true.

E. Joints between the pavers on average shall be between 1/16 in. and 1/8 in. (2 mm to 4 mm) wide. In order to maintain the desired pattern, joint spacing must be consistent. This spacing must also be provided for the first row abutting the edge restraint.

F. Note: Installing pavers too tightly may lead to chipping at the edges.

G. Gaps at the edges of the paved area shall be filled with cut pavers.

H. Pavers to be placed along the edge shall be cut with a masonry saw only.

I. Note: The use of infill concrete or discontinuities in patterns will not be permitted except along the outer pavement boundaries, adjacent to drains and manholes.

J. Upon completion of cutting, the area must be swept clean of all debris to facilitate inspection and to ensure pavers are not damaged during compaction. (Debris or sand particles left on pavers which are being compacted can cause point loading which may chip, scrape or break the paver.)

K. Dry joint sand shall be swept into the joints until the joints are full. This will require at least two or three passes with the compactor. Do not compact within 3 ft. (1 m) of the unrestrained edges of the paving units.

L. Excess joint sand shall be swept off when the job is complete.

3.4 BITUMINOUS SETTING BED APPLICATIONS

A. Apply primer to concrete slab or binder course immediately before placing setting bed.

B. Prepare for setting-bed placement by locating 1-inch- deep control bars set parallel to one another, to serve as guides for striking board. Adjust bars to subgrades required for accurate setting of paving units to finished grades indicated.

C. Place bituminous setting bed where indicated, in panels, by spreading bituminous material between control bars. Strike setting bed smooth, firm, even, and not less than 1 inch thick. Add fresh bituminous material to low, porous spots after each pass of striking board. After each panel is completed, advance first control bar to next position in readiness for striking adjacent panels. Carefully fill depressions that remain after removing depth-control bars.

1. Roll setting bed with power roller to a nominal depth of 1 inch while still hot. Adjust thickness as necessary to allow accurate setting of unit pavers to finished grades indicated.

2. Apply neoprene-modified asphalt adhesive to cold setting bed by squeegeeing or troweling. If troweled on, use trowel with serrations not exceeding 1/16 inch (1.6 mm). Proceed with setting of paving units only after adhesive is dry to the touch.

D. Place pavers carefully by hand in straight courses, maintaining accurate alignment and uniform top surface. Protect newly laid pavers with plywood panels on which workers can stand. Advance protective panels as work progresses, but maintain protection in areas subject to continued movement of materials and equipment to avoid creating depressions or disrupting alignment of pavers. If additional leveling of paving is required, and before treating joints, roll paving with power roller after sufficient heat has built up in the surface from several days of hot weather.

E. Joint Treatment: Place unit pavers with hand-tight joints. Fill joints with sand by sweeping over paved surface until joints are filled.

3.5 FIELD QUALITY CONTROL

A. Final elevations shall be checked for conformance to the drawings after removal of excess joint sand.

B. All surface and pavement structures shall be true to the lines and levels, grades, thickness and cross sections shown on the drawings. All pavements shall be finished to lines and levels to ensure positive drainage at all drainage outlets and channels. In no case shall the cross-fall of any portion of pavement be less than 2 percent. The final surface elevations shall not deviate more than 3/8 in. (10 mm) under a 10 ft. (3 m) long straight edge.

C. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

3.6 REPAIR, POINTING, CLEANING, AND PROTECTION

A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units as intended. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.

B. Cleaning: Remove excess neoprene tackcoat from exposed paver surfaces; wash and scrub clean.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT

A. The quantity of Special Provision Brick Pavers will be paid on a square foot (SF) basis to install the brick pavers in the designated locations within the limits shown on the plans.

4.02 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Brick Pavers will be paid for at the Contract SF price. The brick pavers, neoprene tack coat, sand for joints, bituminous setting bed, edge restraints, and installation shall be paid for incidental to this pay item.

Payment will be made under:

Pay Item	Pay Unit
900.670 Special Provision Brick Pavers	SF

END OF SECTION

SECTION 900.670

SPECIAL PROVISION STONE PAVERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Stone pavers set in bituminous setting bed

B. Joint sand.

C. Sand joint stabilizer

D. Edge restraints

1.2 RELATED SECTIONS

A. Concrete Section 541

1.3 REFERENCES

A. American Society of Testing and Materials (ASTM) (latest edition):
   1. C 33 Specification for Concrete Aggregates.
   2. C 136 Method for Sieve Analysis for Fine and Coarse Aggregate.
   3. C 140 Sampling and Testing Concrete Masonry Units.
   4. C 144 Standard Specifications for Aggregate for Masonry Mortar.
   5. C 936 Specifications for Solid Interlocking Concrete Paving Units.
   6. C 979 Specification for Pigments for Integrally Colored Concrete.
   7. D 698 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5 lb (24.4 N) Rammer and 12 in. (305 mm) drop.
   8. D 1557 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10-lb (44.5 N) Rammer and 18 in. (457 mm) drop.
   9. D 2940 Graded Aggregate Material for Bases or Subbases for Highways or Airports.

1.4 QUALITY ASSURANCE

A. Installation shall be by a contractor and crew with at least one year of experience in placing interlocking pavers on projects of similar nature or dollar cost. Contractor should be prepared to provide references from past project work they have completed verify their relevant experience.

1.5 SUBMITTALS

A. Shop or product drawings and product data shall be submitted for the following:

1. Stone Pavers

2. Bituminous setting materials

3. Joint Sand

4. Sand Joint Stabilizer

B. CERTIFICATIONS: Submit certifications that all stone pavers will meet or exceed designated specifications.

C. Full size samples of paving units shall be submitted to indicate color, finish and shapes.

D. Sieve analyses for grading of joint sand shall be submitted.

E. The layout, pattern, and relationship of paving joints to fixtures and project formed details shall be indicated.

1.6 MOCK-UPS

A. **Mockups: Before installing unit pavers, build mockups for each form and pattern of unit pavers required to verify selections made under sample Submittals and to demonstrate aesthetic effects and qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for the completed Work, including same base construction, special features for expansion joints, and contiguous work as indicated:**

1. Build mockups in the location and of the size indicated or, if not indicated, as directed by Resident Engineer.
3. Notify Resident Engineer seven days in advance of dates and times when mockups will be constructed.
4. Demonstrate the proposed range of aesthetic effects and workmanship.
5. Obtain Resident Engineer's approval of mockups before starting unit paver installation.
6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

B. This area will be used to determine the amount that the pavers settle into bedding sand after compaction, joint sizes, lines, laying pattern, color, and texture of the project.

C. <u>This area shall be maintained as the standard from which the work will be judged</u>.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Pavers shall be delivered to the site in steel banded, plastic banded, or plastic wrapped cubes capable of transfer by fork lift or clamp lift. The pavers shall be unloaded at the job site in such a manner that no damage occurs to the product.

B. Joint sand shall be covered with a secure waterproof covering to prevent exposure to rainfall or removal by wind.

1.8 ENVIRONMENTAL CONDITIONS

A. Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

B. Weather Limitations for Bituminous Setting Bed: Comply with the following requirements:

1. Apply asphalt adhesive when ambient temperature is above 50 deg F (10 deg C) and when temperature has not been below 35 deg F (2 deg C) for 12 hours immediately before application. Do not apply when base is wet or contains excess moisture.
2. Install bituminous setting bed only when atmospheric temperature is above 40 deg F (4 deg C) and when base is dry.

PART 2 - MATERIALS

2.1 STONE PAVERS

A. Granite Paver (Field of pavers at main entry to Hotel)
Size: 3"x12”x24”
Finish: Thermal finish on top. Bottom and edges can be a sawn finish.
Type:
1. “P1” Medium Dark granite, charcoal in color. Contractor to provide color options for final selection.
2. “P2” Dark granite, black in color. Contractor to provide color options for final selection.

2.2 BITUMINOUS SETTING BED MATERIALS

A. Primer for Base: ASTM D 2028, cutback asphalt, grade as recommended by unit paver manufacturer.

B. Fine Aggregate for Setting Bed: ASTM D 1073, No. 2 or No. 3.

C. Asphalt Cement: ASTM D 3381, Viscosity Grade AC-10 or AC-20.

D. Neoprene-Modified Asphalt Adhesive: Paving manufacturer's standard adhesive consisting of oxidized asphalt combined with 2 percent neoprene and 10 percent long-fibered mineral fibers containing no asbestos.

2.3 JOINT SAND

A. The joint sand shall be clean, non-plastic, and free from deleterious or foreign matter. It can be natural or manufactured from crushed rock. Do not use limestone screenings or stone dust that do not conform to the grading requirements in Table 4.

B. Apply a sand joint stabilizer to the paver joints.

- Manufacturers:
  1. Prosoco
  2. SandLock
  3. Gator Sand
  4. Or Approved Equal

1. The joint sand shall conform to the grading requirements of ASTM C 144 as shown in Table 4 below:

TABLE 4
JOINT SAND
GRADING REQUIREMENTS

ASTM C 144		
	Natural Sand	Manufactured Sand
Sieve Size	Percent Passing	Percent Passing
No. 4 (4.75 mm)	100	100
No. 8 (2.36 mm)	95 – 100	95 to 100
No. 16 (1.18 mm)	70 – 100	70 to 100
No. 30 (600 µm)	40 - 75	40 to 75
No. 50 (300 µm)	10 - 35	20 to 40
No. 100 (150 µm)	2 - 15	10 to 25
No. 200 (75 µm)	0	0 to 10

2.4 EDGE RESTRAINTS

A. The provision of suitable edge restraints is critical to the satisfactory performance of interlocking pavers. The pavers must abut tightly against the restraints to prevent rotation under load and any consequent spreading of joints. The restraints must be sufficiently stable that, in addi-

tion to providing suitable edge support for the paver units, they are able to withstand the impact of temperature changes, vehicular traffic and/or snow removal equipment.

B. Curbs, gutters or curbed gutter, constructed to the dimensions of municipal standards (noting that these standards generally refer to cast-in-place concrete sections), are considered to be acceptable edge restraints for heavy duty installations. Where extremely heavy industrial equipment is involved such as container handling equipment, the flexural strength of the edge restraint should be carefully reviewed, particularly if a section that is flush with the surface is used and may be subjected to high point loading.

C. Edge restraints shall be used along all unrestrained paver edges.

D. Refer to layout plans and details for installation requirements.

2.5 SAND JOINT STABILIZER

A. Apply the sand joint stabilizer per the manufacturer's requirements and recommendations. The sand joint stabilizer should be applied to all stone surfaces.

B. Protect neighboring surfaces to avoid spillage or transfer of sand joint stabilizer, which might cause staining or discoloration.

2.6 BITUMINOUS SETTING-BED MIX

A. Mix bituminous setting-bed materials at an asphalt plant in approximate proportion, by weight, of 7 percent asphalt cement to 93 percent fine aggregate, unless otherwise indicated. Heat mixture to 300 deg F (149 deg C).

PART 3 - EXECUTIONS

3.1 EXAMINATION

C. Examine areas indicated to receive paving, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Vacuum clean concrete substrates to remove dirt, dust, debris, and loose particles.

C. Remove substances, from concrete substrates, that could impair mortar bond, including curing and sealing compounds, form oil, and laitance.

E. Proof-roll prepared subgrade surface to check for unstable areas and areas requiring additional compaction. Proceed with unit paver installation only after deficient subgrades have been corrected and are ready to receive subbase for unit pavers.

3.3 PAVER INSTALLATION, GENERAL

A. Initiation of paver placement shall be deemed to represent acceptance of the pavers.

B. Pavers shall be free of foreign material before installation.

C. Pavers shall be inspected for color distribution and all chipped, damaged or discolored pavers shall be replaced.

D. The pavers shall be laid in the pattern(s) as shown on the drawings. String lines or chalk lines on bedding sand should be used to hold all pattern lines true.

E. Joints between the pavers on average shall be between 1/16 in. and 1/8 in. (2 mm to 4 mm) wide. In order to maintain the desired pattern, joint spacing must be consistent. This spacing must also be provided for the first row abutting the edge restraint.

F. Note: Installing pavers too tightly may lead to chipping at the edges.

G. Gaps at the edges of the paved area shall be filled with cut pavers.

H. Pavers to be placed along the edge shall be cut with a masonry saw only.

I. Note: The use of infill concrete or discontinuities in patterns will not be permitted except along the outer pavement boundaries, adjacent to drains and manholes.

J. Upon completion of cutting, the area must be swept clean of all debris to facilitate inspection and to ensure pavers are not damaged during compaction. (Debris or sand particles left on pavers which are being compacted can cause point loading which may chip, scrape or break the paver.)

K. Dry joint sand shall be swept into the joints until the joints are full. This will require at least two or three passes with the compactor. Do not compact within 3 ft. (1 m) of the unrestrained edges of the paving units.

L. Excess joint sand shall be swept off when the job is complete.

3.4 BITUMINOUS SETTING BED APPLICATIONS

A. Apply primer to concrete slab or binder course immediately before placing setting bed.

B. Prepare for setting-bed placement by locating 1-inch- deep control bars set parallel to one another, to serve as guides for striking board. Adjust bars to subgrades required for accurate setting of paving units to finished grades indicated.

C. Place bituminous setting bed where indicated, in panels, by spreading bituminous material between control bars. Strike setting bed smooth, firm, even, and not less than 1 inch thick. Add fresh bituminous material to low, porous spots after each pass of striking board. After each panel is completed, advance first control bar to next position in readiness for striking adjacent panels. Carefully fill depressions that remain after removing depth-control bars.

1. Roll setting bed with power roller to a nominal depth of 1 inch while still hot. Adjust thickness as necessary to allow accurate setting of unit pavers to finished grades indicated.

2. Apply neoprene-modified asphalt adhesive to cold setting bed by squeegeeing or troweling. If troweled on, use trowel with serrations not exceeding 1/16 inch (1.6 mm). Proceed with setting of paving units only after adhesive is dry to the touch.

D. Place pavers carefully by hand in straight courses, maintaining accurate alignment and uniform top surface. Protect newly laid pavers with plywood panels on which workers can stand. Advance protective panels as work progresses, but maintain protection in areas subject to continued movement of materials and equipment to avoid creating depressions or disrupting alignment of pavers. If additional leveling of paving is required, and before treating joints, roll paving with power roller after sufficient heat has built up in the surface from several days of hot weather.

E. Joint Treatment: Place unit pavers with hand-tight joints. Fill joints with sand by sweeping over paved surface until joints are filled.

3.5 FIELD QUALITY CONTROL

A. Final elevations shall be checked for conformance to the drawings after removal of excess joint sand.

B. All surface and pavement structures shall be true to the lines and levels, grades, thickness and cross sections shown on the drawings. All pavements shall be finished to lines and levels to ensure positive drainage at all drainage outlets and channels. In no case shall the cross-fall of any portion of pavement be less than 2 percent. The final surface elevations shall not deviate more than 3/8 in. (10 mm) under a 10 ft. (3 m) long straight edge.

C. The surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

3.6 REPAIR, POINTING, CLEANING, AND PROTECTION

A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units as intended. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.

B. Cleaning: Remove excess neoprene tackcoat from exposed paver surfaces; wash and scrub clean.

PART 4 - PAYMENT

4.01 METHOD OF MEASUREMENT

A. The quantity of Special Provision Stone Pavers will be paid on a square foot (SF) basis to install the stone pavers in the designated locations within the limits shown on the plans.

4.02 BASIS OF PAYMENT

A. The accepted quantity of Special Provision Stone Pavers will be paid for at the Contract SF price. The stone pavers, neoprene tack coat, sand for joints, bituminous setting bed, edge restraints, and installation shall be paid for incidental to this pay item.

Payment will be made under:

Pay Item	Pay Unit
900.670 Special Provision Stone Pavers	SF

END OF SECTION

Appendix A

Contractors EEO Certification Form A-109

APPENDIX A

STATE OF VERMONT
AGENCY OF TRANSPORTATION

November, 1985
CA-109

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.

_____	_____	_____
Company	By	Title

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.

Appendix B

Debarment & Non-Collusion Affidavit CA-91

APPENDIX B

CA-91

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___

_____L.S.
(Name of Individual, Partnership or Corporation)

_____L.S.
(Signature of Official Authorized to Sign Contracts)

_____
(Notary Public)

_____L.S
(Name of Individual Signing Affidavit)

(My commission expires _____)

_____L.S
(Title of Individual Signing Affidavit)

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:

Appendix C

Required Contract Provisions for Federal-Aid Construction, FHWA Form 1273

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

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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 contacting 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.

* * * * *

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.

* * * * *

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.

* * * * *

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.

Appendix D

Standard Federal EEO Specifications, (Executive Order 11246)

CA-26

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 (%)
Entire State of Vermont:			
Vermont 003 Burlington, VT Non-SMSA Counties NH Coos; NH Grafton: NH Sullivan; VT Addison; VT Caledonia; VT Chitten- den; VT Essex; VT Frank- lin; VT Grand Isle; VT Lamoille; VT Orange; VT Orleans; VT Rutland; VT Washington; VT Windsor	Indefinite	0.8	6.9
Connecticut (Mass) 006 Hartford - New Haven Springfield, CT-MA Non-SMSA Counties CT Litchfield; CT Windham; MA Franklin; NH Cheshire; VT Windham	Indefinite	5.9	
New York 007 Albany - Schnec- tady - Troy, NY Non-SMSA Counties NY Clinton; NY Columbia; NY Essex; NY Fulton; NY Greene; NY Hamilton; NY Sohoharie; 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)

Appendix E

Certification of Federal Aid Contracts CA-163

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.

Appendix F

Vermont Minimum Labor & Truck Rates CA-101

APPENDIX F

CA101

Minimum Labor and Truck Rates
Under Title 19, Vermont Statutes
Annotated Section 18, as amended

April 3, 1997
Sheet 1 of 1

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:

Trucks, not Including Driver Water Level Body Capacity	Minimum Rates Per YD per Hr.
Trucks, Equipment Loaded	$1.65

Appendix G

Vermont Agency of Transportation Contractor Workforce Reporting Requirements CA-26A

VERMONT AGENCY OF TRANSPORTATION
CONTRACTOR WORKFORCE REPORTING REQUIREMENTS

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".

Appendix H

Disadvantaged Business Enterprise (DBE) Policy Contract Requirements CA-110

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 Civil Rights website.

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 VTrans Civil Rights website . 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 the VTrans Civil Rights website. 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.

APPENDIX I

VERMONT AGENCY OF TRANSPORTATION

GENERAL SPECIAL PROVISIONS

FOR ALL PROJECTS

GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS
2011 STANDARD SPECIFICATIONS

SECTION 101 – DEFINITIONS AND TERMS

1. 101.01 ABBREVIATIONS, is hereby modified by adding the following new abbreviation directly after “ABS”:

ACL	Advanced Certification List

2. 101.01 ABBREVIATIONS, is hereby further modified by adding the following new abbreviation directly after “ANSI”:

APL	Approved Products List

3. 101.01 ABBREVIATIONS, is hereby still further modified by adding the following new abbreviation directly after “CPM”:

CPPP	Corrugated Polypropylene Pipe

4. 101.02 DEFINITIONS, HOLIDAYS, is hereby modified by deleting the ninth row in the listing (for “Columbus Day”).

5. 101.02 DEFINITIONS, HOLIDAYS, is hereby further modified by adding the following as the twelfth row in the listing (directly after “Thanksgiving Day”):

Day After Thanksgiving	Fourth Friday in November

SECTION 103 – TAXES AND INSURANCE

6. 103.04 INSURANCE REQUIREMENTS, part (e) General Insurance Conditions, is hereby modified by deleting the second paragraph in its entirety.

SECTION 105 – CONTROL OF THE WORK

7. 105.03 PLANS AND WORKING DRAWINGS, part (a) Contract Plans, is hereby modified by deleting the second paragraph in its entirety.

8. 105.03 PLANS AND WORKING DRAWINGS, part (a) Contract Plans, is hereby further modified by deleting the first sentence of the third paragraph.

9. 105.03 PLANS AND WORKING DRAWINGS, part (a) Contract Plans, is hereby still further modified by adding the phrase “in an accessible format” at the end of the third paragraph.

10. 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 “Project Manager” in the twenty-third row (beginning “641”).

11. 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 “.”.

12. 105.16 LOAD RESTRICTIONS, part (a) General, is hereby modified by being deleted in its entirety and replaced with the following:

(a) General. All Contractors, subcontractors, suppliers, or others involved in any project-related activities shall comply with all legal load restrictions specified in Title 23 VSA § 1392 in the hauling of equipment or material on public roads, including that beyond the limits of the project. The application for and possession of any hauling or related permit will not relieve the Contractor or others involved in any project-related activities of any liability that may arise due to any damage resulting from the use or moving of equipment, vehicles, or any other project-related activity.

13. 105.16 LOAD RESTRICTIONS, part (b) Limitations or Use of Equipment and Vehicles, is hereby modified by being deleted in its entirety and replaced with the following:

(b) Limitations on Use of Equipment and Vehicles. Use of equipment and vehicles is subject to the following:

(1) No vehicle or equipment exceeding the load restrictions cited in Title 23 VSA § 1392 will be permitted on any structure as defined by the Engineer.

(2) The operation of any equipment or vehicle of such mass (weight) or any other project-related equipment loaded so as to cause damage to structures, the roadway, or to any other type of active construction will not be permitted, regardless of the limits set forth in Title 23.

(3) Hauling or operation of said vehicles or equipment over any permanent course of any bituminous pavement or any structure during active construction will not be permitted.

(4) No loads of any category will be permitted on a concrete pavement or concrete structure prior to expiration of the curing period and until the concrete reaches its specified 28-day compressive strength.

(5) Notwithstanding those restrictions above, the Contractor shall be responsible for any and all damages incurred to any public roadway as defined in Title 23 due to the use of any equipment or vehicles related to project activities.

14. 105.26 OPENING WASTE, BORROW, AND STAGING AREAS, part (f), is hereby corrected by deleting punctuation "." at the end of the paragraph.

SECTION 108 – PROSECUTION AND PROGRESS

15. 108.09 TEMPORARY SUSPENSION OF THE WORK, part (d) Seasonal Closure, is hereby modified by deleting the phrase "of the Engineer, and only under such conditions as specified therein" and replacing it with the phrase "from the Regional Construction Engineer".

16. 108.09 TEMPORARY SUSPENSION OF THE WORK, part (d) Seasonal Closure, is hereby further modified by adding the following:

Permission will only be granted for work which will result in a direct benefit to the State or the traveling public. Items which may be considered as a benefit include but are not limited to shorter Contract duration, a cost savings, increased safety for the traveling public, and an ability to ensure the quality of work. The Contractor shall request permission in writing, detailing what Contract items may be affected, a schedule of work, and the benefits to the State or traveling public.

17. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, subpart (8), is hereby modified by deleting the phrase “, delays in submittals, errors in submittals, and the Contractor’s means and methods of construction”.

18. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, subpart (9), is hereby modified by deleting the phrase “, including but not limited to the Contractor’s means and methods of construction”.

19. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, subpart (11), is hereby modified by being deleted in its entirety.

20. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, subpart (13), is hereby modified by adding the following as the first sentence:

Industry-wide material or supply shortages not reasonably anticipated by the Contractor at the time the Contract was entered.

21. 108.11 DETERMINATION OF EXTENSION OF CONTRACT TIME FOR COMPLETION, part (b) Determination of Contract Completion Date Extension, subpart (13), is hereby further modified by changing the word “Delay” to the word “Delays” at the beginning of the first sentence.

22. 108.12 FAILURE TO COMPLETE WORK ON TIME, part (c) Liquidated Damages; General; Days Charged, is hereby modified by deleting the DAILY CHARGE FOR LIQUIDATED DAMAGES FOR EACH WORKING DAY OF DELAY table in its entirety and replacing it with a new table as follows:

DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH WORKING DAY OF DELAY

Original Contract Amount		
From More Than ($)	To And Including ($)	Daily Charge Per Day of Delay ($)
0	500,000	1,200.00
500,000	1,000,000	1,300.00
1,000,000	1,500,000	1,400.00
1,500,000	3,000,000	1,800.00
3,000,000	5,000,000	2,300.00
5,000,000	10,000,000	3,500.00
10,000,000	20,000,000	5,900.00
20,000,000+	---------	10,700.00

SECTION 109 – MEASUREMENT AND PAYMENT

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

SECTION 203 – EXCAVATION AND EMBANKMENTS

24. 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.

25. 203.01 DESCRIPTION, is hereby further modified by adding the following new part (l):

    (l) 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.

26. 203.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

    PVC Plastic Pipe……710.06

27. 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.

28. 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).

29. 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.

30. 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.

31. 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.

32. 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.

33. 203.14 BASIS OF PAYMENT, is hereby corrected by adding a period at the end of the sixth paragraph.

34. 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:

Pay Item	Pay Unit
203.45 Test Borings	Meter (Linear Foot)

SECTION 310 – RECLAIMED STABILIZED BASE

35. 310.04 CONSTRUCTION, is hereby modified by deleting the phrase "or dust control" after the word "stabilizing" in the third paragraph.

36. 310.04 CONSTRUCTION, is hereby further modified by adding the following sentence to the third paragraph:

When a dust control agent is not exclusively specified on the Plans, water and/or Calcium Chloride shall be used as that agent to meet all requirements of this Section.

37. 310.10 BASIS OF PAYMENT, is hereby modified by adding the following as the fourth paragraph:

Calcium Chloride used for dust control after the reclamation will not be paid for directly, but will be considered incidental to the Reclaimed Stabilized Base item.

SECTION 406 – MARSHALL BITUMINOUS CONCRETE PAVEMENT

38. 406.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 406.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby modified by deleting footnote designation "(1)" after "Cold Feed Gradation" in the fourth row.

39. 406.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 406.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby further modified by adding the following as the fifth row:

Cold Feed % Fractured Face & Thin and Elongated Particles(1)	Day of initial paving and 1 per week(4)	ASTM D5821 ASTM D4791

40. 406.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 406.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby still further modified by deleting footnote 1 in its entirety and replacing it as follows:

    1 – "Fractured faces" (for gravel sources only). "Thin and elongated" of particles retained on the No. 4 (4.75 mm) sieve and above.

41. 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.

42. 406.05 BITUMINOUS MIXING PLANT AND TESTING, part (a) Requirements for All Plants, subpart (12) Testing Facilities, is hereby modified by adding the following as the fourth paragraph:

    The laboratory shall be equipped with a monitoring system readout that provides real-time access to active Agency project(s) production status. The system shall accumulate and provide the following information via digital display: Project name and number, truck number, ticket number, product description, and accumulated project daily quantity and load quantity accurate to the nearest metric ton (ton). The display shall be continually updated by the plant's recording system. Waivers may be considered for plants with production capacities not capable of exceeding 150 metric tons (tons) per hour.

43. 406.16 SURFACE TOLERANCE, is hereby modified by adding the phrase ", with the exception of all limited access highway on and off ramps," after the phrase "miscellaneous mix" in the second (last) sentence of the sixth (last) paragraph.

SECTION 490 – SUPERPAVE BITUMINOUS CONCRETE PAVEMENT

44. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby modified by deleting the fourth row (for "Dust Proportion") in its entirety and replacing it with the following:

Dust Proportion (Filler/Asphalt Ratio)	0.60 – 1.20 (Wet Sieve) (Dry Sieve for Production – Types IS and IIS: 0.50 – 1.20 Types IIIS, IVS, and VS: 0.50 – 1.00)

45. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby further modified by deleting the sixth row (for "Voids in Mineral Aggregate") in its entirety and replacing it with the following:

Voids in Mineral Aggregate (VMA)%	12.5 min.	13.5 min.	14.5 min	15.5 min.	16.5 min.	17.5 min.

46. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby still further modified by deleting the ninth row (for "Voids Filled With Asphalt") in its entirety.

47. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby still further modified by deleting footnotes (3), (4), and (5) in their entirety.

48. 490.03 COMPOSTION OF MIXTURE, part (b) Design Criteria, is hereby modified by deleting the heading "Voids Filled With Asphalt (VFA)" and the equation "VFA = 100 x ((VMA – V_a)/VMA)" in the second paragraph.

49. 490.03 COMPOSITION OF MIXTURE, part (c) Mix Design, is hereby modified by deleting the phrase ", and a single percentage for VFA" in the first sentence of the third paragraph.

50. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03C – PRODUCTION TESTING TOLERANCES is hereby modified by deleting the seventh (last) row (for "VFA") in its entirety.

51. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03C – PRODUCTION TESTING TOLERANCES is hereby further modified by deleting footnote 2 in its entirety.

52. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby modified by deleting footnote designation "(1)" after "Cold Feed Gradation" in the fourth row.

53. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby further modified by adding the following as the fifth row:

Cold Feed % Fractured Face & Thin and Elongated Particles(1)	Day of initial paving and 1 per week(4)	ASTM D5821 ASTM D4791

54. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03D – MINIMUM QUALITY CONTROL GUIDELINES, is hereby still further modified by deleting footnote 1 in its entirety and replacing it as follows:

1 – "Fractured faces" (for gravel sources only). "Thin and elongated" of particles retained on the No. 4 (4.75 mm) sieve and above.

55. 490.05 BITUMINOUS MIXING PLANT AND TESTING, part (a) Requirements for All Plants, subpart (12) Testing Facilities, is hereby modified by adding the following as the third paragraph:

The laboratory shall be equipped with a monitoring system readout that provides real-time access to active Agency project(s) production status. The system shall accumulate and provide the following information via digital display: Project name and number, truck number, ticket number, product description, and accumulated project daily quantity and load quantity accurate to the nearest metric ton (ton). The display shall be continually updated by the plant's recording system. Waivers may be considered for plants with production capacities not capable of exceeding 150 metric tons (tons) per hour.

56. 490.14 COMPACTION, part (c) Coring Protocol, is hereby corrected by deleting text "0" and replacing it with text ")" in the first sentence of the seventh paragraph.

57. 490.16 SURFACE TOLERANCE, is hereby modified by adding the phrase ", with the exception of all limited access highway on and off ramps," after the phrase "miscellaneous mix" in the second (last) sentence of the sixth (last) paragraph.

SECTION 501 – HPC STRUCTURAL CONCRETE

58. 501.03 CLASSIFICATION AND PROPORTIONING, TABLE 501.03A (Metric), is hereby modified by deleting the fourth column (with header "Max. Slump (mm)") in its entirety and replacing it with the following:

Max.[7] Slump (mm)

N/A
---

59. 501.03 CLASSIFICATION AND PROPORTIONING, TABLE 501.03A (Metric), is hereby further modified by adding the following footnote:

[7] The mix shall not exhibit segregation at the slump/spread used at placement. If the Engineer suspects there is segregation, the Engineer will require a slump/spread test be performed by the Contractor to visually observe the characteristics of the mix. If in the opinion of the Engineer the mix does exhibit segregation, the load will be rejected and subsequent load(s) shall be tested, at a minimum of 3 loads or until the problem is corrected.

If the Contractor needs a concrete with a slump greater than 200 mm, the Contractor shall propose to the Engineer to use an SCC mix, which shall be submitted to the Engineer for review and acceptance.

60. 501.03 CLASSIFICATION AND PROPORTIONING, TABLE 501.03A (English), is hereby modified by deleting the fourth column (with header “Max. Slump (in)”) in its entirety and replacing it with the following:

Max.[7] Slump (mm)

N/A
---

61. 501.03 CLASSIFICATION AND PROPORTIONING, TABLE 501.03A (English), is hereby corrected by deleting text “700 mm” and replacing it with text “28 inches” in footnote 4.

62. 501.03 CLASSIFICATION AND PROPORTIONING, TABLE 501.03A (English), is hereby further modified by adding the following footnote:

[7] The mix shall not exhibit segregation at the slump/spread used at placement. If the Engineer suspects there is segregation, the Engineer will require a slump/spread test be performed by the Contractor to visually observe the characteristics of the mix. If in the opinion of the Engineer the mix does exhibit segregation, the load will be rejected and subsequent load(s) shall be tested, at a minimum of 3 loads or until the problem is corrected.

If the Contractor needs a concrete with a slump greater than 8 inches, the Contractor shall propose to the Engineer to use an SCC mix, which shall be submitted to the Engineer for review and acceptance.

63. 501.03 CLASSIFICATION AND PROPORTIONING, ninth paragraph (beginning “A minimum of thirty (30)…”), is hereby corrected by deleting the phrase “1716 Barre-Montpelier Rd., Berlin, Vermont 05602” and replacing it with the phrase “2178 Airport Road Unit B, Berlin, Vermont 05641” in the second sentence.

64. 501.11 DEPOSITING CONCRETE UNDERWATER, part (a) General, subpart (1), is hereby corrected by deleting the phrase “1716 Barre-Montpelier Rd., Berlin, Vermont 05602” and replacing it with the phrase “2178 Airport Road Unit B, Berlin, Vermont 05641” in the second sentence of the second paragraph.

SECTION 505 - PILING

65. 505.09 BASIS OF PAYMENT, is hereby modified by adding the following pay item:

Pay Item	Pay Unit
505.12 Steel Piling, HP 250 x 85 (HP 10 x 57)	Meter (Linear Foot)

SECTION 506 – STRUCTURAL STEEL

66. 506.19 BOLTING AND CONNECTIONS, part (c) Installation, is hereby modified by deleting the tenth paragraph (Beginning "Bolts shall be tightened…") in its entirety and replacing it with the following:

    Bolts shall be tightened to develop a tension not less than 5 percent in excess of the minimum bolt tension specified in Table 506.19A. Bolts shall not be tightened to more than the maximum tension specified in Table 506.19A.

67. 506.19 BOLTING AND CONNECTIONS, part (c) Installation, is hereby further modified by deleting subparts (1) Calibrated Wrench Method, (2) Turn of the Nut Method, and (3) Torque Method in their entirety.

68. 506.19 BOLTING AND CONNECTIONS, part (c) Installation, subpart (4) Tension Control Assembly Method, is hereby modified by being re-designated as part (1).

69. 506.19 BOLTING AND CONNECTIONS, part (c) Installation, subpart (5) Direct Tension Indicator Method, is hereby modified by being re-designated as part (2).

70. 506.19 BOLTING AND CONNECTIONS, part (c) Installation, is hereby still further modified by deleting TABLE 506.19B (including associated paragraphs) in its entirety.

71. 506.19 BOLTING AND CONNECTIONS, part (d) Acceptance of Bolt Tensioning, is hereby modified by deleting the second and third sentences of the first paragraph.

72. 506.19 BOLTING AND CONNECTIONS, part (d) Acceptance of Bolt Tensioning, is hereby further modified by deleting the fourth, fifth, ninth, eleventh, and twelfth paragraphs in their entirety.

SECTION 507 – REINFORCING STEEL

73. 507.01 DESCRIPTION, is hereby modified by adding the phrase "of the level specified" after the phrase "bar reinforcement".

74. 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.

75. 507.02 MATERIALS, is hereby modified by deleting the sixth (final) entry in the Subsection listing.

76. 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.

77. 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.

78. 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.

79. 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.

80. 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.

81. 507.04 PROTECTION OF MATERIAL, is hereby still further modified by adding the following paragraph:

    Ends of Level II reinforcing steel where the mild steel is exposed shall be repaired in the following manner:

    (a) Cut ends of dual-coated reinforcing steel shall be coated with a two-part epoxy patching material as specified by the coating manufacturer. The materials and procedures shall be approved by the Engineer prior to the repairs being performed.

    (b) Cut ends of stainless clad reinforcing steel shall be epoxied and capped in accordance with the manufacturer’s recommendations with either stainless steel caps or plastic caps. Caps shall be sealed to prevent the intrusion of moisture.

82. 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 plastic. 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.

83. 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.

84. 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…").

85. 507.11 BASIS OF PAYMENT, is hereby modified by deleting the following pay items:

Pay Item	Pay Unit
507.15 Reinforcing Steel	Kilogram (Pound)
507.17 Epoxy Coated Reinforcing Steel	Kilogram (Pound)
507.18 Galvanized Reinforcing Steel	Kilogram (Pound)

86. 507.11 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

Pay Item	Pay Unit
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 509 – LONGITUDINAL DECK GROOVING

87. 509.03 CONSTRUCTION DETAILS, is hereby modified by deleting the last line of the second paragraph (beginning "Depth: 4 mm…") and replacing it with the following:

Depth: 6 mm (±2 mm)((1/4")(±1/16"))

SECTION 510 – PRESTRESSED CONCRETE

88. 510.12 INSTALLATION, part (a) Prestressed Concrete, subpart (2) Initial Post-tensioning, is hereby modified by deleting the first sentence in its entirety.

SECTION 516 – EXPANSION DEVICES

89. 516.01 DESCRIPTION, is hereby modified by adding the phrase ", or partially removing and modifying," after the word "installing".

90. 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.

91. 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.

92. 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:

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

SECTION 525 – BRIDGE RAILINGS

93. 525.02 MATERIALS, is hereby modified by adding the following as the third entry in the Subsection listing:

Structural Steel……714.02

94. 525.06 INSTALLATION, part (a) General, is hereby modified by adding the following as the sixth (last) paragraph:

Concrete railing shall receive an aesthetic finish in accordance with Subsection 501.16. Cracks in concrete railing shall be repaired by a method approved by the Engineer. Cracks in concrete greater than 0.25 mm (0.01 inch) may be cause for rejection.

95. 525.08 BASIS OF PAYMENT, is hereby modified by adding the phrase “for furnishing all forms, joint filler, admixtures, trial batches, and connection plates for approach railing terminal connectors; for satisfactory completion of any necessary repairs, surface finishing, and curing;” after the phrase “for all work necessary for verifying and adjusting post height and/or bolt spacing of existing posts;” in the second (last) sentence of the third paragraph.

96. 525.08 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Pay Item	Pay Unit
525.45 Bridge Railing, Galvanized Steel Tubing/ Concrete Combination	Meter (Linear Foot)

SECTION 531 – BRIDGE BEARING DEVICES

97. 531.04 FABRICATION, part (b) Surface Protection, is hereby corrected by deleting punctuation ",." at the end of the paragraph and replacing it with punctuation ".".

SECTION 540 – PRECAST CONCRETE

98. 540.02 MATERIALS, is hereby modified by deleting the fourteenth entry (beginning "Coated Bar Reinforcement…") in the Subsection listing.

99. 540.02 MATERIALS, is hereby further modified by adding the following as the twenty-ninth entry in the Subsection listing:

    Sheet Membrane Waterproofing, Preformed Sheet……726.11

100. 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.

101. 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.

102. 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

103. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric), is hereby modified by deleting footnote designation "*" in the first and fourth entries of the third row (for "Class A" concrete).

104. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric), is hereby further modified by deleting footnote "*" and associated text (beginning "* When this class of concrete…").

105. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric), is hereby still further modified by deleting the fourth (with header "Range in Slump (mm)") and fifth (with header "Air Cont. (%)") columns in their entirety and replacing them with the following:

Range* in Slump (mm)	Air Content (%)
---	7.0 ± 1.5
---	7.0 ± 1.5
---	7.0 ± 1.5
---	5.5 ± 1.5
---	5.5 ± 1.5
---	7.0 ± 1.5

106. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric), is hereby still further modified by adding the following footnote:

* The mix shall not exhibit segregation at the slump/spread used at placement. If the Engineer suspects there is segregation, the Engineer will require a slump/spread test be performed by the Contractor to visually observe the characteristics of the mix. If in the opinion of the Engineer the mix does exhibit segregation, the load will be rejected and subsequent load(s) shall be tested, at a minimum of 3 loads or until the problem is corrected.

If the Contractor needs a concrete with a slump greater than 200 mm, the Contractor shall propose to the Engineer to use an SCC mix, which shall be submitted to the Engineer for review and acceptance.

107. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric) is hereby still further modified by adding the following as the eighth (bottom) row with the included footnotes:

Controlled Density (Flowable) Fill	To be designed ***	To be designed ****	To be designed *****	10 min.	704.01 (Fine Aggregate)	0.85 max. ******	---

*** A mineral admixture may be used to replace a portion of the cement.

**** The minimum amount of water shall be used to produce the desirable flow for the intended use without showing segregation.

***** The slump (flowability) shall be such that material is able to completely fill the voids or area as needed without segregation.

******A minimum of 3 cylinders per test age required to constitute a test. If average strength at 28 days exceeds 115% of max. strength, then payment for Contract item 541.45 will be 85% of the Contract bid price.

108. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English), is hereby modified by deleting footnote designation "*" in the first and fourth entries of the third row (for "Class A" concrete).

109. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English), is hereby further modified by deleting footnote "*" and associated text (beginning "* When this class of concrete…").

110. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English), is hereby still further modified by deleting the fourth (with header "Range in Slump (in.)") and fifth (with header "Air Cont. (%)") columns in their entirety and replacing them with the following:

Range* in Slump (mm)	Air Content (%)
---	7.0 ± 1.5
---	7.0 ± 1.5
---	7.0 ± 1.5
---	5.5 ± 1.5
---	5.5 ± 1.5
---	7.0 ± 1.5

111. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English), is hereby still further modified by adding the following footnote:

* The mix shall not exhibit segregation at the slump/spread used at placement. If the Engineer suspects there is segregation, the Engineer will require a slump/spread test be performed by the Contractor to visually observe the characteristics of the mix. If in the opinion of the Engineer the mix does exhibit segregation, the load will be rejected and subsequent load(s) shall be tested, at a minimum of 3 loads or until the problem is corrected.

If the Contractor needs a concrete with a slump greater than 8 inches, the Contractor shall propose to the Engineer to use an SCC mix, which shall be submitted to the Engineer for review and acceptance.

112. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English) is hereby modified by adding the following as the eighth (bottom) row with the included footnotes:

Controlled Density (Flowable) Fill	To be designed ***	To be designed ****	To be designed *****	10 min.	704.01 (Fine Aggregate)	125 max. ******	---

*** A mineral admixture may be used to replace a portion of the cement.

**** The minimum amount of water shall be used to produce the desirable flow for the intended use without showing segregation.

***** The slump (flowability) shall be such that material is able to completely fill the voids or area as needed without segregation.

******A minimum of 3 cylinders per test age required to constitute a test. If average strength at 28 days exceeds 115% of max. strength, then payment for Contract item 541.45 will be 85% of the Contract bid price.

113. 541.10 PLACING CONCRETE, part (c) Placement Limitations, is hereby modified by adding the following paragraphs:

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.

If voids are discovered, the Engineer may direct the Contractor to submit a plan for filling the remaining voids. This work, including preparing and submitting the plan and filling any remaining voids, will be at the Contractor's expense.

114. 541.11 DEPOSITING CONCRETE UNDERWATER, part (a) General, subpart (1), is hereby corrected by deleting the phrase "1716 Barre-Montpelier Rd., Berlin, Vermont 05602" and replacing it with the phrase "2178 Airport Road Unit B, Berlin, Vermont 05641" in the second sentence of the second paragraph.

115. 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.

116. 541.20 BASIS OF PAYMENT, is hereby modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
541.45 Controlled Density (Flowable) Fill	Cubic Meter (Cubic Yard)

SECTION 580 – STRUCTURAL CONCRETE REPAIR

117. 580.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

Polymer Concrete Repair Material……780.05

118. 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.

119. 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.

120. 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.

121. 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.

122. 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.

123. 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.

124. 580.09 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
580.21 Polymer Concrete Repair Material	Cubic Meter (Cubic Yard)

SECTION 601 – CULVERTS AND STORM DRAINS

125. 601.02 MATERIALS, is hereby modified by adding the following as the sixth entry in the Subsection listing:

Corrugated Polypropylene Pipe……710.07

126. 601.07 JOINING PIPE, is hereby modified by adding the following new part (d) as follows:

(d) Corrugated Polypropylene Pipe. Corrugated Polypropylene pipe shall be joined by a system designed and approved by the pipe manufacturer. Couplings and fittings shall provide sufficient longitudinal strength to preserve pipe alignment and prevent separation at the joints.

127. 601.11 BASIS OF PAYMENT, is hereby modified by changing the end of the pay item number range for CPEP Elbow from 601.5999 to 601.5899.

128. 601.11 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

Payment will be made under:

Pay Item	Pay Unit
601.2800 to 601.2999 CPPP(SL)	Meter (Linear Foot)
601.5900 to 601.5999 CPPP Elbow	Each
601.7100 to 601.7199 CPPPES	Each

SECTION 608 – EQUIPMENT RENTAL

129. 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.

130. 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.

131. 608.04 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

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

SECTION 613 – STONE FILL, RIPRAP, AND SLOPE PAVING

132. 613.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

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

133. 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.

134. 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.

135. 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.

136. 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.

137. 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.

138. 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.

139. 613.06 BASIS OF PAYMENT, is hereby still further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
613.25 Gabion Wall	Cubic Meter (Cubic Yard)

SECTION 616 – CURBS AND GUTTERS

140. 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.

141. 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).

142. 616.14 METHOD OF MEASUREMENT, is hereby corrected by changing the word “portland” to “Portland” in the fifth (last) paragraph.

143. 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.

144. 616.15 BASIS OF PAYMENT, is hereby corrected by changing the word “portland” to “Portland” in the fourth paragraph.

145. 616.15 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
616.225 Repointing Granite Bridge Curb	Liter (Gallon)

SECTION 621 – TRAFFIC BARRIERS

146. 621.01 DESCRIPTION, is hereby modified by adding the phrase "repairing," after the phrase "removing,".

147. 621.02 MATERIALS, is hereby modified by adding the following as the fifth entry in the Subsection listing:

Wire Rope or Cable……713.03

148. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GURADRAIL 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.

149. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GURADRAIL OR GUIDE POSTS, is hereby further modified by deleting the first sentence of the second paragraph in its entirety and replacing it with the following:

Those sections in which height over an extensive portion of the section is greater than 760 mm (30 inches) or less than 675 mm (26 ½ inches) shall be adjusted to a nominal height of 735 mm ±25 mm (29 inches ± 1 inch).

150. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GUARDRAIL OR GUIDE POSTS, is hereby still 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.

151. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GURADRAIL 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.

152. 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.

153. 621.14 METHOD OF MEASUREMENT, is hereby further modified by adding the following as the sixth 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.

154. 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.

155. 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 seventh paragraph.

156. 621.15 BASIS OF PAYMENT, is hereby still further modified by adding the following pay items:

Payment will be made under:

Pay Item		Pay Unit
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
621.70	Guardrail Approach Section, Galvanized Type I	Each
621.71	Guardrail Approach Section, Galvanized Type II	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
621.737	Guardrail Approach Section, Galvanized HD Steel Beam	Each
621.738	Guardrail Approach Section, Galvanized HD Steel Beam w/2.4 m (8 feet) Posts	Each
621.748	Guardrail Approach Section to Concrete Combination Bridge Railing, TL-3	Each

SECTION 630 – UNIFORMED TRAFFIC OFFICERS AND FLAGGERS

157. 630.03 CLOTHING AND EQUIPMENT, part (b) For Flaggers, subpart (1), is hereby modified by replacing the phrase "ANSI 107-1999" with the phrase "ANSI 107-2004" in the first sentence.

158. 630.03 CLOTHING AND EQUIPMENT, part (d) For All Traffic Control Personnel, subpart (2), is hereby modified by deleting the word "The" and replacing it with the phrase "When deemed necessary by the Engineer, or when noted in the Plans, the" at the beginning of the first sentence.

SECTION 641 - TRAFFIC CONTROL

159. 641.02 GENERAL CONSTRUCTION REQUIREMENTS, is hereby modified by adding the phrase “implement that plan or” after the phrase “the Contractor may” in the first sentence of the fourth paragraph.

160. 641.02 GENERAL CONSTRUCTION REQUIREMENTS, is hereby further modified by adding the following as the second sentence of the fourth paragraph:

When the Contractor will implement an Agency-designed traffic control plan, written certification shall be submitted to the Engineer indicating that traffic control will be performed in accordance with the Agency design.

161. 641.02 GENERAL CONSTRUCTION REQUIREMENTS, is hereby still further modified by changing the word “This” to the word “An” in the second sentence of the fourth paragraph.

162. 641.02 GENERAL CONSTRUCTION REQUIREMENTS, is hereby still further modified by adding the following paragraph:

When the Contract Documents specify that a site-specific traffic control plan be submitted by the Contractor, Construction Drawings shall be submitted in accordance with Section 105. The submitted site-specific plan shall include, for each phase of construction requiring a significant change in temporary traffic control, a narrative description of the proposed temporary traffic control for each phase (including pedestrian accommodations where appropriate) and the major work activities to be completed in each phase; and a layout for each phase of construction showing existing lane configurations, existing traffic control devices (signs, signals, and pavement markings), driveways, ramps, and highway intersections, and the location of all proposed temporary traffic control devices, flaggers, and UTO’s. All pertinent dimensions, such as taper lengths, sign spacing, temporary lane widths, and distance(s) from existing traffic control devices shall be labeled.

163. 641.03 TRAFFIC CONTROL DEVICES, is hereby modified by deleting the phrase “have three (3) lines of eight (8) characters per line and conform to Section 6F.55 of the MUTCD” and replacing it with the phrase “be used with a maximum of two phases, each consisting of a maximum of 3 lines of 8 characters” in the sixth paragraph.

164. 641.03 TRAFFIC CONTROL DEVICES, is hereby further modified by deleting the phrase “requirements in Section 6F.56 of” and replacing it with the phrase “Portable Arrow Board requirements in” in the seventh paragraph.

SECTION 646 – RETROREFLECTIVE PAVEMENT MARKINGS

165. 646.02 MATERIALS, is hereby modified by deleting the Subsection listing in its entirety and replacing it with the following:

Polyurea Pavement Markings.....708.08(a)
Low VOC Chlorinated Rubber Traffic Paint.....708.08(b)
Low VOC Acetone Based Traffic Paint.....708.08(b)
Epoxy Paint.....708.08(c)
Waterborne Traffic Paint.....708.08(d)
Methyl-methacrylate Paint.....708.08(e)
Glass Beads.....708.09(a)
Premium Optics.....708.09(b)
Wet Recoverable and Wet Reflective Optics.....708.09(c)
Thermoplastic Pavement Markings, Type A.....708.10(a)
Thermoplastic Pavement Markings, Type B.....708.10(b)
Raised Pavement Markers, Type I.....708.11
Pavement Marking Tape, Type A.....708.12(a)
Pavement Marking Tape, Type B.....708.12(b)
Pavement Marking Tape, Type C.....708.12(c)
Pavement Marking Tape, Type D.....708.12(d)
Line Striping Targets.....708.13(a)
Raised Pavement Markers, Type II.....708.13(b)
Temporary Pavement Marking Tape.....708.13(c)
Pavement Marking Mask.....708.13(d)

166. 646.04 APPLICATION OF MARKINGS, GENERAL, part (a) Placement of Markings, is hereby modified by deleting the first paragraph in its entirety.

167. 646.04 APPLICATION OF MARKINGS, GENERAL, part (a) Placement of Markings, is hereby further modified by deleting the seventh paragraph in its entirety.

168. 646.04 APPLICATION OF MARKINGS, GENERAL, part (a) Placement of Markings, is hereby still further modified by deleting the word “interim” and replacing it with the phrase “permanent or temporary” in the first sentence of the eighth paragraph.

169. 646.04 APPLICATION OF MARKINGS, GENERAL, part (a) Placement of Markings, is hereby still further modified by adding the phrase “edgeline,” after the phrase “centerlines,” in the first sentence of the eighth paragraph.

170. 646.04 APPLICATION OF MARKINGS, GENERAL, part (a) Placement of Markings, is hereby still further modified by deleting the ninth paragraph in its entirety.

171. 646.04 APPLICATION OF MARKINGS, GENERAL, part (c) Weather Limitations, subpart (2), is hereby modified by being deleted in its entirety and replaced as follows:

(2) At the time of application of durable pavement markings, the pavement surface and ambient air temperatures shall be as per the manufacturer's published specified application temperatures, and the dew point shall be 5ºF or more below the ambient air temperature. If the manufacturer's published recommendations are unavailable, the pavement surface and ambient air temperatures shall be a minimum of 10°C (50°F).

172. 646.04 APPLICATION OF MARKINGS, GENERAL, part (c) Weather Limitations, subpart (3), is hereby modified by being the word "October" and replacing it with the word "November".

173. 646.04 APPLICATION OF MARKINGS, GENERAL, part (d) Layout and Control, subpart (1) Centerline Markings, is hereby modified by deleting the number "100" and replacing it with the phrase "the same width as the lines" in the fourth sentence of the first paragraph.

174. 646.04 APPLICATION OF MARKINGS, GENERAL, part (d) Layout and Control, subpart (1) Centerline Markings, is hereby further modified by deleting the second (last) paragraph in its entirety.

175. 646.04 APPLICATION OF MARKINGS, GENERAL, part (d) Layout and Control, subpart (2) Edgeline Markings, is hereby modified by deleting the second (last) paragraph in its entirety.

176. 646.04 APPLICATION OF MARKINGS, GENERAL, part (d) Layout and Control, subpart (3) Dotted Line, is hereby modified by deleting the second (last) paragraph in its entirety.

177. 646.06 PAINT PAVEMENT MARKINGS, is hereby modified by being re-named WATERBORNE AND LOW VOC CHLORINATED RUBBER AND ACETONE BASED PAINT PAVEMENT MARKINGS.

178. 646.06 WATERBORNE AND LOW VOC CHLORINATED RUBBER AND ACETONE BASED PAINT PAVEMENT MARKINGS, is hereby modified by changing the word "Retroflective" to "Retroreflective" in the first sentence of the first paragraph.

179. 646.06 WATERBORNE AND LOW VOC CHLORINATED RUBBER AND ACETONE BASED PAINT PAVEMENT MARKINGS, is hereby further modified by deleting the phrase "shall have a dry film thickness of 380 ±25 µm (15 ±1 mil) for paint, unless otherwise specified, and" in the third (last) sentence of the first paragraph.

180. 646.06 WATERBORNE AND LOW VOC CHLORINATED RUBBER AND ACETONE BASED PAINT PAVEMENT MARKINGS, is hereby still further modified by adding the following as the third paragraph:

The markings shall be applied at a rate to create a uniform wet film thickness of 558.8 µm (22 mils) with an allowable range of ±50.8 µm (±2 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 1.7 square meters per liter (70 square feet per gallon) with glass beads applied at a rate of 960 grams per liter (8.0 lb per gallon) of paint. The Contractor shall provide the Engineer and the Materials Section with the optic drop on rates of all optic materials and daily binder application rates.

181. 646.06 WATERBORNE AND LOW VOC CHLORINATED RUBBER AND ACETONE BASED PAINT PAVEMENT MARKINGS, is hereby still further modified by deleting the fourth and fifth (last) paragraphs in their entirety.

182. 646.07 DURABLE PAVEMENT MARKINGS, is hereby modified by adding the following as the third sentence of the first paragraph:

Durable pavement markings shall be installed within two weeks of the placement of the wearing course.

183. 646.07 DURABLE PAVEMENT MARKINGS, is hereby further modified by changing punctuation at the end of the third sentence of the first paragraph from “:” to “.”.

184. 646.07 DURABLE PAVEMENT MARKINGS, is hereby still further modified by adding the following at the end of the first paragraph:

The Contractor shall select optics that conform with Subsections 708.09(a), 708.09(b), and 708.09(c). The Contractor shall provide the Engineer and the Materials Section with the daily optic drop on rates of all optic materials and daily binder application rates. The Contractor shall perform all quality control activities and provide to the Engineer on a daily basis all retroreflectivity measurements collected. The Agency will perform all acceptance testing activities. The Engineer will select an evaluation section(s) for the purpose of collecting pavement marking retroreflectivity measurements. Retroreflectivity measurements shall be performed in accordance with ASTM D7585, as modified by Table 646.07A.

TABLE 646.07A – EVALUATION SECTION CRITERIA

PAVEMENT MARKING TYPE	EVALUATION SECTION(S) REQUIRED*	EVALUATION SECTION LENGTH m (feet)	MEASUREMENTS REQUIRED
Long Lines	1 per 3.2 km (2 miles)	120 (400)	20
Dashed Lines	1 per 3.2 km (2 miles)	120 (400)	20 (2 per dashed line)

*Projects less than 3.2 km (2 miles) in length shall have a minimum of one (1) evaluation section.

Each spot measurement for all yellow centerline retroreflectivity shall be performed in both directions at each spot location and averaged for acceptance. For long lines and dashed lines, if the average retroreflectivity as determined in accordance with ASTM D7585 fails to meet the minimum retroreflectivity requirements, or if 25% of the individual tests fail to meet the minimum retroreflectivity requirements, the entire length represented by the evaluation section shall be re-marked and re-tested until in compliance, at no additional cost to the Agency.

185. 646.07 DURABLE PAVEMENT MARKINGS, part (a) Pavement Marking Tape, Type I, is hereby modified by being deleted in its entirety and replaced as follows:

(a) Pavement Marking Tape, Type A. Type A tape for pavement markings is classified as high performance or high durable, and non-removable. Type A tape shall conform to the requirements of Subsection 708.12(a).

Type A tapes, when used as a final durable marking, shall be applied only by being inlaid in the bituminous pavement during the rolling operation or in a recess as defined in Subsection 646.09, and shall be applied in accordance with the manufacturer's requirements. Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

186. 646.07 DURABLE PAVEMENT MARKINGS, part (b) Epoxy Paint, is hereby modified by being re-designated as part (e).

187. 646.07 DURABLE PAVEMENT MARKINGS, part (c) Thermoplastic, is hereby modified by being re-designated as part (f) Extruded Thermoplastic.

188. 646.07 DURABLE PAVEMENT MARKINGS, part (d) Polyurea Paint, is hereby modified by being re-designated as part (h).

189. 646.07 DURABLE PAVEMENT MARKINGS, part (e) Methyl-methacrylate Paint, is hereby modified by being re-designated as part (i).

190. 646.07 DURABLE PAVEMENT MARKINGS, is hereby further modified by adding the following new parts (b), (c), and (d):

(b) Pavement Marking Tape, Type B. Type B tape for pavement markings is classified as non-removable, used in long line applications. Type B tape shall conform to the requirements of Subsection 708.12(b).

Type B tapes, when used as a final durable marking, shall be applied only by being inlaid in the bituminous pavement during the rolling operation or in a recess as defined in Subsection 646.09, and shall be applied in accordance with the manufacturer's requirements. Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

(c) Pavement Marking Tape, Type C. Type C tape for pavement markings is classified as non-removable, used in intersection applications. Type C tape shall conform to the requirements of Subsection 708.12(c).

Type C tapes, when used as a final durable marking, shall be applied only by being inlaid in the bituminous pavement during the rolling operation or in a recess as defined in Subsection 646.09, and shall be applied in accordance with the manufacturer's requirements.

(d) Pavement Marking Tape, Type D. Type D tape for pavement markings is classified as non-removable, used for symbols and legends applications. Type D tape shall conform to the requirements of Subsection 708.12(d).

Type D tapes, when used as a final durable marking, shall be applied only by being inlaid in the bituminous pavement during the rolling operation or in a recess as defined in Subsection 646.09, and shall be applied in accordance with the manufacturer's requirements. Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

191. 646.07 DURABLE PAVEMENT MARKINGS, part (e) Epoxy Paint, is hereby modified by deleting the fifth (last) sentence in its entirety.

192. 646.07 DURABLE PAVEMENT MARKINGS, part (e) Epoxy Paint, is hereby further modified by adding the following sentences:

Epoxy paint shall be applied at a rate to create a uniform wet film in place thickness of 558.8 µm (22 mils) with an allowable range of ±50.8 µm (±2 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 1.7 square meters per liter (70 square feet per gallon). Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

193. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, is hereby modified by replacing the phrase "708.10" with the phrase "708.10(a)" at the end of the first paragraph.

194. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, is hereby further modified by adding the following as the third paragraph:

Thermoplastic markings shall be applied at a rate to create a uniform hot film in place thickness of 2667 µm (105 mils) with an allowable range of ± 127 µm (±5 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 0.36 square meters per liter (15 square feet per gallon).

195. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (1) Thermoplastic Application Equipment, a. Mobile Applicator Equipment, is hereby modified by deleting the phrase ", between 2.4 and 2.5 mm (96 and 100 mils) thick" and replacing it with the phrase "with a uniform hot film in place thickness of 2667 µm (105 mils), with an allowable range of ± 127 µm (±5 mils)" in the second sentence of the second paragraph.

196. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (1) Thermoplastic Application Equipment, b. Portable Applicator Equipment, is hereby modified by deleting the phrase "between 2 and 2.5 mm (80 and 100 mils) thick" and replacing it with the phrase "with a uniform hot film in place thickness of 2667 µm (105 mils) with an allowable range of ± 127 µm (±5 mils)" in the fourth sentence.

197. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, b. Thermoplastic Composition, is hereby modified by replacing the phrase “708.10” with the phrase “708.10(a)”.

198. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, d. Extruded Markings, is hereby modified by deleting the phrase “thickness between 2.4 and 2.5 mm (96 and 100 mils)” and replacing it with the phrase “uniform hot film in place thickness between 2.54 and 2.794 mm (100 and 110 mils)”.

199. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, e. Beads, is hereby modified by being re-named Optics.

200. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, e. Optics, subpart 1., is hereby modified by adding the phrase “shall be” after the phrase “Type I”.

201. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, e. Optics, subpart 1., is hereby further modified by adding the phrase “intermix of the” after the phrase “incorporated into the”.

202. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, e. Optics, subpart 1., is hereby still further modified by deleting the numbers “28” and “30” and replacing them with the numbers “30” and “40”, respectively.

203. 646.07 DURABLE PAVEMENT MARKINGS, part (f) Extruded Thermoplastic, subpart (2) Application Requirements, e. Optics, subpart 2., is hereby modified by being deleted in its entirety and replaced as follows:

> 2. Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

204. 646.07 DURABLE PAVEMENT MARKINGS, is hereby still further modified by adding the following new part (g):

(g) Preformed Thermoplastic. Approved preformed thermoplastic marking materials shall be one of the preformed thermoplastic markings listed on the Approved Products List on file with the Agency's Research and Development Section under Subsection 708.10(b).

205. 646.07 DURABLE PAVEMENT MARKINGS, part (h) Polyurea Paint, is hereby modified by deleting the second sentence in its entirety.

206. 646.07 DURABLE PAVEMENT MARKINGS, part (h) Polyurea Paint, is hereby further modified by adding the following sentences:

Polyurea paint shall be applied at a rate to create a uniform wet film in place thickness of 558.8 µm (22 mils) with an allowable range of ±50.8 µm (±2 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 1.7 square meters per liter (70 square feet per gallon). Initial dry retroreflectivity minimums for surface-applied polyurea shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings. Initial dry retroreflectivity minimums for recessed polyurea shall be 600 mcdl/lx/m^2 for yellow markings and 800 mcdl/lx/m^2 for white markings.

207. 646.07 DURABLE PAVEMENT MARKINGS, part (i) Methyl-methacrylate Paint, is hereby modified by deleting the second sentence in its entirety.

208. 646.07 DURABLE PAVEMENT MARKINGS, part (i) Methyl-methacrylate Paint, is hereby further modified by adding new subpart (1) as follows:

(1) Application Requirements.

a. Spray Applied Markings. All spray applied markings shall be applied at a rate to create a uniform wet film in place thickness of 762 µm (30 mils) with an allowable range of ±50.8 µm (±2 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 1.4 square meters per liter (55 square feet per gallon). Initial dry retroreflectivity minimums for surface spray applied methyl-methacrylate shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings. Initial dry retroreflectivity minimums for recessed methyl-methacrylate shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

b. Extruded Markings. All extruded markings shall be applied at a rate to create a uniform wet film in place thickness of 2286 µm (90 mils) with an allowable range of ±127 µm (±5 mils) unless otherwise specified in the Contract Documents. Minimum application rates are 0.45 square meters per liter (18.3 square feet per gallon). Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

c. Structured Markings. All structured markings shall be applied at a rate to create a uniform wet film in place thickness as per the manufacturer's recommendations unless otherwise specified in the Contract Documents. Initial dry retroreflectivity minimums shall be 300 mcdl/lx/m^2 for yellow markings and 400 mcdl/lx/m^2 for white markings.

209. 646.08 TEMPORARY PAVEMENT MARKINGS, is hereby modified by deleting the phrase "Type II" (first entry) and replacing it with the phrase "Temporary Pavement Marking" in the first sentence.

210. 646.08 TEMPORARY PAVEMENT MARKINGS, part (a) Pavement Marking Tape, Type II, is hereby modified by being re-named Temporary Pavement Marking Tape.

211. 646.08 TEMPORARY PAVEMENT MARKINGS, part (a) Temporary Pavement Marking Tape, is hereby modified by deleting the first sentence in its entirety and replacing it as follows:

This tape for pavement markings is classified as temporary and is removable.

212. 646.08 TEMPORARY PAVEMENT MARKINGS, part (a) Temporary Pavement Marking Tape, second sentence, is hereby modified by deleting the phrase "Type II" and replacing it with the word "The" and by deleting the phrase "Subsection 708.12(b)" and replacing it with the phrase "Subsection 708.13(c)".

213. 646.08 TEMPORARY PAVEMENT MARKINGS, part (b) Pavement Marking Mask, is hereby modified by deleting the phrase "Subsection 708.12(c)" and replacing it with the phrase "Subsection 708.13(d)" in the second sentence.

214. 646.08 TEMPORARY PAVEMENT MARKINGS, part (c) Raised Pavement Markers, Type II, is hereby modified by adding the following sentence to the second (last) paragraph:

They shall conform to the requirements of Subsection 708.13(b) and shall be installed in accordance with the manufacturer's requirements.

215. 646.08 TEMPORARY PAVEMENT MARKINGS, part (d) Line Striping Targets, is hereby modified by being deleted in its entirety and replaced as follows:

(d) Line Striping Targets. Line striping targets are intended to be substitutes for pavement markings for not longer than 14 calendar days. Line striping targets shall be maintained and replaced as needed or as directed by the Engineer, until replaced by a temporary or permanent pavement marking.

Line striping targets of the color shown on the Plans or directed by the Engineer shall be installed as described below or as directed by the Engineer.

For solid longitudinal pavement markings, line striping targets shall be placed at 3 m (10 foot) intervals. For double centerline markings, line striping targets shall be paired. For dashed pavement markings, line striping targets shall be placed in groups of 3 spaced at 1.5 m (5 feet), with the groups separated by 10 m (30 foot) spaces, or as determined by the Engineer.

Line striping targets shall not be used to delineate passing zones on two lane non-divided highways.

Line striping targets shall conform to the requirements of Subsection 708.13(a) and shall be installed in accordance with the manufacturer's requirements.

216. 646.08 TEMPORARY PAVEMENT MARKINGS, is hereby further modified by deleting the first sentence of the last paragraph in its entirety and replacing it as follows:

Temporary markings on the wearing course of pavement that remain in place for fewer than fourteen calendar days shall be Temporary Pavement Marking Tape, Type II raised pavement markers, or line striping targets.

217. 646.08 TEMPORARY PAVEMENT MARKINGS, is hereby still further modified by deleting the word “seven” and replacing it with the word “fourteen” in the second (last) sentence of the last paragraph.

218. 646.09 OTHER RELATED MARKINGS, part (a) Pavement Marking Recess, is hereby modified by deleting the phrase “provided is 125% of the material marking thickness” and replacing it with the phrase “meets the requirements of Table 646.09A” in the first sentence.

219. 646.09 OTHER RELATED MARKINGS, part (a) Pavement Marking Recess, is hereby further modified by deleting the last sentence in its entirety.

220. 646.09 OTHER RELATED MARKINGS, part (a) Pavement Marking Recess, is hereby still further modified by adding the following paragraphs and Table:

The bottom of the recess shall have a smooth, flat finished surface. The use of gang stacked Diamond cutting blades is required for asphalt pavement surfaces. The spacers between blade cuts shall be such that there will be less than a 254 µm (10 mil) rise in the finished groove between the blades.

Recesses shall be clean, dry, and free of laitance, oil, dirt, grease, paint, or other foreign contaminants prior to application of the pavement markings. The Contractor shall re-clean grooves, as necessary, prior to application of any primer or permanent markings. Depth plates shall be provided by the Contractor to assure that desired groove depth is achieved.

TABLE 646.09A – PAVEMENT MARKING RECESS DEPTH

MARKING MATERIAL	STANDARD GLASS BEAD RECESS DEPTH µm (mils)	PREMIUM OPTIC RECESS DEPTH µm (mils)
Permanent Waterborne Paint	762-1016 (30-40)	762-1016 (30-40)
Spray Applied Methyl-methacrylate	1016-1270 (40-50)	1778-2286 (70-90)
Extruded Methyl-methacrylate	2540-2794 (100-110)	2540-2794 (100-110)*
Structured Methyl-methacrylate	As recommended by manufacturer	As recommended by manufacturer*
Thermoplastic	2540-2794 (100-110)	2540-2794 (100-110)*
Polyurea	762-1270 (30-50)	1778-2286 (70-90)
Epoxy	762-1270 (30-50)	1778-2286 (70-90)
Permanent Tape	As recommended by manufacturer	As recommended by manufacturer
*Thermoplastic and Methyl-methacrylate with wet recoverable or wet reflective elements shall have a recess depth of 3048-3302 µm (120-130 mils).		

221. 646.14 BASIS OF PAYMENT, part (a) Paint Pavement Markings, is hereby modified by adding the following pay item ranges:

646.200 to 646.209 100 mm (4 inch) White Line	Meter (Linear Foot)
646.2110 to 646.2119 100 mm (4 inch) Yellow Line	Meter (Linear Foot)
646.2140 to 646.2149 150 mm (6 inch) White Line	Meter (Linear Foot)
646.2150 to 646.2159 150 mm (6 inch) Yellow Line	Meter (Linear Foot)
646.221 to 646.229 200 mm (8 inch) White Line	Meter (Linear Foot)
646.231 to 646.239 200 mm (8 inch) Yellow Line	Meter (Linear Foot)
646.241 to 646.249 300 mm (12 inch) White Line	Meter (Linear Foot)
646.251 to 646.259 300 mm (12 inch) Yellow Line	Meter (Linear Foot)
646.261 to 646.269 600 mm (24 inch) Stop Bar	Meter (Linear Foot)
646.300 to 646.309 Letter or Symbol	Each
646.311 to 646.319 Crosswalk Marking	Meter (Linear Foot)
646.321 to 646.329 Railroad Crossing Symbol	Each

SECTION 653 – EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

222. 653.15 BIOTECHNICAL SLOPE PROTECTION, part (a) Erosion Logs, is hereby modified by being deleted in its entirety and replaced with the following:

(a) Erosion Logs. Erosion logs shall be installed to intercept water flow and collect sediment and associated pollutants by settling and filtering. Erosion logs may be placed over bare or mulched soils or rolled erosion control products; around inlet and outlets; as check dams in unvegetated ditches, slope interrupters on steep slopes, and perimeter control; and along stream banks as a base for plantings. Some types of erosion logs (typically those with a heavier filtering medium such as compost) can be used in applications where underlying conditions are unsuitable (frozen ground, paved surfaces, sensitive plantings areas, etc.) for trenching.

Prior to placing erosion logs, the ground surface shall be properly graded and compacted and free of depressions or obstructions such as tree roots, protruding stones, or other foreign matter.

Erosion logs shall be installed in accordance with the manufacturer's installation guidelines, staking pattern guide, and details based upon the intended use on the construction site.

The Contractor shall remove accumulated sediment when it has reached 1/2 of the effective height of the log, or as directed by the Engineer. Alternatively, a new erosion log may be placed on top of and slightly behind the original one creating more sediment storage capacity. Erosion logs shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.

When used as a temporary erosion prevention and sediment control measure, erosion logs may be cut open and left in place, but only if the fill material and netting are 100% biodegradable and the material is spread or graded flat so as to not cause concentration of future surface runoff.

SECTION 656 – PLANTING TREES, SHRUBS, AND VINES

223. 656.02 MATERIALS, is hereby modified by deleting the first entry in the Subsection listing (for "Barrier Fence") in its entirety.

224. 656.02 MATERIALS, is hereby further modified by adding the following as the second paragraph (directly below the Subsection listing):

Barrier Fence shall meet the requirements of Section 653.

SECTION 677 – OVERHEAD TRAFFIC SIGN SUPPORTS

225. 677.01 DESCRIPTION, is hereby modified by adding the phrase "and removing and disposing of existing overhead traffic sign supports," after the phrase "supports,".

226. 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.

227. 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.

228. 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:

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

SECTION 678 – TRAFFIC CONTROL SIGNALS

229. 678.01 DESCRIPTION, is hereby modified by adding the phrase “, and removing existing traffic control systems” after the word “system” in the first paragraph.

230. 678.02 MATERIALS, is hereby corrected by deleting “convers” and replacing it with the word “covers” in the second sentence of the last paragraph of the Subsection text.

231. 678.07 – DETECTORS AND CONTROLLERS, is hereby corrected by deleting “maufacturer” and replacing it with the word “manufacturer” in the first sentence of the second (last) paragraph.

232. 678.11 INSTALLATION, sixteenth paragraph, part (a), is hereby modified by adding the following:

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

233. 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.

234. 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.

235. 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:

Pay Item	Pay Unit
678.45 Removal of Existing Traffic Control Signal System	Each

SECTION 700 GENERAL

236. 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 “.”.

237. 700.02 MATERIALS CERTIFICATIONS, part (a) General, is hereby modified by deleting subpart (3) in its entirety.

238. 700.02 MATERIALS CERTIFICATIONS, part (a) General, is hereby further modified by adding the following as the seventh paragraph:

All certifications shall be forwarded to the Vermont Agency of Transportation Materials Section.

SECTION 702 – BITUMINOUS MATERIALS

239. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (a) Properties, is hereby modified by adding the abbreviation “(PGB)” after the word “binder” in the first sentence.

240. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (a) Properties, is hereby further modified by deleting the second sentence of the first paragraph in its entirety and replacing it with the following:

PGB shall be asphalt prepared solely by the refining of crude petroleum and shall meet the requirements of AASHTO M 320 from facilities compliant with AASHTO R 29 without the addition of modifiers.

241. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (a) Properties, is hereby still further modified by adding the following as the third and fourth (last) sentences of the second paragraph:

If additives are used for the modification of asphalt, preapproval is required. The addition of any material not normally obtained during the initial refining process shall constitute modified asphalt and shall be labeled appropriately.

242. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (a) Properties, is hereby still further modified by adding the following as the third (last) paragraph:

The performance graded binder shall be manufactured in accordance with the approved Quality Control Plan. The manufacturer shall remain in compliance with the plan, including all notifications, sampling, testing, and reporting requirements.

243. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (b) Pretest, is hereby modified by being re-designated as part (c).

244. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), part (c) Certification, is hereby modified by being re-designated as part (d).

245. 702.02 PERFORMANCE-GRADED ASPHALT BINDER (PREPARED FROM PETROLEUM), is hereby modified by adding the following new part (b):

(b) Effect of Approval. VTrans reserves its right to remove its approval of any PGB lot if, in the sole discretion of the Agency, such approval was based on a material non-disclosure by the PGB supplier.

SECTION 704 – AGGREGATES

246. 704.10 AGGREGATE FOR BITUMINOUS CONCRETE PAVEMENT, part (a) Aggregate for Marshall Bituminous Concrete Pavement, subpart (1) Grading, c. Recycled Asphalt Pavement (RAP), is hereby modified by deleting the word “four” and replacing it with the word “two” in the seventh sentence of the fifth paragraph.

247. 704.10 AGGREGATE FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (1) Grading, c. Recycled Asphalt Pavement (RAP), is hereby modified by deleting the word “four” and replacing it with the word “two” in the seventh sentence of the sixth paragraph.

SECTION 708 – PAINTS, STAINS, AND TRAFFIC MARKING MATERIALS

248. 708.01 GENERAL REQUIREMENTS, part (c) Sampling, Testing, and Certification, subpart (2) Testing, is hereby modified by adding the following:

All other materials may be required to be tested on a cold weather AASHTO National Transportation Product Evaluation Program (NTPEP) pavement marking test deck.

249. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, is hereby modified by adding the following as the first paragraph:

Ready-mixed Low VOC Chlorinated Rubber Traffic Paint shall consist of 100% chlorinated rubber type, fast drying traffic paint that shall contain properly formulated pigment and vehicle to give the desired results.

250. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (1) Materials, is hereby modified by adding the following new subpart d.:

d. The paint shall contain a maximum of 0.005% w/w (50 ppm w/w) lead. The EPA Method 1311 (TCLP) extract of the paint shall not contain amounts of cadmium, mercury, hexavalent chromium, or other toxic heavy metals in excess of the limits specified in SW-846.

251. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (2) Composition, is hereby modified by deleting the phrase “and shall be a 100% acrylic binder” in the first sentence.

252. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (2) Composition, is hereby further modified by deleting the phrase “Table 708.08A” and replacing it with the phrase “the following:” in the second (last) sentence.

253. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (2) Composition, is hereby still further modified by deleting TABLE 708.08A in its entirety and replacing it with the following:

TABLE 708.08A – LOW VOC CHLORINATED RUBBER TRAFFIC PAINT COMPOSITION

PERFORMANCE CHARACTERISTIC	WHITE	YELLOW/BLUE/ GREEN
Pigment Content, % by Mass (Weight) (ASTM D3723)	55% min. 59% max.	55% min 59% max.
Vehicle Content, % by Mass (Weight)	38% min. 42% max.	38% min. 42% max.
VOC Content, Mass (Weight) per Unit Volume (ASTM D3960)	150 g/L (1.25 lb/gal) max.	150 g/L (1.25 lb/gal) max.
Lead Content, %	0.005% max.	0.005% max.
Yellow Pigment	N/A	Yellow #65 or #75
Titanium Dioxide, Rutile Type II, (ASTM D1394)	120 g/L (1.00 lb/gal) max.	25 g/L (0.21 lb/gal) max.
Total Non-Volatile Content, % by Mass (Weight) (ASTM D2369)	70.0% min.	69.0% min.
Density, (ASTM D1475)	1.50 ± 0.04 kg/L (12.5 ± 0.33) lb/gal	1.46 ± 0.04 kg/L (12.2 +/- 0.33 lb/gal)
Close Cup Flash Point (ASTM D 3278)	4°C (39 °F) min.	4°C (39°F) min.

TABLE 708.08B – LOW VOC ACETONE BASED TRAFFIC PAINT COMPOSITION

PERFORMANCE CHARACTERISTIC	WHITE	YELLOW/BLUE/ GREEN
Pigment Content, % by Mass (Weight) (ASTM D3723)	53% min. 57% max.	51% min 56% max.
Vehicle Content, % by Mass (Weight)	37% min. 42% max.	37% min. 42% max.
VOC Content, Mass (Weight) per Unit Volume (ASTM D3960)	150 g/L (1.25 lb/gal) max.	150 g/L (1.25 lb/gal) max.
Lead Content, %	0.005% max.	0.005% max.
Yellow Pigment	N/A	Yellow #65 or #75
Titanium Dioxide, Rutile Type II, (ASTM D1394)	120 g/L (1.00 lb/gal) max.	25 g/L (0.21 lb/gal) max.
Total Non-Volatile Content, % by Mass (Weight) (ASTM D2369)	70.0% min.	69.0% min.
Density, (ASTM D1475)	1.415 ± 0.04 kg/L (11.8 ± 0.33) lb/gal	1.367 ± 0.04 kg/L (11.4 +/- 0.33 lb/gal)
Close Cup Flash Point (ASTM D 3278)	-20°C (-4°F) min.	-20°C (-4°F) min.

254. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (3) Laboratory Tests, subpart a. Viscosity, is hereby modified by being deleted in its entirety and replaced as follows:

a. Viscosity.

1. Chlorinated Rubber Traffic Paint. The paint viscosity shall not be less than 74 nor more than 90 Krebs units at 25°C (77°F) when tested according to ASTM D562.

2. Acetone Based Traffic Paint. The paint viscosity shall not be less than 70 nor more than 88 Krebs units at 25°C (77°F) when tested according to ASTM D562.

255. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (4) Sampling and Testing, subpart a. Sampling Size, is hereby modified by deleting the phrase “per batch of each type and color of traffic paint” and replacing it with the phrase “of each traffic paint per batch,” in the first sentence.

256. 708.08 PAINT FOR PAVEMENT MARKINGS, part (b) Low VOC Traffic Paint, subpart (4) Sampling and Testing, subpart c. Sample Delivery, is hereby modified by deleting the first paragraph in its entirety and replacing it as follows:

> All samples shall be delivered to the Materials Engineer, Vermont Agency of Transportation, Materials Section, 2178 Airport Road Unit B, Berlin, Vermont 05641.

257. 708.08 PAINT FOR PAVEMENT MARKINGS, part (d) Waterborne Traffic Paint, subpart (3) Laboratory Tests, d. Drying Time (No Pick Up Time), is hereby modified by deleting the phrase “380 microns” and replacing it with the phrase “381 µm”.

258. 708.08 PAINT FOR PAVEMENT MARKINGS, part (d) Waterborne Traffic Paint, subpart (3) Laboratory Tests, e. No Track Time (Field Test), is hereby modified by deleting the phrase “508 microns” and replacing it with the phrase “508 µm” in the second sentence.

259. 708.08 PAINT FOR PAVEMENT MARKINGS, part (d) Waterborne Traffic Paint, subpart (4) Sampling and Testing, c. Sample Delivery, is hereby corrected by deleting the phrase “1716 Barre-Montpelier Road, Berlin, VT 05602” and replacing it with the phrase “2178 Airport Road Unit B, Berlin, Vermont 05641” in the first paragraph.

260. 708.09 GLASS BEADS, is hereby modified by being re-named OPTICS.

261. 708.09 OPTICS, is hereby modified by adding new part (a) heading Glass Beads.

262. 708.09 OPTICS, part (a) Properties, is hereby modified by being re-designated as subpart (1) under part (a) heading Glass Beads.

263. 708.09 OPTICS, part (b) Certification, is hereby modified by being re-designated as subpart (2) under part (a) heading Glass Beads.

264. 708.09 OPTICS, is hereby further modified by adding the following new parts (b) and (c):

(b) Premium Optics. Approved premium optics shall be one of the premium optics listed on the Approved Products List on file with the Agency’s Research and Development Section.

(c) Wet Recoverable and Wet Reflective Optics. Approved wet recoverable and wet reflective optics shall be one of the wet recoverable and wet reflective optics listed on the Approved Products List on file with the Agency’s Research and Development Section.

265. 708.10 THERMOPLASTIC PAVEMENT MARKINGS, is hereby modified by being deleted in its entirety and replaced as follows:

708.10 THERMOPLASTIC PAVEMENT MARKINGS.

(a) Thermoplastic Pavement Markings, Type A. Type A Thermoplastic Pavement Markings shall be one of the Thermoplastic Pavement Markings on the Approved Products List on file with the Agency's Research and Development Section. These markings shall be used in long line applications or as specified in the Contract Documents. Thermoplastic composition shall comply with Table 708.10A.

TABLE 708.10A – THERMOPLASTIC PAVEMENT MARKING COMPOSITION
(by mass (weight)

Binder	18% Minimum
Filler	40% Maximum
Glass Beads	30 ±5-40%

(b) Thermoplastic Pavement Markings, Type B. Type B Thermoplastic Pavement Markings shall be one of the Preformed Thermoplastic Pavement Markings on the Approved Products List on file with the Agency's Research and Development Section. These markings shall be used in intersection applications for legends, stopbars, or symbols or as specified in the Contract Documents.

266. 708.11 RAISED PAVEMENT MARKERS, is hereby modified by being re-named RAISED PAVEMENT MARKERS, TYPE I.

267. 708.12 PAVEMENT MARKING TAPE, is hereby modified by deleting parts (a) Pavement Marking Tape, Type I, (b) Pavement Marking Tape, Type II, and (c) Pavement Marking Mask in their entirety and replacing them as follows:

(a) Pavement Marking Tape, Type A. Type A Pavement Marking Tape shall be one of the non-removable permanent pavement marking tapes on the Approved Products List on file with the Agency's Research and Development Section that exhibit high adhesion, high durability, and high retroreflectivity. These markings shall be used in high AADT locations in long line applications as specified in the Contract Documents.

(b) Pavement Marking Tape, Type B. Type B Pavement Marking Tape shall be one of the non-removable pavement marking tapes on the Approved Products List on file with the Agency's Research and Development Section. These markings shall be used in lower AADT locations in long line applications as specified in the Contract Documents.

(c) Pavement Marking Tape, Type C. Type C Pavement Marking Tape shall be one of the non-removable pavement marking tapes on the Approved Products List on file with the Agency's Research and Development Section. These markings shall be used at intersection locations only as specified in the Contract Documents.

268. 708.12 PAVEMENT MARKING TAPE, is hereby further modified by adding the following new part (d):

(d) Pavement Marking Tape, Type D. Type D Pavement Marking Tape for legends and symbols shall be one of the non-removable pavement marking tapes on the Approved Products List on file with the Agency's Research and Development Section. These markings shall be used for preformed traffic markings made of the same material as that of an approved permanent Type A, B, or C tape.

269. 708.13 PREFORMED TRAFFIC MARKINGS AND SYMBOLS, is hereby modified by being deleted in its entirety and replaced as follows:

708.13 TEMPORARY DELINEATION SYSTEMS.

(a) Line Striping Targets. Line Striping Targets shall be one of the Line Striping Targets on the Approved Products List on file with the Agency's Research and Development Section.

(b) Raised Pavement Markers, Type II. Acceptable Raised Pavement Markers shall be one of the Raised Pavement Markers on the Approved Products List on file with the Agency's Research and Development Section.

(c) Temporary Pavement Marking Tape. Pavement Marking Tape shall be one of the removable pavement marking tapes on the Approved Products List on file with the Agency's Research and Development Section.

(d) Pavement Marking Mask. Pavement Marking Mask shall be one of the Masking Marking Tapes on the Approved Products List on file with the Agency's Research and Development Section.

270. 708.14 LINE STRIPING TARGETS, is hereby modified by being deleted in its entirety.

SECTION 710 – CULVERTS, STROM DRAINS, AND SEWER PIPES, NONMETAL

271. 710.03 CORRUGATED POLYETHYLENE PIPE, is hereby modified by adding the following as the last sentence:

In order to maintain approval status, polyethylene pipe manufacturers must participate in, and maintain compliance with, the AASHTO National Transportation Product Evaluation Program (NTPEP), which audits producers of the pipe.

272. 710.07 CORRUGATED POLYPROPYLENE PIPE, is hereby made a new Subsection of the Standard Specifications as follows:

273. 710.07 CORRUGATED POLYPROPYLENE PIPE. Corrugated polypropylene pipe and fittings shall conform to the latest revisions of AASHTO M 330, Type S. Acceptable corrugated polypropylene pipe shall be one of the corrugated polypropylene pipe products on the Approved Products List on file with the Agency's Materials and Research Section. In order to maintain approval status, polypropylene pipe manufacturers must participate in, and maintain compliance with, the AASHTO National Transportation Product Evaluation Program (NTPEP), which audits producers of the pipe.

SECTION 712 – CRIBBING MATERIALS

274. 712.04 GABION BASKETS, part (a) Wire for Gabion Baskets, is hereby modified by changing the word “shall” to the word “may” and by adding the phrase “or welded panels” after the phrase “woven wire mesh” in the first sentence of the first paragraph.

275. 712.04 GABION BASKETS, part (a) Wire for Gabion Baskets, is hereby further modified by adding the following as the third sentence of the first paragraph:

Welded panels shall be coated by hot dip galvanizing after fabrication.

276. 712.04 GABION BASKETS, part (b) PVC Coating for Gabion Baskets, is hereby modified by adding the following new subpart (7):

(7) Punch Test. The mesh shall achieve satisfactory performance on the Punch Test, as described in ASTM A975 13.1.4. This requirement applies to both woven and welded gabion baskets.

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

277. 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.

278. 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.

(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.

279. 713.07 COATED BAR REINFORCEMENT, is hereby modified by being deleted in its entirety.

280. 713.02 MECHANICAL SPLICES FOR BAR REINFORCEMENT, is hereby modified by adding the phrase ", except that epoxy coated mechanical splices shall be allowed when Level II reinforcing steel is required" after the phrase "intended to splice" in the second sentence of the first paragraph.

SECTION 714 – STRUCTURAL STEEL

281. 714.08 ANCHOR BOLTS, BEARING DEVICES, is hereby corrected by deleting ".F" and replacing it with "F" in the first sentence of the first paragraph.

282. 714.08 ANCHOR BOLTS, BEARING DEVICES, is hereby further corrected by deleting punctuation "." and replacing it with punctuation "." at the end of the second sentence of the first paragraph.

SECTION 726 – PROTECTIVE COATINGS AND WATERPROOFING MATERIALS

283. 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.

284. 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

285. 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 755 – LANDSCAPING MATERIALS

286. 755.17 EROSION LOGS, is hereby modified by being deleted in its entirety and replaced with the following:

Erosion logs are available in varying diameters. The Contractor shall follow the manufacturer's recommendations for the material type and size based on the intended use.

Erosion logs shall be composed of weed-seed-free coir, straw, excelsior, compost, or other biodegradable filtering medium encased in a photo-degradable and/or biodegradable netting or mesh.

Netting shall have openings of 13 to 25 mm (1/2 to 1 inch), with the exception of compost filled logs which should be 3 to 10 mm (1/8 to 3/8 inch) or as recommended by the manufacturer and accepted by the Engineer.

Anchors for erosion logs shall be wooden stakes, U-shaped wire or earth anchors, or rebar stakes; the size and length shall be as recommended by the manufacturer.

Compost shall meet the requirements of Table 755.05A, with the exception that particle size shall be 99% < 50 mm (2 inches) and maximum 30% < 10 mm (3/8 inch).

SECTION 780 – CONCRETE REPAIR MATERIALS

287. 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.

Appendix J

Example Performance and Payment Bond Forms

Appendix J

COMPLIANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____
(Name of Contractor)

_____
(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

and _____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

_____
(Name of Owner)

_____
(Address of Owner)

hereinafter called Owner, in the penal sum of _____ Dollars, $(_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

Appendix J

The condition of this obligation is such that whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

_____

_____

_____

Now, therefore, if the principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if they shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

Provided, further, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the Work or to the Specifications.

Provided, further, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Appendix J

IN WITNESS WHEREOF, this instrument is executed in ____ counterparts, (No.) each one of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

_____

Principal

_____

(Principal Secretary)

(SEAL)

By: _____(s)

Address: _____

_____

_____

Witness as to Principal

_____

Address

_____ _____

Surety

ATTEST:

By: _____

Attorney-in-Fact

_____ _____

Witness as to Surety Address

Appendix J

_____ _____

Address

NOTE: Date of Bond must not be prior to date of Contract.
If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570) as amended and be authorized to transact business in the State where the Project is located.

Appendix J

LABOR & MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS: that

_____
(Name of Contractor)

_____
(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

and

_____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

_____
(Name of Owner)

_____
(Address of Owner)

Hereinafter called Owner, in the penal sum of _____ Dollars, $(_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

Appendix J

The Condition of this obligation is such that whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, 20__, a copy of which is hereto attached and made a part hereof for the construction of:

_____

_____

_____

_____

Now, Therefore, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work and all insurance premiums on said Work, and for all labor performed in such Work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in force and effect.

Provided, further, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the Work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the Work or to the Specifications.

Provided, further, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

Appendix J

In Witness Whereof, this instrument is executed in ____ count (No.) each one of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

_____

Principal

_____

(Principal Secretary)

By: _____(s)

(SEAL)

Address: _____

_____

_____

_____

Witness as to Principal

_____

Address

_____ _____

Surety

ATTEST: By: _____

Attorney-in-Fact

_____ _____

Witness as to Surety Address

_____ _____

Address

Appendix J

NOTE: Date of Bond must not be prior to date of Contract.
If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bond must appear on the Treasury Department's most current list (Circular 570) as amended and be authorized to transact business in the State where the Project is located.

CHANGE ORDER

Date: _____

Change Order No: _____

Name of Project: _____

Municipality: _____

Contractor: _____

The following changes are hereby made to the Contract:

Justifications:

Change to Contract Price: $ _____

Original Contract Price: $ _____

Current Contract Price adjusted by previous Change Order: $ _____

The Contract Price due to this Change Order will be (increased) decreased by: $ _____

New Adjusted Contract Price: $ _____

Change to Contract Time: _____

The Contract Time will be (increased) decreased by _____ Calendar days

The date for completion of all work will be _____

APPROVALS

Contractor: _____

Construction Inspector: _____

Municipality: _____

VTrans Project Manager: _____

APPENDIX L –

Work Zone Safety and Mobility

Guidance Document

August 2007

WORK ZONE SAFETY & MOBILITY GUIDANCE DOCUMENT

August 2007

Prepared by:

Vermont Agency of Transportation

The following document was drafted in response to updates made to the work zone regulations at 23 CFR 630 Subpart J, published by the Federal Highway Administration. This document applies to all federal aid projects that have a pre-final contract administration/step submittal date after January 1, 2008.

Work Zone Safety and Mobility Vision

Current and future work zone safety and mobility issues mean that transportation practitioners need to minimize and manage the work zone impacts of transportation projects. In order to meet safety and mobility needs during highway maintenance and construction, and to meet the expectations of the traveling public, it is important to systematically analyze and assess the work zone impacts of projects and take appropriate action to manage these impacts.

The following has been adopted as the Vermont Agency of Transportation's (VTrans) work zone safety and mobility vision statement: *To provide optimum safety for workers and the traveling public while maintaining acceptable levels of mobility in an efficient environment for the contractors to complete the project work in accordance with their contracts.*

Work Zone Safety and Mobility Goals and Strategies

Goal: To provide a safe work zone for motorists, pedestrians, bicyclists (the traveling public) and construction personnel.

> Strategy: Development of site-specific traffic control plans, while ensuring compliance with the Manual on Uniform Traffic Control Devices (MUTCD) and state design standards and specifications.

Goal: To minimize construction-related delays.

> Strategy: Construction-related delays will be monitored. A change to the traffic management plan will be considered for construction-related delays greater than ten minutes.

Goal: To gain further knowledge of work zone procedures applicable to the State of Vermont.

> Strategy: Summarize the work zone field evaluations to identify the effectiveness of implemented safety measures and to improve future Transportation Management Plans (TMP).

Goal: To ensure that the appropriate personnel have the necessary knowledge, skills, and abilities to design and/or implement a TMP.

Strategy: Management will be responsible for ensuring that their personnel has been provided appropriate training in accordance with their defined roles. Training to include but not limited to: flagger certification, NHI courses, AGC training, and the Vermont Local Roads Program courses.

Project Classification

The purpose of the Work Zone Safety and Mobility Guidance document is to allow VTrans to better anticipate the impacts associated with individual projects. Examples of impacts include internal project coordination, project scheduling and overall cost. Every federally funded project will require a TMP. The classification of the project will determine the complexity of the TMP. All transportation projects must be classified into one of three types of projects: significant, moderate, or minor projects. To accurately classify a project, several design characteristics must be analyzed to provide **guidance** in determining the appropriate project classification. The following characteristics should be evaluated when determining any project classification. These characteristics include but are not limited to:

- Project Location (Urban/Rural Setting)
- Primary Network (Interstate, Interchanges, Major State Roads, Major Intersections, NHS, Truck Network)
- Construction Duration (Months, Years)
- Access Management Category (Driveway Density, Business/Industry Density)
- Traffic Volumes (Average Annual Daily Traffic, Peak Hour Traffic, Existing Crash Rates, Car-Truck-Pedestrian-Bicycle Volumes)
- Proximity To Other Construction Projects
- Available Detour Routes

A project classification should be identified by the appropriate Project Manager[1], and confirmed by their respective Program Manager as early as the scoping process. This classification should be analyzed periodically throughout the design process to ensure that any design changes or site characteristic changes will not require a classification modification. Project classification is used to help identify the impacts associated with different types of transportation projects. This classification is used to determine what TMP should be applied to the project. The following definitions closely follow FHWA's Work Zone Self Assessment, http://www.ops.fhwa.dot.gov/wz/docs/wz-sa-docs/sa_guide_s4.htm.

[1] Please note that the position titles used in this document are typical Program Development Division titles. Applicable Operations Division titles as well as alternate VTrans Division titles may be substituted as necessary.

Significant Projects: Significant projects have a high level of public interest and will likely impact a large number of travelers. This impact must be analyzed individually and also in combination with concurrent active projects. It will have moderate to high user-cost impacts and the duration is usually moderate to long. These characteristics create work zone impacts that fall outside of the typical work zone safety and mobility thresholds. Examples of this work type may include: major corridor reconstruction, high impact intersection reconstruction, full closures on high volume facilities, major bridge reconstruction or repair, repaving projects that require long term lane closures, etc (e.g. Shelburne-South Burlington US 7 Reconstruction Project). It is important to note that significant projects are unique in that they have considerable impacts to the project area as well as the surrounding community.

Moderate Projects: Moderate projects have the potential to affect the level of public interest and may impact a modest number of commuters. These projects would include typical roadway, bridge, and paving projects.

Minor Projects: Minor projects have a minimal impact to the traveling public and a short duration. Typical projects within this category include sign installation, bridge inspection, pavement marking, and various maintenance activities.

Transportation Management Plans (TMPs)

TMPs are strategies/methodologies that will be implemented to ensure safe and mobile work zones within transportation projects. The project classification will determine the detail level required for the TMP. There are three major components of a TMP;

Temporary Traffic Control Plan (TTC): A TTC plan describes temporary traffic control measures to be used for facilitating road users through a work zone or an incident area. The TTC plan plays a vital role in providing continuity of reasonably safe and efficient road user flow and highway worker safety when a work zone, incident, or other event temporarily disrupts normal road user flow. The TTC plan shall be consistent with the provisions of the MUTCD and AASHTO Roadside Design Guide.

Transportation Operations Component (TO): The TO component shall include the identification of strategies to mitigate impacts of the work zone on the operation of the transportation system within the work zone impact area. The work zone impact area consists of the immediate work zone as well as affects to the surrounding roadways and communities. Examples of practices that may be used to satisfy the TO component may be found at http://www.ops.fhwa.dot.gov/wz/rule_guide/sec6.htm#sec63.

Public Information Component (PI): The PI component shall include communication strategies that seek to inform the general public of work zone impacts and the changing condition of the project. The general public may

include road users, area residences and businesses, and other public entities. Examples of communications strategies that may be used to satisfy the PI component may be found at http://www.ops.fhwa.dot.gov/wz/rule_guide/sec6.htm#sec63.

Significant Projects: The TMP for significant projects shall consist of a TTC, a TO, and a PI.

Moderate/Minor Projects: The TMP for moderate and minor projects shall consist of a TTC. A TO and a PI are not required, but may be applicable to certain projects as determined by the Project Manager.

Design Strategies

The development of a TMP is an iterative process that may vary significantly between projects. Work on a TMP should begin early in the project development process. There are numerous resources available to the designer to assist in the development of this plan: several of these are listed in the reference section of this document. The following outlines the key components of the TMP development process.

Preliminary Data Collection: As early as scoping, the project design team collects, analyzes, and documents all applicable project data.

Determine Project Classification: A project classification is determined based on the initial data that was collected. The project classification defines what components are required in the TMP.

Develop TMP: Work zone management strategies should be identified based on the project characteristics and used to develop all necessary aspects of the TMP. Applicable resources should be contacted during this step to obtain their input. This may include utilization of previous work zone feedback provided by the Construction Section. Plans and contract documents shall be based on standard specifications and include necessary pay items.

Update/Revise TMP: As a project progresses through all of the design stages the TMP should be re-evaluated to ensure that any project changes do not affect the TMP. It is possible that the project classification could change during the project design stages.

Finalize TMP: Ensure that the contract plans, special provisions, and estimate include all of the applicable elements of the TMP and allow the flexibility to develop or modify a TMP.

Roles and Responsibilities

Step 1: A preliminary analysis will be performed by the ***Design Team*** to determine project classification. This preliminary analysis will be documented in the project's design file.

Step 2: The ***Project Manager*** will have the responsibility of monitoring the project and proposed classification and informing the respective ***Program Manager***.

Step 3: The ***Design Team*** will develop a transportation management plan. The ***Project Manager*** will monitor the classification status. If there are significant changes, the project classification may be modified.

Step 4: The ***Construction Resident Engineer*** will be responsible for identifying and documenting deficiencies in the TMP that compromise the effectiveness of the work zone and coordinating any improvements with the Contractor/State safety representative. Examples of data that may be included in the work zone documentation includes; crashes or other traffic incidents, traffic delay, traffic conflicts, and public comments. The ***Project Manager*** may assist in addressing any proposed modifications to the TMP during the construction process.

Step 5: The ***Regional Construction Engineer*** will complete a work zone summary of TMP effectiveness based on the work zone documentation and any applicable work zone reviews performed by Traffic Operations.

Step 6: The ***Work Zone Safety and Mobility Committee*** will consist of representatives from multiple sections within VTrans. This committee will review the work zone summary and will be responsible for updating the Work Zone Safety and Mobility Guidance document based on feedback from the year's construction projects. This committee will be responsible for sharing all applicable information throughout the Agency as well as with additional working groups and committees.

Application/Feedback

The Construction Engineer will submit a summary of TMP effectiveness and recommendations for improvements at the end of the construction season based on the work zone documentation provided by the Regional Engineers. The Work Zone Safety and Mobility Committee will meet annually to discuss these summaries. These summaries will serve to identify common TMP practices that are not working effectively, and will also assist in identifying TMP practices that are successful. The Work Zone Safety and Mobility Guidance document and supporting documentation will be revised to reflect the field evaluation summaries.

References

A Policy on Geometric Design of Highways and Streets. American Association of State Highway and Transportation Officials, Current Edition.

Developing and Implementing Transportation Management Plans for Work Zones. U.S. Department of Transportation Federal Highway Administration, December 2005.

Engineering Operations Manual. Vermont Agency of Transportation, Current Edition.

Highway Capacity Manual. Transportation Research Board of the National Academies, Current Edition.

Implementing the Rule on Work Zone Safety and Mobility. U.S. Department of Transportation Federal Highway Administration, September 2005.

Manual on Uniform Traffic Control Devices for Streets and Highways. U.S. Department of Transportation Federal Highway Administration, Current Edition.

Road Design Manual. Vermont Agency of Transportation, Current Edition.

Roadside Design Guide. American Association of State Highway and Transportation Officials, Current Edition.

Standard Specifications for Construction. Vermont Agency of Transportation, Current Edition.

Structures Manual. Vermont Agency of Transportation, Current Edition.

The State of Vermont Agency of Transportation Safety Manual. Vermont Agency of Transportation, Current Edition.

Traffic Design Manual. Vermont Agency of Transportation, Current Edition.

"Vermont Agency of Transportation Standard Drawings." Vermont Agency of Transportation, Current Edition.

Work Zone Impacts Assessment: An Approach to Assess and Manage Work Zone Safety and Mobility Impacts of Road Projects. U.S. Department of Transportation Federal Highway Administration, May 2006.

Work Zone Public Information and Outreach Strategies. U.S. Department of Transportation Federal Highway Administration, November 2005.

Appendix M

US Department of Labor Davis-Bacon Rates

General Decision Number: VT160046 01/08/2016 VT46

Superseded General Decision Number: VT20150046

State: Vermont

Construction Type: Highway

County: Franklin 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)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.15 for calendar year 2016 applies to all contracts subject to the Davis-Bacon Act for which the solicitation was issued on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.15 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2016. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/08/2016

* SUVT2011-031 09/14/2011

	Rates	Fringes
CARPENTER (Form Work Only)	$ 19.21	5.00
IRONWORKER, STRUCTURAL	$ 21.17	0.00
LABORER: Common or General	$ 13.49	0.24
LABORER: Flagger	$ 11.35	0.00
LABORER: Traffic Control-Cone Setter	$ 14.34	5.77
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 17.10	0.00
OPERATOR: Broom	$ 15.33	0.00
OPERATOR: Cold Planer/Milling Machine	$ 23.60	0.00
OPERATOR: Excavator	$ 20.50	0.67
OPERATOR: Loader	$ 19.05	0.00

OPERATOR: Paver.....$ 16.90 0.38

OPERATOR: Roller (All Types)....$ 16.06 0.00

OPERATOR: Screed.....$ 19.84 5.82

PAINTER (Parking Lot and
Highway Striping Only).....$ 16.33 3.62

TRAFFIC SIGNALIZATION:
Traffic Signal Installation.....$ 19.73 0.00

TRUCK DRIVER, Includes All
Dump Trucks.....$ 15.96 0.00

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

==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour 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.

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END OF GENERAL DECISION

Appendix N

VAOT Materials Record and Certification Package

Vermont Agency of Transportation
Municipal Assistance Bureau
Materials Record

Resident Engineer: City of St. Albans
Project Supervisor: Scott Robertson

Project: St. Albans TCSP TCSE(16)
Level 3

Item	Pay Item	Material No. / Tests	Contract Quantity	Sample Freq.	Samples Required						
Sand Borrow		703.03									
		Gradation		1 / Project	1						
	203.31	203.08	200 CY								
		Moisture		1 / Project	1						
		Density		1 / Project	1						
Granular Backfill for Structures		703.04									
		Gradation		1 / Project	1						
	204.30	204.08	240 CY								
		Moisture		1 / Project	1						
		Density		1 / Project	1						
Subbase of Dense Graded Crushed Stone		704.06									
		Gradation		1 / Project	1						
		Thin & Elongated		1 / Project	1						
	301.35	Percent of Wear	1075 CY	1/10,000 cy/source	1						
		301.06									
		Moisture		1 / Project	1						
		Density		1 / Project	1						
Durable 4 " White	646.400	708.08d	320 Lf	1 per Batch	1						
Durable 4 " Yellow	646.410	708.08d	860 Lf	1 per Batch	1						
24" Stop Bar	646.460	708.08d	50 Lf	1 per Batch	1						
Letter or Symbol	646.490	708.08d	14 Ea	1 per Batch	1						
Crosswalk Marking	646.500	708.08d	125 Lf	1 per Batch	1						

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Emulsified Asphalt**

IN THE QUANTITY OF: **6 CWT**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **404.65**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Reinforcing Steel Level 1**

IN THE QUANTITY OF: **20 LB**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **507.11**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

MUST BE ON THE APPROVED PRODUCTS LIST

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **15" CPEP (SL)**

IN THE QUANTITY OF: **330 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **601.2610**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

MUST BE ON THE APPROVED PRODUCTS LIST

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **18" CPEP (SL)**

IN THE QUANTITY OF: **340 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **601.2615**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Precast Reinforced DI with Cast Iron Grate**

IN THE QUANTITY OF: **10 Ea**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **604.18**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:

Subscribed and sworn to before me

Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public

Title:

Commission Expiring on_____

Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Precast Reinforced Concrete MH with Cast Iron Cover**

IN THE QUANTITY OF: **1 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **604.21**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Sanitary Sewer Manhole**

IN THE QUANTITY OF: **6 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **604.22**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:

Subscribed and sworn to before me

Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public

Title:

Commission Expiring on_____

Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Cast Iron Grate W/Frame, Type A**

IN THE QUANTITY OF: **1 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **604.45**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Cast Iron Cover with Frame**

IN THE QUANTITY OF: **1 Ea**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **604.55**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

MUST BE ON THE APPROVED PRODUCTS LIST

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **DETECTABLE WARNING SURFACE**

IN THE QUANTITY OF: **115 Sf**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **618.30**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **PVC Sewer Pipe**

IN THE QUANTITY OF: **675 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **628.35**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Seamless Copper Water Tube**

IN THE QUANTITY OF: **250 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **629.23**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Ductile Iron Pipe, Cement Lined**

IN THE QUANTITY OF: **560 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **629.24**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Pipe Insulation**

IN THE QUANTITY OF: **200 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **629.44**:AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Durable 4" White Line**

IN THE QUANTITY OF: **320 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **646.400**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Durable 4" Yellow Line**

IN THE QUANTITY OF: **860 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **646.410**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **DURABLE 24 INCH STOP BAR**

IN THE QUANTITY OF: **50 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS: **646.480** AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **DURABLE LETTER OR SYMBOL**

IN THE QUANTITY OF: **14 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **646.490**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **DURABLE CROSSWALK MARKING**

IN THE QUANTITY OF: **125 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **646.500**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

MUST BE ON THE APPROVED PRODUCTS LIST

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **LINE STRIPING TARGETS**

IN THE QUANTITY OF: **115 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **646.76**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Deciduous Trees**

IN THE QUANTITY OF: **10 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **656.30**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

CERTIFICATIONS FOR MATERIALS REQUIRING A TYPE "C" OR "D" CERTIFICATION, WHEN SPECIFIED BY CONTRACT PROVISIONS, MUST BE ACCOMPANIED BY MILL TEST REPORTS SHOWING CHEMICAL AND PHYSICAL ANALYSES.

THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Ground Covers and Vines**

IN THE QUANTITY OF: **730 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **656.40**:AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Traffic Signs, Type A**

IN THE QUANTITY OF: **105 SF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **675.20**:AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Square Tube Sign Posts and Anchors**

IN THE QUANTITY OF: **165 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **675.341**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Wired Conduit 1 1/2" (PVC)**

IN THE QUANTITY OF: **1400 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **678.23**:AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Wired Conduit (1 ½" RGS)**

IN THE QUANTITY OF: **200 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **678.23**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Wired Conduit 3" (PVC)**

IN THE QUANTITY OF: **70 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **678.23**:AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Pull Box-Standard**

IN THE QUANTITY OF: **6 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **678.25**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Electrical Conduit Sleeve**

IN THE QUANTITY OF: **80 LF**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **678.30**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Light Pole Base**

IN THE QUANTITY OF: **23 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **679.21**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Special Provision (Street Lighting, Fixture A)**

IN THE QUANTITY OF: **9 Ea**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **900.620**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Special Provision (Street Lighting, Fixture B)**

IN THE QUANTITY OF: **4 Ea**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **900.620**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
Commission Expiring on_____ Company Status or Affiliation

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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "A" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Special Provision Wayfinding Signs**

IN THE QUANTITY OF: **4 EA**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS **900.620**: AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

Name (Type or

Notary Public Title:
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VERMONT AGENCY OF TRANSPORTATION
MUNICIPAL ASSISTANCE BUREAU

TYPE "D" RECORD OF CERTIFICATION FROM MANUFACTURER

NAME OF

ADDRESS:

WE HEREBY CERTIFY: **Special Provision, Hand Placed Bituminous Drives**

IN THE QUANTITY OF: **90 SY**

FURNISHED BY:

(Contractor or Supplier)

FOR USE ON: **St. Albans TCSE(16)**

IDENTIFIED

CONFORMS TO ALL REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS, PERTINENT PROJECT PLANS, AND SPECIAL PROVISIONS FOR THE ABOVE STATED CONTRACT FOR ITEM OR ITEMS LISTED AS FOLLOWS: **900.675** AND THAT PROCESSING, PRODUCT TESTING AND INSPECTION CONTROL OF RAW MATERIALS ARE IN CONFORMITY WITH ALL APPLICABLE SPECIFICATIONS, DRAWINGS AND/OR STANDARDS OF ALL MATERIALS FURNISHED.

By:
Subscribed and sworn to before me Signature of Authorized Representative

this____day of_____ 20___

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Notary Public Title:
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THIS CERTIFICATION IS TO BE COMPLETED BY THE MANUFACTURER OF THE MATERIALS AND NOT BY THE SUPPLIER OR DEALER. THIS CERTIFICATION IS TO BE SENT TO:

Appendix O
Categorical Exclusion Documentation

VERMONT

State of Vermont
Agency of Transportation
Environmental Section
One National Life Drive
Montpelier, VT 05633-5001
www.aot.state.vt.us

[phone] 802-828-1278
[fax] 802-828-2334
[tdd] 800-253-0191

Matthew Hake, Division Administrator
Federal Highway Administration
P.O. Box 568, Montpelier, VT 05601

January 13, 2015

Attn: Kenneth R. Sikora, Environmental Program Manager
Re: St. Albans City TCSP TCSE (16)

Dear Mr. Hake:
The project begins at a point on Lake Street (Vermont Route 36) at the Federal Street and Catherine Street intersection, and extends easterly along Lake Street for approximately 539 feet to the North Main Street (U.S. Route 7) intersection. Work to be performed under this project includes cold planing and overlay of existing streets, new curbing and sidewalk, utility infrastructure improvements, streetscape enhancements to include new ornamental lighting and trees, as well as new signing and striping, along with incidental items. The project represents a second phase in the city's efforts to improve streetscape amenities, multimodal accommodations, economic vitality and infrastructure upgrades within the downtown.

The Vermont Agency of Transportation (VTrans) has considered the potential environmental consequences of the project in accordance with the National Environmental Policy Act (NEPA). VTrans has determined that this project meets all of the criteria specified in the Programmatic Agreement entitled "Processing of Projects Eligible for Categorical Exclusion," executed 06/25/99. The project qualifies for Categorical Exclusion pursuant to 23 CFR 771.117(c)(2)(3)(7)(8)(26) "Environmental Impact and Related Procedures - Categorical Exclusions" as the project consists of approval of utility installations along or across a transportation facility; construction of pedestrian lanes, paths, and facilities; landscaping; installation of signs, and pavement markings where no substantial land acquisition or traffic disruption will occur; and modernization of a highway by resurfacing and/or rehabilitation.

This project will not involve substantial planning, resources, or expenditures; nor is it likely to induce significant alterations in land use, planned growth, development patterns, traffic volumes, or traffic patterns. The project will have no significant effect upon natural and cultural resources. No significant environmental impact is expected to result from construction or maintenance of this facility.

Please contact Jeff Ramsey, Environmental Specialist North Region @ 802-828-1278 if you require additional information.

Respectfully,

Chris Slesar
Interim Environmental Services Manager

Attachments
cc:
Scott Robertson, Project Manager; Project File

PROGRAMMATIC CATEGORICAL EXCLUSION CRITERIA

VTrans has determined that this project will **NOT**:

A. X Require a temporary detour outside existing right-of-way, or a temporary wetland or stream crossing which will require non-routine mitigation, or a ramp closure, unless the following conditions are met :
   (1) provisions are made for access by local traffic and the facility is posted accordingly,
   (2) businesses dependent upon through traffic will not be unduly affected,
   (3) the temporary detour or ramp closure will not interfere with local special events,
   (4) the temporary detour, ramp closure, wetland or stream crossing will not substantially increase the environmental consequences of the action (project).

B. X Involve construction in wetlands totaling more than 5,000 square feet of permanent impacts, requiring the Army Corp of Engineers to coordinate with resource agencies per the General Permit.

C. X Require a Risk Analysis for an increase in 100-year flood water surface elevations, per EO 11988.

D. X Involve construction within, or alter drainage patterns so as to adversely affect, a Sole Source Aquifer.

E. X Require coordination with the US Fish and Wildlife Service for the preparation of a Biological Assessment for Threatened and Endangered Species, per 16 CFR Section 7.

F. X Require acquisition of additional right-of-way (including permanent or temporary construction easements) involving: more than three acres of land per mile of roadway, or a total of 10 acres or more for a non-linear improvement (such as a bridge or an intersection), or any relocation of residences or businesses.

G. X Require FHWA approval for changes in access control.

H. X Involve acquisition of, or impacts upon Prime or Unique Farmland, unless a USDA Farmland Conversion Impact Rating Part VI Site Assessment has been completed and indicates Total Site Assessment Points less than 160 (doesn't apply to designated urban areas).

I. X Adversely Effect a historic or archaeological resource on, or eligible for inclusion on, the National Register of Historic Places.

J. X Require use (permanent or temporary) of a Section 4(f) resource, unless that use meets the criteria for a de minimis or Programmatic 4(f); or involve the use of a Section 6(f) resource when compensation is required (property acquired or improved using Land and Water Conservation Funds).

K X Involve hazardous or residual waste liabilities subject to CERCLA and/or RCRA requirements.

L. X Require a bridge permit from the US Coast Guard, per 23CFR 650 Subpart H.

M. X Qualify as a Type I project and require analysis of noise abatement measures, per 23 CFR 772 and the FHWA approved VTrans Noise Policy.

(NOTE: If coordination with the FHWA was required to reach this determination attach concurrence memo)

Categorical Exclusion
Environmental Analysis Sheet

Town St. Albans City **Project No.** TCSP TCSE (16) **Route** Vermont Route 36

Project Setting: Urban X Village _____ Rural _____
Traffic 7,000 AADT Year 2010 Typical varies
AASHTO Functional Classification Urban Minor Arterial

Project Purpose & Need:
The purpose of the project is to complete physical improvements that will invigorate St. Albans City's historic downtown, to communicate a compelling sense of place in the downtown, to revitalize the local economy, and to create a safe community. This east-west complete streets project will improve pedestrian accommodations and access for the disabled. The need for the project is due to incomplete physical improvements needed to invigorate St. Albans City's historic downtown, the lack of a compelling sense of place in the downtown, the need to revitalize the local economy, and need to create a safe and accessible community.

Project Description:
The project begins at a point on Lake Street (Vermont Route 36) at the Federal Street and Catherine Street intersection, and extends easterly along Lake Street for approximately 539 feet to the North Main Street (U.S. Route 7) intersection. Work to be performed under this project includes cold planing and overlay of existing streets, new curbing and sidewalk, utility infrastructure improvements, streetscape enhancements to include new ornamental lighting and trees, as well as new signing and striping, along with incidental items. The project represents a second phase in the city's efforts to improve streetscape amenities, multimodal accommodations, economic vitality and infrastructure upgrades within the downtown.

CRITERIA OF 23 CFR771.117 (C) APPLICABLE? X **YES** _____ **NO**
NOTE: PROJECTS THAT MEET THE CRITERIA OF 23 CFR771.17 (C) NEED ONLY ADDRESS THOSE ISSUES MARKED WITH AN ASTERISK (*). THIS DOES NOT PRECLUDE THE NEED TO OBTAIN APPLICABLE STATE & FEDERAL CONCURRENCES & PERMITS.

1. **Air Quality**
   Ten year increase in ADT _____ (10,000 allowed maximum per MOA)
   Urban intersection improvement Yes _____ No _____

2. **Noise**
   Type I Project (VTrans Noise Policy) Yes _____ No _____
   If yes, number of receptors impacted _____
   Mitigation Requirements _____

3. **Water Quality**
   Lakes or Ponds
   VANR Lakes & Ponds permit Yes _____ No _____ Acquired _____
   Rivers or Streams
   VANR Title 19 Consultation Yes _____ No _____ Completed _____
   Wetlands
   * Wetland Impact area Temporary 0 Permanent 0
   * Buffer Impact area Temporary 0 Permanent 0
   * VANR Wetland Permit Yes _____ No X Acquired _____
   401 Water Quality Certification Yes _____ No _____ Acquired _____
   Stormwater Discharge Permit Yes _____ No _____ Acquired _____
   Flood plains Encroachment Yes _____ No _____ Volume _____

Describe Hydraulic Changes _____
Ground Water/Surface Water/Well Impacts Yes _____ No _____
(Describe) _____
ANR Comments _____

4. **U.S. Army Corps of Engineers**
Section 10 and/or Section 404 Permit Required Yes _____ No _____ Acquired _____
Permit Type _____
COE Comments _____

5. **U.S. Coast Guard**
Navigable Waters Yes _____ No _____ Involved Waterway _____
Rivers & Harbors Act Section 9 and/or
Bridge Act of 1946 Permit(s) Required Yes _____ No _____ Acquired _____
Section 144(h) "Exemption" Yes _____ No _____ Acquired _____
USCG Comments _____

* 6. **Threatened and Endangered Species and Habitat**
Present in Project Area Yes _____ No X
ANR Non-Game and Natural Heritage Program comments none at this time
USF&WS comments none at this time

7. **Agricultural Land**
Prime/secondary/locally important soils affected Yes _____ No _____
Current land use _____
Form 1006 Parts 1, III, VI, VII, completed (FHWA) Yes _____ No _____
Form 1006 Parts II, IV, V completed (NRCS) Yes _____ No _____
Vermont Department of Agriculture comments _____

8. **Hazardous/ Residual Waste Liabilities**

Present in project area	Yes _____	No X
Determination from VANR list	Yes X	No _____
Determination from field visit	Yes _____	No X
Borings completed	Yes _____	No X
Petroleum related wastes	Yes _____	No X
CERCLA involvement	Yes _____	No X
Remediation required	Yes _____	No X

Describe: The project is located within a historic manufacturing/industrial area. There are likely residual hazardous materials in the vicinity and beneath the existing sidewalks and pavement. The Project involves excavation for utility work that may result in the exposure to hazardous waste materials. Refer to The Corrective Action Plan for more information regarding hazardous waste liabilities and considerations for construction.

* 9. **Historical or Archaeological Resources (Section 106)**
Historic Resources: Present in project area Yes X No _____
Archeological Resources: Present in project area Yes _____ No X
Section 106 determination No Adverse Effect issued 01/13/15
Memorandum of Agreement needed Yes _____ No X Executed _____
SHPO coordination completed n/a per VTrans Deputy SHPO PA
Advisory Council coordination completed n/a

* 10. **Section 4(f) and 6(f) Resources**

Section 4(f) Resource(s) present in project area Yes ___X___ No _____
Nature of Section 4(f)
Parks/Rec. Areas _____ Wildlife and Waterfowl Refuge _____ Historic Property X___
Temporary use of 4(f) resource Yes _____ No ___X___
Permanent use of 4(f) resource Yes_____ No ___X___
Section 4(f) Approval (check one)
Negative Declaration ____ de minimis 4(f) ____ Programmatic 4(f) ____ Circulated 4(f) _____
Section 4(f) Comments Analysis: This project will replace and reconstruct sidewalks that are located within the historic district; however, the project will not affect the historic integrity of the historic buildings. The buildings and their footprints will remain unchanged. Previous segments of this streetscape improvement project have been constructed on South and North Main Street and this continuation will match the completed work in lighting, landscaping, and design. Removing parking will not affect the economics of the district, as the new parking garage off of Lake Street is open and within easy walking distance. The goal of this project is to enhance the streetscape and to aid in the revitalization of the historic commercial downtown of St. Albans.

Section 6(f) involvement (LWCF Funding) Yes _____ No ___X___
National Park Service Conversion Approval ___n/a_____
Section 6(f) Comments There are some 6(f) resources in the area, but will not be affected.

* 11. **Right of Way**

New ROW Acquisition	fee simple	Yes _____	No ___X___
	permanent easement	Yes _____	No ___X___
	temporary easement	Yes _____	No ___X___

Description of taking _____ n/a _____
Improved properties acquired Yes _____ No ___X___
Displacements Rental Units ___0___ Private Homes 0 Businesses ___0___
Relocation services to be provided ___n/a_____
Properties available for relocation _____ n/a _____

12. **Public Participation Opportunity**

Pre-Design Site Meeting	Yes _____	No ___X___	Date _____
Public Information Meeting	Yes ___X___	No _____	Date 01/09/12
Public Hearing Required (502)	Yes _____	No ___X___	Date _____

Comments by Local Officials/RPC's The conceptual design has evolved through a public process associated with the original Downtown Streetscape project as well as continued coordination with City officials and committees. In addition, the current conceptual design has been presented and reviewed publically at City Council meetings on 1/9/2012 and on 11/10/2014 at which the Council approved the conceptual design. The project was also reviewed at public Downtown Board meeting on 10/21/2014.

13. **Social and Economic Concerns**

Project consistent with Local and Regional Land Use Plans Yes _____ No _____
Describe _____(Attach correspondence from officials)
Neighborhood and Community Concerns Yes _____ No _____

_____Churches	_____ Elderly
_____Schools	_____ Handicapped
_____Low Income Housing	_____ Environmental Justice Exec. Order 12898
_____Emergency Services	_____ Other

Describe _____

Effect on local business	Yes _____	No _____	(Describe) _____
Temp. effect on business	Yes_____	No _____	(Describe) _____
Loss of parking	Yes _____	No _____	(Describe) _____

Pedestrian Facilities Sidewalk Widths Existing _____ Proposed _____
Bicycle Facilities Paved Shoulder Widths Existing _____ Proposed _____
If not minimum standard (sidewalk 5ft, paved shoulder 4ft), explain _____

14. **Aesthetic Concerns**
Scenic Byway/VT Scenic Highway Yes _____ No _____
Describe _____

15. **Effects of Temporary Detour/ Bridge**
Detour required Yes _____ No _____ Length _____ (Attach Plans)
Temporary bridge required Yes _____ No _____ (Attach Plans)
Impacts of Detour/ Bridge _____
Public notification of detour _____

Field Inspection Comments: See supporting documentation.

Summary of Commitments and Mitigation

Describe: The project is located within a historic manufacturing/industrial area. There are likely residual hazardous materials in the vicinity and beneath the existing sidewalks and pavement. The Project involves excavation for utility work that may result in the exposure to hazardous waste materials. Refer to The Corrective Action Plan for more information regarding hazardous waste liabilities and considerations for construction.

Prepared by: _____ Date: 2015.01.13 16:26:52 -05'00'
Signature Date

Reviewed by: _____ 2015.01.13 16:28:53 -05'00'
Signature Date

Document Template Last Revised 06/14/11

VERMONT

State of Vermont
Program Development Division
One National Life Drive
Montpelier, VT 05633-5001
www.aot.state.vt.us

[phone] 802-828-3979
[fax] 802-828-2334
[ttd] 800-253-0191

Agency of Transportation

To: Jeff Ramsey, VTrans Environmental Specialist

From: Glenn Gingras, VTrans Environmental Biologist

Date: 12/3/14

Subject: St. Albans City TCSP TCSE (16)

Project location: In the town of St. Albans, beginning at a point on Lake Street (Vermont Route 36) at the Federal Street and Catherine Street intersection, and extending easterly along Lake Street for approximately 539 feet to the North Main Street (U.S. Route 7) intersection.

Project description: Work to be performed under this project includes cold-planing and overlay of existing streets, new curbing and sidewalk, utility infrastructure improvements, streetscape enhancements to include new ornamental lighting and trees, as well as new signing and striping, along with incidental items.

I have reviewed the above referenced project for potential natural resource impacts. My review consisted of reviewing conceptual plans dated 9/22/14 prepared by VHB consultants, and reviewing existing mapped natural resource information.

Wetlands/Watercourses
There are no wetlands within the immediate area of the project.

No streams will be impacted as a result of the project.

Wildlife Habitat
No terrestrial or aquatic impacts will occur as a result of the project.

Rare, Threatened and Endangered Species (R/T/E)
According to the VT Fish and Wildlife Natural Heritage Database and the USFWS IPaC mapping there are no federal or state listed mapped threatened or endangered plants or animals within the project corridor, therefore, no impacts are anticipated.

Agricultural Soils
No impacts to any prime agricultural soils are anticipated.

Conclusion
Overall, there appears to be no impacts to the potential regulated natural resources.

Historic Resource Group, Environmental Section
Vermont Agency of Transportation
National Life Building, Drawer 33
Montpelier, VT 05633

Archaeology 802-828-3981 (fax) 828-2334 jeannine.russell@state.vt.us
Historic Preservation 802-828-1708 (fax) 828-2334 judith.ehrlich@state.vt.us

MEMORANDUM

To: Rob Sikora, FHWA

Date: December 16, 2014

Subject: NO ADVERSE EFFECT

Project Name: St. Albans Lake Street Improvements

Project Number: St. Albans TCSP TCSE (16)

Location: St. Albans, VT

Distribution: State Historic Preservation Officer
Jeff Ramsey, VTrans Environmental Specialist
Environmental Files via John Narowski

The Vermont Agency of Transportation has reviewed this undertaking according to the standards and procedures detailed in the 4/5/99 Programmatic Agreement to implement the Federal-Aid Highway Program in Vermont and, the PA Manual of Standards and Guidelines. Project review consists of identifying the project's potential impacts to historic buildings, structures, historic districts, historic landscapes, and settings, and to known or potential archeological resources.

The following details the VAOT Officers findings supporting our effect determination of NO ADVERSE EFFECT for the above-subject project. Completion of this document evidences that FHWA has satisfied its obligations under Section 106 for this undertaking.

Project Description: This is a streetscape improvement project that continues the work undertaken on Main Street in St. Albans City as part of the Downtown Streetscape Projects. Work on this project includes new granite curbing and concrete sidewalk, brick paver bulb outs, landscaping and ornamental lighting, utility infrastructure improvements, cold planning and overlay of existing street, new signage and striping, along with incidental items. The streetscape improvements will eliminate 14 of 24 parking spaces in the project area; however, the new parking garage is open, located off Lake Street. The project begins on Lake Street (VT 36) at the Federal Street/Catherine Street intersection and continues approximately 539 feet to the North Main Street (US 7) intersection.

Above-Ground Historic Resources: This project is located within the St. Albans Historic District, which is listed in the National Register of Historic Places. The district boundary extends to the Lake Street/Federal Street/Catherine Street intersection. The majority of the properties are contributing, except for the new courthouse building and the frame building adjacent to One Federal (on the NE corner of the Federal St./ Lake St. intersection).

Archaeological Resources: The VTrans Archaeology Officer has reviewed this project and has concluded that it will not impact archaeological resources.

Public Participation: This project has been presented at multiple public meetings including a City Council meeting on November 10, 2014 and one on January 9, 2012. The City Council approved the conceptual design. St. Albans Downtown Board reviewed and approved the project at a public meeting on October 21, 2014. The public is in support of this project.

Analysis: This project will replace and reconstruct sidewalks that are located within the historic district; however, the project will not affect the historic integrity of the historic buildings. The buildings and their footprints will remain unchanged. Previous segments of this streetscape improvement project have been constructed on South and North Main Street and this continuation will match the completed work in lighting, landscaping, and design. Removing parking will not affect the economics of the district, as the new parking garage off of Lake Street is open and within easy walking distance. The goal of this project is to enhance the streetscape and to aid in the revitalization of the historic commercial downtown of St. Albans. The finding for this project is No Adverse Effect.

Above Ground Historic Resource Stipulations:

1. None.

	1-13-15		1/13/2015
Archaeology Officer	Date	Historic Preservation Officer	Date

/Prepared by Kaitlin O'Shea, VTrans Historic Preservation Specialist

Ramsey, Jeff

From: Armstrong, Jon
Sent: Thursday, December 04, 2014 3:20 PM
To: Ramsey, Jeff
Subject: RE: St. Albans City TCSP TCSE (16) Resource Clearance request

This project doesn't appear to trigger operational stormwater permitting.

Jonathan Armstrong, PE
VTrans Stormwater Management Engineer
Highway Division - Project Delivery Bureau
Environmental Section
jon.armstrong@state.vt.us
802.828.1332

From: Ramsey, Jeff
Sent: Monday, November 24, 2014 10:39 AM
To: Armstrong, Jon; Gingras, Glenn; Russell, Jeannine; Gauthier, Brennan; Jamele, Suzanne; OShea, Kaitlin
Cc: Robertson, Scott
Subject: St. Albans City TCSP TCSE (16) Resource Clearance request

From: Jeff Ramsey, Environmental Specialist
Date: November 24, 2014
Project: St. Albans City TCSP TCSE (16)
PIN: 12D326 **EA:** TCSE016 101

Project Manager: Scott Robertson
ROW – Perm Easement/ Fee Simple: All work will be completed within the existing right of way.
Public Meeting Dates: 01/09/2012, 11/10/2014
Link to Project Folder: Z:\Highways\PROJ\ENHY\EnvironmentalSpecialists\Projects\StAlbans\TCSPTCSE(16)

Beginning at a point on Lake Street (Vermont Route 36) at the Federal Street and Catherine Street intersection, and extending easterly along Lake Street for approximately 539 feet to the North Main Street (U.S. Route 7) intersection. Work to be performed under this project includes cold planing and overlay of existing streets, new curbing and sidewalk, utility infrastructure improvements, streetscape enhancements to include new ornamental lighting and trees, as well as new signing and striping, along with incidental items.

The project represents a second phase in the city's efforts to improve streetscape amenities, multimodal accommodations, economic vitality and infrastructure upgrades within the downtown.

Comments: The City of St. Albans will replace water and sewer lines at the City's expense during the construction of this streetscape project.

Thanks,
Jeff

Jeff Ramsey
Environmental Specialist - North Region
Vermont Agency of Transportation

Environmental Section
1 National Life Drive
Montpelier, VT 05633
(802) 828-1278
jeff.ramsey@state.vt.us
VTrans Environmental Section Website

AGENCY OF TRANSPORTATION

ARCHAEOLOGY CLEARANCE ONLY

FROM: Jeannine Russell, VTrans Archaeology Officer
Project Name: **St. Albans City (Lake Street Rehab)**
Project Number: **TCSP TCSE(16)**

Field Visit YES ☒ NO ☐

TS Irene ☐

*****************Archaeological Resource Assessment*****************

☒ That the Archaeological Resource Assessment of the Area of Potential Effect (APE) conducted by **VTrans** ☒, **Consultant** ☐ _____, or **Sub-consultant** ☐ _____and dated 12/15/2014is adequate to identify archaeological resources. **Date ARA was approved** 12/15/2014.

☒ **Plans dated** 11/24/2014 and reviewed by **VTrans**.

Recommendations:

☐ Project **EXEMPT** (based on the PA 12/28/00).
☒ Project **CLEARED** with avoidance to all archaeologically sensitive areas.
☐ Project **CLEARED** with the following Conditions(See Conditions below)
☐ Recommend more archaeological study -

****************PHASE 1 & Beyond******************

☐ **The above project is being reviewed at which level:** .
Authorization Date: _____ Consultant Firm _____.
End of field letter/report Date _____.
Determination of Effect: **NO EFFECT**(NE) ☐
NO ADVERSE EFFECT(NAE) ☐ **ADVERSE EFFECT**(AE) ☐
Consultant Recommends:_____
Clearance of Date:_____

☒ **Additional comments or conditions that apply to this project:**

This project involves the cold planning and repaving of existing streets in the City of St. Albans as well as the replacement of existing concrete sidewalk, curbing and lighting. All of the proposed work will remain within a disturbed footprint. This project is separate from the proposed redevelopment of the city owned parking lot.

J Russell

_____ 12/15/2014
(***Signature of VTrans Archaeology Officer***) (***Date***)

Prepared by VTrans Archaeologist Brennan Gauthier

Appendix P

Right of Way and Utility Clearance

September 23, 2015

Scott Robertson
VT Agency of Transportation
1 National Life Drive
Montpelier, VT 05633

Project Name: St. Albans Lake Street
Project Number: TCSP TCSE(16)

Re: Right-of-Way Certification

This firm has served as special counsel to the City of St. Albans (the "City") in connection with the City's proposed Streetscape Project on Lake Street. In connection therewith, we have reviewed the plan identified as "St. Albans Lake Street," Project Number TCSP TCSE(16) dated July 1, 2015, prepared by Vanasse Hangen Brustlin, Inc., recorded in Book 270, Page 988 of the City of St. Albans Land Records (hereafter the "Plan").

This is to certify that:

1. As shown on Plan, all necessary rights-of-way have been acquired including legal and physical possession, the City of St. Albans, or its assigns, have the right to enter on all lands and the right of way is clear, subject only to receipt and recording of an Easement Deed from the State of Vermont regarding Plan Parcel Number 3, the date of which is to be inserted below upon receipt and recording.

2. All acquisition was in accordance with current Federal Highway Administrative Directives and Title III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

3. No acquisition required compliance with the provisions of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Following is a summary of the Project acquisitions:

Plan Parcel Number	Owner(s)	Effective Date	Acquisition Type
Number 1	Lake Street Office, LLC	August 31, 2015	Easement Deed
Number 2	Marx 2, LLC	August 27, 2015	Easement Deed
Number 3	State of Vermont	October 1, 2015	Easement Deed

Number 4	Butler House Limited Partnership	September 9, 2015	Easement Deed
Number 5	7-9 Lake Street Condominium Homeowners' Association, Inc.	September 15, 2015	Easement Deed
Number 6	American House Condominium Association	September 3, 2015	Easement Deed

Mark A. Saunders, Esq.
Dunkiel Saunders Elliott Raubvogel & Hand, PLLC

Agency of Transportation **Office Memorandum**

To: **Distribution**

From: **Robert M. White, Chief of Right-of-Way**

Date: **September 23, 2015**

Subject: **St. Albans City TCSP TCSE (16)**
12D326

Right-of-Way Certificate

This is to certify that:

1. All necessary rights-of-way have been acquired including legal and physical possession; the City of St. Albans has the right to enter on all lands. Therefore the right-of-way is clear.

2. All acquisitions were in accordance with current Federal Highway Administration Directives and Title III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

3. No acquisition required compliance with the provisions of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

4. There were no items in mitigation of right-of-way damages.

5. There are no Right-of-Way Special Agreements on this project.

Robert M. White

Digitally signed by Robert M. White
DN: cn=Robert M. White, o=Vermont Agency of Transportation, ou=Right of Way Chief, email=rob.white@vermont.gov, c=US
Date: 2015.09.23 10:54:19 -04'00'

RMW:bam

Distribution
Marvin D. Kingsbury, Federal Funds Administrator, Federal Programs Section
Scott Robertson, Project Manager, Municipal Assistance Bureau, Design Build Consultant Section
Craig Keller, Chief of Utilities & Permits Section
Martin Churchill, Financial Manager, Finance & Administration Section
Kenneth R. Sikora, Jr., FHWA
Acquisition (1)
ROW General File (original)

Mayor: Elizabeth Gamache
Ward 1: Timothy Hawkins
Ward 2: James Pelkey
Ward 3: Tammi DiFranco
Ward 4: Scott Corrigan

SAINT ALBANS
Vermont

Ward 5: Kate Laddison
Ward 6: Chad Spooner
Clerk/Treasurer: Susan Krupp
City Manager: Dominic Cloud

February 17, 2016

Utility Clearance for: LAKE STREET COMPLETE STREETS PROJECT ST. ALBANS – TCSP TCSE(16)

To Project File,

Utility adjustments are required by proposed construction plans for the subject project. All necessary arrangements have been made for the utility work to be undertaken and completed as required for proper coordination with physical construction schedules, in accordance with 23 C.F.R. 635.309b, with necessary agreements consummated with the appropriate parties concerned.

Sincerely,

Signature

City Manager
Title

2/17/16
Date

cc: VTrans Project Supervisor

www.vhb.com

vhb

Municipal Project Manager's Name / Address:

Mr. Dominic Cloud
City Manager
St. Albans, VT
P.O. Box 867
St. Albans, VT 05478

Project: St Albans - Lake Street Complete Streets Project TCSP TSCE (16)

Dear Mr. Cloud,

The noted projects plans, calculations and notes have been reviewed by our personnel and, to the extent required by the professional standard of care, they are both substantially free from errors and omissions and are in conformance with the appropriate standards and specifications.

Sincerely,

Signature of Firm Principal

Title: Sr. Project Manager

2-12-16

Date

cc: LTF Project Supervisor

Engineers | Scientists | Planners | Designers

40 IDX Drive, Building 100
Suite 200
South Burlington, Vermont 05403
P 802.497.6100
F 802.495.5130

Appendix Q

Requirements of State of Vermont Funding

Appendix Q: Requirements of State of Vermont Funding.

By signing this contract, the Contractor agrees to the following and hereby provides any certifications described below:

1. REQUIRED INSURANCE COVERAGE-TYPES AND AMOUNTS

Contractor must submit Certificates of Insurance that demonstrate the coverage types and amounts set forth below. It is Contractor's responsibility to maintain current Certificates of Insurance on file with the City until project acceptance. No warranty is made that the coverages and limits listed herein are adequate to cover and protect Contractor's interests. These are solely minimums that have been established to protect the interests of the State.

A. Workers Compensation: With respect to all operations performed, Contractor must carry workers' compensation insurance in accordance with the laws of the State of Vermont.

B. General Liability and Property Damage: With respect to all operations performed under the contract, Contractor must carry general liability insurance having all major divisions of coverage including, but not limited to:

Premises - Operations
Products and Completed Operations
Personal Injury Liability
Contractual Liability

The policy shall be on an occurrence form and limits shall not be less than:

$1,000,000 Per Occurrence
$1,000,000 General Aggregate
$1,000,000 Products/Completed Operations Aggregate
$ 50,000 Fire/ Legal/Liability

The State of Vermont and its officers and employees shall be included as additional insureds for liability arising out of the Project.

C. *Automotive Liability:* Contractor must carry automotive liability insurance covering all motor vehicles, including hired and non-owned coverage, used in connection with the Project. Limits of coverage shall not be less than: $1,000,000 combined single limit.

Please· advise the insurance agents that the Certificate of Insurance MUST note that the State of Vermont and its officers and employees are included as Additional Insureds for liability arising out of the Project. The coverage period noted on each Certificate of

Insurance must cover the timeframe when the actual work will be undertaken.

2. **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 except as required under applicable tax laws, which shall be determined in advance of execution of the Agreement. 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 Agreement income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

3. **Independence and Liability:** The Contractor will act in an independent capacity and not as officers or employees of the State.

   The Contractor shall defend the State and its officers and employees against all claims or suits arising in whole or in part from any act or omission of the Contractor or of any agent of the Contractor. The State shall notify the Contractor in the event o of any such claim or suit, and the Contractor shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit.

   After a final judgment or settlement the Contractor may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Contractor shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Contractor.

   The Contractor shall indemnify the State and its officers and employees in the event that the State, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the Contractor.

4. **Records Available for Audit:** The Contractor shall maintain all records pertaining to performance under this agreement. "Records" means any written or recorded information, regardless of physical form or characteristics, which is produced or acquired by the Contractor in the performance of this agreement. Records produced or acquired in a machine readable electronic format shall be maintained in that format. The records described shall be made available at reasonable times during the period of the Agreement and for three years thereafter or for any period required by law 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.

5. **Fair Employment Practices and Americans with Disabilities Act:** Contractor agrees to comply with the requirements of Title 21V.S.A. Chapter 5, Subchapter 6,

relating to fair employment practices, to the full extent applicable. Contractor shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Contractor under this Agreement. Contractor further agrees to include this provision in all subcontracts.

6. Taxes Due to the State:

a. Contractor understands and acknowledges responsibility, if applicable, 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. Contractor certifies under the pains and penalties of perjury that, as of the date the Agreement 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 Agreement 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 legal recourse to contest the amounts due.

7. Child Support: (Applicable if the Contractor is a natural person, not a corporation or partnership.) Contractor states that, as of the date the Agreement is signed, he/she:

a. is 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.

Contractor makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Contractor is a resident of Vermont, Contractor makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

8. Certification Regarding Debarment: Contractor certifies under pains and penalties of

perjury that, as of the date that this Agreement is signed, neither Contractor nor Contractor's principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible or excluded from participation in federal programs, or programs supported in whole or in part by federal funds.

Contractor further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Contractor is not presently debarred, suspended, nor named on the State's debarment list at:
http://bgs.vermont.gov/purchasing/debarment

9. Certification Regarding Use **of State Funds:** In the case that Contractor is an employer and this Agreement is a State Funded Grant in excess of $1,001, Contractor certifies that none of these State funds will be used to interfere with or restrain the exercise of Contractor's employee's rights with respect to unionization.