Section 3.0 – Contract Management

Chapter 3.0 Contract Management

List of Revisions

November 6, 2016:

- Issuance of Chapter.

August 25, 2017:

- Revised paragraph 3.1.3.3 “Determining Task Order Fee”
- Added Appendix N – “Statewide Task Order Approval Process”

3.0 **Contract Management**

3.0.1 Authority

As part of the project development, the Department utilizes various staffing and contract procurement to meet the objectives of the program. The Department remains committed to a strong, experienced, in-house expert staffing. In supplementing the expert in-house staffing for the overall engineering and construction program, contracted services remain an important component of meeting the program needs through consultant contracts and construction agreements.

The Federal requirements are defined under Code of Federal Regulations (CFR) through Title 23: Highways, while the State regulatory authority is granted through NH State Law such as RSA 2-I: 22 for selecting engineers, architects, and surveyors by State Agencies. It is not the intent of this guidance to detail the in-depth requirements of Federal or State laws. However, several of the criteria for the financial oversight of project development discussed within this guidance are a direct interpretation of these laws and regulatory requirements. The process for consultant selection is already established through Section 2.0 of this document and for construction through Section 100 within the current edition of the "Standard Specification for Road and Bridge Construction".

3.0.2 Definitions:

Additional work - Services beyond those in the original scope of work in each agreement.

Administrative Guidelines - Procedural guidelines established by the Department of Administrative Services governing the submission of material to the Governor and Council.

Agreement - A contract for professional/technical services between the Department and an individual or firm (Consultant).

Notice to Proceed - Written notification by the Department staff to the Consultant to begin work (as specified in the Agreement.

Consultant - An individual or firm providing professional/technical services to the Department, usually but not always associated with contracts obtained through Qualifications Based Selection.

Contractor - An individual or firm providing technical services to the Department, typically associated with contracts obtained through the low bid process.

Contract Types - There are generally three (3) types of contracts that the Department uses: Project Specific Contracts (23 CFR 172.9(a)(1)), Multi-Phase Contracts (23 CFR 172.9(a)(2)), On-Call or Indefinite Delivery/Indefinite Quantity (IDIQ) Contracts (23 CFR 172.9(a)(3). See Section 2.1.6 for more details about these contract types.

Cost-Per-Unit-of-Work Payment - Payment at an agreed rate (which includes salary, overhead, direct expenses, and fixed fee) for each unit of work, limited to a maximum total amount.

Cost-Plus-Fixed-Fee Payment - Payment of an agreed dollar amount based on salary costs times an overhead factor (which includes indirect costs) plus direct expenses and fixed fee, limited to a maximum total amount.

Director - The Director of the Division initiating the request for Consultant services.

Fee and Man-hour Proposal - A proposal stating the Consultant's costs for providing the services required for the project, including the breakdown of the proposed services by work hours, job classifications, salary rate, overhead, anticipated direct expenses, and fixed fee, plus any subcontracts.

FHWA - Federal Highway Administration; generally the New Hampshire Division office, in Concord.

Final Audit - An audit performed by the Department auditors prior to the final acceptance of a contract for the purpose of confirming and approving costs charged and/or paid for services rendered.

Fixed Fee - A dollar amount negotiated to cover the Consultant's profit and business expenses not attributable to overhead.

G & C - The Governor and Council of the State of New Hampshire.

Lump-Sum Payment - Payment of an agreed total dollar amount (which includes salary, overhead, direct expenses, and a fixed fee).

Negotiations - The process whereby the Department and the Consultant come to agreement on the details of the contract services to be provided and the dollar value of those services.

Overhead - Those business expenses that are not chargeable to a particular portion of the work or product (does not include wages or materials).

Profit - The compensation accruing to a Consultant for the assumption of a particular risk in doing business (does not include overhead, wages or materials).

Project Manager - The person who manages the Agreement while it is in force. (The NHDOT and Consultant each assigns its own Project Manager).

Scope of Work - A description of the work to be performed as required by the Department.

Specific Rates of Pay - Payment at an agreed specific hourly or daily rate (including salary, overhead, direct expenses, and fixed fee) for each class of employee directly engaged in the work, limited to a maximum total amount. This method of payment may only be used for inspection or other types of services where the consultant's personnel have no control over the hours worked.

Stewardship & Oversight Agreement – A guiding document between the FHWA and NHDOT that defines roles and responsibilities in administering of the Federal Aid program.

3.0.3 Contract Management Overview

Management of consultant/contractor activities under an Agreement is handled by a variety of people, and bureaus within the Department. For Project Specific Contracts, the process is the responsibility of the Project Manager assigned by the administering Division. He/she, in turn, is assisted by a project team assembled from other bureaus, as appropriate, for the Agreement being managed. Administrative assistance is provided by the bureau administering the Agreement and, as needed, by other Bureaus within the Department. For Statewide On-Call Agreements, the process is the responsibility of the bureau administering the contract, with approvals/assistance by others, as appropriate.

However, in order to maintain compliance to federal regulatory authority while managing these contracts, a "flow chart" process has been developed to create and strengthen the understanding of the process for contract management and role of federal oversight as established under the "Stewardship & Oversight Agreement" between NHDOT and FHWA New Hampshire Division Office. The Project Funding Authorization "flow chart," included as Appendix A for Preliminary Engineering and Appendix B for Construction, is intended to illustrate the process for management of engineering and construction projects in compliance with the Stewardship Agreement, interpretation of federal regulatory requirements and within the funding process through the State Transportation Improvement Program (STIP).

3.0.4 Project Development Contract and Cost Management Process

The Project Manager, Project Team Lead and/or Bureau Administrator (herein referred to as "Project Manager") are responsible and accountable for maintaining technical and administrative control of the project. The Project Manager has the authority to guide work activities and oversee the budgetary limitations for work performed through consultant/contractor contracts for projects under their management. Should no Project Manager be directly assigned to a project or program this responsibility falls upon the "lead person" (typically Bureau Administrator or Section Chief). The Right-of-Way Engineer is responsible for managing the requirements of Project Development within the Bureau of Right-of-Way. The Construction District Engineers are responsible for the construction management and oversight through the assignment of a project Contract Administrator.

Appendix A and Appendix B outline two distinct processes – in-house cost management and consultant/contractor cost management. Both processes require close oversight of planning or

preliminary engineering (PE), right-of-way (ROW) and construction (CON) expenditures. Under planning or preliminary engineering, the Project Manager will need to process PE funding for efforts completed in-house or completed through contract agreements.

The Project Manager will need to create a new project in ProMIS (the Department's Project Management Information System) with the appropriate engineering code and program estimates for project expenditures through Project Programming based upon the project's anticipated schedule. It remains critical for the Project Manager to verify the Department's STIP identifies the fiscal year for which the authorization is being requested and the amount for the future authorization. Authorization for preliminary engineering for in-house staff requires an Estimate to be processed through project programming, and receive FHWA approval prior to any project expenditures. The estimated costs for engineering are generally based upon the scope and difficulty of the project and historic data for costs on past projects with similar design complexities. The Project Manager needs to plan for these future costs over the life of the project for each design phase of the project (i.e.: preliminary design and final design). [Note: If funds are not programmed within the fiscal year, a STIP amendment will be required before authorization of engineering funds can be approved for federally funded projects, thus causing project delays].

3.1 Consultant and Statewide On-call Low Bid Contract Management

Contract agreements with consultants are typically "cost plus, fixed fee" or "lump sum" payment type agreements. Statewide on-call low bid contracts typically consist of bid items with cost rates determined at the time of bid as described in Section 2.2.

"Cost plus, fixed fee" is a cost reimbursement payment method and is based upon an agreed rate, which includes salary, overhead, direct expenses, and fixed fee (commonly referred to as "profit"). Once negotiated, the fixed fee does not vary even though the actual cost may and is set depending upon the complexity of the work. A typical fixed fee for a cost plus fixed fee contract can range up to ten (10%) percent and is paid based upon percent (%) of work completed. However, the fixed fee could be adjusted as a result of substantial changes in work or services, as defined in the original scope and hours budgeted, to be performed for any "out-of-scope" services. Because this type of contract provides a lower risk to the consultant and provides only a minimal incentive for effective cost management, the burden falls upon the Project Manager to ensure the quality and completeness of the work remains supportive of payment for services and the fixed fee. Careful monthly invoicing and firm understanding of the percentage of work completed is effective in monitoring cost plus, fixed fee contracts. It is important to note that the fixed fee payment shall be proportioned to the percent of work completed and not be proportioned to percent of direct labor expended. For example, if fixed fee for a contract is set at $100,000 and the consultant is 50% complete with the overall contract work, payment of fixed fee shall be limited to no more than $50,000 regardless of amount invoiced for direct labor. A simple cost plus, fixed fee invoice format is provided in Appendix E.

A "lump sum" contract is a fixed price payment method, which includes profit, overhead and directs expenses not attributable to overhead. This contract provides for a price that is not subject to any adjustments because of cost changes or increased work effort the consultant might encounter, unless it is outside the agreed upon scope of work. Because the consultant assumes full responsibility for all the costs under or over the fixed contract price, the consultant has a direct interest in the maximum profit incentive, as well as, effective cost control and management. The maximum fixed fee is fifteen (15%) percent. Lump sum contracting is generally used for scope of work that is reasonably defined with minimal risks for adjustments. Payment is stipulated upon percent complete for the scope of work under contract. An example of the lump sum invoice format is provided in Appendix F. Extra fee may or may not be considered for "in-scope" supplemental work efforts at the discretion of the lead person.

Project estimates for consultant contracts are processed for the initial contract agreement (cost plus, fixed fee or lump sum), and in-scope adjustments for cost plus, fixed fee contracts when justified. Contracts once under agreement may be modified without Governor and Executive Council (G&C) approval for changes to schedules, deletion of scope as allowed under the terms of the Agreement and for any supplemental changes in work that result in no dollar adjustment to the contract amount. Any change order for supplemental work that will increase the contact dollar amount beyond the contingency set under G&C resolution will require re-approval through G&C.

3.1.1 Contract Kick-Off Meetings

Prior to beginning any contract work there should be a meeting between consultant staff and the Department team, unless not required per the agreement. This meeting should be used to discuss and come to an understanding of the contract requirements from a contract management standpoint. Discussion topics should involve invoicing requirements, progress reporting, and anticipated use of direct expenses. This is to ensure the costs incurred on the project are eligible and reimbursable. An important topic to also cover is the process to handle potential contract amendments should they be needed. It should be reiterated that if the consultant believes there is in-scope supplemental work on a project, prior to completing any work on the task(s) involved, that the consultant and Department shall come to agreement on whether or not the work is warranted so what the scope and fee is for that work effort is. A determination as to whether or not a contract amendment is required also needs to be made. For more detail the process is described in the following sections.

Invoices will not be processed until the Prime Consultant has submitted to the Department copies of all subcontract documents as required in the Department's contract with the Prime Consultant. The lead person should remind the Prime Consultant of the requirement and the consequences, by the time of the Turnover Meeting.

3.1.2 Project Specific Consultant Contracts

The following is a summary of the three primary administrative types of consultant contracts as outlined in Appendix A:

3.1.2.1 *Initial Contract Agreement*

The project estimate at the initiation of the contract authorizes the consultant fees as defined within the Agreement. The authorization could consist of the total contract amount or for larger contracts, be multi-fiscal year funded (cash flow). As shown in Appendix A, the consultant is selected through the procedure outlined in Section 2.1 by the Department's Consultant Selection Committee. This process includes consultant letters of interest, short listing of consultant firms, development of Scope of Work, Request for Proposal (RFP), selection of consultant, preparation of the Department's independent fee estimate (see Appendix D for typical format), Commissioner's approval for scope and fee, and review and concurrence by FHWA for federal oversight projects as outlined within the Stewardship Agreement.

After approval of the scope and fee through the Department and FHWA, if required, the contract is processed for Governor and Executive Council (G&C) approval. Subsequent to this final approval by G&C, the project estimate should be processed for authorization of engineering funds to cover the amount under Agreement. If an increase in PE authorization is needed, the Project Manager will need to be sure the added PE funds have been identified with the STIP or must seek an amendment to the STIP to cover the unanticipated program funding. Once G&C approval has been granted and the authorization of funds has been processed, the Project Manager will provide the Notice to Proceed and manage the contract. Work on the contract by the consultant cannot begin until the Notice to Proceed is given by the Department.

3.1.2.2 *Out-of-Scope Services*

For any additional engineering and design related services outside of the scope of work established in the original request for proposal, the Department shall:

(i) Procure the services under a new solicitation;
(ii) Perform the work itself using internal staff; or
(iii) Use an existing On-Call services consultant, under which the services required would be within their scope of work.

3.1.2.3 *In-Scope Services Supplement*

"In-scope" supplements are for extra work within cost plus, fixed fee contracts where the original scope has taken extra effort to complete due to issues beyond the consultant's control. Modifications are generally not required to address minor changes, which are compatible with the existing scope of services unless the changes could result in an increase to the maximum amount payable. (Note: If the in-scope supplements are significant then a contract amendment per Section 3.1.5 may be required.)

While a well-detailed scope of services will reduce the need for modifications, design is an iterative process and changes will most likely occur. Modifications are generally used to authorize changes in project schedule, budget, and/or an expanded scope of services. The consultant generally initiates contract modification(s) with concurrence by the Project Manager. The consultant will need to provide the Department written justification, supportive documentation, and cost proposals prior to any work being performed. The following is a general set of parameters that should be followed when considering a contract modification:

- A modification should be prepared, processed and executed by all parties before commencing the work. Under certain situations the work may need to be advanced to maintain critical project schedules. Under these situations the Project Manager, with concurrence from the Assistant Director of Project Development and FHWA (for oversight projects), shall define the circumstances under which the work can be advanced and agree to the short-term cost containment measures, including task specific upset budget limits, to be followed by the consultant prior to processing the formal adjustment as outlined by these guidance;
- Should a time extension be required to complete the authorized work, a contract modification for the time extension shall be processed before the expiration of the contract. The typical timeframe for processing contract modification through the Governor and Executive Council approval process is approximately two (2) to three (3) months. Depending upon the length of the time extension and reason, a cost adjustment for scope changes or inflationary amendment may be warranted;
- The consultant is responsible to notify the Project Manager immediately during the contract period if it appears that additional compensation may be necessary. Requests for supplemental compensation will need to be evaluated by examining the consultant's progress and satisfactory completeness of past work tasks meeting Department's design criteria. Justifications for additional fee could consist of a change in the character or complexity of the work or extra work requested by the Department;
- Decreases in scope of work, the contract time or the maximum payable should be processed as a modification so the consultant will not have appeared to default or otherwise not perform work required under the contract. The Project Manager will likely need to take the initiative when there is a warranted decrease in scope of services.
- Amendments to the scope of work shall not automatically warrant an increase in the fixed fee portion of a cost plus fixed fee reimbursed contract. Depending on the size and complexity of the permitted changes to the scope of work, or increase in duration of the contract, may warrant consideration for adjustment of the fixed fee portion of cost plus fixed fee or lump sum reimbursed contracts.

An example of potential in-scope supplement would be a project design that required an expanded closed drainage design beyond originally negotiated scope due to environmental permitting that was beyond the Department's control. As a result, the revised drainage design would require the design of a

more extensive closed drainage system and additional water quality treatment basins resulting in more time to complete the design. While the project's scope of work includes drainage design, the level of design scope would substantially increase and warrant increase fixed fee due to the higher order design for closed drainage and treatment basin to be carried forward in each subsequent plan development phase.

In-scope supplements remain the most challenging to administer and document. Approval for all extra work should be obtained before the work is undertaken. However, awareness of the need for greater design and engineering effort comes "after-the-fact" when the engineering has been completed for certain design phases. It remains important for the Project Manager to have effective and manageable oversight of the work effort and expenditures. This can be accomplished through close review of the consultant's monthly invoicing. Appendix E provides an example of effective invoice formatting for management oversight. The invoice for cost plus, fixed fee contract should be developed to allow for distribution of budget hours and contract dollars for each major work tasks. For each invoice period, the Project Manager reviews the percent expended for contract dollars per phase with the total hours expended and compares it to the overall "percent completion of work". Should the Project Manager begin to observe that expenditures are outpacing percent completion, an open dialog with the consultant will be necessary to determine the cause and effect of the variations.

As the Project Manager observes the variances in the invoice, the Project Manager will need to determine whether payment will be withheld until documentation can be provided that supports the additional work effort. The following are general guidelines for contract management oversight:

- Limit maximum invoice payment to no more than 10% over the allocated budget amount for each design task within each design phase. The Project Manager shall strive to limit overruns to design tasks within a design phase so there will be no overruns for a particular design discipline (i.e. project management, highway, bridge, environmental, etc.);
- For payment of invoice amounts over the 10% ceiling, request backup documentation from the consultant to support the overage for any design phase/task request. If the consultant cannot justify the overage or the overbilling is attributed to poor quality of work, errors and omissions, etc., no payment shall be approved. The Project Manager shall notify the consultant in writing as to the amount of payment being withheld and the reasons for payment being withheld. In the event that the overage is attributed to the consultant's unsatisfactory performance or when it is deemed in the best interest of the Department to cease work on the project, a written stop-work notification shall be issued to the consultant;
- Should the consultant's support for the overage be justified, the Project Manager shall determine if the design phase budget overrun can be accommodated via budget reallocations within the current contract limits before considering a contract modification;
- At the completion of 50% of work effort, typically at the completion of the "line and grade" for pre-hearing, preliminary design phase or at the "slope and drain" (S&D) and preliminary bridge plan submission under final design, the Project Manager shall review the overall budget and

expenditures to assess the ability of the consultant to complete the work under the agreement within the budget;

- After the completion of 75% of the work effort, typically after the approval of the PPS&E highway and bridge plans for the final design scope, the Project Manager should review the remainder of the contract budget to determine if sufficient funds are available to complete the remaining scope of work;
- The Project Manager should evaluate the contract budget at any time the consultant requests a contract extension to ensure adequate funds remain to complete the work.

The Project Manager shall continually evaluate any disparity with percent overall expenditures compared to percent overall work complete. Should the expenditures exceed the percent work complete, the Project Manager shall review the project status with the consultant to determine the reasons for the disparity and take appropriate corrective action. In addition, the fixed fee payment shall not be authorized for payment beyond the proportional amount for the percent of work completed and not be proportioned to percent of direct labor expended.

In order to ensure the contract work is completed within the budget, payment of invoices shall be limited to no greater than 10% over any design phase without justification. At no point shall the contract total and/or fixed fee be expended beyond the limit set in the contract.

Should the consultant have supporting documentation to justify an in-scope supplemental adjustment, the Project Manager shall initiate negotiations for the increased work effort and inform the Assistant Director of Project Development as to the situation.

Because the Project Manager is required to manage the bottom dollar of the contract, reallocations within the budgeted phases is to be reviewed before processing any amendment to the contact total. If budget re-allocation can be accommodated within the current contract due to consultant's efficiencies to complete prior and/or future tasks, the Project Manager shall provide a memorandum through the Assistant Director of Project Development to the Director of Project Development outlining the budget shifts, reasons for the shift and seek the Director's approval if the reallocation shifts fees between subconsultant(s) and/or direct expenses. Upon approval, the Project Manager shall process the contract amendment per Section 3.1.5 and provide documentation to FHWA, should the project have federal oversight. With concurrence from FHWA, if required, contract reallocations can be granted and the consultant shall adjust the invoice account balance for the budget adjustments.

Should the contract budget need to be increased and budget reallocations cannot be accommodated, the process will follow the same approach as "out-of-scope" work noted above in Section 3.1.2.2.

3.1.3 On-Call or Indefinite Delivery/Indefinite Quantity (IDIQ) Contracts

This is a contract for the performance of services for a number of projects, under task or work orders issued on an as-needed or on-call basis, for an established contract period. The procurement of services

to be performed under on-call contracts shall be by issuing task orders either through a competitive negotiation procedure for QBS-established contracts or through direct assignments for contracts obtained via low-bid process.

3.1.3.1 *Task Order Development Process*

The development of task order assignments is essential for the tracking and documentation of consultant/contractor work scopes and project budgets. The documentation generated during this process memorializes agreed upon work tasks and allows for the Department Project Managers to plan accordingly for their project estimates. IDIQ contracts also have their own maximum limit that can be expended on other projects during their contract term. The Lead Bureau shall develop task order assignment procedures that follow prescribed contract requirements and provide adequate documentation for accountability of all expenditures.

3.1.3.2 *Determining Task Order Scope of Work*

Worked performed under an IDIQ contract is managed through individual task order assignments, which are either negotiated or made as direct assignments depending upon how the contract is structured. The manager of a QBS-established contract will work with the consultant to develop an assignment scope of work. The project details needed to develop the scope are discussed with the consultant during face-to-face meetings, over the phone, or via e-mail (depending upon project complexity). The scope must be representative of the tasks laid out in Article I of the applicable contract approved by Governor and Council, and agreed upon by both the Department and the consultant. For a low-bid contract, the scope of work for a task order assignment is typically determined by assignment of a certain quantity of bid items in Article I or Exhibit A of a P-37 contract.

3.1.3.3 *Determining Task Order Fee*

For a low-bid contract the task order fee is usually determined from the quantity of work assigned to the consultant/contractor multiplied by the associated bid item rate. While there may be a minor amount of negotiation on the scope of work for a task order assignment under a low-bid contract, there is no negotiation of the bid item rates.

The process for determining the task order fee for QBS-established contract is more involved. Following development of the scope, the contract manager will develop an independent government estimate (IGE) based upon the tasks outlined in the scope, and will subsequently request that the consultant submit a proposed fee. The IGE is then compared to the consultant's proposed fee to determine reasonability of costs. The consultant's proposed fee and the IGE should be within a reasonable range. If there is substantial difference, negotiations may be needed to either clarify the scope and/or agree on a fee. Once agreed upon, the consultant's approved scope and fee are combined and represent a complete proposal and become the basis for the Authorization. Prior to giving a Notice to Proceed the Project Manager/Lead Person shall gain approval of the task order assignment in accordance with the *Statewide Task Order Approval Process* memo dated October 13, 2015 (see Appendix N)

3.1.3.4 *Notice to Proceed*

Once the consultant/contractor and the Department agree on the scope and fee for a task order, the Department's contract manager notifies the consultant/contractor that they are approved to proceed with the work. When possible, notifications should consist of a written Notice to Proceed letter, which details the scope of work and the expected costs. A copy of the letter shall be sent to the Project Manager of the project for which the task order is being completed. For situations where short notice assignments are common (e.g. construction inspection and material testing) an assignment may be made by email or a phone call. In all cases, it is important that written records of assignments be made to allow verification of costs when invoiced. (A written Notice to Proceed letter serves this purpose well.) Email or verbal assignments should be recorded in project daily reports or other shared records systems that allow a process of verification.

3.1.3.5 *Closing Task Orders*

As individual task orders are completed the project manager and consultant/contractor should work together to determine the final amount invoiced and paid under the task order. Once the task order payments are finalized that task order can be closed and any unspent balance in that specific task order can be reallocated to other task order efforts as needed within the agreement.

3.1.4 Invoicing Procedures

Administration of contracts requires consistent overview and monitoring by the Project Manager. The invoice format is intended to provide the optimum means for assessing budgets and expenditures. Consultants/contractors will need to submit invoices as specified in the Contract. The degree of detail required for inclusion in the invoice is dependent on whether the contract is a lump sum, cost plus fixed fee, or on-call low bid. For processing purposes the consultant/contractor only needs to provide one copy of an invoice for processing. An invoice will be processed so that it is paid within 30 days of receipt to meet prompt payment requirements.

The Department will not pay invoices without assurance from the Administering Bureau or the Project Manager that work is being performed by the consultant/contractor per the terms of the agreement. The agreement shall include a clause requiring the consultant/contractor to perform such additional work as necessary to correct errors in the work without incurring undue delays and without additional compensation therefor. Should it become necessary, further administrative support and approvals are requested from the Directors and Commissioners, Committee or Consultant Subcommittee, Auditor and the Bureau of Finance and Contracts. The functioning of the Project Team, assisted by various Divisions and Agencies, as directed by the Project Manager, is complex and will vary depending on the type of project and scope of work.

All invoices shall include the following, unless not required per the applicable agreement:

a. Cover letter outlining in "bullet" form, tasks addressed with the current invoice. The Prime and its major Sub-consultants will provide explanations of work performed during invoice period.

For multiple contracts under one agreement, each contract must be addressed individually within the invoice.

b. Schedule of dates and percentages of major tasks completed and dates of anticipated milestones.
c. The contract agreement current completion date needs to be included on each invoice.
d. Spreadsheet summarizing information relative to the Prime and Subconsultant costs including:
    i. Contract upset limits (asterisked, if appropriate, with dates of approval for contract fee adjustments).
    ii. Current running totals of amounts paid to date.
    iii. Current invoice totals.
e. Invoices will be consecutively numbered (Invoice #1, Invoice #2, etc.)
f. A certification statement stating that, "I certify that the above services and expenses are correct and for the purpose intended." This certification statement shall be signed by the person in responsible charge of the contract for the firm.
g. All invoices will be submitted in US Dollars. Any necessary conversion from foreign funds to US Dollars will include the exchange rate used and the date the exchange rate was calculated from.

It should be noted that the Department does not withhold retainage on its consultant or on-call low bid contracts.

3.1.4.1 *Invoices for Cost Plus Fixed Fee Agreements*

In addition for "cost plus fixed fee" contracts, the invoices shall also include the following information. A sample invoice is included in Appendix D.

a. Spread sheet for each active Prime Consultant or Sub-consultant outlining current invoice costs and containing the following:
    i. Employee's name and generic position (as listed in the fee proposal).
    ii. Hourly rate.
    iii. Hours worked.
    iv. Wages paid.
    v. Total direct labor costs.
    vi. Overhead rate at time of contract execution and total overhead cost.
    vii. Fixed fee.
    viii. Direct expenses, with items categorized, listing rates, quantities, and totals.
    ix. Total for current invoice.

b. Back up materials for direct expenses:
    i. Receipts (for phone, postage, and other project specific materials).
    ii. Detailed receipts will be required for meals and lodging reimbursement that show what was ordered for meals and drinks, or how many rooms, the daily rate and the total lodging being requested for reimbursement.

iii. For tolls and mileage reimbursement a log of beginning point, destination (site review, meeting location, etc.) location, and then return ending point, along with total mileage will be required.

c. Spread sheet outlining direct labor and overhead costs expended by project phase or task. The document should include the cost as originally estimated in the fee proposal or fee adjustment proposal, and should include the actual approximate percent complete (not the mathematical percent expended) for the phase or task. Billing should be based on the actual percent complete of the phase or project and not the percent of dollars or staff hours expended.

3.1.4.2 *Invoices for Lump Sum Agreements*
For invoices under lump sum contracts, the invoices shall include the following additional information. A sample invoice is included in Appendix F.

a. Spreadsheet listing tasks as listed in the Agreement.
b. Contract limits associated with those tasks.
c. Percent complete as estimated by the Consultant for each task.
d. Total cost incurred to date for the task.
e. Total cost previously invoiced for the task.
f. Cost incurred for the task for the current invoice (Item d minus Item e).

3.1.4.3 *Invoices for Statewide On-Call Low Bid Agreements*
For invoices under Statewide low bid agreements, the invoices shall include the following additional information. A sample invoice is included in Appendix G.

a. Quantity of work based upon Bid Items.
b. Bid rates based upon those listed in the agreement.
c. Percent complete as estimated by the consultant/contractor for each task.
d. Total cost incurred to date for the task.
e. Total cost previously invoiced for the task.
f. Cost incurred for the task for the current invoice (Item d minus Item e).

Back up materials for direct expenses:

i. Receipts (for phone, postage, and other project specific materials).
ii. Detailed receipts will be required for meals and lodging reimbursement that show what was ordered for meals and drinks, or how many rooms, the daily rate and the total lodging being requested for reimbursement.
iii. For tolls and mileage reimbursement a log of beginning point, destination (site review, meeting location, etc.) location, and then return ending point, along with total mileage will be required.

3.1.4.4 *Invoicing Errors*

Invoices with errors will be returned to the consultant/contractor for correction and resubmittal. Corrections will not be made by Department personnel to the invoice. Once a corrected invoice is received it will then be processed within 30 days to meet prompt payment requirements. For invoices needing correction and resubmission, the 30 day period re-starts when the corrected invoice is received.

When an invoice is received which requests payment in excess of the project percent complete, the Project Manager will promptly inform the Consultant in writing or email, explaining that payment cannot be processed until the percent complete is verified to be commensurate with payment requested. If the Project Manager agrees that a supplemental adjustment is necessary, the process as outlined in Appendix A shall be followed for processing of the necessary supplement.

3.1.4.5 *Final Invoicing*

When a contract is complete the last invoice submitted by the consultant shall be noted as being the FINAL INVOICE. When a consultant's services for a particular project are no longer required, the project manager/lead person will notify the bureau administrative assistant, who in turn, will ask for the confirmation from the consultant that the last invoice has been received (see attached sample letter in Appendix K). Upon confirmation, the administrative assistant will notify the Budget and Contracts that the final invoice has been paid and the contract can be closed out.

3.1.4.6 *Direct Labor (Wage Rates)*

(This section does not apply to Statewide On-Call Low Bid agreements)

Wage rates in a Contract are typically set based upon an average, inflationary wage rate over the life of the contract. The average inflationary wage rate is used for developing the contract fee. Over the life of the contract, it is expected that the Consultant will be adjusting the employees' wages. Wage rate adjustments may be approved only if the adjustments are companywide and reasonable. An employee's wage rate must be applicable to all work performed by the employee, not just Department related work. In addition, the maximum allowable wage rate shall not exceed the Department's policy on the maximum direct-labor rate. The Department has established a salary cap [currently $60.00 per hour] unless the Department has approved a waiver to the salary cap based on supportive documentation for a particular specialty service(s) for either the Prime Consultant or their Subconsultants. Any adjustments to wage rates set by the Department shall only apply to new contracts unless the Consultant requests a contract amendment.

In order to monitor rates and rate increases, the Consultant shall submit, within 15 days after the contract award, the current wage rates and date of last rate adjustment for each employee. This will be required for both the Prime Consultant and "major" Subconsultants. In addition, the lists of wage rates and dates of last adjustment will be resubmitted for approval whenever an employee's rate is adjusted or an employee new to the project is brought on board. The Department has 30 days in which to comment relative to the employee's position or wage rate.

Overtime wage rates by the Consultant employees cannot be charged without formal prior approval by the Project Manager.

3.1.4.7 *Overhead Rates*
(This section does not apply to Statewide On-Call Low Bid agreements)

Overhead rates are business expenses that are not chargeable to a particular portion of the work or product and do not include wages or indirect costs. Overhead rates are set based upon independent audits of the Prime Consultant and their major Subconsultants. The Department's staff auditor reviews the Consultant's audit in advance of entering into the contact agreement and the rate is generally established for the life of the contract.

Under current Federal Highway Administration regulations, state highway departments are prohibited from capping overhead rates for cost plus/fixed fee agreements on Federal Aid projects. However, in the interest of controlling costs and maintaining a competitive edge, a Consultant may voluntarily cap its overhead for a project or a certain length of time at a rate it feels is reasonable and appropriate. If a Consultant elects to cap its overhead rate, it shall offer such a cap in writing as part of the fee negotiation process. Consequently, invoices would be paid at the contract overhead rate (determined by the audit performed during the fee negotiations) up to the capped overhead rate.

3.1.4.8 *Direct Expenses*
Direct expenses involving materials purchased by, or service supplied to, the Consultant that are directly related to developing the project are eligible for reimbursement as part of the Contract. Reference material, software equipment, etc. that is purchased under direct expenses for the project's use must be turned over to the Department at the completion of the project. Services or materials, which are not project-specific in nature, are not eligible for reimbursement as direct expenses. Typically, such items are included as part of the overhead expenses.

Costly items or those not typically considered, as direct expenses must be approved in writing prior to the expenditure being made, to be eligible as a direct expense. The Contract and/or the fee proposal should address the Department's position relative to the amount of out-of-state travel, meals, and lodging expected by a Consultant utilizing out-of-state staff. The Project Manager shall review the expenses for reasonableness and notify the Consultant if there is any ambiguity (i.e.: first class and/or business class air travel rates, etc).

Meals cannot be charged unless (1) the Consultant has been in the field (not the office) in excess of 10 hours and at the time of the meal is anticipating another 2 hours of fieldwork or driving prior to reaching home, or (2) the Consultant has been requested by the Department to attend a night meeting. Morning or noontime meals are not reimbursable, except following an overnight stay that was pre-approved by the Department. Meals shall be reasonably priced. Reimbursement for nighttime meals shall not

exceed the allowable Federal per-diem rate. Under no circumstance will alcoholic beverage expenses be reimbursed.

Lodging rates, when approved, shall not exceed those allowed by the Federal per-diem rate. The Consultant should contact the Project Manager prior to arranging lodging to verify approval and what the current acceptable rates are for that region and time of year.

Mileage rates shall not exceed the Federal mileage rates. The Consultant should contact the Project Manager to determine the allowable mileage rate. The mileage rate may change over the life of the Contract.

The Project Manager will be responsible for the timely processing of the consultant invoices. At the start of a Contract agreement, invoices will not be processed until the Prime Consultant has submitted copies of all subcontract documents and agreements as required in the Department's contract with the Prime Consultant. The Project Manager should remind the Prime of the requirement and the consequences, by the time of the Turnover Meeting.

All subsequent invoices shall be mailed or delivered to the Project Manager who will review the invoices for general conformity with respect to his/her understanding of the work outlined, the overall percent of project completed, and the schedule of the project. The Project Manager will then forward invoices to appropriate support personnel who will undertake a detailed review of the invoices. This will include an assessment of the appropriateness of the man-hours expended, and verification of wage rates, overhead, fees, and direct expenses. Concerns or errors should be noted and the invoices returned to the Project Manager. The Project Manager, or his/her designee, will be responsible for contacting the Prime and major Sub-consultants relative to the Department's review.

The Consultant's invoice, or re-submission of an invoice, should be reviewed within the first two weeks by the Project Manager and support staff for general acceptance. At a minimum, the invoices must be completed within three weeks, to assure the Consultant is paid by Budget and Finance within 30 days of receipt of invoice.

3.1.5 Modifying (Amending) Agreements

An Agreement may be modified (amended) only with prior approval of the Governor and Council. An amendment can be initiated by the Project Manager, the Project Team, the Bureau administering the Agreement, or the Consultant. For projects with FHWA overview, FHWA approval for the amendment must be obtained prior to preparing the amendment. Once an amendment has been agreed to by the Department and the Consultant, documents amending the Agreement are transmitted to the Bureau of Finance and Contracts for processing. The Bureau of Finance and Contracts obtains the necessary signatures and documents required prior to the execution of the amendment by Governor and Council. An amendment becomes effective upon approval by Governor and Council. After approval, the Bureau

of Finance and Contracts makes the same distribution of the amendment as the original Agreement, so that the amendment will be included in each copy of the Agreement.

When the scope of the Agreement changes significantly, the Project Manager shall refer the matter to the Committee. If the Committee determines that the Consultant (or a Subconsultant) is qualified to perform the work under the revised scope, the Project Manager may proceed with the processing of an amendment for the additional work. If the Committee determines that the Consultant (or a Subconsultant) is not qualified to perform the revised scope of work, the Committee will refer the matter to the Director or Commissioners. If the Director or Commissioners concur that the Consultant (or a Subconsultant) is not qualified to perform the revised scope or work, the Committee or the Project Manager will be directed to either terminate the award process or cancel the Agreement and recycle the selection process as appropriate.

3.1.6 Canceling Agreements

An Agreement may be canceled only with the approval of the Division Director or Commissioners. The Project Manager and the Administrator of the Administering Bureau together may recommend, for valid reasons, the cancellation of any Agreement prior to its completion. The Project Manager and Bureau Administrator shall present their reasons to the Division Director and Commissioners. If appropriate, the FHWA shall also be notified prior to the canceling of the Agreement. Upon receiving the Division Director's or Commissioners' approval of the cancellation of the Agreement, the Administering Bureau or Project Manager shall notify the Consultant that the Agreement has been canceled and that they must cease work. From that point on, the process follows the procedure in 3.1.8 - Contract Close Out Procedures.

3.1.7 Resolving Disputes in Procurement/Management of Contracts

Any dispute or disagreement that cannot be resolved between the DOT staff and consultant staff can be elevated to the Bureau Administrator and then to the Division Director. If at that point, no resolution can be found the final determination will be made by the Assistant Commissioner.

3.1.8 Contract Close Out Procedures

Closing out an Agreement is handled within the overall process of managing Consultant Agreements. The process is initiated by the Project Manager or Project Team or the Bureau administering the Agreement. Final acceptance documents are prepared by the Administering Bureau and sent to the Consultant for concurrence and acceptance of the final payment and returned to the Administering Bureau for processing of the final payment. The Project Manager or Administering Bureau also initiates a memo to the Director and Commissioners confirming that the work has been completed and, therefore, the Agreement will be closed out.

The process is similar for a cost plus fixed fee payment, except that a final audit of overhead factors is conducted and an adjustment made against salaries. This action is completed prior to the Administering Bureau's forwarding acceptance documents to the Consultant.

3.1.8.1 *Contract Close Out Audit*
Any Federal aid funded contract over $200,000 could require an audit by the Department's Internal Auditor at the close-out of the contract. See Department Policy 104.02 (in Appendix L) for additional detail.
Note: Should a final overhead audit identify an overhead factor lower than that previously established, thus resulting in excess payment having been made to the Consultant, the Consultant will be required to reimburse the Department accordingly as part of the acceptance and concurrence in the final cost.

3.2 Evaluating Consultant Performance under the Contract
A final performance evaluation report shall be prepared by the Project Manager and submitted to the Committee. The report shall include an evaluation of such aspects as timely completion of the work, conformance to contract cost, and quality of the work. A copy of the report shall be sent to the Consultant for their review and comment and any written comments shall be attached to the final report, which is reviewed by the Director and the Assistant Commissioner.

3.2.1 Interim Evaluations
Depending on the size, complexity and duration of the contract interim evaluations may be completed at major milestones throughout the contract. As a minimum, if a contract is more than a year in length an interim evaluation will be completed at the midway point in the contract and at the completion of the contract. Interim evaluations can be completed as necessary throughout the life of the contract to address an issue or concern that requires resolution.

3.2.2 Construction Evaluation of Contract Plans
After the construction contract is complete, construction staff submits a "Construction Evaluation of Contract Plans" form that will be reviewed by internal staff and the Consultant Selection Committee. The intent of these evaluations is to review issues or concerns with the constructability of the design plans. This evaluation, and the knowledge gained from the review, allows designers to make adjustments on future plans so the same issues are not repeated. A copy of the evaluation will be made available to the consultant.

3.3 Conflict of Interest (23 CFR 172.7(b)(ii)(4))

3.3.1 Purpose
The purpose of this conflict of interest guideline is to assure procurement of consulting services for engineering design and/or construction inspection is done in a fair, open, and competitive manner, and avoids conflicting professional or personal interests when such competing interests could potentially affect the ability to provide impartial decisions and/or perform contractual obligations. This guidance applies to all Federal Aid Projects including projects of "sub-recipients" (i.e. Local Public Agencies (LPAs) otherwise known as the community administered projects) of these funds. This guideline is intended to

supplement, but not replace any applicable state and federal laws governing conflict of interest applicable to state agencies.

3.3.2 Policy

3.3.2.1 *Consultant Policy*
A consulting firm, officer/employee of a consulting firm, or a firm acting in the capacity as a sub-consultant, performing professional services for the Department or sub-recipients receiving Federal Aid funds in connection with a project, shall not directly or indirectly have a financial, personal or other interest, in any contract or subcontract in connection with such project other than employment or retention by the Department or sub-recipient. See Appendix I.

3.3.2.2 *Department Policy (23 CFR Part 172.7(b)(4))*
No employee, officer, or agent of the Department shall participate in selection or in award or administration of a contract if a conflict of interest, real or apparent, would be involved. Such a conflict arises when there is financial or other interest in consultant selection for award by the employee, officer or agent: any family member of his/her immediate family: or an organization that employs or is about to employ any of the above. See Appendix J

3.3.3 Responsibility

3.3.3.1 *Consultant Responsibility*
It is the responsibility of the consultant firm to anticipate, identify, and disclose any actual, potential or appearance of a conflict of interest to the Department or sub-recipient. Sub-consultants are responsible for disclosing any actual, potential, or appearance of conflicts of interest to the prime consultant firm, and the prime shall disclose the sub-consultant's conflict to the Department or the sub-recipient. The Department or sub-recipient retains the sole discretion to determine on a case-by-case basis whether a conflict of interest exists and will base the determination on facts made available at the time of determination. Any unknown facts or change in facts may necessitate a reevaluation of the original determination.

The consulting firm, officer/employee of a consulting firm, or a firm acting in the capacity as a sub-consultant shall notify the Department's Project Manager/Lead Person or sub-recipient of a conflict of interest in writing, fully explaining the conflict and providing suggestions or protocols to remedy the conflict prior to:

- The completion of any consultant selection process;
- Engaging a sub-consultant on a Department contract;
- Performing construction inspection/oversight on a project which the firm performed the design;
- Accepting any work from an entity other than the Department that is associated with a project on which the firm performed services for the Department.

The Department's Project Manager/Lead Person or sub-recipient will be responsible for reviewing the firm's suggestions and protocols, and requesting approval from the Assistant Commissioner thru the Division Director on whether to object to the conflict, mitigate the conflict, or require the firm or sub-consultant to remedy the conflict.

A copy of the approval from the Department Assistant Commissioner must be on file in the firm's office and available for review by the Department, if requested.

3.3.3.2 *Department Responsibility (23 CFR Part 172.7(b)(4))*
Every year, all Department staff shall certify that they have no conflict of interest, as defined by State and Federal laws, pertaining to any consultant firms, or vendor, that the Department has or may hire. The employee shall be required to notify their supervisor if, at any time during the year, a potential conflict of interest, real or apparent, arises.

3.3.4 Procedure

3.3.4.1 Consultant Procedures
In general and as practical, consulting firms that have performed the engineering design for a project should not be selected for the construction inspection/oversight for the same project, as it can have the appearance of a conflict of interest.

However, if the Department or sub-recipient determines there is a justified need to retain the same consulting firm for construction inspection/oversight services on the same project the firm performed the engineering services on, the consultant may be considered for the construction inspection/oversight services provided that there is a determination that no conflict of interest exists, or mitigation measures can be implemented that will assure no conflict of interest. If the consulting firm is aware of, or identifies a conflict of interest, the firm shall disclose to the Department or sub-recipient any association, interest, or circumstance which could influence the firm's judgment or quality of services, and submit a plan and procedure for mitigation that shall be put in place by the firm to avoid the conflict of interest or perception. This disclosure and mitigation shall be provided to the Department's lead person/project manager or the sub-recipient.

The Department's lead person/project manager or sub-recipient shall review the consulting firm's conflict of interest disclosure and mitigation measures and make a recommendation to the Division Director and Assistant Commissioner with the justification and the mitigation measures.

The Division Director shall review the recommendation from the lead person/project manager or sub-recipient regarding the conflict of interest disclosure and mitigation measures from the firm and the Assistant Commissioner shall approve or disapprove the lead person/project manager, or sub-recipient's recommendation.

If the consulting firm's conflict of interest documentation and mitigation measures are approved for construction oversight/inspection, the lead person/project manager or sub-recipient shall put in place monitoring, evaluation and reporting procedures sufficient to ensure overall compliance and that no conflict of interest exists. This will include regular sampling and evaluation of the contract documents, and preparation of reports of findings and any remedial actions required.

3.3.4.2 Department Procedures

If there could a be a potential for a conflict of interest it is the responsibility of the employee to notify their supervisor immediately and if appropriate develop a mitigation process to avoid any interaction between the employee and the consultant firm or Department staff that could influence the selection, award or management of the consultant contract. Any mitigation process shall be approved in writing by the employee, their supervisor as well as the Division Director and Assistant Commissioner.

3.3.5 Nonconformance Action

Failure to obtain approval for any conflict of interest on any Federal Aid project or sub-recipient project that is federally funded may jeopardize the consultant firm's selection for that project. If there is reasonable cause to believe a consultant firm knew, or, through the exercise of reasonable care should have known, that the consultant firm has actual or possible conflicts of interest with respect to its proposed role in the project, and that the consultant firm failed to disclose such actual or possible conflicts of interest to the Department, the Department or sub-recipient shall inform the firm of the basis for such belief and afford the consulting firm an opportunity to explain the alleged failure to disclose. If, after hearing the consulting firm's response and after making further investigation as warranted by the circumstances, the Department or sub-recipient determines the consulting firm has knowingly or intentionally failed to disclose an actual conflict of interest in violation of this Policy, the Department may take appropriate disciplinary and corrective action up to and including debarment from the Department Consultant Eligibility List and/or suspension from participation in any Department or sub-recipient work for a period of up to 5 years for the first offense, and permanently for any future offense. In determining whether to impose any such disciplinary or corrective action, as well as the nature and severity of any such action to be imposed, the Department shall take into consideration the seriousness of the alleged violation and the particular circumstances involved, including whether the consulting firm intended by its nondisclosure of the conflict to mislead the Department or to gain an unfair advantage in the selection process.

3.3.6 The Department shall promptly disclose in writing any potential conflict of interest, either by a consultant firm or Department staff, to FHWA.

3.4 Suspension, Debarment and Consultant Eligibility (23 CFR 172.11(c)(4))

Prior to entering into an agreement or contract the Department shall verify suspension and debarment actions and eligibility status of the consultant and their sub-consultants.

By signing a contract, the Consultant certifies to the best of their knowledge and belief that neither it nor its principals:

a. Is currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency;
b. Are not presently suspended, debarred, voluntarily excluded or determined ineligible by any federal/state agency;
c. Do not have a proposed debarment pending; and
d. Have not been indicted, convicted, or had a civil judgment rendered against him/her/it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

Exceptions will not necessarily result in denial or termination of the contract, but will be considered in determining the Consultant's responsibility. The contract shall indicate any exception, identify to whom or what agency it applies and state the date(s) of any and all action(s). Providing false information may result in criminal prosecution and/or administrative sanctions.

3.5 Liability for Quality, Technical Accuracy, and Errors

This section identifies the Department's position regarding cost recovery from the design consultant for errors or omissions in the construction documents which result in increased construction costs.

The term "cost recovery" is misleading. In fact, the objective of the cost recovery process is to minimize or eliminate cost recovery situations on Department construction projects. This can be accomplished through a cooperative partnership between the Department and the design consultant based on the following criteria, principles and guidelines:

- Involvement of the designer, early and often, allows the designer the opportunity to anticipate and resolve design related problems, or mitigate their impact as they are recognized in the field.
- Maintain an atmosphere of open communication between the consultant and Department staff.
- Consideration of all design issues and mitigating factors before assigning "blame" for problems in the field.
- Immediate notification of the consultant when a problem is identified.
- Fair and efficient resolution of the construction problem.
- The process cannot delay the progress of the active construction project, which could result in additional costs through contractor claims and/or time extensions.
- Sensitivity to the needs of the consultant industry in terms of liability and insurance concerns.
- Litigation is a last resort; every effort will be made to settle the claims amiably and cost effectively, if they cannot be avoided altogether at the start.
- Increase the consultant's professional and financial accountability for the quality of their work.

Each construction problem with potential cost recovery issues will be addressed on a case-by-case basis. However, the following general criteria will be employed by the Department in assessing responsibility for additional construction costs resulting from design errors or omissions.

3.5.1 No Cost Recovery Charges to the Design Consultant

If the error or omission results in increased construction costs that the Department would have paid for anyway if the design documents had been prepared correctly, then no charge will be assessed the consultant. However, the Consultant Evaluation will document the problem. A simple example of this is a drainage pipe that was omitted from the plans and was needed.

3.5.2 Cost Recovery Charges Assessed to the Design Consultant

If the consultant's plan error or omission results in additional costs to the Department above what it would have cost if the plans had been correct, then the consultant will be invoiced the additional cost.

3.6 Breach of Contract

As part of each contract the Department enters into there are provisions concerning Breach of Contract. See individual contract agreements for the exact wording. Typical wording found in the contract consists of the following:

> *It shall be a breach of this AGREEMENT if the CONSULTANT shall fail to render timely the services required under this AGREEMENT, in accordance with sound professional principles and practices, to the reasonable satisfaction of the DEPARTMENT, or shall be in such financial condition as to be unable to pay its just debts as they accrue, or shall make an assignment for the benefit of creditors, or shall be involved in any proceeding, voluntary or involuntary, resulting in the appointment of a receiver or trustee over its affairs, or shall become dissolved for any cause. In the event of the happening of any one or more of the foregoing contingencies, or upon the substantial breach of any other provisions of this AGREEMENT by the CONSULTANT, its officers, agents, employee, and subconsultants, the DEPARTMENT shall have the absolute right and option to terminate this AGREEMENT forthwith, and, in addition, may have and maintain any legal or equitable remedy against the CONSULTANT for its loss and damages resulting from such breach or breaches of this AGREEMENT; provided, however, that as to all plans, drawings, tracings, estimates, specifications, reports, proposals, sketches, diagrams and calculations, together with all material and data theretofore furnished to the DEPARTMENT by the CONSULTANT, of a satisfactory nature in accordance with this AGREEMENT, which plans, drawings, tracings, etc., are of use to the DEPARTMENT, the CONSULTANT shall be entitled to a credit, based on the contract rate for the work so performed in a satisfactory manner and of use and benefit to the DEPARTMENT.*

3.7 Right-of-Way Contract Management

The management of right-of-way special service contracts and internal functions fall within the authority of the Right-of-Way Engineer and the Bureau Administrator. However, the Project Manager will need to coordinate with the Bureau of Right-of-Way as to the scheduling and amount of funds to be programmed and authorized. During the initial preliminary design phase, ROW incidental funds will need to be authorized to allow the Bureau of Right-of-Way to complete the necessary ROW abstracting, prepare of property overlay mapping, create the legacy alignments, and provide administrative assistance through the Public Hearing phase of the project. Once design approval is obtained, the Project Manager will coordinate with the Bureau of Right-of-Way to determine the schedule and amount of ROW funds to be authorized for the completion of the ROW acquisitions including the earlier ROW costs to cover any commitments for early acquisitions on the project. Prior to the request for authorization, the Project Manager shall review the project's programmed funds and determine if the funds are already included in the STIP or whether a STIP action will be necessary before authorizations can be processed.

Prior to the Right-of-Way purchase plans being finalized, the Project Manager shall obtain "design approval" including NEPA documentation for Federal Aid projects and shall coordinate with the Bureau of Right-of-Way for the amount of programmed ROW funds that will be necessary to authorize for project acquisitions. Over the course of the project's right-of-way acquisition process, should the Right-of-Way Engineer determine that supplemental ROW funds will be necessary to complete the acquisitions before the project's advertising; the Project Manager shall proceed to seek the necessary funds and authorization. It remains important for the Right-of-Way Engineer to keep a close assessment on the ROW budgets and alert the Project Manager in a timely manner of the need for additional funds. Due to the STIP budgetary constraints, this supplemental ROW fund may require a STIP amendment before the funds can be authorized and expended.

3.8 Construction Contract Management

3.8.1 Plans, Specification and Estimates (PS&E)

The process for development of the PS&E plans is outlined within the Highway Design Manual. At this stage in a project, the final contract plans, contract proposal, specifications, and engineer's estimate have been developed to advertise the project for bids. Critical components for approval to advertise a contract are outlined in the PS&E Checklist and include environmental approvals, Right-of-Way certificate, Utility certificate and program funding within the STIP. Projects generally consist of federally funded (level of FHWA oversight varies with a predetermined risk management framework) and non-federally funded (turnpikes and State betterments). For projects of division (PoDI's) or corporate (PoCI's) interest, contract plans and proposal, documentation of environmental approval, and Right-of-Way and Utility Certificates may be required to be submitted to FHWA's Division office prior to FHWA's approval of the project's PS&E. For all other federal projects, documentation for PS&E is still required for the Department files with Environmental approval, Right-of-way certificate and copy of the project's

front sheet for distribution to FHWA for PS&E authorization of federal funding. Regardless of whether a federally funded project has FHWA oversight or not, the Project Manager will need to provide the information within the PS&E Checklist prior to seeking FHWA's Fiscal Management Information Systems (FMIS) authorization to advertise through the Bureau of Finance & Contracts. Once the low bid contractor has been established through the Department's bidding process, the Project Manager will process a "Based on Bids Estimate" for adjustment of the authorized construction funds to include non-participating work (if any), utility force accounts, construction engineering (CE), additives, and any specialized inspection requirements for bridges and other structures. Upon execution of the contract documentation and after G&C approval of the construction contract, the Bureau of Construction provides the contractor the "Notice to Proceed". The contract is assigned a Contract Administrator who is responsible for the day-to-day construction oversight and construction inspection, and a District Construction Engineer who is responsible for the overall contract supervision.

3.8.2 Change Orders

As the contract is constructed, certain change orders may be necessary to account for estimated quantity variance(s), unforeseen site conditions, alterations in design and/or "errors and omissions" in the contract plans. For any item overrun(s) and/or under-run(s) of 10% variance, the Contract Administrator shall document in the Record Book the reason(s) for the revised quantities. Over the course of the contract management, overruns are evaluated with under-runs to determine if a contract increase is needed. For contract increases, the District Construction Engineer will notify the Project Manager to execute a Modified Project Agreement Estimate to seek authorization of additional construction funds. The completed Change Order(s) will be provided to the Project Manager for supportive documentation to update the contract's construction estimate.

Even though the G&C contract contingency allows the Department to exceed the construction cost amount above the obligation authority set by G&C, this authority is not recognized through FHWA authorization of funds. For an item(s) adjustment greater than $25,000, the Contract Administrator will need to process a formal Change Order. All Change Orders need to be approved, where possible, prior to exceeding the item quantity with special regards to federal oversight projects. FHWA should be notified as soon as the Contract Administrator anticipates the contract item will exceed the $25,000 threshold. In addition, the Contract Administrator should proactively communicate to FHWA any potential issues that could potentially increase the contract authorized amount.

The Contract Administrator should identify any substantial "errors and/or omissions" in the plans during construction that may result in the need for a Change Order by issuance of an "Alteration in Design" and report their finding(s) to the District Construction Engineer. The District Construction Engineer, in turn, shall review design issues with the lead Design Bureau and/or Project Manager for resolution. If the project was designed using in-house engineering staff, corrective designs may need to be prepared if field changes did not already occur. If the project was designed under a consultant contract, the consultant will be immediately notified by the Project Manager of the "error and /or omission", and work with the Department's construction and engineering staff to develop the corrective design at their

sole expense to address the error(s) and/or omission(s). Any incurred project expenses for the corrective action on consultant design plans shall be documented and evaluated by the Project Manager. The Project Manager shall recommend to the Director of Project Development whether to seek reimbursement from the consultant. Whether or not the Consultant is requested to reimburse the Department for corrective design and construction alterations, the Consultant will be immediately notified of all construction related changes to the design and construction plans.

The basis for developing the amount of payment for Change Orders is accomplished through three possible methods:

- Bid Items (Contract Bids);
- Supplementary Agreement; and
- Force Account Estimate (Labor, Material and Equipment).

General guidance for developing and processing a Change Order by the Contract Administrator is as follows:

a. Justify the change order amount by using the Bureau of Construction's "Engineer Estimate" worksheet;
b. Renegotiate price of any "major item", as defined in the Standard Specifications, if the changed condition increases the quantity in excess of 125% or decreases the quantity below 75% of the original quantity in the contract;
c. Use one of the following estimating tools for determining the Department's anticipated cost adjustment;
   i. Blue Book;
   ii. Weighted Unit Averages;
   iii. Independent Bids;
d. Compare the Engineer Estimate to the contractor's estimate and evaluate cost impacts (savings or additional cost);
e. Execute Change Order by Contract Administrator if less than $25,000; if more than $25,000 but less than $75,000 approval by District Construction Engineer; and if greater than $75,000 approval by Director of Project Development; and
f. If the contract has been delegated by FHWA for oversight, any Change Order greater than $25,000 will require FHWA's final approval before executing the Change Order with the contractor.

After the Change Order has been executed by all parties, the Contract Administrator shall retain the records of the Change Order(s) with all backup justification and supporting documentation. Copies of the Change Order(s) will be retained in the project records and if the Change Order creates a new item, then Finance and Contracts will be notifies so that AEN can be updated accordingly. The District Construction Engineer shall review the Change Orders and amounts to determine if any G&C action is

necessary. If the amount of the increase exceeds the contingency amount as approved by the original G&C authorization, the District Construction Engineer will process an amendment for G&C approval and request additional construction phase authorization from FHWA for the increase through the Project Manager.

If the amount of all contract overruns fall within the G&C contingency amount, but is less than $50,000 of the authorized amount, the overrun will be addressed in the project's final voucher and/or closeout. If the amount of the overruns is greater than $50,000 but less than $100,000 of the authorized amount, the District Construction Engineer will determine if a request for additional construction phase authorization will be necessary. If the amount exceeds $100,000 of the authorized amount, the District Construction Engineer shall provide the necessary documentation to the Project Manager who in turn will process a Modified Project Agreement Estimate to increase the authorized amount. See Appendix M for a flowchart of the above Construction Change Order process.