State of Louisiana Department of

Transportation and Development

CONSTRUCTION CONTRACT ADMINISTRATION

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PART I: GENERAL INFORMATION

1.1 Introduction

Construction contract administration for the Department of Transportation and Development includes both contract management and construction management. Contract management is identified by the creation and implementation of all contract documents, the interpretation of which is a highly charged, and intense effort. Rarely is the contract administrator able to please all parties. The best that the administrator can do is to be true to his employer, the people of Louisiana, and produce the best quality work in the shortest amount of time and for the least cost. Construction management requires being a people, equipment, materials, and environment manager. This manual is intended to facilitate construction personnel's conformity to a uniform method of management to build our highway system. This manual will help construction personnel in accomplishing the goal of safely producing the best quality work in the shortest amount of time and for the least cost. This manual is intended to set forth DOTD's construction contract administration process. The process outlined in this manual closely follows the AASHTO-accepted process made up of six key elements: 1) Contract Administration; 2) Daily Work Reports; 3) Contractor Payments (Partial Estimates); 4) Change Orders; 5) Civil Rights; and, 6) Materials Management. Civil Rights and Materials Management are covered in other manuals. This manual will end with two other requirements of construction personnel. They are the preparation of project close out (final estimates) and the input and use of the computer systems.

In addition to this manual, the Project Engineer must also refer to the abundance of information contained in the Standard Specifications for Roads and Bridges, training courses, handbooks, Engineering Directives and Standards Manual (EDSM), and "DOTD Construction Memorandums." When there is a discrepancy, the contract and specifications govern over Construction Memorandums; Construction Memorandums govern over EDSM's; EDSM's govern over this manual; and this manual governs over training courses.

1.2 Expectations and Responsibilities

Basic to contract administration is an understanding of the Contract and General Provisions of the Standard Specifications, followed by recognition that there are two parties to the contract and each party has rights as well as obligations. The basic obligation of the Contractor is satisfactory performance of the work and fulfillment of other terms of the contract. His basic right is the reception of fair and just treatment and DOTD's fulfillment of their part of the contract, including cooperation from the Department in his efforts to perform the work, prompt payments for work satisfactorily performed, and the performance of their duties in a manner to avoid undue delays to the Contractor including returning phone calls and answering any communication in a timely manner.

There are many parties involved in a project, including subcontractors, suppliers, consultants, adjacent property owners, and the traveling public. The Department sincerely wishes and strives for a "partnering" atmosphere between all parties. It is absolutely imperative that DOTD treat all parties honestly, with respect and in a friendly manner, even when it seems that the other party is not

reciprocating. DOTD project personnel are expected to be proactive and as helpful as possible to all parties without expending unnecessary DOTD resources and without violating DOTD rules.

While it is the policy of the Department to cooperate with the Contractor in his efforts to satisfactorily complete the project, the cost (to the Contractor) of the work is beyond the Department's control and responsibility. However, project personnel, by making timely inspections and issuing clear instructions; by early sampling and testing of materials and prompt furnishing of data needed by the Contractor; by promptly resolving conflicts and being decisive; and by timely preparing payment estimates, can prevent undue Contractors' costs.

Being decisive in contract administration requires a thorough knowledge and understanding of the Standard Specifications, project plans and specifications, construction, and inspection. Prompt and informed decisions are imperative to a successful project.

The Contractor is responsible for furnishing materials that meet the requirements of the contract, for following prescribed procedures, for providing an effective quality control program and for producing an acceptable finished product in conformance with the project plans and specifications. However, except where the specifications specifically provide otherwise, accomplishment of quality assurance programs are the responsibility of the Department. In general, jobsite inspections and the sampling and testing of materials accomplish quality assurance.

To accomplish inspection objectives, the Project Engineer will have the responsibility to ascertain that his staff is qualified to perform their duties, that each is familiar with project plans and specifications, and that they perform their duties in a proper and efficient manner, always striving to maintain a businesslike relationship of mutual cooperation.

Though both the Contractor and the inspector may strive for an amicable relationship, conflicts may develop. The Project Engineer must promptly, fairly, and justly address those conflicts – unresolved minor conflicts that are ignored may cause the development of an adversary relationship.

1.3 Chain-of-Command

The "chain-of-command" in construction contract administration is a functional chain established by the Chief Engineer and is unrelated to the organizational chart of the Department. In descending level-of-authority, the chain is Chief Engineer to Chief, Construction Division to District Area Engineer to Project Engineer. This chain-of-command applies only to contract administration matters administered through the Construction Division. In all other matters, the chain is as shown by the organizational chart of the Department.

In this unique chain-of-command, only the Project Engineer is authorized to act as a direct representative of the Chief Engineer in contract administration. This means that the Project Engineer can speak to the Contractor with the full power and authority of the Chief Engineer, but it does not mean that he has the power and authority of the Chief Engineer. On the contrary, the limits of the Project Engineer's authorities and duties are clearly outlined in the Standard Specifications and DOTD written policies and care must be taken to not go beyond those delegated limits.

All written and verbal communications within the Department relating to specific construction projects must follow the contract administration chain-of-command. Written communications that originate at Headquarters must be addressed to the District Area Engineer; the Project Engineer must address his writings to the District Area Engineer.

Construction problems beyond the expertise or authority of the Project Engineer are to be solved by or through the District Area Engineer. If applicable, the District Area Engineer, not the Project Engineer, will refer the matter to the Chief, Construction Division. If beyond the authority of the Chief, Construction Division, he will refer the matter to the Chief Engineer.

1.4 Federal Aid Projects

When the United States Government participates in the cost of a project, the Department is responsible for contract administration but the work is subject to the inspection and approval of the Government. The Government is not a party to the contract with the Contractor but has a separate agreement with the Department. The Contractor is not bound by the terms of the separate agreement.

Neither project personnel nor district personnel may directly correspond with the Federal Highway or Federal Aviation Administration; the correspondence must be through Headquarters. This rule does not apply to routine distribution of copies of documents that have been previously requested by those agencies. This rule is not intended to discourage discussion by the project personnel of the project problems with the Area Engineers or other representatives of these two Federal agencies. It is especially important to discuss the problems that could escalate into major expense items that will be shared with these agencies.

The Project Engineer is provided a breakdown of participating and non-participating contract items through the computer estimate system. This information is needed in preparing change orders, estimates, and completing certain forms.

All documents related to a Federal Aid project must include the Federal Aid project number.

If there is a Buy America Contract Provision, all steel products used on the project shall be produced in the United States. The documentation furnished to the project engineer by the contractor shall include a mill test report for the material and a notarized certification with the statement “All material listed above was produced and fabricated in the United States”. This will be the only statement accepted.

1.5 Project Plans and Specifications

After a project is let, the Project Engineer is furnished complete sets of plans and specifications. Location field notes may also be furnished; if not furnished, they can be obtained from General Files.

One set of plans should be set aside to be used in preparing as-built plans (see “As-Built Plans”), and one copy of the plans and contract should be reserved for office use. Another copy of each should be kept at the project field laboratory or by the inspector assigned to the project. The remaining copies are used as needed.

In case of discrepancy between plans and specifications, calculated dimensions will govern over scaled dimensions; plans will govern over standard plans, standard specifications or supplemental specifications; supplemental specifications will govern over standard specifications; and special provisions will govern over standard specifications, supplemental specifications, and plans.

The Project Engineer and inspectors must be familiar with the contract on their projects in such that they are aware of which specifications govern on an individual project.

1.6 Public Relations

An important part of contract administration is concern for the public, both the traveling public and property owners directly affected by the construction. The public is so important as to warrant a special subsection in the Standard Specifications.

Beyond the absolute requirements of the specifications, the Contractor's cooperation in holding inconveniences to a minimum should be actively solicited. Additionally, project personnel should always courteously listen and respond to the public's question, request, or complaint. Complaints not resolved by project personnel should be promptly referred to higher authority.

All DOTD personnel must avoid inappropriate actions that, in the eyes of the public, cast a bad light on DOTD. The Project Engineer or other supervisors of personnel working in view of the public must take steps to make sure these things do not occur and take necessary steps, including disciplinary actions, as needed.

Section 107.02 of the Standard Specifications requires the contractor to maintain certain minimum insurance coverage to protect the State of Louisiana and/or the LADOTD. One of the required insurances is a separate Owner’s and Contractor’s Protective (OCP) Liability Policy that names the LADOTD as the named insured.

These insurance requirements were instituted at the Division of Administration’s request. The Division of Administration, through their Office of Risk Management, administers the State of Louisiana’s liabilities.

If a call is received concerning a damage claim, the following action will be taken: Refer the claimant to the Office of Risk Management and to the contractor (name and phone number); then notify the contractor of the call/claim. The project engineer should discuss this at the preconstruction conference with the contractor.

1.7 Utilities

Some utility conflicts are anticipated by the Standard Specifications and the Contractor is charged with the responsibility of bidding accordingly. However, utility companies do not always comply with their agreements and can cause substantial delays to the Contractor. If this happens, refer to EDSM III.3.1.1 “Documenting Utility Conflicts on Construction Projects” and Site Manager Daily Work Reports”.

1.8 Right-of-Way Agreements

In the course of obtaining right-of-way for proposed construction, the Department often agrees to special construction for the benefit of property owners. These special features are normally included in the construction plans but occasionally an agreement will be overlooked. This is one reason why the Real Estate Section furnishes the Project Engineer a copy of all right-of-way agreements; so they can be reviewed during construction and complied with (by change order) if not provided for in the construction contract. The Project Engineer should verify with the Real Estate Section that all special agreements have been obtained.

During construction, the Project Engineer may discover that some of these special features were not included in the construction plans. During the change order process needed to correct this oversight, the DOTD Design Project Manager must be notified so that improvements to the plan preparation process can be made.

1,9 Log Mile Projects

In some as-let plans, especially the projects that incorporate the plans bound in the contract (letter sized plans); the project is in log miles. If so, except on signing and similar projects, the project is to be chained and stationing substituted for log miles throughout the plans. Stationing must also be used in the as-built plans and final estimate book.

1.10 Surveying and Construction Layout

Most contracts require the Contractor to perform construction surveying. Whether done by the Contractor or the Department, horizontal and vertical control surveying notes must be kept in numbered field books (see “Field Records”) and the procedures and notes must be in keeping with generally accepted surveying and engineering practices. The alignment should be recorded in a “Field Book” as issued by General Files, and bench leveling in a “Level Book”. All surveying must be done using stations and all field books must use stationing (not log miles). All equations, exceptions, railroad grade crossings and bridges must be stationed and so recorded in plans and field books.

For the purposes of this rule, paper printouts from standard electronic surveying software may be substituted for the required field books, level books, and cross-section books. These paper printouts must include all of the data normally found in the field books, as interpreted by the Project Engineer.

The documents should be sequentially numbered so that reconstruction of the survey data is facilitated. These paper printouts may be in formats normally used by Professional Land Surveyors. The format shall use the stationing and cross section format set forth in the plans. (Station, Offset, Distance) At the time of the submittal, the contractor must sign the documents and upon receipt, the Project Engineer must sign and date these documents for receipt purposes.

All leveling work, for whatever purpose, must be recorded in field books. Leveling must be "tied back in" to a benchmark and no leveling circuit may be completed with only one set-up of the instrument. This policy applies not only to major work – such as setting temporary benchmarks and taking cross-sections – it applies to all leveling.

On projects requiring construction to specific elevations, it is usually necessary that temporary benchmarks be established. The elevations of those temporary benchmarks are to be determined by leveling from a benchmark shown in the construction plans. The temporary benchmarks are to be numbered and well described in the leveling book.

All temporary benchmarks are to be set throughout the project and their elevations proven before any cross-sections are taken or verified, and before any construction needing elevations begin.

It is the responsibility of the field party to check all level notes, including leveling for cross-sections. The bench level notes and all heights-of-instruments (HIs) are to be checked before the field books are submitted to the Construction Audit Section. The checker must initial the bottom of each page.

A numbered "Level Book" (issued by General Files) should be used for leveling notes and a numbered "Cross-Section Book" for cross-sections.

All cross-sections are to be recorded in numbered "Cross-Section Books" as issued by General Files, or by electronic survey data collectors. If field books are used, the page heading in the cross-section book is to be filled out at the start of each day.

When the final cross-sections are taken on the finished grade, adjustments in rod readings to subgrade readings should be made in green pencil (in the cross-section book) and the revised readings circled. When taking the cross-sections, allow adequate space in the field book to avoid crowding the data.

When any control monument is encountered within the construction limits of a project, whether shown on the plans or not, the Project Engineer must immediately notify the Location and Survey Administrator, Louisiana Department of Transportation and Development, P. 0. Box 94245, Baton Rouge, Louisiana 708049245, providing him with the construction project number and all information printed on the monument, in order that an investigation may be made and proper disposition determined.

It is imperative that the Contractor be prevented from damaging markers until sufficient time has been allowed for the relocation of the monument or, if appropriate, receipt of authorization to destroy the monument.

1.11 Filing System

A standard and uniform filing system will minimize complications as a result of reassignments, and a system that will assist in the review of final estimates, Summary of Laboratory Reports (Form 2059), and other acceptance and audit processes. Since unusual projects may require additional files, it is the Project Engineer's responsibility to set these up as needed.

CONSTRUCTION PROJECT FILES

Each project should have the files listed below, provided the contract quantities are such that more than 10 documents will be generated for each file. The standard construction files are:

- Contract File
- General Correspondence-In
- General Correspondence-Out
- E.E.O. File-(for Federal Projects only)
- Utility Agreements Files. Separate files should be maintained for each utility agreement. These files should contain each respective agreement and utility inspectors' daily reports (See also Chapter IV of the Construction Manual)
- Part Estimate File
- Test Pile Reports
- Contractors Payrolls
- Change Orders-Approved
- Right of Entry Forms
- Final Estimates File
- Wage Rate Interview File
- Materials Quality Control Documents

GENERAL ADMINISTRATIVE FILES

In addition to construction project files, the project engineer must maintain general administrative files as follows:

- General Personnel - (consisting of correspondence on overtime, training and general personnel information, Civil Service, retirement, etc.)
- Employee Personnel File - (consisting of one folder for each employee for personnel records, Including training records)
- Payroll and Requests for Leave
- Expense Accounts
- Materials Used Reports

- Property Inventory, Equipment Transfer, and Instrument Assignment Records
- Passenger Equipment Assignments
- Small Tools and Accountable Items
- Safety Meeting Records
- Petty Cash
- Standard State Invoices
- Nuclear Density - Radioactive Source Certificates
- DOTD Construction Memorandums
- Miscellaneous Memorandums Receipt

PART II: PRECONSTRUCTION ACTIVITIES

2.1 Plan-in-Hand

Although not part of contract administration, a “plan-in-hand” is an important precedent. This is often the Project Engineer's first knowledge of the project and is his best opportunity to have an influence in the relevancy, constructability, and completeness of the project plans and specifications. A plan-in-hand inspection is a field inspection made with preliminary plans of the proposed project by representatives of the Design Sections (Bridge and/or Road), Construction Section, District, Consultant (if applicable), and Federal Highway Administration (if applicable). In order to efficiently and effectively accomplish the inspection, it will be the policy of the Department to limit the number of participants for a plan-in-hand party to the minimum possible at all times. Therefore, the designated members of the party should not invite any members of their staff, or others, unless their presence is imperative.

The success of the plan-in-hand is enhanced by the Project Engineer’s participation. The most successful plan-in-hands are those in which the Project Engineer has reviewed the plans, made a prior field inspection, and identified sites, including layout of the project. The Project Engineer should strive to take such actions within time and manpower limitations. Procedures outlined in the Plan-in-hand portion of the Plan/Constructability/Biddability Review form should be followed.

Plan-in-hands are held in accordance with EDSM I.2.1.1 “Policies for Plan-in-Hand Inspections”.

2.2 Advance Check Print Review

Another important precedent to contract administration is the review of the advance check prints. At this stage, the Project Engineer can make certain that the project personnel’s plan-in-hand comments are included in the current edition of the plans. In addition, changes to the site, changes to standards, and changes to traffic conditions can be included in the plans. Procedures outlined in the ACP portion of the Plan/Constructability/Biddability Review form should be followed.

2.3 Proposal Review

Another precedent to contract administration is proposal review. Prior to receipt of bids the Project Engineer is furnished one copy of the proposal (project plans and specifications) for review. The review, of the proposal and final plans should be conducted using the PS&E Biddability check list. Discrepancies or omissions of consequence should be discussed with the appropriate District Area Engineer and followed up in writing.

To facilitate the Project Engineer’s timely need for plans and proposals, these are available through the Intranet. When a Consultant Engineer provides inspection services, the plans and proposals can be obtained through the LDOTD Engineer Coordinator shown in the Engineering Contract.

PART III: CONTRACT ADMINISTRATION

3.1 Pre-Construction Conference

A Pre-Construction Conference will be held on all projects. These conferences should be scheduled sufficiently in advance to permit the attendance of all parties concerned.

Upon Notice of Contract Execution, the Project Engineer and District Area Engineer should confer with the Contractor and arrange a preconstruction conference to be held in advance of any work on the project, if possible.

The following should be notified by DOTD to allow representation:

- The Headquarters Construction Section.
- Labor Compliance. Compliance Office personnel must be notified in order that their representatives may attend to discuss the EEO contract requirements and the DBE/WBE provisions of the contract.
- The Federal Area Engineer shall be notified for Federal Aid Projects so that representatives may attend if they so wish. On all airport projects, the Federal Aviation Administration (FAA) representatives and, Louisiana Department of Transportation and Development, Office of Aviation, will be given a minimum of two (2) weeks advance notice of the date, time and location of the Pre-Construction Conference.
- The appropriate utility coordinator
- The Project/Program Manager. The Manager is responsible for invitation of “special representatives”.
- Local officials, if appropriate

The following should be notified by the Contractor to allow representation:

- Subcontractors
- Suppliers

Minutes of the conference will be documented by a report, a copy of which will be transmitted to the office of the Chief, Construction Division

Prior to the Pre-Construction Conference, the Project Engineer should prepare items to be discussed. The Project Engineer must use the "LADOTD PRE-CONSTRUCTION CONFERENCE CHECKLIST" found on the Construction Division Intranet home page in "forms". Items to be discussed may vary depending on the project, the Contractor and Department personnel. However, the specifications require that four items be furnished to the Department prior to or at the meeting:

1. Superintendent's name and home telephone number, and/or other field representatives in responsible positions on the project.
2. Progress Schedule
3. Shop drawing schedule (to Bridge Design)
4. Pile installation plan

Additionally, the Department, through past directives and practice has established other items that are mandatory to be discussed:

1. Utility conflicts and relocations
2. All special provisions not normally encountered
3. Sampling plan, Contractor's and Department's furnished to each other at the meeting
4. Notice to proceed date
5. Partial estimate due date
6. Temporary erosion control, including NPDES permit requirements
7. Information to be posted at the jobsite
8. Safety at the jobsite

Other items to be discussed will be determined in the District. A successful pre-construction conference should result in both the Contractor and the Department personnel having a clear understanding of the plan of construction and expectations and responsibilities of all parties.

3.2 Notice to Proceed

Project Control Section at Headquarters will issue Notices to Proceed on statewide projects.

The specific entity or project sponsor will issue Notices to Proceed on projects to which the Department is not a signatory, such as Urban Systems Projects and Enhancement Projects after they are notified that the contracts have been executed.

The District in which the work is to be performed will issue all other Notices to Proceed, In any other unusual circumstance that lends itself to a Headquarters issued document, Project Control will issue the Notices to Proceed.

The notice should be issued within fourteen calendar days of the contract execution date indicated in the "Notice of Contract Execution". The District may extend the window for the Notice to Proceed to a maximum of 30 days with justification. An extension between 30 and 60 days requires the approval of the Chief Engineer and greater than 60 days requires a Change Order.

In no case shall the notice be delayed beyond sixty calendar days past the contract award date without the written mutual consent of both the Contractor and the Department in the form of a Change Order. If an approved change order provides for an adjustment to the days provided in the contract under a "Conditional Notice to Proceed", the adjustment must be reflected in both the "Conditional Notice to Proceed" and the "Notice to Proceed", by revision if necessary.

See examples of the typical "Notice to Proceed" and "Conditional Notice to Proceed." These written notices to the Contractor shall essentially be of the same form and content as that of the attached examples with copies distributed as indicated on the examples.

3.3 Construction Administration and Inspection (Construction Management)

Construction Management consists of managing the project to achieve Quality, Budget, and Schedule. Though the Contractor is charged with the management of his activities to comply with the terms of the contract, the contract itself requires the Department to be involved in the construction management process.

3.3.1 Quality

A primary duty of personnel performing construction engineering and inspection is to ensure the quality of construction. The requirements and duties are complex and contain much detail. Processes and requirements are contained in other manuals and are beyond the scope of this manual.

3.3.2 Budget

The Project Engineer and other field personnel must recognize that the Department has a budget and that they must strive to complete the project within this budget. There are changes to the work that must be avoided:

- Scope Creep – adding work to the project not planned for the completion of the project.
- Delay Claims due to DOTD not taking timely actions or making timely decisions.
- Quantity overruns in high volume unit pay items requiring that project personnel pay close attention to yield control.

3.3.3 Schedule

On most projects, the Department specifies a contract time in which the project is to be built. This is the basis for the schedule, and DOTD and the Contractor must manage the project to meet the schedule; otherwise the objective of the contract has not been met. The Standard Specifications require that the Contractor submit a Construction Progress Schedule giving a satisfactory schedule of operations that provides for completion of the work within the allotted contract time. On some projects, the special provisions require a CPM schedule.

3.3.3.1 Standard (Bar Chart) Construction Progress Schedule

The schedule must be on the bar graph form This schedule will be used as the basis of establishing the controlling items of work, assessing contract time and as a check on the progress of the work.

The Contractor must either follow the approved schedule or submit a revised one. If a schedule (either original or revised) is acceptable, the Project Engineer should print or type, “APPROVED” on it, then sign and date. The Project Engineer should retain the original; send one copy to the Contractor, one to District, and one to the Chief, Construction Division.

Approval of the schedule means only that the Department agrees that if the Contractor can and does follow the schedule, the project will be completed within the allotted contract time.

Non-related items (such as asphaltic concrete and shoulder gravel) may not be grouped together.

The number of items should be kept to a practical minimum.

The Construction Progress Schedule should give a satisfactory schedule of operations that provides for the completion of the work within the contract time.

The schedule must not conflict with any requirements of the contract.

Bars should be used to show durations. Heavy lines with arrows (both ends) may be used if they can be readily distinguished from the chart gridlines.

At the bottom of the schedule, at the controlling items, both numbers and items of work are preferred, but numbers (only) are acceptable.

The schedule may show only one item controlling during a given period.

Durations shown on the schedule are considered maximums, not minimums. Contractors can and often do finish work items, and the project, well ahead of schedule.

Should a controlling work item be completed early, the controlling work item automatically goes forward to the next controlling work item. A revised schedule is not required when work is completed early, but is allowed. If a revised schedule is submitted, it must again give a satisfactory schedule of operations that provides for the completion of the work within the contract time.

Proposed schedules will sometimes show an item of work to be controlling for what may appear to be an excessive duration. This is acceptable because unless otherwise required by the contract, the Department does not specify rate of progress on the individual items of work in the contract. The specifications only require that the entire work be completed within the allotted contract time.

However, by definition a controlling work item is an item of construction that should be in progress at the time, as essential to the orderly completion of the work. If as the project develops the “long duration” work continues to meet the definition of a controlling work item, then it should be used in assessing contract time. If it does not, a revised schedule should be requested.

On a given controlling work item, contract time charges will be based on that item until the item is either (a) complete or (b) complete to the point where another item becomes the controlling work item, whichever is shown in the schedule.

If the schedule shows that an item is to be completed before the next controlling item begins, but the Contractor begins work on a second controlling item before the first is complete, contract time charges should be assessed against the first item until either (a) the Contractor is no longer working on the first item with full forces or (b) the Contractor is effectively working on the second item and the second item is contributing more to the completion of the project.

During a specific period the Contractor may work on any number of contract items, but only one of those shall be considered the controlling work item. The order of controlling work items is portrayed by the Contractor in his progress schedule. If the work simultaneously underway is governed by the

Contractor's resources and job conditions, then the controlling work item may have changed. In this case a revised progress schedule is required so that time charges can be properly determined.

3.3.3.2 Critical Path Method

A CPM schedule is required only when the special provision specification is in the contract. The critical path of the schedule is used in the same way as the controlling items in the "Bar Graph" presented in 3.3.3.1.

ACCEPTANCE OF THE SCHEDULE

Project personnel must verify that the CPM schedule and its attachments meet the detailed requirement of the specification. In addition, project personnel must examine the CPM schedule details to make certain that each activity is a fair and reasonable representation of that portion of the work and that the activity is fairly and reasonably linked to its proper predecessors and its successors. Special attention must be given to insignificant or peripheral items of work that are critical in status.

If the schedule (either original or revised) is acceptable, the Project Engineer shall write a letter to the Contractor stating so and naming the particular schedule name and revision date. The Project Engineer should keep one copy; send one copy to the District and one to the DOTD Construction Engineering Administration.

The Project Engineer's letter shall include the statement "Approval of the CPM schedule" means only that the DOTD agrees that if the Contractor can and does follow the schedule, the project will be completed within the calculated time.

The number of activities is maximized in the best CPM schedules.

The CPM schedule must not conflict with any requirements of the contract.

The CPM schedule, by specifications, must be recalculated in conjunction with each pay estimate. The recalculated CPM schedule should be revised for continued conformity to the specification, for changes to the logic, and for differences to the critical path. Changes to the logic includes, change to duration, predecessors, successors, driving resources, etc.

Requests for additional time must be proven by insertions of the added or changed activities into the most recent updated schedule.

3.3.3.3 Contract Time

There are two basic types of contract time specified, depending on the project; working day and calendar day.

WORKING DAY PROJECTS

The charging of a contract day will be in accordance with the specifications. Documentation is required each day to back-up decisions to charge days on working day projects. Time is to be charged in accordance with the contract on a day-by-day basis with no prejudice. No prejudice means that the Project Engineer cannot give the Contractor a break on account of his bad luck or bad planning or for any other reason. No prejudice also means that the Project Engineer cannot use time charges in a punitive manner to harm a Contractor perceived to be non-cooperative or for any other reason. Contract time should be charged based on the progress schedule and project conditions. In the event of a borderline call, the policy is to give the Contractor the benefit of the doubt. Some examples of conditions beyond the control of the Contractor are:

- Weather and working conditions.
- Industry-wide or area-wide strikes. These must be documented showing the beginning and ending dates and the controlling item or items of work directly affected. Strikes involving a single Contractor will be considered on an individual basis and must be documented in a similar manner giving reason for the strike. Strikes involving a single local material supplier will not normally be considered justification for not charging contract time unless there are unusual circumstances involved. If such is the case, it will be handled in the same manner as strikes involving a single Contractor.
- Material shortages. Only shortages occurring after the contract is let, unforeseeable by the Contractor and when no other source is available for immediate delivery may be considered.
- Delays on delivery of specialty items or manufactured products. The Chief Engineer may approve granting of additional contract time provided adequate documentation is submitted at the time the delays are occurring and their affect on the progress of controlling item(s) of work.
- Specified waiting or curing period. Waiting periods, such as specified curing of concrete will not be charged if it affects the controlling item.
- Delays in utility relocations that significantly affect the controlling item or items of work. These situations should be properly documented and may be considered just cause for not charging contract time. (Please note - Unless the utility is significantly affecting progress of work, time charges will not be suspended.)

CALENDAR DAY PROJECTS

Contract time will be counted in accordance with the standard specifications where every day on the calendar is a contract day including Saturdays, Sundays, holidays and non-work days. When conditions beyond the control of the Contractor are encountered, the Contractor should make a written request for extension of contract time to the Project Engineer and this matter will be resolved at the time the condition exists. Only the Chief Engineer can extend time on a calendar day project. Calendar Day projects normally contain a Special Provision for "Adverse Weather" which allows some correction for unusual weather patterns. It is a good idea to provide the same documentation of weather and working condition on calendar day projects as for working day projects to be used in the event of future claims.

3.3.3.4 Reporting of Contract Time

The Contractor will see and review the Site Manager Weather and Workday Report with each partial estimate. Once the estimate is approved the report is then submitted to the Construction Estimates Section. If the Contractor timely protests the report, the following procedures apply:

- If the dispute has not been resolved within the 30-day time limit described hereinafter, the Project Engineer is to type the words "Disputed Day" next to each of the actual days in dispute, in the column of the E-l4 headed "Cause of Losing Day", and add the number of days in dispute in the entry for days disputed and submit the report to the Construction Estimates Section, with a copy of the Contractor's letter disputing the time charges attached.
- If the contract time dispute is resolved at the project or District level within twenty days after the partial estimate due date, a summary of the discussions and the results will be documented in the project diary and recorded on the E-14, in the remarks section or by attached letter. This final Form E-l4, showing zero disputed days, is then submitted to the Construction Estimates Engineer along with the Contractor's letter disputing the originally charged contract time.
- If the contract time dispute cannot be resolved at the project or District level within twenty days after the partial estimate due date, the District Administrator shall submit the appropriate information to the Chief, Construction Division. A representative of the Headquarters' Construction Section will then hold a meeting of all concerned parties and recommendations shall be made to the Chief Engineer. The Chief

Engineer will make the final determination and notify all concerned parties.

- A final E-14 for the period will then be submitted with the contract time charges revised and the total number of days charged corrected, if necessary, to reflect the Chief Engineer's decision. The current total number of days charged as shown in the project diary must also be revised to reflect this decision and cross-referenced to the E-14.
- All contract time disputes must be resolved within thirty days following the date the E-14 was furnished the Contractor or the contract time will stand as recorded at the end of the thirty day period. However, if conditions beyond the control of the Contractor or the Department prevent the final disposition of disputed days within the allotted time, the time charges in question will be considered as “charged time” until the dispute is resolved.

3.3.3.5 Placing Contractor In Default Insofar As Contract Time

Five working days (or calendar days if a calendar day project) prior to the date when contract time will elapse, the Project Engineer must send an email to the Construction Estimates Engineer with a copy to the District Area Engineer before noon advising him that the Contractor will have used all contract time within the next five working (calendar) days; also, the percent time elapsed and the percent complete for the project. The five-day notice should include all days included by change orders or the best estimate of added change order days. The Construction Estimates Engineer shall immediately notify the Contractor. The Construction Estimates Section will log the date and time of receipt of information.

On the last contract day, the Project Engineer must email the Construction Estimates Engineer before noon and advise him that the Contractor has used all contract time and give him the estimated percent complete. He shall then immediately call and advise his District Administrator. The District Administrator shall immediately confirm this information to the Construction Estimates Engineer by email, who shall immediately advise the Contractor.

3.3.3.6 Contractor Disqualification Resulting From Contract Default

Once the Contractor has been advised of contract default due to the elapse of contract time, the Construction Estimates Engineer will email and fax a request to the Project Engineer for project

information. The Project Engineer must assemble the following project-related information and/or documents:

- Any project issues that may have contributed to contract default by the Contractor;
- Any claims verbally communicated and/or submitted by Contractor;
- Any outstanding change orders for work that has been completed and/or remains to be completed;
- Any disputed time charges;
- Any scheduled work on key contract items, such as high cost items that could potentially move the Contractor back within the time limits (specify items, including start time, time required to meet schedule limits, and estimated completion date); and
- Any delays caused by processing Change Orders.

The Project Engineer will send the project-related information to the Construction Estimates Engineer for review. The Construction Estimates Engineer will then forward all information and a recommendation to the Chief, Construction Division. The Chief, Construction Division, recommends to the Chief Engineer who then writes the disqualification letter to the Contractor.

3.4 Construction Administration and Inspection Performed By Others (non-DOTD)

This applies to projects administered by DOTD where construction is supervised by consultants, municipalities, parishes, or other governing bodies. There is generally an agreement with DOTD for the outsourced construction engineering and inspection (CE&I).

DOTD will assign a project coordinator who will manage the work performed by the outsourced CE&I. Prior to beginning construction, the Project Coordinator is to receive documentation from the Owner that all inspectors possess the appropriate current DOTD certification for performing their respective duties. Generally, the same duties and responsibilities as contained in this entire manual apply to the non-DOTD CE&I personnel. The DOTD project coordinator shall furnish upon request copies and examples of Project Diary, Estimate Book, Form 2059, etc. to illustrate acceptable documentation.

The Department of Transportation & Development is to do Laboratory testing of materials on these projects only if stated in the agreement between the Owner and DOTD. The Owner’s engineer will perform all field-testing.

The DOTD, through the project coordinator or his representative, shall make periodic inspections of the work, field records, and sampling and testing. Such inspections shall be made in such a manner to avoid putting the Department in a position of relieving the Owner and the Project Engineer of their responsibility for the project. The project coordinator shall also review all pay estimates. Estimates shall be prepared by the Owner's Project Engineer, and then entered into Site Manager for review by the contractor.

The DOTD representative will advise the Project Engineer or inspector assigned to the project of any deficiencies noted and of acceptable methods of keeping written records of project activities.

Neither the coordinator nor his representative will issue instructions to the Contractor's superintendent, foreman, or any of his personnel, nor will he direct work in any manner other than advising the Owner's project personnel that his work does not conform to specifications and/or plans.

Upon detecting non-conforming work, the DOTD representative will immediately advise the Owner, with a copy to the Owner's Engineer, that work performed does not conform to specifications and will be nonparticipating until corrected.

Change orders, when required, will be prepared by the Project Engineer in Site Manager. Ther Project Engineer will contact the DOTD Coordinator to review the Change Order while in draft mode. The project coordinator will review the change order and check the approval chain, then inform the Project Engineer to place in pending mode. Category 1 and 2 change orders are the only levels for Consultant Inspected projects. (Categories 3 and 4 change orders are not applicable on these type projects).

Upon notification that the project is complete and ready for final inspection, the DOTD project coordinator shall advise the District Office, and both the District Area Engineer and coordinator should make arrangements to attend the final inspection, if practical. If it is agreed that the project has been substantially completed in accordance with contract requirements, the District Area Engineer shall notify DOTD Construction Section in the normal manner that final acceptance is recommended.

Final estimates will be assembled by the Project Engineer and carried to the DOTD Construction Audit Section along with the final submittal of Form 2059 within 30 days after final acceptance. If requested by the Owner or Project Engineer, the coordinator will answer questions and may be allowed to give limited assistance in the preparation and checking of the estimate, if approved by the District Administrator. Such assistance shall not relieve the Project Engineer of the responsibility of preparing the estimate, and this shall be made clear to the Owner. In no case shall the coordinator prepare the final estimate or any substantial part of the estimate entirely with DOTD forces.

If the project is not on the Department's MATT System, the Project Engineer will prepare a final Form 2059 in the same format or style as that of the Department.

3.5 Final Inspection and Acceptance

The specifications allow both partial and final project acceptances and both require final inspections. For partial acceptance, a final inspection is made on part of the project, and this must be boldly displayed on both the completed Form 03-40-4217 "Project Certification" (Form 4217) and the final inspection letter. Special attention is required on the following items:

Final inspection shall not be made until the Project Engineer has completed Form 4217. The Project Certification form must be signed by the Project Engineer and District Administrator or authorized representative and submitted to the Chief, Construction Division, with a copy to the District Maintenance Engineer. The following information is required on the final acceptance letter

1. Contractor's surety
2. Contract date
3. Inspection party
4. Agency or party designated to maintain the road or facility
5. Where the contract was awarded (Headquarters, District, or other)

Partial acceptance may be done only with an approved change order. A final inspection must be made on the portion of the project to be accepted and a message promptly sent to the Chief, Construction Division

Neither Partial or Final inspection shall be made until all traffic control devices, as well as safety appurtenances such as signs, pavement markers, pavement markings, guardrail, etc. are in place within the limits of the project, regardless of whether the work is to be done by the Contractor, the Department, or other.

The Contractor shall be verbally advised that the project has been accepted and to remove all construction signs and barricades.

PART IV: DAILY WORK REPORT (DWR)

Completed daily field records of the Contractors' work are necessary for determination of pay quantities, to document that the work was performed and to provide "as built" records for future reference. Daily Work Reports (DWR) are entered and maintained in SiteManager. The SiteManager DWR is somewhat equivalent to the old style Project Diary. The compilation of the daily individual DWRs become the Diary for the project.

The SiteManager DWR must be completely filled out by DOTD personnel for each day that there is activity on the project, whether the activity is by the Contractor or others. Most entries are self-explanatory and become routine within SiteManager.

For complete SiteManager documentation see the LA DOTD intranet site:
http://h13001ms001/SMDocumentation.asp

After logging into SiteManager and proceeding to the Daily Work Reports, there are six tabs that make up the DWR: DWR Info., Contractors, Contractor Equip., Daily Staff, Work Items and Force Accounts. All SiteManager DWR entries will be made under these six tabs. Common entries and rules for each of the six tabs are as follows:

DWR Info.

1. **Climatic Conditions –** Enter high and low temperatures and weather conditions for AM and PM

2. **Work Hours** – Enter time contractor was present on project – "7:00 a.m. – 5:00 p.m."

3. **General Remarks** – Comments that **cannot** be associated with an item go here. For comments associated with work items you will use the remarks field on the work item tab ("bubble" remarks) to put remarks relative to items. Essential remarks entered here are:

- Record any accidents giving the time of day, weather conditions, road conditions, warning signs, visibility, names of witnesses etc.
- Signs and barricades, a brief statement made each day. If there are no deficiencies, insert the statement "Signs and barricades are in Place".
- Note any situations that have occurred which the Contractor might later construe as a change.
- When a controversy develops, keep records of hours of use (or non-use) of equipment and labor or any occurrences of delays. This information is imperative when the Contractor requests additional compensation for work or files a claim at a later date.

4. **Primary Inspector** – If the Project Engineer or Project Supervisor has designated you the primary inspector for the project, enter "yes" in this field. (***Do not enter anything other than yes in this field, do not hit a space and do not hit the enter button.)*** If you are not the primary inspector, or have not been designated as the primary inspector for the day, leave it blank. (Please note that **anyone** can be the primary inspector for the day.) The "yes" in this field will let the Office Manager and PE know that you were responsible for the time charges, temperatures, weather conditions and remarks. This will show up on the diary that the OM (Office Manger) or PE (Project Engineer) generates. If you are the only inspector on the job, you are the primary inspector

5. **Ctrl. Work Item** – Enter the controlling work item if you are the primary inspector. With jobs not using CPM's, use section numbers only: "501"always matches the contractor's Progress Schedule

6. **Time Charge Comments** – If you are the Primary Inspector and entered "yes" to number 3 above, enter "Recommend Charge" or "Recommend No Charge" – then enter the reason you did not charge. In order to establish consistency with standard reasons, ***too wet, too cold, weekend, utility, waiting final inspection,*** are the only reasons to use here. However, if you are instructed by the PE to stop charging time then input "***No Charge – Other"***

7. **Traffic Control** – If you inspected the signs that day, enter Signs & Barricades info here: "Signs & Barricades up and functioning" or "Under Construction sign at Sta. 0+00 blown down" then Refer to Remarks #8

8. **Project Progress** – Only enter FACTS! Things or incidents that may contribute to un-satisfactory progress

9. **Inst. To Cont.** – Any instructions you may have given to contractor i.e.

"Contractor notified at 2:15 p.m. of sign being down, see Remark #6, re-erected at 4:00 p.m."

10. **Util.** – Anything to do with utilities

11. **Accidents** – Any accidents that may have occurred

12. **Staff Details** – Our people that were on the job

13. **Visitors** – Anyone that may have visited (DCE, FHWA, Mayor, etc.)

14. **Traffic Delays/Complaints** – This will allow you to input any traffic delays or complaints related to the job

15. **Gen**. – DO NOT PUT ANYTHING HERE. Place any comments in General Remarks (See #3 above)

Contractors

1. **Contractor -** Select appropriate contractor for each individual's work to be entered and the number of hours worked

2. **Supervisor/Forman Name –** Select and enter the appropriate Supervisor and/or Forman for the work

3. **Personnel Type –** Select the type of worker and the number of each type

(Repeat the above steps for all contractors that worked on this day)

Contractor Equip.

1. **Equipment ID Description –** Select equipment, quantity on site and number used (Repeat for each type used)

Daily Staff

1. **Staff Member –** Currently, the Daily Staff portion of SiteManager has not been implemented. All that is required is to select "See Staff Detail Remarks" in the Staff Member pull-down menu.

Work Item

1. **Work Item Tab -** Select the appropriate work item for data entry. On the following page, enter the appropriate information into the white entry fields. If the "Placed Qty." field is gray, a template is available for this item and must be used for the data entry. Even if there isn't a pay quantity amount, this tab must be completed daily to signify that there was work done on this item. If this is not recorded it will show up as "No Work". If you work on an item but did not complete any items for pay, you must go to the work items tab, leave the quantity at zero (0), click on the contractor and the location and save. This will show that you did work on that item that day. When recording a zero (0) quantity, be sure to include sta. to sta. (if applicable) and "bubble" remarks.

(Repeat these steps for all items of work involved that day)

(See the SiteManager manual for further information on using templates)

Force Accounts

The SiteManager Force Accounts tab is not in use at this time

4.1 Project Diary

The Project Diary is the compilation of the individual daily DWRs. The project diary is an extremely important record of the project. It is especially important in the resolution of contract

disputes and in litigation matters. Inspectors should be made aware of the importance of not only this document but the entry of the required details. The Project Engineer should review the document thoroughly before approving to ensure completeness of this important document. Current standards are:

- The SiteManager Project Diary is the official project diary.

- The SiteManager Project Diary must be filled out each day throughout the duration of the contract.

- Entries shall be made by the inspector responsible for the inspection of each appropriate work item, or by the "primary inspector" if designated by the Project Engineer

- Inspectors shall not handwrite a field DWR with the intent that the Office Manager creates the DWR.

- The inspectors' user ID associated with the DWR is equivalent to their signature on the Project Diary form.

- After the project's conclusion and final estimate, the SiteManager Project Diary shall be the sole official document for the project. Any supplemental field books or spreadsheets may remain in possession with either the district or the area office.

PART V: CONTRACTOR PAYMENTS

5.1 Partial Estimates(General)

The Standard Specifications provide that monthly progress payments (partial estimates) be made proportionate to the value of the work performed through the ending date of the current estimate period. The current estimate period is the month that has elapsed since the last partial estimate, except for the first partial estimate. The date of the first partial estimate is set as specified in EDSM III.4.1.3 “Policy for Determining Due Dates on Partial Estimates”.

The quantities of work paid for should come from the daily field records in most cases. Payment should be documented in the same records. Only work that is deemed acceptable will be paid on partial estimates.

Partial estimates are numbered in sequence. The first is always number one (1). Partial estimates are required even when there are no earnings for a current estimate period (current earnings are shown as zero).

If a job is completed in less than one estimate period, a partial estimate can be submitted on completion of the job.

The estimates are generated by the office manager in the Project Engineers office from the DWR’s (Daily Work Reports) kept by the field inspector. The Project Engineer, Contractor, Compliance (on projects requiring federal payroll reports), and Construction Audit must approve the estimate in Site Manager. The estimate must be transmitted to Construction Audit for approval within five (5) days after the close of the estimate period.

The Construction Section uses Form SMGR011 “Schedule of Work Items” on all except railroad force account projects. On those projects, use Form SMGR0014 “Estimate Summary Sheet”.

On Federal Aid projects, a further breakdown is necessary to show participating and non-participating items.

The specifications allow progress payments on certain specific lump sum items when total contract earnings reach specified percentages of the total contract amount. When computing percent complete for this purpose (to determine if the specifications allow an additional payment), include previous payments on all these lump sum items but not payments for stockpiled material, and do not include potential payments on any of these lump sum items.

Partial estimates are generally not to be delayed while waiting for approval of change orders.

Subsection 108.08 “Failure to complete on time” of the standard specifications requires the amount of stipulated damages to be deducted from payments for work under the contract or any other contact the

Contractor has with the department. The intent of this specification is that deductions for stipulated damages are to be made monthly on Partial Estimates as the damages occur.

The following procedures will be followed in dealing with the submittal of contractors' payrolls and the transmittal of partial estimates:

Failure of the prime contractor to submit his required payrolls will result in the non-payment of the partial estimate by the project engineer until such time that the prime contractor is in compliance. The project engineer will immediately transmit the partial estimate once the prime is in compliance.

If the project engineer has knowledge that the payrolls have not been submitted in the time allotted (two weeks prior to estimate due date), the project engineer should hold the payment. The payment of the estimate may also be held by the Labor Compliance Officer until knowledge of compliance has been received.

It is the responsibility of the project engineer to notify the Labor Compliance Officer and the contractor to inform them of any non-compliance occurrences.

5.2 Material Haul Measurement

The method of measurement for some materials and work require that a material be measured by weight or volume at the point of delivery. This requires the use of "haul tickets". Haul tickets are typically used as the method of measurement for some materials, however, with concurrence from the Contractor and the DOTD chief, Construction Division, other methods may be used. The only other approved method at this time is the "punch card" method in which a card prepared for a specific truck is punched or marked upon each delivery.

HAUL TICKETS

Normally, the procedure is an exchange of tickets: the hauler of the material will give the inspector the haul ticket that he received when the vehicle was loaded or weighed; the inspector will issue the operator a DOTD haul ticket. There are special haul tickets with specific rules and procedures for some materials. For example, special haul tickets are used to document the delivery of asphaltic concrete. With those few exceptions, the general rules for haul tickets are as follows:

1. Form 03-40-0574, "Haul Ticket Book", is generally used.

2. The haul ticket must be written and exchanged when the material is placed on the road or otherwise incorporated into the work, or immediately thereafter.

3. Haul tickets may not be issued before the material is placed, nor may several Contractor haul tickets be collected before matching tickets are issued.

4. The haul ticket must be filled out in duplicate, signed by an inspector who witnessed the placement of the material, and the original copy of the ticket issued to the contractors' personnel.

5. The haul ticket must be completely filled out. (Payment will not be allowed if the ticket is not properly completed and signed.)

6. The operator of the vehicle must give the inspector a haul ticket that shows the project number, date, cubic yards, pounds or tons loaded on the vehicle, and the DOTD certified vehicle number.

7. The Contractor's haul ticket number must be written on the DOTD haul ticket and the corresponding DOTD ticket number on the Contractor's ticket—for cross-referencing in case tickets are misplaced or inserted in the wrong ticket book.

8. The inspector must keep the duplicate of the issued haul ticket and the Contractor's matching ticket. The matching tickets are not to be attached to the duplicates; they should be grouped together and fastened to the back cover of the haul ticker book.

9. Haul ticket books are to be left intact; no pages (other than the originals issued the Contractor) may be removed.

10. Each pay item or material requires a separate haul ticket book; the same book may not be used for multiple items.

11. When the material is being paid for by the cubic yard (vehicular measurement) the hauling vehicle and its load must comply in all respects with EDSM III.1.1.12 "Enforcement of Legal Load Requirements on Construction and Maintenance Construction Projects" and EDSM III.5.1.3 "Material Measurement Based on Truck Bed Measurements".

12. When the material is being paid for by weight, the hauling vehicle and its load must comply in all respects with EDSM III.1.1.12 "Enforcement of Legal Load Requirements on Construction and Maintenance Construction Projects" and it must be verified that the scales that weighed the truck are certified.

PUNCH CARDS

The Department allows the use of “punch cards” anytime repetitious volumetric hauling is being performed. One punch card replaces 25 individual haul tickets and has the potential to save considerable time and effort in the field. The procedures for using punch cards are as follows:

1. A punch card is completed for each vehicle on a daily basis.

2. A number is marked out with an “X” and initialed by the inspector for each load starting with number 1.

3. Uniform loads are hauled and material is paid by cubic yards or by meters.

4. A standard haul ticket (Form 03-40-0574) is completed for each punch card.

5. Haul vehicles and loads comply with EDSM III.1.1.12.

Punch cards and haul ticket books are retained in the Project Engineer’s office for five years after Project Acceptance.

Some vehicles, most notably those that operate only within the limits of the project (water trucks, for example), have not been certified for volume. It is permissible that these trucks are measured on the jobsite.

The following is a list of contract items requiring haul tickets and/or punch cards:

Item	Description
*203-07	Borrow, vehicular measurement
*204-01	Temporary sandbagging, cubic yard
204-02	Temporary Hay or Straw Bales, each

304-01	Lime, ton
401-02	Aggregate surface course, Adj. Veh. Meas.
402-01	Traffic Maintenance Aggregate, Adj. Veh. Measurement, cubic yard
403-01	Aggregate Roadway Surfacing, cubic yard
502-01	Superpave Asphaltic Concrete, ton
508-01	Asphalt Concrete (SMA) Wearing Course, ton
510-03	Pavement joint repair, ton
602-12	Undersealing Pavement, ton
602-13	Slab Jacking Pavement, ton
710-01	Flowable Fill, cubic yard
711-02	Riprap, Cubic yard
711-03	Riprap, ton
715-01	Topsoil, cubic yard
*717-01	Seeding, pound
*718-01	Fertilizer, pound
*721-01	Agricultural lime, ton
723-02	Granular material (vehicular measurement)
723-02	Granular material
738-01	Mulch sodding, cubic yard

*Haul tickets are to be issued and the Contractor's matching haul tickets, collected daily (per batch on Item 204-04 Temporary Sandbagging), in accordance with standard procedures except:

- A single haul ticket may be issued to cover several Contractor haul tickets.
- A single haul ticket book may be used for more than one item.

- The ticket books are to be stored by the Project Engineer for a minimum of five years after payment of the final estimate and they must be destroyed by the Project Engineer after receipt of an approval from the Chief, Construction Division.

5.3 Partially Completed Items of Work

Partial payment may be made on incomplete contract items discussed below. In general, the percent complete of a lump sum item is calculated using fair estimating practices for the specific item. These estimating practices are subject to limitations specified on partial payments for the time, if any. The method of computation used to calculate the percent complete of a lump sum item must be recorded and maintained in a field book.

SECTION 200. Excavation and embankment items: allow fair estimate based on limited field measurements. Random elevations or cross-sections should be taken and quantities roughly computed. As a check, the inspector should also estimate and record the amount hauled or excavated daily. Estimates based solely on the Contractor's load counts or estimates are not acceptable. In addition, the partial payment estimates for excavation and embankment should be reduced by 5%. The 5% will be held back for dressing of the excavation and embankment areas.

Payment for clearing and grubbing should be limited to 70% until all debris has been disposed of and 90% until the area is dressed.

SECTION 300. Soil cement or cement treated base courses: allow 50% when the material has been placed on the roadway and conforms to specifications, but has not been stabilized.

Sand-clay-gravel, shell, sand-shell and stone base courses: allow 90% when the material has been placed on the roadway and conforms to specifications, but has not been compacted.

In-place cement stabilized base course: allow 50% when roadbed preparation and pulverization is complete and the material is ready for stabilization, but has not been stabilized. This partial payment is allowed only if the existing base to be pulverized is soil cement or all of an existing asphaltic concrete surface course is incorporated into the new base course.

SECTION 400. Aggregate surface courses: allow 90% when the material has been placed on the roadway and conforms to specifications, but has not been compacted.

SECTION 600. Portland cement concrete paving: allow 100% when the work is complete except for placement of joint material, curing, and form removal

SECTION 700. Field Laboratory: allow 85% when the building is in place and usable.

Manholes, inlets, catch basins, junction boxes and similar: allow 25% when bottom is complete, 50% for bottom and walls, 75% for top, and 100% when complete (includes all backfilling) except for asphaltic varnishing or metal painting.

Sidewalks, driveways, curbs, curbs and gutters and similar: allow 100% when all work is finished except for curing and form removal.

Steel railing and similar: allow 90% when in place but has not been painted.

Conduit with Conductors: allow 50% when conduit (including backfill) complete, 100% when conduit pulled with conductors.

Temporary detour roads and bridges: allow a maximum of 90% when in place and ready for traffic. Less should be allowed if high maintenance costs are expected.

Mobilization payment schedule: The intent of the specifications is to pay 25% on the first partial estimate. This payment is meant to pay for preparatory work (the cost of preparing a bid), the cost of bonds, and any required insurance and any other preconstruction expenses.

SECTION 800. Cast-in-place Box Culverts: 25% bottom pour, 50% bottom and walls, 75% when top poured, 100% when backfilled.

Pre-cast Box Culverts: 75% in place, substantially ready for concrete pour, 100% after the pour.

*P.E. may reduce further, depending on required cleaning or likelihood of damage.

SECTION 807. Cleaning and painting structural steel, if not otherwise specified in the contract: for cleaning and first prime coat, allow 80% of lump sum amount based on “length primed / total length” or “pounds primed / total pounds”, allow 10% for second prime coat and 10% for top coat. If a two-coat system, allow 80% and 20%. If a four-coat system, allow 70%, 10% 10% and 10%.

5.4 Number of Decimals

The required number of decimals on estimates, for pay purposes, should mirror those in the schedule of bid items in the contract. In calculating quantities, subtotals should generally contain one more significant figure (decimal). The rounding of numbers to the specified number of decimals shall be in accordance with the following rounding rules:

TO ROUND OFF DECIMALS.

- First; Find the place of value you want (the “rounding digit”) and look at the digit just to the right of it;
- Second: If that digit is less than 5, do not change the rounding digit but drop all digits to the right of it; or
- Third: If that digit is greater than or equal to 5, add one to the rounding digit and drop all digits to the right of it.

TO ROUND OFF WHOLE NUMBERS.

- First: Find the place of value you want (the “rounding digit”) and look to the digit just to the right of it;
- Second: If that digit is less than 5, do not change the “rounding digit” but change all digits to the right of the “rounding digit” to zero; or
- Third: If that digit is greater than or equal to 5, add one to the rounding digit and change all digits to the right of the rounding digit to zero.

The required number of decimals on estimates, for pay purposes, is as follows:

Method of Measurement	Number of Decimals
Cubic yard-except Section 800 items	1
Cubic yard-Section 800 pay items	2
Cwt	1

Double gate	0
Each-partial payments allowed	2
Each-partial payments not allowed	0
Gallon-except M gal	0
Hour-except trainee hour	1
Hour-trainee hour	0
Linear foot	1
Lump sum-partial payments allowed	2
Lump sum-partial payments not allowed	0
M gallons	3
MFBM	3
Mile	3
Pound	0
Span	2
Square foot	1
Square yard	1
Station	2
Structure foot	0
Ton	1
Unit-partial payments allowed	2
Unit-partial payments not allowed	0

5.5 Forms to Accompany Partial

Forms to Accompany Partial Estimates (Site Manager Projects)

- If Federal Aid project, Statement of Compliance, form 03-26-2054, and copies of payrolls.
- Documentation required by specifications to accompany requests for payment on stockpiled materials
- Extra Work by Force Account with Specification Requirements
- Copy of Certified Check showing where the Entity has paid the contractor on FHWA reimbursable projects

5.6 Statement of Compliance

On Federal Aid projects the Contractor (and active subcontractors) must submit, monthly, copies of payrolls and Form 03-26-2054, "Statement of Compliance"- see applicable provisions of the contract and the Department's Labor Compliance Manual.

The payrolls must be for each payroll period that ends within eleven days before the close of the current estimate period. After checking the payroll for possible violations, transmit one copy of each Statement of compliance (signed and dated by Project Engineer) and associated payroll with the partial estimate.

For the prime Contractor the payrolls and Statement of compliance are required from the date of the work order to project acceptance and must be submitted for each payroll period whether or not the Contractor worked during that period.

Payrolls and Certificates of Compliances are required from active subcontractors only. The Project Engineer will be the judge of whether the subcontractor is active or not.

5.7 Stockpiled Material

Advance payments may be made for stockpiled material. Advance payments shall be made only for durable (non-perishable) materials, and the materials must represent a significant portion of the project cost and anticipated to be stored for periods in excess of 90 calendar days. Prior to recommending advance payments for natural material, such as aggregate, the Project Engineer shall visually verify that the stated quantity is reasonably correct an must receive proof, such as test reports or other acceptable documentation, that the material meets specification requirements.

A request for payment must be made in writing from the Contractor. The following documents must accompany the partial estimate:

- The written request.
- Copy of invoices from the supplier or manufacturer.
- Copy of lease or agreement granting DOTD right of entry.
- If stored outside of Louisiana, approval from the Chief Engineer.
- Certified Paid Invoices from the supplier within 30 days of advancement of the stockpiled materials.

After advance payment, the portion of the stockpiled aggregates at hot mix plants and /or concrete plants under the following guidelines: 1) Dedicated stockpiles, for state use only, shall be required. Stockpiles dedicated to more than one state project will be acceptable. 2) The dedicated stockpiles may be used on one or more state projects provided the contractor and project engineer can develop a system to account for materials as used. 3) The contractor shall certify in writing stating what state projects the dedicated stockpiles apply to, and that no other projects (state, private or other) shall receive materials from this dedicated stockpile. 4) Under no circumstance shall the Department allow stockpile payment for a working stockpile.

5.8 Material Memorandums

Material memorandums (form 03-42-0653) are no longer required.

5.9 Releases

In general, if the performance of contract work requires work beyond the project's right-of-way, the Contractor must furnish the Project Engineer a release signed by the owner or owners of the property before payment can be made on the contract item. (Releases are not required for fences if the fence is placed in its normal location: immediately outside the right-of-way.)

Section 202 items will normally require a disposal release, as will disposal items added by change order. Salvaged items require a letter of receipt from the receiving party. Unsalvaged material disposed of within the right-of-way or on other public property or in a commercial dump or landfill will be noted on letter by Project Engineer.

The specifications specifically require releases for work done on railroad property and for each "relocated structure", but not for "demolished" structures, except when the right-of-way" structure is demolished as a contract item, the work was on private property and a release is required.

If the contractor utilizes private property for storage of equipment or materials (other than topsoil), damages private property adjacent to the right-of-way, renders unsightly private property adjacent to the right-of-way, obtains borrow (or other natural materials) from other than a commercial pit, the site must be left in a condition acceptable to the Project Engineer. If the condition of the site is questionable, the Project engineer will require that the Contractor furnish a release, signed by the owner or owners of the property. The Project Engineer will sign a copy of this release and his signature will be noted as accepting the receipt only.

If the Department has no objections the Contractor and the property owner may make an agreement to leave in place (if off the right-of-way), to demolish, or to alter (cut off porches, overhangs, etc.) any removal and relocation contract item. (Note: If there is good reason for moving the item, such as it is an "eyesore" or is blocking natural drainage, it must be moved or demolished.) The Contractor must record the agreement on Form 03-40-0673, "Demolition, Alteration, etc. of Buildings and Miscellaneous Structures", and the agreement must be fully executed before the work can proceed. Before payment can be allowed, a change order that revises the description of the work from "remove and relocate" to "leave in place, with equitable price adjustment, must have been approved and a release received.

PART VI: CHANGE ORDERS

6.1 Introduction

In spite of best efforts to prepare complete and error-free plans and specifications and to construct projects in accordance with plans and specifications, quantities are only best-estimates, field conditions change, and errors are made. Revisions to the plans and specifications require "change orders". Change orders, once approved electronically in Site Manager may be implemented and the approved amount of the contract is modified to reflect the changes. However, the change orders are not final and legally binding until they are signed by the Contractor and the final approving authority.

6.2 Procedures

Site Manager, DOTD's construction software, is used to record and authorize changes (for detailed user information see "Site Manager Field User Manual"). Examples of revisions that require change orders, and the procedure to be followed, are given in Section III of DOTD's Engineering Directives & Standards Manual (EDSM). Except as delegated in EDSM III.1.1.1, the authority to approve revisions is retained by the Chief Engineer.

Change order work should not be started until approval has been obtained. If warranted by the conditions, verbal approval may be sought. If given, the fact is to be noted in the change order. Included in the change order shall be the name of the person giving the approval and the date of approval. If the change order has been discussed with the Chief Engineer or the Construction Section, notation of the discussion, including date, shall be made in the change order. If the Federal Highway Administration has oversight on a project, change orders for these projects should be discussed with the Area Engineer of the Federal Highway Administration before they are submitted. Notation of the discussion, including the name of the person, should be made in the change order.

Agencies other than the Department and the Federal Highway Administration may have financial interest in the project, or the contract may be in the name of an agency other than the Department, or the work may be for another agency though the contract is in the name of the Department. Under most of these conditions the change order will require a resolution or approving signature of the concerned agency, as described in various ESM's and memoranda.

It will be the responsibility of the Project Engineer to ensure that the change order category is determined correctly and the proper number entered into Site Manager. The form "CHANGE ORDER CATEGORY WORKSHEET" has been prepared to assist in this determination and is available, through the Construction Division Intranet, to all Project Engineers and Coordinators. The completed worksheet must be attached to the change order. For purposes of process improvement, the form "CHANGE ORDER REASON(S) CODE CHART" has been prepared and is available, through the Construction Division Intranet, to all Project Engineers and Coordinators. The completed worksheet must be attached to the change order.

Non-participating items and quantities must be clearly identified in the change order and appropriate funding sources established in Site Manager.

When one revision will increase or decrease the quantity of any other contract item-no matter how slight-that item must also be included in the change order. When the change order results I o additional cost to DOTD, the change order should state this.

6.3 Engineering Reason, Explanation and Justification

The change order must give an explanation and reason for the change. The reason should be an engineering reason. The explanation must be meaningful, specific and understandable-without need for verbal explanation from the Project Engineer. A reason such as "requested by the Contractor" or "requested by the city" is not a sufficient explanation.

The detail required in the description and reason should vary proportionally with the details normally included in the plans. For instance, traffic maintenance aggregate is normally shown only in the summary of estimated quantities, and therefore to increase the quantity, the explanation of "plan quantity was not sufficient" would be adequate. On the other hand, to increase the number of catch basins on an urban project, the locations of the catch basins and the reason for adding each structure should be included. The location of the change must be given, by station or sheet number in this case.

As an example, the explanation and reason explaining an overrun in concrete drives should be something similar to:

> "12 ft. wide drives were added to Sta. 100+00 Rt., 111+-- Lt., and 120+00 Rt. To accommodate residences that were constructed after the plans were prepared". Notice that the locations of the drives are as specific as the plans would normally be. An unacceptable explanation would be: "several drives were added to the project."

Additional information as necessary to make the change order complete and understandable should be listed in the change order and attached. Typically, the additional information will include letters, memoranda, sketches, part or full-page copies of one or more plan sheets; special provisions, failing test reports, and cost breakdowns for new unit prices.

6.4 New Items and Unit Prices

If a new item of work is added and it corresponds exactly with a standard contract item as listed in the Standard Specifications, or in the Master Pay Items Document, the standard contract item number should be used and no specifications for the work need be attached.

If the new item does not correspond to a standard construction item, the Construction Section must be contacted to provide directives, or a request for a "new" number must be processed through the Contracts & Specifications Section of DOTD.

Compensation for alterations of the contract shall be made as defined in section 109.04 of the "Louisiana Standard Specifications for Roads and Bridges" latest edition.

To change a contract unit price (except lump sum items), the plan quantity of the item with the original unit price should be decreased to zero, and a new item added.

To change a lump sum unit price, one of two methods may be used: (1) The original item should be decreased to zero and a new item added, or (2) simply add a new item for the extra work in the item.

The project specifications require creation of certain "new" pay penalty contract items. Examples are accepting work or material at reduced pay through "rebate items". These items are designated CI-items and a list of these items is available through the Construction Division Intranet. Note: Items should be paid at 100% of the contract unit prices and the Project Engineer must use CI-items that represent the penalties charged against the item by rebate.

6.5 Revised Plan Sheets

Revised plan sheets must be incorporated into the contract by change order. The change order should briefly state the changes in the revised sheets, why the changes are being requested, who requested them, and their effect on quantities and costs. The change order could be stated similar to the following example:

"Incorporate revised plan sheets 118A and 119A, both dated 11/21/03, into the contract, replacing original plan sheets 118 and 119. These sheets revise the configuration of the 401 stirrup bars in the bottom of concrete caps and were requested by the Bridge Design Engineer (see attached memorandum dated November 5, 2001). These changes will not affect contract quantities or unit prices except as follows:

"Increase Item 806-01-00100, Deformed Reinforcing Steel, by 3,566 pounds or 6.1%."

6.6 Format and Language

Because most change orders are unique, standard format and language cannot always be used. However , the opening statement of the change order should usually tell what the change order is about, such as "The purpose of this change order is to adjust plan quantities to as-built quantities," or "This change order will extend Bridge No. 1 by one span to Station 132+40." For the purpose of this manual, change orders can be separated into two types that usually must be treated differently (1) change order for a specific change or extra work and (2) A final change order which basically adjusts final quantities. Then a detailed explanation for the reason for the change should follow, if not completely covered in the opening statement.

Further processing of the change order through Site Manager will be performed in accordance with the "Site Manager Field User Manual".

If the intent of the change order is to accept work with failing tests results without a penalty, the wording should be "the department will accept as 100% pay." Do not use the wording "the department will waive the specifications".

6.7 Final Change Order

Most projects will require a final “record keeping” change order to cover minor over-runs and under-runs, and non-controversial specification created contract items such as items created to pay for piling cut-offs and items created to pay for non-conforming work or materials using reduced pay schedules. This final change order must contain no new items other than those provided for in the specification, such as pay adjustment items and piling cut-offs mentioned above.

6.8 Contract Time

The change order may request additional contract time. The Contractor must provide a lette4r requesting and justifying any additional time.

When no additional contract item is required, the statement “No additional contract time is necessary” must be indicated in the change order explanation section.

PART VII: FINAL ESTIMATES

7.1 Final Estimates (General)

From the date of recordation of the acceptance of a project (date Chief Engineer signs letter of Final Acceptance), the law requires a lien period of forty-five days before the final estimate can be paid, and requires that it be paid within ninety days of acceptance. The Department allots thirty of these days to the Project Engineer for preparing and submitting the final estimate for projects under $2 million and 60 days for projects over $2 million.

Except for overlay and other miscellaneous projects, all final estimates are to be hand-delivered and checked into the Construction Audit Section by the Project Engineer or a person very familiar with the project and the final estimate. All projects with non DOTD inspection (Urban system (742), enhancement jobs and any project that uses a consultant to act as the project manager) have to be hand carried into the Construction Audit Section. The final estimate on overlay projects may be mailed, however, if it is not complete and correct it will be returned for correction. After corrections have been made it must be hand-carried back to the Construction Audit Section.

The final estimate is a compilation of all partial estimates, and therefore it cannot make payments. If additional payments (or deductions) are due, another partial estimate must be prepared. All partial payments must be approved and all discrepancies taken care of before the final can be generated.

7.2 Final Estimate Quantities

The final quantities must be accurate and derived from field records, including field notes, sketches, computations, and as-built plans. All information necessary to verify quantities must be included in the field record or Site Manager. On most items, work is measured and recorded on a daily basis by the inspector and the final quantity is the summation of all daily quantities. Lump sum items that cannot be broken down into identifiable work elements (mobilization for example) are not recorded on a daily basis and the final quantity is the plan quantity.

Each item (including lump sum items) must have a final reference showing where the information for that item can be found.

7.3 Final Earthwork Quantities

The standard specifications allow the final earthwork quantity determination to be plan quantity; with some verification that plan quantity was determined with sufficient accuracy. If there is a question about the accuracy of plan quantity by the Contractor or the Project Engineer, either party may recalculate the quantity in accordance with accepted procedures and have the quantities amended by change order. The approved change order quantity then becomes the new plan quantity. Changes can be made by recalculating the earthwork for the entire project or isolated sections within the project where the error is found.

The Project Engineer must manage the activities of his staff throughout this process to not expend unnecessary resources tracking down insignificant quantity changes while at the same time being reasonably sure that there are no major quantity errors. The Project Engineer must also ensure that when recalculation of quantities by the Contractor is in isolated sections, the Contractor has not "shopped around" for sections with quantity increases and discounted other sections where quantities are decreased.

Earthwork quantities are determined by the average end area method and are based on the location (or original) and theoretical finished (or final) cross sections. When final quantity is based on location sections, the sections must be verified in some manner. Method of measurements and payments for earthwork items is covered in the specification and EDSM III.2.1.1 "Determination of Quantities for Payment of Excavation and Embankment. If the location sections are usable, the original cross-sections used in determining the "Average Elevation" are to be plotted on the corresponding location cross-sections.

Theoretical pay lines for computing volume of earthwork are based on the plan-profile grades and typical section. The theoretical pay line is often referred to as the plan template.

Final verification sections are plotted on the corresponding theoretical cross-sections, in green.

When final verification profiles are used, a "profile differential sheet" which shows the final template grade and the as-constructed subgrade elevation must be prepared and submitted with other cross-section data. This sheet must show the algebraic difference in grade for the entire project.

In plotting cross-sections, original (or location) sections are to be in black; theoretical (template) lines in red; tie points and interpolated sections in blue; and undercuts, templates, and final sections in green.

End areas to be recorded on Form 03-42-0652, "Earthwork Computations", and volumes computed using that form, except when a computer program is used.

The computer software, CSi Final Pay Earthwork and Grades, is available for calculating profile and roadway templates, computing revised earthwork quantities and for verification purpose.

All computations used in arriving at the final pay quantity for earthwork must be submitted, including a detailed recapitulation of the quantities.

Cross-sections are part of the as-built plans and thus the Project Engineer must sign each cross-section sheet.

7.4 Railroad Project Final Estimates

Estimates on railroad force account projects are prepared in accordance with EDSM III.6.1.5, "Partial and Final Inspections, and Progressive and Final Payments for Railway-Highway Force Account Projects". The PE performs a final inspection with the railroad and FHWA and promptly completes and sends the "Notice of Final Inspection" electronically to the Chief Engineer (see EDSM III.5.1.5) by way of the Construction Audit Section. The PE then requests the railroad prepare a corrected final inspection material invoice which the PE checks and verifies prior to developing and submitting the last partial estimate.

Form 03-04-651 (SMGR0011), "Partial Estimate Quantities" is used for all partial estimates. The actual final estimate is generated in the Construction Audit Section using form 03-04-0651 (SMGR0014), "Estimate Summary Report".

Refer to "Partial Estimates" for number of required decimals.

7.5 Forms and Information to Accompany Final Estimate

Final estimates should include only data actually needed to audit the project and documents that should become part of the permanent record. In general, the transmittal should be restricted to the following:

- Final Estimate forms
- All field records (if field books are used ensure that the first two title pages are also filled out)
- As-built plans or corrected and signed "plans-in-contract" plans, each plan sheet signed
- Cross-sections, including "Profile differential sheet," each sheet signed
- Computations verifying final pay quantities, when required
- All "Asphaltic Concrete Plant Reports", Form 03-22-3085
- Releases, warranties, guarantees, letters of receipt, etc. required by the project specifications.
- "In" and "Out" correspondence with staples and paper clips removed

- Project Diary, Form 03-40-3093, hard copies do not need to be submitted on Site Manager projects
- Bar lists on reinforcing steel
- Signed and approved Form 2059, "Summary of Laboratory Reports"
- Contractor's construction layout books
- Verification of R/W monuments recordation in courthouse
- All original signed Category 2 and 3 change orders
- Traffic control logs
- Police invoices for traffic control
- Transmittal sheet – listing everything that is submitted with project

Forms that are normally transmitted with final estimate are:

Schedule of Work Items, Form 03-42-0651 (SMGR0009)

Earthwork Computations, Form 03-42-0652 (unless computerized)

Recapitulation of Weather and Working Days to Complete Project, Form 03-42-0657, signed by the Project Engineer and District Area Engineer (SMGR0010)

And, if applicable:

Forms 1, 2, and 3, "Master Structure File Data Base (Bridges)"

Right of Entry, form 03-40-4206

Warranties and guaranties required by the specifications

Letter of approval from the Parish Health Unit for water wells

Copies of agreements with property owners (for debris disposal, etc.)

Certificate of Release, Form 03-42-0671 or Contractors Affidavit

Removal and or Relocation of Buildings, Form 03-40-0672

Railroad's release or Contractors Affidavit, Form 03-42-0001

Information required by EDSM III.2.5.8, "Verification of Navigation Clearances.

Documents and items not required for transmittal with the final estimate are to be maintained for at least five years in the Project Engineers office.

The form, "Master Structures File Data Base (Bridges)" is required if work has been done at or on a bridge, or if a new bridge has been constructed. Contact the District Bridge Inspector for assistance in preparing the form.

The construction audits unit of the construction division will no longer serve as a depository for incomplete final estimates. All final estimates must be complete or they will not be accepted.

A workbook is generated by either Site Manager from the input of information on the DWR's when the item is paid. It is important to make sure that each item with a pay quantity has a final reference.

7.6 Final Estimate

A workbook is generated by Site Manager from the input of information on the DWR's when the item is paid. It is important to make sure that each item with a pay quantity has a final reference.

7.7 As-Built Plans

As part of the final estimate the Department requires "as-built" plans. As-built plans are a set of the project plans (prints) corrected to show as-built conditions.

All changes made during construction must be shown by correction of notes, data or details shown in the plans, or by adding notes, details or plan sheets. All changes (corrections) to the prints are to be made using a red pencil or pen. This includes updating the Drainage and Bridge Summaries as well as the Summary of Estimated Quantities to show final pay quantities.

Notes, data and details that were not changed are to be "checked off" to indicate that the note, data or detail is correct and as-constructed. The check marks are to be made using a red pencil or pen.

All relocated buildings or other items must be shown in their new location except when the new location is beyond the limits of the plan sheet.

Examples of typical changes that must be shown in the as-built plans are changes in right-of-way, alignment, grade, stationing, equations, exceptions, typical sections, drainage structures (both size and location), and structural details. Most changes will require corrections or revisions of several sheets.

The sheets of the as-built plans are to be arranged in the same order as the original plans and **are to include voided sheets, revised sheets, and sheets added by change order with the Change Order number noted on the revised sheets.** The applicable revised sheet or sheets should immediately follow a voided sheet. The as-built plan sheets must be consecutively numbered or renumbered and the index to the sheets must be updated as follows:

The title sheet should be sheet number 1 and each subsequent sheet (including void sheets), to the bridge plans, must be consecutively numbered (for example, original sheets numbered 3, 3a

and 3b might now be sheets 5, 6 and 7.)

Bridge plans should start on sheet 101 except when the original bridge plans started with another number or there are already more than 100 numbered sheets. Each subsequent sheet (including void sheets) to the standard plans must be consecutively numbered.

As-built pile data shall be shown on the pile summary sheets and not referred to field books or spread sheets. The pile data sheet shall provide all the tip elevations, cut-off and order lengths.

Standard plans should start on sheet 201 except when the original standard plans started with another number or there are already more than 200 numbered sheets. Each subsequent sheet to the cross-section must be consecutively numbered.

Cross-sections should start on sheet 401 except when the original cross-sections started with another number or there are already more than 400 numbered sheets. Each subsequent sheet must be consecutively numbered.

Each Sheet of the as-built plans must be signed and dated (usually in the lower right corner) by the Project Engineer in ink.

A cover sheet is required for the as-built plans. A cover sheet is available from General Files for highway projects. For other projects, project personnel should prepare a cover sheet.

The above rules apply also to plans that are “included in the contract” except (a) the plans are removed from the contract and (b) no cover sheet is required.

APPENDIX A

Samples of Field Book Records

APPENDIX A.

Examples of specific Field Book records follow, each showing the minimum information that is required to satisfy good record keeping requirements.

Additional copies of this Appendix may be obtained from the Construction Audit Section.

ITEM 201 (1)
CLEARING AND GRUBBING
LUMP SUM

PROJECT TOTAL 100% COMPLETE

C.B.
1-29-03

ITEM 201(2)
SELECTIVE CLEARING AND GRUBBING
LUMP SUM

PROJECT TOTAL 100% COMPLETE

C
1-29-03

ITEM 202-01 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

LUMP SUM

DATE	STA.	STA.	% COMPLETE	INSP.	CERT. RELEASE	REMARKS
					YES	
9-7-03	0+00	40+00	100%	C.B.	PAID PARTIAL #4	
PROJECT TOTAL			100%	COMPLETE	C.B. 10-15-03	

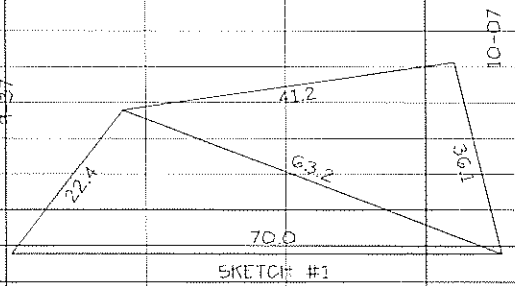
NOTE! THIS FORMAT MAY BE USED FOR ANY REMOVAL "LUMP SUM" ITEM

ITEM 202-02 REMOVAL OF P.C.C. PAVEMENT

DATE	STA.	STA.	LENGTH	WIDTH	SQ. YD.	REMARKS	
			SQ.YD.				
5-5-03	38+65	39+25	60.0	16.0	106.67		SW
	39+25	44+50	525.0	16.0	933.33		SW
	44+49		199.8	18.0	399.60	K.O.A. CAMP ROAD TO I.A. 93	SW
	9+37	10+07	LT.℄	VARIES	155.72	SEE SKETCH #1	SW
			PROJECT TOTAL		1595.32		

ALL MEASUREMENTS ARE ACTUAL FIELD MEASUREMENTS.

SW
5-5-03



SKETCH #1

NOTE: DETAILED MEASUREMENTS ARE USED TO VERIFY EACH QUANTITY.

ITEM 202-02 (A) REMOVAL OF BRIDGES

EACH

DATE	STATION	DESCRIPTION	EACH	AMT. PER EACH	INSP.	REMARKS
9-6-03	15+60	2 SPAN TIMBER BRIDGE	1	$1500	C.B.	
10-7-03	20+00	3 SPAN TIMBER BRIDGE	1	$2000	C.B.	
		PROJECT TOTAL	2 for	$3500	C.B.	10-15-03

NOTE: THIS FORMAT ALSO USED FOR ITEM 202-02 (B)

ITEM 202-02 (E) REMOVAL OF CONCRETE CURBS

LINEAR FOOT

DATE	STA	STA	SIDE ℄	ACT. FLD. MEAS.	INSP.	REMARKS
8-8-03	11+60	12+40	LT.	71.4	C.B.	CATCH BASIN DEDUCTED
8-8-03	14+00	15+10	LT.	122.6	C.B.	FLARE CONSIDERED
8-11-03	16+00	16+40	LT.	40.1	C.B.	
PROJECT TOTAL		2341		C.B.	10-15-03	

NOTE: THIS FORMAT ALSO USED FOR ITEMS 202-02 (F) AND 202-02 (H)

ITEM 202-02 REMOVAL OF
PER EACH

STATION	SIDE &	DESCRIPTION		REMARKS
17+00	LT.	14' x 10' SHED		DEMOLISHED 5-21-03 SW
16+20	RT.	'MASON SHOE' SIGN		DEMOLISHED 5-22-03 SW
14+80	LT.	ABANDONED 'TACO BELL BY CRUZ' BUILDING		DEMOLISHED 5-22-03 SW
		PROJECT TOTAL	3	

ITEM 203-06

EXCAVATION AND EMBANKMENT

LUMP SUM

DATE	% COMPLETE	INSP.	REMARKS
1-15-03	40%	C.B.	PAID PARTIAL ESTIMATE #1
2-15-03	50%	C.B.	PAID PARTIAL ESTIMATE #2
3-15-03	10%	C.B.	PAID PARTIAL ESTIMATE #3
PROJECT TOTAL	100% COMPLETE	C.B.	4-1-03

ITEM 203-07

EXCAVATION AND EMBANKMENT

LINEAR FOOT

STA.	STA.	LIN. FT.	REMARKS
10+35	14+60	425	SW 5-11-03
14+80	16+00	120	SW 5-11-03
18+00	25+00	700	SW 5-12-03
PROJECT TOTAL		1245	ACTUAL FIELD MEASUREMENTS ALONG ℄ SW 5-13-03

NOTE: THE CONSTRUCTION FIELD RECORDS ARE RECORDED IN SUCH A WAY AND ARE COMPACT ENOUGH SO THAT AN ADDITIONAL SUMMARY IS NOT REQUIRED.

ITEM 203-08

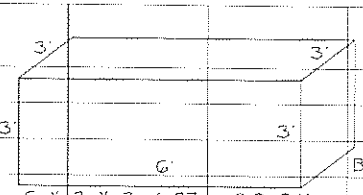
BORROW (VEHICULAR MEASUREMENT)

CUBIC YARD

STA.	TO	STA.	CU. YARDS.	REMARKS
10+35	-	14+60	42	3-22-03 C.B.
14+80	-	16+00	12	3-22-03 C.B.
18+00	-	25+00	70	3-22-03 C.B.
PROJECT TOTAL			124	

NOTE: THE FORMAT USED IN RECORDING AND SUMMARIZING MATERIAL MEMORANDUM ELIMINATES THE NEED FOR AN ADDITIONAL SUMMARY.

ITEM 204-01
TEMPORARY SANDBAGGING
CUBIC YARD



BATCH BOX USED

6 X 3 X 3 / 27 = 2.0 C.Y.

STA.	TO	STA.	BATCH COUNT	CUBIC YARDS	REMARKS	
11+00	-	14+50	21	42	3-22-03	C.B.
15+00	-	16+00	6	12	3-22-03	C.B.
18+00	-	25+00	28	56	3-22-03	C.B.
		PROJECT TOTAL		110		

NOTE: ALL NECESSARY MEASUREMENTS ARE GIVEN TO VERIFY PAY QUANTITY.

ITEM 204-02

TEMPORARY HAY OR STRAW BALES

PER EACH

STA.	STA.	SIDE ℄	REMARKS	NO. BALES	DATE:	INSP.	PAID-EST. NO.
10+00	10+83	RT.	ALONG FENCE NEAR TOE OF FILL SLOPE.	28	2-08-03	C.B.	2nd
11+40		LT.	AROUND END OF SIDE DRAIN	4	3-02-03	C.B.	3rd
			PROJECT TOTAL	32			

ITEM 204-03
TEMPORARY SLOPE DRAINS
LINEAR FOOT

STATION	SIDE C	LINEAR FOOT	REMARKS	PAID ESTIMATE NO. 12 17
12+00	LT.	68.4	SW 5-12-03	
14+00	LT.	66.9	SW 5-12-03	
PROJECT TOTAL		135.3	ACTUAL FIELD MEASUREMENT	SW

ITEM 204-04 AND 204-05

TEMPORARY SEDIMENT BASINS & TEMPORARY SEDIMENT CHECK DAMS

EACH

STATION	SIDE ℄	SEDIMENT BASINS	CHECK DAMS	REMARKS		EST. PAID
12+00	LT.	1		SW	5-11-03	2nd
12+50	LT.		1	SW	5-11-03	2nd
13+00	LT.	1		SW	6-12-03	3rd
13+50	LT.	1		SW	6-12-03	3rd
PROJECT TOTAL		3	1	ACTUAL FIELD MEASUREMENT		
						SW

ITEM 204-06

TEMPORARY SILT FENCING

LINEAR FOOT

STA.	TO	STA.	SIDE ℄	LINEAR FOOT	REMARKS
12+00	--	14+00	RT.	203.1	ACTUAL FIELD MEAS. SW 5-12-03
18+20	--	21+60	LT.	306.2	ACTUAL FIELD MEAS. SW 5-12-03
	PROJECT TOTAL			509.3	

ITEM 301-01 BASE COURSE

(PAY PLAN QUANTITY OR ADJUSTMENTS AS NOTED)

STA.	STA.	DESCRIPTION	PLAN QUANT. C.Y.	ADJ. PAY QUANT. C.Y.	REMARKS
10+00	15+00	NORMAL ROADWAY	314.8	314.8	OZALID SHEET 3b
15+00	16+20	NORMAL ROADWAY & TURNOUT	155.0	195.0	OZALID SHEET 3b AND FIELD BK. 34-194, P.26
16-20	35+00	NORMAL ROADWAY	1183.6	1183.6	OZALID SHEET 3b
	ITEM 301-01 PROJECT TOTAL			1693.4	

SW
4-15-03

NOTE: THE QUANTITIES ACCEPTED BY THE PROJECT ENGINEER ARE PLAN QUANTITIES FOR SECTIONS 10+00 - 15+00 AND 16+20 - 35+00. THESE QUANTITIES CAN BE VERIFIED BY REFERRING TO OZALID PLAN SHEET 3b. A CHECK MARK BY THE QUANTITIES 314.8 AND 1183.6 WILL INDICATE THAT THESE ARE THE ACCEPTED PAY QUANTITIES.

NOTE: AN ADJUSTMENT HAS BEEN MADE ON SECTION 15+00 - 16+20. REFERRING TO OZALID PLAN SHEET 3b WILL SHOW THAT THE QUANTITY 155.0 HAS BEEN CHANGED AND 195.0 IS THE ACCEPTED PAY QUANTITY. DETAILED COMPUTATIONS IN FIELD BOOK NO. 34-194, P.26. WILL VERIFY THIS QUANTITY.

ITEM 303-01 and 303 (R-B)
IN PLACE CEMENT STABILIZED
BASE COURSE (8-1/2" THICK)
SQUARE YARD

STA.	STA.	LIN. FT.	WIDTH	SQ. YARD	% CEMENT ACTUAL	% CEMENT PLAN	ACTUAL QUANT. (LBS)	PLAN QUANTITY	DIFF. (LBS)	UNIT PRICE * (¢/LB.)	REMARKS
10+00	16-00	600.0	23.0	1533.33	10	8	10,209.42	9,774.98	433.4	0.128	SW 5-20-03
16+00	18+00	200.0	VARIES	1287.62	8	8	8,208.58	8,208.58	0	0.128	INTERSECTION DELAUNE RD. AND STEWART AVE., SEE P.76 FOR DETAILED COMPUTATIONS.
18-00	25-00	700.0	23.0	1788.89	10	8	11,911.03	11,404.17	506.9	0.128	SW 5-22-03 SW 5-21-03
	PROJECT TOTAL			4609.8					940.3		

NOTE: FOR EXAMPLE, THE CONSTRUCTION FIELD NOTES SHOW A CONTINUOUS AND SMOOTH OPERATION. SINCE THIS IS NOT USUALLY THE CASE DURING ACTUAL FIELD CONSTRUCTION, ADDITIONAL SUMMARIZATION IS USUALLY REQUIRED.

* Invoice No. 167432 dated 5/20/03, total price $6,020.00, quantity 49,040 lbs. $6,020.00/49,040 lbs = $0.128/lb.

** Invoice No. 167434 dated 5/20/03, total price $6,008.95, quantity 48,950 lbs. $6,008.95/48,950 lbs = $0.128/lb.

ITEM 305-01 SUBBASE TREATMENT (6" THICK)

SQ. YD

DATE	STA.	STA.	LENGTH	WIDTH	SQ. YD.	% LIME	LBS LIME	INSP.	REMARKS
2-3-03	10+00	14+75	475.0	24.0	1,266.7	14	27,930	Ø.B.	
2-3-03	14+75	15+75						Ø.B.	BRIDGE EXCEPTION
2-3-03	15+75	17+25	ROADWAY + TURNOUT LT.		740.5	14	16,328	Ø.B.	SEE P. 42 FOR FOR COMPUTATIONS
	PROJECT TOTAL				2007.2			Ø.B.	2-8-03

ITEM 306-01

SCARIFYING AND COMPACTING ROADBED (__" THICK)

MILE

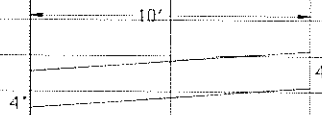
STATION TO STATION	MILE	REMARKS
10+50 TO 18+00	0.142	PLAN QUANTITY - OZALID SHEET NO. 2C @ B.B. 2-8-03
19+00 TO 24+00	0.095	PLAN QUANTITY - OZALID SHEET NO. 2C @ B.B. 3-1-03
PROJECT TOTAL	0.237	

ITEM 401-01

AGGREGATE SURFACE COURSE

(NET SECTION)

CUBIC YARD



C.Y./L.F. = 10.0 X 0.3333/27 = 0.1234

STA	TO	STA.	SIDE ℄	LIN. FT.	FACTOR	CU. YD	REMARKS
10+35	-	14+60	LT.	425.0	0.1234	52.45	SW 4-28-03
14+60	-	16+00	LT.	140.0	0.1234	17.28	SW 4-28-03
18+00	-	25+00	LT.	700.0	0.1234	86.38	SW 4-28-03
		PROJECT TOTAL				156.11	

NOTE: THESE COMPUTATIONS REPRESENT THE ACTUAL FIELD CONSTRUCTION NOTES.
ADDITIONAL COMPUTATIONS REQUIRED WHEN FACTOR CHANGES.

ITEM 401-02

AGGREGATE SURFACE COURSE

(ADJUSTED VEHICULAR MEASUREMENT)

CUBIC YARD

STA	TO	STA.	CU. YD	REMARKS
10+00	-	16+00	170	SW 5-10-03
18+00	-	25+00	196	SW 5-10-03
		TOTAL	366	
		366 / 1.3 = 281.5 CU. YD.		(PAY 280.5 CU. YD. AS SHOWN ON FINAL MATERIAL MEMORANDUM)
		PROJECT TOTAL 280.5		

NOTE: THE QUANTITY SHOWN ON THE MATERIAL MEMORANDA DIFFER FROM THE RECORDED FIELD BOOK QUANTITIES. REGARDLESS OF THE EFFECTS OF ROUNDING OFF, THE QUANTITY ON THE FINAL MATERIAL MEMORANDUM, WILL BE THE FINAL PAY QUANTITY.

ITEM 501-01
ASPHALTIC CONCRETE

DATE	STATION - STATION	TONS	ACCUMULATED TONS	LOT NO.	JMF SEQ. NO.	REMARKS	
6-2-03	10+00 - 15+00	450.012		2	03		SW
6-2-03	12+50 (TURNOUT)	48.321	498.333	2	03		SW
6-3-03	15+00 - 20+00	* 452.320	950.653	3	03	* ITEM 501-01(A)(X) 452.320 TONS @ 90% PAY	SW
6-4-03	20+00 - 25+00	** 446.500		4	05		SW
6-4-03	22+00 (TURNOUT)	** 97.602	1494.755	4	05	** ITEM 501-01(A)(X)(Y) 544.102 TONS @ 80% PAY	SW

GRAND TOTAL	1494.755	
PROJECT TOTAL	544.102	ITEM 501-01(A)(X)(Y)
PROJECT TOTAL	452.320	ITEM 501-01(A)(X)
PROJECT TOTAL	498.333	ITEM 501-01(A)

NOTE: THE QUANTITY IS VERIFIED BY HAUL TICKETS. THESE FIELD CONSTRUCTION NOTES SHOW A REPRESENTATIVE QUANTITY PAID UNDER THE APPLICABLE ITEM AND THE LOCATION OF MATERIAL FOR EACH ITEM. IT IS THE PROJECT ENGINEER'S DECISION TO ADD ANY ADDITIONAL INFORMATION.

NOTE: THE QUANTITY SHOWN ON THE MATERIAL MEMORANDA DIFFER FROM THE RECORDED FIELD BOOK QUANTITIES, REGARDLESS OF THE EFFECTS OF ROUNDING OFF. THE QUANTITY ON THE FINAL MATERIAL MEMORANDUM, WILL BE THE FINAL PAY QUANTITY.

ITEM 509-01
COLD PLANING ASPHALTIC PAVEMENT

DATE	STA	STA	SIDE ℄	LENGTH	WIDTH	SQ. YD.	INSP.	REMARKS
2-14-03	10+00	24+60	LT.	1460.0	12	1946.7	C.B.	
2-14-03	10+00	18+75	RT.	875.0	12	1166.7	C.B.	
2-15-03	18+75	32+76	RT.	1401.0	12	1868.0	C.B.	
2-15-03	24+60	32+76	LT.	816.0	12	1088.0	C.B.	
2-16-03	32+76	34+54	LT. & RT.	178.0	VARIES	534.6	C.B.	SEE P.32 FOR COMPUTATIONS AND SKETCH OF TURNOUT
			PROJECT TOTAL			6604.0	C.B.	

ITEM 601-01 & 02 PORTLAND CEMENT CONCRETE PAVEMENT (9" THICK)

SQUARE YARD

601-01

DATE	STA	STA	LIN. FT.	WIDTH	SQ. YARD	INSP.	REMARKS
2-4-03	10+00	16+00	600.0	22.0	1466.7	C.B.	PAY PLAN QUANTITY - SEE SHEET NO. 4b
2-5-03	18+00	25+00	700.0	22.0	1711.1	C.B.	PAY PLAN QUANTITY - SEE SHEET NO. 4b
			TOTAL		3177.8		

601-02

DATE	STA	STA	LIN. FT.	WIDTH	SQ. YARD	INSP.	REMARKS
2-4-03	16+00	18+00	200.0	VARIES	1140.6	C.B.	DELAUNE RD. AND STEWART AVE. INTERSECTION: SEE P. 76 FOR COMPUTATIONS
			TOTAL		1140.6		

PROJECT TOTAL 4318.4

			ITEM 602-12 UNDERSEALING (PAVEMENT (TYPE))	TON	
			ITEM 602-14 HOLES FOR UNDERSEAL	EACH	
STATION	SIDE ℄	735-01	735-02	REMARKS	
		TON	EACH	(CEMENT WEIGHT DETERMINED	
				BY ACTUAL COUNT OF BAGS	
14-00	LT.	0.51	8	USED) 6 BAGS CEMENT USED	
				IN SCURRY. S.T. 3-15-03	
PROJECT TOTAL		0.51	8	ITEM 602-14 QUANTITY DETER-	
				MINED BY ACTUAL FIELD COUNT	
				S.T. 3-15-03	
NOTE: ITEM 602-12 IS PAID BY HAUL TICKETS. HOWEVER ALL					
ITEM QUANTITIES ARE RECORDED IN CONSTRUCTION FIELD BOOKS.					

DRAINAGE SUMMARY

FIELD BOOK NO.	PAGE NO.	701-19 L.F.	701-13 L.F.	701-14 L.F.	701-21 L.F.	701-22 L.F.	701-24 L.F.
149-674	6	24					
149-674	7	24					
149-674	7	28					
149-674	8	28					
149-674	8		28.6				
131-476	22			42.3			
131-476	22				48		
131-476	23					30	
131-476	24						30.2
PROJECT TOTAL		104	28.6	42.3	48	30	30.2

SW
3-17-03

ITEM 701 (15)

REINFORCED CONCRETE PIPE (18")

LIN. FT.

STA. 15+85 ℄, STR. NO.37

37.9' SW 3-17-03

REQ'D 18" x 37.5' R.C. PIPE

MANUFACTURED DATE	: 12-15-82
NUMBER AND LENGTH OF JOINTS	: 5 @ 7.5'
DATE LAID	: 3-2-03
*FIELD MEASURED LENGTH	: 37.9'
INSPECTOR	: S.W.

STRUCTURE TOTAL 37.9'

*THIS PIPE EXAMPLE HAS ONE CONFINED END AND REQUIRES THAT THE PAY QUANTITY BE FIELD MEASURED. IF THERE WAS NO CONFINED END, THE PAY QUANTITY WOULD BE 37.5'

ITEM 702(3)

CATCH BASIN

EACH

STA. 15+85 LT., STR. NO.38

3-3-03	SLAB POURED
3-10-03	WALLS POURED
3-17-03	STRUCTURE 100% COMPLETE

STRUCTURE TOTAL 1 EACH

SW 3-17-03

ITEM 701-30

FABRICATING CONDUIT FITTINGS

EACH

STATION	EACH	REMARKS
11+60 LT.	1	SW 5-13-03
12+00 RT.	2	SW 5-13-03
PROJECT TOTAL	3	ACTUAL FIELD COUNT SW 5-19-03

ADDITIONAL RECORDATION IS PROJECT ENGINEER'S DECISION

ITEM 702-04

ADJUSTING ——————

EACH

STATION	SIDE ℄	DATE ADJUSTED	EACH	REMARKS
12+20	LT.	11-6-03	1	SW
14+60	LT.	11-22-03	1	SW
15+00	RT.	12-8-03	1	SW
PROJECT TOTAL			3	

ITEM 703-01

PERFORATED PIPE UNDERDRAINS (SIZE)

LINEAR FOOT

STATION	MEAS. LENGTH	REMARKS	
12+20 LT.	94.6	SW	5-13-03
16+20 LT.	50.2	SW	5-13-03
PROJECT TOTAL	144.8		

ITEM 704-01 GUARD RAIL

LINEAR FOOT

DATE	STA.	STA.	SIDE ℄	MEAS. LENGTH	INSP.	REMARKS
2-6-03	20+40	20+90	LT.	50.0	C.B.	BRIDGE NO. 1
2-6-03	21+90	22+40	LT.	50.0	C.B.	BRIDGE NO. 1
2-6-03	20+40	20+90	RT.	50.0	C.B.	BRIDGE NO. 1
2-6-03	21+90	22+40	RT.	50.0	C.B.	BRIDGE NO. 1
	PROJECT TOTAL			200.0	C.B.	

NOTE: PAY QUANTITY WILL BE PLAN QUANTITY UNLESS CHANGES ARE REQUIRED TO ADJUST TO FIELD CONDITIONS. FIELD MEASUREMENTS ARE MADE TO VERIFY QUANTITY INSTALLED. THIS FORMAT ALSO USED FOR ITEMS 704-02, 704-03, 704-04, 704-05, 704-06, 704-07, 704-08

ITEM 705-01 BARBED WIRE FENCE 'LINEAR FOOT'
ITEM 705-02 COMBINATION MESH AND BARBED WIRE FENCE 'LINEAR FOOT'
ITEM 705-03 SINGLE SWINGING WALK GATES 'EACH'
ITEM 705-09 REBUILT FENCE 'LINEAR FOOT'

STA.	TO.	STA.	SIDE ℄	705-01 L.F.	705-02 L.F.	705-03 EACH	705-09 L.F.	REMARKS
14+00	-	14+80	RT.	81.6				ACT. FLD. MEAS. SW 5-13-03
14-80	-	15-00	RT.					NO FENCE OR GATE SW 5-13-03
15-00	-	16+50	RT.		148.0			ACT. FLD. MEAS. SW 5-13-03
16+50	-	16-54	RT.			1		ACT. FLD. COUNT SW 5-13-03
16+54	-	18+00	RT.				146.0	ACT. FLD. MEAS. SW 5-13-03
	PROJECT TOTAL			81.6	148.0	1	146.0	

ITEM 706-01

CONCRETE WALKS, DRIVES, AND INCIDENTAL PAVING

SQUARE YARD

STATION	SIDE ℄	LENGTH	WIDTH	SQUARE YARD	REMARKS
14+00	LT.	62.0	4.0	27.56	SW 5-13-03
14+00 - 15+00	LT.	100.0	4.0	44.44	SW 5-13-03
16+00	LT.	VARIES		86.2	SEE P.75 FOR SKETCH & COMPUTATIONS SW 5-14-03
PROJECT TOTAL				158.2	

ITEM 707-01 "CONCRETE CURB"

LINEAR FOOT

DATE	LOCATION	LIN. FT.	REMARKS
5-16-03	16+40 TO 17-60	32.0	RADI OF ISLANDS AT DELAUNE
	16+40 TO 17-60	46.5	ROAD AND STEWART AVE.
			INTERSECTION SW
5-17-03	16+40 TO 17+60	64.5	CURB AT ISLAND IS COMPLETE SW
5-18-03	20+00 TO 22-20	116.0	TANGENT CURBS AT BRUMFIELD
			& JOHNSON'S PARKING MART
			COMPLETED (ACTUAL FLD. MEAS.) SW
5-19-03	22+50 TO 23+00	220.0	TIE-INS, TANGENTS AND ISLAND
			CURBS AT "BROTHER BURGESS" SW
			CHURCH OF NEW FAITH" COMPLETED

NOTE: THESE ARE ACTUAL CONSTRUCTION FIELD NOTES. THE DATE, LOCATION, APPROXIMATE QUANTITY AND INSPECTOR IN CHARGE IS NOTED. AN ADDITIONAL SUMMARY WILL BE MADE TO PAY QUANTITIES AND ADJUSTMENTS.

ITEM 708-01
RIGHT OF WAY MARKER
EACH

STATION	SIDE ℄	DISTANCE LT.	DISTANCE RT.	EACH	
10+00	LT. & RT.	40.0'	40.0'	2	SW 5-16-03
15+00	LT. & RT.	40.0' 50.0'	40.0' 50.0'	4	SW 5-16-03
20+00	LT.	50.0'		1	SW 5-17-03
21+00	RT.		50.0' 40.0'	2	SW 5-17-03
23+00	LT. & RT.	50.0'	40.0'	2	SW 5-17-03
	PROJECT TOTAL			11	

ITEM 709-01
STEEL RAIL CATTLE GUARD
EACH

STATION	EACH	REMARKS
14+00	1	SW 5-17-03
19+00	1	SW 5-17-03
	2	PROJECT TOTAL

	ITEM 711-01					ITEM 711-02				
	RANDOM RIPRAP					RIPRAP FOR SINKING MATTRESSES				
	CUBIC YARD					TON				
DATE	STA	STA	CU. YD.	INSP.		DATE	STA	STA	TON	INSP.
2-6-03	14+00	14+50	40.0	C.B.		2-3-03	16+80	18+80	6.428	C.B.
2-7-03	14+00	14+50	60.0	C.B.		2-4-03	16+80	18+80	6.012	C.B.
2-8-03	14+00	14+50	20.0	C.B.		2-5-03	16+80	18+80	5.850	C.B.
	PROJECT TOTAL		120.0			2-6-03	16+80	18+80	4.200	C.B.
						PROJECT TOTAL			22.490	
						(THIS FORMAT ALSO USED FOR 711-03				

NOTE: THE QUANTITY IS VERIFIED BY HAUL TICKETS. THESE FIELD CONSTRUCTION NOTES SHOW A REPRESENTATIVE QUANTITY PAID UNDER THE APPLICABLE ITEM AND THE LOCATION OF MATERIAL FOR EACH ITEM. IT IS THE PROJECT ENGINEER'S DECISION TO ADD ANY ADDITIONAL INFORMATION.

NOTE: THE QUANTITY SHOWN ON THE MATERIAL MEMORANDA DIFFER FROM THE RECORDED FIELD BOOK QUANTITIES, REGARDLESS OF THE EFFECTS OF ROUNDING OFF. THE QUANTITY ON THE FINAL MATERIAL MEMORANDUM. WILL BE THE FINAL PAY QUANTITY.

ITEM 713-01

TEMPORARY SIGNS AND BARRICADES

LUMP SUM

PROJECT TOTAL 100% COMPLETE

SW
4-15-03

ITEM 722-01

PROJECT SITE LABORATORY

EACH

9-17-82 DELIVERED 10' x 14'
PLANT LABORATORY
ON PROJECT

PROJECT TOTAL 1 EACH

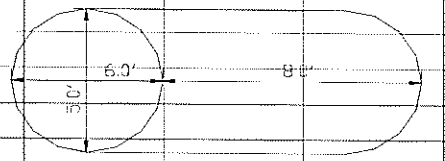
SW
9-17-03

ITEM 714-02

WATER

M/GALLONS

STATION	TO	STATION	SIDE ℄	M/GAL	REMARKS
12+00	TO	18+00	LT.	1.410	5-6-03 S.W.
14+00	TO	21-00	RT.	1.410	5-6-03 S.W.
	PROJECT TOTAL			2.820	



VOLUME

$\pi \times 3.0 \times 2.5 \times 6.0 = 188.50$ C.F.

GALLONS

$188.50 \times 7.481 = 1410$

ITEM 718-01 'FERTILIZER' POUND				ITEM 718-02 'AGRICULTURAL LIME' TON		
STA. TO STA.	TYPE	ADJ. QUANT.	REMARKS	STA. TO STA.	TONS	REMARKS
12+00 LT. TO 14+00 .22 ACERS	12-12-12	150.0	100 LB x 1.5 5-18-03 S.W.	10+00 LT. TO 23+00	2.986	5-18-03 S.W.
16+00 TO 20+00 .40 ACERS	16-16-16	200.0	100 LB x 2.0 5-18-03 S.W.	10+00 RT. TO 23+00	3.021	5-18-03 S.W.
20+00 TO 22+00 .10 ACERS	8-8-8	100.0	100 LB x 1.0 5-18-03 S.W.	PROJECT TOTAL	6.007	
PROJECT TOTAL		450.0				

NOTE: THE QUANTITY IS VERIFIED BY HAUL TICKETS. THESE FIELD CONSTRUCTION NOTES SHOW A REPRESENTATIVE QUANTITY PAID UNDER THE APPLICABLE ITEM AND THE LOCATION OF MATERIAL FOR EACH ITEM. IT IS THE PROJECT ENGINEER'S DECISION TO ADD ANY ADDITIONAL INFORMATION.

NOTE: THE QUANTITY SHOWN ON THE MATERIAL MEMORANDA DIFFER FROM THE RECORDED FIELD BOOK QUANTITIES. REGARDLESS OF THE EFFECTS OF ROUNDING OFF. THE QUANTITY ON THE FINAL MATERIAL MEMORANDUM. WILL BE THE FINAL PAY QUANTITY.

ITEM 719-01

PLANTS (TYPE, SIZE)

EACH

STATION TO STATION	SIDE ℄	EACH	REMARKS
14-00 TO 15+20	RT.	7	5-20-03 S.W.
14-00 TO 14+80	LT.	4	5-20-03 S.W.
16+00	LT.	8	5-21-03 S.W.
PROJECT TOTAL		19	

ITEM 719-02

TOP DRESSING MULCH (4" DEPTH)

SQUARE YARD

DATE	STA	STA	LENGTH	WIDTH	SQ. YD.	INSP.	REMARKS
2-10-03	40+04	42+10	210.6	4.0	93.6	C.B.	ACT. FLD. MEAS.
2-11-03	51+20	52+00	VARIES	VARIES	114.6	C.B.	SEE COMPUTATION FOLDER #1 PAGE 16 FOR SKETCH AND COMP.
		PROJECT TOTAL			208.2	C.B.	

NOTE: THIS FORMAT ALSO USED FOR ITEM 719 (03)

ITEM 720-01

EROSION CONTROL SYSTEM PER S.Y.

DATE	STA	STA	SIDE ℄	LENGTH	WIDTH	SQ. YDS.	INSP.
2-12-03	20+20	24+60	LT.	440	30	1467	C.B.
2-12-03	28+20	34+80	LT.	680	30	2267	C.B.
2-13-03	34+80	36+00	LT.	120	45 AV.	600	C.B.
2-13-03	36+20	34+00	RT.	200	40 AV.	889	C.B.
2-14-03	34+00	27+75	RT.	625	30	2083	C.B.

ITEM 724-01 "PAVEMENT PATCHING"

SQUARE YARD

DATE	STA	STA	LENGTH	WIDTH	PLAN DEPTH	ACTUAL DEPTH	SQUARE YARD	INSP.
3-3-03	18+90	19+80	90.0	12.0	12"	12"	120.0	C.B.
3-3-03	19+90	20+00	10.0	12.0	12"	16"	13.3	C.B.
		PROJECT TOTAL					133.3	C.B.

ITEM 724(01) (A) "OVERDEPTH PATCHING"

SQUARE YARD / INCH

OVERDEPTH UNIT PRICE = (1/2 ORIGINAL ITEM UNIT PRICE / 12)

DATE	STA	STA	SQUARE YARD	DEPTH OF TOTAL PATCH	OVER DEPTH	QUANT. OF OVERDEPTH S.Y./IN.	REMARKS
3-3-03	18+90	19-80	120.0	12"	0	0	SEE DOTD CONSTRUCTION MEMO. # 156, DATED AUGUST 17, 1984
3-3-03	19+90	20+00	13.3	16"	4"	53.2	
		PROJECT TOTAL				53.2	

ITEM 724-02

PAVEMENT WIDENING

SQUARE YARD

DATE	STA	STA	SIDE ℄	LENGTH	WIDTH	SQ. YD.	INSP.	REMARKS
3-3-03	16+00	- 24+00	LT.	800.0	4.0	355.6	C.B.	
3-4-03	24+50	- 30+50	LT.	600.0	4.0	266.7	C.B.	
3-4-03	30+50	- 32-50	LT.	200.0	AV. 5.0	111.1	C.B.	TRANSITION 4.0' TO 6.0'
3-5-03	34+50	- 36+50	LT.	200.0	AV. 5.0	111.1	C.B.	TRANSITION 6.0' TO 4.0'
3-5-03	36+50	- 38+00	LT.	150.0	4.0	66.7	C.B.	
			PROJECT TOTAL			911.2	C.B.	

ITEM 725-01

TEMPORARY DETOUR ROADS

LINEAR FOOT

STATION	TO	STATION	SIDE ℄	ACTUAL FIELD MEASUREMENT	REMARKS
20+40	TO	20+73	RT.	80.4	MEASURED ALONG ℄ DETOUR ROAD, RT. EDGE OF PROJECT PAVEMENT TO BEGINNING OF DETOUR BRIDGE 5-20-03 S.W.
21+05	TO	21+46	RT.	82.0	MEASURED ALONG ℄ DETOUR ROAD AT END OF DETOUR BRIDGE TO RT. EDGE OF PROJECT PAVEMENT. 5-20-03 S.W.
		PROJECT TOTAL		162.4	

NOTE: THIS ITEM IS TO BE PAID BY LINEAR FOOT. WHENEVER THE PAY UNIT IS SQUARE YARD. ALL MEASUREMENTS FOR DETAILED CALCULATIONS WILL BE SHOWN.

ITEM 729
TRAFFIC SIGNS AND DEVICES
SQUARE FOOT

	ITEM	729-01	SIGN	(TYPE A)		SQUARE FOOT			
	ITEM	729-02	SIGN	(TYPE B)		SQUARE FOOT			
	ITEM	729-03	SIGN	(TYPE C)		SQUARE FOOT			
	ITEM	729-04	SIGN	(TYPE D)		SQUARE FOOT			
	ITEM	729-05	SIGN	(TYPE E)		SQUARE FOOT			
	ITEM	729-06	SIGN	(OVERHEAD, MOUNTED)		SQUARE FOOT			
	ITEM	729-07	SIGN	(OVERHEAD PANEL)		SQUARE FOOT			
STATION	SIDE ℄	729-01	729-02	729-03	729-04	729-05	729-06	729-07	REMARKS
14+60	RT.	12.0		14.6		8.6			PAY PLAN QUANTITY
									SEE OZALID SHEET NO. 12 5-16-03 S.T.
14+60	O/ HEAD						125.0	125.0	PAY PLAN QUANTITY. SEE OZALID SHEET NO.12 5-16-03 S.T.
16+00	RT.		16.0		14.0				PAY PLAN QUANTITY. SEE OZALID SHEET NO.12 5-16-03 S.T.
PROJECT TOTAL		12.0	16.0	14.6	14.0	8.6	125.0	125.0	PLAN QUANTITY

NOTE: ALL QUANTITIES PAID ARE PLAN QUANTITIES. DETAILED DIMENSIONS AND COMPUTATIONS WILL BE REFERENCED WHENEVER QUANTITIES OTHER THAN PLAN QUANTITIES ARE ACCEPTED.

ITEM 725-03 TEMPORARY DETOUR BRIDGING

LINEAR FOOT

STATION	TO	STATION	SIDE ℄	PLAN LENGTH	ACTUAL FIELD MEAS.	REMARKS
20+73	TO	21+05	℄	22.0	230	EXISTING FIELD CONDITIONS REQUIRED THE CONTRACTOR TO LENGTHEN DETOUR BRIDGE TO FACILITATE PILE DRIVING. THE NEW DETOUR BRIDGE DESIGN WAS APPROVED PRIOR TO CONSTRUCTION. 5-21-03 S.W.
PROJECT TOTAL				22.0		

NOTE CHANGE IN ACCEPTED PAY QUANTITY AND SEE SUB-SECTION 725-05 OF STANDARD SPECIFICATIONS, 1982 EDITION.

ITEM 726-01

CONDUIT BACKFILL

CUBIC YARD

STA.	MEAS. LENGTH	MEAS. DEPTH	WIDTH	PIPE DEDUCTION	PAY CUBIC YDS	REMARKS
LOCATION	ACTUAL MEASURED LENGTH OF CONDUIT LESS LENGTH IN OTHER DRAINAGE STRUCTURE BEDDING OR BACKFILL PLUS 3'-0".	ACTUAL MEASURED DEPTH ACCORDING TO SUB SECTION 703.16.	18" OUTSIDE OF AND PARALLEL TO THE OUTSIDE WALL OF CONDUIT AT IT'S GREATEST HORIZONTAL DIMENSION.	TOTAL PIPE DEDUCTION INCLUDING CONCRETE PIPE WALLS OR AS DIRECTED ON PLANS.	NET QUANTITY	MAKE REFERENCE TO PLAN SHEET NO. OR DETAILED SKETCHES IN FIELD BOOK. THAT WILL CLARIFY THE PROCEDURE USED IN COMPUTING THE PAY QUANTITY FOR EITHER BACKFILL OR BEDDING MATERIAL. ALL QUANTITIES USED MUST BE VERIFIED BY PLANS, ACTUAL FIELD MEASUREMENTS OR DETAILED COMPUTATIONS.
						SW 5-13-03

ITEM 729-16 'OBJECT MARKER ASSEMBLY'
EACH

STATION	SIDE ℄	EACH	REMARKS
23+00	LT	4	ACTUAL FIELD COUNT S.T. 5-20-03
PROJECT TOTAL		4	

ITEM 730-01
'TRENCHING AND BACKFILLING'
LINEAR FOOT

STATION	SIDE ℄	ACTUAL FIELD MEAS.	REMARKS
14+50	LT.	42.0	S.T. 5-14-03
16+00 18-00	RT.	200.0	S.T. 5-15-03
19+00 19-50	RT.	63.2	S.T. 5-15-03
		305.2	PROJECT TOTAL

ITEM 732-01 PLASTIC PAVEMENT STRIPING (__" WIDTH)

LINEAR FOOT

STATION	TO	STATION	SIDE ℄	ACTUAL FIELD MEAS.		REMARKS
11+00	TO	16+00	℄	150.0	S.T. 5-10-03	MEASURED LENGTH REFLECTS STRIPING ONLY GAPS ARE NOT
16+00	TO	21+00	℄	100.0	S.T. 5-11-03	INCLUDED IN MEASUREMENTS.
PROJECT TOTAL				250.0		

SEE SUB-SECTION 732.04 OF STANDARD SPECIFICATIONS, 1982 EDITION.

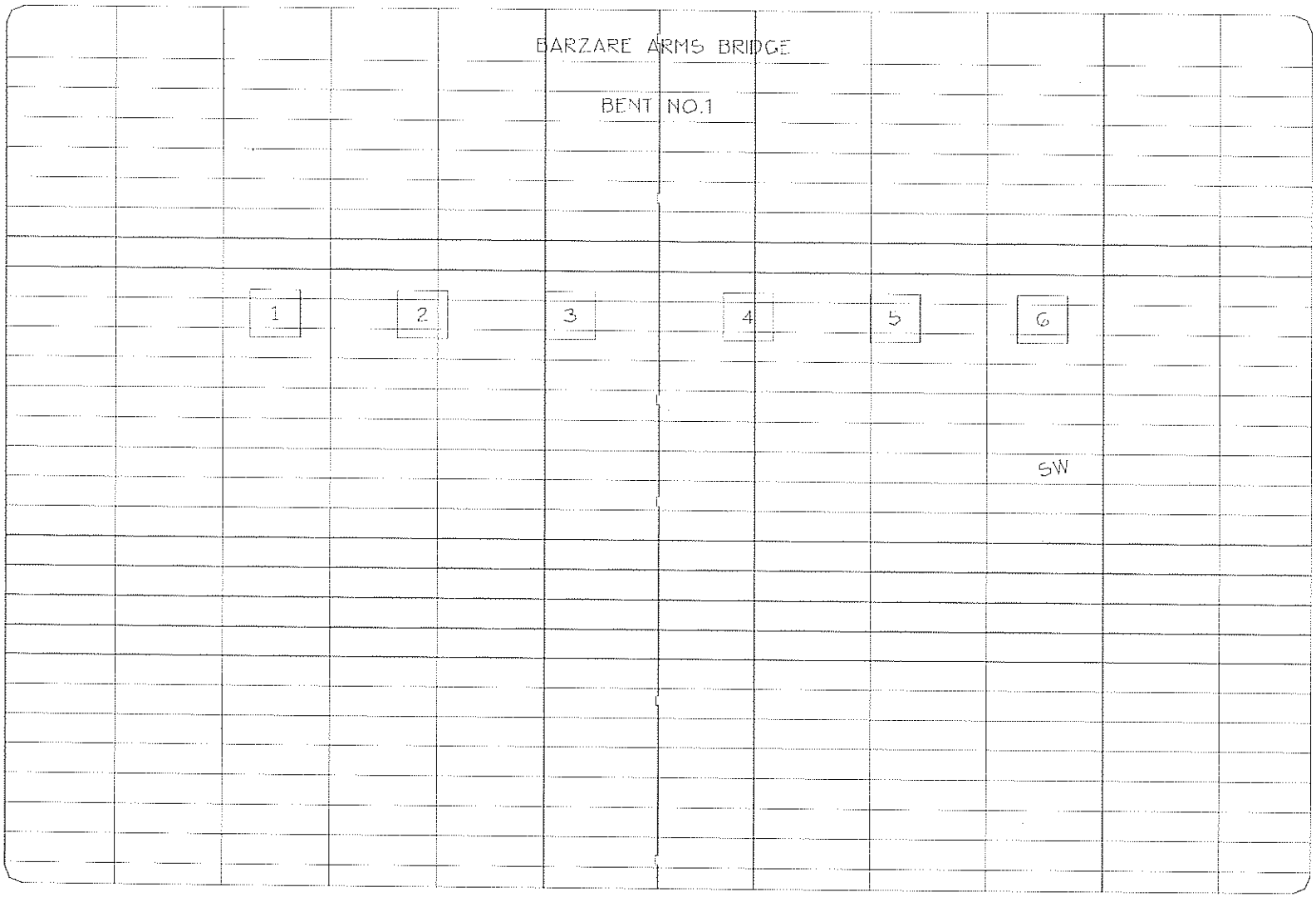
		ITEM 732-02		PLASTIC PAVEMENT STRIPING (SOLID LINE) (__" WIDTH)		MILE	
		ITEM 732-03		PLASTIC PAVEMENT STRIPING (BROKEN LINE) (__" WIDTH)		MILE	
STATION	TO	STATION	SIDE ℄	ITEM 732-02	ITEM 732-03	REMARKS	
21+00	TO	24+00	LT.	300.0'		ACTUAL FIELD MEASURED S.T. 5-21-03	
21+00	TO	24-00	RT.	300.0'		ACTUAL FIELD MEASURED S.T. 5-21-03	
21+00	TO	24-00	℄		300.0'	ACTUAL FIELD MEASURED S.T. 5-21-03	
		TOTAL		600.0'	300.0'		
PROJECT TOTAL				0.114 MILE	0.057 MILE		
NOTE: THE ACTUAL MEASURED LENGTH IN LINEAR FEET IS RECORDED. IN THIS WAY, THE CONVERTED PAY UNIT OF ANY ITEM CAN BE VERIFIED BY USING THE ORIGINAL MEASUREMENTS.							

ITEM 734-01

RUBBLIZING PORTLAND CEMENT CONCRETE PAVEMENT

SQUARE YARD

DATE	STA	STA	LENGTH	WIDTH	SQ. YARD	INSP.	REMARKS
2-13-03	24+50	25+90	140.0	20.0	311.1	C.B.	
2-13-03	27+80	28+20	40.0	10.0	44.4	C.B.	LT. ℄
2-14-03	41+60	42+80	VARIES		126.0	C.B.	TURNOUT RT. ℄, SEE P.GG FOR FIELD MEAS. AND COMPUTATIONS
		PROJECT TOTAL			481.5	C.B.	


BARZARE ARMS BRIDGE
BENT NO.1
1
2
3
4
5
6
SW

ITEM 803-01 TIMBER SHEET PILE WALL

SQUARE FOOT

PAY PLAN QUANTITY OR ADJUSTED QUANTITY

LOCATION	PLAN QUANT.	ADJUSTED PAY QUANT.	REMARKS
BRIDGE #1 WEST SIDE FENDER SYSTEM	1500.0	1500.0	PAY PLAN DIMENSIONS 25' x 60' ACTUAL FIELD DIMENSIONS 25.5' x 60' S.W. 5-1-03
BRIDGE #1 EAST SIDE FENDER SYSTEM	1500.0	1500.0	PAY PLAN DIMENSIONS 25' x 60' ACTUAL FIELD DIMENSIONS 25' x 59.9' S.W. 5-3-03
PROJECT TOTAL		3000.0	

NOTE: THE ACTUAL FIELD DIMENSIONS ARE WITHIN TOLERANCES TO BE ACCEPTED BY PROJECT ENGINEER AND USE DESIGN QUANTITIES AS PAY QUANTITIES.

PILING SUMMARY

ITEM 804-01(D)

18"x18" PRECAST CONCRETE PILES

	LN. FT.	REMARKS
BARZARE ARMS BRIDGE	1122.2	FLD. BK. #143-341, P.53
SOILEAU STABLES OVERPASS	1074.8	FLD. BK. #142-362, P.78
DUCOTE PUTT-PUTT BRIDGE	1416.0	FLD. BK. #141-622, P.64
PROJECT TOTAL	3613.0	

SW
5-4-03

NOTE: THIS IS THE FIELDBOOK AND PAGE NUMBER THAT WILL BE REFERENCED ON THE FINAL ESTIMATE PRINTOUT. FROM THIS POINT ALL QUANTITY CAN BE VERIFIED BY WORKING BACK THROUGH ALL THE NOTED REFERENCES.

THIS FORMAT CAN BE USED FOR ALL SIMILAR ITEMS.

PILING SUMMARY

ITEM 804-01(D)(X)

18"x18" PRECAST CONCRETE PILES

	CUT-OFF LIN. FT.	LIN. FT.	REMARKS
BARZARE ARMS BRIDGE		3.7	FLD. BK. #143-341, P.53
PROJECT TOTAL		3.7	

SW
5-4-03

ITEM 804-01(D)

18"x18" PRECAST CONCRETE PILES

LIN. FT.

BARZARE ARMS BRIDGE

BENT	L.F.	REMARKS
1	280.5	P.51
2	282.1	P.50
3	280.6	P.49
4	279.0	P.48
BRIDGE TOTAL	1122.2	

SW
5-4-03

ITEM 804-01(D)(X)

18"x18" PILE CUT-OFF

LIN. FT.

BARZARE ARMS BRIDGE

BENT	L.F.	REMARKS
1	1.1	P.51
4	2.6	P.48
BRIDGE TOTAL	3.7	

SW
5-4-03

PERMANENT PILE RECORD

BENT NO.7

INSPECTORS CLAUSEN & DESOTO

STATION 60+05.22

ITEM 804 (01)(CD)

+	H.I.	−	ELEV.	
0.67	18.90		(18.23)	B.M. R.R. SPIKE IN 48" OAK 79' RT. STA. 61+00
		7.80	11.10	TEMPLATE ELEVATION
		2.01	16.89	CUT-OFF ELEVATION
0.61	18.96	0.55	18.35	TOP OF STAKE
		0.72	18.24	(18.23) B.M. R.R. SPIKE IN 48" OAK 79' RT. STA. 61+00

PLAN TIP ELEV.: -63.11

CUT-OFF ELEV.: 16.89

SIZE OF PILING: 4-18" ø 80'

TYPE HAMMER: VULCAN OR 30,225 FT. LBS.

SPEED RAM: 50 BPM; STROKE: 3.25'; WT. RAM 9300 LBS.

DATE	PILE NO.	ELEV. PT. OF PILE	ELEV. GROUND	PENET	GROSS LENGTH	CUT-OFF	CUT-OFF OVER 1Ft.	NET LENGTH	BLOWS FT.	LAST 5 FOOT HEIGHT FALL	LAST 5 FOOT PENET	AVG. PENT. PER BLOW	TONS
									43 52 67				
8/6/03	1	-63.11	6.3	69.41	80.0'	0.0'	0.0'	80.0	76 83	3.25	12"	0.1446	123.6
8/6/03	2	-62.11	6.3	68.41	80.0'	1.0'	1.0'	79.0	95, 96, 119 120, 125	3.25	12"	0.0960	154.2
8/6/03	3	-62.01	6.3	68.31	80.0'	1.1'	1.1'	78.9	98, 100, 120 119, 126	3.25	12"	0.0893	161.4
8/6/03	4	-62.21	6.3	68.51	80.0'	0.9'	0.9'	79.1	120, 121, 120 125, 125	3.25	12"	0.0960	154.2
					BENT TOTAL		1.1'	317.0					

ITEM 804-05

PRECAST CONCRETE TEST PILES

EACH

TEST PILE #1 (18"x18"x55')

BARZARE ARMS BRIDGE

BENT NO. 1 STA. 18+00 10' RT.℄

GROUND ELEVATION = 60.0

HAMMER SERIAL NO.:

FAIRCHLD #20 48-54 BLOWS

20,000 FT./LBS PER MINUTE

DESIGN LOAD: 30 TONS

CUT-OFF ELEVATION: 65.0

FALL: 39"

DATE	FOOT	BLOWS PER FT.	PENETRATION	TIP ELEV.	TONS
2-1-03	1				
	2		WEIGHT OF HAMMER + PILE		
	3				
	4	9	0.9	56.0	14.0
	5	12	1.9	55.0	18.2
	6	15	2.9	54.0	22.2
	7	16	3.9	53.0	23.2
	8	25	4.9	52.0	34.5

DATE	FOOT	BLOWS PER FT.	PENETRATION	TIP ELEV.	TONS
	9	20	5.0	51.0	38.9
		FOOT #10 THRU #44 NOT SHOWN ON EXAMPLE ONLY			
	45	40	36.9	15.0	50.0
	46	42	37.9	14.0	51.9
	47	46	38.9	13.0	55.4
	48	46	39.9	12.0	55.4
	49	47	40.9	11.0	56.3
	50	47	41.9	10.0	56.3

PROJECT TOTAL 1 EACH

ITEM 804-09

LOADING TEST PILES

EACH

TEST PILE #1 (18"x18"x55')

BARZARE ARMS BRIDGE

BENT NO.1 STA. 18+00 10' RT. ℄

GROUND ELEVATION: 60.0

DESIGN LOAD: 30 TONS

DATE	TEST LOAD IN TONS	TIME (A.M. OR P.M.)	READING BEFORE	READING AFTER	ELAST DEF	TOTAL SETTLEMENT
2-16-03	4.5	7:30 A.M.	3"	3"		3" SW
	9.0	7:35 A.M.	3"	3"		3" SW
	13.5	7:40 A.M.	3"	3"		3" SW
	18.0	7:45 A.M.	3"	3"		3" SW
	22.5	7:50 A.M.	3"	3"		3" SW
	27.0	7:55 A.M.	3"	3"		3" SW
	31.5	8:00 A.M.	3"	3 1/8"		3 1/8" SW
	36.0	8:05 A.M.	3 1/8"	3 1/8"		3 1/8" SW
	40.5	8:10 A.M.	3 1/8"	3 1/8"		3 1/8" SW
	45.0	8:15 A.M.	3 1/8"	3 1/8"		3 1/8" SW
	49.5	8:20 A.M.	3 1/8"	3 1/8"		3 1/8" SW
	54.0	8:25 A.M.	3 1/8"	3 1/8"		3 1/8" SW
	58.5	8:30 A.M.	3 1/8"	3 1/8"		3 1/8" SW

DATE	TEST LOAD IN TONS	TIME (A.M. OR P.M.)	READING BEFORE	READING AFTER	ELAST DEF.	TOTAL SETTLEMENT
	63.0	8:35 A.M.	3 1/8"	3 1/8"	3	1/8" SW
	67.5	8:40 A.M.	3 1/8"	3 1/8"	3	1/8" SW
	72.0	8:45 A.M.	3 1/8"	3	3/16"	3 3/16" SW
	76.5	8:50 A.M.	3 3/16"	3	3/16"	3 3/16" SW
	81.0	8:55 A.M.	3 3/16"	3	3/16"	3 3/16" SW
	85.5	9:00 A.M.	3 3/16"	3	1/4"	3 1/4" SW
	90.0	9:05 A.M.	3 3/16"	3	1/4"	3 1/4" SW
	67.5	9:10 A.M.	3 3/16"	3	1/4"	3 1/4" SW
	45.0	9:15 A.M.	3 3/16"	3	1/4"	3 1/4" SW
	22.5	9:20 A.M.	3 3/16"	3	1/4"	3 1/4" SW
	0.0	9:25 A.M.		3	1/4"	3 1/4" SW
	0.0	9:30 A.M.		3	1/8"	3 1/8" SW
	0.0	9:35 A.M.		3	1/8"	3 1/8" SW
	0.0	9:40 A.M.		3	1/8"	3 1/8" SW
	0.0	9:45 A.M.		3	1/8"	3 1/8" SW
	0.0	9:50 A.M.		3	1/8"	3 1/8" SW

PROJECT TOTAL 1 EACH

ITEM 805-01(XX)(Y) CLASS 'A' CONCRETE @ 90% PAY

ADDED P.C. #6

BRIDGE NO.1

BENT	PLAN QUANT. C.Y.	ADJ. PAY QUANT. C.Y.		REMARKS
5	15.00	1.00		SEE OZALID SHEET NO. 112 & COMPUTATIONS IN FIELD BOOK NO. 176-134, P. 41
	BRIDGE TOTAL	1.00	C.Y.	
ITEM 805-01(XX)(Y) PROJECT TOTAL		1.00	C.Y.	SW 3-15-03

ITEM 805-04 CLASS 'A' CONCRETE

PAY PLAN QUANTITY OR ADJUSTMENT

BRIDGE NO.1

BENT	PLAN QUANT. C.Y.	ADJ. PAY QUANT. C.Y.		REMARKS
1	15.00	17.00		SEE OZALID SHEET NO. 112 & COMPUTATIONS IN FIELD BOOK NO. 176-134, P.40
2	10.00	10.00		SEE OZALID SHEET NO. 114
3	10.00	9.50		SEE OZALID SHEET NO. 114 & COMPUTATIONS IN FIELD BOOK NO. 176-134, P.42 0.50 C.Y. PAID UNDER 805(1)(X)
4	10.00	10.00		SEE OZALID SHEET NO. 114
5	15.00	16.00		SEE OZALID SHEET NO. 112 & COMPUTATIONS IN FIELD BOOK NO. 176-134, P. 40,41 1.00 C.Y. PAID UNDER 805(1)(X)(Y)
BRIDGE TOTAL		62.50	C.Y.	
ITEM 805(01) PROJECT TOTAL		62.50	C.Y.	SW 3-15-03

	ITEM 805-08	
PRECAST - PRESTRESSED CONCRETE		
	GIRDERS (TYPE)	
	LINEAR FOOT	
	PAY PLAN QUANTITY	
	BRIDGE NO. 1	
	MEASURED	
SPAN	LIN. FT./M	REMARKS
1	297.08	SEE OZALID SHEET NO. 11G
		SW 4-8-03
2	297.08	SEE OZALID SHEET NO. 11G
		SW 4-8-03
3	297.08	SEE OZALID SHEET NO. 11G
		SW 4-9-03
4	297.08	SEE OZALID SHEET NO. 11G
		SW 4-9-03
	1188.32	PROJECT TOTAL
NOTE:	OZALID SHEET NO.11G. WILL	
	VERIFY PAY QUANTITY	

ITEM 805-10 BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE

SPAN

ISTRE'S FAST TRACK BRIDGE

SPAN NO.	DATE COMPLETED	SPAN	REMARKS
1	3-9-03	1	SW 3-9-03
1	4-6-03	1	SW 4-6-03
1	4-11-03	1	SW 4-11-03
1	3-12-03	1	SW 3-12-03
	PROJECT TOTAL	4	

ITEM 807-06

STRUCTURAL METALWORK

LUMP SUM

1-15-03 25% COMPLETE SW

2-15-03 50% COMPLETE SW

3-15-03 75% COMPLETE SW

4-15-03 100% COMPLETE SW

PROJECT TOTAL 100% COMPLETE

SW 4-15-03

THESE FINAL FIELD BOOK ENTRIES WILL BE THE REFERENCE SHOWN IN THE FINAL ESTIMATE PRINTOUT. ADDITIONAL FIELD NOTES WILL BE RECORDED ELSEWHERE AS REQUIRED BY THE PROJECT ENGINEER.

ITEM 807-01

STEEL (A-36)

POUND

PROJECT TOTAL 250,000 LB.

SW 5-4-03

SEE LETTER FROM BRIDGE DESIGN DATED 4-27-03

ITEM 808-01
STEEL GRID FLOORING
SQUARE FOOT
PAY PLAN QUANTITY
ISTRE'S FAST TRACK BRIDGE

SPAN NO.	DATE COMPLETED	SQUARE FEET	REMARKS
3	4-29-03	1920.0	SEE OZALID PLANS SHEET NO. 112 SW 4-29-03
PROJECT TOTAL		1920.0	

ITEM 810-01
CONCRETE RAILING (TYPE)
LINEAR FOOT
PAY PLAN QUANTITY
BRIDGE NO.1

SPAN NO.	LIN. FT.	REMARKS
1	40.0	SEE OZALID SHEET NO. 121 SW 5-8-03
1	40.0	SEE OZALID SHEET NO. 121 SW 5-8-03
1	40.0	SEE OZALID SHEET NO. 121 SW 5-8-03
1	40.0	SEE OZALID SHEET NO. 121 SW 5-8-03
	160.0	PROJECT TOTAL

NOTE: PLAN QUANTITY HAS BEEN ACCEPTED BY PROJECT ENGINEER AS THE CORRECT QUANTITY. THIS FIELD BOOK AND PAGE NUMBER WIL BE REFERENCED ON THE FINAL ESTIMATE PRINTOUT. THE QUANTITIES REFERENCED ON THE OZALID PLANS WILL BE NOTED ON THE PLANS WITH A CHECK MARK TO INDICATE THEY HAVE BEEN ACCEPTED AS CORRECT.

ITEM 812-02 'TREATED TIMBER'

MFBM

PLAN QUANTITY WILL BE PAID PROVIDED THERE IS NO CHANGE IN DESIGN. ALL QUANTITY EXTENSIONS WILL BE CHECKED ON THE BILL OF MATERIALS ON THE PLANS AND EACH ACCEPTED QUANTITY WILL BE NOTED WITH A CHECK MARK. FOR THE PURPOSE OF A PERMANENT FIELD RECORD. THE ENTIRE BILL OF MATERIAL SHOWN ON THE PLANS WILL BE DETAILED IN A FIELD BOOK AND USED AS REFERENCE ON THE FINAL ESTIMATE PRINTOUT. THE BILL OF MATERIAL SHOWN ON THE PLANS WILL BE REFERENCED IN THE FIELD BOOK FOR VERIFICATION OF QUANTITY.