

2014

Maine DOT Local Project Administration Manual & Reference Guide. 2014 edition

Maine Department of Transportation

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MaineDOT Local Project Administration Manual & Reference Guide





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MaineDOT

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2014 Edition

Project Administration

Every year, Maine communities construct sidewalks and trails, rebuild and repave roads, make intersections safer, and improve their waterfronts – all with help from MaineDOT through a partnership known as Local Project Administration. In each case, a certified local staff member oversees a “locally administered project” in cooperation with MaineDOT, which typically funds the greater part of the work and makes sure that all of the requirements that accompany the money are met.

Cities and towns deliver most locally administered projects, but local school districts, institutions of higher education, and non-profit agencies also undertake them occasionally. The people responsible for these projects include public works directors, engineers, planners, town managers, and non-profit administrators – all of whom *must* follow this manual.

This section provides an overview of the process and includes:

- A summary of the steps in project delivery (pages 1-1 to 1-6);
- A sample invoice worksheet: Figure 1.1 (page 1-5);
- A project flowchart: Figure 1.2 (page 1-7);
- A schedule outline (pages 1-8 to 1-11);
- MaineDOT contacts: Figure 1.3 (page 1-12);
- Appendix 1A: Local responsibilities (pages 1-13);
- Appendix 1B: A project checklist (page 1-17);
- Appendix 1C: Project communications (page 1-29); and
- Appendix 1D: A project evaluation form (page 1-58).



Online: <http://www.maine.gov/mdot/lpa/>

Locally administered projects consist of locally driven improvements funded primarily through MaineDOT’s competitive programs and Maine’s four metropolitan planning organizations. They most commonly involve improvements to state collector roads, traffic intersections, sidewalks and multi-use paths, and local harbors.

Municipalities and other local or non-profit organizations typically offer the following reasons for wanting to administer public works projects funded by MaineDOT at the local level:

- A project funded by MaineDOT may be coordinated with other local improvements;
- An organization may have greater control over the development and schedule of a project than it otherwise would have if MaineDOT delivered the project; and
- A larger community may be reimbursed for work its engineering staff does on a project.

1.1 Approval of Local Project Administration

Municipalities and other local organizations wanting to oversee MaineDOT-funded projects must receive authorization to do so. The manager of the MaineDOT Multimodal Program will make a determination in consultation with other MaineDOT staff, using appropriate risk analysis.

Why is MaineDOT’s approval needed? The Federal Government holds each state responsible for making sure that municipalities and local organizations have adequate project delivery systems and accounting controls to manage federal funds. [Refer to Title 23 of the United States Code, Section 106(g)(4)]. Before authorizing local administration, MaineDOT must be sure that a community or organization has the staff, supervision and systems to manage a project properly.

Requests to administer MaineDOT-funded projects at the local level must be sent to the Multimodal Program Manager using [Letter 1](#) (page 1-30) with documentation of the following:

- Experience with projects of similar size and complexity – especially those with federal or state funding;
- Staff experience and qualifications to undertake a proposed project;
- Ability to manage and track federal and state funds properly, in accordance with generally accepted government accounting standards.

If MaineDOT determines there is a strong likelihood that a locally administered project can be delivered successfully, the local organization will be notified and a Locally Administered Project Agreement drafted. But if MaineDOT concludes that an organization lacks the capacity to administer a particular project, other options will be considered – including undertaking the project with MaineDOT personnel. **Note:** *Projects on the National Highway System (NHS) are subject to a higher level of review than other projects.*

1.2 Certification

MaineDOT grants Local Project Administration certification to individuals, not organizations. The local administrator for a federal-aid project must be certified **before** taking charge. Without an LPA-certified person on staff, an organization’s ability to administer federally funded projects is jeopardized.



Certification – **mandatory** for federally funded projects – has two steps:

- **Tier I** certification is granted upon successful completion of a training on the fundamentals of delivering a locally administered project. Such certification is valid for **four years**. (**Note:** *This is a change from previous policy, starting in 2014.*)
- **Tier II** certification is a project-specific review before any work starts. MaineDOT and local staff go over the scope, budget, schedule and requirements. This applies to all projects.

The certification course also is recommended for private consultants and local public employees managing MaineDOT projects with state funding only, such as small harbor improvements.

1.3 Roles and Responsibilities

❑ Local Administrator

Once local administration is approved, a staff person with MaineDOT certification, appropriate technical skills and decision-making authority takes “responsible charge” of a project, as explained in Appendix 1A. This local administrator is accountable for **all project requirements**, which are listed at the bottom of page 1-6 and explained in the rest of this manual. This person must maintain a record of project development and delivery activities that demonstrates compliance with all requirements. Most importantly, the administrator must be familiar with what is happening on a project at all times.

During design, local administrators either oversee the work directly or manage consultants hired to perform the work. As projects are built, the administrators must ensure that there is adequate inspection to see that the construction work complies with the approved plans, project specifications and applicable laws. See Appendix 1A (page 1-13) for a more detailed description.

➡ If a project has federal money, the local administrator must be a **full-time** employee. If this person leaves, another employee with MaineDOT certification must be assigned to the project.

❑ MaineDOT Project Manager

MaineDOT is accountable for every transportation project with federal or state money. That is why MaineDOT assigns to each locally administered project a State project manager with the authority to enforce all requirements. Typical oversight activities consist of the following:

- Authorizing preliminary engineering, right of way and construction;
- Carrying out the National Environmental Policy Act (NEPA) review process;
- Reviewing and approving invoices for reimbursement, as shown on pages 1-4 and 1-5;
- Conducting design reviews at key milestones, as shown in *Section 3: Project Design*;
- Overseeing the right-of-way process to ensure compliance with federal laws;
- Approving the final plans, specifications and estimate (PS&E);
- Giving construction authorization;
- Conducting civil rights monitoring and goal-setting;
- Monitoring construction oversight efforts, and approving contract modifications; and
- Accepting, closing out and auditing a completed project.

MaineDOT’s project-related personnel costs will vary with the required amount of oversight, depending on the type of funding and the complexity of a project. MaineDOT will provide an estimate of its level of effort at project kickoff and keep local administrators apprised as work progresses. These costs are subject to the same cost-sharing ratios as other portions of a project.

➡ In most cases, MaineDOT’s costs will be reconciled upon completion of a project and deducted from the final invoice from the municipality or organization administering the project.

1.4 Project Finances

□ Reimbursement

Municipalities and other local public agencies usually receive MaineDOT's financial share of their locally administered projects through reimbursement. In most cases, they must cover expenditures up front and invoice MaineDOT for the State's portion. Reimbursement typically ranges from 50 percent to 80 percent of approved costs, depending on the type of funding for a project. The remaining local share in most cases must be cash; in-kind services do not qualify as match unless MaineDOT approves a project-specific exception.

Eligible Costs:

- ✓ Development of project plans, specifications and contract documents;
- ✓ Environmental review and permitting work;
- ✓ Right-of-way verification and property acquisition;
- ✓ Utility coordination;
- ✓ Project advertisement;
- ✓ Construction; and
- ✓ Construction oversight and inspection.



Ineligible Costs:

- ✗ Local administrative costs;
- ✗ Costs incurred before Notice to Proceed from MaineDOT;
- ✗ Expenditures not approved by MaineDOT or the Federal Highway Administration; and
- ✗ Future maintenance costs.

□ Invoices

Invoices seeking reimbursement for the State's share of project expenditures should be submitted to MaineDOT at regular intervals. Invoices must be for at least \$1,000 and include the following information to be approved and processed within the required 30 days:

- Letter 4 (page 1-33) with the project number, dates of service, and amount requested.
- A progress report that must include:
 - ⇒ A statement describing work accomplished during the invoice period and to date;
 - ⇒ An estimate of the percentage of work completed;
 - ⇒ The percentage of the contract amount expended; and
 - ⇒ The amounts of any contract modifications executed to date.
- A completed worksheet (page 1-5) with the following, as applicable:
 - ⇒ Accumulative total by budget line item, showing MaineDOT and local shares;
 - ⇒ Copies of bills paid for project-related work or copies of checks issued; or
 - ⇒ A payroll register, if a municipality does the engineering work in-house.

LAP Project Costs Worksheet									
Town/City: _____					PE Auth. Date: _____				
PROJECT PIN: _____					Construction Auth. Date: _____				
Agreement No: _____					Agreement Exp. Date: _____				
Invoice Period: From _____ => To _____					Local Share: _____ %				
Summary of Project Costs This Period						Total Project Costs This Period	Total Project Costs To Date	Total Project Budget	Project Balance
Direct Salary	Salary Benefits	Employee Travel	Supplies & Materials	Equipment Rental	Contracted Services				
PRELIMINARY ENGINEERING <i>(expenses incurred for PE&ROW are prohibited prior to PE Authorization Date)</i>									
	field survey								
	plans & computations								
	project reviews								
	other (must detail)								
	SUBTOTAL								
RIGHT OF WAY ACTIVITIES									
	titles & mapping								
	appraisals & negotiations								
	acquisition								
	other (must detail)								
	SUBTOTAL								
CONSTRUCTION ENGINEERING <i>(expenses for PE are prohibited after const contract award or const.auth. date (force account))</i>									
	inspection & documentation								
	other (must detail)								
	SUBTOTAL								
CONSTRUCTION									
	labor								
	materials								
	equipment								
	other (must detail)								
	contract costs								
	audit services								
	SUBTOTAL								
PROJECT TOTALS									
BILLING CERTIFICATION =>						I hereby certify that these amounts are correct, due and unpaid and that the work performed is in accordance with provisions and specifications of all project agreements and contracts.			
Signed: _____						_____			
						Name Title Date			

1.5 Project Agreement

Before any work begins, MaineDOT and the organization overseeing a project must execute a Locally Administered Project Agreement memorializing roles, responsibilities and financial commitments, as follows:

1. A municipality or other local organization is awarded a project through MaineDOT or a metropolitan planning organization (MPO);
2. MaineDOT approves local administration of the project and drafts an agreement;
3. MaineDOT and the sponsoring organization hold a project kickoff (Tier II) meeting;
4. The organization signs and returns the agreement to MaineDOT, which executes it; and
5. MaineDOT issues a **Notice to Proceed**, initiating MaineDOT's financial participation.

Remember: Any expenditure made before MaineDOT gives a Notice to Proceed **cannot** be reimbursed. (See "Ineligible Costs" on page 1-4.)

➔ An agreement template can be downloaded from the MaineDOT website:

<http://www.maine.gov/mdot/lpa/ft.htm>

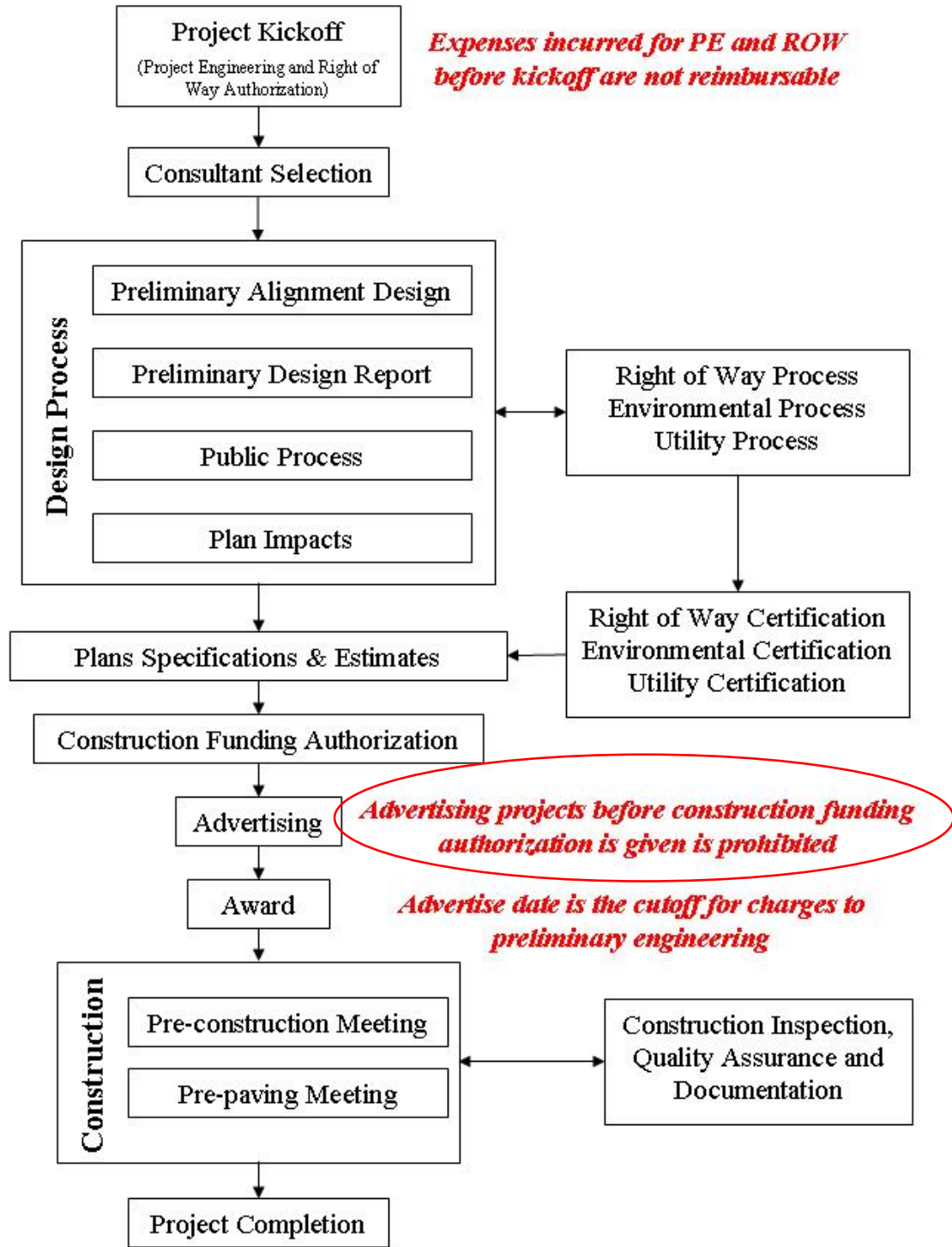
1.6 Project Requirements

Projects funded through MaineDOT must meet a variety of legal requirements, which are covered during the Tier I and Tier II certification training sessions (explained on page 1-2.) Some of the major requirements include, for example:

- Selection of engineering consultants based upon technical qualifications, not price.
⇒ See Section 2: Consultant Selection.
- Compliance with federal and state environmental laws.
⇒ See Section 4: Environmental Review.
- Proper acquisition of right of way, following federal law.
⇒ See Section 5: Right of Way.
- Adherence to federal and state design standards and specifications.
⇒ See Section 3: Project Design and Section 7: Final Plans, Specifications & Estimate.
- Compliance with a variety of anti-discrimination and worker-protection requirements.
⇒ See Section 10: Civil Rights.
- Compliance with construction oversight, documentation and materials testing standards.
⇒ See Section 11: Construction Administration and Section 12: Documentation.



Locally Administered Project – Process Flowchart



1.7 Project Stages

As flowchart Figure 1.2 on page 1-7 illustrates, public works projects funded by MaineDOT carry a series of steps, each of which requires MaineDOT's approval before work begins. Major milestones consist of the following:

❑ **Preliminary engineering** refers to the design and permitting work. This stage typically covers development of design plans and specifications, surveying, public participation, environmental reviews and utility coordination, as explained further in *Section 3* to *Section 7* of this manual. Key activities are:



- Development of a preliminary design report (PDR);
- Completion of reviews under state and federal environmental laws; and
- Development of final plans, specifications and estimate (PS&E).

❑ **Right-of-way** covers identification and acquisition of property, easements or other legal rights necessary to build and maintain a project, as explained in *Section 5* of this manual. The right-of-way stage covers the following:



- Preparation of right-of-way plans, including title abstracting;
- Development and review of appraisals;
- Development and review of easements, if applicable;
- Condemnation and purchase of real estate or acquisition of easements; and
- Relocation assistance and other related labor expenses.

❑ **Advertise and Award** covers the process of soliciting for bids and hiring a construction contractor, as explained in depth in *Section 9* of this manual. This stage commonly covers the following activities:



- A three-week solicitation of bids;
- Bid opening;
- Review of all bids; and
- Contract award to the lowest responsive and responsible bidder.

❑ **Construction** covers the work done by a contractor, as explained in depth in *Section 11* and *Section 12* of this manual. This stage also covers what is known as construction engineering, which is any engineering done after construction starts, such as:



- Supervision and inspection of construction activities to be sure the work is done properly and meets the contract and project specifications; and
- Testing of construction materials, such as gravel, asphalt and concrete.

1.8 Project Schedule

Cities, towns and non-profit agencies overseeing projects must develop schedules to mark important milestones and track their progress. The required length of time will vary, but it typically takes **at least nine months** and as long as 18 to 24 months to complete design, obtain permits, acquire right-of-way, and advertise for construction bids. The next three pages outline the typical steps and corresponding timeframes.



Notification of Award

Municipalities and local organizations awarded projects through MaineDOT’s competitive programs – or through one of Maine’s four metropolitan planning organizations – are notified and asked to sign an initial commitment to the project. This occurs **six to nine months** after these organizations submit funding applications or make project requests.

Project Kickoff

Once funding is in place, MaineDOT and the organization overseeing a locally administered project review the scope of work, budget, schedule and legal requirements. This “project kickoff” serves as the Tier II certification of a project administrator, as explained on page 1-2.

Project Agreement

Before any work may begin, MaineDOT and the organization overseeing a project must sign a legally binding agreement, as described in section 1.5 (top of page 1-6.)

⇒ Time: An agreement usually is in place **two to three months** after a funding award is made. Work eligible for reimbursement from MaineDOT may begin only after the agreement is signed by both parties and MaineDOT gives **Notice to Proceed**.

Consultant Selection

Municipalities and agencies without staff engineers hire consultants to design their projects and handle other preliminary engineering tasks described below and on page 1-10.

⇒ Time: Plan on **two months** to obtain proposals, select the best-qualified firm, negotiate a contract, and obtain MaineDOT’s approval, as described in *Section 2* of this manual. Work cannot begin without MaineDOT’s approval.

Design, Permitting & Right of Way

Project engineers prepare design plans and specifications, identify impacts, and work with MaineDOT to obtain all permits, as described below and shown in the flowchart on page 1-7.

- **Preliminary design report (PDR)**. The PDR provides preliminary plans (50 percent); outlines existing conditions and impacts (environmental, right-of-way, utilities); and offers an estimated construction cost and schedule.

⇒ Time: **Three months to one year**, depending on a project’s complexity.

- **Public involvement.** At least one publicly advertised meeting must be held to the public a chance to review and comment on a planned project, typically as the PDR is developed. Abutting property owners and potentially affected businesses must be notified.
- **Environmental review.** The National Environmental Policy Act (NEPA) requires that federally funded projects be reviewed for impacts to natural and cultural resources. Potential effects on wetlands, historic properties, endangered species, and public parks must be assessed. (See *Section 4: Environmental Review.*)
 - ⇒ Time: Plan on **three to four months** after completion of the PDR.
- **Utility coordination.** The organization in charge of a project must coordinate the planned work with all affected utility companies and railroads – and certify that it has done so.
 - ⇒ Time: Certification is provided with the PS&E package. (See *Letter 13, page 1-43.*)
- **Right-of-way.** All property and legal rights necessary to construct and maintain a project must be identified and acquired in accordance with state and federal laws, as described in *Section 5* of this manual.
 - ⇒ Time: Plan on **six months** from completion of required environmental reviews to map right of way, examine titles, appraise properties, negotiate, finalize acquisitions, and certify that the process followed applicable laws. (See *Letter 10, on page 1-39.*)
- **Final plans, specifications and estimate (PS&E).** This is the last stage before a project goes out to bid. The project engineer finalizes the design plans, specifications and construction estimate. At this point, all permits and certifications must be in place, as described in Section 7 of this manual, “Final PS&E.”
 - ⇒ Time: Completion of the final PS&E package usually takes **at least nine months** – and generally much longer – from the start of design work.
- **PS&E complete.** The final PS&E package and required certifications are submitted to MaineDOT for approval. (See *Letter 18, on page 1-48.*)
 - ⇒ Time: It typically takes **two to three weeks** for MaineDOT to review a draft PS&E package and provide construction authorization. If everything is in order, the approval process will be shorter than if items are missing or if documents must be revised.




❑ Advertise & Award

- **Advertise.** With MaineDOT’s approval, the organization overseeing a project solicits for competitive bids for minimum **three-week** advertise period as described in Section 9, “Advertise & Award.”
- **Award.** Once bids are opened, the organization has **30 days** to request MaineDOT’s approval to award a contract to the lowest responsive and responsible bidder.



❑ Construction & Construction Administration

- **Construction begins.** After a contract is awarded, the local project administrator holds a pre-construction meeting with the contractor, MaineDOT and affected utilities. Construction follows on a schedule set by the contractor and agency responsible for the project. A qualified inspector from the local agency in charge of the project or a consulting firm then monitors, verifies and documents the work.
- 
- **Construction completed.** When the work is done, representatives from the local agency responsible for the project, MaineDOT and the contractor hold a final inspection. They develop a “punch list” of items the contractor must address before receiving final payment. Afterward, a project is ready to close when:
 - All construction-related issues have been resolved;
 - Final costs have been reconciled;
 - The available funding is adequate to cover final costs;
 - The agency responsible for the project has submitted a final invoice and been paid.

1.9 Project Evaluation

When a locally administered project is completed, MaineDOT reviews the performance of the local organization overseeing it. Upon approval of the final invoice, MaineDOT’s project manager fills out an evaluation form assessing which tasks were handled well and which tasks could be improved. The local administrator is given two weeks to provide comments and sign the form; if the deadline passes without a response, the evaluation is finalized unsigned. MaineDOT archives the completed evaluations as a resource to improve project delivery, with local administrators receiving copies.

- ➡ The evaluation form is found at the end of this section and online: www.maine.gov/mdot/lpa/ft.htm

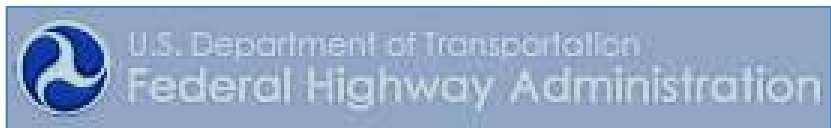
1.10 Record-Keeping and Audit

A municipality or non-profit organization overseeing a project must track and maintain records for all expenses for which reimbursement is requested, in accordance with generally accepted government accounting standards. The organization must keep a record of project development and delivery activities that sufficiently demonstrates compliance with federal and state requirements. Federal law requires that records be maintained for **three (3) years** after financial closeout. However, it is a good practice to maintain records for seven to 10 years, since an audit may occur several years after a project is completed.

FIGURE 1.3: MaineDOT Contacts

OFFICE	Main Line #	INDIVIDUAL	TEL. #	TITLE
<u>Multimodal Program</u>	624-3420	Jeff Tweedie	624-3427	Program Manager
		Nate Benoit	215-1590	Assistant Program Manager
		Aurele Gorneau II	624-3553	Project Manager
		Brian Keezer	624-3612	Project Manager
		Catherine Rand	624-3451	Project Manager
		John Rodrigue	592-0428	Project Manager
		Jennifer Paul	446-3316	Construction Manager
		Charlie Guy	557-9078	Asst. Construction Manager
Mike Laberge	624-3508	Local Projects Coordinator		
<u>Contract Procurement Office</u>	624-3324	Debora Farrell	624-3324	Director
<u>Civil Rights Office</u>		Theresa Savoy	624-3042	Director
		Gigi Ottmann-Deeves	624-3036	OJT, Contract Compliance
		Sherry Tompkins	624-3066	DBE Program, Contract Compliance
		Rick Stephens	624-3056	Davis-Bacon, Labor Compliance
<u>Utilities</u>		Michael Moreau	624-3365	Utility Engineer
<u>Property Office</u>	624-3460	Todd Pelletier	624-3551	Director of Property Office
		Andrew Johnson	624-3345	Senior Property Officer
<u>Environment</u>	624-3100	David Gardner	592-2471	Coordination & Permits Manager
		Kristen Chamberlain	557-5089	Environmental Team Leader
<u>Traffic Engineering</u>	624-3620	Steve Landry	624-3632	State Traffic Engineer
<u>Construction Contracts / Elations</u>	624-3410	George MacDougall	624-3353	Contracts Engineer
		Guy Whittington	624-3343	Document Review Engineer
		Sonya Everett	624-3519	Elation Systems Associate
<u>Materials Testing & Exploration</u>	624-3400	Independent Assurance		
		Quality Control		
		Dick Winslow	865-0164	IA Supervisor
		Kevin Cummings	624-3429	Quality Assurance Engineer

Appendix 1A: Guidance on “Responsible Charge”





U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

Subject: **INFORMATION:** “Responsible Charge”

Date: August 4, 2011

David A. Nicol

From: David A. Nicol
Director, Office of Program Administration

In Reply Refer To:
HIPA-10

To: Director of Field-Service
Federal Lands Highway Division
Engineers Division Administrators

The issue of “responsible charge” of Federal-aid construction projects has been raised on several occasions; most recently as it relates to Federal-aid projects that are administered by local public agencies. The following attachment provides guidance on the requirements and duties of the person designated to be in “responsible charge.”

Defining “Responsible Charge”

Regulation:

The key regulatory provision, 23 CFR 635.105 – *Supervising Agency*, provides that the State Transportation Agency (the State) is responsible for construction of Federal-aid projects, whether the State or a local public agency (LPA) performs the work. The regulation provides that the State and LPA must provide a full time employee to be in “responsible charge” of the project.

Requirements of Position:

For projects administered by the State, the regulation requires that the person in “responsible charge” be a full-time employed state engineer. This requirement applies even when consultants are providing construction engineering services.

For **locally administered projects**, the regulation requires that the person in “responsible charge” be a full time employee of the Local Public Agency (LPA). The regulation is silent about engineering credentials. Thus, the person in “responsible charge” of LPA administered projects need not be an engineer. This requirement applies even when consultants are providing construction engineering services.

Duties:

Regardless of whether the project is administered by the State or another agency, the person designated as being in “responsible charge” is expected to be a public employee who is accountable for a project. This person should be expected to be able to perform the following duties and functions:

- Administers inherently governmental project activities, including those dealing with cost, time, adherence to contract requirements, construction quality and scope of Federal-aid projects;
- Maintains familiarity of day to day project operations, including project safety issues;
- Makes or participates in decisions about changed conditions or scope changes that require change orders or supplemental agreements;
- Visits and reviews the project on a frequency that is commensurate with the magnitude and complexity of the project;
- Reviews financial processes, transactions and documentation to ensure that safeguards are in place to minimize fraud, waste, and abuse; and
- Directs project staff, agency or consultant, to carry out project administration and contract oversight, including proper documentation.
- Is aware of the qualifications, assignments and on-the-job performance of the agency and consultant staff at all stages of the project.

The regulations do not restrict an agency's organizational authority over the person designated in "responsible charge," and the regulations do not preclude sharing of these duties and functions among a number of public agency employees. The regulations also do not preclude one employee from having responsible charge of several projects and directing project managers assigned to specific projects.

Effect on Laws Regulating Licensure:

The term "responsible charge" is used here in the context intended by the above regulation. It may or may not correspond to its usage in state laws regulating licensure of professional engineers.

Appendix 1B: Project Checklist



Checklist – Locally Administered Federal-Aid Project

Municipality: _____ Project Location: _____

MaineDOT WIN: _____ Local Administrator: _____

Total Funding: _____ Federal Share: _____ Local Match: _____

Project Administration

Date or N/A

- _____ **Project agreement signed by municipality**
- _____ Signed agreement mailed to MaineDOT (**Letter 2 or e-mail**)
- _____ “Notice to Proceed” and executed Agreement received from MaineDOT
- _____ **Correspondence file created**, containing authorizations, invoices and other documents
- _____ **Project Kickoff** held with MaineDOT
- _____ Line Item Budget and Project Schedule **Submitted** to MaineDOT (**Letter 3 or e-mail**)
- _____ Line Item Budget and Project Schedule **Approved** by MaineDOT
- _____ **Billing system created**, as follows:
 - _____ Invoices submitted to Project Manager on municipal letterhead (**Letter 4**)
 - _____ Individual invoices are for a minimum of \$1,000
 - _____ Progress update submitted with each bill
 - _____ Invoices contain accumulative total of all costs per category
 - _____ Invoices identify both MaineDOT and municipal cost share, if any

Selection of Engineering Consultants

▪ **Services valued at less than \$25,000:**

- _____ **Obtain MaineDOT Project Manager’s approval to use a simplified process**
- _____ Develop a scope of work and independent cost estimate for services
- _____ Send scope/estimate to MaineDOT Project Manager for review/approval
- _____ Request/receive proposal from consultant
- _____ Negotiate scope, schedule & cost with consultant, based on independent estimate
- _____ Receive completed Disadvantaged Business Enterprise (DBE) use form from consultant
- _____ **Verify and document that a selected consultant is not debarred**
- _____ **Send proposal and draft contract to MaineDOT for approval** (**Letter 7 or e-mail**)
- _____ **Receive written notice to proceed from MaineDOT Project Manager**
- _____ Contract executed – signed by Municipality after consultant has signed
- _____ Consultant sent a written notice to proceed from Municipality
- _____ Copy of signed contract sent to MaineDOT Project Manager (**Letter 8 or e-mail**)

▪ **Services valued at \$25,000 to \$150,000**

- _____ Develop a scope of work and an independent estimate for cost of consultant services
- _____ **Select at least 3 pre-qualified firms from MaineDOT’s list, and proceed as follows:**
- _____ Prepare a draft request for proposals (RFP) for cost and technical information
- _____ Submit draft RFP to MaineDOT Project Manager for approval (**Letter 5 or e-mail**)

- _____ Send RFP to the pre-selected firms, seeking technical and sealed cost proposals
- _____ Develop selection criteria and percentages for scoring
- _____ Review and rank technical proposals, from highest to lowest
- _____ Open the sealed price proposal from the best-qualified (No. 1) consultant
- _____ Negotiate the scope, schedule & cost with the No. 1 consultant
- _____ If negotiations with No. 1 are successful, draft a contract
- _____ If negotiations with No. 1 are unsuccessful, request a “Best and Final Offer.” If terms still cannot be reached, end negotiations and move on to No. 2 consultant
- _____ Obtain completed Disadvantaged Business Enterprise use form from consultant
- _____ **Verify and document that selected consultant is not debarred**
- _____ **Send unsigned contract and price to MaineDOT for approval (Letter 6 or e-mail)**
- _____ **MaineDOT provides written notice to proceed with contract**
- _____ Contract executed (signed by Municipality after consultant has signed)
- _____ Successful consultant sent a written notice to proceed
- _____ **Copy of signed contract sent to MaineDOT Project Manager (Letter 8 or e-mail)**
- _____ Regret letters and unopened cost proposals sent to unsuccessful consultants

▪ **Services valued at greater than \$150,000**

- _____ Develop a scope of work and an independent estimate for cost of consultant services
- _____ Prepare a request for proposals (RFP) for technical and separate sealed price proposal
- _____ Submit draft RFP to MaineDOT Project Manager for approval (Letter 5 or e-mail)
- _____ **Advertise the RFP, a requesting technical proposal and a sealed cost proposal**
- _____ Develop consultant selection criteria and percentages for scoring
- _____ Review and rank technical proposals, from highest to lowest
- _____ Invite the top three firms for interviews
- _____ Select the best-qualified (No. 1) consultant
- _____ Open the sealed price proposal from the No. 1 consultant
- _____ Negotiate the scope, schedule and cost with the No. 1 consultant
- _____ If negotiations with No. 1 are successful, draft a contract for MaineDOT review
- _____ If negotiations with No. 1 are unsuccessful, request a “Best and Final Offer.” If terms still cannot be reached, end negotiations and move on to No. 2 consultant
- _____ Obtain completed Disadvantaged Business Enterprise utilization form from consultant
- _____ **Verify and document that selected consultant is not debarred**
- _____ **Send unsigned contract and price to MaineDOT for approval (Letter 6 or e-mail)**
- _____ **MaineDOT provides written notice to proceed with contract**
- _____ Contract executed (signed by Municipality after consultant has signed)
- _____ Successful consultant sent a written notice to proceed
- _____ **Copy of signed contract sent to MaineDOT Project Manager (Letter 8 or e-mail)**
- _____ Regret letters and unopened cost proposals sent to unsuccessful consultants

• **Consultant Administration**

- _____ Oversee consultant’s work and billings to ensure contract compliance
- _____ Prepare project diary to record discussions and visitation with consultant
- _____ Consultant payments entered on ledger system
- _____ Final DBE certification of sub-consultant payments made, if applicable
- _____ Ensure that a monthly status report accompanies all invoices from consultant
- _____ Evaluate consultant upon completion of contract, and share evaluation with MaineDOT

Environmental Review

• **Categorical Exclusion under National Environmental Policy Act (federal-aid projects)**

_____ Complete **NEPA Documentation Checklist** and return with **Letter 11** to MaineDOT.

• **Environmental Permits**

Contact appropriate state and federal agencies for permitting requirements and approval

_____ Maine Department of Environmental Protection: www.maine.gov/dep/blwq/stand.htm

- Augusta (Central Maine): 207-287-3901; 800-452-1942
- Bangor (Eastern Maine): 207-941-4570; 888-769-1137
- Portland (Southern Maine): 207-822-6300; 888-769-1036
- Presque Isle (Northern Maine): 207-764-0477; 888-769-1053

_____ U.S. Army Corp of Engineers: (207) 623-8367: <http://www.naeusacearmymil/>

Contact appropriate state Agencies for their comments and concerns about the project

_____ Maine Department of Inland Fisheries and Wildlife, contact

- Fisheries Division for timing approval, freshwater fisheries and fisheries passage issues: (207) 287-8000
- Wildlife Division for rare, threatened and endangered species and other wildlife issues: (207) 287-8000

_____ Maine Department of Marine Resources, Wetlands and Permit Section

- Sea-run fisheries, coastal resources and fish passage issues:
<http://www.maine.gov/dmr/crd/hmo/Wetlands0.htm>

_____ Maine Atlantic Salmon Commission

- Timing approval, salmon habitat and fish passage issues:
<http://www.maine.gov/dmr/searunfish/salmonframework.shtml>

Complete appropriate state and federal permit applications

_____ **Environmental certification (Letter 12) and approved MaineDEP permit submitted to MaineDOT Project Manager**

Right of Way

_____ **Limits of existing public right of way confirmed:**

- _____ Survey data
- _____ County road records
- _____ Municipal “road book”
- _____ Plans from previously completed MaineDOT projects

_____ **Acquisition Plan Approved by MaineDOT (Letter 9 or e-mail)**

- _____ Process Outline
- _____ Staff Qualifications
- _____ Owner Dispute Resolution Procedures

_____ **Parcel Summary Completed, including:**

- _____ Listing of owners impacted
- _____ Valuation process summarized
- _____ Donations, if any

Titles and Certifications Complete (See *MaineDOT R/W Manual §8-201*)**Right of Way Mapping Complete** (See *MaineDOT R/W Manual §8-202*)

Name & address list of abutters - property owner reports

Existing right of way and rights

Property pins listed

Abutting ownerships, from title abstracts

Proposed new right of way and rights (MaineDOT Standards)

Determination of Just Compensation made (See *MaineDOT R/W Manual §8-2.03*)

Necessary information provided to appraiser

Owner provided opportunity to accompany appraiser

Appraisal format eligibility determined parcel by parcel

Appraisals reviewed where required

Written statement of Just Compensation prepared

→ National Environmental Policy Act process must be completed before proceeding ←**Federal Authorization to Proceed to Phase 2 of Right-of-Way Process Received****Negotiations initiated with the owner(s)**

Offer presented; impacts discussed all owners

Negotiations Completed / Negotiations at Impasse

Property Donations Considered (See *MaineDOT R/W Manual §8-2.07*)

Owner(s) informed of right to receive just compensation

Owner(s) signed "Donation and Acknowledgement/Waiver of Just Compensation."

Title and Rights Perfected

Title Acquired by Negotiations

Title Acquired by Eminent Domain (See *MaineDOT R/W Manual §8-2.08*)

Payments made before possession of property is surrendered

Right of Way Certified (Letter 10) [See *MaineDOT R/W Manual §2-2.02(b)*]

All Right of Way Acquired

Rights to Occupy All Right of Way Acquired

All Right of Way not Acquired

Certificate co-signed by MaineDOT

Parcel and Project FilesParcel Files Complete (See *MaineDOT R/W Manual §8-4.01*)Project Summary Records (See *MaineDOT R/W Manual §8-4.02*)**Title and Rights Acquired and Transferred to State of Maine** (state or state-aid road)**Title and Rights Transferred to Municipality** (local road or off-system trail) **Utility Coordination****Utilities Identified**

Determine utility contacts for utilities on the project

Obtain existing right-of-way information

Review existing site conditions to assess potential conflicts

Facility Information Verified

Send Survey Plan to utilities and railroads (if involved) for review

Arrange for additional survey needs as necessary

Prelim Utility Comments, Conflicts, and Relocation Strategy Completed

- _____ Develop preliminary utility relocation strategy
- _____ Discuss right-of-way needs with utilities
- _____ Distribute alignment plans to utilities and railroads (if involved) for review
- _____ Determine the need for agreements with utilities or railroads

Specific Underground Facility Locations Identified

- _____ Review general plan and proposed drainage for potential underground utility conflicts
- _____ Arrange for test pits to determine specific location of existing utilities

Final Facility Impacts, Relocation Strategy and Agreements Completed

- _____ Distribute PDR plans to utilities & railroads for review and comment
- _____ Hold utility pre-coordination meeting to finalize necessary relocations or other work
- _____ Distribute written minutes from the pre-coordination meeting
- _____ Distribute draft railroad and utility Special Provisions
- _____ Prepare utility agreements and Protection of Railroad Traffic and Structures, if applicable
- _____ Initiate agreement approval process

Utility Specification and Certification Completed (*Letter 13*)

- _____ Complete final utility & railroad specification for contract documents
- _____ Determine if any utility work is to be bid with the contract
- _____ If so, determine whether such work will be part of the Basis of Award or bid as “opt-out”
- _____ Document legal location of any relocated utilities

Oversee Utility Relocation Schedule

- _____ Conduct pre-construction/utility meeting
- _____ Distribute written minutes to pre-construction/utility meeting
- _____ Monitor utility & railroad work to ensure that work proceeds as planned

□ Project Design**Preliminary Alignment Design (PAD) Completed (30% plans, typically)**

- _____ PAD submitted to MaineDOT Project Manager (*Letter 14 or e-mail*)
- _____ PAD approved by MaineDOT Project Manager

Preliminary Design Report (PDR) Completed (50% plans, typically)

- _____ All quality-control design checks completed
- _____ PDR submitted to MaineDOT Project Manager (*Letter 15 or e-mail*)
- _____ MaineDOT comments addressed, if any (*Letter 15 or e-mail*)
- _____ PDR approved by MaineDOT Project Manager

Public Process Completed (*Letter 16*)

- _____ Public Meeting
- _____ Town Meeting
- _____ General Public Notification
- _____ Abutter Notification
- _____ Notification of potentially impacted businesses

Design Plan Impacts Completed (75-80% plans, typically)

- _____ Plan Impacts submitted to MaineDOT Project Manager (*Letter 17 or e-mail*)
- _____ MaineDOT comments addressed, if any (*Letter 15 or e-mail*)
- _____ Plan Impacts approved by MaineDOT Project Manager

Final Plans, Specifications & Estimate (PS&E)

- _____ **PS&E package completed (95% plans)**, including as applicable:
- _____ Engineer's estimate with preliminary opinion of probable cost
- _____ Documentation of quality-control design checks
- _____ Documentation for each item in engineer's estimate
- _____ Vicinity map
- _____ Estimate of quantities
- _____ Cross sections (typical and critical)
- _____ Plans/profiles
- _____ Utility information
- _____ Structure notes
- _____ Signage
- _____ Illumination
- _____ Standard details
- _____ Sheets numbered and dated
- _____ Title sheet signed and stamped by Professional Engineer
- _____ Log of test borings
- _____ Equal Employment Opportunity (EEO) clauses
- _____ Disadvantaged Business Enterprise (DBE) plan
- _____ On the Job Training (OJT) plan (*if labor costs exceed \$2.5 million*)
- _____ Sexual Harassment clause
- _____ Buy America requirement
- _____ Davis-Bacon wage rates
- _____ Elation System special provisions
- _____ Traffic control special provisions
- _____ Specialty items
- _____ Airport roadway clearance from the FAA (if airport project)
- _____ Utility Agreement obtained
- _____ Railway agreement obtained (if applicable)
- _____ Obtain the 403 Special Provision for Hot Mix Asphalt from MaineDOT
- _____ Justification for non-participating items (ineligible for federal/state funding)
- _____ Detail documentation for lump sum items available in project files
- _____ **PS&E package approved by MaineDOT Project Manager**
- _____ **Plans, contract specifications and estimates stamped, signed and dated**
- _____ **Federal wage rates obtained**

Construction Funding Authorization

- _____ **Construction funding requested, MaineDOT Project Manager (Letter 18 or e-mail)**
- _____ Final PS&E attached
- _____ Environmental Certification attached (*Letter 12*)
- _____ Right-of-Way Certification attached (*Letter 10*)
- _____ Utilities Certification attached (*Letter 13*)
- _____ TAME Certification attached (traffic impacts)
- _____ **Construction funds approved in writing by the MaineDOT Project Manager**

➔ **Advertise date is the cutoff for charges to preliminary engineering**

➔ *If you advertise before receiving Construction Authorization, You shall lose the money for the project*

Advertise & Award

Request minimum materials testing requirements from MaineDOT project manager:

- *Half-sized copy of plans, estimated quantities, and specifications sent to technician Jean Tukey at 624-3543*

Advertise for bids

Standard advertise is 3 weeks; MaineDOT approval is needed for a shorter period

Publish Notice of Bid Opening

- *Notice can be posted to MaineDOT website. Email George.Macdougall@maine.gov*

Date of publication for sealed bids

Basis of Award clearly defined, so low bidder is readily apparent after bids publicly read

Optional bids cannot be part of Basis of Award

Conduct the public bid opening, as follows:

Determine contractor qualifications

- *For contracts of \$300,000 or more, use MaineDOT's pre-qualification process*
- *For contracts of less than \$300,000, the apparent low bidder must demonstrate "successful completion of projects with a similar size and scope"*

Issue addendum, if documents are modified or if answering a Request for Information

- *If there is not enough time for bidders to make changes, then delay the opening*

Open bids

Prepare bid tabulation sheet

Check submitted bids for tabulation errors

Complete bid and bidders' tabulation sheet

Check DBE participation goal - verify DBE certification status

Determine the responsive bid

- *Use the curable/non-curable language in Standard Specification 102.11*
- *If a defect is not specifically listed as non-curable in the bid documents, it is curable*

Verify that contractor is licensed as legally required by the State of Maine

Return bid securities (except for the first two)

Notify second bidder of holding bid securities until execution

Award recommendation sent to MaineDOT Project Manager (Letter 19 or e-mail)

Tabulation of bids

Engineer's estimate

Actual versus estimated costs shown

DBE utilization certification completed

Estimated date of contract completion

Award approved in writing by MaineDOT Project Manager

Construction Contract Awarded, as follows:

Establish contract award date

If project exceeds \$125,000, verify that the successful bidder has a "Performance and 100% Payment Bond" as required by Maine law – *before signing contract.*

Send "Award Letter" to successful low bidder

Notify all unsuccessful bidders

Copy of signed contract to MaineDOT Project Manager (Letter 20 or e-mail)

Return bid securities to first and second bidders

Construction Administration

• **Pre-Construction / Pre-Pave Meeting**

- _____ **Notice of meeting** (at ADA compliant location) sent to:
- _____ Contractor
- _____ Affected utility companies
- _____ Fire, police, ambulance service, or hospital (if lane closures or detours involved)
- _____ Notification to MaineDOT Project Manager (**Letter 21 or e-mail**)
- _____ Project designer
- _____ Local project staff (resident, inspector, testing staff)
- _____ MaineDOT Field Quality Assurance Supervisor
- _____ *Kevin Cummings - 624-3429 - Kevin.Cummings@maine.gov*
- _____ **Agenda prepared**
- _____ **Meeting held, and plan for utilities agreed upon**
- _____ **Quality Control (QC) plans**
- _____ Submitted by contractor - per Section 1064 - at least 30 days before work is to start
- _____ Review, approve/reject the contractor's QC Plan (with MaineDOT assistance, if needed)
- _____ **Minutes of pre-construction/pre-paving meeting provided to project file and:**
- _____ Contractor & subcontractors
- _____ Other attendees
- _____ Invited but not represented entities (**Letter 22 or e-mail**)
- _____ MaineDOT Quality Assurance Field Supervisor
- _____ *Kevin Cummings - Kevin.cummings@maine.gov*
- _____ **On-the-Job Training Plan completed** (if labor costs are greater than \$2.5 million)
- _____ OJT training intent submitted to MaineDOT Project Manager (**Letter 23 or e-mail**)
- _____ OJT registration submitted to MaineDOT Project Manager (**Letter 24 or e-mail**)
- _____ **Traffic Control Plan received and approved**
- _____ **Soil Erosion Water Pollution Control Plan made**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Spill Prevention Plan made**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Schedule of Work set**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Contract information sent to MaineDOT for the Elation electronic payroll system**
- _____ *Contact is Sonya Everett: 624-3519 or Sonya.Everett@maine.gov*

- **Construction Testing & Documentation**

- Minimum Testing Requirements determined and posted**

- Acceptance Testing File created**

- Concrete

- Pavement

- Aggregate

- Other required documents for minimum testing

- Random numbers generated and pay factor calculations started for QA items

- Project Diary created**

- Pages are set up by date and note weather, crew & equipment, hours worked, and activity

- Record any unusual or significant event (e.g., accident, discussion with a property owner, debate with the contractor)

- Entries in the Project Diary should be initialed daily

- Inspector's Diary created**

- *Note: If a project is staffed by 1 person only, the Project Diary will suffice as long as the level of detail is the same as in an Inspector's Diary.*

- Pages are set up by date and note weather, crew & equipment, hours worked, and activity

- Field measurements

- Detailed work description

- Details of any grade checks done (subgrade and/or fine-grading)

- Needed undercuts

- Stationing of the day's completed grading would be entered with a statement, "Graded according to plans and within allowable tolerances."

- Person making entries in the Inspector's Diary should initial them daily

- Final Quantity Book created**

- Book set up by item numbers

- Pages set up for original measurements (or computations from plan dimensions)

- Pages set up with a total-to-date column (makes estimates easy to compute)

- Entries and computations initialed and dated

- After item completed, compute final quantity

- Drainage book created**

- Book set up by stationing, moving from outlet to inlet

- Room for original measurements or computations from plan dimensions (closed systems)

- Entries record the work done, noting any rock encountered, obstructions, delays, etc. ...

- All entries and computations are initialed and dated

- After a run is completed, compute final quantity and transfer to Final Quantity Book

- Pit Authorizations completed**

- Received from Contractor

- Approved

- Waste area agreements completed**

- Received from Contractor

- Approved

- Contractor's Bulletin Board erected with required postings**

NOTE: A complete package of posters and their locations on the bulletin board can be found at: <http://www.maine.gov/mdot/civilrights/>

_____ FHWA 1495 and 1495A - “Wage Rate Information”

_____ FHWA 1022 - “Fraud Notice Poster”

_____ OFCCP 1420 - “EEO is the Law”

_____ Sexual Harassment is Against the Law

_____ False Statements Notice

_____ Jobs & Opportunity Women & Minorities

_____ **Submit “Commercially Useful Function Form” to MaineDOT Civil Rights Office**

▪ <http://www.maine.gov/mdot/civilrights/>

_____ **Project signage monitored** (*condition to be noted in a Diary weekly*)

_____ **Weekly statement of working days started** (*unless project is by completion date*)

_____ **Quality Assurance (QA) steps:**

_____ Certified Material Acceptance sampler appointed

▪ *Municipal/consultant contact information should be shared with MaineDOT Independent Assurance Supervisor in the Bangor office: 941-4545*

_____ Materials IA sampler appointed by MaineDOT, and contact information shared with the project’s Resident Engineer

_____ MaineDOT contacted to see if Hot Mix Asphalt / Portland Cement Concrete plant either has been inspected recently or needs to be inspected:

▪ *Kevin Cummings: 624-3429 - Kevin.cummings@maine.gov*

_____ MaineDOT notified of HMA/PCC placement schedules to ensure that plant QC operations are monitored and scales checked at least twice in five days of production

_____ Process any valid HMA disputes submitted by the contractor

▪ *Contact Kevin Cummings: 624-3429 - Kevin.cummings@maine.gov*

_____ Sampling and testing are done and documented by certified technicians, with sampling by municipality and possible testing by MaineDOT. (Check with Project Manager.)

_____ **Weekly certified payroll received electronically** from each contractor/subcontractor

_____ **Certified payroll checked** in “Elation” system for compliance with minimum wage rates

_____ **Employees interviewed (2 each from the prime and each sub every 90 days)**

to compare wages received vs. wages reported

▪ <http://www.maine.gov/mdot/civilrights/>

_____ **Subcontractor Approvals**

▪ *For the compliance package, see www.maine.gov/mdot/contractors/publications/*

_____ The municipality must approve subcontracts before any subcontractor can start work

_____ Send copy of approved package to the MaineDOT project manager

▪ *The project manager will arrange for the information to be forwarded to MaineDOT’s Civil Rights Office and the subcontractor added to the Elation system*

_____ **“Buy America” (Special Provision 105)**

_____ “Buy America” certifications must be received before payment can be made

_____ **Monthly Progress payments received and approved**

_____ Prepare estimate or receive estimate from contractor

_____ Check estimate (if received from contractor)

_____ Estimate given to contractor (FYI)

_____ Estimate processed and payment sent to contractor

- **Contract Modifications**

_____ **Modifications to the construction contract are handled as follows:**

_____ Identify needed change, with estimated quantities and associated additional cost

_____ Prepare an independent cost estimate of the additional work

_____ Note the time associated with the change. (If no change, then note 0 additional days.)

_____ Prepare a formal contract modification

_____ Send draft of proposed modification to MaineDOT Project Manager (**Letter 25 or e-mail**)

_____ **Obtain MaineDOT’s approval of contract modification**

_____ Once MaineDOT approves, send the modification to the contractor for signature

_____ When contractor has signed, local project administrator signs and dates the modification

_____ Send copy of the executed modification to the contractor, with a copy to MaineDOT

_____ Place original modification in Project Records

- **Project Completion**

_____ **Final inspection by municipality, MaineDOT and contractor (Letter 26 or e-mail)**

_____ Final “punch list” developed

_____ Final “punch list” of items completed

_____ **Notice of completion sent to contractor with notification of any liquidated damages**

(Copy sent to MaineDOT Project Manager)

_____ **Copy of overruns/under runs sent to MaineDOT Project Manager**

_____ **As-built plans completed and sent to MaineDOT Project Manager**

_____ **Quality Assurance (QA) Certification**

_____ Material certification letter submitted to MaineDOT documentation group

_____ Testing file submitted with documentation of minimum testing requirements

_____ QA Pay Factors Computed by Resident and checked by MaineDOT representative

_____ MaineDOT materials testing section notified of project completion

▪ *Contact Kevin Cummings - 624-3429 - Kevin.cummings@maine.gov*

_____ **Final quantity book completed**

_____ **DBE Form completed by the contractor and signed by each DBE**

_____ **OJT sign-off from MaineDOT (if project labor costs >\$2.5 million)**

_____ Final determination of OJT (*if applicable*)

_____ Met

_____ Did not meet but balance waived

_____ Did not meet and contractor sanctioned

_____ **Final estimate paid and retainage released**

_____ **Final billing sent to MaineDOT (Letter 27)**

_____ MaineDOT Project Manager completes and signs **project evaluation**, and

provides it to Local Project Administrator for review, comment and signature.

(*This takes place when the work is completed and the final billing has been processed.*)

➔ **NOTE:** All project records must be retained for **three years** for federally funded projects. MaineDOT recommends keeping all project records for at least four years in case of audit.

Appendix 1C: Project Communications



NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Request for Local Project Administration (Letter 1)

Date

_____, Multimodal Program Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Local Project Administration Request
MaineDOT WIN _____

Dear _____:

The Municipality of _____ is interested in the local administration of **[project scope, WIN]**. If the project is eligible, please contact me as soon as possible so that we can discuss the details of the project and the municipal administration thereof.

I have enclosed backup information about the Municipality's qualifications to administer this project locally, including our experience with projects of similar size and scope, and our ability to manage and track federal/state funds for this project.

Sincerely,

_____, Local Project Administrator
Municipality of _____

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Local Agreement Execution (Letter 2)

Date

Michael Laberge, Local Projects Coordinator
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Local Project Agreement Execution Request
MaineDOT WIN _____

Dear Mr. Laberge:

Enclosed are two signed and dated copies of the Locally Administered Project Agreement for local administration of **[project scope, WIN]** by the Municipality of _____.

I understand that the Municipality cannot be reimbursed for any Preliminary Engineering or Right of Way activities without an official “Notice to Proceed” from the MaineDOT Local Projects Coordinator. Please have the agreement executed as soon as possible.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Signed project agreement

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Project Budget (Letter 3)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Project Budget and Schedule Submission
MaineDOT WIN _____

Dear _____:

Attached is the line-item budget and schedule you requested for **[project scope, WIN]** in the municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Project budget and schedule

NOTE: THIS MUST BE SUBMITTED ON OFFICIAL LETTERHEAD

Request for Reimbursement (Letter 4)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Project Billing
MaineDOT WIN _____

Dear _____:

Attached is the LAP Project Costs Worksheet for [**Insert work phase**] for [**project scope, WIN**] in the Municipality of _____. Total project-related costs for the period are \$ _____, and reimbursement is requested for the federal/state share of \$ _____ of project costs the period. Project costs during the period also include a local share of \$ _____.

I have also enclosed a required progress report, covering:

- A written statement describing work accomplished during the period and to date;
- An estimate of the percentage of work completed;
- The percentage of time elapsed and the percentage of the contract amount expended;
- The amounts of any contract modifications executed to date, if applicable..

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures:

- LAP Project Costs Worksheet
- Project progress report for billing period

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Request for Review of RFO/ RFP (Letter 5)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: RFP Review Request
MaineDOT WIN _____

Dear _____:

The Municipality of _____ intends to solicit for engineering services for **[scope of services]** on the project for **[project scope, WIN]**. Attached is the Request for Proposals that we intend to use for the solicitation. We intend to advertise the proposal on **[date]**.

Please review as soon as possible and inform me as to its adequacy.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft RFP

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Consultant Selection Approval Request (Letter 6)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Consultant Selection Approval Request
MaineDOT WIN _____

Dear _____:

The Municipality of _____ has selected [**name of consultant firm**] for [**scope of engineering services**] for [**project scope, WIN**]. Attached is the negotiated contract and cost proposal. We understand that we cannot award the contract without your approval.

We have verified that the selected consultant is not debarred, suspended, proposed for debarment, declared ineligible or otherwise prohibited from working on federally funded contracts. We have attached documentation verifying this.

Please review as soon as possible and inform me of your decision.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Negotiated contract, cost proposal

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Sole-Source Consultant Selection (Letter 7)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Sole-Source Consultant Selection Request
MaineDOT WIN _____

Dear _____:

The Municipality of _____ is requesting your approval to use **[name of consultant firm]** for **[scope of services]** for **[project scope]**. Since the consultant costs are estimated to be less than \$25,000, our understanding is that a competitive process is not required as long as we demonstrate that our preferred consultant is qualified to perform the services.

We believe that **[name of consultant firm]** is sufficiently qualified to complete the requested services, based upon our previous experience with this firm, as follows:
(Please describe.)

Please review the submitted materials as soon as possible and let us know if we are approved to negotiate a contract with this firm. We understand that we cannot award a contract without your approval.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures:

1. Technical proposal
2. Cost proposal
3. Statement of qualifications

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Copy of Consultant Contract (Letter 8)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Consultant Contract
MaineDOT WIN _____

Dear _____:

Attached is a copy of the executed contract between [**name of consultant firm**] and the Municipality of _____ for [**scope of services**] on the project for [**project scope, WIN**].

Sincerely

_____, Local Project Administrator
Municipality of _____

Enclosure: Executed Contract

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Right-of-Way Acquisition Plan (Letter 9)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Acquisition Plan Approval Request
MaineDOT WIN _____

Dear _____:

Attached is the process, staff qualifications and owner dispute resolutions that the Municipality of _____ intends to use to obtain Right of Way for **[project scope, WIN]**. If you have any questions, or need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Right-of-way acquisition plan

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Right-of-Way Certification (Letter 10)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification
MaineDOT WIN _____

Dear _____:

Attached is the official certification that all Right of Way acquired for **[project scope, WIN]** in the Municipality of _____ was acquired in accordance to requirements identified in the executed Project Agreement dated **[execution date]**. All information about the Right of Way process can be made available to you at your request. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Right-of-way certificate

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE ATTACHED NEPA CHECKLIST**

NEPA Checklist Submission (Letter 11)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: National Environmental Policy Act (NEPA) Checklist
MaineDOT WIN _____

Dear _____:

Attached is the completed National Environmental Policy Act (NEPA) checklist for [**project scope, WIN**] in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: NEPA documentation checklist

Cc: MaineDOT Environmental Office

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION
For the Maine Department of Transportation**

Project Title & Location: _____

Federal Project #: _____ WIN: _____

Description of Work: _____

MaineDOT Project Manager: _____

Please answer the following questions and attach supporting documentation as requested. If there is a “yes” response, please explain on a separate sheet or contact your MaineDOT Project Manager for guidance.

1.) Public Involvement – Is there substantial public opposition to proposed action? Yes No
The answer should become apparent at the local public meeting approving the project.

Documentation: Local project approval; public hearing records; letters from the public; Council/Selectperson or Planning Board minutes; or Letter 16 in the manual.

2.) Right-of-Way – Does action include a residential or commercial displacement, or acquisition of property rights that will result in substantial abutter impacts? Yes No
For help with “substantial”, please contact your Project Manager at MaineDOT.

Documentation: Existing and/or Proposed RW plan and/or Letter 17 in the manual.

3.) Wetlands – Does action require an Army Corps of Engineers Programmatic Category III (Individual) Permit? Yes No

Documentation: Copy of federal Permit or Letter 12 in the manual.

4.) Section 4(f) or 6(f) – Does action require **use** of property protected by Section 4(f) of the Department of Transportation Act (except for Transportation Enhancement requisitions and preservation of historic sites), or Section 6(f) of the Land and Water Conservation Fund Act? Yes No

In other words, does the project involve any publicly owned land, parks, recreation areas, wildlife and waterfowl refuges, or historic sites?

Documentation: State Historic Preservation Officer, Department of Conservation, Municipality Communications, Existing and/or Proposed RW plan or Letter 17 in the manual.

5.) Other – Does action adversely affect any known critical or unique natural resource, the quality of adjacent surface water resources, municipality cohesiveness, planned municipality growth, or beneficial land use patterns? Yes No

Signed by: _____
Name, Local Project Administrator

Date: _____

NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE

Environmental Certification (Letter 12)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Environmental Certification
MaineDOT WIN _____

Dear _____:

This document serves as official certification that all environmental permits required for **[project scope, WIN]** in the Municipality of _____ were obtained and approved in accordance with requirements identified in the executed Local Public Agency Agreement dated **[execution date]**.

Attached are all of the approved permits. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures: Environmental permits
Cc: MaineDOT Environmental Office

NOTE: By signing the document, you are providing all the approved permits required to construct the project. If no permits are required, please supply a narrative as to why no permits were needed.

NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE

Utility Certification (Letter 13)

Date

_____, Project Manager
 Maine Department of Transportation
 Bureau of Project Development, Multimodal Program
 16 State House Station
 Augusta, ME 04333-0016

Subject: Utility Certification

MaineDOT WIN _____

Dear _____:

I certify that all utility [**and railroad**] work necessitated by the subject project has been identified and coordinated with the respective utilities [**and railroads**]. The following utilities [**and railroads**] have been identified as having facilities within the project limits:

Utility/Railroad

Impacted facilities? (yes/no)

All of the above entities were first informed of the project on [**Date**], were involved as necessary throughout design, and received the most current plans on [**Date**]. Furthermore, the above entities have been informed of the proposed advertising date - [**Date**].

All arrangements have been made for the utility/railroad work to be undertaken and completed to allow for construction of the project. There are no direct payments anticipated to utilities/railroads as a part of the project [**except as otherwise provided through the following agreements:**]

Utility/Railroad

Date of Agreement

The primary utility/railroad contacts involved in the coordination of the project are as follows:

Utility/Railroad

Contact Name

Telephone #

Sincerely,

_____, Local Project Administrator

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Preliminary Alignment Design (Letter 14)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Preliminary Alignment Design Submittal
MaineDOT WIN_____

Dear _____:

Attached for your review is the Preliminary Alignment Design for **[project scope, WIN]** in the Municipality of _____. If you would like to make a field visit to the project site at the time, I will make the arrangements.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Preliminary Design Report (Letter 15)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Preliminary Design Report (PDR) Submittal
MaineDOT WIN_____

Dear _____:

Attached for your review and approval is the Preliminary Design Report for [**project scope, WIN**] in the Municipality of _____. Quality-control design checks were conducted by _____ as part of the preliminary design process.

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft Preliminary Design Report

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Public Process (Letter 16)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification
MaineDOT WIN _____

Dear _____:

This letter is the official certification that the public process required for [**project scope, WIN**] in the Municipality of _____ was done in accordance with requirements identified in the executed Project Agreement dated [**execution date**].

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

I have attached the meeting minutes and sign-in sheet for your information. If you need any additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Meeting minutes

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Plan Impacts (Letter 17)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Plan Impacts
MaineDOT WIN_____

Dear _____:

Attached for your review are the Plan Impacts for [**project scope, WIN**] in the Municipality of _____. Quality-control design checks were conducted by _____ as part of the design process.

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Plan Impacts

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Construction Authorization Request (Letter 18)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Authorization Request
MaineDOT WIN _____

Dear _____:

Attached for your review and approval is the bid package intended to advertise for construction services on [**project scope, WIN**] in the Municipality of _____. I hope to advertise the project on [**advertise date**].

I have also attached the latest cost estimate and schedule for the project. I understand that I cannot advertise the project until I have your written approval.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft PS&E package

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Construction Award Request (Letter 19)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Award Request
MaineDOT WIN _____

Dear _____:

Attached for your review are the bid tabulations, latest cost estimate and schedule for **[project scope, WIN]** in the Municipality of _____. **[name of contractor]** is the lowest responsive, responsible bidder, and it is our recommendation that the project be awarded to that contractor.

I realize that I cannot award the project until I receive your written approval.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures:

1. Bid tabulations
2. Cost estimate
3. Schedule

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Construction Contract (Letter 20)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Contract
MaineDOT WIN _____

Dear _____:

Attached for your files is the executed construction contract between the Municipality of _____ and **[name of contractor]** for **[project scope, WIN]**. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Signed construction contract

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Pre-Construction Meeting Notification (Letter 21)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-Construction Meeting
MaineDOT WIN _____

Dear _____:

Your attendance is requested at the pre-construction meeting for [**project scope, WIN**] in the Municipality of _____ on [**meeting date/time**]. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Pre-construction Meeting Minutes (Letter 22)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-construction Meeting Minutes
MaineDOT WIN_____

Dear _____:

Attached are the pre-construction meeting minutes for **[project scope, WIN]** in the Municipality of _____, held on **[meeting date]**. If you have any concerns or need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Meeting minutes

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

On-the-Job Training Intent (Letter 23)
(Only for projects with labor costs exceeding \$2.5 million)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: On-the-Job Training Intent
MaineDOT WIN _____

Dear _____:

Attached for your information is on-the-job training intent for **[project scope, WIN]** in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

On-the-Job Training Registrations (Letter 24)
(Only for projects with labor costs exceeding \$2.5 million)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: On-the-Job Training Registrations
MaineDOT WIN _____

Dear _____:

Attached for your information are the on-the-job training registrations for **[project scope, WIN]** in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Contract Modification Request (Letter 25)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Contract Modification Request
MaineDOT WIN _____

Dear _____:

I am requesting a contract modification for **[project scope, WIN]** in the Municipality of _____. The change will consist of **[insert description of contract modification including scope change and/or extra costs]**.

An independent estimate of the cost of the additional work is attached. This modification will add **[number of days]** to the original contract.

[Note: The amount of time involved in the modification must be noted in the letter. If there is no change in schedule, then state "0 days" or indicate that the modification will not change the amount of time associated with the contract.]

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft contract modification

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Final Inspection (Letter 26)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Inspection, MaineDOT WIN_____

Dear _____:

Your attendance is requested at the Final Inspection for [**project scope, WIN**] in the Municipality of _____ on [**meeting date/time**]. At the time, we can also make available all documentation and testing required for the project.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

NOTE: THIS MUST BE SUBMITTED ON LETTERHEAD TO THE PROJECT MANAGER

Final Billing (Letter 27)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Billing, MaineDOT WIN_____

Dear _____:

This letter serves as the official notification that all requirements for **[project scope, WIN]** in the Municipality of _____ were completed in accordance with the executed Project Agreement dated **[execution date]**. Attached is the final billing for the project.

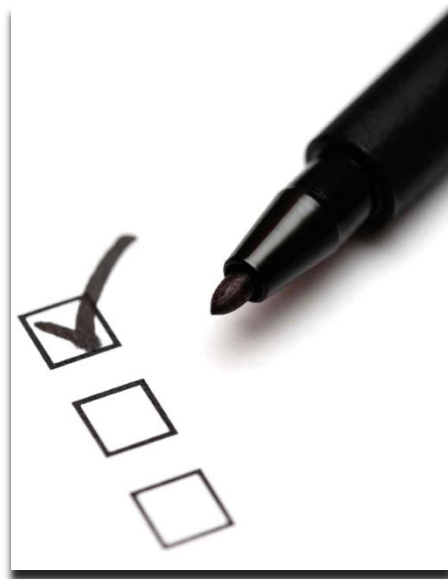
If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Final billing

Appendix 1D: Project Evaluation Form



**MAINE DEPARTMENT OF TRANSPORTATION
LOCAL PROJECT ADMINISTRATOR EVALUATION FORM**

Organization Administering Project:	
Address:	
MaineDOT WIN:	Local Project Administrator:
Project Location, Description:	
Total Agreement Amount:	Actual Amount Expended:

⇒ Evaluate the Local Project Administrator's performance in each of the following areas:

1.) PROJECT COST, SCOPE AND SCHEDULE:			
a.) Was the project completed within the MaineDOT approved budget?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.) Did the Local Project Administrator (LPA) present a clear scope of work and follow that scope in developing the project?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
c.) Was the project completed within the agreed-upon schedule?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
d.) Did the LPA show consistent, satisfactory progress in delivering the project?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Comments: _____			

Rating: Outstanding <input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs Improvement <input type="checkbox"/> N/A <input type="checkbox"/>			

2.) COMMUNICATION AND COOPERATION:			
a.) Did the Local Project Administrator (LPA) communicate effectively with the MaineDOT Project Manager, in order to keep the project on budget and schedule?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.) Did the LPA consult with the MaineDOT Project Manager when issues affecting the scope, schedule or budget arose?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
c.) Did the LPA provide regular, detailed progress updates?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
d.) Was the LPA cooperative and responsive to feedback?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Comments: _____			

Rating: Outstanding <input type="checkbox"/> Satisfactory <input type="checkbox"/> Needs Improvement <input type="checkbox"/> N/A <input type="checkbox"/>			

3.) PROJECT DESIGN:

- a.) Did the Local Project Administrator (LPA) follow MaineDOT’s consultant-selection procedures when hiring consultants for design and/or other project engineering work? Yes No N/A
- b.) Did the LPA seek the proper authorizations from the MaineDOT Project Manager before performing work, procuring services or signing contracts? Yes No N/A
- c.) Were the project plans, specifications and estimates developed in accordance with MaineDOT’s standards and procedures? Yes No N/A
- d.) Were the plans and specifications adequate enough to minimize change orders and misinterpretation in the field? Yes No N/A

Comments: _____

Rating: Outstanding Satisfactory Needs Improvement N/A

4. CONSTRUCTION:

- a.) Did the Local Project Administrator (LPA) follow MaineDOT’s standards and procedures for procuring construction contracts? Yes No N/A
- b.) Did the LPA provide sufficient oversight to ensure that the project was completed in accordance with the plans, specifications and provisions of the construction contract? Yes No N/A
- c.) Did the progress reports from the LPA provide MaineDOT staff with sufficient knowledge to follow the progress of the work? Yes No N/A
- d.) Did the LPA provide proper certification that the project was constructed, quantities were measured and documented, and materials tested? Yes No N/A
- e.) Did the materials testing process meet MaineDOT specifications? Yes No N/A

Comments: _____

Rating: Outstanding Satisfactory Needs Improvement N/A

5.) INVOICES:

- a.) Were invoices accurate, timely and submitted with supporting documents? Yes No N/A
- b.) Did invoices provide sufficient detail to support the requests for payment? Yes No N/A
- c.) Did the costs billed to MaineDOT correspond to the work accomplished, as described in the project progress reports? Yes No N/A

Comments: _____

Rating: Outstanding Satisfactory Needs Improvement N/A

6.) OVERALL PERFORMANCE:

a.) Did the Local Project Administrator (LPA) demonstrate sufficient knowledge to complete the project in accordance with Federal and/or State requirements?

Yes No N/A

b.) Did the LPA effectively identify and assess problems and develop solutions before those problems caused delays?

Yes No N/A

c.) Was the project completed free of errors, omissions or failures by the LPA that could jeopardize Federal or State participation?

Yes No N/A

Comments: _____

Rating: Outstanding Satisfactory Needs Improvement N/A

7.) ADDITIONAL COMMENTS & RECOMMENDATIONS:

Signature of MaineDOT Project Manager: _____ **Date:** _____

8.) LOCAL PROJECT ADMINISTRATOR COMMENTS: Agree Disagree

Comments: _____

Signature of Local Project Administrator: _____ **Date:** _____

Local Project Administration Manual & Reference Guide

2. Consultant Selection



MaineDOT

Integrity - Competence - Service

2014 Edition

Selection of Consultants

Project engineering is complicated work requiring the expertise of licensed professionals. For this reason, municipalities and other local public agencies without engineers on staff typically hire consultants to design and inspect their locally administered transportation projects. This section explains the consultant selection process and includes the following:

- A summary of the selection requirements (pages 2-1 to 2-7);
- An independent estimate worksheet – Figure 2.1 (page 2-8);
- Appendix 2A: A checklist (page 2-9);
- Appendix 2B: Sample communications (page 2-12);
- Appendix 2C: A sample request for proposals (page 2-17);
- Appendix 2D: A profit calculation worksheet (page 2-23);
- Appendix 2E: Sample contract (page 2-27);
- Appendix 2F: Payment methods (page 2-30); and
- Appendix 2G: A sample consultant evaluation form (page 2-34).



Remember: Engineering and architectural consultants for federal-aid projects must be chosen based on their qualifications, and **not price**. [See federal regulation 23 CFR, Part 72.] MaineDOT also requires such qualifications-based selection for projects with state money.

As the next two pages explain in detail, the selection process always starts with two things:

- ➔ A well-defined scope of work that will form the basis for a consultant’s proposal; and
- ➔ An independent estimate of the price of the service being sought.

2.1 Scope of Work

A clear understanding of the scope of work is vital to determining what services will be needed. For this reason, the municipality or other organization in charge of a project must prepare a written scope of work with the following items, as applicable:

- A description of the project and the type of work;
- The location and duration of work;
- The potential number of phases of the project;
- A list of deliverables, such as plans, specifications and a construction price estimate;
- The expected number of meetings with local staff;
- The estimated number of public meetings to be facilitated;

- Preliminary engineering issues – such as constructability, environmental review, feasibility analysis, utility coordination, and right-of-way impacts, as applicable.
- A list of the services needed and any required expertise, which will be the basis for evaluating the personnel that a consultant plans to use.
- Whether construction engineering services will be part of the scope of work.

2.2 Independent Government Estimate

Any organization that intends to hire a consultant to assist with a locally administered project must prepare an estimate of the price of the services. This “independent government estimate” is mandatory for federally funded projects. [See 23 CFR, Part 72.] MaineDOT requires that such an estimate be developed for state-funded projects, as well. There are two primary reasons behind this requirement for an independent estimate:

- It will determine which selection process to use, as explained on pages 2-3 to 2-5; and
- It will be the basis for negotiations with the highest qualified consultant. *For this reason, the estimate **must not** be shared with any consultant likely to submit a proposal.*

The estimate – which is prepared before proposals are sought – should consider the number of hours of effort; classifications and hourly wages of employees likely to work on the project; direct costs such as mileage and printing; overhead and non-personnel costs; and a reasonable profit for the defined scope of work. Locally administered projects typically carry profits of **8 percent to 10 percent**.



MaineDOT may provide guidance, but the estimate must be prepared by the municipality or local agency managing a project. There often are a variety of resources available to assist with the estimate, such as:

- A local public works director or road commissioner;
- A local professional engineer not directly involved in the project at hand; and
- Retired engineers and technical professionals.

➤ **Note:** An estimate worksheet is found on page 2-8.

2.3 Request for Proposals (RFP)

Most of the time, a municipality or other public agency overseeing a project will seek consultants interested in the work by drafting a request for proposals (RFP) and either advertising it publicly or sending it directly at least three pre-qualified firms. The process will vary slightly, depending on the estimated price of the work, as outlined on pages 2-3 to 2-5.

The organization administering a project must solicit from each interested consultant a technical proposal and a sealed price proposal that is opened only if that consultant ultimately is selected. Price proposals from consultants not chosen must be returned unopened after a contract with the successful proposer is awarded and signed.

Each consultant's technical proposal must have detailed descriptions of the following:

- The scope of work, including the purpose and description of the project;
- The services to be performed by the consultant;
- Deliverables such as design plans, construction specifications, and construction inspection services, if applicable;
- The estimated schedule for performance of the work;
- Specific technical qualifications for the services to be provided; and
- Supporting documentation.



Remember: The RFP for contracts of \$25,000 or more must specify that price proposals be submitted separately from technical proposals and – in most cases – sealed. The RFP also must state that price shall not be considered in the ranking and evaluation of consultants.

Additionally, the RFP must spell out how consultants will be evaluated and how the process will be conducted. Key items to include are:

- Whether interviews will be part of the selection and, if so, how they will be handled;
- Evaluation factors and their relative weights – such as the technical approach to the work, experience, specialized expertise, workload capacity, and past performance;
- The contract type and method of payment (described starting on page 2-30); and
- A selection schedule with key dates and deadlines.

2.4 Selection Process: Contracts Less Than \$25,000

If the engineering costs (including modifications) are estimated to be less than \$25,000, the following simplified selection process may be used:

- 1.) Obtain the MaineDOT project manager's approval to solicit a proposal from a single consultant considered qualified to perform the type of work involved, using the format of Letter 7 on page 2-15 of this section. There are two options:
 - Contact a consultant with which you have worked successfully before on projects of similar size and scope; or
 - Contact a firm pre-qualified by MaineDOT for the type of work involved:
www.maine.gov/mdot/cpo/prequal/
- 2.) Request a technical proposal and a price proposal from the preferred firm; and
- 3.) Negotiate the scope of work, schedule and price with that firm, and then provide negotiated documents to the MaineDOT project manager for approval before execution.

2.5 Selection Process: Contracts of \$25,000 to \$149,999

Below is the required selection method for engineering contracts (including modifications) estimated to be greater than \$25,000 but less than \$150,000.

1.) Start with at least three firms pre-qualified by MaineDOT for the type of work involved:

www.maine.gov/mdot/cpo/prequal/

- **Note:** To include a consultant not on the list, request approval from the MaineDOT project manager, with a written explanation of why the firm is considered qualified.

2.) After receiving the MaineDOT project manager's approval (Letter 5, page 2-13), send the RFP to your pool of consultants, seeking:

- A technical proposal that describes each firm's qualifications and approach; and
- A separate, sealed price proposal that must remain unopened.

(Note: You also have the option of requesting a price proposal only from the top-ranked firm after the selection process has concluded, but this will add time to the process.)

3.) Review the technical proposals, check references and rank the firms using scoring criteria developed ahead of time. Note: Interviews are optional but encouraged.

4.) Provide the results of the evaluation process to the MaineDOT project manager, and obtain approval to begin negotiations with the highest-ranked consultant.

5.) Open the price proposal from the highest-ranked consultant, using your independent estimate to start the negotiations. *(Note: If you did not request price proposals during the initial process, now is the time to request a price proposal from the highest-ranked firm.)*

➡ *At this point, all other price proposals must stay sealed.*

6.) If a fair and reasonable price cannot be negotiated with the highest-ranked consultant, inform the MaineDOT project manager and then request a "Best and Final Offer" from the consultant. If that final offer is deemed unreasonable, proceed as follows:

- Send the consultant a written notice terminating negotiations, keeping in mind that you cannot go back to that consultant; and
- Begin negotiations with the second-highest ranked consultant.

7.) Once agreement is reached with a qualified consultant, notify the MaineDOT project manager of the selection and submit a draft contract for the project manager's review and approval. (See Letter 6, on page 2-14)

8.) Execute the contract with the selected consultant after obtaining Notice to Proceed from the MaineDOT project manager. Provide the MaineDOT project manager with a copy of the signed and dated contract, using the format of Letter 8, on page 2-16.

9.) Once the process is completed, send regret letters to the firms not selected and return their price proposals unopened.

2.6 Selection Process: Contracts of \$150,000 or More

Services of \$150,000 or more – as determined by your independent government estimate – fall under the federal Brooks Act and require an **advertised, competitive process**, as follows:¹

- 1.) Prepare an RFP seeking from each interested consultant a technical proposal and a separate, **sealed** price proposal. (An example is found starting on page 2-17.)
(Note: You also have the option of requesting a price proposal only from the top-ranked firm after the selection process has concluded, but this will add time to the process.)
- 2.) Submit the draft RFP to MaineDOT for approval. (See Letter 5 on page 2-13.)
- 3.) Advertise the approved RFP, using the typical process of the municipality or organization overseeing the project.
- 4.) After the submission deadline, review technical proposals, check references and rank firms using criteria in the RFP.
- 5.) Interview the top three firms.
- 6.) Determine the highest-ranked consultant, open that consultant's price proposal and begin negotiations based on your independent estimate. *(Note: If you did not request price proposals up front, now is the time to request a price proposal from the top-ranked firm.)*

➤ At this point, all other price proposals must stay sealed.

- 7.) If a fair and reasonable price cannot be negotiated with the highest-ranked consultant, inform the MaineDOT project manager and then request a “Best and Final Offer” from the consultant. If that final offer is deemed unreasonable, proceed as follows:
 - Send the consultant a written notice terminating negotiations – keeping in mind that you cannot go back to that consultant once negotiations have been terminated; and
 - Begin negotiations with the second-highest ranked consultant.
- 8.) Once agreement is reached with a qualified consultant, notify the MaineDOT project manager and submit a draft contract for review and approval. (See Letter 6, on page 2-14)
- 9.) Execute the contract with the selected consultant after obtaining Notice to Proceed from the MaineDOT project manager.
- 10.) Provide the MaineDOT project manager with a copy of the signed and dated contract for the project file, using the format of Letter 8, on page 2-16.
- 11.) Once the process is completed, send regret letters to the consultants not selected and return their price proposals unopened.

¹ Projects funded by the Federal Transit Administration (FTA) or Federal Aviation Administration (FAA) require an advertised process for all projects exceeding **\$100,000**.

2.7 Consultant Price Proposals

The price proposal from each consultant must include a breakdown of the following:

- Direct salary (not including benefits) for each person working on the project.
 - Projects using federal or state money have a direct-salary cap of **\$50 per hour**; wage rates exceeding this amount require a waiver from MaineDOT.
- Indirect expenses, or “overhead,” determined by an audited overhead report or similar document. Audited overhead reports typically are reviewed and approved by MaineDOT’s Office of Audit. Overhead covers fringe benefits, insurances and other costs besides wages.
 - Small consulting firms without formal audited overhead reports must provide the local project administrator and MaineDOT project manager with documentation of how the overhead rate was calculated. The overhead rate must be supportable.
- Profit or fixed fee. Average profit on a locally administered project is between 8 percent and 10 percent and should be negotiated, based on the complexity of a project and the level of risk. A profit calculation worksheet is found starting on page 2-23.
- Direct costs such as sub-consultant expenses, mileage (State of Maine rates apply), travel-related meals and any printing not done in-house or otherwise covered by the consultant’s overhead rate.
 - **Remember:** Direct expenses must be billed at actual price. Mark-up is **prohibited**.

2.8 Consultant Contracts

After successful negotiations, the organization in charge of a project drafts a contract for services. A MaineDOT project manager must approve any new contract – and any modification to an existing contract – **before** documents are signed. (See Letter 8, page 2-16.)



Once a contract is executed – *with the consultant always signing first* – the local administrator provides the MaineDOT project manager with a copy and documents the process. Federal regulation requires records to be kept for three years after a project is completed; MaineDOT recommends **four years** in case of audit.

Although there is no standard format, every contract with federal or state money must contain the items shown below. (An example is found starting on page 2-27.)

- A detailed scope of services, including deliverables and project milestones;
- Beginning and end dates for the work covered by the contract;
- Requirements for progress updates;
- Requirements for quality-control design checks;
- Indemnification and insurance requirements;

- Ownership of plans and other documents prepared by the consultants, which on federally funded projects become the property of the sponsoring organization;
- Administrative, contractual or legal remedies for breach of contract terms and conditions;
- A provision that the primary consultant chosen for the project has not been debarred;
- Anti-discrimination language, found in a document developed by MaineDOT in 2014: *Consultant General Conditions for Local Public Agencies*;
- A certification that no lobbying will be done with federal money, as specified in federal regulation 23 CFR, Part 20; and
- Form FHWA-1273, “Required Contract Provisions for Federal-Aid Contracts.”

➡ Starting in 2014, a new guide – *Consultant General Conditions for Local Public Agencies* – will apply to all locally administered projects funded through MaineDOT. This document will be the foundation for contracts between municipalities and private consultants.

2.9 Debarment

Any consultant prohibited from receiving federal money cannot work on federal-aid contracts, a process known as “debarment.” A municipality or other local agency managing a project with federal money must verify that its selected consultant is not debarred or otherwise excluded from participating in such contracts. Verification – through a screen print from the federal System for Award Management (SAM) – must be submitted to the MaineDOT project manager.

➡ <https://www.sam.gov/portal/public/SAM/>

2.10 Consultant Evaluations

MaineDOT and the Federal Government require municipalities and other agencies overseeing locally administered projects to evaluate their consultants once the work is completed. Such evaluations serve to generate feedback, foster communication and improve the process.

Evaluations should cover the following, at a minimum:

- The timely completion of the work;
- Adherence to contract scope and budget; and
- Quality of the work.

MaineDOT’s standard form may be used as a template – as long as references to MaineDOT are removed. A copy of the completed evaluation should be provided to the MaineDOT project manager. *A sample form is found at the end of this section, starting on page 2-34.*

➡ **Note:** *If documents from MaineDOT’s website are used by a municipality or other organization, references to MaineDOT generally should be removed.*

FIGURE 2.1: INDEPENDENT ESTIMATE WORKSHEET

Project Title/Location:
 MaineDOT PIN:
 Consultant Firm Name (If Known):
 Service Area or Phase of Work:

Orig. Date:
 Revised Date:

Prepared By:

#	Task Descriptions	PRINCIPAL IN-CHARGE	?	?	?	?	?	?	?	ADMIN SUPPORT	TOTAL
		Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
1											0.00
2											0.00
3											0.00
4											0.00
5											0.00
6											0.00
7											0.00
8											0.00
9											0.00
10											0.00
11											0.00
12											0.00
13											0.00
14											0.00
15											0.00
TOTAL HOURS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HOURLY RATE		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
DIRECT LABOR TOTAL		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Overhead %	0.00%	\$0.00
Profit/Fee %	0.00%	\$0.00

Subtotal = \$0.00

Total Direct Expenses = \$0.00

DIRECT EXPENSES	\$
Travel	
Printing	
Telephone	
?	
?	
Miscellaneous	

TOTAL DIRECT EXPENSES = \$0.00

TOTAL ESTIMATED PRICE = \$0.00

Rev. 7/24/08

Appendix 2A: Consultant Selection Checklist



☐ SELECTION OF CONSULTANTS

▪ Engineering services (including any modifications) valued at less than \$25,000:
Obtain MaineDOT Project Manager’s approval to use a simplified process

_____ Develop a scope of work and independent estimate for services

_____ Send scope/estimate to MaineDOT Project Manager for review/approval

_____ Request/receive proposal from consultant deemed qualified to do the work involved

_____ Negotiate scope, schedule & price with consultant, based on independent estimate

_____ Receive completed Disadvantaged Business Enterprise (DBE) use form from consultant

Verify and document that selected consultant is not debarred
Send proposal and draft contract to MaineDOT for approval (Letter 7 or e-mail)
Receive written notice to proceed from MaineDOT Project Manager

_____ Contract executed – signed by Municipality after consultant has signed

_____ Consultant sent a written notice to proceed from Municipality

_____ Copy of signed contract sent to MaineDOT Project Manager (Letter 8 or e-mail)

▪ Engineering services valued at \$25,000 to \$150,000

_____ Develop a scope of work and an independent estimate for price of consultant services

Select at least 3 pre-qualified firms from MaineDOT’s list, and proceed as follows:

_____ Prepare a draft request for proposals (RFP) for price and technical information

_____ Submit draft RFP to MaineDOT Project Manager for approval (Letter 5 or e-mail)

_____ Send RFP to the pre-selected firms, seeking technical and sealed price proposals

_____ Develop selection criteria and percentages for scoring

_____ Review and rank technical proposals, from highest to lowest

_____ Select the best-qualified consultant, based on scores/interviews

_____ Open the sealed price proposal from the best-qualified (No. 1) consultant only

_____ Negotiate the scope, schedule & price with best-qualified consultant

_____ If terms can be reached, draft a contract

_____ If negotiations with No. 1 are unsuccessful, request a “Best and Final Offer.” If terms still cannot be reached, end negotiations and move on to No. 2 consultant

_____ Obtain completed Disadvantaged Business Enterprise use form from consultant

Verify and document that selected consultant is not debarred
Send unsigned contract and price to MaineDOT for approval (Letter 6 or e-mail)
MaineDOT provides written notice to proceed with contract

_____ Contract executed (signed by Municipality after consultant has signed)

_____ Successful consultant sent a written notice to proceed

_____ **Copy of signed contract sent to MaineDOT (Letter 8 or e-mail)**

_____ Regret letters and unopened price proposals sent to unsuccessful consultants

▪ Engineering services valued at greater than \$150,000

_____ Develop a scope of work and an independent estimate for price of consultant services

_____ Prepare a request for proposals (RFP) for technical and separate sealed price proposal

_____ Submit draft RFP to MaineDOT Project Manager for approval (Letter 5 or e-mail)

_____ **Advertise the RFP, a requesting technical proposal and a sealed price proposal**

-
- _____ Develop selection criteria and percentages for scoring
 - _____ Review and rank technical proposals from highest to lowest
 - _____ Invite the top three firms for interviews
 - _____ Select the best-qualified consultant, based on scores/interviews
 - _____ Open the sealed price proposal from the best-qualified (No. 1) consultant only
 - _____ Negotiate the scope, schedule and price with the No. 1 consultant
 - _____ If negotiations with No. 1 are successful, draft a contract for MaineDOT review
 - _____ If negotiations with No. 1 are unsuccessful, request a “Best and Final Offer.” If terms still cannot be reached, end negotiations and move on to No. 2 consultant.
 - _____ Obtain completed Disadvantaged Business Enterprise utilization form from consultant
 - _____ **Verify and document that selected consultant is not debarred**
 - _____ **Send unsigned contract and price to MaineDOT for approval (Letter 6 or e-mail)**
 - _____ **MaineDOT provides written notice to proceed with contract**
 - _____ Contract executed (signed by Municipality after consultant has signed)
 - _____ Successful consultant sent a written notice to proceed
 - _____ **Copy of signed contract sent to MaineDOT Project Manager (Letter 8 or e-mail)**
 - _____ Regret letters and unopened price proposals sent to unsuccessful consultants

▪ **Consultant Administration**

- _____ Oversee consultant’s work and billings to ensure contract compliance
- _____ **Modification(s) to executed consultant contract approved by MaineDOT**
- _____ Prepare project diary to record discussions and visitation with consultant
- _____ Consultant payments entered on ledger system
- _____ Final DBE certification of sub-consultant payments made, if applicable
- _____ Ensure that a monthly status report accompanies all invoices from the consultant
- _____ Evaluate the consultant upon completion of the contract

Appendix 2B: Communications



NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Letter 5 – Request for Review of RFP

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: RFP/RFQ Review Request
MaineDOT WIN_____

Dear _____:

The Municipality intends to solicit for engineering services for [**scope of services**] for [**project scope, WIN**] in the Municipality of _____. Attached is the Request for Proposals that we intend to use for this solicitation. We intend to advertise the proposal on [**date**].

Please review as soon as possible and inform me as to its adequacy.

Sincerely,

Local Project Administrator
Municipality of _____

Enclosure: Draft RFP

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Letter 6 – Consultant Selection Approval Request

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Consultant Selection Approval Request
MaineDOT WIN_____

Dear _____:

The Municipality of _____ has selected [**name of consultant firm**] for [**scope of services**] for [**project scope, WIN**]. Attached is the negotiated contract and price proposal. We understand that we cannot award this contract prior to your approval.

We have verified that the selected consultant is not debarred, suspended, proposed for debarment, declared ineligible or otherwise prohibited from working on federally funded contracts. We have attached documentation verifying this.

Please review as soon as possible and inform me of your decision.

Sincerely,

Local Project Administrator
Municipality of

Enclosure: Draft contract

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Letter 7 – Sole-Source Selection of Consultant

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Sole Source Consultant Request
MaineDOT WIN_____

Dear _____:

The Municipality of _____ is requesting your approval to use **[name of consultant firm]** for **[scope of services]** for **[project scope]**. Since the consultant costs are estimated to be less than \$25,000, our understanding is that a competitive process is not required as long as we demonstrate that our preferred consultant is qualified to perform the services.

We believe that **[name of consultant firm]** is sufficiently qualified to complete the requested services, based upon our previous experience with this firm, as follows:
(Please describe.)

Please review the submitted materials and let us know if we are approved to negotiate a contract with this firm. We understand that we cannot award a contract without your approval.

Sincerely,

Local Project Administrator
Municipality of

Enclosures:

1. Technical proposal
2. Price proposal
3. Statement of qualifications

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Letter 8 – Copy of Consultant Contract

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Consultant Contract
MaineDOT WIN_____

Dear _____:

Attached is the copy of the executed agreement between [**name of consultant firm**] and the Municipality of _____ for [**scope of services**] for [**project scope, WIN.**]

Sincerely

Local Project Administrator
Municipality of

Enclosure: Executed contract

Appendix 2C: Sample Request for Proposals



**REQUEST FOR PROPOSALS
FOR
[MUNICIPALITY, LOCATION, PROJECT]**

Project Identification Number:

I. PROJECT OVERVIEW.

The Municipality of _____ (hereinafter “Municipality”) is seeking proposals for engineering services for _____ to be undertaken with [choose federal/state] funding. The project will consist of _____. The project will be administered by the Municipality under the MaineDOT’s Local Project Administration Program.

The Municipality is requesting engineering support to design and develop the Project, including but not limited to a preliminary design report (PDR) and a plans, specifications and estimate (PS&E) package. Proposers must provide a Technical Proposal and separate, sealed Price Proposal as described below. No mention of price shall be included in the Technical Proposal; otherwise, that Proposal shall be rejected in its entirety.

DATE OF RFP POSTING:

PROPOSALS ARE TO BE RECEIVED NO LATER THAN:

Date Due:
Local Time:

COMMUNICATIONS IN REFERENCE TO THIS RFP

Any communication in reference to this RFP shall be in writing by fax or e-mail and directed to the attention of:

Name:
Title:
Office:
Email:

II. CONSULTANT RESPONSIBILITIES

The successful proposer will be required to perform many of the services listed below in support of the design and delivery of the project, depending on the specific needs of the project:

1. Develop a project-specific PDR that addresses the following:
 - Scope of work, project background, and purpose and need;
 - Location map and summary of all known physical information about the facility and operational characteristics – including a summary of known or observed deficiencies;
 - A summary of expected impacts – e.g., right-of-way, utilities, historical/archeological, environmental – and identification of the required permitting;

- A summary of recommendations for avoidance and minimization, if necessary;
 - Preliminary (50%) plans and a preliminary estimate of construction price.
2. Coordinate _____ public meeting(s) to obtain feedback on the project;
 3. Coordinate with all utilities, as applicable;
 4. Coordinate the right-of-way acquisition process, as applicable;
 5. Coordinate the National Environmental Policy Act (NEPA) process with the MaineDOT, and complete and submit to MaineDOT the environmental paperwork required in the MaineDOT *Local Project Administration Manual*, including “Letter 11” and the NEPA checklist;
 6. Develop a final PS&E package in accordance with MaineDOT’s standards and procedures, including but not limited to applicable sections of the latest versions – and any revisions – of the MaineDOT’s *Highway Design Guide*, *Standard Specifications*, and *Standard Details*;
 7. Conduct design checks at 50% and 95% plans complete, and document these reviews.
 8. Provide engineering support during bidding and construction, as applicable.

III. PROPOSER INFORMATION

Proposers shall provide the following information as part of their Technical Proposals:

1. **Firm’s Qualifications:** Please identify the **key** staff your company will assign to fulfill the contract requirements (Project Managers, contact people, or assigned technicians). Provide résumés describing the educational and work experiences for those **key** staff.
2. **Firm’s Experience:** Please describe the Proposer’s experience and capabilities providing similar services to those required. Identify projects, clients, dates and results.
3. **Firm’s ability to control Schedule and Prices on this project:**
 - a) Methods for controlling price – quality control – assuring constructability. Provide a brief outline of methods used by the firm to control and monitor client costs, control quality, assure constructability of design plans.
 - b) Schedule/Workload/Communication. Provide a brief outline of your firm’s methods of schedule control and ability to handle projected workload. Discuss project coordination with the Municipality. Describe how your firm will manage its role in this project and how it intends to maintain effective communication for the assignment.

4. **Firm’s References:** Please provide a list of 3 to 10 clients with whom the company has done business similar to that required in this solicitation in the last 5 years. Include points of contact (person’s name, company name, address, and telephone number) and a brief description of the project. The Municipality will determine which if any references are contacted. The results of any reference checks will be used to help score the proposal.
- **Contact Information:** Please provide the name, address, phone number, FAX number, and e-mail Address of Proposer in the proposal. A signature page shall be included with the technical and price proposals stating that “I certify that all of the information contained in this technical/price proposal to be true and accurate.”
- **Schedule:** Please include a schedule outlining project deliverables.
- **Price Proposal:** The price proposal shall be provided in a separately sealed envelope. NO MENTION OF PRICE SHALL BE INCLUDED IN THE TECHNICAL PROPOSAL; OTHERWISE THAT PROPOSAL SHALL BE REJECTED IN ITS ENTIRETY.

IV. PACKAGING AND SUBMITTING PROPOSAL

1. **Organization and Format.** Your proposal, which should be organized as closely as possible to the format and sequence indicated in these instructions, shall be submitted as outlined below.
2. **Electronic Format or Hard Copy:** Electronic submissions should be by e-mail, disk, DVD or CD; PDF electronic format is preferred; MS Word 2000 Format or greater is acceptable.
3. **Hand Carried Proposal from Proposer, federal Express, or United Parcel Service:** Hand-carried proposals shall be delivered to the Municipal Office, located at _____, before the time and date for which Proposals are due. **Note:** Any proposal, portion of a proposal, or unrequested proposal revision received after the time and date specified on the cover page of this RFP will not be accepted and will be returned unopened.
4. Proposals shall be delivered at:
Municipality of _____
ATTN: _____
Address: _____

V. RATING AND SELECTION PROCESS

1. Technical Proposals will be reviewed and rated using the responses to the information outlined in Sections II and III of this RFP, as follows:
 - Firm’s Qualifications (xx points)
 - Firm’s Experience (xx points)
 - Firm’s ability to control Schedule and Prices on this Project (xx points)
 - Firm’s References (xx points)
 - Other (xx points)

2. The Municipality reserves the right to conduct interviews as necessary to determine the highest-ranked consultant.
3. This is a Qualifications-Based Selection (QBS) process. The review of Technical Proposals and supplemental interviews, if applicable, will be used to select the successful proposer. Once the successful proposer has been selected, an independent estimate prepared by the Municipality will be compared against the successful proposer's Price Proposal, and contract negotiations will begin.
4. At the successful conclusion of the selection process, sealed price proposals from the unsuccessful proposers will be returned unopened.

VI. PRICE PROPOSAL

The Price Proposal shall be provided in a separately sealed envelope. Prices shall be outlined for all required items, using the attached Consultant's Detailed Price proposal Form. Each proposal will be evaluated for all technical criteria, and then costs shall be evaluated independently. The Price Proposal shall consist of the following:

1. **Direct Labor**. Please list all employees, including their classifications, who are expected to perform services on this project. Provide a breakdown of each employee's salary rate including direct labor, indirect labor, and profit. Include payroll records supporting the rates. *Note: A cap of \$50 per hour for direct labor shall apply to the project.*
2. **Indirect Labor (Overhead)**. Please provide documentation to support the indirect (overhead) costs that will be applied to this project.
3. **Profit**. The percentage of profit is based on criteria specific to a project, including degree of risk, relative difficulty of work, size of job, etc.
4. **Direct Expenses**. Please provide a breakdown of direct expenses, including mileage, meals, photocopying costs, etc. anticipated for this project. Direct expenses shall be reimbursed at price, and travel expenses shall be reimbursed in accordance with the per diem/mileage rates located at <http://www.maine.gov/osc/travel/travelinfo.htm> & <http://www.gsa.gov/portal/category/100120>

NOTE: Markup on direct costs, including sub-consultant expenses, shall be prohibited.

5. **Location, amount proposed and type of contract**. Describe the price or price estimates for each subcontract. There is no mark-up allowed on sub-consultant costs. Firms are encouraged to use certified Disadvantaged Business Enterprise (DBE) firms as sub-consultants. Current DBE requirements may be found at the MaineDOT website, "Certified Disadvantaged and Women Business Enterprise" directory available at:

➔ <http://www.maine.gov/mdot/civilrights/>

VII. CONTRACT TERM, TYPE AND PAYMENT METHOD

The initial contract term shall be for a period of _____ years. At the Municipality's discretion, the contract may be extended as appropriate. The contract type used for this project shall be a **[choose method]**, and the method of payment shall be **[insert time period]**.

VIII. GENERAL INFORMATION

1. This RFP does not commit the Municipality of _____ to pay any costs incurred in submitting your proposal, making studies or designs for preparing the proposal or in procuring or sub-contracting for services or supplies related to the proposal.
2. Requests for Clarification/RFP Amendments. During the proposal preparation period, all requests for clarification or additional information shall be submitted in writing (by e-mail **[insert e-mail Address]**; Clarification to RFP for WIN **[insert number]** or by fax **[insert fax number]** to the individual referenced by "Attention" on the cover page of this RFP no later than **[time and date]**. Late requests for clarification will not be accepted. When appropriate, responses to requests, as well as any changes initiated by the Municipality, will be provided to all prospective proposers in writing as amendments to the RFP. It will be the Proposer's responsibility to check the referenced website for responses to the Requests for Clarifications and/or RFP amendments.

Appendix 2D: Profit Worksheet



Instructions for Profit Worksheet

1. Profit should be established as a dollar amount based on:
 - a. Degree of risk
 - b. Nature of the project to be performed
 - c. Joint venture responsibilities
 - d. Extent of the Consultant’s investment
 - e. Sub-contracting of work
 - f. Other criteria

The “Weighted Guidelines Method” of computing profits provides contract managers with:

- a. A technique that takes into consideration the value of the project, in relation to the appropriate profit margin.
- b. A method of documenting the calculation of a fair and reasonable profit that can be used in negotiations.

2. In preparing in-house estimates and/or where profit is negotiated as an element of price, a reasonable profit should be negotiated or determined for each procurement action by using the following procedure as a guide:

WEIGHTING GUIDELINES

Factor	Weight	Profit Factor	Value
Degree of Risk	25		
Relative difficulty of project	20		
Size of job	15		
Period of Performance	20		
Consultant’s investment	5		
Assistance by MaineDOT	5		
Sub-contracting	10		
Total Profit Value			_____

3. Based on the Project complexity, each of the above factors will be assigned a profit factor from 0.06 to 0.15. The value shall be obtained by multiplying the weight by the profit factor. The value column, when totaled, indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

4. Factors

- a. **Degree of Risk.** Where the Project has a small degree of risk, the profit factor should be 0.06; as the degree of risk increases, the profit factor should be increased up to a maximum of 0.15. Contracts with options will have, generally, a higher profit factor than contracts without options for which quantities are provided. Other

- b. **Relative Difficulty of Project.** If the Project is very difficult and complex, the weighing should be 0.15 and should be proportionately reduced to 0.06 on the simplest of jobs. To some extent this factor is tied to the Degree of Risk. Consider: the level of risk, the nature of the project, and by whom it is to be done, i.e. sub Consultant, Consultant principal, what is the time schedule.
- c. **Size of Job.** Projects with an estimated price of:
- Up to \$50,000, use a profit factor of 0.15.
 - \$50,000 up to \$500,000, use a profit factor proportionately from 0.15 to 0.09.
 - \$500,000 or greater, use a profit factor of 0.08 to 0.06. (Note: the higher the value of the contract the more incentive there is for the Consultant to control the direct costs)
- d. **Period of Performance.** Projects with actual design times:
- Up to 60 days, use a profit factor of 0.06.
 - 60 to 180 days, should have a profit factor that is proportional from 0.06 to 0.15.
 - Greater than 180 days, use a profit factor of 0.15.
- A higher profit factor is allowed on projects that extend over a long period to account for the higher risk of lower profit margins. Fast-tracked projects done over a shortened period of time would entail greater weighting.
- e. **Consultant's Investment.** For Turnkey projects where the Consultant is expected to provide all labor and materials use a factor of 0.15. If the Municipality overseeing the project is furnishing some of the project materials and services, use a profit factor that is proportional from 0.06 to 0.15 based on the amount being provided. A ranking of average, average to above average can be used to determine the appropriate factor. Consider: the amount of sub-consulting, the degree of government furnished items, surveys, soil tests and engineering site explorations, and complexity of foundation considerations.
- f. **Assistance by the MaineDOT.** The greater the degree of technical and administrative assistance by MaineDOT personnel, and reliance on MaineDOT documents, the lower the profit factor.
- g. **Subcontracting.** The profit factor used should be in inverse proportion to the amount of subcontracting.
- If the entire project is to be performed with the Consultant's own forces, use a factor of 0.15.
 - If 10% to 30% of the project is to be sub contracted use a profit factor of 0.12.
 - If 30% to 80% of the project is to be subcontracted, use a profit factor of 0.09.
 - If 80% or more of the project is to be subcontracted, use a profit factor of 0.06.

Note: This is NOT intended to be the final number to be used in establishing an appropriate profit level for the proposed work, but a tool to be used in negotiations with consultants for supporting what the Department feels is an appropriate profit level.

Worksheet for Estimating a Reasonable Profit

Project:
WIN:
Description:

Date:
Route:

The value in the weight column shall be a minimum of "6" and a maximum of "15" based on "Estimating a Reasonable Profit" sheet.

Factor	Rate	Weight	Value
Degree of Risk	25		16.6667
Relative difficulty of work	20		13.3333
Size of Job	15		10.0000
Period of Performance	20		13.3333
Contractor's investment	5		-3.3333
Assistance by government	5		-3.3333
Subcontracting	10		-6.6667
	100		66.6667

Value	to	Profit	
0	=	6%	minimum
100	=	15%	maximum

A reasonable profit on this project would be = 12.0%

Appendix 2E: Sample Contract



SAMPLE

CONTRACT FOR ENGINEERING SERVICES

MUNICIPALITY: _____
CONTACT PERSON: _____
TYPE OF SERVICES: _____

Project Location: _____
State W.I.N.: _____

Contract Maximum Amount: _____
Contract Begin Date: _____
Contract Expiration Date: _____

This Project Contract (hereinafter referred to as “Contract”) is entered into by and between the **MUNICIPALITY OF** _____, (hereinafter “the **Municipality**”), a municipal corporation with its principal administrative offices located at _____ and with a mailing address of _____, and _____, a corporation or other legal entity (hereinafter “**Consultant**”), with its principal place of business located at _____.

This Contract contains the following attachments:

- Appendix A – Method of Payment and Price, Overhead Rate
- Appendix B – Consultant’s Proposal – Detailed Scope of Work
- Appendix C – DBE/WBE Utilization Plan
- Appendix D – Notice of Compliance with Title VI of the Civil Rights Act of 1964
- Appendix E – Form FHWA-1273 - Required Contract Provisions

This Contract is subject to compliance with the Disadvantaged Business Enterprise (DBE) Program requirements for all federally-funded contracts.

The **Municipality** and the **Consultant** hereby agree as follows:

A. The Scope of Work. The **Consultant** agrees to complete all work as detailed in this contract.

The **Consultant** shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform all work pursuant to this contract and;

The **Municipality** shall have the right to alter the nature and extent of the work as provided in this Contract; payment shall be made as provided in this Contract.

C. Time. This Contract shall become effective on the date last signed and that date shall constitute the earliest date for which work may commence.

The **Consultant** agrees to complete all project deliverables as outlined in this Contract on or before _____.

The **Expiration Date** of this Contract is _____, at which time work cannot continue under this contract without a modification in place to extend the expiration date.

D. Team Members. Please list names of the Project Manager, Chief Designer, other key personnel, and primary sub-consultants you are using for this Contract. No substitutions of the key Consultant Team Members are allowed without prior notification and approval by the **Municipality**.

Project Manager: _____
Chief Designer: _____
Other Key Personnel: _____
Sub-consultant(s): _____

E. Representations. By signing below, the **Consultant** hereby represents that to the best of the Consultant’s knowledge and belief:

1. All of the Statements, representations, covenants, and/or certifications required or set forth in the Contract documents, including those in the aforementioned Consultant General Conditions, are still complete and accurate as of the date of this Contract.
2. The Consultant knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the **Consultant** to sign this Contract on behalf of the Consultant and to legally bind the Consultant to the terms of this Contract.
4. Work shall not commence before the **Municipality** has fully executed this Contract and given the **Consultant** authorization to proceed.

F. Agreement. The undersigned – having carefully examined the site of work, scope of work, and aforementioned Consultant General Conditions, including insurance requirements for transportation project-related services – agrees to supply all the professional services, materials, tools, equipment and labor to complete the whole of the work in strict accordance with the terms and conditions of this Contract at the costs agreed to in *Appendix A* (attached).

Consultant agrees to perform the work required at the costs specified above in accordance with the terms of this Contract and to provide the appropriate insurance.

Consultant also agrees:

First: That insurance (and a current Certificate of Insurance) as specified in the aforementioned Consultant General Conditions and/or this Contract will be provided before any work begins under this Contract. If the level of insurance is specified in this Contract, that amount will supersede the requirements outlined in the Consultant General Conditions.

Second: To begin the work on the date specified herein, and to complete the work within the time limits herein in accordance with the terms and conditions of this Contract.

IN WITNESS WHEREOF, the Consultant, for itself, its successors and assigns, hereby execute two (2) originals of this Contract and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents. This Contract will become effective on the date last signed by the **Municipality**.

CONSULTANT NAME HERE

MUNICIPALITY OF

By: _____
Print Name:

By: _____
Print Name:

(Date Signed)

(Date Signed)

Appendix 2F: Payment Methods



METHODS OF PAYMENT

BURDENED HOURLY RATE

Adjustable Burdened Hourly Rate: An adjustable hourly rate that includes direct salary, overhead and profit. This rate may be adjusted at the time a final audit is performed, based on the rates supportable by a consultant firm and within a required salary cap of \$50/hour for individuals (for projects with federal or state money) and within the timeframe of the contract. Direct expenses would be in addition to the hourly rate.

Fixed Burdened Hourly Rate: A fixed hourly rate that includes direct salary, overhead and profit/fee that is within a required direct salary cap of \$50/hour per individual (for projects with federal or state money.) This rate cannot be adjusted at the time a final audit of the project is performed. Direct expenses would be in addition to the hourly rate; consultants are not allowed a markup on direct expenses. A fixed burdened hourly rate remains the same for the duration of the contract or for the timeframe stated in the contract.

Best Application: Use when the items of work are task-oriented and of indeterminable extent.

COMMERCIAL RATE

Fixed Commercial Rate (Hourly or Task): Commercial rates can be hourly or by a particular task or service. A fair and reasonable hourly or task rate includes direct salary, overhead and profit that cannot be adjusted after contract expiration. Direct expenses would be in addition to the hourly rate; consultants are not allowed a markup on direct expenses. This rate remains fixed for the duration of the contract. Common services that would use Fixed Commercial Rates may include, but are not limited to, appraisals, title abstracting, title insurance, utility coordination, training, facilitation, information services, etc.

Best Application: Use when a consultant is a sole proprietor or a small firm providing services of a highly specialized nature, where the Municipality would gain little or no benefit from requiring an Audited Overhead Report or other extensive financial documentation.

PRICE PLUS FIXED FEE

The consultant is reimbursed for actual, supportable costs incurred within a required salary cap of \$50/hour per individual (for projects with federal or state money) including salaries, overhead, and direct expenses – plus a fixed amount of fee to be paid to the consultant. An additional fee is not allowed unless there is additional scope added to the contract.

Best Applications: Use when the Municipality **has not** established a well-defined, scope, complexity, character and duration of the work to be required to a degree that a fair and reasonable compensation – including a fixed fee – can be determined. Also use when the work per unit can be determined in advance with reasonable accuracy, but the extent of the work is indefinite.

LUMP SUM

A set amount for reimbursement, which includes all salaries, overhead, profit, and other expenses established in a contract that cannot be adjusted when the final audit is performed.

Best Application Use when the Municipality **has** established a well-defined, scope, complexity, character and duration of the work to be required to a degree that a fair and reasonable compensation, including a fixed fee, can be determined.

□ DEFINITIONS

Cognizant Agency: An approved federal or state organization that has conducted and issued an audit report of the consultant's indirect price rate that has been developed in accordance with the requirements of the price principles contained in federal regulation 48 CFR, Part 31.

Direct Expenses: Direct expenses as defined by federal regulation 48 CFR, Part 31: telephone; tolls; reproduction costs; approved sub-consultant costs; mileage and per diem, in accordance with State of Maine rates. *Note: Mark-up on direct expenses and sub-consultant costs is prohibited.*

Reproduction of plans must be charged at actual costs. Any reproduction costs incurred for the Consultant's internal use is considered overhead expenses and not chargeable as a direct expense.

Reimbursable costs for mileage and per diem (lodging and meals are only allowed with an overnight stay) will be in accordance with Municipality's policy and will not exceed the current amount allowed by the State of Maine. See <http://www.maine.gov/mdot/cpo/doingbusiness/>

Independent Government Estimate: A written itemized estimate prepared by the Municipality as part of the development of the scope of work. This will have an appropriate breakdown of specific types of labor required; work hours, indirect costs, and an estimate of the consultant's fixed fee/profit for use during negotiations. The Independent Estimate establishes the fair and reasonable price range for the type of work that will be performed. This estimate provides the Contract Administrator with a useful tool in negotiating a contract and staying within the Project budget. The proposed price and/or work-hour estimate should vary by no more than **15 percent** from the Municipality's estimate for contracts under \$100,000 and **10 percent** for contracts over \$100,000.

Maximum Amount: The maximum compensation a consultant may be entitled to upon satisfactory completion of the work described in the contract. The maximum amount does not constitute an obligation to pay a consultant this amount in its entirety under the contract, but it does constitute the maximum amount that can be paid.

Proposal: An offer as part of a negotiation made by a consultant to a Municipality in reply to a Request for Proposal (RFP) that forms the technical and price basis when entering into a mutually binding contract. (Refer to 48 CFR Chapter One Part 2.101 definitions)

Provisional Overhead Rate: The amount of overhead rate compensation reasonably established in a contract and due to a consultant as part of the partial payments during execution of the contract based on the consultant's Audited Overhead Report.

After completion of the work under the contract, this rate is subject to permanent adjustment as a result of final audit by MaineDOT or an approved federal or state cognizant government organization. This adjustment may be made some time after the completion of the work under the contract, and shall be based on audit findings for the actual rates supportable for the type of work provided within the duration of said contract. If the provisional overhead rate is changed (usually based on latest actual audited overhead), and requested by the consultant, the new supportable provisional overhead rate must be approved by the Municipality before the consultant may use the new rate on all subsequent invoices to those contracts the consultant has with a Municipality.

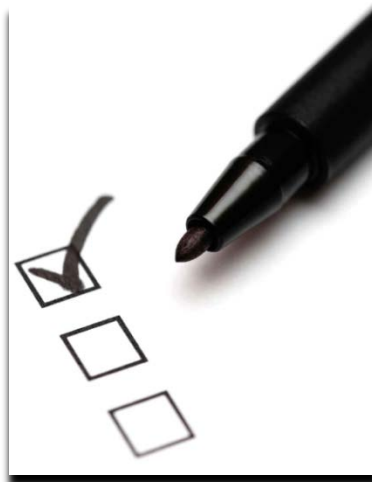
Request For Proposals (RFP): A request to a consultant or group of consultants soliciting services for accomplishment of a specific scope of work on a specific project. The consultant response shall be in the form of a technical and sealed price proposal using the template provided previously in this section of the Manual.

Request for Qualifications (RFQ): A request to the consultant community requesting an outline of the firm's ability to provide consultant and professional services in a particular area of need, discipline or disciplines based on specific criteria as described in said RFQ. More than one consultant may be selected from a process involving only one RFQ. A Municipality may use the responses from an RFQ to develop a slate or shortlist of qualified consultants who will be sent a request for proposals (RFP).

Scope of Work: (a) *Preliminary:* A general description of the work to be performed, including the location of the project. (b) *Detailed:* A clear, accurate, and detailed description of the technical requirements for the services to be rendered.

The detailed scope of work describes for the consultant what work will be required, the schedule, the conditions under which the work shall be conducted, how achievements will be assessed, and what obligations of both the consultant and a Municipality will be. It enables a consultant to assess its capabilities in light of the contract requirements.

Appendix 2G: Consultant Evaluation Form



SAMPLE

CONSULTANT EVALUATION FORM

MUNICIPALITY OF _____

Consultant: _____	Evaluation Period: _____
Address: _____	City: _____ State: _____
Municipality: _____	
Project Location: _____	Project Identification Number: _____
Project Description: _____	

*Evaluate the Consultant's performance in each of the following areas. This evaluation will be used as part of the Municipality's selection process for future projects. **IF THE RATING IS UNSATISFACTORY, A COMMENT IS MANDATORY. IF ADDITIONAL SPACE IS NEEDED, PLEASE ATTACH SEPARATE SHEET(S)***

1. PROJECT PRICE & SCOPE, DELIVERABLES AND QUALITY OF PRODUCTS INCLUDING MODIFICATIONS (This section includes timeliness and schedules):			
a.) Was the project/contract completed in accordance with the scope of work, within anticipated costs, and was every effort made to provide a quality product?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
b.) Did the materials used on the project/contract meet specifications?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
c.) Was the project/contract completed on schedule?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Rating:	<input type="checkbox"/> Excellent	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Comments: _____			

2. COMPETENCY:			
a.) Did the Consultant's staff have adequate knowledge and experience to satisfactorily complete the project/contract?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
b.) Did the Consultant's staff attempt to anticipate, evaluate, and identify solutions to problems before they caused delays?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
c.) Did the Consultant's performance result in the loss of federal or state funds?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Rating:	<input type="checkbox"/> Excellent	<input type="checkbox"/> Satisfactory	<input type="checkbox"/> Unsatisfactory <input type="checkbox"/> N/A
Comments: _____			

3. TEAM APPROACH, EFFICIENCY AND WORK ORGANIZATION:

- a.) Did the Consultant's staff work as a team in their approach to the project/contract? Yes No N/A
- b.) Was the number of personnel assigned to the project/contract sufficient to satisfactorily and efficiently complete the project/contract? Yes No N/A
- c.) Did the Consultant make suggestions that improved efficiency and resulted in price savings? Yes No N/A
- d.) Did the Consultant complete the work in a well thought out and organized manner? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

4. CONSTRUCTABILITY:

- a.) Were the plans and specifications developed to minimize Change Orders and misinterpretation in the field? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

5. PROGRESS REPORTS:

- a.) Were progress reports submitted regularly? Yes No N/A
- b.) Was the information provided in accordance with terms of the Contract? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

6. COORDINATION, COMMUNICATION AND COOPERATION:

- a.) Was the Consultant's staff effectively communicative, cooperative and responsive to Municipal staff, the public, and other agencies in accomplishing all required tasks associated with the project/contract? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

7. INVOICES:

- a.) Were invoices from the Consultant accurate, timely, and include supporting documents? Yes No N/A
- b.) Did the costs billed to the Municipality correspond to the work accomplished as described in the progress reports and the Consultant's proposal? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

8. HEARINGS & MEETINGS:

- a.) Did the Consultant participate in meetings when requested? Yes No N/A
- b.) When participating in meetings, did they come prepared and did they conduct themselves in a professional manner? Yes No N/A
- c.) Were the presentations, handouts, and/or overheads well organized and effective? Yes No N/A

Rating: Excellent Satisfactory Unsatisfactory N/A

Comments _____

9. ADDITIONAL COMMENTS & RECOMMENDATIONS:

Overall Rating: Excellent Satisfactory Unsatisfactory N/A

Comments: _____

Signature of Rater: _____

Date: _____

Print Name:

10. CONSULTANT COMMENTS:

Agree Disagree

Comments: _____

Signature of Consultant: _____

Date: _____

Print Name:

I certify that the signature above is true and accurate. I further certify that the signature, if electronic: (a) is intended to have the same force as a manual signature; (b) is unique to myself; (c) is capable of verification; and (d) is under the sole control of myself.

cc: Consultant Firm
MaineDOT Project Manager
Project File

[END OF SECTION 2]

Local Project Administration Manual & Reference Guide

3. Project Design



MaineDOT

Integrity - Competence - Service

2014 Edition

Project Design

Successful projects begin with practical designs that reflect sound engineering judgment. Well-developed design plans enable contractors to understand clearly what is to be built and how the work is to be done, minimizing the need for changes. Most organizations hire engineering consultants to design their locally administered projects. Larger communities – such as Portland, Bangor and Lewiston – commonly use their staff engineers.

As the flowchart on page 3-7 shows, the design process carries milestones to mark progress, initiate design checks and ensure that a project is on track. This section covers two major milestones – Preliminary Design Report and Plan Impacts Complete. Included here are:

- A summary of the design process (pages 3-1 to 3-4);
- General design guidance (pages 3-5 to 3-6);
- A project flowchart – Figure 3.1 (page 3-7);
- A checklist – Figure 3.2 (page 3-8);
- Appendix 3A: Project communications (pages 3-9);
- Appendix 3B: Sample preliminary design report (page 3-13);
- Appendix 3C: Highway Design Guide: State Standards – Design Elements (page 3-19).



3.1 Preliminary Design Report

Early in project design, the designer develops preliminary plans (at least 50 percent complete) and identifies right-of-way, utility and environmental impacts. The primary document at this stage is the preliminary design report, or “PDR,” which provides information such as:

- A purpose-and-need statement explaining why a project is being undertaken;
- The project location, including a map and photographs;
- A description of existing conditions at the proposed location;
- The preliminary design, including the proposed alignment and typical sections;
- Preliminary identification of impacts, obstacles and site constraints;
- Results of meetings and other public involvement activities; and
- A preliminary estimate of the construction cost.

Pages 3-2 and 3-3 take a more detailed look at some of these aspects of the preliminary engineering process.

❑ Public Participation

As a project is developed, the public must be notified and given the chance to hear about and comment on planned improvements. The organization overseeing a project should notify abutters and advertise all meetings using its standard public notification procedures.

Typically, at least one public meeting is held early in the design process. Additional meetings may be held for complicated or controversial projects. Once the public process is completed, the organization overseeing a project must certify that a public participation process was held, noting any significant comments or opposition. (*See sample Letter 16, on page 3-11.*)

➔ **Businesses** potentially affected by a planned construction project must be **notified** and given the opportunity to express concerns during the preliminary phases of project design.

❑ Environmental Review and Documentation

All locally administered projects must be reviewed to determine how they might affect natural and cultural resources. Communities and local organizations overseeing these projects should coordinate their efforts with MaineDOT's Environmental Office and project manager, as further explained in [Section 4](#) of this manual, "Environmental Review."

❑ Utility Coordination

Utilities generally include all public or private lines or equipment, such as electrical power lines, telephone landlines, cable television lines, underground water, sewer and gas lines, and railroad tracks. As the design work begins, the designer should consider the following:

- What utility facilities already exist in the right of way?
- How much room is there for clearing?
- Is the project abutting another project? What was done there?
- Can relocations be reduced and still meet the project need?
- What are the concerns of the utilities?



The designer or utility coordinator should bring the preliminary alignment design, if available, to the initial coordination meeting with the utilities, with the goal of accommodating utilities within the public right of way. If utilities cannot be accommodated without severely affecting the scope of a project, this needs to be explained early in the project development process.

(Utility coordination is covered in Section 6 of this manual.)

❑ Cost Estimate

As the preliminary plans are developed, the designer updates the initial cost estimate originally submitted with a project application. During quality-control design reviews, the designer or engineer of record should be sure that the updated estimate lists all elements shown on the design plans. One potential resource to assist in this task is MaineDOT's item dictionary, which is available online: www.maine.gov/mdot/contractors/publications

Right of Way and Design

Design plans must show all impacts to property beyond the existing public right of way, based on information gathered from sources such as field survey, county property records, or as-built plans from previously completed projects. Key elements to incorporate are the centerline, existing limits, construction limits, and proposed “acquisition line.” Any property affected by a project – even temporarily during the construction work – must be shown on the design plans. (*Right of Way is covered in Section 5 of this manual.*)

3.2 Plan Impacts Complete

Once MaineDOT has approved the preliminary design report, a project moves to final design. At this point, the designer refines the plans to show all environmental, utility and right-of-way impacts. A key milestone is Plan Impacts Complete, at which point property titles may be ordered and final right-of-way mapping may begin. (*Right-of-way is covered in Section 5.*)

Design has reached Plan Impacts Complete when the plans have these details, as applicable:

- Cross-sections that show the proposed limits of slopes and new construction.
- Beginning and end of project stations.
- Locations and limits of driveways and entrances to be constructed.
- Type of surface treatment on drives and entrances.
- Locations of curbing, sidewalks and islands, including their geometrics.
- Locations, lengths and skew of new drainage structures – such as culverts, down spouts, berm ditches, storm sewer systems, channel diversions and all outlet ditches.
- Calculated drainage flows, beyond excavated ditches and across old ground to proposed new right of way.
- All clearing limits and individual trees and shrubs to be removed, regardless of size or pay status.
- Locations of structures to be installed beyond the proposed new right of way, such as retaining walls.
- A list of all buildings and other structures to be removed.
- Geometrics, including line change date (ties to survey line and side roads).
- Locations of all signal poles, special street lighting, conduits and junction boxes.
- Existing utilities on plans and cross sections with proposed new locations.
- Proposed guard rail.
- Evidence of designer review.

3.3 Required Design Reviews

Quality-control (QC) checks are vital to the design process. Accordingly, MaineDOT requires consultants working on locally administered projects for municipalities and other local organizations to perform and document QC design checks at the following stages:

- At 50 percent plans complete – with the preliminary design report (PDR); and
- At 95 percent plans complete – with final plans, specifications & estimate (PS&E).

The QC process will consist of – at a minimum – checking all calculations and design assumptions, and reviewing the PDR, contract provisions, plan set, cost estimates and all other relevant documents. The design checker shall be a qualified individual other than the originator of the documents.

The established QC design checks should include the following items:

- Summarizing the design-checking process. This will include the checklists used, the standard checking and back-checking processes, and other QC tools that were utilized.
- Documenting all design checks: initials of the checker, the date on which checks were performed, comments by the checker, and any other documentation.
- Checking all documents and calculations developed for each design element.
- Complying with all legal, regulatory and contractual requirements, including but not limited to the Americans with Disabilities Act (ADA) and the Manual on Uniform Traffic Control Devices (MUTCD).
- Assuring both that the design is of high quality and that it conforms to all applicable MaineDOT standards, policies and practices.
- Reviewing cost estimate including quantity and unit price analysis with comparison to established budget and project scope.
- Analyzing constructability and maintainability if the proposed design.
- Risk assessment (based on public safety, funding, scope, site specific conditions, and/or other project specific condition that could elevate risk level.)



MaineDOT will verify that design checks were conducted, through its quality-assurance reviews of project plans at 50 percent and 95 percent complete. Plans submitted without evidence of design checks **will not** be reviewed until such documentation is received.

Additionally, for communities hiring engineering consultants, a quality-control element must be listed as a scope item in each consultant’s technical proposal and subsequent contract.

3.4 Guidance for Project Design

Engineering design work on every locally administered project must be supervised by a professional engineer licensed in Maine. Additionally, the plans must be stamped by the engineer of record if the estimated construction cost exceeds \$100,000.

Design work must meet standards set by the American Association of State Highway and Transportation Officials (AASHTO) and described either in the MaineDOT Highway Design Guide or Bridge Design Guide, as applicable. MaineDOT's Standard Specifications and Standard Details also apply, unless MaineDOT grants a project-specific exception.

For locally administered projects on or along state or state-aid roads – including resurfacing or reconstruction, installation of sidewalks, and traffic safety improvements – the engineer of record for is responsible for ensuring that the following criteria are met:

- All structures and design features will be at least of equal dimensions to the existing conditions and of improved quality in terms of materials and functionality.
- Overall safety and the longevity of the structural and design elements along the corridor will be equal to or better than the existing conditions.
- No unanticipated safety hazards will be introduced.
- The project will preserve or improve the level of travel mobility within the corridor.
- The project shall maintain the life expectancy of this component of Maine's transportation system.



MaineDOT
ENGINEERING INSTRUCTION

Design plans must be submitted to a MaineDOT project manager for review/comment/approval at 50 percent and 95 percent complete. A review also set also may be provided at 75 percent complete. A notice such as Letter 15 (page 3-10) or Letter 17 (page 3-12) must accompany each submission, stating that required design checks described on page 3-4 have been done. Plans should be sent as PDF documents. Design exceptions must be noted.

3.5 Design Exceptions

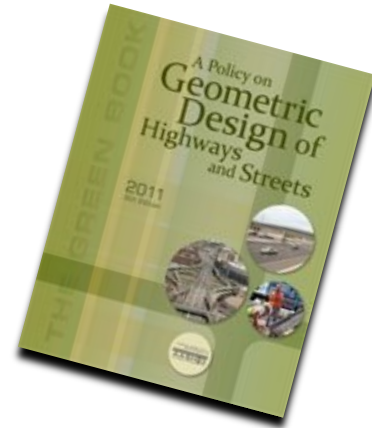
Exceptions to applicable engineering design standards – as described in any of the reference publications listed on page 3-6 – must be highlighted on the plans for a project. Such exceptions will be reviewed initially by the MaineDOT project manager, in consultation either with the respective MaineDOT region engineer or the director of the Safety Office.

After review, MaineDOT may ask that a formal design exception request be submitted, depending on the nature of the exception. MaineDOT's Engineering Council generally will review any such request at its next regular monthly meeting. A form is available online: <http://www.maine.gov/mdot/lpa/ft.htm>

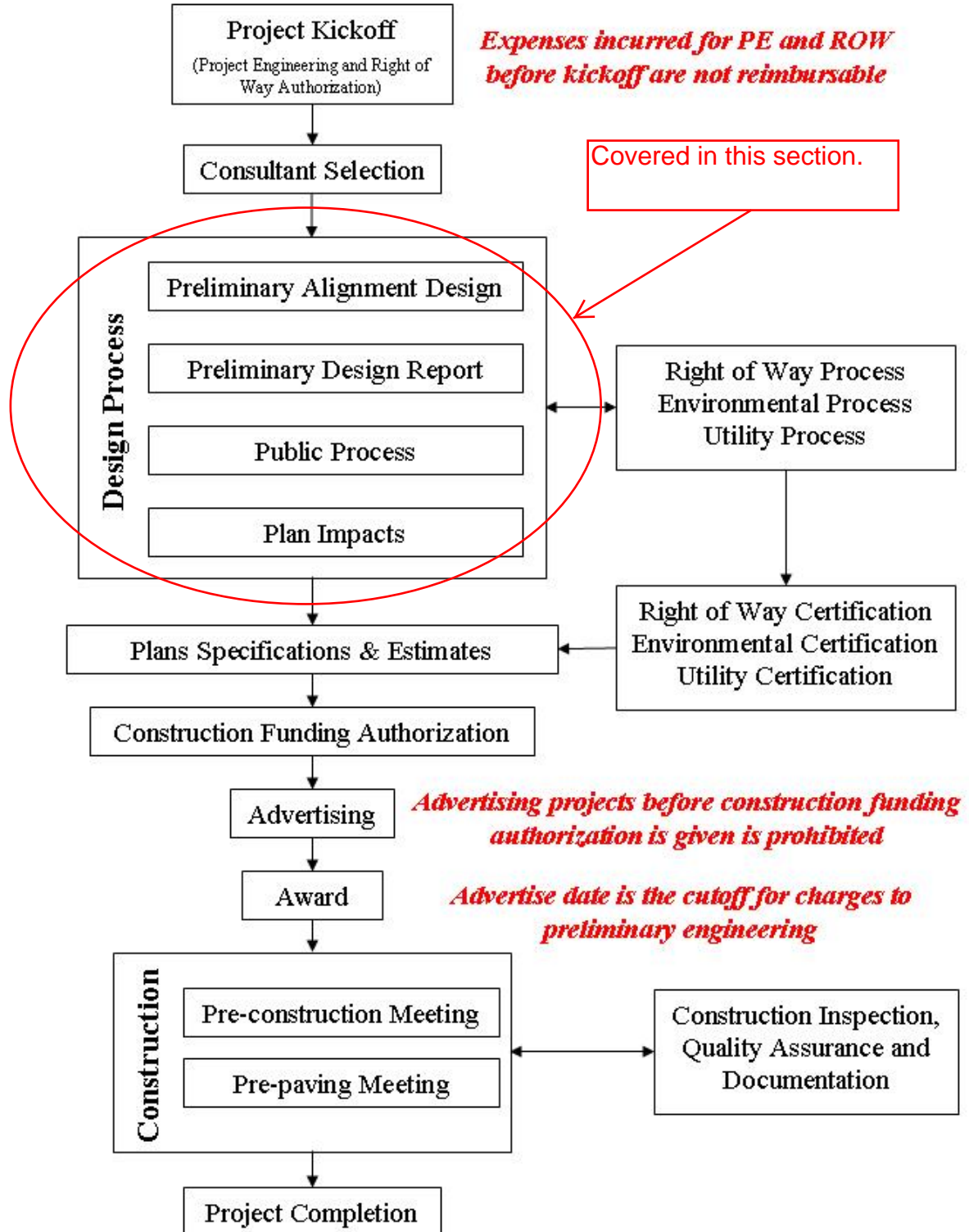
3.6 Design Standards

Design of locally administered projects must follow applicable design standards and guidelines, which generally are found in the publications shown below:

- MaineDOT Highway Design Guide (December 2004 edition); www.maine.gov/mdot/technicalpubs/
- AASHTO: A Policy on Geometric Design of Highways and Streets, (6th Edition, 2001);
- AASHTO: Guide for the Development of Bicycle Facilities (4th Edition, 2012);
- AASHTO: Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004);
- AASHTO: Roadside Design Guide (4th Edition, 2011);
- Standards and Guidelines for Accessible Design: ADA Standards for Transportation Facilities. These standards apply to the construction and alteration of transportation facilities covered by the American with Disabilities Act (ADA). They became effective November 29, 2006.
- Manual on Uniform Traffic Control Devices (by the Federal Highway Administration) – 2003 Edition: <http://mutcd.fhwa.dot.gov/>



Locally Administered Project – Process Flowchart



❑ PRELIMINARY DESIGN

Date or N/A

❑ Project Design

_____ **Preliminary Alignment Design [PAD] Completed (30% plans, typically)**

_____ PAD submitted to MaineDOT Project Manager

_____ PAD approved by MaineDOT Project Manager

_____ **Preliminary Design Report [PDR] Completed (50% plans, typically)**

_____ All quality-control design checks completed

_____ PDR submitted to MaineDOT Project Manager (***Letter 15 or e-mail***)

_____ MaineDOT comments addressed, if any

_____ PDR approved by MaineDOT Project Manager

_____ **Public Process Completed (***Letter 16***)**

_____ Public Meeting

_____ Town Meeting

_____ General Public Notification

_____ Abutter Notification

_____ Notification of potentially impacted businesses

_____ **Plan Impacts Complete (75-80% plans, typically)**

_____ Draft Plan Impacts submitted to MaineDOT Project Manager (***Letter 17 or e-mail***)

_____ MaineDOT comments addressed, if any

_____ Plan Impacts approved by MaineDOT Project Manager

Appendix 3A: Design Communications



NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Preliminary Design Report (PDR) Submittal
MaineDOT WIN _____

Dear _____:

Attached for your review and approval is the Preliminary Design Report for [**project scope, WIN**] in the Municipality of _____. Quality-control design checks were conducted by _____ as part of the preliminary design process.

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Preliminary Design Report

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification
MaineDOT WIN_____

Dear _____:

This letter is the official certification that the public process required for **[project scope, WIN]** in the Municipality of _____ was done in accordance with requirements identified in the executed Project Agreement dated **[execution date]**.

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

I have attached the meeting minutes and sign-in sheet for your information. If you need any additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Meeting minutes

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Design Plan Impacts
MaineDOT WIN_____

Dear _____:

Attached for your review are the Design Plan Impacts for **[project scope, WIN]** in the Municipality of _____. Quality-control design checks were conducted by _____ as part of the design process.

If you would like to visit the project site, please notify me and I will make the arrangements. Please let me know if you need additional information.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Design Plan Impacts

Appendix 3B: Preliminary Design Report

Sample Preliminary Design Report

This section outlines typical elements of a preliminary design report (PDR). It is included here as guidance for municipal staffs and engineering consultants. Keep in mind that not every element will apply to every project.

Municipality:
Project Name:
WIN:

Project Location:
Federal Project Number:

■ GENERAL INFORMATION

- **Project Length:**
- **Beginning Point:**
- **Ending Point:**
- **Designer:**
- **Engineer of Record:**

■ PLANNING

- **Project History:**
- **Purpose & Need:**
- **Brief Summary of Proposed Scope of Work:**

■ TRAFFIC

- **Route:**
- **MaineDOT Corridor Priority (1-5):**
- **Functional Class:**
- **Posted Speed:**
- **Design Speed:**
- **Average Annual Daily Traffic (AADT):**
- **High Crash Locations:**

■ DESIGN (Attach Design Document)

Proposed Cross Section / Typical Section

	Section 1	Section 2	Section 3
Travel Lane Width			
Shoulder Width			
Front Slope			
Back Slope			
Guardrail Slope			
Clear Zone			

Pavement Structure / Section Depth

	Thickness	Type
Pavement		
Recycled layer		
Gravel Base Depth		
Gravel Sub-base Depth		
Shoulder Pavement		

Pavement Design Submitted (date):

Pavement Design Reviewed (date):

Summary of Pedestrian & Bicycle Accommodations:

Americans with Disabilities Act (ADA) Compliance – Existing and Proposed Facilities

	Existing	Compliant (Y/N)	Upgrades Proposed (Y/N)	Proposed	Compliant (Y/N)
Sidewalks					
Width					
Cross-slope					
Ramps (Crosswalk)					
Width					
Slope					
Detectable Warnings					
Ramps (Entrance)					
Width					
Slope					
Pedestrian Signals					
(Y/N)					

Summary of existing non-compliant facilities to be upgraded or left in place:

Design Exceptions

Controlling Element	Required Standard	Proposed Design	Date Approved
ADA Exceptions (Yes or No):			
Driveway Exceptions (Yes or No):			

■ ENVIRONMENTAL REVIEW

NEPA (4F Section 106):		In-Stream Work-Window:	
MHPC Signoff:		Wetland Mitigation:	
MHPC Mitigation:		Public Lands:	
DEP:		Ch. 500 – Stormwater/MS4:	
ACOE:		Endangered Species:	
Fish Passage:		Soil Contamination:	
Watershed:		Other:	

Avoidance & Minimization:

■ RIGHT-OF-WAY COORDINATION

Total Existing Width:
Total Proposed Width:
of Abutters:
of Acquisitions:
of Relocations:

■ UTILITY IMPACTS/ISSUES

Above Ground Utilities:

Below Ground Utilities:

	Necessary for this Project? (Yes or No)	Coordination Still Needed? (Yes or No)
Pole List:		
Utility Agreements:		
RR PRTS:		
Railroad Agreement:		

ROW issues related to utilities:

■ GEOTECHNICAL COORDINATION

Field Analysis:

Preliminary Recommendations:

■ PUBLIC PROCESS

Proposed Public Contact Method and Date(s):

Concerns Identified at Preliminary Public Meeting:

■ CONSTRUCTION SCHEDULE

PS&E Date	
Advertise Date	
Construction Begin Date	
Construction Complete	

■ BUDGET

	Current Funding	Estimate	Future Need
Preliminary Engineering			
Right of Way			
Construction			
Construction Engineering			
TOTAL			

■ SUMMARY OF PRELIMINARY ENGINEERING

Existing and Proposed Design Elements (*including variances from design standards*)

Horizontal Alignment:

Vertical Alignment:

Typical Section:

Pavement Structure:

Drainage/Hydrology:

Guardrail:

Intersection Geometry:

Right-of-Way:

Utilities:

Other Design Issues:

■ PUBLIC PARTICIPATION COMMENTS AND RESPONSE

Comments:

■ ADDITIONAL COMMENTS AND RESPONSE

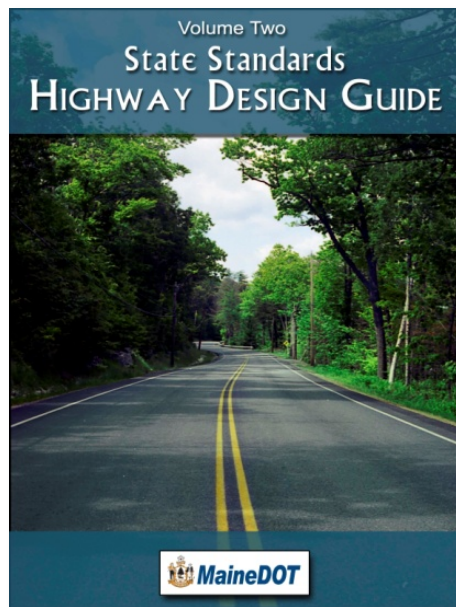
Comments:

Comment Deadline	Date:
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■ FINAL APPROVAL

Public Participation Complete		Date:
Approved for Final Design		Date:

Appendix 3C: Design Guidance



Volume Two

State Standards HIGHWAY DESIGN GUIDE



SECTION B

Design Considerations

The decision to use a particular road design element at a particular location should be made on the basis of an engineering analysis of the location. Thus, while this document provides design standards, it is not a substitute for engineering judgment. The American Association of State Highway Officials *Volume One (1) National Standards* shall be used for any design standards not addressed in this guide.

I. Project Scoping

The factors should be evaluated in the design.

1. System or Functional Classification. The Department has adopted separate tables of geometric design criteria for all projects based on functional classification.
2. Traffic Volumes. The designer should examine the current and projected traffic volumes within the limits of a project on an existing highway. This may influence the decisions on the extent of geometric improvements.
3. Pavement Condition. Projects are often programmed because of a significant deterioration of the existing pavement structure (including sub base, base and surface course). The extent of deterioration will determine the necessary level of pavement improvements. This decision will also influence the extent of practical geometric improvements.
 - a. For pavement overlay projects an evaluation of the roadway should include, at a minimum, field inspection to review existing pavement condition, required upgrades to guardrail, and needed replacement of drainage pipes. Maintenance personnel familiar with the project location should be consulted to determine location of problem areas such as frost heaves and poor drainage.
 - b. For pavement overlay projects, an evaluation of the rutting present in the surface needs to be evaluated as well. If there is significant rutting present (greater than $\frac{3}{4}$ "), a determination should be made whether the rutting is a surface condition, or if there is evidence of base failure. The recommended treatment should be appropriate to address the conditions.
 - c. For highway improvement projects an evaluation as derived above should be completed. In addition the use of the Falling Weight Deflectometer and soils borings are encouraged.
4. Physical Characteristics. The physical constraints within the limits of a project on an existing highway will often determine what geometric improvements are practical and

cost-effective. These include topography, adjacent development, available right-of-way , utilities, and environmental constraints. The designer also should examine the geometric features and design speeds of highway sections adjacent to the proposed project to provide design continuity with the adjacent sections. This involves a consideration of factors such as driver expectations, geometric design consistency and proper transitions between sections of different geometric designs. Other considerations should be the aesthetic, scenic, historic and cultural characteristics.

5. Traffic Controls and Regulations. All signing and pavement markings on all projects must meet the criteria of the Manual on Uniform Traffic Control Devices (MUTCD).
6. Safety Enhancement. All projects on existing highways must be designed to consider and incorporate appropriate, practical safety improvements.
7. Crash Records. The historical crash data within the limits of a proposed project on an existing highway should be evaluated as part of the project development.
8. Potential Impacts of Various Types of Improvements. Projects on existing highways may impact the aesthetic, social, environmental, operational and economic characteristics of the surrounding land and development.
9. Future Development. Project considerations should include future development and access management. (Ref: Access Management Section G).

II. Traffic Volume Controls

1. Design Year Traffic Volumes. The following table has design years beyond the construction completion date for traffic analyses (AADT, design hourly volume, etc.).

Scope of Work	Design Years
New Construction Arterials	20 years
Collector Highway Improvement Program	12 years
PPM Level 2 Rehab	6 - 8 years 10 Years 12 Years

Table 1 - Design Year

2. Traffic Data. The designer should obtain from the Bureau of Planning, Research and Community Services the traffic data necessary to determine the scope of improvement.

III. Design Speed

The geometric design features should be consistent with the design speed appropriate for the facility. This may vary from a low of 25 mph in mountainous terrain to a high of 65 mph in flat terrain. It should be noted, however, that the design speed does not necessarily represent the anticipated operating or posted speed.

IV. Vertical Alignment

1. Crest Vertical Curves

The Department's criteria for crest vertical curves is based on providing stopping sight distance (SSD).

If the existing SSD does not meet these criteria, the design should evaluate the practicality of flattening the crest vertical curve. This will be based on the crash history, traffic volumes, construction costs, community concerns, right-of-way, environmental considerations, etc.

For Resurfacing, Rehabilitation, and Restoration (3R) treatment of Arterials and all Collectors the following table shall be used:

Design Speed (mph)	Minimum Stopping Sight Distance (feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Table 2 - Minimum SSD

For reconstruction on Arterials see *Volume One National Standards*.

2. Sag Vertical Curves

The Department has adopted the comfort criteria to evaluate the adequacy of existing sag vertical curves. To determine the adequacy of existing sag vertical curves, follow this procedure:

Calculate the design speed of the existing sag from:

$$L = \frac{AV^2}{46.5}$$

Where: V = design speed, mph

L = existing length of sag vertical curve, meters

A = existing algebraic difference in grades, percent

If an existing sag does not meet the comfort criteria, the designer should evaluate the practicality of flattening the curve. This will be based on accident history, traffic volumes, construction costs, etc.

V. Horizontal Alignment

1. Super elevation Rate/Degree of Curve

If an existing curve in a rural area has a super elevation rate steeper than 6 percent, an $E_{max}=0.08$ may be used. The designer should reference the *Volume One National Standards* for combinations of super elevation rate and degree of curve. For additional information see Typical Sections, figures (1-6), and to determine the proper combination of super elevation rate and degree of curve based on project design speed Table 5-6 will be used.

2. Reverse Curves

For reverse curves it will be acceptable to provide no tangent section between the curves unless there is significant crash history. On minor arterials, the use of reverse curves is not preferred.

3. Off Tracking

Designer should take into consideration off tracking when using tighter radius and narrow roadway widths.

When the Degree of Curve = 3° or greater pave shoulder full depth, also consideration should be given to widening pavement in this area.

In the design of Arterials see *Volume One National Standards*.

VI. Cross Section Elements

1. Right-of-Way

Right-of-way acquisition on collectors typically will involve small fee, temporary and permanent easements and grading rights. Occasionally, more extensive right of way involvement may be appropriate if, for example, a horizontal curve is flattened. See section on Right-of-Way.

2. Curbs

The following will apply to the installation or retention of curbs:

- A. Location. Where curb does not exist, the need for curb will be determined on a case-by-case basis.
- B. Type. Where a project will disturb existing curbs, the curb will be replaced in-kind. On new location a case-by-case basis.
- C. Type 3 (bituminous curb) is used for box sections built in rural areas with low to moderate traffic volumes; on the low side of a banked curve in guardrail sections; and to delineate islands, sidewalks and parking areas where the usage is expected to be light duty. In general, mold 1 is used adjacent to sidewalks and mold 2 elsewhere. The minimum radius for Type 3 curb is 5 feet. Cape Cod mold to be considered when maintenance issues such as plowing and driving over the curb is an issue.
 - 1) Maintenance Considerations
 - a) Cape Cod Curb
 - b) Design considerations should be given when curb is called for in rural situations, to alternate methods such as add underdrain for subgrade drainage and/or combined with shallow ditch for surface drainage.
 - 2) An analysis of the storm water flow in the gutter indicates overtopping the curb for the design parameters (e.g., design-year frequency, ponding on roadway); and/or
 - 3) The curb reveal after construction will be less than 3 inches.
- D. Barrier curb shall not be used for design speeds greater than 45 mph.

3. Sidewalks

Where a project will disturb existing sidewalks, the sidewalk will be replaced in-kind.

Where sidewalks do not currently exist, the need for sidewalks will be determined on a case-by-case basis. Sidewalks must meet ADA regulations. See sidewalk policy.

4. Turning Radii Design

The turning radii design will be determined by the turning characteristics of a WB-67 design vehicle. The criteria for inside clearance are modified as follows. It is desirable that the WB-67 may be allowed to make the right turn such that its wheels will almost touch the pavement edge or curb line. This means that the vehicle will overhang beyond the edge. Therefore, the designer must ensure that the turning vehicle will not impact any obstructions (signal poles, mailboxes, etc.). (Ref: Exhibit 1)

5. Roadside Safety

General Application

The Department should take the opportunity to implement practical roadside safety improvements. The designer should review the roadside crash history to assist in the decision-making. See section on safety.

The design should take into consideration the use of wider shoulders for emergency parking when shoulders of 14 feet or less are used.

Consideration should be given for adding shoulder width at mailbox locations (See Figure B-1).

6. Roadside Clear Zone

Table 3 presents the clear zone distances.

Once a hazard has been identified within the clear zone, the designer should consider the following:

- A. **Crash Records.** The designer should review the crash data to estimate the extent of the roadside safety problem.
- B. **Location Relative to Clear Zone Distance.** The closer an obstacle is to the traveled way, the greater the potential benefits of treatment. It is less likely to be cost effective to treat a hazard near the outer edge of the clear zone boundary.
- C. **Location Relative to Other Hazards.** If a hazard is one of many at about the same distance from the traveled way, this decreases the benefits of treatment. As an example, it may have little benefit to remove an obstacle 12 feet from the travel lane if a line of other obstacles (e.g. trees) are located at 15 feet from the travel lane. However, it may be highly desirable to treat an isolated hazard along the roadside, which is within the clear zone distance.

D. Treatment Costs. A hazard may be removed, relocated or made breakaway. The costs of these treatments will be a factor in the decision-making process.

E. Nature of Hazard. The type of hazard and the available treatments will be a significant factor in the decision-making process. For example, a non-breakaway signpost, which is owned and maintained by the Department, can be made breakaway without any impact on the surrounding environment. However, removing natural features (e.g. trees) may impact the environment and may meet with strong public opposition.

F. Utilities. See section on utilities

G. Safety Appurtenances

All existing safety appurtenances should be examined to determine if they meet the latest safety performance and design criteria. This includes guardrail, impact attenuators, median barriers, sign supports, luminaire supports and bridge rail transitions. All safety appurtenances should be upgraded to meet the most recent design criteria.

The designer should evaluate the roadside environment. The process will be:

- 1) Determine if a barrier is warranted.
- 2) If an existing run of barrier is located where no barrier is warranted, remove the barrier.
- 3) If a barrier is warranted, consider removing or relocating the hazard; reducing its severity (e.g., flattening a slope); or making it breakaway.
- 4) If a hazard cannot be eliminated and a barrier is judged to be cost effective, then install a barrier. The designer should recognize that, depending on the specific site conditions, it may be acceptable to identify a hazard within the applicable clear zone and leave the hazard unshielded. A decision on the cost-effectiveness of barrier installation will be based on construction costs, traffic volumes, crash history, barrier adaptability to the site, etc. versus the hazard created by installing the barrier.
- 5) For any existing runs of guardrail which will remain, ensure that they meet, as practical, the applicable performance and design criteria, including:
 - i) Operational acceptability;
 - ii) Dynamic deflection criteria;
 - iii) Length of need;
 - iv) Lateral placement;
 - v) Placement on slopes and behind curbs; and
 - vi) End treatments.
 - a) Length of Need

Determine Length of Need (L). Use the following equation:

$$L = \frac{LH - LB}{\tan 10^\circ} \qquad L = \frac{LH - LB}{\tan 15^\circ} \qquad \tan 10^\circ = 0.176327 \qquad \tan 15^\circ = .267807$$

End Treatment. A crashworthy terminal should be used beyond this point. Reference should be made to the new Guardrail and Guardrail Terminal Policy located in Section G Policies. If other approved terminal ends are used, the distance beyond L may need to be adjusted to satisfy the barrier needs of the selected system. For a one-way roadway, an unanchored end is acceptable at the trailing end. The end will be located a minimum of 50' beyond an obstacle and 66' beyond a steep embankment.

Opposing Traffic. For opposing traffic on a two-way roadway, a length of need calculation for the trailing end is necessary if the break in the embankment slope or any part of the obstacle is within the clear zone as measured from the centerline of the roadway. See Step 8. The trailing end of the barrier will be 50', beyond the end of the roadway hazard, including end treatments.

Opposing Traffic Length of Need. Where needed, the length of need calculation for opposing traffic is determined using the same procedure as for approaching traffic, except that all distances will be measured from the centerline of the roadway. The minimum distance to the end of the barrier, excluding end treatment, will be 50' beyond the end of an obstacle and 66' beyond the end of a steep embankment.

Table 3 - Geometric Design Criteria

Minor Collectors

Design Year AADT	Roadway Width	Roadway (ft) Configuration	Side Slope	Design Speed	Clear Zone	Safety Considerations
Under 1000	24 ft.	12 ft. - 12 ft.	3:1	40 mph	8 ft.	Where practical increase road width to 26 ft. with stripe at 10 ft. and clear Zone to 10 ft.
1000 - 4000	28 ft.	14 ft. - 14 ft. Stripe at: 11 ft.	3:1	40 mph	9 ft.	Travel lane width of 20 ft. may be acceptable up to 3000 AADT. Where practical increase clear zone to 10 ft.
Over 4000	See	Major Collector	3:1	45 mph	10 ft.	No Safety Comments

Major Collectors

Under 1000	24 ft.	12 ft. - 12 ft.	3:1	45 mph	10 ft.	Where practical increase roadway width to 26 ft. with strip at 10 ft.
1000 - 4000	28 ft.	14 ft. - 14 ft. Stripe at: 11 ft.	3:1	45 mph	10 ft.	Travel lane width of 20 ft. May be acceptable up to 3000 AADT
4000 - 6000	30 ft.	15 ft. - 15 ft. Stripe at: 11 ft.	3:1	45 mph	10 ft.	No Safety Comments
Over 6000	36 ft.	6-24-6 ft.	3:1	45 mph	15 ft.	No Safety Comments

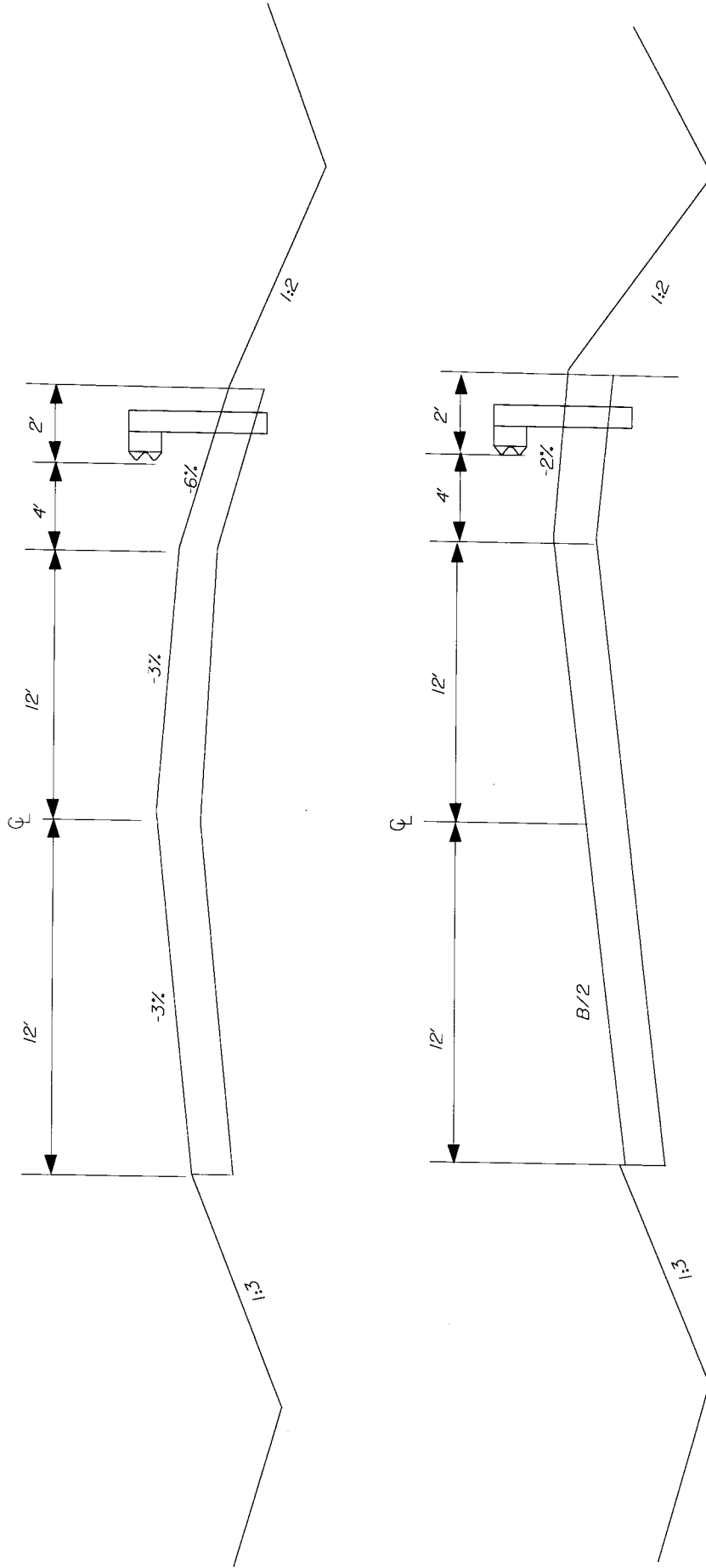
Table 3 - Geometric Design Criteria (continued)

Minor Arterials

Design Year AADT	Roadway Width	Roadway (ft.) Configuration	Side Slope	Design Speed	Clear Zone	Safety Considerations
Under 1000	28 ft.	14 - 14	3:1	45 mph	10 ft.	Travel lane width of 20 ft. May be acceptable
1000 - 6000	See	Major	Collector			Travel lane width of 20 ft.=May be acceptable up to 3000 AADT
6000 - 8000	36 ft.	(6 - 24 - 6)	1:4	55 mph	20 ft.	Travel lane width of 22 ft. May be acceptable
Over 8000	40 ft.	(8 - 24 - 8)	1:4	55 mph	20 ft.	No Safety Comments

TYPICAL ROAD WIDTHS

MINOR COLLECTOR (AADT LESS THAN 1000)



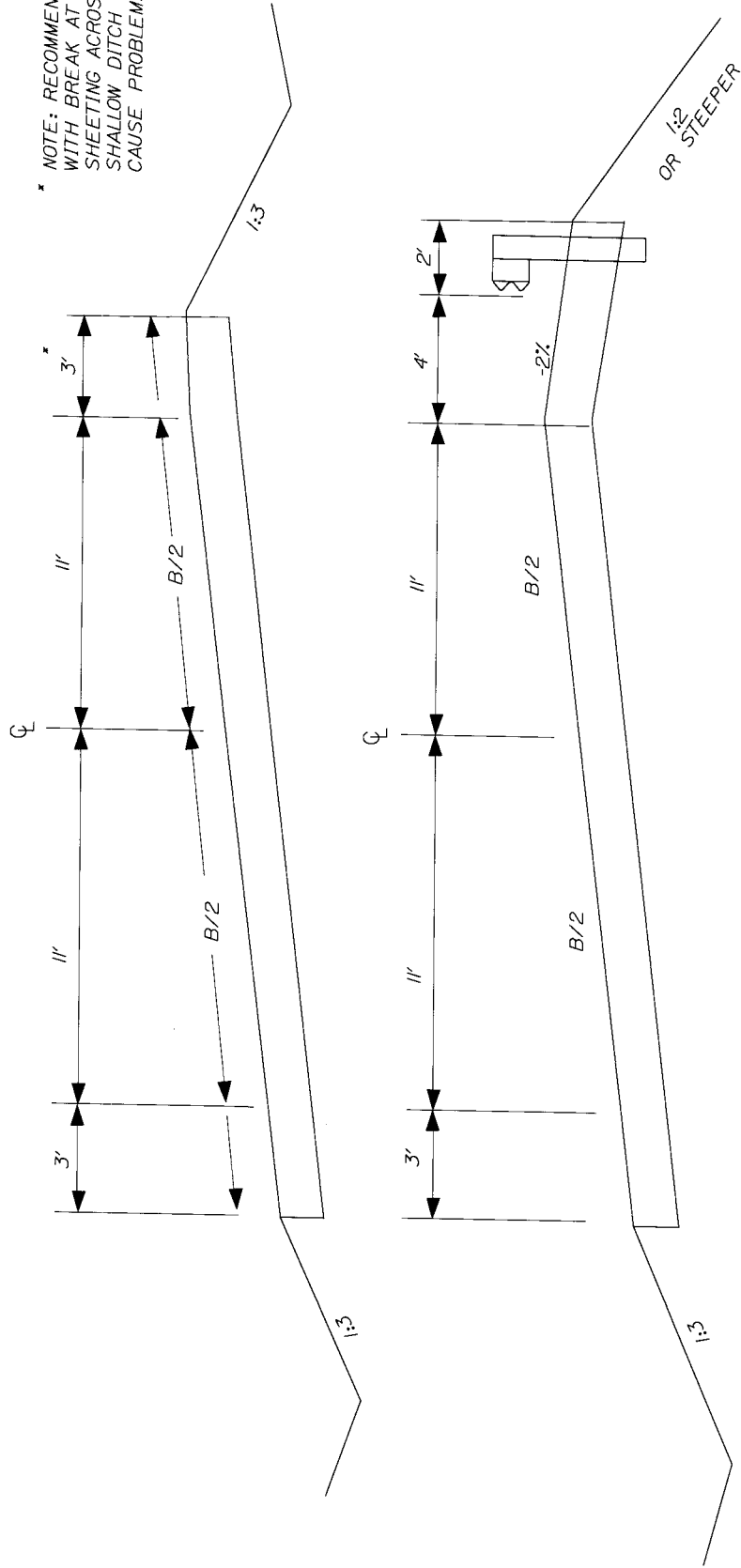
NOT TO SCALE

NOTE: WHEN GUARDRAIL IS PRESENT ON BOTH SIDES OF THE ROAD, THE RECOMMENDED OFFSET TO FACE OF RAIL IS 16 FEET.

FIGURE 1

TYPICAL ROAD WIDTHS

MINOR COLLECTOR (AADT 1000 - 4000)



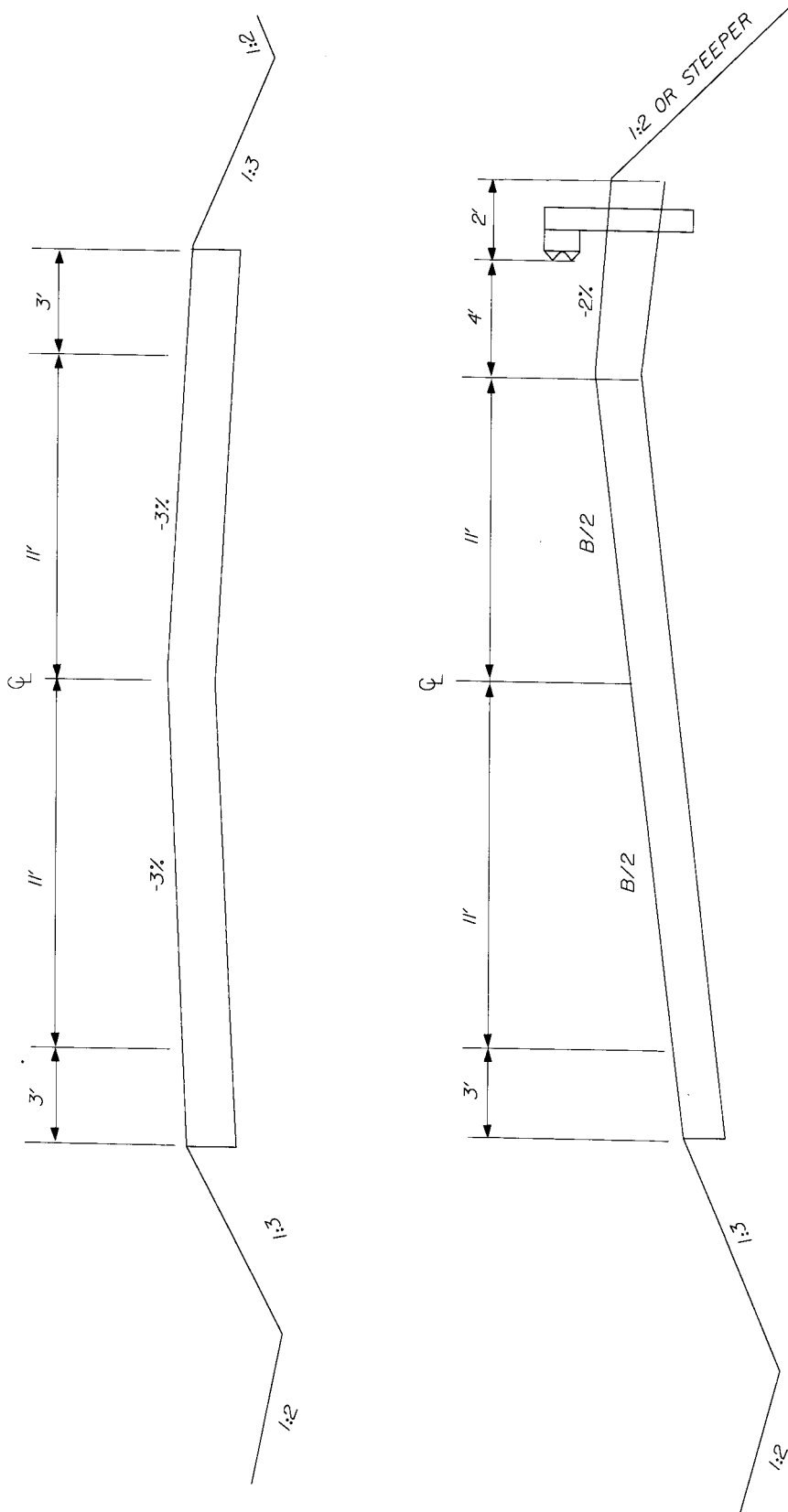
NOT TO SCALE

NOTE: WHEN GUARDRAIL IS PRESENT ON BOTH SIDES OF THE ROAD, THE RECOMMENDED OFFSET TO FACE OF RAIL IS 16 FEET.

FIGURE 2

TYPICAL ROAD WIDTHS

MAJOR COLLECTOR (AADT 1000-4000)



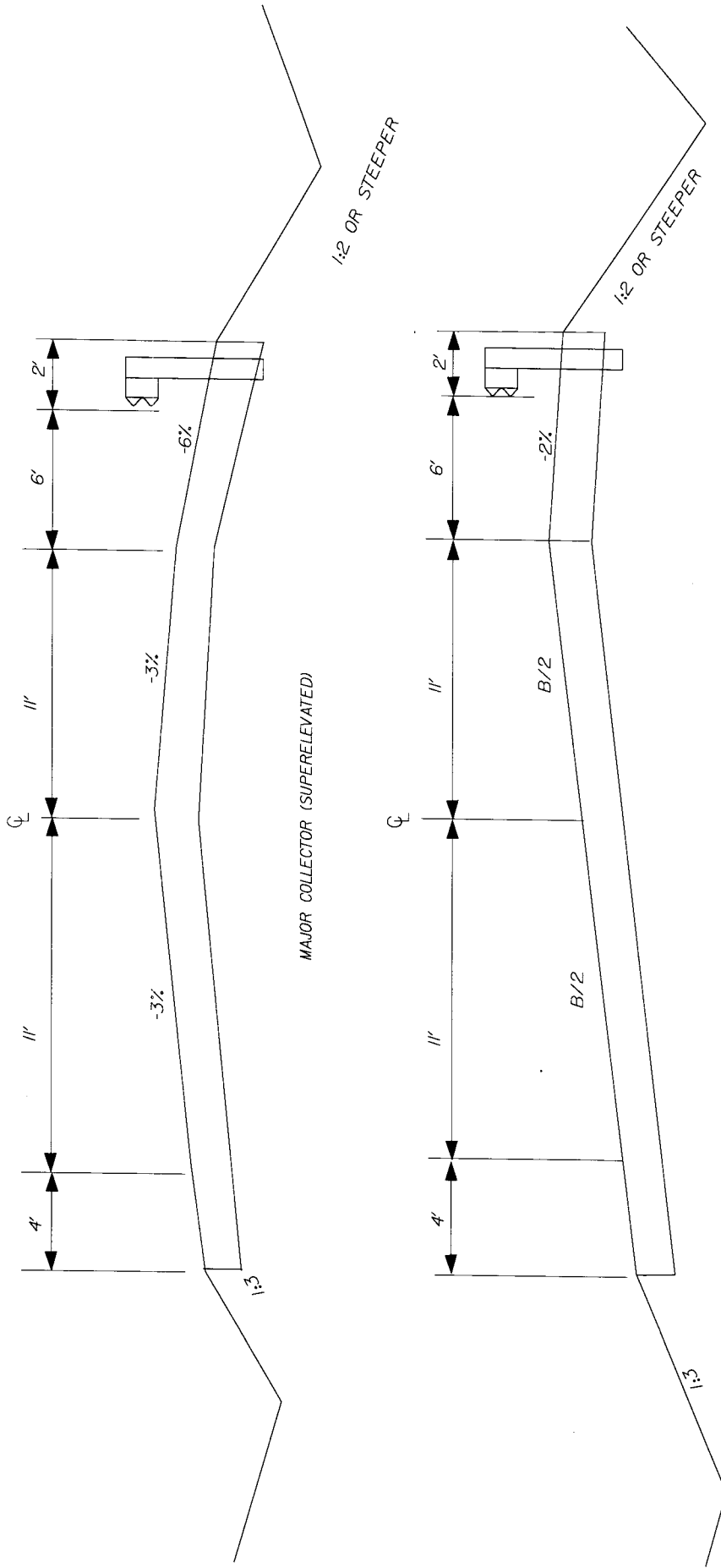
NOT TO SCALE

NOTE: WHEN GUARDRAIL IS PRESENT ON BOTH SIDES OF THE ROAD, THE RECOMMENDED OFFSET TO FACE OF RAIL IS 16 FEET.

FIGURE 3

TYPICAL ROAD WIDTHS

MAJOR COLLECTOR (AADT 4000 - 6000)

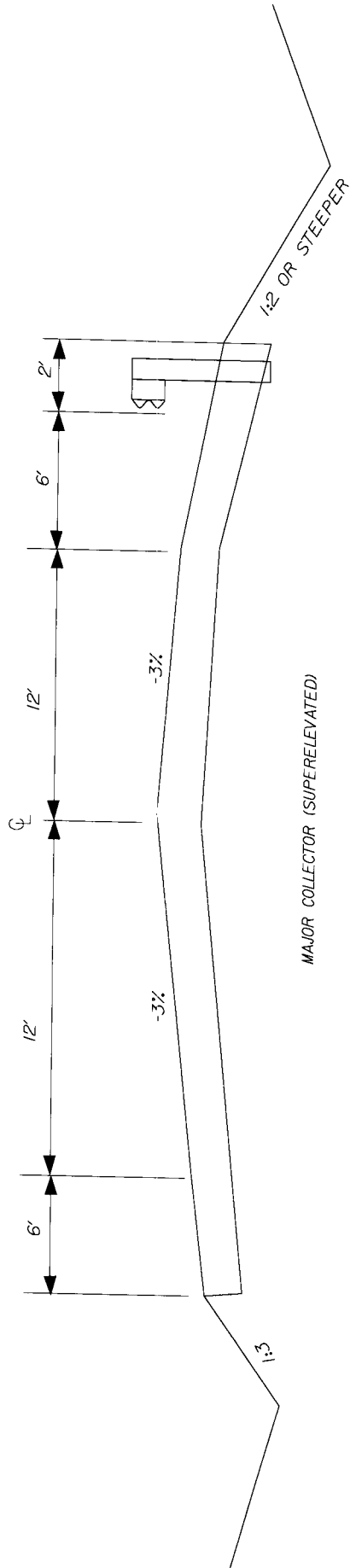


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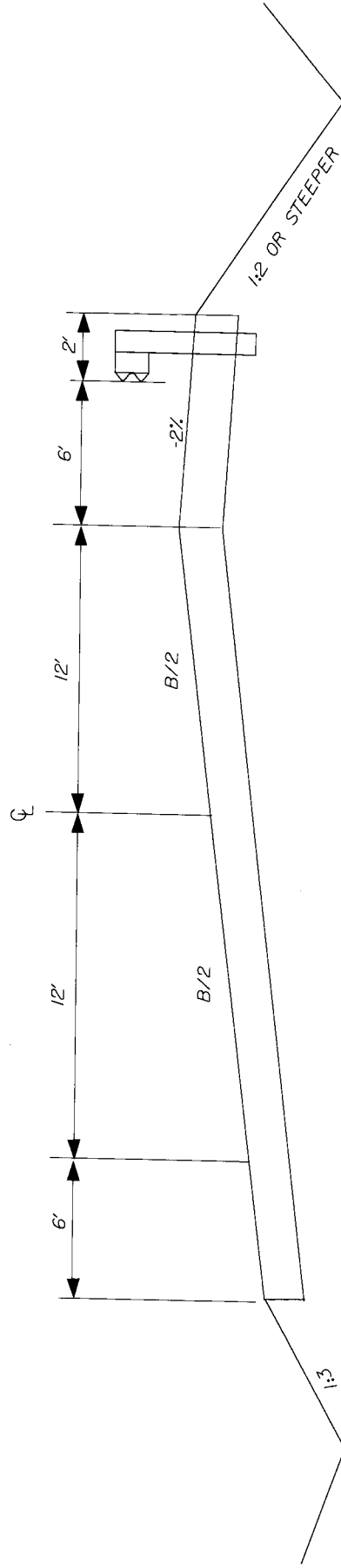
FIGURE 40

TYPICAL ROAD WIDTHS

MAJOR COLLECTOR (AADT OVER 6000)



MAJOR COLLECTOR (SUPERELEVATED)

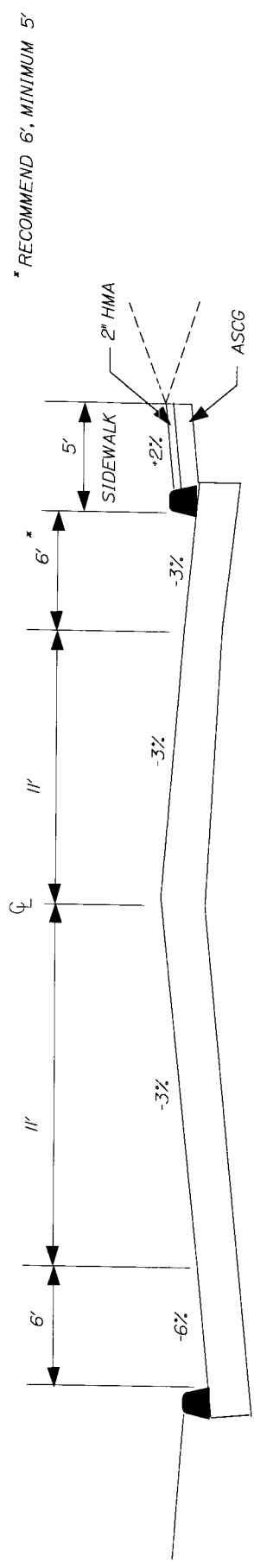


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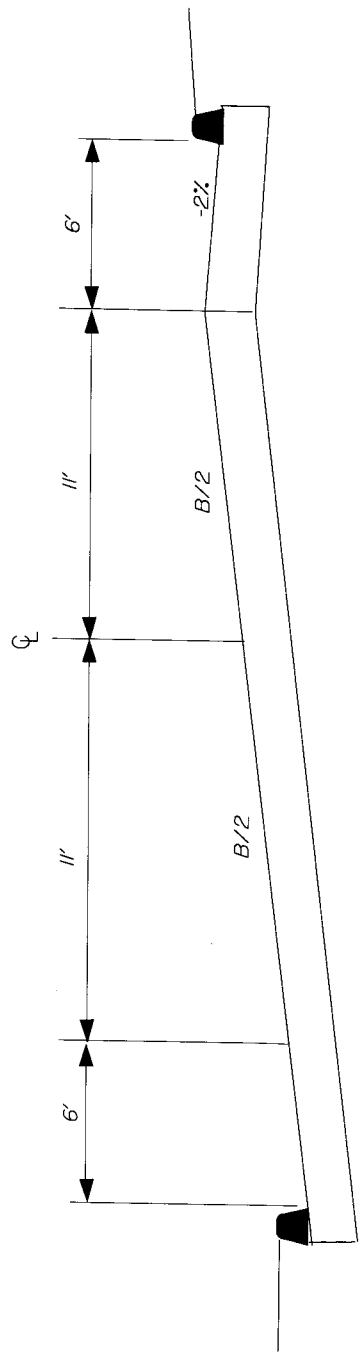
FIGURE 4b

TYPICAL ROAD WIDTHS

COLLECTOR CURBED SECTIONS BOTH URBAN AND RURAL



COLLECTOR SUPERELEVATION

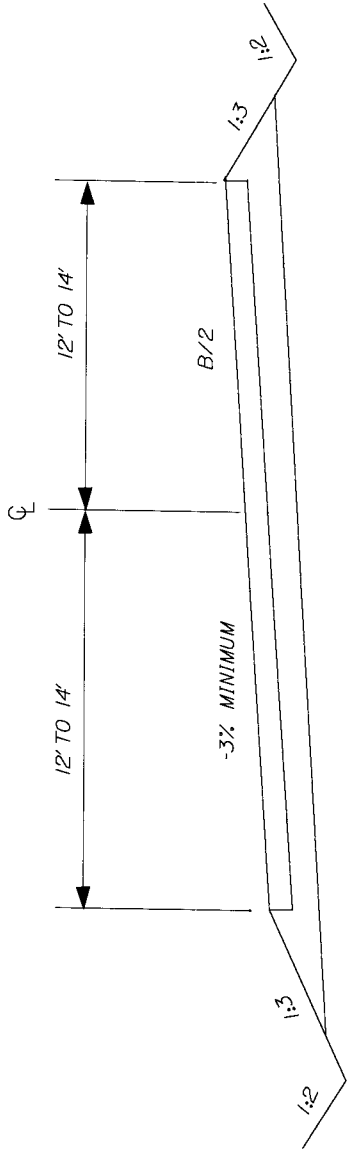


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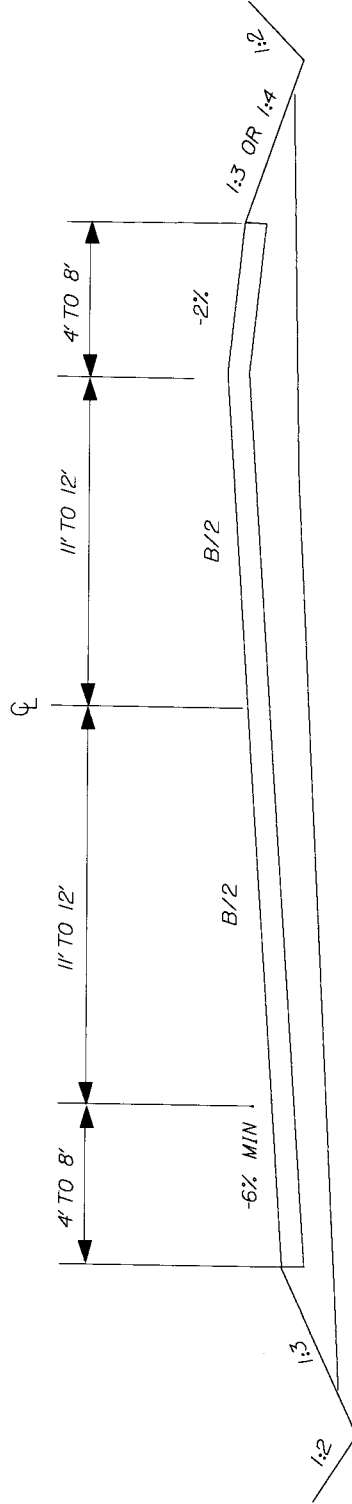
FIGURE 5

SUPERELEVATIONS

MINOR / MAJOR COLLECTORS



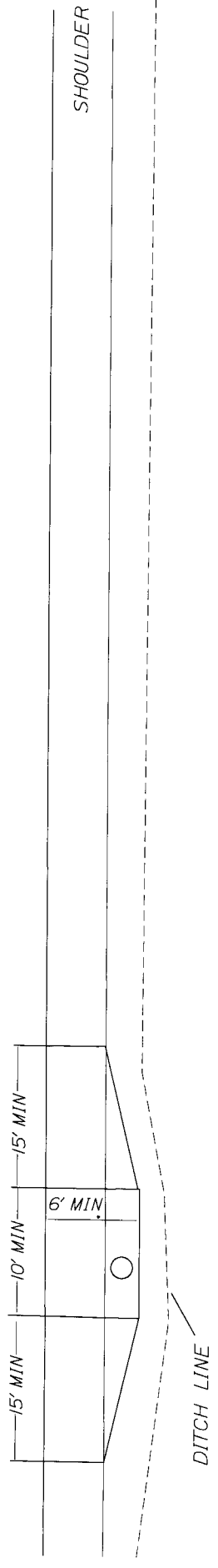
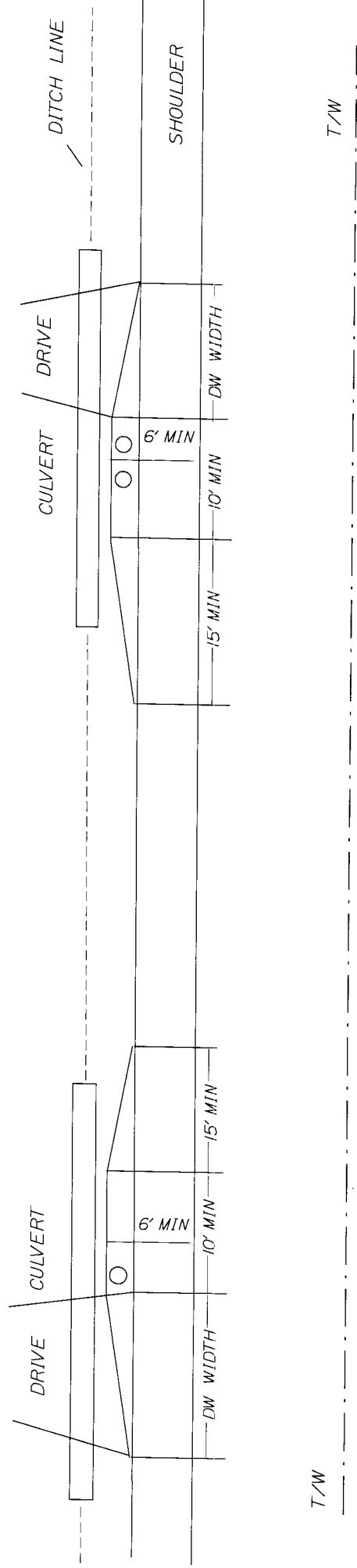
MINOR ARTERIAL



NOT TO SCALE

NOTE: 1:4 IF AADT IS OVER 6000

FIGURE 6

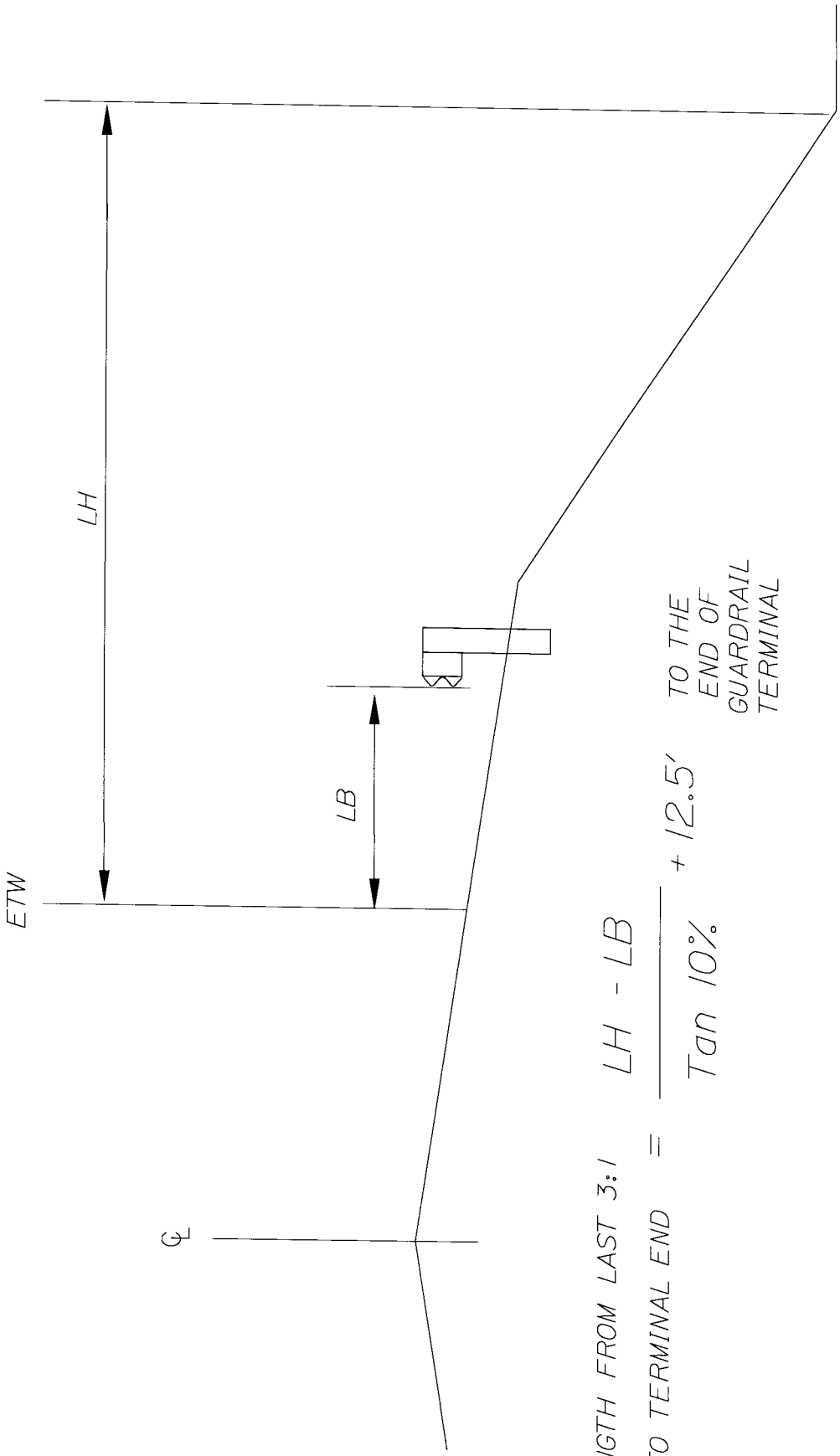


MAILBOX WIDENING AREAS
 (For Shoulders Less Than 6' Wide)

NOT TO SCALE

FIGURE B-7

FOR OPPOSITE SIDE OF ROAD LH IS FROM ϕ

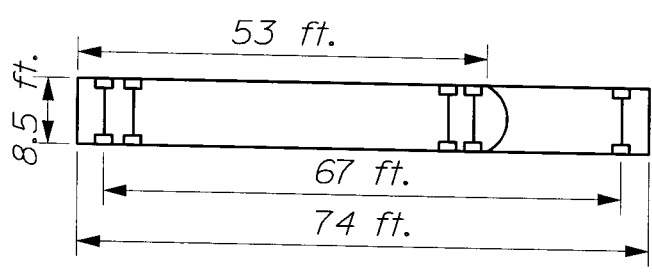
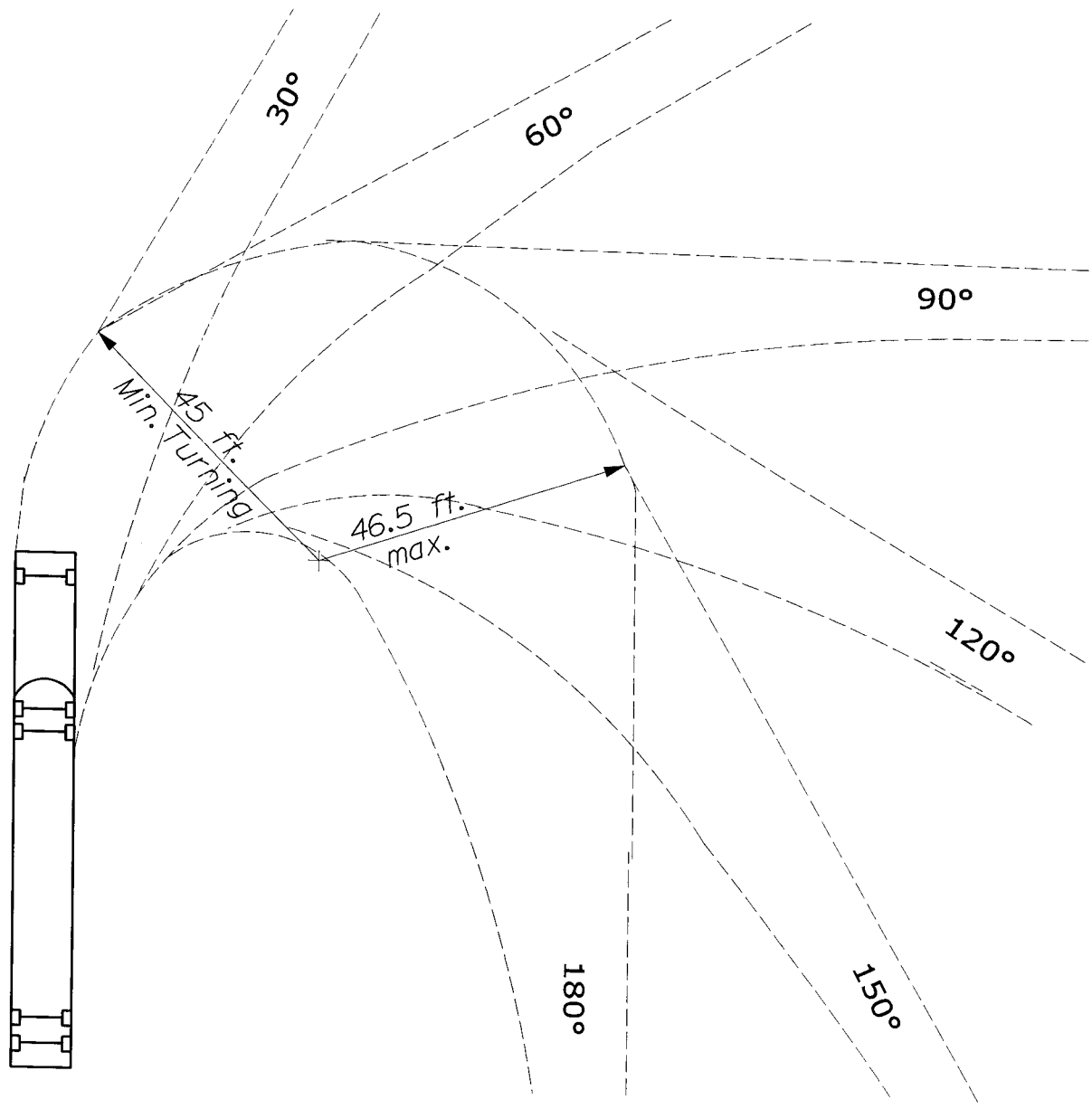


$$\text{LENGTH FROM LAST 3:1 TO TERMINAL END} = \frac{LH - LB}{\tan 10\%} + 12.5'$$

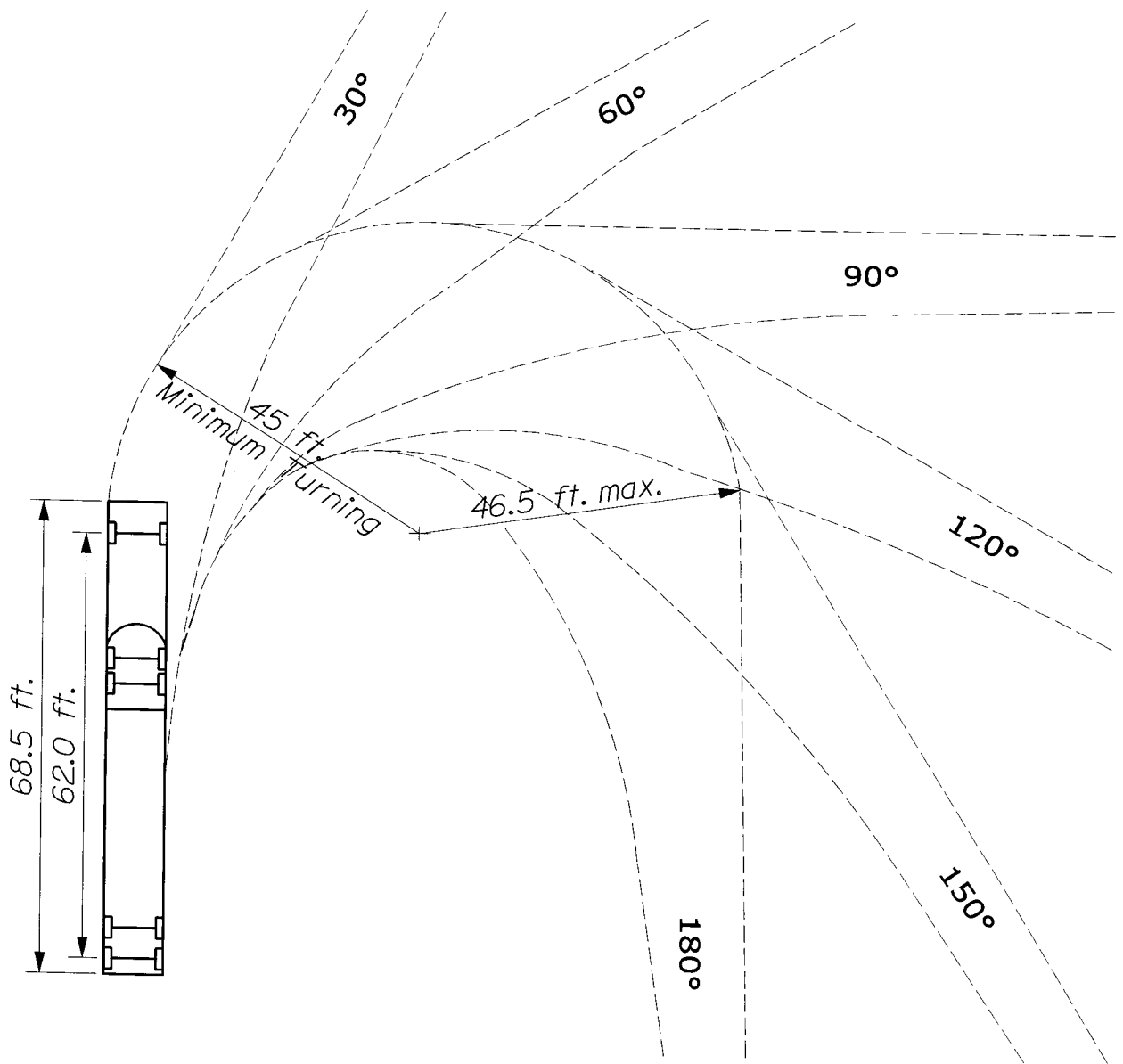
TO THE END OF GUARDRAIL TERMINAL

TOE AT LEAST 3:1
IF OUTSIDE CLEAR ZONE

FIGURE - 8

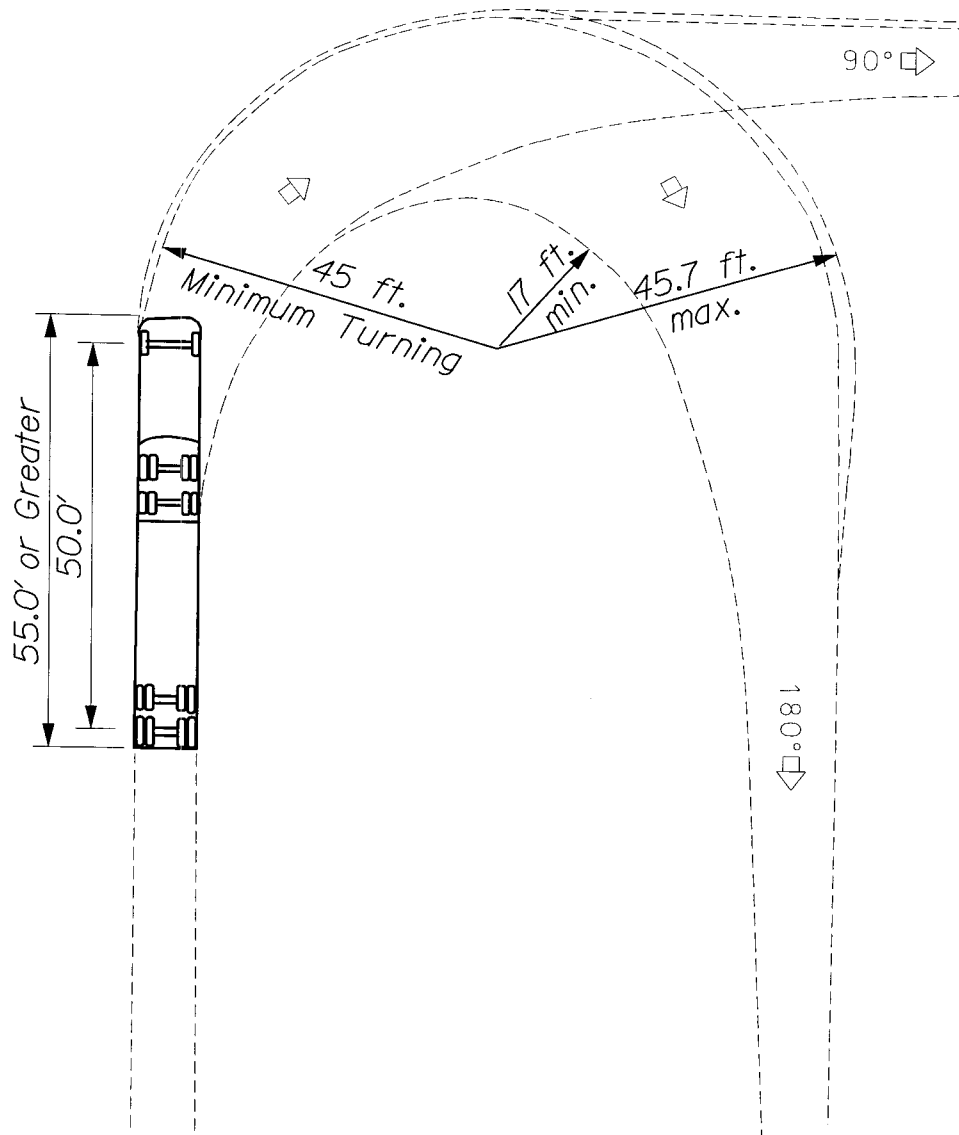


MINIMUM TURNING PATH FOR INTERSTATE SEMITRAILER (WB-65 & WB-67)



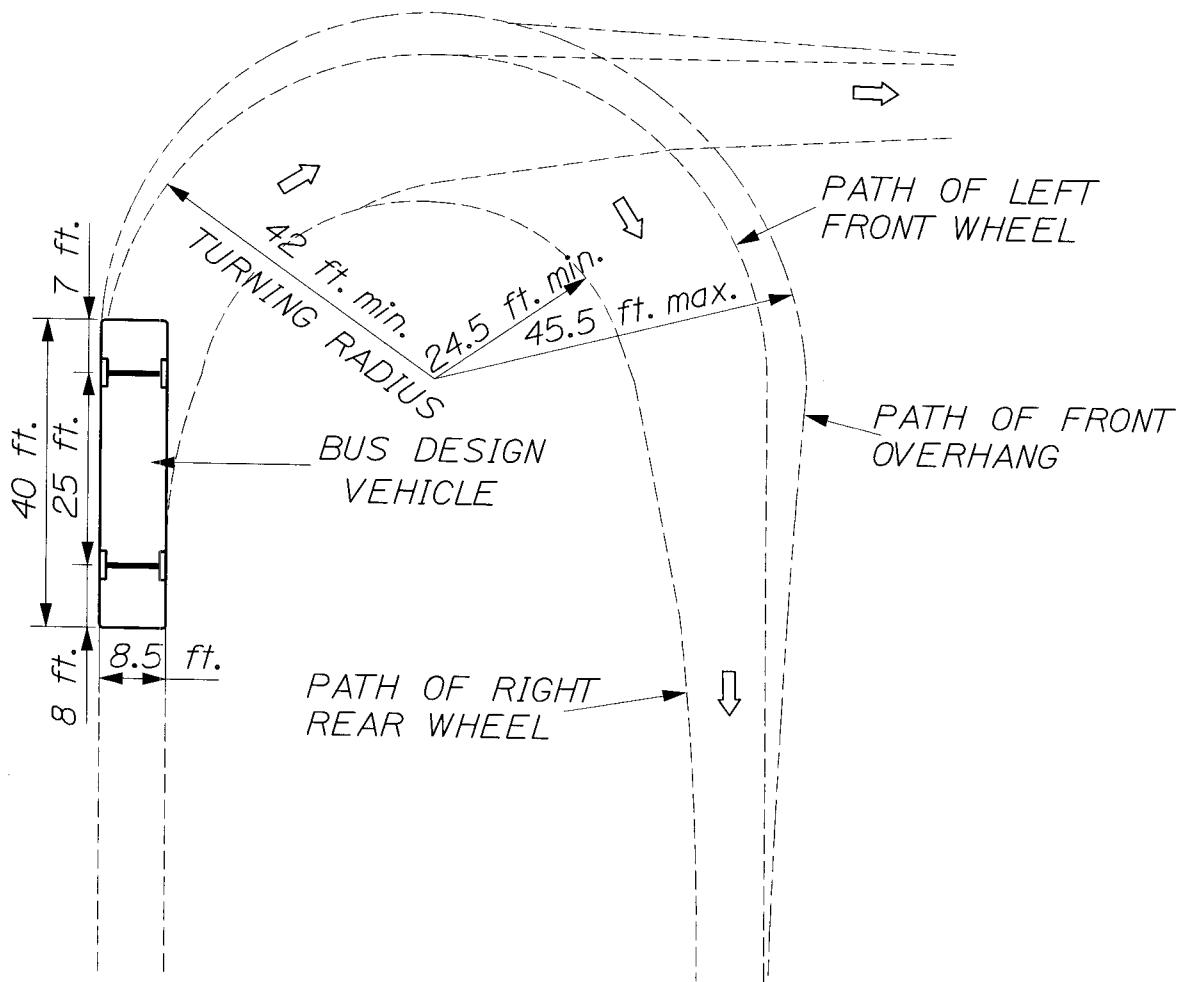
MINIMUM TURNING PATH FOR
INTERSTATE SEMITRAILER (WB-62)

Exhibit 2

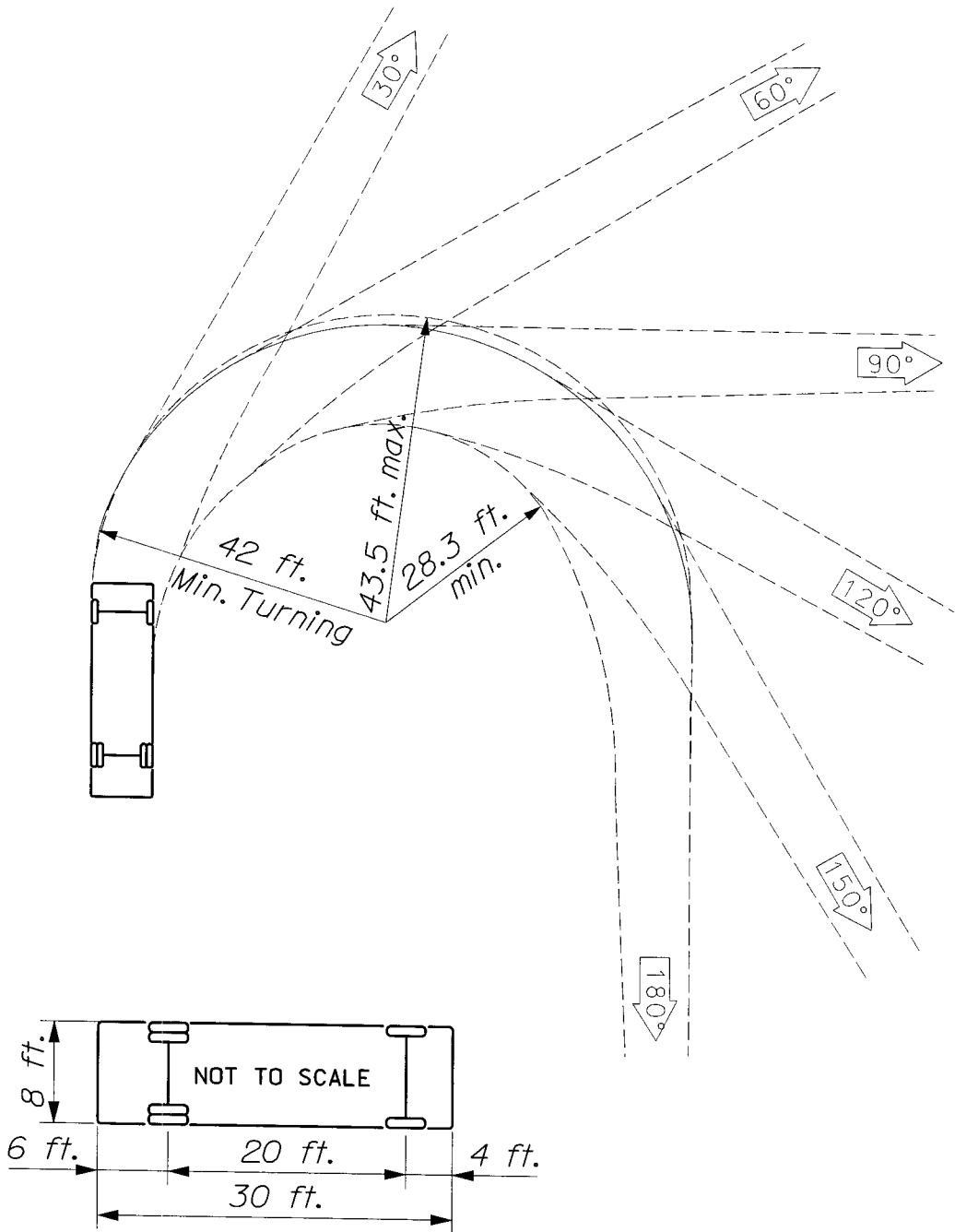


MINIMUM TURNING PATH FOR INTERMEDIATE SEMITRAILER (WB-50)

Exhibit 3



MINIMUM TURNING PATH FOR
CITY TRANSIT BUS DESIGN VEHICLE



MINIMUM TURNING PATH FOR
 SU (SINGLE UNIT) TRUCK DESIGN VEHICLE

Exhibit 5

Local Project Administration Manual & Reference Guide

4. Environmental Review



MaineDOT

Integrity - Competence - Service

2014 Edition

Environmental Review

Before moving forward, planned transportation improvements must be evaluated to see how they might affect natural and cultural resources. These mandatory reviews stem from a series of federal laws – notably the National Environmental Policy Act of 1969 (NEPA), the Endangered Species Act, and the National Historic Preservation Act. This section provides an overview of these laws and includes the following:

- A summary of the major laws and regulations (pages 4-1 to 4-6);
- An environmental checklist – Figure 4.1 (page 4-2);
- A table with state/local responsibilities – Figure 4.2 (page 4-3);
- Appendix 4A: Required submittals (page 4-7);
- Appendix 4B: Historic Preservation Act summary (page 4-11);
- Appendix 4C: Endangered Species Act summary (page 4-15).



4.1 National Environmental Policy Act (NEPA)

NEPA is the nation’s foremost environmental law, found in Title 23 of the Code of Federal Regulations, Part 771. NEPA allows regulatory reviews and consultations in a variety of areas to be handled as a single process. Compliance with this law is reflected in a corresponding federal environmental document, which for most locally administered projects in Maine is a “Categorical Exclusion,” meaning that there will be no significant impacts.

Caution! Right-of-way negotiations in federally funded project cannot occur until MaineDOT receives NEPA approval from the Federal Government.

NEPA review is required on projects with a federal action (funding/permits), as follows:

- MaineDOT is responsible for completing the NEPA process when a project has federal money. In this case, the municipality or other organization overseeing a project must provide information addressed in Letter 11 on pages 4-8 and 4-9.
- The municipality or organization sponsoring a project must complete the NEPA process when no federal money is used, typically through the federal permit.
- All work regarding Section 106 (historic properties), Section 7 (endangered species), Section 4(f) (public parks, et. al.,) public involvement, hazardous materials review, and the level of federal permit must be done before NEPA can be completed.

ENVIRONMENTAL REVIEW CHECKLIST

A. National Environmental Policy Act (federally funded projects)

- Complete and return **NEPA checklist** and **Letter 11** to MaineDOT.

B. Environmental Permits

- Contact appropriate state and federal agencies for permitting requirements and approvals.**
 - Maine Department of Environmental Protection: www.maine.gov/dep/blwq/stand.htm
 - Augusta (Central Maine): 207-287-3901; 800-452-1942
 - Bangor (Eastern Maine): 207-941-4570; 888-769-1137
 - Portland (Southern Maine): 207-822-6300; 888-769-1036
 - Presque Isle (Northern Maine): 207-764-0477; 888-769-1053
 - U.S. Army Corp of Engineers: (207) 623-8367 or <http://www.nae.usace.army.mil/>
- Contact appropriate state agencies for their comments and concerns about the project.**
 - Maine Department of Inland Fisheries and Wildlife:
 - Fisheries Division for timing approval, freshwater fisheries and fisheries passage issues: (207) 287-8000
 - Wildlife Division for rare, threatened and endangered species and other wildlife issues: (207) 287-8000
 - Maine Department of Marine Resources, Wetlands and Permit Section
 - Sea-run fisheries, coastal resources and fish passage issues: <http://www.maine.gov/dmr/crd/hmo/Wetlands0.htm>
 - Maine Atlantic Salmon Commission
 - Timing approval, salmon habitat and fish passage issues: <http://www.maine.gov/dmr/searunfish/salmonframework.shtml>
- Complete appropriate state and federal permit applications**

C. Environmental Certification

- Send an environmental certification (Letter 12) and copies of all permits obtained for your project to the MaineDOT project manager.
 - The certification and documentation must be part of the final Plans, Specifications and Estimate (PS&E) package.
 - The paperwork must be submitted to MaineDOT before a project may be put out to bid.

Environmental Process Responsibilities

TASK	RESPONSIBILITY
National Environmental Policy Act (NEPA)	Federal funding - MaineDOT with assistance from municipality
	No Federal funding - municipality through Federal permit
Section 106 of the Historic Preservation Act (Section 106)	Federal funding - MaineDOT with assistance from municipality
	No Federal funding - municipality through Federal permit
Section 4(f) of the Department of Transportation Act	MaineDOT with assistance from municipality
	No U.S. DOT Funds, then 4(f) does not apply
Section 7 of the Endangered Species Act (Section 7) ¹	Federal funding - MaineDOT with assistance from municipality
	No Federal funding - municipality through Federal permit
Hazardous Materials	MaineDOT with assistance from municipality
Environmental Permits	municipality
Dredge Materials	municipality
Natural Resource (wetlands, streams, fisheries, etc.)	municipality
Mitigation	municipality
All Stormwater Permits (Ch500, ESC law, MPDES)	municipality

MaineDOT Environmental Office contact:

Kristen Chamberlain , Environmental Team Leader	557-5089 (kristen.chamberlain@maine.gov)
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* Environmental approvals will take **approximately 2 to 6 months** from the time that the municipality has plans, proposed right of way and completed **Letter 11**.

* The MaineDOT Environmental Office requires the municipality hold a **meeting** with MaineDOT Project Manager and Environmental Office **at project kick-off**, in order to coordinate the schedule of the project.

¹ The municipality must compile data necessary for the Section 7 consultation process. A checklist is found on page 4-16 and online: www.maine.gov/mdot/lpa/ft.htm

4.2 Section 106 of the National Historic Preservation Act

Section 106, found in federal regulation 36 CFR Part 800, serves to protect properties of historic and archeological significance. If a project has federal money, MaineDOT generally surveys all properties at least 45 years old in a project area for potential historic significance and potential adverse effects. This requirement commonly applies to buildings, culverts, bridges, monuments, and cemeteries. (*Guidance is found in Appendix 4B, on page 4-11.*)

- **MaineDOT** handles the Section 106 process on locally administered projects with federal money. The local project administrator must provide MaineDOT with design plans showing proposed right-of-way impacts in order to make final determinations of effect.
- With MaineDOT's approval, the **municipality** or other organization overseeing a project may hire a consultant to perform the required Section 106 reviews. Any consultant, however, must meet specific federal standards for conducting architectural surveys. MaineDOT, however, must first approve and meet with the consultant. All final determinations will be made by MaineDOT.
- If a project has no federal money, the **municipality** or organization administering the project must complete the Section 106 process. In this case, the project administrator will need to contact the Maine Historic Preservation Commission.



4.3 Endangered Species Act ("Section 7")

Section 7 falls under federal regulation 50 CFR Part 402. It covers a variety of fish, birds, reptiles, mammals and plants as listed on pages 4-17 and 4-18. In Maine, the law most often affects projects with in-water work in Atlantic salmon, short-nose sturgeon or Atlantic sturgeon waters, as well as in habitat for Canada lynx. Additionally, the northern long-eared bat is currently proposed for listing as endangered; a decision is expected in mid-2014.

Responsibility for Section 7 review is as follows:

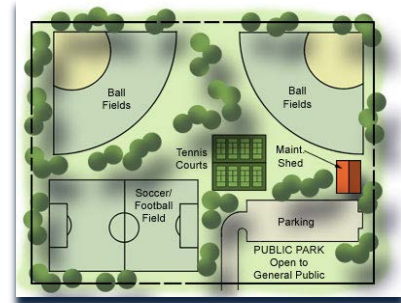
- If money from the Federal Highway Administration (FHWA) is used, **MaineDOT** will complete the Section 7 process. To do this work, MaineDOT will need project plans and scope, construction timing and techniques, and proposed timeframe from the municipality or other agency overseeing a project. (*See the checklist on page 4-16.*)
- If a project has only state money or funding from a federal agency other than the FHWA, the Army Corps of Engineers (ACOE) generally is responsible for consultation under Section 7. In this case, the **municipality** or other organization administering a project is responsible for coordinating with the ACOE or other federal action agency. This is usually completed during the permit application process.



4.4 Section 4(f) of the Department of Transportation Act

Section 4(f) – found in regulation 23 CFR Part 774 – applies to public parks, recreation areas, wildlife refuges and historic properties. Potential impacts must be examined if federal transportation money is used, as follows:

- **MaineDOT** is responsible for completing the Section 4(f) process. To do so, MaineDOT will need project plans with proposed right of way from the municipality or other agency overseeing the project.
- The Section 106 process must be concluded before Section 4(f) documentation is submitted to the Federal Government under the NEPA process.



4.5 Natural Resources Protection Act

In Maine, the Natural Resources Protection Act (NRPA) is the primary state environmental law that applies to transportation projects. The law covers “protected natural resources” such as coastal sand dune systems, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, great ponds, and rivers, streams or brooks. The NRPA is administered by the Maine Department of Environmental Protection (MaineDEP) in municipalities and other organized areas.

The **municipality** or other organization overseeing a locally administered project is responsible for complying with the NRPA. The local administrator (or consultant designing a project) must contact the MaineDEP to determine whether a NRPA permit will be needed. Generally, this applies when a project (a.k.a. “activity”) will be:

- Located in, on or over any protected natural resource; or
- Located adjacent to a coastal wetland; a great pond; a river, stream or brook; certain freshwater wetlands; or significant wildlife habitat contained within a freshwater wetland.

The law defines an "activity" as: (a) dredging, bulldozing, removing or displacing soil, sand, vegetation or other materials; (b) draining or otherwise dewatering; (c) filling, including adding sand or other material to a sand dune; or (d) any construction, repair or alteration of any permanent structure.

For forms and information about the NRPA process, visit the MaineDEP website:
<http://www.maine.gov/dep/land/nrpa/index.html>

4.6 Environmental Permits

The **municipality** or other local agency administering a project must obtain all environmental permits and adhere to applicable federal and state laws and regulations, including Maine's Natural Resources Protect Act. (*See Section 4.5, page 4-5.*) Before soliciting for construction bids, the municipality or local organization in charge of a project must provide the MaineDOT project manager with a certification (Letter 12, page 4-10) and copies of the approved state and federal permits.

4.7 Hazardous Materials

MaineDOT is responsible for reviewing planned improvements to determine whether there may be contamination from petroleum or other hazardous materials in a project area. As part of the process, municipalities and other organizations overseeing project must provide MaineDOT with project plans showing proposed disturbance/excavation and any right-of-way impacts.

4.8 Stormwater Permits

Maine's stormwater management law provides standards for projects that disturb at least **1 acre** of land. Any stormwater permits are the responsibility of the municipality or other agency overseeing a project – including Erosion and Sedimentation Control requirements and MaineDEP Chapter 500 Stormwater Management Rules. The local project administrator should contact the MaineDEP to determine the required permits. (*Contacts are shown on page 4-2.*)

Once permits are obtained, the local administrator must provide MaineDOT's project manager with copies as part of the required environmental certification (Letter 12, page 4-10.)

4.9 Dredge Materials

Maine's solid waste management regulations define dredge materials as sand, silt, mud, gravel, rock, or other natural substance removed from beneath any body of water. These regulations typically apply to stream/river crossings and harbor improvement projects, which can require dredging. Under the regulations, dredge materials must be handled as special waste.

Beneficial Use Permits required by state law and associated regulations – Title 38 M.R.S.A. §1301-1319, Maine DEP Chapter 418 – are the responsibility of the **municipality** or other organization sponsoring a project. MaineDOT, however, can provide guidance.

When permits are obtained, the local project administrator must provide the MaineDOT project manager with an environmental certification (Letter 12, page 4-10) and a copy of the approved permits.

Remember: Environmental approvals and the required certification (**Letter 12**) must be in place before a project may be put out to bid. Usually, these documents are provided to MaineDOT with the final Plans, Specifications & Estimate (PS&E) package.

Appendix 4A: Environmental Submittals



NOTE: THIS LETTER IS SUBMITTED ON LETTERHEAD WITH THE ATTACHED NEPA CHECKLIST

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: NEPA Checklist Submission
MaineDOT WIN _____

Dear _____:

Attached is the required Categorical Exclusion documentation for **[project scope, WIN]** in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: NEPA Documentation Checklist

NEPA DOCUMENTATION
For the Maine Department of Transportation
 (For federally funded projects)

Project Title & Location: _____

Federal Project #: _____ WIN: _____

Description of Work: _____

MaineDOT Project Manager: _____

Please answer the following questions and attach supporting documentation as requested. If there is a “yes” response, please explain on a separate sheet or contact your MaineDOT Project Manager for guidance.

1.) Public Involvement – Is there substantial public opposition to proposed action? Yes No
The answer should become apparent at the local public meeting approving the project.

Documentation: Local project approval; public hearing records; letters from the public; Council/Selectperson or Planning Board minutes; or Letter 16 in this manual.

2.) Right-of-Way – Does action include a residential or commercial displacement, or acquisition of property rights that will result in substantial abutter impacts? Yes No
For help with “substantial,” please contact your Project Manager at MaineDOT.

Documentation: Existing and/or Proposed RW plan and/or Letter 17 in this manual.

3.) Wetlands – Does action require an Army Corps of Engineers Programmatic Category III (Individual) Permit? Yes No

Documentation: Copy of Federal Permit or Letter 12 in this manual.

4.) Section 4(f) or 6(f) – Does action require **use** of property protected by Section 4(f) of the Department of Transportation Act (except for Transportation Enhancement requisitions and preservation of historic sites), or Section 6(f) of the Land and Water Conservation Fund Act? Yes No

In other words, does the project involve publicly owned land, parks, recreation areas, wildlife and waterfowl refuges, or historic sites?

Documentation: State Historic Preservation Officer, Department of Conservation, Municipality Letters, Existing and/or Proposed RW plan or Letter 17 in this manual.

5.) Other – Does action adversely affect any known critical or unique natural resource, the quality of adjacent surface water resources, community cohesiveness, planned community growth, or beneficial land use patterns? Yes No

Signed by: _____
 Name, Local Project Administrator

Date: _____

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Environmental Certification
MaineDOT WIN _____

Dear _____:

This document serves as official certification that all environmental permits required for [**project scope, WIN**] in the Municipality of _____ were obtained and approved in accordance with requirements identified in the executed Project Agreement dated [**execution date**].

Attached are all of the approved permits. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures: Environmental permits
Cc: MaineDOT Environmental Office

NOTE: *By signing the document, you are providing all of the approved permits required to construct the project. If no permits are required, please supply a narrative as to why no permits were needed.*

Appendix 4B: Section 106

- Historic Properties -



Section 106 Checklist:

Locally Administered Projects

Section 106 review is required for any project that either receives Federal funds or requires a Federal permit. *Note: It is important to keep all documentation of the Section 106 process, including correspondence between any involved party.*

FYI: Section 106 regulations and guidelines are available at Advisory Council for Historic Preservation website: <http://www.achp.gov/regs-rev04.pdf>

Note: Only qualified professionals meeting the Secretary of Interior's Professional Qualification Standards for Archaeology and Historic Preservation can complete the identification and evaluation, and recordation of historic properties. These standards can be found at: http://www.nps.gov/history/local-law/arch_stnds_9.htm

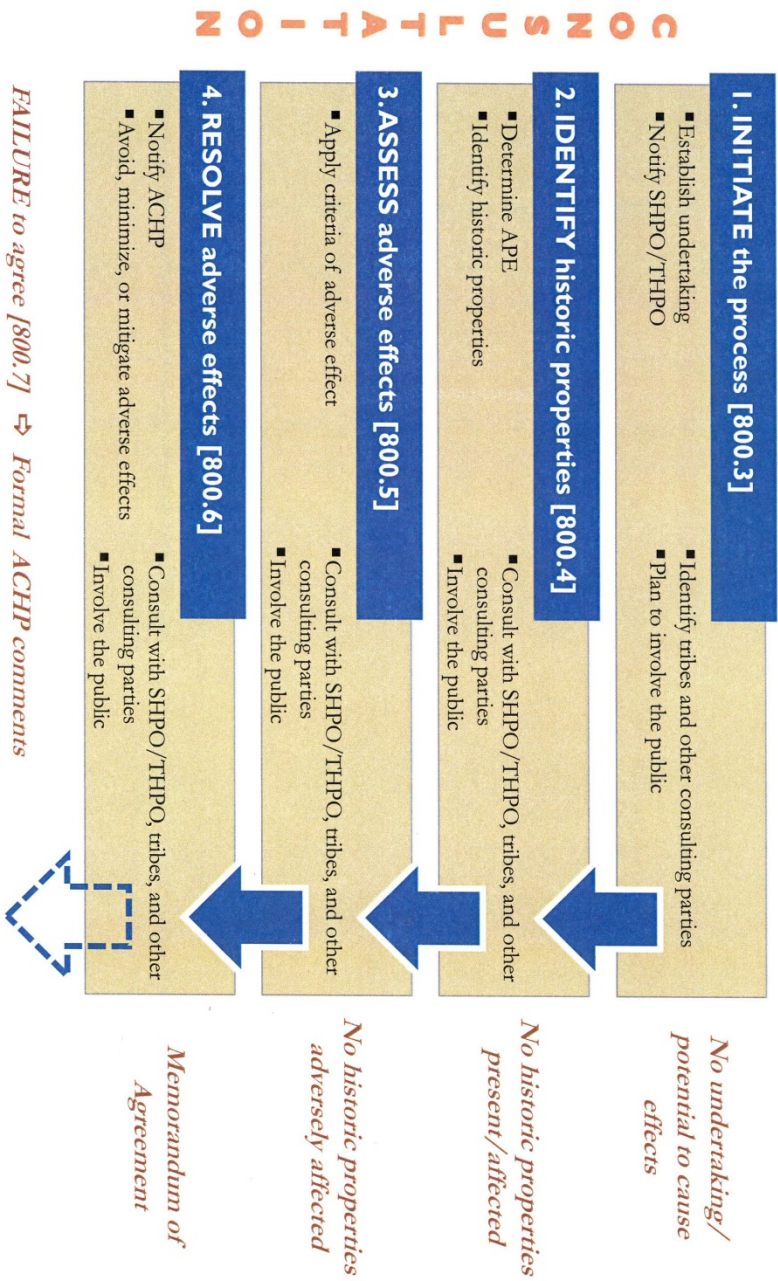
MaineDOT will be responsible for initial Section 106 review including definition of area of potential effect, mapping, tribal and archaeological consultation and project information. Once MaineDOT has established the need for an architectural survey, the following steps need to be taken in order to complete Section 106 review:

- Hire a qualified professional to conduct architectural survey. Once a consultant is selected, inform the MaineDOT Environmental office of the selection. If the chosen consultant has never conducted architectural surveys for MaineDOT, a meeting will need to be scheduled with MaineDOT's Historic Coordinator to discuss the Section 106 process.
- The consultant must contact the Maine Historic Preservation Commission (MHPC) to obtain a username and password for CARMA, which is the database in which the architectural survey forms will be submitted: (207) 287-2132 or christi.mitchell@maine.gov
- Initiate architectural survey.
 - Architectural survey must meet Maine Historic Preservation Commission (MHPC) and MaineDOT survey standards. A survey manual can be found at: http://www.maine.gov/mhpc/architectural_survey/survey_guidelines.html
 - All properties 45 years or older must be surveyed in the project area including but not limited to buildings, objects, culverts, bridges, monuments, and cemeteries.
 - Pictures (digital) should be taken.
 - Street views (view including roadway in relation to surveyed resource) should be taken and provided to MHPC.
 - Data must be entered into the CARMA system except for architectural survey report, matrix and map.

- ❑ Complete architectural survey by submitting to MaineDOT for review electronically.
 - If any edits need to be made, comments will be sent back.
 - Once MHPC and MaineDOT approve the survey electronically, a hard copy of the survey and survey materials must be sent to MaineDOT.
- ❑ Once MaineDOT receives the hard copy of the architectural survey, MaineDOT will be responsible for completing the remainder of the Section 106 process including making the determination of eligibility and final determination of effect.

➡ If you have questions, contact Megan Hopkin, MaineDOT's Historic Coordinator, at megan.m.hopkin@maine.gov or (207) 592-3486.

THE SECTION 106 PROCESS



Appendix 4C: Endangered Species Act



CHECKLIST FOR SECTION 7 – ENDANGERED SPECIES ACT

The following information is required for all projects requiring Section 7 consultation under the Federal Endangered Species Act. The items denoted with an asterisk (*) are data needs that the municipality is responsible for providing MaineDOT with when federal money is involved and MaineDOT takes the lead in Section 7 consultation. Note that depending upon site particulars, the Section 7 consultation process can take an additional 2 to 6 months, or longer, once all of the necessary data needs have been compiled. When there is federal money, MaineDOT encourages very early coordination between MaineDOT environmental staff and the municipality (i.e. at Project Kick-off) to ensure timely and predictable consultation.

Site Conditions (required for each area of in-water work)

- * Location Map depicting all areas of in-water work (e.g. streams) along the project
- Stream name(s) (if available)
- Photographs of each stream, including:
 - View of representative upstream reach
 - View of culvert inlet
 - View of culvert outlet
 - View of representative downstream reach
- Detailed stream characteristics, including:
 - Average bankfull width of each stream
 - Upstream substrate
 - Upstream gradient
 - Upstream riparian cover type
 - downstream substrate
 - downstream gradient
 - downstream riparian cover type
 - any barriers to fish passage, and location
 - stream hydrology (flow characteristics, expected velocities, etc)
- * Existing culvert conditions:
 - * Existing culvert dimensions (span X rise X length)
 - * Existing culvert grade
 - Is existing culvert embedded (and to what extent)
 - Is existing culvert perched/hanging (and to what extent)
 - Depth of scour pool
- * Proposed structure²
 - * proposed structure type
 - * proposed culvert dimensions (span X rise X length)
 - * proposed culvert grade
 - * proposed culvert embedment
 - will proposed structure pass target species life stage(s) (usually determined through FishXing software)
 - * structure installation method
 - * equipment used
 - * cofferdam type
 - * pumping/dewatering sequence
 - * other construction issues
 - * any riprap impacts
 - * any riparian clearing

² For all proposed culvert work, including rehabilitations (i.e. sliplines), if the proposed structure does not meet current federal permitting recommendations (i.e. proposed structure does not span bankfull width or embedment standards, etc), the federal permitting agencies require an alternatives analysis documenting why the proposed cannot meet these recommendations. Documentation for the alternatives analysis should include costs, site-specific restrictions, detour and other traffic issues, etc.

ENDANGERED, THREATENED AND CANDIDATE SPECIES IN MAINE
 (Source: U.S. Fish & Wildlife Service)

ENDANGERED (E) – Any species that is in danger of extinction throughout all or a significant portion of its range.

THREATENED (T) – Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

CANDIDATE (C) – Those taxa for which the Service has sufficient information on biological status and threats to propose to list them as threatened or endangered. We encourage their consideration in environmental planning and partnerships, however, none of the substantive or procedural provisions of the Act apply to candidate species.

CRITICAL HABITAT (CH) – The specific areas (i) within the geographic area occupied by a species, at the time it is listed, on which are found those physical or biological features (I) essential to conserve the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed upon determination that such areas are essential to conserve the species.

COMMON NAME		DISTRIBUTION	STATUS
FISH:	Atlantic salmon	Androscoggin, Aroostook, Cumberland, Franklin, Hancock, Kennebec, Knox, Lincoln, Penobscot, Piscataquis, Sagadahoc, Somerset, Waldo and Washington counties	E
		The Atlantic salmon distinct population segment in the Gulf of Maine encompasses all naturally spawned and conservation hatchery populations of sea-run salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River and wherever these fish occur in the estuarine and marine environment. Critical Habitat occurs in portions of the 14 counties listed above.	CH
	Shortnose sturgeon*	Coastal Kennebec, Lincoln, Sagadahoc, Waldo, Penobscot, Hancock, Androscoggin and now Cumberland and York Counties	E
	Atlantic sturgeon*	Gulf of Maine coastal Kennebec, Lincoln, Sagadahoc, Waldo, Penobscot, Hancock, Androscoggin and now Cumberland and York Counties	T

MAMMALS:

Northern long-eared bat	Statewide	Proposed for Listing
Canada lynx	Aroostook, Franklin, Somerset, Piscataquis, Penobscot, Oxford, Washington Counties Boreal forest landscapes in northern Maine, in portions of Aroostook, Franklin, Penobscot, Piscataquis and Somerset	Threatened Critical Habitat
New England cottontail rabbit	York, Cumberland, Androscoggin, Kennebec, Sagadahoc, Lincoln Counties	Candidate
Several whale species*	Found in open waters of the Gulf of Maine	Endangered

PLANTS:

Furbish's lousewort	Aroostook County	Endangered
Eastern prairie fringed orchid	Aroostook County	Threatened
Small whorled pogonia	York, Cumberland and Kennebec counties	Threatened

BIRDS:

Piping plover	Coastal Sagadahoc, Cumberland, and York county.	Threatened
Roseate tern	Coastal statewide	Endangered

REPTILES:

Atlantic ridley turtle*	Pelagic, typically summertime	Endangered
Leatherback turtle*	Pelagic, typically summertime	Endangered
Loggerhead turtle*	Pelagic, typically summertime	Threatened

** Principal responsibility for these species lies with the National Marine Fisheries Service.*

5. Right of Way



Right of Way

Occasionally, municipalities and other local agencies planning transportation improvements learn that they will need to obtain property rights beyond the public right-of-way. In doing so, they must be sure to treat people respectfully and protect the rights of property owners to receive fair compensation. This section explains the right-of-way process and includes:

- Table 5.1: Roles & Responsibilities - Right-of-Way (page 5-2);
- A summary with key steps (pages 5-3 to 5-10);
- Appendix 5A: A checklist (page 5-11);
- Appendix 5B: Letters and sample forms (page 5-14);
- Appendix 5C: A sample Property Owner Report (page 5-20); and
- Appendix 5D: MaineDOT Right of Way Manual excerpt (page 5-23).



Federal guidance is found in the “Right of Way” folder on the course CD and online:
<http://www.fhwa.dot.gov/realstate/lpaguide/index.htm>

In general, the likely scenarios for right-of-way acquisition include:

- **Fee interest**, in which the State or other agency acquires all interest in a parcel that is necessary for construction and maintenance of a project;
- **Easement**, in which the owner retains title, but an agency acquires the right to use all or a portion of a parcel for a specific purpose, such as for drainage or placement of a slope;
- **Temporary rights**, in which an agency acquires the right to use all or a portion of a parcel during construction for purposes that include – but are not necessarily limited to – grading, loaming and seeding. Temporary rights typically expire at the end of a project.

Before moving forward, it is important to understand that you are ready to acquire property for a federally funded project – *including easements and donations* – only after:

- The National Environmental Policy Act (NEPA) process is **completed**; and
- The Federal Government has issued the corresponding environmental document – typically a “Categorical Exclusion” (CE); and
- A federally required valuation and determination of just compensation is done.

CAUTION! If federal funds are involved, the NEPA review must be completed before any offer is made to acquire property rights. Otherwise, you will **jeopardize** the money for your project.

TABLE 5-1: Roles and Responsibilities, Right-of-Way Process

TASK	RESPONSIBILITY
<input type="checkbox"/> Verification of Existing Right of Way <ul style="list-style-type: none"> ▪ <i>State, county or municipal records</i> 	State Road: Municipality in consultation with MaineDOT
	Off System: Municipality / Consultant
<input type="checkbox"/> Field Survey <ul style="list-style-type: none"> ▪ <i>Existing conditions and preliminary design.</i> 	State Road: Municipality / Consultant
	Off System: Municipality / Consultant
<input type="checkbox"/> Property Owner Reports <ul style="list-style-type: none"> ▪ <i>Private property information.</i> 	State Road: MaineDOT or Municipality with permission.
	Off System: Municipality
<input type="checkbox"/> Preliminary Right of Way Plans <ul style="list-style-type: none"> ▪ <i>After design stage “Plan Impacts Complete”</i> 	State Road: Determined after consultation between Municipality & MaineDOT on risk
	Off System: Municipality / Consultant
<input type="checkbox"/> Title Examinations <ul style="list-style-type: none"> ▪ <i>Necessary to verify property ownership</i> 	State Road: MaineDOT
	Off System: Municipality / Consultant
<input type="checkbox"/> Final Right of Way Mapping <ul style="list-style-type: none"> ▪ <i>Shows impacted areas and types of rights</i> 	State Road: MaineDOT or <u>qualified</u> municipal consultant with approval
	Off System: Municipality / Consultant
<input type="checkbox"/> Review/Verification of Right of Way Maps <ul style="list-style-type: none"> ▪ <i>For accuracy and legal standards</i> 	State Road: MaineDOT Property Office
	Off System: Municipality
<input type="checkbox"/> Property Appraisals & Appraisal Review	State Road: MaineDOT
	Off System: Municipality / Consultant
<input type="checkbox"/> Negotiations <ul style="list-style-type: none"> ▪ <i>28-day negotiation period after federal NEPA process is completed</i> 	State Road: MaineDOT
	Off System: Municipality / Consultant
<input type="checkbox"/> Acquisition of Rights / Condemnation	State Road: MaineDOT
	Off System: Municipality / Consultant
<input type="checkbox"/> Right of Way Certification	State Road: MaineDOT
	Off System: Municipality

5.1 Basic Protections for Property Owners

Private land ownership is protected by the constitutions of the State of Maine and the United States. Any taking of private property for public benefit must be based on necessity and payment of what is known as “just compensation.” Agencies needing to acquire land or obtain interest in privately owned parcels must be sure to afford the owners due process of law.

The primary safeguard is the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, a federal law that applies whenever there is federal money in any phase of a project. The “Uniform Act” is designed to ensure that people affected by property acquisition for public projects are treated fairly and not disproportionately harmed. The act – also the basis for similar protections in Maine law – covers the acquisition of any permanent or temporary interest from a property owner. Failure to comply will jeopardize all of the federal funding for a project.

Here are some of the basic protections:

- Owners are entitled to just compensation of at least the acquiring agency's approved estimate of fair market value.
- Public agencies should encourage acquisition by agreement and negotiate in good faith; **coercion is forbidden**.
- The acquiring agency must provide a written offer and give the property owner reasonable opportunity (**28 days**, typically) to consider the offer.
- Owners must have the opportunity to accompany the appraiser when a property is inspected for an appraisal.
- The acquiring agency must pay the agreed upon purchase price before the owner is required to surrender possession of the property.
- Property owners must receive written notice that they have not less than 90 days to move when relocation is required.



5.2 Identifying Right-of-Way Limits

Early in the development of a project, the municipality or other local public agency overseeing it must determine where the public right-of-way ends and private property begins. The process should begin with a review of records that describe the nature and layout of the “public rights.”

Survey records, deeds on file with a particular county, and municipal “road books” are potential sources of information. Tax maps should be used sparingly and verified by at least one other source. If a project lies along a state road, MaineDOT may have records showing the right-of-way limits along the corridor; contact the research section of the MaineDOT Property Office at 624-3460.

This initial research should answer two questions:

- What are the limits and width of the public rights or right of way?
- Are the public’s rights based upon fee ownership, an easement for highway purposes, or what are known as “prescriptive rights” based upon long-term use?

5.3 Property Owner Reports

Owners of potentially affected parcels should be contacted early in the design process to hear about the anticipated impacts and to verify details such as locations of property markers and water/sewer systems. Responsibility for this task should be determined at the project kickoff meeting between MaineDOT and the municipality or local agency overseeing a project.

MaineDOT uses a standard Property Owner Report form that is found on page 5-20 and online: www.maine.gov/mdot/lpa/ft/htm

5.4 Existing Conditions Plan

After researching deeds and other property records, a project manager often will verify the right-of-way limits by sending a survey crew to document the locations of property markers and other field conditions. A designer will combine the data gathered in the field with information from the Property Owner Reports and other sources to produce an “Existing Conditions Plan” that forms the basis for a set of preliminary design plans.

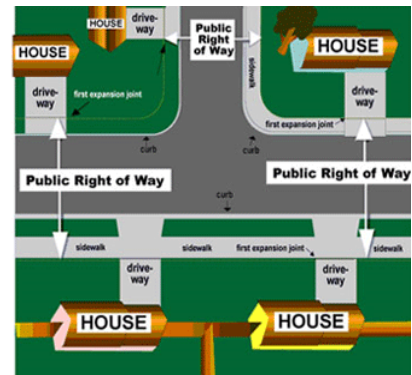


Preliminary plans should show the proposed alignment with control points; existing topography with travel way, cross culverts, buildings and utilities; limits of the current rights of way; property lines; names of property owners; and features specific to each parcel such as wells, septic systems, water lines and underground utility lines.

➡ See **Section 2-6** of the *MaineDOT Right of Way Manual*, “Right of Way Plans.”

5.5 Determining of Right-of-Way Needs

Once the limits of the public right of way are confirmed, you must consider what additional land or rights in land may be needed to accommodate a project. Even when it seems that a project can be built within the existing right-of-way, you may need to acquire temporary rights to give a contractor access to some of the abutting parcels during the construction work.



Permanent rights include the following:

- Fee Simple Absolute, in which the State or other agency acquires interest in all or a portion of a parcel, as necessitated by the project; and
- Easement, in which the owner retains title, but an agency obtains the right to use all or part of a parcel for a specific purpose, such as for drainage or the placement of a slope.

Temporary rights typically consist of, but are not limited to, the following:

- The right to clear and grub trees;
- The right to have construction equipment operated on private property;
- The right to grade and blend driveways and lawns to match roadway side slopes.

5.6 MaineDOT Responsibilities

Once right-of-way needs for a project are determined, MaineDOT will conduct or coordinate the acquisition of those rights if the State of Maine will hold title to them. The State typically will hold title to all permanent rights along state roads or on other state-owned assets.

In such cases, **MaineDOT** usually will be the lead agency on the following tasks:

- Title examinations (abstracts);
- Property valuation services;
- Appraisal reviews;
- Negotiations with property owners;
- Acquisition/condemnation of the rights;
- Certification that all necessary rights have been acquired for the project.

5.7 Local Responsibilities

For projects on local streets or facilities not on the State transportation system, the **municipality** or agency administering a project will carry out the right-of-way process with MaineDOT oversight. Typical tasks will include identification of right-of-way needs; right-of-way mapping; title examinations; property valuations; appraisal reviews; negotiations with property owners; and acquisition or condemnation of the necessary rights.

➡ See Section 8 of the *MaineDOT Right of Way Manual*, found starting on page [5-23](#).

Upon completion of a locally administered right-of-way process, the organization overseeing a project must provide MaineDOT with a certification that all rights needed for the project were obtained in accordance with applicable laws. This certification – see [Letter 10](#), page 5-15 – must be submitted with the final Plans, Specifications & Estimate (PS&E) package.

5.8 Property Donations

Municipalities and other agencies may seek property donations from willing owners, as long as:

- 1.) The NEPA process is completed **before** any offer is made to acquire the property; and
- 2.) Property owners are informed that they are entitled to receive just compensation and to have an **independent appraisal** performed; and
- 3.) An owner signs a document acknowledging and subsequently waiving the right to an appraisal and just compensation (found on page 5-17.)

Remember: The federal Uniform Act applies to all acquisitions on federally funded projects – including donations. The law is summarized at the top of page 5-3.

5.9 Right-of-Way Final Mapping

Once the impacts from a project are known, they must be documented on final right-of-way plans. The process of “Final Mapping” begins when a project has reached the “Plan Impacts Complete” milestone. (See Section 3, “Project Design,” page 3-3.) When completed, these plans become the foundations for appraisals of the rights to be acquired for a project. Completed right-of-way plans also become the source descriptions for the Notice of Layout and Taking, which is a legal document that is filed at a county registry of deeds when property rights are condemned or otherwise acquired.

Final right-of-way plans must provide the following information, at a minimum:

- Specify the types of rights to be acquired;
- Show all affected areas by the square foot or acre for each right to be acquired; and
- Identify the legal ownership of all properties affected by a project.

Final right-of-way plans can be prepared either by MaineDOT staff or a qualified consultant for the agency administering a project, depending on the number and nature of the acquisitions. Roles and responsibilities must be determined at project kickoff and documented in the state/local agreement for a project. By state law, right-of-way plans must be stamped by a licensed professional engineer, architect or land surveyor.

Final right-of-way maps typically include the following information:

- Construction limits and items;
- New right-of-way limits – including slope, clearing and wrought portion limits;
- Permanent and temporary easement limits;
- Updated parcel setups;
- Acquisition stations and offsets;
- Condemnation distances, including baseline and boundary lines;
- Easement limits and property lines tied into the base line;
- Calculated areas of take for each type of acquisition (fee, easement, etc. ...);
- Inside distance calculations;
- Total areas of property ownership calculated from the best available property information;
- Plan title block, including the MaineDOT file number.

Draft right-of-way plans must be reviewed by the MaineDOT Property Office if the State of Maine will hold title to the rights acquired for a project or if a project is located along a state highway. Such plans are not considered complete until they have been verified and approved as meeting MaineDOT’s requirements for mapping standards and legal accuracy.

➔ See the MaineDOT Right of Way Manual, sections 2-6 and 8-2.02.

5.10 Title Examinations

Title examinations are essential to verifying who owns property that will be acquired for a project. They generally are performed once all impacts are determined and work on final right-of-way plans begins, since those plans require an abstract of title for each affected parcel.

For projects along state or state-aid roads, MaineDOT will perform title examinations. For projects not on the state system, the municipality or other agency overseeing a project will perform that function, usually with help from a qualified lawyer; title research must follow standards set by the Maine State Bar Association.

The following information must be obtained for each parcel before title examinations may begin:

- Property owner's name;
- Property address;
- Tax map and lot identification;
- Property deed reference book and page;
- Copies of surveys, plan sheets, tax maps and property owner reports as applicable.

Title research must produce a copy of the current deed for each impacted property and any encumbrances such as mortgages, liens and attachments. An indication of the greatest anticipated impact to each parcel will determine how extensive a title search is needed; permanent rights require a search spanning 40 years, while most easements and temporary rights require research only into the last acquisition or current owner of a property.

TITLE SEARCH REQUIREMENTS

Type of Taking	Length of Title Search
Fee (all right, title and interest)	40 years
Wrought portion (prescriptive easement) - major acquisition	40 years
Wrought portion (prescriptive easement) - acquisition substantially same as existing area of occupation and use	Last acquisition (transfer) to date
Drainage easement	Last acquisition (transfer) to date
Permanent easement	Last acquisition (transfer) to date
Slope easement	Last acquisition (transfer) to date
Temporary construction rights	Deed Only Search
Temporary grading rights	Current deed only

➔ See the MaineDOT **Right of Way Manual**, sections 2-4 and 8-2.01.

5.11 Property Appraisals

An agency in most cases must have an independent, licensed appraiser prepare an objective estimate of the damages to each affected property – unless MaineDOT allows an agency to use its own staff. Additionally, an appraiser must have no interest in a parcel being appraised. MaineDOT maintains an Appraisal Register of consultants who are properly licensed or certified and are qualified to appraise property to be acquired for right of way.



Caution! The property owner or designated representative must be afforded an opportunity to accompany the appraiser during an inspection of the property. Otherwise, the federal money in a project could be jeopardized.

➤ See the *MaineDOT Right of Way Manual*, sections 4-1, 4-2 and 8-2.03.

5.12 Appraisal Reviews

Under federal law, a municipality or other organization must have its appraisal of a property reviewed, either by a qualified agency representative or by a licensed or certified appraiser not associated with the person who did the original appraisal. The reviewing appraiser provides quality assurance by checking the original appraiser’s computations, methods and techniques. The reviewer will **recommend**, **accept**, or **not accept** the valuation. The reviewer’s finding is the basis for an official Determination of Just Compensation.

➤ See the *MaineDOT Right of Way Manual*, sections 4-5 and 8-2.03.

5.13 Determining Just Compensation

Property owners are entitled to receive just compensation, but how is that determined? Appraisers use “fair market value,” the price that would be paid if a knowledgeable and willing buyer and seller reached agreement on a parcel after it was listed on the market for a reasonable length of time. Just compensation must be based on independent and objective appraisals of fair market value.

The amount of compensation will depend on the type of property taken and a project’s effect on that property. Here are some examples:

- **Whole acquisition.** If a whole parcel is taken, the owner will be paid for its entire value.
- **Partial acquisition.** If a portion of a parcel is acquired – and it is determined that the overall value of the property is not affected – the owner will be paid for the part taken.
- **Severance damage.** When a parcel sustains “severance damage,” an owner is paid not only for the market value and any contributory value of what is taken, but also for any resulting loss in value of what remains.
- **Uneconomic remnant.** If a partial acquisition leaves an owner with an “uneconomic remnant” – meaning that what remains is determined to be of no value or use to the owner – the acquiring agency must offer to buy that remnant.



5.14 Negotiations

Negotiations may begin once the National Environmental Policy Act (NEPA) process is completed and a “Determination of Just Compensation” is made. A negotiator must give a property owner a dated, written offer of just compensation and address any questions – always being careful to be sensitive to property owner concerns. Most importantly, the process must be **free from coercion**.

An initial offer to a property owner cannot be less than the acquiring agency’s recommended appraised value. The owner must be afforded a reasonable amount of time to consider an offer of just compensation and to consult with others. MaineDOT gives property owners at least **28 days** from the last offer.

Although the acquiring agency’s determination of just compensation is the basis for negotiations, an initial offer should not be considered a “take it or leave it” alternative. Information from the owner may be cause to revise the offer if, for instance, an important element of value was omitted from the appraisal or if the acquisition was not properly described in the appraisal.

Caution! The person who appraised a property cannot be the negotiator if the appraised value of the property exceeds \$10,000.

➔ See the *MaineDOT the Right of Way Manual*, sections 5-3 and 8-2.04.

5.15 Acquisition

Once negotiations have ended, an agency acquires property either by the transfer of documents (deeds) or by condemnation through a “Notice of Layout and Taking.” Except in cases where only temporary easements are required, the acquisition must include a release of the interest of any mortgagees, lessees, lien holders, or other parties.

If an affected property owner must move, the municipality or other organization in charge of a project should seek assistance from the MaineDOT project manager or Property Office, since the federal Uniform Act requires displaced persons to be offered relocation assistance in such cases.

The property owner will receive a copy of the Notice of Layout and Taking, a statement of just compensation based upon the appraisal, a copy of the plan as it relates to the parcel acquired, and a check for the compensation plus prorated taxes.



➔ If **MaineDOT** will hold title to the rights acquired for a project, MaineDOT either will perform the title searches and appraisals directly or coordinate the appraisal reviews and negotiations.

5.16 Right-of-Way Certification

After the “Notice of Layout and Taking” is filed with the appropriate county registry of deeds, the condemning agency must certify that all property rights and interest have been acquired that are necessary to construct the project. *(See sample Letter 10, on page 5-15.)*

As explained on page 5-4, **MaineDOT** will provide this certification if the State of Maine will hold title to any rights acquired for a project. The municipality or non-profit organization overseeing a project will provide certification if the title will be locally held. The certification states that all properties needed for construction of the project have been obtained in accordance with state law and the federal Uniform Act.

The certification must be submitted to MaineDOT before a project is advertised for construction bids. This documentation is a standard part of the final Plans, Specifications and Estimate (PS&E) package for a project.

5.17 Documentation

As with all other phases of a project, it is important to retain all records relating to the right-of-way process. The following documents should be kept for at least **four years** for purposes of audit:

- Valuation summaries and reports;
 - Offer letters;
 - Negotiator’s logs;
 - Correspondence with property owners; and
 - Settlement agreements.
-

Appendix 5A: Right of Way Checklist



□ RIGHT OF WAY

Date or N/A

- _____ **Limits of existing public right of way confirmed:**
- _____ Survey data
- _____ County layout records
- _____ Municipal “road book”
- _____ Plans from previously completed MaineDOT projects
- _____ Prescriptive easement limits
- _____ **Acquisition Plan Approved by MaineDOT (Letter 9 or e-mail)**
- _____ Process Outline
- _____ Staff Qualifications
- _____ Owner Dispute Resolution Procedures
- _____ **Parcel Summary Completed, including:**
- _____ Listing of owners impacted
- _____ Valuation process summarized
- _____ Donations, if any
- _____ **Titles and Certifications Complete** (*See MaineDOT R/W Manual §8-201*)
- _____ **Right of Way Mapping Complete** (*See MaineDOT R/W Manual §8-202*)
- _____ Name & address list of abutters - property owner reports
- _____ Existing right of way and rights
- _____ Property pins listed
- _____ Abutting ownerships, from title abstracts
- _____ Proposed new right of way and rights (MaineDOT Standards)
- _____ **Determination of Just Compensation made** (*See MaineDOT R/W Manual §8-2.03*)
- _____ Necessary information provided to appraiser
- _____ Owner provided opportunity to accompany appraiser
- _____ Appraisal format eligibility determined parcel by parcel
- _____ Appraisal reviews conducted, where required
- _____ Written statement of Just Compensation prepared

➔ **National Environmental Policy Act process must be completed before proceeding** ←

- _____ **Federal Authorization to Proceed to Phase 2 of Right-of-Way Process Received**
- _____ **Negotiations initiated with the owner(s)**
- _____ Offer presented; impacts discussed all owners
- _____ Negotiations Completed / Negotiations at Impasse
- _____ **Property Donations Considered** (*See MaineDOT R/W Manual §8-2.07*)
- _____ Owner(s) informed of right to receive just compensation
- _____ Owner(s) signed “Donation and Acknowledgement/Waiver of Just Compensation.”
- _____ **Title and Rights Perfected**
- _____ Title Acquired by Negotiations
- _____ Title Acquired by Eminent Domain (*See MaineDOT R/W Manual §8-2.08*)
- _____ Payments made before possession of property is surrendered

_____ **Right of Way Certified (Letter 10)** [See *MaineDOT R/W Manual §2-2.02(b)*]

_____ All Right of Way Acquired

_____ Rights to Occupy All Right of Way Acquired

_____ All Right of Way not Acquired

_____ Certificate co-signed by MaineDOT

_____ **Parcel and Project Files**

_____ Parcel Files Complete (*See MaineDOT R/W Manual §8-4.01*)

_____ Project Summary Records (*See MaineDOT R/W Manual §8-4.02*)

_____ **Title and Rights Transferred to State of Maine** (State or State-aid road)

_____ **Title and Rights Transferred to Municipality** (local street or off-system trail)

Appendix 5B: Sample Letters and Forms



**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification
MaineDOT WIN_____

Dear _____:

Attached is the official certification that all Right of Way acquired for [**project scope, WIN**] in the Municipality of _____ was acquired in accordance to requirements identified in the executed Project Agreement dated [**execution date**]. All information about the Right of Way process can be made available to you at your request. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Right-of-way certificate

MUNICIPALITY OF _____
RIGHT OF WAY CERTIFICATE

FEDERAL PROJECT		WIN	
-----------------	--	-----	--

ROUTE		LOCAL NAME
-------	--	------------

RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:

Property Owners		Fee Simple Parcels		Easement Rights	
-----------------	--	--------------------	--	-----------------	--

Displacement Summary:	Number of Cases
Number Displaced	<input style="width: 100%;" type="text"/>
Number Relocated	<input style="width: 100%;" type="text"/>

The Municipality of _____ hereby certifies that the right to occupy and use all the rights of way necessary for this project has been acquired by deed, condemnation or permit to work. All right-of-way has been or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property and all relocations have been accomplished.

Without Exception

Legal Possession completed as of

All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by federal regulation.

Signed by:

Local Project Administrator	Date

**Donation and Acknowledgement/Waiver of
Right to Receive Just Compensation**

MUNICIPALITY OF _____

FEDERAL PROJECT NO.: _____

MAINEDOT WIN: _____

PARCEL/ITEM NO: _____

OWNER(S): _____

(I)/(We) acknowledge having been informed of the right to receive just compensation based upon an approved appraisal. Notwithstanding, I/we desire to donate the right of way (land and/or rights therein) and release

_____ from its obligation to provide an appraisal and offer for the real estate needed for the above referenced project. This donation to the _____ is made without coercive action of any nature.

DATED:

WITNESS

SIGNATURE OF OWNER(S)

SAMPLE

MUNICIPALITY:
MaineDOT WIN:
PROJECT LOCATION:
PARCEL/ITEM NO.:
OWNER(S):

NEGOTIATOR'S STATEMENT

I hereby certify that:

1. The attached agreement for settlement contains all considerations agreed upon by the owner(s) and the undersigned.
2. The agreement was rendered without coercion, promises other than those shown in the agreement, or threats of any kind whatsoever by or to either party.
3. I understand that the property and/or rights are to be secured for use in connection with a Federal Aid Highway Project.
4. I have no direct or indirect present or contemplated future personal interest in the property or in any benefit from the acquisition of the property.

Signed: _____

Title: _____

Date: _____

Appendix 5C: Property Owner Report Form

PROPERTY OWNER REPORT

Note: MaineDOT uses this form to obtain basic information on the parcels along the route of a project. It is included here as guidance on the type of information typically sought from property owners.

Tax Map Block Lot WIN
Town
Date

Owner of Property:

Spouse:

Contact Person for Companies/Organizations:

Legal Address:

Mailing Address:

Home Phone:

Business Phone:

Can Owner be Contacted at Home? Yes No At Work? Yes No

PROPERTY INFORMATION

Deed Information: Book: Page: Date:

Remarks:

Name of Previous Owner: _____

Boundary Line Markers: Yes No Type: _____

If a fence or hedge exists, do you or your neighbor own the fence or hedge? _____

Date Building Built: _____

Any Cemeteries on Property? Yes No

Is Property or Building registered as a Historic Site? Yes No

Is Property considered Park lands, commonly referred to as 4F lands? Yes No

Is Property licensed with the Federal Energy Regulatory Commission (FERC)? _____

Has Property been Surveyed? Yes No Is Survey Recorded? Yes No

Name of Surveyor: _____ May We Obtain a Copy? Yes No

Approximate Frontage on Highway: _____ Total Area of Lot: _____

Water Supply: Drilled Well (ft.) Dug Well (ft.) Spring Municipal Well Point (ft.)

Has Supply been Adequate for the Past Five Years? _____ No. of People: _____

Is Location of Water Source Known? Yes No (If yes, show on sketch of property)

Sewage: Septic Tank & Leach Field / Cesspool / Municipal / Other _____

Is Location of Sewage System Known? Yes No (If yes, show on sketch of property)

Private Pipes or Wires Into or Under Highway? Yes No Pipes Wires

Property Use Residence: Yes No Owner Occupied or Rented:

If Rented, No. of Units: Number of Tenants:

If Farm Property: Count of Stock Acres of Pasture

Acres Cultivated Acres Leased Acres Non-Locus to Farm:

Is Property under Maine Tree Growth Law? Yes No

If Commercial Property: Type Owner Occupied or Leased:

Name of Lessee:

Underground Storage Tank(s)? Yes No / Gas Diesel Heating Oil

Chemical or Hazardous Substances? Yes No (If yes, show on sketch of property)

Do you own the Tank(s)? Yes No If no, name of owner:

Owner’s Comments:

PLEASE MAKE SKETCH OF PROPERTY: (Use Separate Sheet if Necessary)

Appendix 5D: Right of Way Manual

Section 8 - Local Agency Acquisition



MaineDOT

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CHAPTER EIGHT

LOCAL AGENCY ACQUISITION

8-1 LOCAL AGENCY ACQUISITION POLICY

8-1.01 Partnering with Municipalities

Citizens of the State and the community benefit when local officials acquire right of way under agreement with the Maine Department of Transportation (MaineDOT). Local officials know the needs and concerns of citizens. Property owners in the path of highway development are more likely to amicably settle property acquisition claims on the basis of fair market value when they are approached by officials they know, who share the same community interests. This enables highway projects to be completed expeditiously and at reasonable cost. It also results in a high degree of citizen satisfaction with the right-of-way process and the completed project.

Private property ownership is a basic right that is protected by the Constitutions of both the United States and Maine. The taking of property is constitutionally conditioned on public necessity and on payment of just compensation for property acquired for a public need. Federal and State laws provide additional citizen protections. These control the process by which property is acquired and are intended to ensure that persons who are affected by acquisition are not disproportionately injured by projects that are intended to benefit the public as a whole.

MaineDOT assists municipalities in acquiring property that is needed for highway projects in compliance with Federal and Maine law. This chapter sets forth basic requirements of law and State policy. It describes and explains the critical steps in the property acquisition process. The objective is to enable local officials to proceed with confidence that they are conforming to all requirements of the law, reducing the amount of time devoted to the research and study of procedures and rules.

This Chapter does not address unique or complex situations. Right-of-way acquisition is a human endeavor. Circumstances will arise that are not addressed by this brief coverage and that may be outside the experience of officials charged with this function. To address this situation, MaineDOT assigns a liaison representative to advise and consult on project right-of-way issues and problems. The assigned MaineDOT staff will have varied statewide experience and will provide practical advice that conforms to applicable law and regulations. In addition, the MaineDOT representative will strive for program consistency so that citizens are treated fairly and equitably, without regard to the part of the State they live in or the nature of their occupancy or type of acquisition.

8-1.02 Administration

Locally administered projects are overseen primarily by the Multimodal Program in the MaineDOT Bureau of Project Development, which assigns a Project Manager to provide support and guidance during the project development process. The Project Manager (PM) arranges for resources within MaineDOT to assist in this oversight, including the assignment of a Right-of-Way liaison from the Property Office to assist the Local Agency.

8-1.03 MaineDOT Services

MaineDOT will perform these activities on locally administered right-of-way acquisition projects:

1. Ensure that the project is in the MaineDOT Work Plan and that Federal funding is committed, if applicable. The assigned Senior Property Officer will assure that proper R/W authorizations are in place.
2. Consult with local officials to identify the scope, schedule and cost of right-of-way acquisition. Generally, if the acquired property will become State owned, MaineDOT will be responsible for the acquisition. If the property will become municipally owned, the local agency will be responsible for the acquisition with assistance from MaineDOT.
3. Prepare an agreement, in consultation with local officials, defining the State/local responsibilities.
4. Advise the municipality on the application of State and Federal laws and regulations concerning right-of-way acquisition to specific project and parcel problems and situations.
5. Revise and update regulations, policies, procedures and guidance material.
6. Train local staff that are or will be engaged in right-of-way acquisition. Training is normally delivered through an agreement with professional organizations including the National Highway Institute, the International Right of Way Association or the American Association of State Highway and Transportation Officials.
7. Monitor the performance of right-of-way activity in conformity with MaineDOT's Quality Assurance/Quality Control Program.
8. Provide referrals of qualified and experienced private service providers in right-of-way functions, including appraisal, negotiations, relocation, legal services and title work.
9. Reimburse the municipality for eligible costs based on supported claims that are submitted by the local jurisdiction.

The assigned MaineDOT Senior Property Officer will perform many of the above services. The municipality shall stay in touch with the representative through the property acquisition phase of the project. Usually, the Senior Property Officer will meet with the responsible municipal officials at an early stage to review policy questions and the project schedule and to discuss any critical or complex cases.

For all property acquired, whether by the municipality or MaineDOT, it is MaineDOT's ultimate responsibility to ensure that the acquisition is done in accordance with all applicable State and Federal laws, regulations, and policy. Coordination between MaineDOT and the local agency can be an essential element in providing that assurance. The Senior Property Officer assigned to the project will closely monitor the acquisition activities of the agency on a regular and ongoing basis.

8-1.04 MaineDOT/Municipality Agreement

A formal agreement defining the roles and responsibilities of the municipality and MaineDOT will be executed for every project on which a municipality will assume responsibility. This is a comprehensive agreement covering all phases of work, including right-of-way. The agreement will normally provide for complete assumption by the municipality of all right-of-way acquisition responsibility as stated previously in Subsection 8-1.03. However, specific activities may be reserved for MaineDOT performance. This may include the relocation of residents who will be displaced as a result of acquisition. Any municipality opting to acquire right-of-way as part of project administration shall follow the requirements of the Uniform Act and the procedures outlined in this Manual.

The agreement will state that the standard of performance for right-of-way work will meet the requirements of the Federal ***Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*** (as amended)(***Uniform Act***). This Chapter sets forth the basic and minimum requirements of the ***Uniform Act*** for the acquisition of property where no relocation is involved.

The MaineDOT/Municipality Agreement is an open-draft document that is intended to address the circumstances of specific projects. MaineDOT staff will consult with local officials in advance concerning the scope and content of the agreement so that it is relevant to the project and meets the needs of both parties.

8-1.05 Applicable Laws and Regulations

The local agency performing property acquisition is subject to the same laws and regulations as if MaineDOT were the acquiring agency. Following is a brief summary of the legal authorities that control the acquisition of real property for right-of-way:

1. **U.S. and Maine Constitutions**. Both require public necessity and payment of just compensation for the taking of private property. Additionally, the U.S. Constitution requires due process when States acquire privately owned property.
2. **The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (amended 1987)**. The ***Uniform Act*** is landmark Federal legislation that applies to all property acquisition for Federal or Federally-funded projects. States, including Maine, have enacted legislation that enables compliance with the Federal law. Maine, through State law, has extended its provisions to State-funded projects.

The ***Uniform Act*** extends a system of rights and protections to property owners, with corresponding obligations for acquiring agencies. It sets forth a process for

- establishing value (just compensation) and negotiating with owners to encourage amicable settlements, thereby minimizing having to resort to the courts for condemnation. An important part of the *Uniform Act* provides a system of protections and benefits to persons who are displaced as a result of public projects. The procedural provisions described in this Chapter arise from the requirements of the *Uniform Act*.
3. 23 CFR 710. The *Code of Federal Regulations (CFR)* provides interpretive detail to Federal law and carries the full force and effect of Federal law. The above regulatory reference pertains to real property acquisition policy for highways.
 4. 49 CFR 24. This is the Federal regulation that sets forth policy in implementing the relocation provisions of the *Uniform Act*.
 5. Title 23 MRSA Part 1. State Highway law contains provisions at Sections 61, 63, 73 through 246, 652 and 653 pertaining to the acquisition of real property and the relocation of displaced persons. Municipalities acquire property under authority of Title 23 Part 3, Chapter 304 (see below). However, this Chapter refers back to Sections 154 through 154E in Part I for purposes of determining damages to real property.
 6. Title 23 MRSA Part 3 Chapter 304. This is the Maine Revised Statute pertaining to local highway law. Chapter 304 defines the acquisition of property for highway purposes.

The Maine Statutes referenced above are fully conforming to the detailed provisions of the *Uniform Act* and the implementing regulations in 23 *CFR* 710 and 49 *CFR* 24.

8-1.06 Transfer of Title to the State of Maine

If a municipality acquires fee title and/or easements on a State or State-aid road, title to the facility will be transferred to the State of Maine when the project is complete. The process for the transfer will be determined in consultation with the Project Development Bureau's Property Office.

8-1.07 Quality Assurance

MaineDOT is committed to continuously improve the quality, efficiency and effectiveness of its programs and services. In partnering with MaineDOT, a municipality or local agency assumes a role in quality assurance. MaineDOT's concept of quality is based on the premise that every person involved in the process at any level has a responsibility for advancing quality. Quality advancement is a responsibility of each employee. It is not exclusively a management, supervisory or audit function. The following activities are appropriate quality advancement measures that can be undertaken by the municipality performing real property acquisition:

1. Perform a second-party internal review of all documents before they are delivered to the property owner. This includes appraisals, agreements, and instruments of conveyance, offer letters, etc.
2. Provide relevant training to agency personnel who are engaged in specialized right-of-way activity (e.g., appraisal, negotiations, titles, relocation).
3. Perform quality spot checks of completed work concurrent with any ongoing project acquisition activity.
4. Perform peer reviews of work activity when there is more than 1 staff person involved in property acquisition for right-of-way.
5. Conduct phone or mail surveys of property owners following acquisition.
6. Develop internal procedures or policy to apply to specific recurring situations or circumstances in order to ensure consistency and equitable treatment.
7. Perform joint project reviews between MaineDOT and local agency management staff.

The above are examples, but not an exhaustive list, of quality assurance actions. Other measures may be appropriate and effective depending on agency staffing, organization and the project. Specific quality assurance measures may be suggested by MaineDOT and incorporated into the MaineDOT/Municipality Agreement.

The agency quality assurance activities do not replace audits and reviews that are performed by State, Federal or local audit authorities. MaineDOT has responsibility under 23 *CFR* 710.203(c) to monitor property acquisition activities conducted by political subdivisions to ascertain that right-of-way is acquired in accordance with the provisions of State and Federal laws and as required by Federal Highway Administration directives.

8-2 ACQUISITION PROCESS REQUIREMENTS

The procedural items discussed in this Section are basic requirements of the *Uniform Act* in the process of acquiring real property for highway right-of-way. They are presented with minimum detail in order to afford flexibility to municipalities to adapt their process to their organization structure and the nature of the project. Additional information can be secured from the other chapters of this *Manual* that pertain to individual acquisition functions. Also, information and advice will be available from the Senior Property Officers and Property Office.

8-2.01 Title Investigation and Certification

Title investigations and certifications may be performed by municipality legal staff, or may be contracted to private attorneys. Municipalities will follow the standards established by the Maine State Bar Association for title examinations, including treatment of clouds or defects in title. Exceptions to these standards will be acceptable only on approval of the MaineDOT Office of Legal Services.

As soon as the right-of-way acquisition needs are identified for a project, acquisition to date titles will be prepared for all properties from which either permanent or temporary rights will be acquired. This work will enable detailed plotting of property lines and ownership information on plans.

Detailed guidance on title examinations for highway acquisition, including length of title search history for different types of takings is provided in Chapter 2. Section 2-4.03 provides guidelines for handling clearance of mortgages and other liens on property. On property acquired by deed, liens will be extinguished by securing releases, or the lien holder will named as payee on the check for settlement in accord with criteria for different types of acquisitions defined in Section 2-4.03.

A final rundown of title will be performed on all acquisitions immediately prior to recording the acquisition documents. The municipality will secure an attorney's certification that the municipality has secured the required necessary rights to construct the project as designed, and that all applicable Federal and State requirements governing these acquisitions are satisfied. A final project certification will be made using the format of the MaineDOT Certification statement referenced in Chapter 1, Section 2.02(b).

8-2.02 Right of Way Mapping

The function of right-of-way mapping includes gathering and managing real property information and highway system information, and preparing the right-of-way plans and acquisition documents necessary to acquire property for highway projects. This section provides a brief overview of the mapping function.

The initial step in mapping is gathering data on ownership and improvements on each parcel of land the project is likely to affect. Mapping personnel then determine property rights underlying the existing or proposed transportation facility. Mappers will translate the information into preliminary right-of-way maps that show the existing limit of the right-of-way or other Public ownership. Mappers later prepare final right-of-way plans that document the new right-of-way

limits of the project, basic design features including entrances and slopes, and the areas and types of acquisitions needed for the project. The final right-of-way plan serves as the basis for the parcel descriptions included in the property acquisition documents. A municipality will need to provide maps and property plats for the condemnation cases.

Municipalities may contract for performance of mapping functions. Guidance for the mapping process is contained in Chapter 2. The MaineDOT Property Office unit can provide detailed advice on mapping specifications or questions on specific project situations.

8-2.03 Determination of Just Compensation

Just Compensation is the measurement of damages resulting from a taking under power of eminent domain. The agency's estimate of just compensation is determined by means of real estate appraisals, which are independently reviewed by a qualified review appraiser, or MaineDOT approved waiver valuation procedure.

The Just Compensation determination is typically made by an authorized official within the acquiring agency. MaineDOT recommends that on municipal acquisitions the official determining Just Compensation be the highest ranking administrative officer in the municipality, typically the Manager or First Selectperson.

Independent contract appraisers in Maine are certified or licensed by the Maine Department of Professional and Financial Regulation. MaineDOT maintains an Appraisal Register, which is a current listing of consultant appraisers who are properly licensed or certified and are otherwise qualified by experience and performance to appraise property to be acquired for highway right-of-way. MaineDOT recommends that a municipality contract with an appraiser on the Appraisal Register in accordance with Local Project Administration certification

When using an independent appraiser, consider the following:

1. Information Provided to the Appraiser. The appraiser must be given sufficient information to value the property rights to be acquired, especially the following:
 - a. Name, address and phone numbers of the owner(s);
 - b. Preliminary title information showing current ownership and recent sales;
 - c. Description of the property rights to be appraised; and scope of work.
 - d. Plan sheet indicating property lines and taking, including grade changes and mitigation measures (e.g., driveway restorations or landscaping).
2. Provide Owner the Opportunity to Accompany Appraiser. The appraiser must provide an opportunity to the property owner to accompany the appraiser in an inspection of the property. This is a basic requirement of the *Uniform Act* and cannot be waived. The appraiser should document efforts to contact the owner as well as provide the owner's response to the offer to accompany the appraiser.

3. Appraisal Format and Number of Appraisals. When developing the appraisal, consider the following:
 - a. MaineDOT uses a Short Format Appraisal to value property when there are no damages or special benefits to the remainder and the highest and best use of the remaining property is not changed. This is discussed in Section 4-2.04.
 - b. MaineDOT may waive a formal appraisal of uncomplicated acquisitions where the value of the taking does not exceed \$10,000. In this instance, just compensation is determined by a qualified person, not necessarily an appraiser, through a simplified valuation process based on direct comparison with available market sales information. In order for an assessor to be deemed qualified, they must be either a Certified Maine Assessor or a Certified Assessment Technician. This process is fully described in Chapter 3. It should be noted that the administrative acquisition process is used only when settlement can be reached on this basis after explaining the process to the owner.
 - c. Some acquisitions will require more than one appraisal to be performed. Circumstances for a second appraisal include the property or the acquisition being of high value or uncertainty existing about the highest and best use of the property either before or after the acquisition.
 - d. Before executing an agreement, the assigned Senior Property Officer will review the expected property acquisitions with local officials and jointly agree as to the proper appraisal format to be used and acquisitions in which more than 1 appraisal is appropriate.
4. Appraisal Review to Determine Value. The fair market value offer that will be presented to the property owner as just compensation is determined by a formal review of the appraisal(s) secured for the property. The appraisal review function may be performed by a qualified agency representative or by a licensed or certified contract appraiser who is not associated with the person who performed the appraisals. The appraisal review will include a check of the factual information and computations in the appraisal. It will also conclude to a fair market value for the acquisition based on an evaluation of support and reasonableness of the appraisal value conclusion. The review appraiser is responsible to secure any needed appraisal corrections or additional documentation. The appraisal review process is discussed in Section 4-5.
5. Approval of the Appraisal: After the review is completed, the appraisals will be approved at the MaineDOT by the Senior Property Officer overseeing the right-of-way phase of the project.

6. Written Statement of and Basis for Amount Established as Just Compensation. A written offer of fair market value must be prepared for presentation to the owner, accompanied by a summary statement of the basis for the amount the agency has established as just compensation. The summary must provide the following information to enable the owner to make a reasonable judgment concerning the amount of the offer:
 - a. A description and location identification of the real property and the interest in the real property being acquired;
 - b. Identification of buildings, structures and other improvements, including removable building equipment and trade fixtures, considered to be part of the real property to be acquired; and
 - c. The amount established as just compensation. In the case of a partial acquisition, the compensation for the real property to be acquired and for damages to the remaining property must be stated separately.

8-2.04 Negotiations with the Owner

Agencies that acquire private property for public projects are aware of the need to be sensitive to property owner concerns as well as their rights under the Maine and the U.S. Constitution and laws. Most owners are willing sellers. However, the process is involuntary in that the owner does not have the option not to sell. Therefore, it is important to negotiate for acquisition with a high degree of preparation, knowledge about the public need (i.e., the project) and professionalism in contacts with owners. Before negotiations can begin, the municipality **must ensure that the NEPA process is complete** and that the appropriate documentations are in place. Failure to complete this step and initiating negotiations prior to NEPA complete will jeopardize all Federal participation in the project. The Municipality must check with the MaineDOT liaison to ensure NEPA Complete before proceeding.

The agency representative should present the written offer of fair market value in person, explain the project and the need for acquisition, and address any owner questions about the offer and the valuation process. In addition, the representative should discuss the project schedule and any effects of the acquisition or the project on remaining property. Sufficient time should be provided to the owner to consider the offer and to consult with others concerning the acquisition and the reasonableness of the offer which may be at least four weeks in the event condemnation is needed. This may require follow-up contacts. The agency has a responsibility to make every effort to acquire property expeditiously by negotiations.

The agency-determined fair market value is the basis for negotiations, but the offer should not be considered a “take it or leave it” alternative. Information provided by the owner may be cause to revise the offer, for instance, if an important element of value was omitted from the appraisal or the acquisition was not properly described in the appraisal. Also, the agency has authority to administratively increase the offer amount if this would promote a settlement that would be in the overall public interest. Reasons for administrative settlement need not be based on valuation,

but might consider other factors including condemnation costs, need for expeditious settlement or the risk of a court award that is significantly greater than the agency determination of value.

Any administrative settlement offer amount that is above the established fair market value must be fully explained in the file by the authorizing official, with an explanation as to how the offer is in the public interest. All negotiations contacts with owners should be documented on a diary log that states the date of contact, the parties contacted and a summary of the discussion.

8-2.05 Tenant-Owned Improvements

The property acquired may include buildings, structures or other real property improvements that are owned by a tenant rather than the landowner. The tenant may have a lease that specifies that improvements be removed at termination of the lease. Tenant-owned improvements are more likely to be encountered on commercial use property. Examples include trade fixtures in a retail store or a panelized walk-in cooler for a restaurant. A tenant-owned improvement on a residential property might be an outbuilding (e.g., a storage shed) or a swimming pool.

Property that would be considered real property if it is owned by the landowner is also considered real property for acquisition purposes. The agency must acquire interest in tenant-owned improvements that are located on property that is acquired for the project. A separate offer of the value of the improvements must be made to the tenant owner, but only if the landowner first disclaims any interest in the improvements. If the landowner refuses to disclaim interest, the tenant is advised of this fact. The acquisition payment to the landowner will include the value of the improvements. Disputed ownership will then be a matter to be resolved between the landowner and the tenant.

The value of tenant-owned improvements will be determined as the greater of the amount that the improvement contributes to the fair market value of the whole property, or the value for removal, which is the same as salvage value.

8-2.06 Uneconomic Remnants

An uneconomic remnant is a remainder property after acquisition that the acquiring agency determines has little or no utility or value to the owner. The *Uniform Act* requires that the agency offer to purchase uneconomic remnants. This requirement is based on the reasoning that an owner should not be burdened by having to maintain and incur taxes and other costs for a property remnant that is created by the public taking that is of no value or use to the owner. The decision to sell the uneconomic remnant is voluntary on the part of the owner.

8-2.07 Donations

The acquiring agency may accept donation of the property or any part of the compensation that would be due to the owner for the acquisition and must inform the owner of the right to have the agency appraise the property and be offered full fair market value. In accepting a donation, however, the agency must receive owner acknowledgement in writing that they understand their rights to an appraisal and just compensation and subsequently release the acquiring agency from its obligation to provide an appraisal. If the motivation for donation is a tax reduction, the owner should be advised that the Internal Revenue Service requires an independent third-party

appraisal. The agency may, at its election, reimburse the owner's cost for an appraisal. The selection of an appraiser and compliance with tax law requirements is the property owner's responsibility.

It is important that the agency not take any action that could be perceived as coercive of the owner to donate property. An example of a coercive act would be to tell an owner: "All your neighbors have agreed to donate. They are going to be unhappy to know this project is delayed because of your refusal to donate". Donations negotiated for the project but prior to signing a project agreement, are still subject to Uniform Act acquisition requirements on federally funded projects.

8-2.08 Exercise of Eminent Domain

The municipality acquiring real property should make every reasonable effort to settle amicably by negotiations as described above. If municipal officials determine after sufficient contacts that settlement based on negotiations is not feasible, and the project schedule requires immediate taking of property interests, title should be acquired by filing a condemnation order in the manner specified in 23 *MRSA* Chapter 304, Section 3023. The municipality will issue a check in the full amount of determined damages, fair market value, for delivery with the service of record copy of the condemnation order. Service on any one of multiple owners will be considered service on all owners. Title will pass to the municipality on service of the order of condemnation and check, or recordation of the deed or certificate as specified in 23 *MRSA* Section 3024, whichever occurs first.

A property owner who is not satisfied with the determination of damages that are awarded in the process of eminent domain as described above may appeal to the State Supreme Court in the county where the property lies. The owner's appeal to the Superior Court must be made within 60 days after the day of taking as specified in 23 *MRSA* Section 3029.

8-2.09 Payment for Property Before Being Required to Surrender Possession

The *Uniform Act* requires that no owner be required to surrender possession of real property before the acquiring agency pays the agreed purchase price. This requirement is served in condemnation by the process described in Section 8-2.08. In negotiated settlement, the municipality will deliver a payment check to the owner in the full amount of the agreed settlement before the agency takes physical possession of the property or requires the owner to vacate the property.

8-2.10 Payment for Expenses Incidental to the Transfer of Title

The acquiring municipality will pay actual and reasonable costs of transferring the title to the acquired property, including:

1. Recording fees, transfer taxes and similar expenses, if any, that are incidental to conveying the property to the municipality;

2. Penalty costs for prepayment of any preexisting recorded mortgage encumbering the real property; and
3. The pro rata share of real property taxes paid by the owner for the period after the date of vesting title or the effective date of possession of the property, whichever is earlier.

8-2.11 Written Advance Notice to Vacate Occupied Property

No person who is lawfully occupying real property will be required to move from a dwelling or to move a business or farm operation without at least 90 days' written notice from the acquiring agency of the date by which the move is required. The occupant should have a reasonable length of time to find other adequate facilities (e.g., housing or replacement business site) and to effect an orderly relocation.

The timing, content and delivery of a notice to vacate are determined by the Relocation Program procedures. If issuance of a formal notice to vacate is required, the municipality should consult with the MaineDOT liaison representative to ensure that the notice complies with all regulatory requirements.

Less than 90 days' advance written notice is permitted if continued occupancy of the property would constitute a danger to the person's health or safety. The determination and circumstances must be included in the project files.

8-2.12 Relocation of Residents or Businesses

The municipality may pay for the relocation of minor personal property items from the acquisition area to remaining property as a direct reimbursement claim based on the owner's actual and reasonable cost.

The relocation of residences, businesses or farms must be undertaken in strict compliance with Title 3 of the *Uniform Act* and Chapter 6 of this *Manual*. Relocation is a highly specialized activity. MaineDOT recommends that the municipality consult with the assigned Senior Property Officer at the earliest time that a possible residential or business displacement is identified. The circumstances will be reviewed and determination made as to whether the relocation function will be performed by the municipality, contracted to a qualified private party or performed by MaineDOT staff.

It is important to know that property acquisitions that involve relocation will require significantly greater lead time than those acquisitions involving land only. There is an absolute requirement to make comparable replacement housing available to each displaced person or household and to provide at least 90 days' notice after a displacee is advised of the availability of replacement housing. The agency must schedule the project to accommodate the relocation time requirements.

8-3 PROPERTY MANAGEMENT

The municipality is responsible for maintenance, security and management of acquired land improvements after acquisition. This includes the following items:

1. Rodent Control. Properties should be inspected after acquisition for rodents and other hazardous conditions. If rodent infestations are found, the municipality must take removal actions to preclude migration to nearby properties. This should be performed before demolition of the acquired land improvements.
2. Hazardous Substances. Buildings containing asbestos or other hazardous materials must be demolished in compliance with State and Federal criteria for these conditions.
3. Security and Safety. The municipality is responsible to maintain safe conditions at acquired sites. This includes preventing blighting influences to adjacent property by removing accumulations of trash and taking measures to control vandalism and dumping. Buildings should be secured appropriately, including boarding or fencing if necessary. Particular attention must be given to removing conditions that could attract and be hazardous to children.
4. Demolition or Removal of Structures. Structures may be sold for removal from the site or be demolished. If structures are sold, the municipality must use a fair and open process for selecting a buyer, require a cash security deposit or bond to guarantee performance, and require insurance to indemnify the municipality and the State from any liability.

The municipality may demolish structures with its own forces or contract for demolition prior to construction, or removal may be included as a work item in the highway construction contract.

The owner of acquired land may retain ownership of structures for removal to remaining property. This should be arranged during the negotiations for the property, with appropriate adjustment to the fair market value to reflect the retention value of the structures.

5. Rental of Acquired Property. Usually, the construction schedule will preclude the rental of acquired property. If the project is delayed or property is acquired significantly in advance of project need, the municipality may allow occupancy for public or private use before construction, but the amount charged in rent may not exceed what is appropriate for short-term occupancy in the area. The rental or use and occupancy agreement should specify that occupancy after agency acquisition does not create any right or obligation by the municipality or MaineDOT for relocation benefits of any kind. Any revenues will be applied to reduce the net cost of the project.

8-4 PARCEL AND PROJECT RECORDS AND REPORTS**8-4.01 Parcel and Project Files**

The acquiring agency will keep a separate file for each real property acquisition and a file for the right-of-way project as a whole. The records will be sufficient to demonstrate compliance with applicable laws and regulations. The following will be included in the parcel and project files:

1. Right of way map or plan showing the right-of-way acquired, including parcel numbers property lines, area acquired and structure improvements and fences;
2. Project plans and property plats, sketches or descriptions;
3. Property ownership information, including title reports;
4. Appraisal Reports and related assignment and contract documents;
5. Statement of determination of fair market value;
6. Offer letters to property owners;
7. Negotiations logs or contact sheets;
8. Correspondence with property owners and MaineDOT;
9. Settlement agreements and contracts and justifications for administrative settlements;
10. Condemnation documents and filings;
11. Credits for sale or rental of property; and
12. Documents relating to property management or the rental or sale of property and structures.

8-4.02 Project Summary Records

Project summary data should be maintained as agreed in consultation with MaineDOT for each project. This may include a summary sheet showing key dates for each parcel, indicating the following:

1. Appraisal assignment;
2. Date the appraisal was received;
3. Date and amount of the fair market value that was established;
4. Date a written offer was presented to the owner and negotiations were initiated;

5. Date and amount of the settlement;
6. Date condemnation was filed;
7. Date the title was transferred;
8. Costs of excess land and any uneconomic remnants acquired;
9. Incidental expenses by parcel; and
10. Cost of construction items performed for mitigation of damages.

The specific project summary data will vary with the type of project and character of work to be performed. Projects with relocation may require a different data set.

MaineDOT and the municipality are subject to audit by State authorities, the FHWA and the U.S. Department of Transportation. Beyond the information noted above, sufficient documentation should be retained in files to track the origin and basis for any costs that are charged to the project as specified in 49 *CFR* Section 18.42.

MaineDOT provides summary information on acquisition and relocation annually to the FHWA in order to carry out national program reporting responsibilities. The municipality will provide contributing information on projects under its responsibility.

8-4.03 Acquisition Policy Resources

The following Right of Way Program information resources will be provided to the municipality on initial assignment of responsibility for right-of-way project acquisition:

1. The MaineDOT *Right of Way Manual*;
2. The FHWA *Real Estate Acquisition Guide for Public Agencies*;
3. *Maine Revised Statutes Annotated, MRSA Title 23*;
4. *U.S. Code of Federal Regulations, 23 CFR 710–712, and 49 CFR 24*; and
5. Policy memoranda and guidance issued by MaineDOT and the FHWA.

8-4.04 Confidentiality and Retention of Records

The municipality should ensure that all parcel and project files relating to appraisals and negotiations are secure and that only those persons qualified to access the files are allowed to view them. These records are not available for public information except as noted below, and their integrity should be carefully maintained.

Access to confidential records should be restricted to officials of the municipality, MaineDOT, the State Auditor and the Federal Highway Administration. Because these data provide the documented support for the establishment and payment of just compensation required by law, they should be

secured in a safe area with backup records developed as considered necessary. This is especially important if the data are maintained in computerized form.

Project and parcel records relating to appraisals and negotiations will be open to public inspection 9 months following the completion date of the project. Records relating to claims appealed to the Superior Court will be open to public inspection following the award of the Court.

Notwithstanding public availability of appraisals and negotiations records above, parcel records may contain information of a personal nature relating to claimant income, assets, tax information etc. This information may be protected from disclosure under privacy laws. Officials should consult the local agency or MaineDOT Chief Legal Counsel before making records available.

The municipality will retain records in accordance with the MaineDOT records retention policy as provided in the MaineDOT/Municipality Agreement.

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Local Project Administration Manual & Reference Guide

6. Utility Coordination



MaineDOT

Integrity - Competence - Service

2014 Edition

Utility Coordination

Cities, towns and other local public agencies planning transportation projects must work with any utility company or railroad that may be affected. Utilities consist of public or private lines or equipment – power lines, telephone landlines, cable television lines, underground water, sewer, gas and telecommunications lines, and railroad tracks. To keep a locally administered project on schedule, it is important to identify these facilities and contact their owners as early in the design process as possible.

This section covers the utility coordination process and includes:

- A summary with key steps (pages 6-1 to 6-4);
- A checklist – Figure 6.1 (page 6-5);
- A utility certification form – Figure 6.2 (page 6-6);
- Appendix 6A: Utility coordination process (page 6-7);
- Appendix 6B: Utility letters and forms (page 6-17); and
- Appendix 6C: Utility special provision (page 6-27).



➡ For electronic documents and other information, visit MaineDOT's utilities webpage: <http://www.maine.gov/mdot/utilities/>

As design work begins, the municipality or other organization in charge of a project should consider the following questions regarding utilities:

- What is the scope of the project?
- What utility facilities already exist in the right of way?
- If the project is abutting another project with same scope, what was done in that case?
- Can utility relocations be eliminated/reduced and still meet the project need?
- How much room is there for clearing?
- What are the concerns of the utilities?

Early consideration of utility issues will provide the time to work out details of avoidance, relocation, protection or upgrading as a project is being designed. The earlier the process begins, the more likely it is that coordination will go smoothly and deadlines will be met.

6.1 Steps in Utility Coordination

Utility coordination on locally administered projects involves a series of steps handled either by local staff or consultants. Additionally, MaineDOT assigns a staff utility coordinator to each project as a resource. This person should be copied on all utility-related communication.

Typical steps in utility coordination – explained starting on page 6-7 – are as follows:

1.) Identify utilities.

The utility coordinator identifies and contacts all utility companies and any railroad potentially affected by a project, typically providing a map or other location information. This step typically involves a meeting with the utilities and a site visit.

2.) Verify facility information.

The utility coordinator sends copies of topographic survey to all utility and railroad contacts, requesting verification of utility locations and any concerns.

3.) Determine preliminary impacts.

The utility coordinator distributes preliminary plans for a detailed determination of impacts. The coordinator also makes sure that all concerns are addressed.

4.) Identify locations of underground utilities.

The utility coordinator identifies where test pits will be needed to verify the depths of buried lines. Completed test pit data is then sent to the utility coordinator and utilities. If no test pits are required, relocation requirements and buried facility designs should be included in the preliminary design report (PDR) distribution.



5.) Prepare final impacts, relocation strategy and agreements.

The utility coordinator provides all affected utilities and any railroad with 75-80 percent plans for review. Additionally, the coordinator prepares draft special provisions, as well as any draft agreements.

6.) Prepare utility specification and certification.

The utility coordinator provides the final railroad and utility special provisions to the Local Project Administrator and MaineDOT project manager with a certification that all necessary arrangements have been made.

7.) Set utility relocation schedule.

After a construction contract is awarded, the utility coordinator schedules a pre-construction meeting with the affected utilities and railroad, if involved. The coordinator develops with the contractor, utilities and construction resident an understanding of how the utility work will be sequenced and accommodated. During construction, the contractor is primarily responsible for contacting and working with the utilities in accordance with the construction contract documents.

6.2 Accommodating Aerial Utilities

MaineDOT will accommodate aerial utilities already within a highway right of way if a project requires relocation of poles or other facilities. This policy applies to locally administered projects funded by MaineDOT and undertaken by municipalities and other local agencies. Sufficient property rights should be acquired to allow aerial utility companies to place poles consistent with the design of a project.

State law prohibits MaineDOT and municipalities from obtaining property rights strictly for utility companies. These rights include aerial and guying rights, which must be acquired by the utilities if clearance for trimming and guying cannot be accommodated within the property acquisitions required as part of a project.



➔ MaineDOT's full Utility Accommodation Policy is on the course CD and the Web: www.maine.gov/mdot/utilities/

6.3 Cost for Relocating Utilities

The State of Maine and municipalities have no authority under Maine law to reimburse utilities for relocating facilities already within a public highway right of way, when those relocations are necessitated by transportation improvements.

Additionally, the Maine Supreme Judicial Court has found that money from fees and taxes on motor vehicle licenses, registrations and fuel sales cannot be used to pay for relocation of utility facilities. Since most of the money that would be available to MaineDOT and municipalities for utility relocation reimbursement is derived from these sources, its use for such purposes would be unconstitutional.

6.4 Utility Specification and Special Provision

A utility special provision must be developed for a locally administered project, which ensures that the contractor and affected utility companies can coordinate work. The special provision should have the following information for each utility:

- Identify utility, with contact information;
- Outline type of work;
- Time needed to complete work;
- Sequence of work;
- Any special considerations.

➔ A sample Utility Special Provision is available at: www.maine.gov/mdot/utilities/

6.5 Utility Certification

A municipality undertaking a locally administered project must send the MaineDOT project manager a utility certification letter stating that all utility companies and railroads within the project limits have been contacted and that proper arrangements have been made with all affected utilities.

Project managers must receive utility certifications before they can authorize cities and towns to advertise for construction bids. Typically, the utility certification is submitted with the final Plans, Specifications and Estimate (PS&E) package, which is the final step before a project can be authorized for construction. (*The PS&E process is covered in Section 7 of this manual.*)

➡ **For more information**, please refer to the utility checklist on page 6-5 and the certification form Letter 13, on page 6-6. An electronic version is available online: www.maine.gov/mdot/utilities/

□ UTILITY COORDINATION CHECKLIST

Date or N/A

- _____ **Utilities Identified**
- _____ Determine utility contacts for utilities on the project
- _____ Obtain existing right-of-way information
- _____ Review existing site conditions to assess potential conflicts
- _____ **Facility Information Verified**
- _____ Send Survey Plan to utilities and railroads (if involved) for review
- _____ Arrange for additional survey needs as necessary
- _____ **Preliminary Utility Comments, Conflicts, and Relocation Strategy Completed**
- _____ Develop preliminary utility relocation strategy
- _____ Discuss right-of-way needs with utilities
- _____ Distribute alignment plans to utilities and railroads (if involved) for review
- _____ Determine the need for agreements with utilities or railroads
- _____ **Specific Underground Facility Locations Identified**
- _____ Check general plan and proposed drainage for potential underground utility conflicts
- _____ Arrange for test pits to determine specific location of existing utilities
- _____ **Final Facility Impacts, Relocation Strategy and Agreements Completed**
- _____ Distribute PDR plans (50%) to utilities & railroads for review and comment
- _____ Hold utility pre-coordination meeting to finalize necessary relocations or other work
- _____ Distribute written minutes from the pre-coordination meeting
- _____ Distribute draft railroad and utility Special Provisions
- _____ Draft utility agreements and Protection of Railroad Traffic and Structures (PRTS) – if applicable
- _____ Initiate agreement approval process
- _____ **Utility Specification and Certification Completed (*Letter 13*)**
- _____ Complete final utility & railroad specification for contract documents
- _____ Determine if any utility work is to be bid with the contract
- _____ If so, determine if such work will be part of the Basis of Award or bid as “opt-out”
- _____ Document legal location of any relocated utilities
- _____ **Oversee Utility Relocation Schedule**
- _____ Conduct pre-construction/utility meeting
- _____ Distribute written minutes to pre-construction/utility meeting
- _____ Monitor utility & railroad work to ensure that work proceeds as planned

NOTE: THIS MUST ACCOMPANY THE FINAL PLANS, SPECIFICATIONS & ESTIMATE PACKAGE

Date _____

_____, Project Manager
 Maine Department of Transportation
 Bureau of Project Development, Multimodal Program
 16 Sate House Station
 Augusta, ME 04333-0016

Subject: Utility Certification, MaineDOT WIN _____

Dear _____:

I certify that all utility and railroad work necessitated by the subject project has been identified and coordinated with the respective utilities and railroads. All necessary arrangements have been made for utility work to be undertaken and completed as necessary for proper coordination with physical construction schedules in accordance with Federal Aid Policy Guide, Title 23, Code of Federal Regulation, Chapter 1, Subchapter G, Part 645, Subpart A, Subpart B, or both.

Based on 23 CFR 635.309(b), all railroad work has been completed and/or all necessary arrangements have been made (23 CFR 140 Subpart I/23 CFR 646 Subpart B) for it to be undertaken and completed as required for proper coordination with the physical construction schedule. The following utilities and or railroads have been identified as having facilities within the project limits:

<u>Utility/Railroad</u>	<u>Impacted facilities? (yes/no)</u>
{Utility/Railroad #1}	
{Utility/Railroad #2}	

All of the above entities were first informed of the project on {Date}, were involved as necessary throughout design, and received the most current plans on {Date}. Furthermore, the above entities have been informed of the proposed advertising date - {Date}. There are no direct payments anticipated to utilities/railroads as a part of this project (**except as otherwise provided through the following agreements**):

<u>Utility/Railroad</u>	<u>Date of Agreement</u>
{Utility/Railroad #1}	{Date}
{Utility/Railroad #2}	{Date}

The primary utility/railroad contacts involved in the coordination of this project are as follows:

<u>Utility/Railroad</u>	<u>Contact Name</u>	<u>Telephone #</u>
{Utility/Railroad #1}		
{Utility/Railroad #2}		

Sincerely,

Local Project Administrator
 Municipality of _____

Appendix 6A: Utility Coordination Process





Utility Coordination Process

This section outlines the laws, policies and procedures governing utility relocations for MaineDOT projects. Also presented is the typical utility coordination process for projects funded with state and/or federal money. The term “Utility Coordinator” refers to the person responsible for assuring that proper utility and railroad coordination occurs. This may be a MaineDOT employee, a municipal employee, or a consultant. In this section, Letters 1 through 7 are standard letters sent to utility or railroad companies at a particular stage of a project.

☞ Letter templates are available on MaineDOT's utilities website:

<http://www.maine.gov/mdot/utilities/>

☐ Maine State Law (MRSA Title 35-A):

➔ Chapter 23

⇒ §§2301-2305-B: Public Utilities may locate distribution facilities within the public way, consisting of roads, streets, and highways rights-of-way (“ROW”).

➔ Chapter 25

⇒ §2502(1)(A): When the public way is a state or state-aid highway, excluding urban compact areas, MaineDOT is the licensing authority.

→ When MaineDOT undertakes capital improvement projects within the highway ROW in urban compact areas, MaineDOT retains overall jurisdiction.

⇒ §2503: All utilities that occupy the public way must be permitted through the applicable licensing authority.

⇒ §2503(16): Permitted utilities are subject to rules established by MaineDOT. Department rules are outlined in the following:

→ MaineDOT Utility Accommodation Policy, 17-229 CMR Chapter 210.

→ The standards set forth in MaineDOT Utility Accommodation Policy apply to all portions of state and state-aid highways, regardless of who the licensing authority may be pursuant to other statutes, i.e. urban compacts.

☞ The laws are available on the Maine Legislature’s website:

<http://www.mainelegislature.org/legis/Statutes/35-A/title35-Ach0sec0.html>

☐ MaineDOT Utility Accommodation Policy:

➔ Section 9: Underground Installations

⇒ Facilities must be a minimum of 36 inches below finish grade

➔ Section 10: Aboveground Installations

⇒ Offset requirements for utility poles are defined based on either from edge of travel way or edge of shoulder.

⇒ §10(2)(A) - 10(2)(B)

→ Offset requirements based off of what is required to facilitate maintenance and proper function of highway facilities.

- ⇒ §10(2)(C): Clear Zone
 - Offset requirements based off of design standards, accounting for roadway classification, traffic volume, and roadway side slope.
- ⇒ Greater offset value is preferred.
- ➔ Exceptions to policy:
 - ⇒ Exceptions can be granted by MaineDOT Utility Engineer, as follows:
 - Underground Facilities: Exceptions can be granted for minimum amount of cover, based upon site conditions and impact to the relocating utility. Exceptions cannot be less than the applicable Federal Standard. For example, the Federal Standard for conveyance of natural gas is governed by Title 49, Part 193 - Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards (United States Department of Transportation).
 - Aboveground Facilities: Exceptions to the standards outlined in §10(2)(A) – 10(2)(B), based upon site conditions and impact to relocating utility, excluding §10(2)(B)(1), Guardrail, but cannot be less than the clear zone requirements established in §10(2)(C).
 - ⇒ Exceptions to clear zone requirements shall be approved by MaineDOT, through MaineDOT’s Design Exception Process.

➔ MaineDOT’s *Utility Accommodation Policy* can be found here:

www.maine.gov/mdot/utilities/

❑ Cost for Relocating Utilities Located in the Public Right-of-Way (ROW):

Maine law does not permit reimbursement for the relocation of utilities located within a public highway ROW when such relocation is made necessary by transportation-related construction or maintenance projects. There are two basic reasons for this:

1. State, county and local governments in Maine lack the legal authority to reimburse utility companies for relocating their facilities within a public highway ROW when those relocations are due to road projects. Without legal authority, public money cannot be spent for this purpose. This has been Maine law ever since utilities began to be placed in public highway ROW. The Maine Supreme Court has found that the State or a municipality cannot pay to a utility its expense for relocating an installation in a public street or way. See First National Bank of Boston, et al, v. Maine Turnpike Authority, et al., 153 Me. 131.
2. Maine Constitution Article IX, §19, as interpreted by the Maine Supreme Court, prohibits use of any revenue derived from “fees, excises and license taxes relating to registration, operation and use of vehicles on public highways, and to fuels used for propulsion of such vehicles” to pay for relocation of utility facilities. See Opinion of the Justices, 152 Me. 449. Since most of the money that would be available to MaineDOT for utility relocation reimbursement is derived from these sources, their use for such purposes would be unconstitutional.

❑ Railroad Rights-of-Way:

- ➔ When work is required within a railroad right of way (ROW), or work is to be performed around an active railway, the provisions of the Code of Federal Regulations apply (23 CFR 646).
 - ⇒ Part A of the Federal Requirements specifies the provisions for insurance when working within the railroad ROW.
 - ⇒ Part B defines project requirements for railroad work and specifies reimbursement provisions for railroad support when working in the railroad ROW, including agreement requirements

❑ General MaineDOT Utility Coordinator Responsibilities:

- ➔ The Utility Coordinator will participate as an active member of the project team.
- ➔ The Utility Coordinator will meet with utility and railroad contacts as necessary to identify and resolve all utility and railroad issues and/or conflicts relating to the project and MaineDOT's current policies.
- ➔ The Utility Coordinator will provide information to utility and railroad contacts as early as possible to provide the maximum notice possible.
- ➔ If the Utility Coordinator is a consultant, said consultant shall keep a predetermined MaineDOT representative informed of all coordination activities by:
 - ⇒ Copying that individual on all utility/railroad related project correspondence, and
 - ⇒ Inviting that individual to critical utility/railroad coordination meetings.
- ➔ This contact will provide general oversight of the coordination process and will review and process of any utility/railroad agreements to be signed by MaineDOT.

❑ General Utility Coordination Process:

I. Identify Utilities**II. Verify Facility Information****III. Preliminary Utility Comments, Conflicts, and Relocation Strategy****IV. Identify Specific Underground Facility Locations****V. Prepare Final Facility Impacts, Relocation Strategy and Agreements****VI. Prepare Utility Specification and Certification****VII. Set Utility Relocation Schedule**

- ➔ Coordination with utilities and railroads on capital improvement projects is required by Federal Law (23 CFR 635.307), and MaineDOT requires such coordination on all projects to be advertised for construction, regardless of funding source.

❑ Detailed Utility Coordination Process:

I. Identify Utilities

Project Kickoff:

- The LAP Utility Coordinator will contact the assigned MaineDOT resource Utility Coordinator to share information that will help interpret or define typical roles and responsibilities of the municipality, LAP Utility Coordinator and the utilities throughout the coordination process. The MaineDOT coordinator is available as a resource during the project as needed.
- The LAP Utility Coordinator will research MaineDOT's utility and railroad database to obtain contact names, addresses and phone numbers for all utility and railroad companies located in the city/town of a proposed project.
⇒ This contact information may be obtained from MaineDOT's Utilities Website:
<http://www.maine.gov/mdot/utilities/>
- The LAP Utility Coordinator will obtain contact names, e-mail addresses, mailing/physical addresses, and phone numbers for applicable municipal officials.
- The LAP Utility Coordinator will mail, or e-mail, an initial utility contact letter (see attached Utility Letter #1) to all utilities, railroads and municipalities within the city/town of the proposed project to determine the following:
 - Whether the addressee has existing facilities within the project area and, if so, the type of facilities;
 - Whether the addressee intends to construct facilities within the project area over the next five years;
 - The name of the individual that will be available to mark any existing facilities prior to the project survey; and
 - The name of the individual with whom the project team can coordinate throughout the project.

Preliminary Data:

- The Utility Coordinator will research MaineDOT's accident data for any issues relating to the location of utility facilities. This information is available from the Project Manager or from MaineDOT's Traffic Engineering Division (624-3620).
- The Utility Coordinator will coordinate with the project team's right-of-way representative to obtain any available right-of-way information.
- The Utility Coordinator will determine if there are any MaineDOT-owned traffic facilities within the project limits and how those facilities will be handled throughout the development of the project. If the traffic facilities will not be modified, the Utility Coordinator shall coordinate with a MaineDOT traffic representative as though they were a separate utility. A list of MaineDOT's traffic facilities is available at:
<http://www.maine.gov/mdot/traffic/maindotequipment.htm>
- For any railroad crossings, the Utility Coordinator will communicate with MaineDOT's Multimodal Program (624-3420) to determine if any work is planned for the crossing in concern. If the railroad corridor is owned by the State of Maine, similar communication shall also occur with MaineDOT's Office of Freight and Business Services (624-3560).

Initial Field Review:

- The Utility Coordinator will make an initial site visit to identify (with documentation and photographs as necessary) the following:
 - Visible utility facilities on the project;
 - Typical offset of the utility poles;
 - Whether all of the appropriate utilities were contacted with the initial utility contact letter. (*See attached Utility Letter #1*);
 - Features that may affect/limit utility relocations (e.g., buildings close to the highway, shade trees, etc...);
 - Major utility installations that may be costly to relocate (e.g., substations, critical poles, telephone switching stations, pump stations, etc...);
 - Utility facilities that may be located on their own easements;
 - Proximity of any railroad corridors to the project and the status and condition of any railroad crossings;
 - Overhead clearance issues around bridges or major drainage structures; and
 - Any other pertinent information.

Initial Team Meeting:

- The Utility Coordinator will attend the initial team meeting and provide a summary of the critical issues identified in the previous steps. If the initial team meeting occurs before the above-mentioned work, a summary of critical issues shall be distributed to the team after-the-fact.
- If applicable, the Utility Coordinator will provide a proposed budget to complete the utility and railroad coordination for the project within the time frame identified at the meeting.

II. Verify Facility Information**Preliminary Public Meeting/Survey Plan Available:**

- The Utility Coordinator will attend Preliminary Public Meetings on projects where significant utility or railroad involvement is anticipated or when requested by the Project Manager.
- The Utility Coordinator will mail copies of the existing topographic survey plans (which may include an initial proposed horizontal and vertical alignment) to all utility and railroad contacts for their review. A letter shall accompany the survey plans requesting verification of the existing facilities indicated on the plan and any concerns that may exist. (*See attached Utility Letter #2*).
- The Utility Coordinator will coordinate with the project team's survey crew representative for additional survey identified from the previous mailing.

III. Preliminary Utility Comments, Conflicts, and Relocation Strategy**Horizontal/Vertical Alignment Available:**

- When a highway centerline is to be modified, the Utility Coordinator will distribute plans indicating the proposed horizontal and vertical alignments to all affected utilities and railroads for their comments (if not addressed with the survey plan distribution).

- If concerns are expressed, the Utility Coordinator shall provide a written summary of those concerns to the Project Manager and other team members as applicable. The Utility Coordinator must assure that all concerns are addressed to a conclusion and that all parties are aware of what the conclusion is.

Preliminary Plan Available/ Formal Public Contact:

- The Utility Coordinator will provide the Project Manager with a summary of the utility and railroad issues for inclusion in the Preliminary Design Report (PDR).
- Depending upon the extent of the utility and/or railroad work, the Utility Coordinator will meet with or, at least, communicate with the utilities to identify how utility work will be undertaken. Discussions shall include right-of-way needs.
- The Utility Coordinator will work with the project team to determine the proposed right-of-way limits/needs.
- The Utility Coordinator will attend the Preliminary Public Meeting if a project involves extensive utility relocation, significant trimming or shade tree removal necessitated by the utilities, or utility impacts on a controversial right-of-way width. The Coordinator also may attend if requested by the Project Manager.
- The Utility Coordinator will distribute preliminary plans to the utilities & railroads for a more detailed determination of impacts. (*See attached Utility Letter #3.*) The Utility Coordinator further will determine the need for any agreements with the railroad(s) or utilities.

IV. Identify Specific Underground Facility Locations**Drainage Plans Available:**

- The Utility Coordinator shall identify locations where utility test pits are required to obtain the specific depth of underground facilities that may conflict with the proposed design. The Utility Coordinator shall review the proposed test pit locations with the project team and then coordinate with the utilities and Survey Section for the work to be accomplished.

V. Final Facility Impacts, Relocation Strategy and Agreements**75%-80% Plans Available/Pre-coordination Meeting:**

- The Utility Coordinator will provide affected utility and railroad companies with 75-80% plans for review and comment. (*See attached Utility Letter #4.*)
- The Utility Coordinator will hold a Utility Pre-coordination Meeting to review utility and railroad impacts and relocations in the field and to discuss proposed schedules for the relocations. (*See attached Utility Letter #4.*)
- Following the Pre-coordination Meeting, the Utility Coordinator will prepare and distribute written minutes from the Pre-coordination Meeting, including any significant comments from the affected utility or railroad companies.
- The Utility Coordinator will prepare and distribute the draft railroad and utility Special Provisions. (*See attached Utility Letter #5.*)

- The Utility Coordinator will prepare any draft agreements and initiate the agreement approval process.
- **Note:** Before developing 75%-80% plans, the Utility Coordinator must determine if other global agreements apply to the Project, as follows:
 - Master Traffic Signaling System Accommodation Agreement, June 10, 2008;
 - Overhead Utilities/MaineDOT/AGC Memorandum of Understanding, Feb. 28, 2009

VI. Prepare Utility Specification and Certification

Project to Contracts Section:

The Utility Coordinator will provide the Project Manager with the final railroad and utility special provisions and a certification that all necessary arrangements have been made.

- The Utility Special Provision must include the following for each utility:
 - Identify utility, with contact information;
 - Outline type of work;
 - Time needed to complete work;
 - Sequence of work; and
 - Any special considerations.

A sample Utility Special Provision is available at:

<http://www.maine.gov/mdot/utilities/>

- Certification that all affected utilities and railroads have been contacted and proper arrangements have been made is mandated by federal regulation 23 CFR 635.309. (*See Letter 13: Utility Certification, page 6-6.*) A template form is available at: <http://www.maine.gov/mdot/utilities/>
- If necessary, a Utility Coordinator may prepare one of two types of utility agreements:
 1. Accounts Receivable: The required utility relocation work is advertised as part of the construction contract, and MaineDOT bills the utility for the relocation work afterward. This type of agreement usually occurs with underground utilities.
 2. Accounts Payable: MaineDOT takes existing rights from a utility as part of a project and reimburses the utility for the impact. An example would be when MaineDOT takes property from an electric utility associated with transmission lines. Compensation would include the cost for taking the property, and any cost associated with relocating or adjustment to the transmission lines. The law outlining this provision is part of MRSA Title 23, §154, as follows: <http://www.mainelegislature.org/legis/Statutes/23/title23sec154.html>
 - a. There are other types of accounts payable agreements that MaineDOT may enter into with utilities, these include:
 - i. Agreements where MaineDOT wants to include utility services to a newly constructed transportation facility, including: tourist information centers, and truck weigh stations.
 - ii. Agreements where MaineDOT wants to use a utility's pole to attach new traffic signals or a flashing beacon.
 - MaineDOT may enter into other agreements with utilities based on specific project requirements and constraints.

- The Utility Coordinator will oversee the completion of any railroad related documents required for the project, including:
 - Protection of Railroad Traffic and Structures (PRTS) contract requirements, which includes, but is not limited to: Insurance requirements, work requirements in/and around the immediate vicinity of the tracks, and estimate of railroad flagging hours.
 - Railroad Agreement: Including provisions for payment for railroad related services required for the project.
- The Utility Coordinator will fill out a “Location Permit for Projects” form to document the approved utility locations resulting from the utility coordination process. This form may be found at <http://www.maine.gov/mdot/utilities/> and is to be sent to the address indicated on the form with all associated attachments.
- If relocation of facilities would result in a significant benefit to the Project, the Utility Coordinator may request facilities be relocated before project advertise. This will require approval from the Project Manager and Department Utility Engineer, and consultation with the effected Utility & Railroad.

Advertise and Award:

- The Utility Coordinator will provide guidance to the Project Manager to resolve questions from contractors relating to railroads and utilities during the bidding phase of the project.

VII. Utility Relocation Schedule**Preconstruction:**

- Upon notification from MaineDOT's Construction Resident of a Preconstruction Meeting, the Utility Coordinator shall schedule a joint Preconstruction Utility Meeting with the affected utilities and railroad(s). (*See attached Utility Letter #6.*)
- The Utility Coordinator will attend the Preconstruction Meeting and chair the joint Preconstruction Utility Meeting to coordinate the utility schedules with the Contractor's construction schedule, as follows (Note – The assigned MaineDOT Utility Coordinator is available to attend the meeting if requested):
 - The Utility Coordinator will work with the Contractor and Construction Resident to work out an understanding of how the utility work schedule will be tracked and accommodated within the Contractor's construction schedule, with an emphasis on identifying any potential issues or conflicts which may severely impact the construction schedule.
- Following the Preconstruction Utility Meeting, the Utility Coordinator shall prepare and distribute written minutes to all utilities and railroads on the project, the Contractor, and the Construction Resident. (*See attached Utility Letter #7.*)

Construction:

- After Preconstruction Utility Meeting, it is the primary responsibility of the Contractor to work with the Utilities in accordance with the construction Contract Documents, and as outlined in the Utility Preconstruction Meeting.

- If issues arise during construction which cannot be resolved through MaineDOT's Resident, or a particular utility is unresponsive to the Contractor and MaineDOT's Resident:
 - The Utility Coordinator will work directly with the Utility(s), Contractor, and Construction Resident to resolve the issue. The assigned MaineDOT Utility Coordinator is also available to assist if desired.



Appendix 6B: Utility Letters and Forms

{ Letterhead }

*** IMMEDIATE RESPONSE REQUESTED ***

RE: Project Title - _____

Date

Municipality:

Project WIN:

Location:

Choose: (To whom it may concern) OR (Dear Sir/Madam):

The Municipality of _____ is planning {insert scope of work or details, including beginning and ending points}

Enclosed you will find a location map to further assist you in locating the proposed project.

Please complete and return the brief questionnaire attached to this letter. The information provided at this time will allow our project designers to recognize the presence of existing facilities or plans to install additional facilities within the next five years. Your responses will enable us to better coordinate our work with you throughout this project.

PLEASE NOTE, THAT IF YOU ARE THE POLE OWNER, OR HAVE MAINTENANCE RESPONSIBILITIES ON A JOINT POLE AGREEMENT, PLEASE IDENTIFY ALL OF THE ATTACHING ENTITIES. THIS INFORMATION IS CRITICAL IN IDENTIFYING ANY UTILITIES WHICH MAY NOT HAVE BEEN IDENTIFIED AS PART OF THIS INITIAL PROCESS.

The Work Identification Number (WIN) assigned to this project is _____ and should be used on any future correspondence regarding this project.

This project is scheduled for design OR construction OR Advertise for the summer of “__”. If you have any questions or concerns, please feel free to contact me at (XXX) XXX-XXXX, coordinator@maine.gov
Thank you for your cooperation.

Sincerely,

{Coordinator}

Utility Coordinator

Encl: Questionnaire Response Form

{Project Location Map OR Project Alignment Map}

{ Letterhead }

*** IMMEDIATE RESPONSE REQUESTED ***

RE: Project Title - _____

Date

Municipality:
Project WIN:
Location:

Utility Coordinator: Municipality OR Consultant Company, _____ – Coordinator
Street
Town, ZIP
Cell: XXX-XXXX
Fax: XXX-XXXX
E-Mail: coordinator email

Please complete the following short questionnaire and fax, e-mail or send via mail. The following may be filled out electronically in Microsoft Word by using the “TAB” key.

Utility: **Date Form Submitted:**

1. Does the utility you represent presently have facilities within the project limits? Yes No
2. What type of facilities do you have in the project area? Underground
 Aboveground

3. Pole Owner:

Attachees:

4. Do you plan on installing any facilities within the project limits in the next 5 years? Yes No

5. Contact person for project coordination:

Name:
Address:
Tel:
Cell:
Fax No:
E-mail:

6. Contact person for construction:

Name:
Address:
Tel:
Fax No:
E-mail:

7. Comments

{ Letterhead }

{Date}

{Utility Company Address}

RE: Review of Survey Plans, *{Town}*, *{Location}*, *{WIN}*

Dear *{Addressee}*:

Enclosed please find a set of survey plans for the above referenced project being developed by *{Consultant or Municipality}* on behalf of the Maine Department of Transportation. **Please review the locations of your existing facilities as shown on these plans and complete the brief questionnaire attached to this letter.** Identification of any incorrectly located or omitted facilities at this time will enable us to make the appropriate corrections before substantial design has occurred. I ask that you return the attached questionnaire along with any additional comments you may have within two weeks.

This project is scheduled for advertising *{Date}*, however the preliminary design phase has begun. If you have any questions or concerns, please contact me at *{Phone Number and Email}*. Thank you for your cooperation.

Sincerely,

{Consultant or Local Project Administrator}

Enclosures: Survey Plans
Survey Plan Questionnaire

cc: *{MaineDOT Utility Team Member}*
{MaineDOT Project Manager}

Attachment to Utility Letter 2

{Town}

{WIN}

{Date}

{Utility Name}

{Consultant or Town Local Project Administrator, with contact information including Fax, email, telephone, and mailing address}

Survey Plan Questionnaire

{Utility Name}

Please complete the following short questionnaire and Fax, e-mail or send via mail. The following may be filled out electronically in Microsoft Word by using the “TAB” key.

QUESTION	RESPONSE
1. Are all of your facilities within the project limits shown on the survey plans?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Are your facilities shown correctly on the survey plans?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3. Do your facilities or portions thereof require any unique considerations?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. Are you considering upgrading or replacing any of your facilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No
5. Do you feel that an on-site review of the project is required?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Will you be forwarding any additional information from your files or records?	<input type="checkbox"/> Yes <input type="checkbox"/> No
RESPONSE BY:	
DATE:	
TELEPHONE:	
EMAIL:	
(USE THIS SPACE FOR ANY CLARIFICATION OR ADDITIONAL INFORMATION)	

{Letterhead}

(Date)

{Utility Company Address}

Subject: Review of Preliminary Plans, *{Town}*, *{Location}*, *{WIN}*

Dear *{Addressee}*:

Attached you will find preliminary design plans and right-of-way maps for the subject project. At your earliest convenience, **please review these plans to establish the following:**

- What potential conflicts exist between the proposed design and your existing facilities?
- Is additional data gathering (such as test pits) required?
- Aerial Utilities: Please develop a list of preliminary proposed pole locations in compliance with the applicable safety standards and the MaineDOT's *Utility Accommodation Policy, 17-229 CMR Chapter 210*.
- Underground Utilities: Please develop preliminary proposed underground plant relocation plans for any required relocations or proposed installations in accordance with applicable standards and the MaineDOT's *Utility Accommodation Policy, 17-229 CMR Chapter 210*.
- If your facilities are located on property which is either owned by your company or for which you have an easement, you may be entitled to reimbursement in accordance with Federal Aid Policy Guide, Title 23, Code of Federal Regulations, Chapter I, Subchapter G, Part 645, Subpart A. Please contact this office prior to preparing any plans or estimates.

Please note: These plans are for Utility purposes only, to assist in planning utility relocations required as part the Project, and are not intended for public distribution. Although, not confidential, discretion is requested by MaineDOT in sharing this information with the public. It is recognized, that utilities may need to acquire rights beyond those shown on the attached plans, if so, please contact this office so that MaineDOT can provide proper notification of the project to the public prior to the utility obtaining additional rights.

The Department intends to advertise this project on *{Date}*. If you have any further questions, please contact me at *{Phone Number and Email}*. Thank you for your cooperation.

Sincerely,

{Consultant or Local Project Administrator}

Enclosure: Preliminary Plans & Right-of-Way Maps

cc: *{MDOT Utility Team Member}*
{MaineDOT Project Manager}

{Letterhead}

{Date}

{Utility Company Address}

RE: Pre-coordination Meeting & Review of Construction Plans, *{Town}*, *{Location}*,
{WIN}

Dear *{Addressee}*:

Enclosed please find one copy of final construction plans for the above listed project. These plans are only intended for information and planning purposes at this time. No actual relocation of facilities should be made because of these plans.

Please review your proposed pole and/or proposed underground plant locations on MaineDOT's plans. If changes are necessary, they should be communicated to us prior to the Pre-coordination Meeting. **The Pre-coordination Meeting has been scheduled for *{Date, Time and Place of Pre-coordination Meeting}*. It is requested that you be prepared to assign working days to your required utility work at this meeting.**

This project is scheduled for advertising *{Date}*. If you have any questions or concerns, please contact me at *{Phone Number and Email}*. Thank you for your cooperation.

Sincerely,

{Consultant or Local Project Administrator}

Enclosure: Construction & R/W Plans

cc: *{MaineDOT Utility Team Member}*
{MaineDOT Project Manager}

{Letterhead}

{Date}

{Utility Company Address}

RE: Draft Special Provisions, *{Town}*, *{Location}*, *{WIN}*

Dear *{Addressee}*:

I intend to include the enclosed Special Provisions in the contract documents for the subject project. It includes scheduling and descriptive information regarding work to be done by your organization.

If the text does not accurately reflect your intentions, please contact this office immediately at *{Phone Number and Email}*. Thank you again for your cooperation.

Sincerely,

{Consultant or Local Project Administrator}

Enclosure: Proposed Utility Special Provisions

cc: *{MaineDOT Utility Team Member}*
{MaineDOT Project Manager}

{Letterhead}

{Date}

{Utility Company Address}

RE: Pre-construction Meeting, *{Town}*, *{Location}*, *{WIN}*

Dear *{Addressee}*:

A pre-construction utility meeting for the subject project has been arranged for *{Date, Time and Place of Pre-construction Meeting}*. The purpose of this meeting is to discuss the coordination of work between the contractor and the utilities and any additional considerations or concerns that may exist. Your attendance at this meeting is critical to the success of the project and greatly appreciated.

If you need any additional information, please contact me at *{Phone Number and Email}*.

Sincerely,

{Consultant or Local Project Administrator}

cc: *{MaineDOT Utility Team Member}*
{MaineDOT Project Manager}

{Letterhead}

{Date}

{Utility Company Address}

RE: Pre-construction Meeting Minutes, *{Town}*, *{Location}*, *{WIN}*

Dear *{Addressee}*:

This is my understanding of the issues discussed and the conclusions reached at the pre-construction utility meeting held on *{Date, Time and Place of Pre-construction Meeting}*. It is understood that the dates and times agreed upon and summarized herein assume reasonable weather conditions and freedom from emergencies.

The following representatives were present:

<u>Name</u>	<u>Company</u>	<u>Telephone #</u>
-------------	----------------	--------------------

{Attendance List}

{Meeting Summary}

I have attempted to summarize our meeting as accurately as possible. If you feel that any of the items discussed herein are misrepresented in any way, please contact me within ten working days. In the absence of any corrections or clarifications, it will be understood that these minutes accurately summarize our discussions. Thank you for your participation and continued efforts in making this a successful project.

Sincerely,

{Consultant or Local Project Administrator}

cc: *{MaineDOT Utility Team Member}*
{MaineDOT Project Manager}

Appendix 6C: Utility Special Provision

**SPECIAL PROVISIONS
SECTION 104
Utilities**

UTILITY COORDINATION

The contractor has primary responsibility for coordinating their work with utilities after contract award. The contractor shall communicate directly with the utilities regarding any utility work necessary to maintain the contractor’s schedule and prevent project construction delays. The contractor shall notify the Local Project Administrator of any issues.

THE CONTRACTOR SHALL PLAN AND CONDUCT THEIR WORK ACCORDINGLY.

MEETING

A Preconstruction Utility Conference, as defined in Subsection 104.4.6 of the Standard Specifications {is} required.

GENERAL INFORMATION

These Special Provisions outline the arrangements that have been made by the Department for utility and/or railroad work to be undertaken in conjunction with this project. The following list identifies all known utilities or railroads having facilities presently located within the limits of this project or intending to install facilities during project construction.

Utilities have been notified and will be furnished a project specification.

Overview:

Utility/Railroad	Aerial	Underground	Railroad

Utility Contact Information

Utility/Railroad	Contact Person	Contact Phone

Temporary utility adjustments are {not} anticipated.

Unless otherwise specified, any underground utility facilities shown on the project plans represent approximate locations gathered from available information. The Department cannot certify the level of accuracy of this data. Underground facilities indicated on the topographic sheets (plan views) have been collected from historical records and/or on-site designations provided by the respective utility companies. Underground facilities indicated on the cross-sections have been carried over from the plan view data and may also include further approximations of the elevations (depths) based upon straight-line interpolation from the nearest manholes, gate valves, or test pits.

All adjustments are to be made by the respective utility/railroad unless otherwise specified herein.

All clearing and tree removal in areas where utilities are involved must be completed before the utilities are able to relocate their facilities.

Fire hydrants shall not be disturbed until all necessary work has been accomplished to provide proper fire protection.

Utility working days are Monday through Friday. Times are estimated on the basis of a single crew for each utility. Any times and dates mentioned are **estimates only** and are dependent upon favorable weather, working conditions, and freedom from emergencies. The Contractor shall have no claim against the Department if they are exceeded.

AERIAL

Summary:

Utility	Pole Set	New Wires/Cables	Trans. Wires/Cables	Remove Poles	Estimated Working Days
Total:					

Utility Specific Issues:

{Company #1}

{Sample Discussion: Any tree removal or tree trimming required within ten feet of the Central Maine Power Company conductors must be done by a contractor qualified to work within ten feet of the Central Maine Power Company conductors. A list of tree

removal contractors qualified to remove trees or limbs within ten feet of Central Maine Power Company conductors may be obtained from Dennis Chadbourne, who may be reached at 621-6649 (pager 750-3802).}

{Company #2}
{Discussion}

{Company #3}
{Discussion}

{Company #4}
{Discussion}

Pole List:

Existing Pole #	Existing Station	Left/Right		Existing Offset	Proposed Station	Left/Right		Proposed Offset	Comments
		LT	RT			LT	RT		

SUBSURFACE

Summary:

Utility	Summary of Work	Estimated Working Days
Total:		

Utility Specific Issues:

{Company #1}
{Discussion}

{Company #2}
{Discussion}

{Company #3}
{Discussion}

RAILROAD

{Company #1}
{Discussion}

MAINTAINING UTILITY LOCATION MARKINGS

The Contractor will be responsible for maintaining the buried utility location markings following the initial locating by the appropriate utility or their designated representative.

UTILITY SIGNING

Any utility working within the construction limits of this project shall ensure that the traveling public is adequately protected at all times. All work areas shall be signed, lighted, and traffic flaggers employed as determined by field conditions. All traffic controls shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, as issued by the Federal Highway Administration.

Maine Department of Transportation

Location Permit for Utilities Relocated Within the Limits of a Project

Pursuant to 35-A M.R.S.A. Section 2503, this document and all attachments record the permitted locations and relocations of utility facilities in conjunction with the project specified below. All facilities are located in accordance with MaineDOT's current utility accommodation policies.

Project I.D. # (WIN): _____	Federal Project #: _____
Town(s) <i>(List all towns in order of stationing):</i> _____	
Highway Route: _____	Highway Name: _____
Beginning Station of Project: _____	Ending Station of Project: _____

Describe the Location of the Project Beginning from a Map Identifiable Location:

Describe the Location of the Project Ending from a Map Identifiable Location:

Utility Information *(Indicate all utilities that have installed new or relocated facilities on the project)*

Name of Utility **Type of Facility Installed or Relocated**

Additional Comments: _____

Utility Coordinator Name: _____ **Company:** _____

Telephone: _____ **Email:** _____

Please include the following with this form: Description of final utility locations (i.e. pole list), final utility spec, and project location map.

This completed form and attachments are to be sent to: Maine Department of Transportation, Utility & RR Services, State House Station 16, Augusta, ME 04333

7. Final PS&E



Final Plans, Specifications & Estimate

The last step in the design of a locally administered project is submission of the final plans, construction specifications, and the latest engineer's cost estimate (PS&E) to MaineDOT for final review and approval. At this point, the project scope and all applicable design standards should be determined, and the design should have incorporated any comments from MaineDOT and the public. Final PS&E plans must have sufficient information, along with the bid documents, for construction.

This section explains the requirements for final PS&E and contains:

- A list of standard bid documents (page 7-2);
- A PS&E checklist – Figure 7.1 (page 7-3);
- Final design requirements (page 7-4);
- Quality-control design check requirements (page 7-5);
- A project development flowchart - Figure 7-2 (page 7-6);
- Appendix 7A: Project certifications (page 7-7); and
- Appendix 7B: Standard items in the final plans and bid documents (page 7-15.)



7.1 Overview

Final PS&E is the last stage before a project goes out to bid. By this point, the environmental review and right-of-way processes must be finished. If a project has federal money, the Federal Government must have issued the appropriate document under the National Environmental Policy Act (NEPA) – most likely what is known as a Categorical Exclusion.

Additionally, the following documents must be submitted with the final plans and specifications to the MaineDOT project manager:

- Right-of-way certification (**Letter 10**) stating that all property or property rights were acquired in accordance with all state and federal requirements (page 7-8);
- The environmental certification (**Letter 12**) stating that all environmental permits required for the project were approved and obtained (page 7-10);
- The utility certification (**Letter 13**) stating that all work involving utilities and any railroad has been identified and coordinated (pages 7-11 and 7-12); and
- A certification (**Letter 16**) that the public process has been completed (page 7-13).

7.2 Standard Bid Documents

Standard documents in a contracts package or “bid book” include the following:

- Bidding instructions
- Notice to contractors
- DBE Utilization Form, required for federally funded projects
- Acknowledgement of Bid Amendments form
- Contract Agreement Offer and Award forms
- Contract Performance Bond form
- Payment Bond form
- Construction notes and/or project maps
- Davis-Bacon wage rates (for federally funded projects): <http://www.wdol.gov/dba.aspx>
- State wage rates (if no Federal funds involved): <http://www.maine.gov/labor/bls/>
- Special Provision 102.3 – Examination of documents and site
- Special Provision 104 – Utilities
- Special Provision 104 – Electronic Payroll (federally funded projects)
- Special Provision 105 – Over-limit Permits
- Special Provision 105 – Buy America certification (federally funded projects)
- Special Provision 105 – General Scope of Work
- Special Provision 105 – DBE Utilization (federally funded projects only)
- Special Provision 105 – Control of Work
- Special Provision 107 – Scheduling of Work
- Special Provision 107 – Projected Payment Schedule
- Special Provision 108 – Asphalt Escalator (if more than 500 tons used)
- Special Provision 403 – Hot Mix Asphalt
- Special Provision 652 – Maintenance of Traffic
- Special Provision 656 – Erosion Control
- Federal insert FHWA-1273 (36 pages):
<http://www.maine.gov/mdot/contractors/bidderinfo/>
- Environmental permit – check that the book has all referenced Special Provisions.

□ FINAL PLANS, SPECIFICATIONS AND ESTIMATE (PS&E)

- _____ **PS&E package completed**, including as applicable:
 - _____ Engineer’s estimate with preliminary opinion of probable cost
 - _____ Documentation of quality-control design checks
 - _____ Documentation for each item in engineer’s estimate
 - _____ Vicinity map
 - _____ Estimate of quantities
 - _____ Cross sections (typical)
 - _____ Plans/profiles
 - _____ Utility information
 - _____ Structure notes
 - _____ Signage
 - _____ Illumination
 - _____ Bridge plans (if applicable)
 - _____ Standard details
 - _____ Sheets numbered and dated
 - _____ Title sheet signed and stamped by Professional Engineer
 - _____ Log of test borings
 - _____ Equal Employment Opportunity (EEO) clauses
 - _____ Disadvantaged Business Enterprise (DBE) plan
 - _____ On the Job Training (OJT) plan (*if labor costs are greater than \$2.5 million*)
 - _____ Sexual Harassment clause
 - _____ Buy America requirement
 - _____ Davis-Bacon wage rates
 - _____ Elation System special provisions
 - _____ Traffic control special provisions
 - _____ Specialty items
 - _____ Airport roadway clearance from the FAA (if airport project)
 - _____ Utility Agreement obtained
 - _____ Railroad agreement(s) obtained (if applicable)
 - _____ Obtain the 403 Special Provision for Hot Mix Asphalt from MaineDOT
 - _____ Justification for non-participating items (ineligible for Federal/State funding)
 - _____ Detail documentation for lump sum items available in project files
- _____ **PS&E package approved by MaineDOT Project Manager**
 - _____ Environmental Certification attached (***Letter 12***)
 - _____ Right-of-Way Certification attached (***Letter 10***)
 - _____ Utilities Certification attached (***Letter 13***)
 - _____ TAME Certification attached (traffic impacts)
- _____ **Construction authorization requested from MaineDOT (*Letter 18 or e-mail*)**
- _____ **Construction authorization given in writing by the MaineDOT Project Manager**

☞ **Remember:** If you put your project out to bid before MaineDOT gives authorization, you will jeopardize **ALL** of the money from MaineDOT for the project.

7.3 Timing of Project Advertise

A city, town or other organization overseeing a locally administered project cannot advertise for construction bids without written approval from the MaineDOT project manager. This approval – covered in Section 8, “Advertise & Award” – occurs only after:

- 1.) The project manager has reviewed and approved the final PS&E package; and
- 2.) MaineDOT has received construction funding authorization for the project from the Federal Government. (*See form Letter 18, on page 7-14.*)

➔ **Remember:** If you put your project out to bid before MaineDOT gives authorization, you will lose **ALL** of the money from MaineDOT for the project.

7.4 Final Design Requirements

Submission of the final PS&E package should include the following documents and information, as applicable:

- A completed project design that meets applicable federal/state standards
- Engineer’s estimate of probable cost
- Estimate of quantities (should match the Schedule of Items in the contract book)
- Cross sections (typical)
- Utility information
- Right of way information
- Standard specifications or applicable special provisions
- Standard details
- Right of way certification
- Utility certification
- Environmental certification, including copies of permits

A title sheet stamped by a professional engineer licensed in the State of Maine must appear on the plans and contract documents if the estimated construction cost exceeds \$100,000. The stamp must be either that of the engineer who prepared them or the engineer under whose direct supervisory control they were prepared.

7.5 Required Design **Reviews**

Quality-control (QC) reviews are vital to the design process. Accordingly, MaineDOT requires consultants working on locally administered projects for municipalities and other local public agencies to perform QC checks of all designs at the following stages:

- At 50 percent plans complete – with the preliminary design report (PDR); and
- At 95 percent plans complete – with the final plans, specifications & estimate (PS&E).

At final PS&E, the QC process will consist of – but not be limited to – checking all calculations and design assumptions, and reviewing the final plan set, contract provisions, cost estimates and all other relevant documents. The design checker shall be a qualified individual other than the originator of the documents.

The established QC design checks should include the following items:

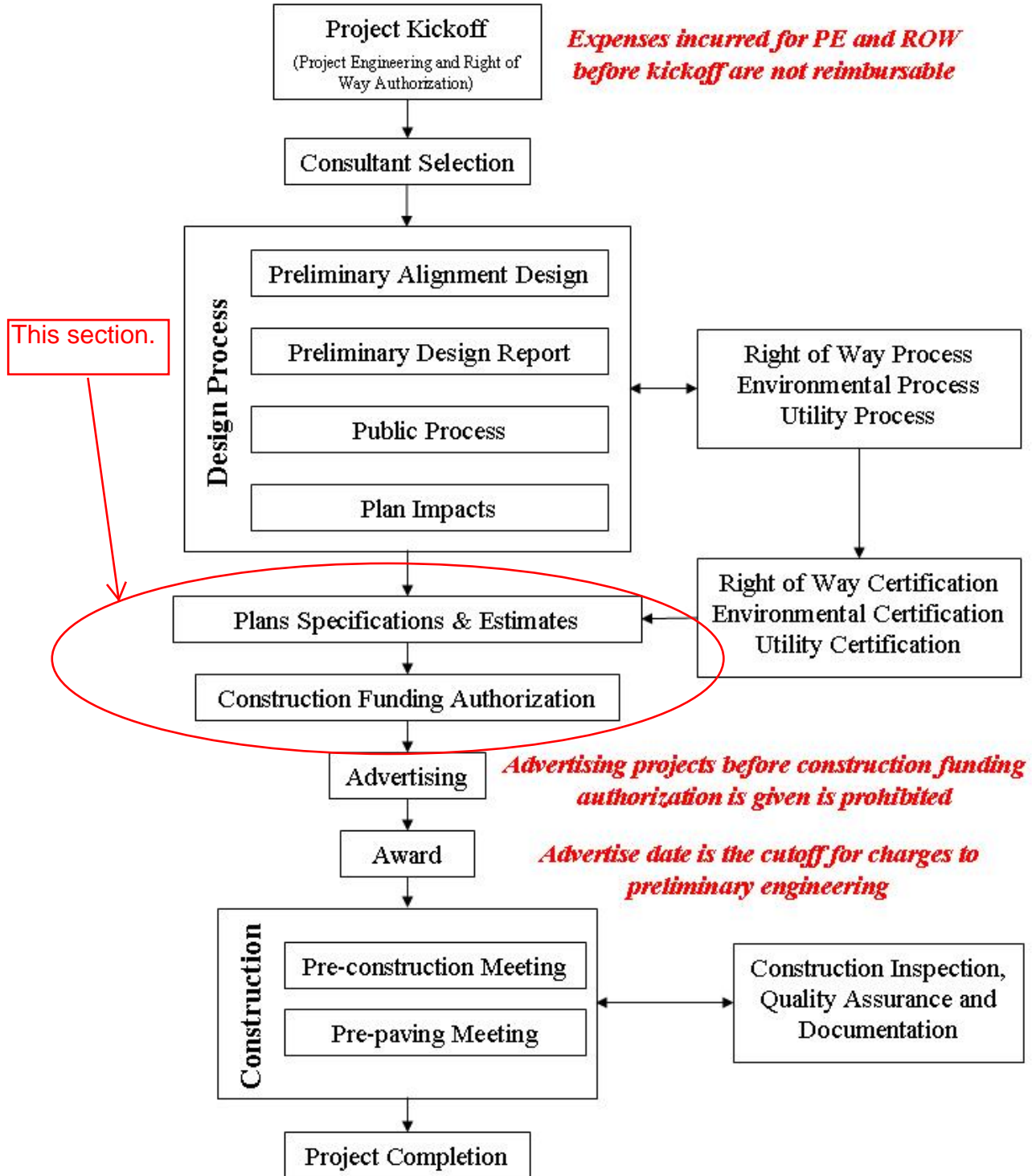
- Summarizing the design checking process. This will include checklists, the standard checking and back-checking processes, and other QC tools and documents used.
- Documenting all checks performed: initials of the checker, date the checks were performed, comments by the checker, and any other documentation.
- Checking all documents and calculations developed for each design element.
- Complying with all legal, regulatory, and contractual requirements, including but not limited to the Americans with Disabilities Act (ADA) and the Manual on Uniform Traffic Control Devices (MUTCD).
- Assuring the design conforms to all applicable MaineDOT standards, policies, practices, and is of high quality.
- Reviewing cost estimate including quantity and unit price analysis with comparison to established budget and project scope
- Analyzing constructability and maintainability
- Risk assessment (based on public safety, funding, scope, site specific conditions, and/or other project specific condition that could elevate risk level.)



MaineDOT will verify that design checks were conducted, through its quality-assurance reviews of the final plans (95 percent) and bid documents.

Additionally, for communities hiring engineering consultants, a QC element must be listed as a scope item in each consultant's technical proposal and subsequent contract.

Locally Administered Project – Process Flowchart



Appendix 7A: Project Certifications

NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE

Right-of-Way Certification (Letter 10)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Right-of-Way Certification
MaineDOT WIN _____

Dear _____:

Attached is the official certification that all Right of Way acquired for **[project scope, WIN]** in the Municipality of _____ was acquired in accordance to requirements identified in the executed Project Agreement dated **[execution date]**. All information about the Right of Way process can be made available to you at your request. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Right-of-way certificate

MUNICIPALITY OF _____			
RIGHT OF WAY CERTIFICATE			
FEDERAL PROJECT		WIN	
ROUTE		LOCAL NAME	
RIGHT OF WAY ACQUISITION REQUIRED AS DESCRIBED BELOW:			
Property Owners		Fee Simple Parcels	Easement Rights
Displacement Summary:			Number of Cases
Number Displaced		<input style="width: 100%;" type="text"/>	
Number Relocated		<input style="width: 100%;" type="text"/>	
<p>The Municipality of _____ hereby certifies that the right to occupy and use all the rights of way necessary for this project has been acquired by <input type="checkbox"/> deed, <input type="checkbox"/> condemnation or <input type="checkbox"/> permit to work. All right-of-way has been or will be acquired in accordance with the current FHWA directive(s) covering the acquisition of real property and all relocations have been accomplished.</p>			
<input type="checkbox"/> Without Exception			
Legal Possession completed as of			
<p>All families and individuals relocated from this project have been offered decent, safe and sanitary housing, as defined in 49 CFR Part 24: All parties receiving replacement housing payments have been relocated to DS&S housing. Relocation procedures used on this project conform to the standards established by federal regulation.</p>			

Signed by:

Local Project Administrator
Date

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Environmental Certification (Letter 12)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Environmental Certification
MaineDOT WIN _____

Dear _____:

This document serves as official certification that all environmental permits required for **[project scope, WIN]** in the Municipality of _____ were obtained and approved in accordance with requirements identified in the executed Local Public Agency Agreement dated **[execution date]**.

Attached are all of the approved permits. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures: Environmental permits
Cc: MaineDOT Environmental Office

NOTE: By signing the document, you are providing all the approved permits required to construct the project. If no permits are required, please supply a narrative as to why no permits were needed.

NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE

Utility Certification (Letter 13)

{Date}

Maine Department of Transportation
{MaineDOT Project Manager}
 16 State House Station
 Augusta, Maine 04333-0016

RE: Utility Certification
 Town:
 PIN:
 Location:

Dear ***{MaineDOT Project Manager}***:

I hereby certify that all utility **{and railroad}** work necessitated by the subject project has been identified and coordinated with the respective utilities **{and railroads}**. The following utilities **{and railroads}** have been identified as having facilities within the project limits:

<u>Utility/Railroad</u>	<u>Impacted facilities? (yes/no)</u>
{Utility/Railroad #1}	
{Utility/Railroad #2}	
{Utility/Railroad #3}	
{Utility/Railroad #4}	
{Utility/Railroad #5}	

All of the above entities were first informed of the subject project on **{Date}**, were involved as necessary throughout design, and have received the most current plans on **{Date}**. Furthermore, the above entities have been informed of the proposed advertising date - **{Date}**.

All necessary arrangements have been made for the utility/railroad work to be undertaken and completed as necessary to allow for construction of the project. There are no direct payments anticipated to utilities/railroads as a part of this project **{except as otherwise provided through the following agreements:}**

<u>Utility/Railroad</u>	<u>Date of Agreement</u>
{Utility/Railroad #1}	{Date}
{Utility/Railroad #2}	{Date}

The primary utility/railroad contacts that were involved in the coordination of this project are as follows:

<u>Utility/Railroad</u>	<u>Contact Name</u>	<u>Telephone #</u>
{Utility/Railroad #1}		
{Utility/Railroad #2}		
{Utility/Railroad #3}		
{Utility/Railroad #4}		
{Utility/Railroad #5}		

If you require any additional information, please contact me at {Phone Number} or at {email address}.

Sincerely,

{Local Project Administrator}

**NOTE: THIS LETTER MUST BE SUBMITTED ON OFFICIAL LETTERHEAD
WITH THE FINAL PLANS, SPECIFICATIONS & ESTIMATE (PS&E) PACKAGE**

Public Process (Letter 16)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Public Process Certification
MaineDOT WIN _____

Dear _____:

This letter is the official certification that the public process required for [**project scope, WIN**] in the Municipality of _____ was done in accordance with requirements identified in the executed Project Agreement dated [**execution date**].

DESCRIBE ANY PUBLIC OPPOSITION HERE, IF APPLICABLE.

I have attached the meeting minutes and sign-in sheet for your information. If you need any additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Meeting minutes

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Construction Authorization Request (Letter 18)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Authorization Request
MaineDOT WIN_____

Dear _____:

Attached for your review and approval is the bid package intended to advertise for construction services for [**project scope, WIN**] in the Municipality of _____. I hope to advertise the project on [**anticipated advertising date**].

I have also attached the latest cost estimate and schedule for the project. I understand that I cannot advertise the project until I have your written approval.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft PS&E package

Appendix 7B: Bid Documents Checklist



FINAL PLANS & BID DOCUMENTS

This section provides guidance on documentation for final design plans and bid packages. Local project administrators should contact MaineDOT for updated templates and special provisions.

Final Plans

1. Signed title page with licensed professional engineer's stamp.
2. Estimated Quantities – Matches Schedule of Items.
3. Check Notes on individual plan sheets to ensure all pay items are on the Schedule of Items and the Estimated Quantities.

Bid Documents

➡ Current documents are found on the MaineDOT website:
<http://www.maine.gov/mdot/contractors/publications/>

1. Bidding Instructions
 - Ensure the correct bidding instructions are at the front of the book, before the Notice to Contractors. It will either be Federal (14 pages) or State (9 pages) depending upon funding.
2. Notice to Contractors
 - Bid opening date – pay attention to holidays
 - Check bid bond amount
 - Book/plan amounts
 - Basis of award
 - Check Town/City, County, WIN
 - For projects under \$300,000, the notice should read: **“Bids will be accepted from all bidders. The lowest responsive bidder must demonstrate successful completion of projects of similar size and scope to be considered for the award of this contract.”**
3. DBE Utilization Form Notice – Required for Federal Projects ONLY
4. Acknowledgement of Bid Amendments Form.
5. Schedule of Items (Project Specific)
 - If plans exist, ensure the estimated quantities match the Schedule of Items in Bid Book.
 - Ensure that pay items referenced in the Special Provisions or in the plans are in the Schedule of Items and the estimated quantities.

6. Contract Agreement Offer and Award forms: two copies
 - Check WINS
 - Project Completion date matches Special Provision 107
 - Ensure correct form is used, as follows:
 - ✓ Federal Form – On 4th page, the 4th paragraph references DBE requirements.
 - ✓ State Form (no Federal funding) – No reference to DBE requirements.
 - ✓ Options/Alternates – Requires different form
7. Sample Forms – one copy each
 - Contract Agreement Offer and Award.
 - Contract Performance Bond
 - Payment Bond
8. Construction notes and/or project maps. Ensure that all pay items referenced in the notes are in the Schedule of Items.
9. Special Provision – 102.3 Examination of Documents, Site
10. Wage Rates – Check for latest update and correct county and type of work.
 - a. Federal Jobs – Require Davis-Bacon wage rate
 - Federal Wage Rates – <http://www.wdol.gov/dba.aspx>
 - Select “selecting DBA WD’s” and follow instructions
 - b. State-funded projects (NO Federal funding) – State wage rate sheet
 - Obtain wage rates from the Bureau of Labor Standards:
<http://www.maine.gov/labor/bls/>
11. Preferred Employees – State Funds Only
 - May be placed after the “Notice To Contractors.”
12. Special Provision 104 – Utilities
13. Special Provision 104 – Electronic Payroll (Federal funds only)
14. Special Provision 105 – Buy America Certification (Federal funds only)
15. Special Provision 105 – Over-limit Permits
16. Special Provision 105 – General Scope of Work
17. Special Provision 105 – DBE SP and DBE percentage (Federal funds only)
- 17A. Special Provision 105 – Project Survey Control (Highway jobs only)
18. Special Provision 105 – Control of Work
19. Special Provision 107 – Scheduling of Work
 - Ensure completion date matches Contract, Agreement & Award.

20. Special Provision 107 – Time (Scheduling of Work- Projected Payment Schedule)
 21. Special Provision 107 – Projected Payment Schedule
 22. Special Provision 108 – Asphalt Escalator – Only if more than 500 tons of Hot Mix is used
 23. Special Provision 403 – Hot Mix Asphalt
 - Compare items listed against the “Schedule of Items” and other Special Provisions.
 - Ensure all paving pay items are on the Schedule of Items and the Estimated Quantities.
 - Ensure that all numbered notes in the table are listed at the bottom of the page.
 - Check to see if Tack (item 409.15) is a pay item or incidental.
 24. Ensure Special Provisions are in numerical order.
 25. Any contract that contains highway lighting or traffic signals must have “Special Provision Section 634 and 643, Highway Lighting and Traffic Signals” included in contract.
 26. Special Provision 652 – Maintenance of Traffic (Sign Sheeting Materials)
 27. Special Provision 652 – Maintenance of Traffic (Traffic Control Damages)
 28. Special Provision 652 – Maintenance of Traffic – Feb 4, 2011
 29. Special Provision 656 – Soil Erosion – MUST reference “BMP FEB. 2008” in the text.
 30. Standard Detail Updates
 31. Repair Specification (Supplemental Specification): Make sure this is the latest updated.
 32. Federal Insert – Form FHWA-1273 – 36 pages (Federally funded projects only):
<http://www.maine.gov/mdot/contractors/bidderinfo/>
 33. Environmental Permit – Check that all referenced Special Provisions are in the book.
-

8. Force Account Work



Agency Force Account Work

Most of the time, construction of federally funded projects is done by private contractors hired through competitive bidding. Occasionally, however, a larger municipality or public agency may consider it advantageous to build a project with its own personnel using a “force account” process.

If so, the municipality or agency in charge must justify why building a project with force-account labor would serve the public interest. A written request – submitted to the MaineDOT project manager for a particular project – must include:

- A description of the nature of the work;
- A detailed description of how the work is to be done;
- A cost breakdown for materials, equipment, labor and overhead;
- An explanation of why doing the work by force account would be more cost-effective than competitive bidding.



MaineDOT reviews force-account requests on a case-by-case basis – usually in consultation with the Federal Highway Administration (FHWA). Generally, a municipality or other local public agency must demonstrate that its personnel can perform the work to the standard to which a private contractor would be held. The agency also must show, among other things, that:

- Agency personnel can build the project for approximately 15 percent less than the official estimate for competitively bid work – based on the estimated quantities and prices for materials, labor and equipment;
- Agency personnel have successfully completed other projects of similar size and scope;
- The agency has the personnel and equipment to do the work to the same standard of quality that is required for a competitively bid contract;
- The agency can meet all federal labor-compliance requirements and other mandates contained in Form FHWA-1273, “Required Contract Provisions for Federal-aid Construction Projects”; and
- Authorizing an agency to perform work by force account will not hinder MaineDOT’s ability to achieve its overall Disadvantaged Business Enterprise (DBE) performance goal. (See Section 10: Civil Rights, for an explanation of the DBE program.)
- **Note:** Force-account requests for projects with only state money closely follow this process.

PUBLIC AGENCY FORCE ACCOUNT REQUIREMENTS

The term “Force Account” means the direct performance of highway and highway-related construction work by a public agency (State, local, or Tribal), a railroad, or a public utility company by use of labor, equipment, materials, and supplies furnished by the agency and used under their direct control [23 CFR part 635.203(c)].

In general, Federal-aid highway construction projects must be awarded on the basis of the lowest responsive, responsible bidder [23 U.S.C. 112] unless the state transportation agency can demonstrate to the satisfaction of the Federal Highway Administration (FHWA) that some other method is more cost-effective or that an emergency exists. In this case, “cost effective” is defined as the efficient use of labor, equipment, materials and supplies to assure the lowest overall cost [23 CFR part 635.203(e)].

In accordance with the stewardship/oversight agreement between MaineDOT and the Maine Division of the FHWA, MaineDOT has established a self-certifying process to meet the requirements for a finding of cost effectiveness as described in 23 CFR part 635.204(c). Construction work proposed by a public agency on a Federal-aid project meeting these requirements is considered to be cost effective.

The purpose of this document is to provide an overview for using the **Force Account Construction Method – Finding in the Public Interest Form (hereafter “the Form.”)** The MaineDOT Project Manager is responsible for preparing and submitting the form and attaching all required supporting documentation. The corresponding MaineDOT Program Manager (or in MaineDOT M&O Regions, the Region Manager) must provide review/approval sign-off. All Force Account requests shall be maintained at a central secure repository site, available for review, including by FHWA.

When the force account construction method is used, it must be justified by a cost effectiveness determination that shows a significant savings over estimated contract prices. The requestor shall document this savings by providing Force Account costs on the attached **‘Force Account Estimate Worksheet’** that must be submitted with the Form. This should be compared with the detailed cost estimate of work by the competitive bid method of construction. The estimates for both shall be all inclusive so a fair and equal comparison can be made.

The public agency estimate for the force account construction method must include all costs associated with the work and not just the work that will be billed to the project. These costs include non-reimbursable costs that are inherent to the work including labor, overhead, equipment, materials, and supplies. MaineDOT will provide a standard overhead figure to be used with these estimates – it currently is 110%. *Municipalities and other local public agencies either shall provide their audited overhead reports or use the standard overhead figure of 110% of labor costs.*

- If the public agency has no set rates for its equipment, it may use the current published Blue Book rental rates.
- The public agency obtains all required clearances and permits as applicable.

- Project activity should only proceed when:
 - a. All documentation justifying the force account construction method is complete.
 - b. Plans are complete and approved by the PM.
 - c. Obligation authority and funding are cleared by the PM.
- Project expenditures should follow established MaineDOT guidelines

The Force Account method of construction may be used in the following circumstances: A) Emergency Repair Work; B) Railroad or Utility Work; C) When there is Lack of Bids or Unreasonable Bids; or D) Work by a Public Agency. The eligibility and documentation requirements for the latter types of projects are indicated in the YES sections of Part D of the attached form.

A) Emergency Repair Work

Necessary to protect public health and safety, or a major element or segment of a highway or roadway has failed, and competitive bidding is impossible or impractical. Competitive bidding may be precluded because immediate action is necessary to minimize the extent of the damage, to protect remaining facilities, or to restore essential travel as provided in 23CFR 635.204(b).

B) Railroad or Utility Work

The inherent nature of the operation makes it cost effective to perform minor adjustments of railroad and utility facilities (as determined by the railroad or utility) by the force account construction method, while the majority of work is performed by competitive bid. See 23CFR 635.205(b).

C) Lack of Bids/Unreasonable bids or Work by a Public Agency

1. It can be demonstrated that it is cost-effective to do the work by the Force Account method and the scope of work is within the approved Force Account criteria, or that there is a lack of bids or the bids received are unreasonable. The Force Account value must be in the range of 15% less than estimated competitive bid method of construction. *If the cost savings is less than 10%, concurrence must be obtained from the appropriate MaineDOT Bureau Director and the FHWA.*
2. It is cost-effective to perform work that is incidental to the main purpose of the project by the Force Account construction method. The majority of work is still accomplished by competitive bidding.
3. Appropriate documentation shall be provided to substantiate the reason for work done by MaineDOT or municipal forces.
4. Force Account activity shall not be considered for routine maintenance work.

MAINE DEPARTMENT OF TRANSPORTATION FORCE ACCOUNT CONSTRUCTION METHOD – FINDING IN THE PUBLIC INTEREST Please perform a file save as to your computer before entering any information		WIN <input style="width: 100px;" type="text"/> Proj Cost: <input style="width: 100px;" type="text"/> Force Acct: <input style="width: 100px;" type="text"/>
Today's Date: <input style="width: 100px;" type="text"/>	Planned Project Begin <input style="width: 100px;" type="text"/>	
Location: <input style="width: 200px;" type="text"/>		
The term “force account construction method” refers to construction work a public agency performs on federally funded projects using its own forces. Specifically, it means the direct performance of highway construction work by the Department, local entity, county, railroad, public utility company, or other agency by use of labor, equipment, materials, and supplies furnished by the agency and used under its contract terms (23 CFR part 635.203(c)).		
Scope of Work: <input style="width: 100%; height: 100px;" type="text"/>		
I <input type="checkbox"/> do / <input type="checkbox"/> do not recommend that <input style="width: 200px;" type="text"/> be allowed to construct the work by the force account construction method. The work <input type="checkbox"/> does / <input type="checkbox"/> does not meet one of the following conditions justifying performance of the work by the force account construction method. [See Public Agency Force Account Process documentation further guidance.] Check type of work below that applies (one only): [Note: Force Account is not to be used for maintenance work]		
<input type="checkbox"/> A. Emergency Repair Work	Y N	Supporting Documents
1. Work meets definition in 23 CFR 668.103	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
2. Materials meet requirements or waiver issued	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
3. Attach backup documentation	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
<input type="checkbox"/> B. Railroad or Utility Work		
1. Work Scope meets Definition of “Adjustment” per Subpart B	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
2. Organization is qualified to perform work	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
<input type="checkbox"/> C. Lack of Bids or Unreasonable Bids		
1. Is there lack of bids or unreasonable bids?	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>
2. Is Force Account method more cost effective than bidding, as defined in 23 CFR 635.203(e)?	<input type="checkbox"/> <input type="checkbox"/>	<input style="width: 100px;" type="text"/>

<input type="checkbox"/> D. Work by Public Agency (MaineDOT or Municipal Forces)			
1. Does scope of work meet definition of “construction” (23 USC, 101)?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Is the project located within the highway right of way?	<input type="checkbox"/>	<input type="checkbox"/>	
3. Does agency have cost estimates for materials, labor and equipment, including overhead rates and indirect costs?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Does agency have experience, resources and ability to perform the work to same quality as private contractor?	<input type="checkbox"/>	<input type="checkbox"/>	
5. Does agency have ability to comply with appropriate design, construction, and materials quality standards?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Does agency own (or currently lease) most equipment needed to perform the work?	<input type="checkbox"/>	<input type="checkbox"/>	
7. Were Force Account and competitive bid cost estimates based on the same project completion timeline?	<input type="checkbox"/>	<input type="checkbox"/>	
8. Has it been determined that proposed work cannot be competitively bid with other Federal-aid projects?	<input type="checkbox"/>	<input type="checkbox"/>	
9. Has it been determined that no materials will be purchased sole-source in excess of \$5,000?	<input type="checkbox"/>	<input type="checkbox"/>	
10. Are there assurances that force-account work will not hinder the State’s ability to meet its DBE utilization goal?	<input type="checkbox"/>	<input type="checkbox"/>	
11. Are there assurances that the organization will comply with FHWA-1273?	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> E. Additional Project Information			
1. Public Agency paying part of cost?	<input type="checkbox"/>	<input type="checkbox"/>	
2. Agreement provided if work done by other(non state forces)	<input type="checkbox"/>	<input type="checkbox"/>	
3. Is any portion of work being subcontracted?	<input type="checkbox"/>	<input type="checkbox"/>	
4. Will agency perform all labor other than specialty services? (e.g. paving)	<input type="checkbox"/>	<input type="checkbox"/>	
5. Is more than 50% of the work sub-contracted?	<input type="checkbox"/>	<input type="checkbox"/>	
6. Is this a full FHWA oversight project?	<input type="checkbox"/>	<input type="checkbox"/>	
I hereby certify that provided all the necessary documentation relating to Items A through E above in support of the request to administer and/or perform the work on the above referenced project by the force account construction method.			

Comments:

--

NOTE:

1. Documentation that shall further support Items A through E should be retained as part of the project files.
2. All other pro-construction processes shall be followed (Right of Way, Categorical Exclusions, Utility Certification, etc)

Approvals: |

Project Manager: |

Region/Program Manager: |

Agency/Region: |

MaineDOT/Municipality:
WIN:

Double Click to Activate Excel Spreadsheet

<i>MATERIALS</i>	Type	Quantity	Unit Cost	Subtotal
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
<i>LABOR</i>	Classification	Person Hours	Cost/Hour	Subtotal
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
<i>EQUIPMENT</i>	Type	Hours	Rate/Hour	Subtotal
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
<i>OVERHEAD</i>	Labor OH Rate	Equip OH Rate		Subtotal
<i>INDIRECT COSTS</i>				Subtotal
			TOTAL FORCE ACCOUNT AMOUNT	\$0.00

9. Advertise & Award



Advertise & Award

Construction of locally administered projects is done primarily by private contractors hired through competitive bidding. A low-bid process must be used by law, and contractors in a certain area cannot receive preference. When the design is completed, a municipality or other local public agency may advertise for construction bids only after MaineDOT has approved the final plans, specifications and estimate package (PS&E) and given construction authorization.

This section explains the bidding process and includes the following:

- A summary of the required steps (pages 9-1 to 9-4);
- A flowchart – Figure 9.1 (page 9-5);
- A checklist – Figure 9.2 (page 9-6);
- Appendix 9A: Sample communications (page 9-8); and
- Appendix 9B: A sample contract offer and award (page 9-11).



☞ **Remember:** If you advertise for construction bids without authorization from MaineDOT, you will jeopardize **ALL** of the money from MaineDOT for the project.

9.1 Requirements

The requirements for putting projects out to bid generally include the following:

- Solicitation of bids is done through a Notice to Contractors advertised in at least one general-interest newspaper with regional or statewide distribution. This notice provides a deadline for sealed bids, a brief description of the nature and location of the work, information about how to bid, and any pre-qualification requirements.
- Projects also are commonly advertised on the Internet, including municipal websites and the MaineDOT site for contractors: <http://www.maine.gov/mdot/contractors/>
- The advertise period must be at least **three weeks**; approved plans and specifications must be available to bidders for at least that long before the bid opening.
- During the three-week advertise period, the MaineDOT project manager must approve any amendments that change the approved plans or specifications.
- A city, town or other local public agency may benefit from holding a pre-bid conference enabling contractors to view the project and submit questions, but this is not required.

- Questions should be submitted in writing at least 48 hours before the scheduled bid opening. The local project administrator must provide the same answer to all bidders through amendments or at the pre-bid conference. Amendments should be posted to the Web, if that is how the project is advertised.
- The Notice to Contractors must specify the date and time at which sealed bids will be opened and publicly read. If that date is changed, bidders must be notified through addenda and an announcement made before the originally scheduled date and time.

9.2 Bidder Pre-qualification

Contractors must demonstrate that they are capable of completing certain types of projects before being awarded construction contracts, as follows:

- If the estimated construction cost is **more than \$300,000**, contractors must meet MaineDOT’s pre-qualification standards, found on the MaineDOT website:
⇒ <http://www.maine.gov/mdot/contractors/prequal/>
- If the estimated construction cost is **less than \$300,000**, pre-qualification generally is not required. To be awarded a contract, the low bidder must demonstrate successful completion of projects with similar size and scope.

⇒ Any contractor prohibited from receiving federal money **cannot** bid on federally funded projects. Check with MaineDOT to see if a bidder is “debarred.”

9.3 Bid Opening

All sealed bids received in accordance with the terms of the advertisement are opened and read publicly at the time and place specified in the Notice to Contractors or any bid amendments. Usually, only the total price of each bid is read.

A contract must be awarded to the lowest responsive and responsible bidder for the amount of the bid. A bid is considered responsive if it meets all the requirements of the advertisement and project specifications.

Remember: Negotiating with the apparent lowest bidder before a contract is awarded is **prohibited**. There are no exceptions; *doing so will jeopardize the money for your project.*



If the local project administrator deems the lowest responsive bid to be unacceptably high, then **ALL** bids must be **rejected**. In such a case, the MaineDOT project manager must be notified. The work may be re-advertised after adjustments are made in consultation with MaineDOT.

9.4 Bid Review

After the bid opening, the local project administrator or qualified designee must review the bids for errors and discrepancies. This analysis should include the following:

- Reviewing unit bid prices for obvious mathematical or material unbalancing that may cause doubt about a contractor’s ability to meet the project specifications.
 ➤ See Section 103.1.2 of MaineDOT’s Standard Specifications for definitions.
- Checking unit prices – numerical and written – to ensure that they agree. (In they differ, the written unit price applies.)
- Checking all mathematics, including multiplication of unit price and quantity, for total item cost and summing items for total bid;
- Reviewing bid and alternatives to ensure that the apparent low bidder meets the requirements of the bid and available funds.



If irregularities in a bid proposal are found, the reviewer may deem them curable or non-curable.

➤ See Section 102.11 of MaineDOT’s Standard Specifications – “Bid Responsiveness.”

9.5 “Non-curable” Bid Defects

Defects and discrepancies in bid documents are considered “non-curable” – meaning that a contractor will have no chance to correct them – if they cast doubt on a bidder’s total bid amount or the bidder’s ability to complete the work within the contract timeframe. A bid must be **rejected** if any of these non-curable defects is found:

- The bid and bid guaranty are not delivered to the precise location and by the precise time set forth in the Notice to Contractors or any applicable bid amendment;
- The bidder is debarred or otherwise ineligible to bid on the project;
- The bid is not signed by a duly authorized representative of the bidder;
- A bid guaranty meeting the specifications for the project is not submitted;
- The unit or lump sum price for any item is missing or is illegible;
- The bid contains any conditional or alternate bidding language, including the right to accept or reject an Award of the Contract;
- The bidder submits more than one bid for the same contract, or the bidder and any related entity each submit a bid for the same contract;
- There is substantial evidence of collusion by the bidder; and
- The bidder fails to comply with any provision in the bid documents that expressly indicates that such non-compliance will cause bid rejection.

9.6 “Curable” Bid Defects

Not all defects will nullify a bid proposal. A bidder may be given the opportunity to correct certain “**curable**” defects within a set amount of time, when:

- The bidder only signs one of the Contract Agreement Offer & Award forms;
- The bid is not submitted either on forms provided by the agency in charge of the project or on identical copies thereof;
- The total sum of the items provided in the Schedule of Items is missing;
- Prices or signatures on the bid or bid guaranty are not in ink;
- A defect doesn’t create a significant question about the total bid amount or the bidder’s ability to complete the work.

9.7 Bid Award

A municipality or other local public agency has **30 days** after the bid opening to deliver a written Notice of Intent to Award a contract to the apparent low bidder. This notice sets forth conditions that must be met before a contract can be executed.

➡ See Section 103.3 of MaineDOT’s Standard Specifications – “Post-Bid Qualifications.”

The local project administrator must send the MaineDOT project manager a letter or email with the recommended bid award. The document should contain a summary of the bid review and a bid tabulation that includes the engineer’s estimate and all bids with unit prices. MaineDOT’s approval is required before the contract is awarded. (See sample **Letter 19**, on page 9-9.)

➡ A contract cannot be awarded without MaineDOT’s approval.

A contract generally must be executed within 14 days after the apparent low bidder has met all conditions of award. After a contract is executed, copies of the award notice and signed contract must be sent to the MaineDOT project manager. (See sample **Letter 20**, on page 9-10.)

9.8 Rejection of Lowest Successful Bid

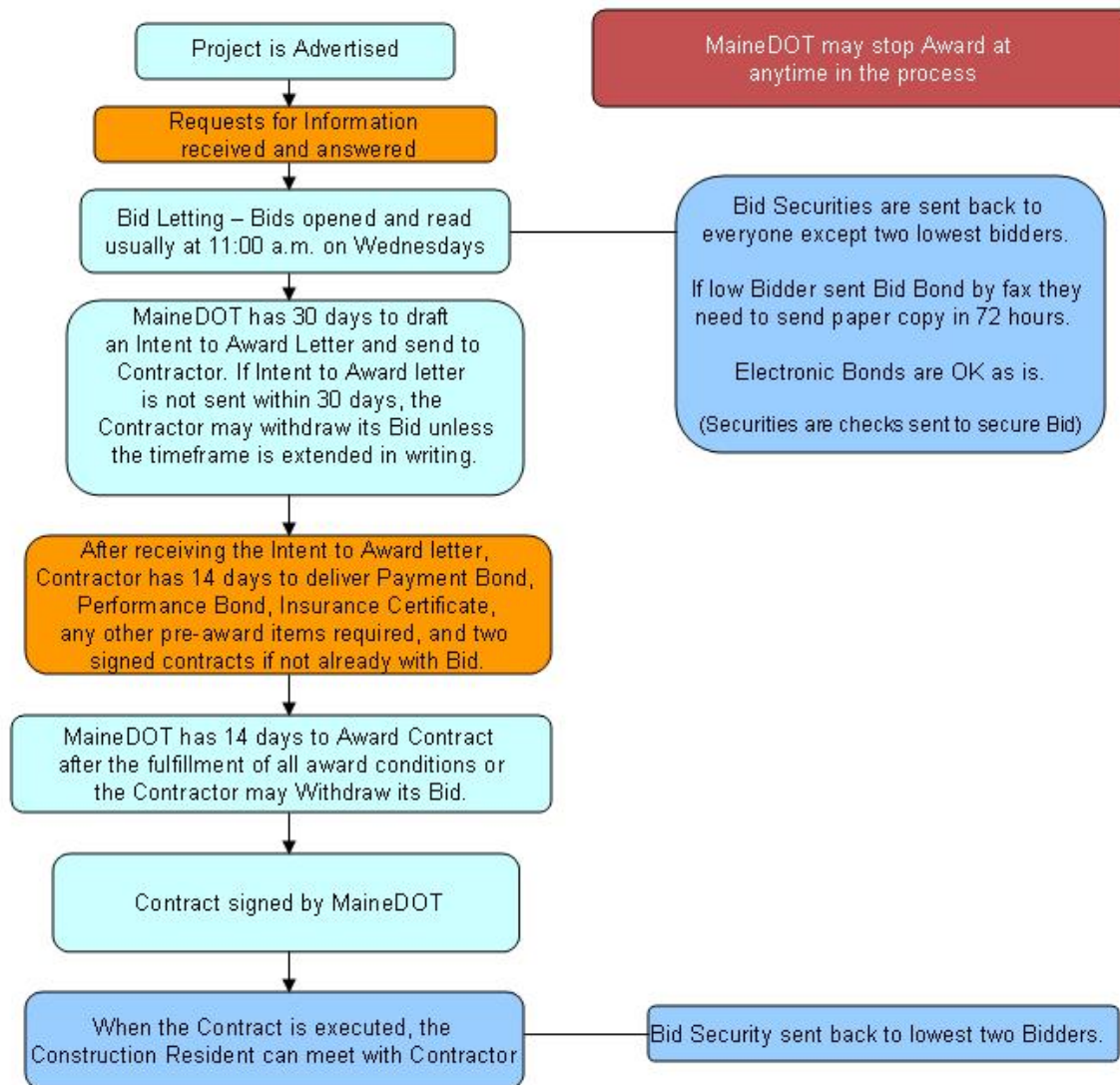
If the apparent successful bidder fails to fulfill the conditions of award within the time provided, the bidder forfeits the award. If that happens, the local project administrator has three options, which should be considered in consultation with MaineDOT:

- Award the contract to the responsible bidder with the next lowest responsible bid;
- Reject all bids; and/or
- Re-advertise the project.

➡ See Section 103.6 of MaineDOT’s Standard Specifications, “Failure to Fulfill Award Conditions.”

Maine Department of Transportation **Bid Award Process**

Section 103



CONSTRUCTION FUNDING AUTHORIZATION

Construction funding requested from MaineDOT Project Manager (Letter 18 or e-mail)

- _____ Final PS&E attached
- _____ Environmental Certification attached (Letter 12)
- _____ Right-of-Way Certification attached (Letter 10)
- _____ Utilities Certification attached (Letter 13)
- _____ TAME Certification attached (traffic impacts)

_____ **Construction funds approved in writing** by the MaineDOT Project Manager

ADVERTISE AND AWARD

Request minimum materials testing requirements from MaineDOT project manager

- *Half-sized copy of plans, estimated quantities, and specifications sent to technician Jean Tukey in Freeport (865-0164) or during the winter in Augusta (624-3543)*

Advertise for bids

_____ Standard advertise is **3 weeks**; MaineDOT approval is needed for a shorter period

_____ Publish Notice of Bid Opening

- *Notice can be posted to MaineDOT website. E-mail George.macdougall@maine.gov*

_____ Date of publication for sealed bids

_____ Basis of Award clearly defined, so low bidder is readily apparent after bids publicly read

_____ Optional bids cannot be part of Basis of Award

Conduct the public bid opening, as follows:

_____ Determine contractor qualifications

- *For contracts of **\$300,000 or more**, use MaineDOT’s pre-qualification process*
- *For contracts of **less than \$300,000**, the apparent low bidder must demonstrate “successful completion of projects with a similar size and scope”*

_____ Issue addendum, if documents are modified or if answering a Request for Information

- *If there is not enough time for bidders to make changes, then delay the opening*

_____ Open bids

_____ Prepare bid tabulation sheet

_____ Check submitted bids for tabulation errors

_____ Complete bid and bidders’ tabulation sheet

_____ Check DBE participation goal - verify DBE certification status

_____ Determine the responsive bid

- *Use the curable/non-curable language in Standard Specification 102.11*
- *If a defect isn’t specifically listed as non-curable in the bid documents, it is curable*

_____ Verify that contractor is licensed as legally required by the State of Maine

_____ Return bid securities (except for the first two)

_____ Notify second bidder of holding bid securities until execution

Award recommendation sent to MaineDOT Project Manager (Letter 19 or e-mail)

_____ Tabulation of bids

_____ Engineer’s estimate

_____ Actual versus estimated costs shown

_____ DBE utilization certification completed

_____ Estimated date of contract completion

Award approved in writing by MaineDOT Project Manager

Construction Contract Awarded, as follows:

_____ Establish contract award date

_____ If project exceeds \$125,000, verify that the successful bidder has a “Performance and 100% Payment Bond” – as required by Maine law – *before signing contract*.

_____ Send “Award Letter” to successful low bidder

_____ Notify all unsuccessful bidders

_____ **Copy of signed contract to MaineDOT Project Manager (Letter 20 or e-mail)**

_____ Return bid securities to first and second bidders

Appendix 9A: Communications



NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 state House Station
Augusta, ME 04333-0016

Subject: Construction Award Request
MaineDOT WIN _____

Dear _____:

Attached for your review are the bid tabulations, latest cost estimate and schedule for **[project scope, WIN]** in the Municipality of _____. **[name of contractor]** is the lowest responsive, responsible bidder, and it is our recommendation that the project be awarded to that contractor.

I realize that I cannot award the project until I receive your written approval.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosures:

1. Bid tabulations
2. Cost estimate
3. Schedule

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Construction Contract
MaineDOT WIN_____

Dear _____:

Attached for your files is the executed construction contract between the Municipality of _____ and **[name of contractor]** for **[project scope, WIN]**. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Signed construction contract

Appendix 9B: Contract Offer & Award Form



Sample
CONTRACT OFFER & AWARD

THIS AGREEMENT IS made on the date last signed below, by and between the Municipality of _____ a municipal corporation and body politic with its principal administrative offices located at (INSERT ADDRESS); and (CONTRACTOR NAME) a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at (INSERT ADDRESS).

The Municipality and the Contractor, in consideration of the mutual promises set forth in this Agreement (the “Contract”), hereby agree as follows:

A. The Work.

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, WIN (INSERT NUMBER), for the (LOCATION, SCOPE OF WORK) in the Municipality of (INSERT NAME) County of (INSERT NAME), Maine. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Municipality shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time.

The Contractor agrees to complete all Work, except warranty work, on or before (INSERT DATE). Further, the Municipality may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of the Maine Department of Transportation’s Standard Specifications Revision of December 2002, and related Special Provisions.

C. Price.

The quantities given in the Schedule of Items of the Bid Package will be used as the basis for determining the original Contract amount and for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is (INSERT AMOUNT), Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract.

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Maine Department of Transportation's Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications.

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the Statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in the Federal Contract Provisions Supplement, and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer.

The undersigned, having carefully examined the site of work, the Plans, Maine Department of Transportation's Standard Specifications Revision of December 2002, Standard Details Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of:

State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract at the unit prices in the attached "Schedule of Items".

The Offeror agrees to perform the work required at the price specified above and in accordance with the bids provided in the attached “Schedule of Items” in strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Municipality in writing.

As Offeror also agrees:

First: To do any extra work, not covered by the attached “Schedule of Items”, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a “Force Account” basis as provided in the Maine Department of Transportation’s Standard Specifications, Revision of December 2002, and as addressed in the contract documents.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier’s check, certificate of deposit or U. S. Postal Money Order in the amount given in the “Notice to Contractors”, payable to the Municipality of (NAME) and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Maine Department of Transportation’s Standard Specifications, Revision of December 2002, and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: The Contractor will be bound to the Disadvantaged Business Enterprise (DBE) Requirements contained in the attached Notice (Additional Instructions to Bidders) and submit a completed Contractor’s Disadvantaged Business Enterprise Utilization Plan with their bid.

Fifth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Sixth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Municipality.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award.

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MUNICIPALITY OF

Date

By: (Authorized Representative)

Witness

Local Project Administration Manual & Reference Guide

10. Civil Rights



MaineDOT

Integrity - Competence - Service

2014 Edition

Civil Rights

All federally funded locally administered projects must adhere to a variety of federal labor compliance and anti-discrimination laws and regulations. This section summarizes the key requirements that apply to transportation projects, as follows:

- Davis-Bacon Act and other labor laws – page 10-4;
- Americans with Disabilities Act (ADA) – page 10-7;
- Disadvantaged Business Enterprise (DBE) – page 10-11;
- Equal Employment Opportunity (EEO) – page 10-19; and
- Title VI of the Civil Rights Act of 1964.



MaineDOT’s Civil Rights Office oversees compliance with these programs:
<http://www.maine.gov/mdot/civilrights/>

□ Davis-Bacon Act

The Davis-Bacon Act requires federally determined wage rates on all federally funded construction projects. State of Maine wages are required on projects using only state funds. If federal and state funds are used, Davis-Bacon rates prevail. Such pre-determined wage rates are not required for municipal personnel when a force-account process is used. (*FMI: See Section 8.*)

➡ *Information about Davis-Bacon and other labor laws begins on page 10-4.*

The MaineDOT publication “A Contractor’s Guide to Davis-Bacon” is found on the CD with this manual and online: <http://www.maine.gov/mdot/civilrights/>

□ Americans with Disabilities Act of 1990 (ADA)

The ADA prohibits public entities and organizations that receive public funds from discriminating against people with disabilities in all aspects of life, including transportation, public services and public programs. The law requires new, reconstructed or otherwise “altered” transportation facilities to be made ADA compliant to the greatest extent feasible, regardless of cost or the type of funding behind a project. (*See pages 10-2 and 10-8.*)

In mid-2013, the U.S. Department of Justice and the Federal Highway Administration came to agreement on the definitions of alterations for pavement treatment types. An alteration is considered a change to a public right-of-way that affects or could affect access, circulation, or use. These new definitions may change how government entities upgrade accessibility to pedestrian facilities. They apply to ALL government agencies regardless of funding.

Any of the following activities could be considered an “alternation” under the new requirements:

- New construction;
- Road rehabilitation and reconstruction;
- Mill-and-fill / mill and overlay;
- Addition of new layer of asphalt (light capital paving);
- Cape seals
- Hot-in-place recycling; and
- Microsurfacing / thin-lift overlay.

ADA accessibility rules dictate that projects that “alter” the usability of the roadway must incorporate accessible pedestrian improvements to existing facilities to the maximum extent feasible. Where pedestrian facilities are present, ADA compliance of curb ramp width, slope and detectable warnings are necessary for certain treatments; this may also require pedestrian signal upgrades.

➤ *MaineDOT’s ADA Compliance Policy is found starting on **page 10-7**. The 2010 ADA Standards for Accessible Design are online: www.ada.gov/2010ADASTandards_index.htm*

❑ Disadvantaged Business Enterprises (DBE)

DBE is a federal program that encourages use of businesses owned by women and minorities, and such participation is calculated only on federally funded projects. Maine seeks to meet DBE goal requirements through *race-neutral* means; DBE participation typically is not required on specific projects. Maine does, however, attempt to calculate the attainable DBE usage on projects and asks that prime contractors and sub-recipients of federal funds do their utmost to ensure that DBE firms are sought after and hired, if available. MaineDOT continually reviews DBE usage. If it becomes apparent that Maine’s DBE goal will not be met, MaineDOT may enforce DBE goals on certain projects. It is important to note that force-account work done by municipalities can be used as justification for no DBE commitments.

➤ *DBE information begins on **page 10-11**.*

❑ Equal Employment Opportunity (EEO)

EEO is an effort to ensure sub-recipients of federal funds, contractors and sub-contractors comply with federal laws and regulations that prohibit government contractors from discriminating in employment. EEO also requires that they undertake affirmative action to ensure equal employment opportunity in their workforces and that they understand their contractual obligations. Every season, MaineDOT is required by the Federal Highway Administration to conduct “Contractor Compliance Reviews” to monitor non-discrimination efforts on several prime contractors and their sub-contractors.

➤ *EEO information begins on **page 10-19**.*

□ Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, religion, sex or national origin in any federally funded program, including locally administered projects with federal money. Additionally, a presidential executive order in 1994 directed every federal agency to make “environmental justice” part of its mission by identifying and addressing the effects of all programs, policies and activities on minority and low-income populations.

Title VI serves to ensure that services are distributed fairly regardless of race, color, religion, sex or national origin, and that all people have access to participation in the decision-making process. Compliance with Title VI in transportation programs is achieved through:

- Avoiding, minimizing or mitigating disproportionately high health and environmental harm to minority and low-income populations.
- Ensuring the full and fair participation in the transportation decision-making process by all potentially affected groups, including those with limited English proficiency.

➡ *MaineDOT's latest Title VI Plan is found online:*

<http://www.maine.gov/mdot/civilrights/>

Davis-Bacon Act and Other Labor Laws



Davis-Bacon Act & Other Labor Laws

The Davis-Bacon Act was passed in 1931 to ensure that wages paid with federal money are equitable and comparable with regional prevailing wages. The law requires laborers and mechanics on federally funded construction projects to be paid the prevailing rates. Davis-Bacon dictates how to track and comply with federal wage requirements on federally funded projects. If there is no federal money, Davis-Bacon wage rates do not apply.

Other laws applicable to federally funded transportation projects include the following:

- **The Contract Work Hours & Safety Standards Act** requires time and one-half pay for overtime hours exceeding 40 in any workweek on a covered project.
- **The Copeland Act (Anti-Kickback Act)** makes it a crime for an employer to require any laborer or mechanic working on a covered project to kick back any part of their wages. It also requires the employer to submit Certified Payroll Reports (CPRs).

Contact: Rick Stephens at (207) 624-3056 or Richard.W.Stephens@maine.gov

General Decision (Wage Rates)

Davis-Bacon wages consist of a base rate that represents the basic hourly rate, plus an additional fringe that may be required. The fringe may be paid in cash or provided for as a benefit by the employer.

Every federal project, when bid, includes at least one U.S. Department of Labor General Decision (GD), but more may be needed based on the scope of work. If a project covers more than one county, for instance, there will be a GD for both. If there is heavy work, such as a bridge over tidal water, then there may be “heavy” rates and “highway” rates.

In many cases, the GD may not include all of the classifications and rates for a specific project. The general contractor must identify and request any additional classifications and rate needed for employees on a covered project. All requests will be made through the Elation electronic payroll system, covered on page 10-6. The federal Department of Labor must approve the rates.

Responsibilities of Project Resident

The project resident overseeing a federally funded project must carry out certain activities to comply with federal labor laws, as follows:

- Review the General Decision to ensure that there are no missing classifications or rates;
- Ensure that the contractors submit requests for missing classifications and rates;
- Check contractor’s bulletin board for accuracy and completeness (see pages 10-6, 10-21);
- Prepare payroll tracking sheet as project progresses;

- Review Certified Payrolls Reports for missing classifications and other issues;
- Conduct payroll interviews of those workers subject to Davis-Bacon review;
- Compare payroll interview information; and
- Notify the MaineDOT Civil Rights Office of any issues.

Electronic Payroll

MaineDOT tracks *all* federal payrolls through the online Elation system, which every general contractor and sub-contractor must use. Contractors with questions should contact Sonya Everett: Sonya.Everett@maine.gov or phone: 207-624-3519.

(Guidance in using the system is found at the end of Section 11: Construction Administration.)

Payroll Interviews


The project resident or designee must conduct payroll interviews every 90 days with **two** covered workers from the prime contractor and all sub-contractors performing on site five days or more during each 90 day period. These interviews are confidential and voluntary and must be conducted in person, on the job site. Every effort should be made to ensure that these interviews cause as little disruption as possible to the work. The standard form 1445 must be signed by both parties at the conclusion of the interview.

Once the interviews are completed, the interview information must be compared with the data from the payroll report for that week. Any apparent discrepancies should be addressed by the project resident immediately. Contact the MaineDOT Civil Rights Office for assistance.

Labor Standards Bulletin Board

To keep employees informed of their rights and required wage rates under state and federal laws, a series of posters must be present at the work site and posted on a bulletin board by the prime contractor. The contractor's bulletin board must be displayed on the first day of construction activity on a covered project. It must be displayed in an area that is accessible to all employees and the general public around the clock, seven days per week. The board is usually placed outside the Contractor/Resident field office and must be maintained to remain readable for the duration of the project.

If a project is state funded only, only State of Maine posters are required. If a project has federal funding, *both* State and Federal labor posters are required. The MaineDOT Civil Rights Office has developed a diagram and checklist that may assist the contractor with layout and you while reviewing the board. It is found at the end of this section, starting on **page 10-27**. MaineDOT encourages use of this format.

 A bulletin board diagram, checklist and poster packet can be found on online: <http://www.maine.gov/mdot/civilrights/>

Americans with Disabilities Act



Maine Department of Transportation: ADA Compliance Policy

□ Overview

It is the Policy of the MaineDOT to implement the requirements of Section 504 of the Rehabilitation Act and Title II of the Americans with Disabilities Act, and all applicable enforcement regulations. These requirements shall be implemented in accordance with the provisions of the MaineDOT’s Comprehensive Transition Plan Update. Complaints alleging a violation of this policy shall be investigated in accordance with the detailed process defined in the “ADA Complaint Procedures” in the “Guideline for Meeting ADA for Projects” section below.

□ General

For any project (Bridge, Highway, Multimodal, or Traffic) where analysis has determined new pedestrian facilities to be warranted, such facilities shall meet the full extent of ADA guidelines to the maximum extent possible. This includes sidewalks, curb ramp slope and width, detectable warnings, and pedestrian signals.

□ Alterations

ADA accessibility rules dictate that projects that “alter” the usability of the roadway must incorporate accessible pedestrian improvements to existing facilities to the maximum extent possible. An alteration is considered a change to a public right-of-way that affects or could affect access, circulation, or use. Where pedestrian facilities already exist, ADA compliance for curb ramp slope and width, and detectable warnings is necessary for certain treatments; this may also require pedestrian signal upgrades.

□ Guideline for Meeting ADA for Projects with Existing Pedestrian Facilities

Project scopes are defined in the chart below. The need for ADA improvements, along with minimum improvements required is based on the Type of Work (scope).

Type of Work	ADA IMPROVEMENTS?	MINIMUM IMPROVEMENTS
New Construction & Reconstruction: Travel way, sidewalk projects and any Safety, Transportation Alternatives, or Safe Routes to School project involving excavation	YES	Upgrade pedestrian facilities to meet ADA standards within the defined project limits – curb ramp slope and width, truncated domes, and pedestrian signals.
Traffic Signals – new location that warrants pedestrian facilities	YES	Upgrade pedestrian facilities to meet ADA standards within the defined project limits – curb ramp slope and width, truncated domes, and pedestrian signals

Type of Work	ADA IMPROVEMENTS?	MINIMUM IMPROVEMENTS
Signal Replace in Kind	YES - but only for pedestrian signals	Upgrade pedestrian signals
Traffic Signals – modification involving excavation or right of way that warrant pedestrian facilities	YES	Upgrade pedestrian facilities to meet ADA standards within the defined project limits – curb ramp slope and width, truncated domes, and pedestrian signals
<p><u>Alterations</u></p> <ul style="list-style-type: none"> • Rehabilitation • Paving • PMRAP • Mill & fill /overlay • Cape Seal • Hot in place recycling • Microsurfacing • Light Capital Paving 	YES	<p>Upgrade pedestrian facilities to meet ADA standards (curb ramp slope and width and truncated domes) within the defined project limits - if curb ramp did not meet 1991 or 2010 standards that were applicable when the project was built. If compliant, then no upgrades needed.</p> <p>Also, in instances where pedestrian signals will be impacted (improper button height because of grading, pedestrian pole now in the sloping area of the ramp or pedestrian pole needs to be physically moved), the pedestrian signals must be brought up to current standards.</p>
Lighting	NO	
Striping	NO	
<p><u>Maintenance Activities</u> – Chip Seals, Crack filling and Sealing, Dowel Bar Retrofit, Fog Seals, Joint Crack Seals, Joint Repair, Pavement Patching, Scrub Sealing, Slurry Seals, Spot High-Friction Treatments, Surface Sealing.</p>	NO	<p>Note some combinations of these may require ADA upgrades.</p>

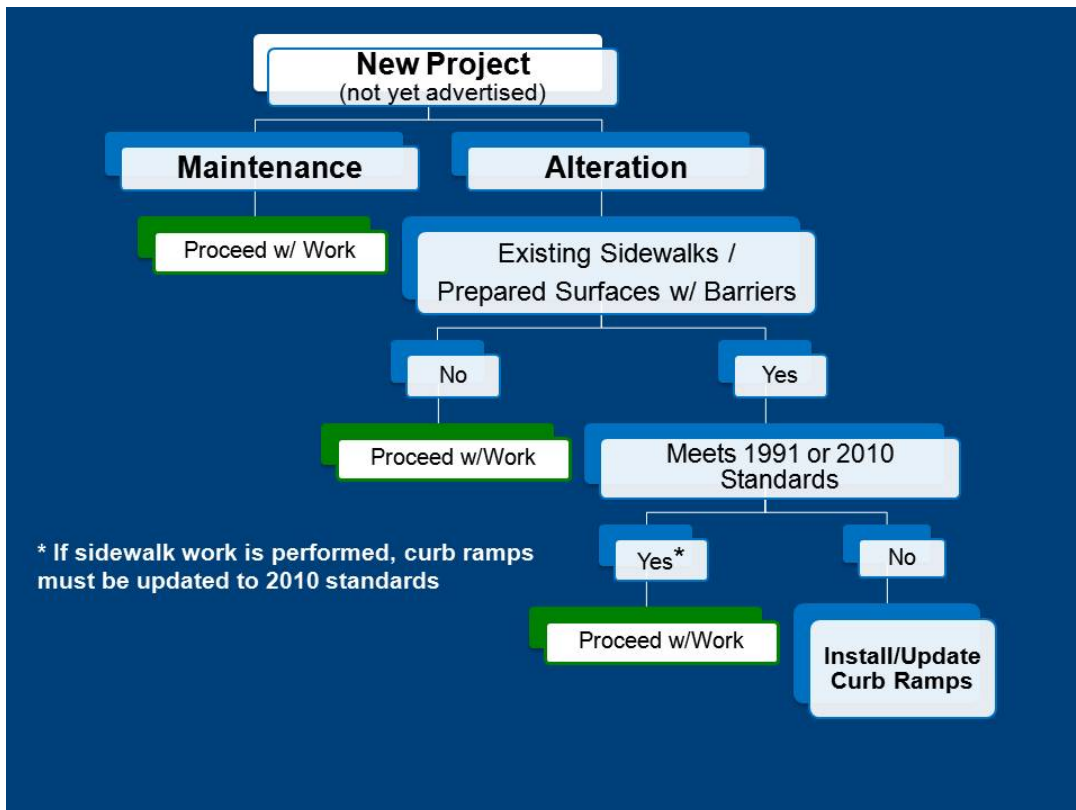
Pavement Treatment Types (Maintenance vs. Alteration)

MAINTENANCE

Chip Seals	Fog Seals	Scrub Sealing
Crack Filling and Sealing	Joint Crack Seals	Slurry Seals
Diamond Grinding	Joint repairs	Spot High-Friction Treatments
Dowel Bar Retrofit	Pavement Patching	Surface Sealing

ALTERATION

Addition of New Layer of Asphalt	Mill & Fill / Mill & Overlay
Cape Seals	New Construction
Hot In-Place Recycling	Open-graded Surface Course
Microsurfacing / Thin-Lift Overlay	Rehabilitation and Reconstruction



Disadvantaged Business Enterprise Program



Disadvantaged Business Enterprises (DBE) Program

Contact: Sherry Tompkins at (207) 624-3066 or by e-mail: Sherry.Tompkins@maine.gov

MaineDOT strives to ensure that there is DBE participation in all areas of contract work with federal funds. Such projects may include, but are not limited to: consulting (design, right-of-way, geotechnical, utilities, public participation, and environmental) or construction (inspection, testing, all project specific applications, and project management –including payroll services/record keeping). A DBE can be a prime contractor or a sub-contractor/sub-consultant. Only work performed by the DBE is creditable to any project goal. For specific information, see the DBE Program information later in this section of the Manual or on the Web: <http://www.maine.gov/mdot/civilrights/>

Recipients of federal funds should examine each aspect of a contract to assess possible opportunities for DBE participation at a percentage that is meaningful for that specific project. Only firms certified by MaineDOT as DBEs at the time of bidding can be considered for DBE credit. See MaineDOT Directory of Certified Businesses at: <http://www.maine.gov/mdot/civilrights/>

Use the following checklist in compliance with DBE activities:

- ___ Use MaineDOT's up-to-date DBE Directory to identify qualified DBE firms.
- ___ At bid Opening or with Technical Proposal, submit DBE Utilization Form for signed approval by MaineDOT's Civil Rights Office (CRO).
- ___ Maintain documentation of work in progress. Commercially Useful Function (CUF) forms should be filled out and a copy sent to the Civil Rights Office as instructions dictate.
- ___ Upon completion of the project, submit Certification of Final DBE Payment form signed by both the Prime and the DBE firm attesting to work completed and payment made according to acceptance by Project Management.
- ___ Report DBE problems to Project Management or to MaineDOT's Civil Rights Office.

Generally, a recommendation of award may not be made if the DBE Utilization Form is not submitted. Firms that attain DBE status after award may have their work credited for the work done after the effective dates of their certification. Once a subcontract has been signed with a DBE firm, the contractor must notify MaineDOT's Civil Rights Office for authorization.

In cases where contract goals are required, a recommendation of award may not be made *if* the information is not provided or *if* efforts to gain DBE participation are insufficient. Once a commitment has been affirmed through the DBE Utilization Form, no change in utilization can occur without written authorization from MaineDOT's Civil Rights Office.

➡ Sample forms begin on page 10-13.

**MaineDOT CONSULTANT'S DBE/SUBCONSULTANT
PROPOSED UTILIZATION FORM**

Must be provided by the Consultant as an attachment to New Technical Proposals

Consultant Firm: _____ DBE: Yes ___ No ___

Contact Person: _____ Tele: _____ Fax: _____

E-mail: _____

Date of Execution: _____
(For Department Use Only)

Federal Project PIN # _____ Project Location: _____

TOTAL ANTICIPATED DBE _____% PARTICIPATION FOR THIS CONTRACT

W B E •	D B E •	Non DBE	Firm Name	Description of Work	Anticipated \$ Value
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Subcontractor Total >					
DBE Total >					

**Note: this information is used to track and report anticipated dbe participation in all federally funded maine dot contracts. The anticipated DBE amount is voluntary and will not become a part of the contractual terms.*

(MAINEDOT INTERNAL USE ONLY)

Form received: ___/___/___ Verified by: _____
Civil Rights Office Representative

**For a complete list of certified firms and company designation (WBE/DBE) go to
<http://www.state.me.us/mdot/disadvantaged-business-enterprises/dbe-home.php>**

Revised 04/13

**MaineDOT CONTRACTOR'S DBE/SUBCONTRACTOR
PROPOSED UTILIZATION FORM**

All Bidders must furnish this form with their bid on Bid Opening day

Contractor: _____ **Telephone:** _____ **Ext** _____

Contact Person: _____ **Fax:** _____

E-mail: _____

BID DATE: _____

FEDERAL PROJECT PIN # _____ **PROJECT LOCATION:** _____

TOTAL ANTICIPATED DBE ___ % PARTICIPATION FOR THIS CONTRACT

W B E	D B E	Non DBE	Firm Name	Item Number & Description of Work	Quantity	Cost Per Unit/Item	Anticipated \$ Value
Subcontractor Total >							
DBE Total >							

**NOTE: THIS INFORMATION IS USED TO TRACK AND REPORT ANTICIPATED DBE PARTICIPATION IN ALL
FEDERALLY FUNDED MAINE DOT CONTRACTS. THE ANTICIPATED DBE AMOUNT IS VOLUNTARY AND WILL
NOT BECOME A PART OF THE CONTRACTUAL TERMS.**

Equal Opportunity Use:

Form received: ___/___/___ Verified by: _____

FHWA FTA FAA

**For a complete list of certified firms and company designation (WBE/DBE) go to
<http://www.maine.gov/mdot/civilrights/>**

Instructions for Completing the Commercially Useful Function Form

The DBE CUF On-Site Review should be completed for every DBE as a condition of award.

The CUF On-Site Review should be completed when the DBE is initially on the project and during the peak period of the DBE's work and whenever changes on the performance of the work will warrant its completion. If a recognized DBE is employed on the project, but not listed on the Utilization form, conduct a CUF On-Site Review.

If by substitution or change order, a condition of award DBE is replaced by another DBE, a CUF On-Site Review should be completed on the new DBE. The review should be completed per on-site observation, documentation review, and interviews with contractor's personnel.

Response to questions on the CUF On-Site Review form should be completed as thoroughly as possible. Additional sheets should be used, if needed. The CUF On-Site Review should be completed by the Resident Engineer, or his/her designee.

Headquarters' copy should be forwarded as soon as it is completed to the Civil Rights Office.

Headquarters Use Only



**Maine Department of Transportation
DBE On-Site Review for CUF**

Prime Contractor		Federal Aid Number
Subcontractor		Contract Number
Project Engineer	Project Location	<input type="checkbox"/> MBE <input type="checkbox"/> DBE <input type="checkbox"/> WBE (for Headquarters Use Only)

1. Per the condition of award, indicate M/D/WBE work observed this date (Note partial items)			
Bid Item Number	Approximate % Complete	Item Description (Note Partial Items)	Dollar Amount

2. DBE Subcontractor's Start Date	3. MDOT Contract % Complete	4. Anticipated Completion Date
5. Subcontractor's (Name) <input type="checkbox"/> Site Superintendent <input type="checkbox"/> Foreman	6. Exclusively Employed by the DBE Contractor? <input type="checkbox"/> Yes <input type="checkbox"/> No	
6a. If No, Please Explain		
7. Is Superintendent/Foreman Shown on DBE Payroll? <input type="checkbox"/> Yes <input type="checkbox"/> No	8. Is Superintendent/Foreman Shown on any other On-Site Contractor's Payroll? <input type="checkbox"/> Yes <input type="checkbox"/> No	
8a. If Yes, Please Explain		
9. If Known, to Whom does the DBE's Superintendent/Foreman Directly Report to Within His/Her Own Organization? Name: _____ Title: _____		
10. List Names and Crafts of DBE's Crew as Observed (Use additional sheets, if needed).		
11. Are any Crew Members on the Prime or any other Project Subcontractor's Payroll(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No	11a. If yes, Please Indicate	
12. List DBE's Major (Self-Propelled) Equipment Used		
13. Is the source of materials being used by the DBE from their own facility?		
14. Does the Equipment have DBE's Markings or Emblems? <input type="checkbox"/> Yes <input type="checkbox"/> No	14a. If No, Please Indicate	15. Equipment <input type="checkbox"/> Owned <input type="checkbox"/> Leased
Has any other Contractor performed, on behalf of the DBE, any amount of work designated to be DBE? <input type="checkbox"/> Yes <input type="checkbox"/> No		
16a. If Yes, Please Explain		
17. Has the DBE owner been present on the Job Site? <input type="checkbox"/> Yes <input type="checkbox"/> No What % _____		
18. Are Personnel and Equipment Under Direct Supervision of the DBE Subcontractor? <input type="checkbox"/> Yes <input type="checkbox"/> No	19. Does the DBE Subcontractor appear to have control over methods of work in its items? <input type="checkbox"/> Yes <input type="checkbox"/> No	

Comments

Note: Attach any documents pertinent to the review, i.e., Invoices, Photographs, Daily Reports, Correspondence, etc.

CERTIFICATION OF FINAL DBE CONSULTANT PAYMENT

Consultants submit to: Project Manager with final Project documentation.

Complete one form for each DBE Participant

Project Number and Location: _____

Total DBE Participation \$ _____ % _____

In connection with the above referenced contract we the undersigned, jointly certify and attest the following information to be true.

- 1 DBE Firm's Name: _____
- 2 Describe work performed by DBE on this project: _____
- 3 Total amount paid to DBE to date: \$ _____
- 4 Total amount remaining to be paid to DBE \$ _____
- 5 Is amount paid to DBE expected to increase when final invoice is submitted?
Yes ___ No ___
- 6 If yes, approximately how much? \$ _____

Attest:

CONSULTANT FIRM

DBE FIRM

(Firm's Name)

(Signature)

(Title)

(Date Signed)

(Firm's Name)

(Signature)

(Title)

(Date Signed)

CERTIFICATION OF FINAL DBE CONTRACTOR PAYMENT

Contractor submits to: Project Manager with final Project documentation.

Complete one form for each DBE Participant

Project Number and Location: _____

Total DBE Participation \$ _____ % _____

In connection with the above referenced contract we the undersigned, jointly certify and attest the following information to be true.

7 DBE Firm's Name: _____

8 Describe work performed by DBE on this project: _____

9 Total amount paid to DBE to date: \$ _____

10 Total amount remaining to be paid to DBE \$ _____

11 Is amount paid to DBE expected to increase when final invoice is submitted?

Yes ___ No ___

12 If yes, approximately how much? \$ _____

Attest:

CONTRACTOR

DBE FIRM

(Firm's Name)

(Firm's Name)

(Signature)

(Signature)

(Title)

(Title)

(Date Signed)

(Date Signed)

Equal Employment Opportunity Handbook



Equal Employment Opportunity (EEO) Handbook

Memorandum

October, 2010

To: Users

From: Theresa Savoy, Director
MaineDOT Civil Rights Office

Subject: Contractor's Guide to EEO Reference Tool

The Civil Rights Office is pleased to provide you with this [Equal Employment Opportunity /Affirmative Action Guidebook](#)

This guidebook was designed as a practical useful tool to assist you with your equal employment opportunity and affirmative action programs.

The Maine Department of Transportation is committed to meeting both the spirit and intent of the equal employment opportunity laws, executive orders and regulations. We believe use of this manual will help you establish and maintain a result orientated program. Further, your ongoing commitment to carrying out these obligations will undoubtedly yield a more balanced workforce representative of Maine's citizenry.

Federal and State law prohibits employment discrimination based on race, color, sexual orientation, religion, national origin, disability, sex and age. As a Federal government contractor you are obligated to maintain a written affirmative action employment program for minority and female recruitment, employment, retention and promotion. Furthermore, you are obligated to make reasonable accommodations for disabled persons, including disabled veterans.

For additional assistance, refer to "A Contractor's Guide to EEO" manual available at: <http://www.maine.gov/mdot/civilrights/index.htm> or contact Gigi Ottmann-Deeves at (207) 624-3036 or by e-mail at: gigi.ottmann-deeves@maine.gov.

EEO CONTRACT COMPLIANCE REVIEWS

1. MaineDOT, through its Civil Rights Office, and the FHWA have the authority and the responsibility to ensure compliance with 23 USC Section 140 and Title VI of the Civil Rights Act of 1964, as amended, and related regulations, including 49 CFR Parts 21 and 23, and 23 CFR Parts 200, 230, and 633.
2. MaineDOT is required to prepare and complete written reports of its findings in contract compliance reviews. These reports, and the evidence on which they are based, shall be available to the U.S. Department of Transportation (U.S. DOT) modal agency with jurisdictional authority.
3. All compliance reviews conducted by MaineDOT Civil Rights Office will follow procedures outlined in 23 CFR 230, "External Programs." The Civil Rights Office will recommend findings of compliance or non-compliance based upon #1 (above.) The Civil Rights Office will report findings to the Federal Highway Administration (FHWA) or other appropriate agencies as required by the federal funding source.
4. The standard Federal Equal Employment Opportunity Construction Contract Specifications are included in all federal and federally assisted construction contracts.
5. The MaineDOT specifications establish specific and minimum affirmative action obligations.
6. Federal financially assisted contractors/sub-contractors designated to undergo a Contract Compliance Review will be reviewed by MaineDOT Civil Rights Office to determine the contractor's efforts to achieve maximum results from its affirmative action obligations.

GUIDE TO SELECTING PROJECTS FOR EEO REVIEW

Priority in scheduling EEO compliance reviews shall be given to contractors' work forces:

1. That hold the greatest potential for employment and promotion of minorities, disadvantaged populations and women (particularly in higher skilled crafts or occupations);
2. Working in areas that have significant minority and female labor forces within a reasonable recruitment area;
3. Working on projects that include special training provisions like (Special Provision 660);
4. Where compliance with EEO is questionable – based on Form PR 1391's Review Reports and Hometown Plan Reports (see 23 CFR part 230, subpart A, appendix C).

Additionally, the following considerations shall apply:

1. Reviews specifically requested by the Federal Highway Association shall receive priority scheduling;
2. Reviews shall be conducted before or during peak employment periods (as much as scheduling allows);
3. No Compliance Review shall be conducted that is based on a home office work force of less than 15 employees unless requested or approved by Washington Headquarters.

SAMPLE CONTRACTOR NOTIFICATION LETTER

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Date

Company name

Dear Contractor,

The federal-aid contract you entered into with MaineDOT contains certain Civil Rights provisions, which require the contractor to implement a program of Equal Employment Opportunity (EEO). Federal regulations (23 CFR 230 Subpart D) further require that MaineDOT monitor contractor operations to ensure that the provisions are being executed.

In keeping with these requirements, MaineDOT Civil Rights Officer (Civil Rights Office) will be conducting a compliance review of your (Project Number) project located in (project location) on (date), 2011 at, (time). The review shall be conducted on the basis of Federal and State law referenced in the contract specifications for Equal Employment Opportunity and On-the-Job training.

The Civil Rights Office, with support from MaineDOT project personnel, will verify documentation submitted before review and will interview members of your workforce to evaluate your EEO/AA performance on this project. We will also be discussing your efforts to incorporate DBE, and will make a physical tour of the project site.

Please provide a meeting place, accessible under MaineDOT standard specification 639, at or near the project site on the above date.

Under 23 CFR Part 230, the following documentation is required by 4 p.m. (date), 2011. Forward this information to:

Gigi Ottmann-Deeves
Civil Rights Office
Maine Department of Transportation
16 State House Station
Augusta, ME 04333-0016.
Telephone: 207 624-3036

EEO Contractor Compliance Documentation

1. Current Form PR-1391 developed from the most recent payroll (form enclosed);
2. Copies of all current bargaining agreements;
3. Copies of purchase orders, subcontracts and public correspondence including newspaper advertisements containing the clause of being an “Equal Opportunity Employer”;
4. A list of recruitment sources available and utilized on this project;
5. A statement of any actions (pending or taken) pertaining to employment practices taken by the Equal Employment Opportunity Commission (EEOC) or other federal, state or local agency regarding the contractor or any source of employees including the Maine Human Rights Commission within the last 5 years;
6. A list of all company promotions and/or raises made during the past six months, to include race, national origin, and sex of employee, previous job held, job promoted into, and corresponding wage rates;
7. Copies of three certified project payrolls as follows; for the first week of the project, the week of peak employment, and the most current payroll. Please denote for each person listed the job classification, race, national origin, and sex;
8. A list of Disadvantaged Businesses contacted as possible sub-contractors, vendors, material suppliers, etc. and documented evidence of such correspondence;
9. A list of all sub-contractors including Disadvantaged Businesses working on this project, include dollar amounts paid to date and total subcontract amount (do not include suppliers);
10. A blank job application and four (4) completed job applications received by the company;
11. A copy of the agenda or any printed materials or minutes of the last meeting with supervisors in which; a) the company’s EEO policy/program was discussed; b) sexual harassment training was provided;
12. A copy of the company’s EEO Policy, Affirmative Action Policy, Sexual Harassment Policy, and Complaint Policy and procedures;
13. A copy of the company’s Employee Handbook, if any;
14. Blank performance evaluation form used to evaluate general employees performance and managers performance evaluation. Include a sample of female and minority evaluations that have been conducted;

15. Provide total number of employees employed for the most current payroll completed for this project by the following:

Males: White, Hispanic, American Indian, Asian, Black.

Females: White, Hispanic, American Indian, Asian, Black.

16. Identify total number of employees on the project at start date by the above ethnic group references. In addition, complete the enclosed table regarding retention of women and minority employees.

17. Provide **FULL** copies of **ALL** subcontracts for this project (see below list).

- Request for Subcontract Acceptance (signed by contractor).
- Request for Lower Tier Subcontract Acceptance (Signed by the Contractor and Subcontractor)
- Agreement between the Contractor and Subcontractor (Signed by the Contractor and Subcontractor)
- Equal Employment Opportunity Pledge (Signed by the Contractor and Subcontractor)
- EPA Certification for NPDES (Signed by the Contractor and Subcontractor)
- FHWA 1273
- 49 CFR§26.13
- Goals for Employment of Females and Minorities, Dated March 30, 2006
- 41 CFR§60 250.5(a)

Sincerely yours,

Theresa Savoy, Director
MaineDOT, Civil Rights Office

Enclosures: FHWA PR-1391
Cc: Federal Highway Administration
MaineDOT Construction Resident

Maine Department of Transportation, Civil Rights Office
 Report for week ending (date), 2011

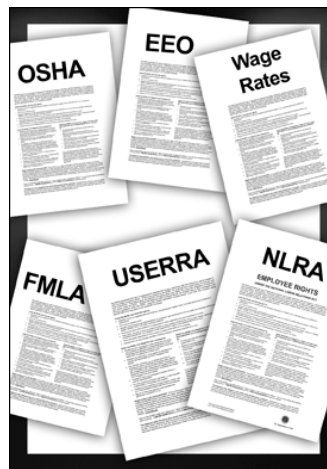
Name of Firm _____ Federal project number _____ EEO Officer _____ Percent complete _____
 Beginning construction date _____ \$ Amount of Contract _____

Report of employment statistics for the entire Company workforce for each craft between April 1 and November 15 for the last calendar year.

Job categories	Project Total Employees	White Males	Females	Hispanic	American Indian	Black	Asian	Disadvantaged	OJT's
Superintendent									
Operating Engineer									
Equipment Operator									
Mechanics									
Truck Drivers									
Ironworker/Rod									
Carpenters									
Const. Wkr. Bridge									
Const. Wkr. Hwy.									
Pipelayer									
Bridge Maint. Wkr.									
Laborer, Semi-Skill									
Laborer, Unskilled									
Foreperson/Bridge									
Foreperson/Hwy									
Welder									

Prepared by and Title _____ Date: _____

Job-Site Bulletin Board Requirements



Required Job Site Poster Checklist

State of Maine Required Posters

- 1. Minimum Wage
- 2. Whistleblower's Protection Act
- 3. Workers' Compensation (WCB-90)
- 4. Occupational Safety & Health Regulations
- 5. Child Labor Laws
- 6. Regulations of Employment
- 7. Sexual Harassment Poster
- 8. Maine Equal Pay Law
- 9. Maine Employment Security Act
- 10. Domestic Violence in the Workplace Poster (Optional)
- 11. State Wage Determination (on State Funded Projects Only)

Federal Government Required Posters

- 12. Equal Employment Opportunity It's the Law (OFCCP 1420)
- 13. Fair Labor Standards Act – Federal Minimum Wage (WHD-1088)
- 14. Employee Rights on Government Contracts (WHD-1313)
- 15. Family and Medical Leave Act (WH-1420)
- 16. Notice to Workers with Disabilities Paid at Special Minimum Wages (WH-1284)
- 17. Employee Polygraph Protection Act (WH1462)
- 18. Uniformed Services Employment and Reemployment Rights Act (USERRA)
- 19. Employee Rights Under the Davis Bacon Act (WH-1321)
- 20. NOTICE – Federal Aid Projects (FHWA-1022)
- 21. Job Safety and Health - It's the Law (OSHA 3165) Replaces OSHA-2203
- 22. Federal Wage Decision & Additional Project Specific Rates
- 23. Contractor's EEO Policy Statement with EEO Officer's name and contact information

Checked by: _____ Date: _____

State

1
Minimum Wage

2
Whistleblower Protection Act

3
Workers' Compensation (WCB-90)

4
Occupational Safety & Health Regulations

5
Child Labor Laws

6
Regulations of Employment

7
Sexual Harassment Poster

8
Maine Equal Pay Law

9
Maine Employment Security Act

10
OPTIONAL
Domestic Violence in the Workplace Poster

11
State funded projects should **NOT** include Federal Posters. Federally funded projects **MUST** include both.

Federal (Requires State Posters)

12
Equal Employment Opportunity: It's the Law (OFCCP 1420)

13
Fair Labor Standards Act – Federal Minimum Wage (WHD-1088)

14
Employee Rights on Government Contracts (WHD-1313) Page 1

WHD -1313
Page 2

OPTIONAL
Welcome Free Interpreter Services

15
Family and Medical Leave Act (WH-1420)

16
Notice to Workers with Disabilities Paid at Special Minimum Wages (WH-1284)

17
Employee Polygraph Protection Act (WH1462)

18
Uniformed Services Employment and Re-employment Rights Act (USERRA)

OPTIONAL
Employee Rights Under the National Labor Relations Act

19
Notice to Employees - Davis Bacon Act (WH-1321)

20
NOTICE – Federal Aid Projects (FHWA-1022)

21
Job Safety and Health - It's the Law (OSHA 3165)

OPTIONAL
Department of Treasury IRS Notice 797

22
General Decision & Additional Project Specific Rates

23
Contractor's EEO Policy Statement with EEO Officer's name and contact information

Local Project Administration Manual & Reference Guide

11. Construction Administration



MaineDOT

Integrity - Competence - Service

2014 Edition

Construction Administration

Construction of a locally administered project generally follows a contract award to the successful bidder. Once the project begins, the municipality or other organization in charge must monitor and inspect the work to be sure the job is done correctly. MaineDOT determines the proper amount of oversight in coordination with the local project administrator.

This section provides general guidance and includes the following:

- A summary of inspection, materials testing and other administrative responsibilities (pages 11-1 to 11-6);
- Appendix 11A: A general oversight checklist (page 11-7);
- Appendix 11B: Resident and inspector checklists (page 11-12);
- Appendix 11C: Sample communications (page 11-15);
- Appendix 11D: A sample contract modification form (page 11-23);
- Appendix 11E: Guidance on As-Built Plans (page 11-25) and
- Appendix 11F: Electronic payroll guidance (page 11-28).



Required forms and construction documents are available online:

<http://www.maine.gov/mdot/contractors/support/>

11.1 Construction Oversight

The organization delivering a project must assign a qualified person to oversee the work. This person – known as the “construction resident” – may be either a public employee or a private consultant hired through a qualifications-based process. It is the construction resident’s job to inspect and document contractor activities to be sure that the work is done correctly and in compliance with all federal and state laws.

The necessary number of hours of oversight will vary from job to job, but the construction resident is expected to be on site at least part of each day to observe and inspect contractor activities such as earthwork, grading, drainage work, placement of concrete, traffic control, and paving. The local administrator will determine the proper level of oversight before work begins, in consultation with either the MaineDOT project manager or construction manager.

➔ **Remember:** During construction, the local project administrator must stay current by attending project meetings periodically, receiving briefings from the construction resident, and visiting the job site occasionally to see what is happening in the field.

A checklist outlining major administrative tasks is included as Appendix 11A, page 11-7.

Major responsibilities of the construction resident typically consist of the following:

- Ensuring that the work is done according to the approved construction plans, project specifications and provisions of the contract. Common tasks include inspecting the work and installation of materials, verifying the quantities used, and performing independent checks of lines and grades.
- Preparing and managing all documentation – project diary, construction book, final quantities book, and drainage book if there is a large amount of drainage work.
- Providing for quality-assurance testing of materials, such as gravel, hot-mix asphalt and concrete – and rejecting all materials and work that do not comply with the plans and specifications for the project.
- Coordinating contract modifications (change orders), requiring independent estimates of any additional work and an accounting of the additional time associated with such work.
 - *The local administrator and MaineDOT must sign off on all contract modifications.*
- Monitoring the contractor's traffic control plan to ensure safe travel for the public through the work zone.
- Ensuring that the work complies with environmental commitments and permit requirements, including applicable erosion-control provisions.
- Approving payments for work completed satisfactorily, including oversight of contractor payrolls submitted through the Elation electronic payroll system.
- Monitoring compliance with all federal and state labor requirements, including proper establishment of the contractor's bulletin board.



➤ Checklists with resident/ inspector responsibilities are found in Appendix 11B (page 11-12).

11.2 Pre-construction Meeting

One key event leading up to the start of work is the pre-construction meeting. This typically involves the local administrator, construction resident, general contractor, affected utilities, and appropriate MaineDOT personnel. (See Letter 21, page 11-16, for guidance.)

A pre-construction meeting usually is held at least **one week** before the start of work. It serves to establish the inspection, documentation and testing requirements, as well as to coordinate the project schedule and frequency of progress meetings. The project administrator should prepare an agenda and invite the participants. Afterward, minutes should be distributed to the attendees and other interested parties, including public safety agencies if lane closures are called for.

11.3 Materials Testing

The quality of work on locally administered projects must meet the approved specifications for those projects. Proper testing of the gravel, pavement, concrete and other materials used on a project will help to ensure that they perform as intended and hold up over time. Before work starts, a quality-assurance program must be developed to identify the items to be tested, the tests to be conducted, how often the testing will be done, and who will do the testing.

Typically, the organization administering a project or the consultant hired as the construction resident will use a qualified sub-consultant to test materials, in accordance with procedures established by the American Association of State Highway and Transportation Officials (AASHTO).

MaineDOT may conduct independent-assurance sampling and testing as needed to ensure compliance with the specifications for a project. This work is done in coordination with the local project administrator and construction resident.



☐ Aggregates

Properly graded mixtures of gravel and other stone-based materials known as “aggregates” beneath roads, sidewalks and trails should be dense enough to provide a stable foundation, with an optimal number of air spaces that allow water to drain without being trapped.

Tests performed on aggregates will check density and “gradation,” or the relative amounts of well-draining base materials (gravel and sand) and poorly draining fine particles (silt and clay.) Project specifications should state the maximum amounts of fine particles that will be allowed. Base gravel for roads, for example, should have no more than 5 percent fine particles (“fines”) when compacted; gravel for sidewalks and trails should have no more than 7 percent fines.

Gravels and other aggregates typically will be subject to the following tests:

- **Sieve analysis** (washed), in which material is run through a series of sieves to determine particle sizes and how well the material is likely to compact and drain; and
- **Proctor compaction test**, which is a laboratory test to determine the optimal moisture content at which a given type of material will become most dense and perform properly when graded. Aggregates used in the field will be measured against this baseline.

☐ Pavement

Pavement consists primarily of different-sized crushed stones and a binder of asphalt cement. To perform as intended, hot-mix asphalt must be placed at the correct temperature and compacted properly to ensure that there are an optimal number of air spaces in the mixture. An inspector will check the temperature before a mix is put down and will take samples to measure the asphalt content, gradation, and the density of compacted pavement.

Commonly performed tests on hot-mix asphalt consist of the following:

- **Density or compaction.** Core samples are taken to be sure that compacted pavement has the proper density. If pavement is too dense, it may crack. If density is too low, ruts may develop. Air voids should range between 2-6 percent of compacted pavement.
- **Temperature.** Hot-mix asphalt generally should be placed only when the material is between 275 degrees and 325 degrees Fahrenheit.
- **Sieve analysis.** Material is run through a series of sieves to measure the distribution of particle sizes and how well the aggregates fit together.
- **Performance Graded Asphalt Binder** content is checked to make sure the proper amount of asphalt is used to bind the material together. If there is too much asphalt, the pavement will rut; too little, and the pavement will ravel.

❑ Other Materials

Depending on the scope and technical specifications for a project, quality-assurance tests also may be conducted on other materials, such as:

- **Loam**, which has requirements for gradation, organics and pH levels;
- **Concrete**, which is tested for compressive strength, permeability and air content; and
- **Steel**, which is subject to welding certifications, fabrication certifications, and requirements for American-made steel (“Buy America.”)

11.4 Contract Modifications

Occasionally, the local administrator or construction resident will ask a contractor to perform extra or unforeseen work to address site conditions. Such additional work requires a change to the original contract and MaineDOT approval if federal or state money will be used.

Contract modifications (change orders) must be initiated and written by the construction resident or local administrator – NOT the contractor. MaineDOT’s approval is required before any work relating to a modification begins; *MaineDOT **will not** provide reimbursement for work done without approval.* Requests for approval must be made in the format of Letter 25, on page 11-20.

Two pieces of information must accompany all modification requests submitted to MaineDOT:

- ➡ An independent estimate of the cost of the additional work; and
- ➡ A statement regarding the contract time associated with the modification. The time must be noted in every case; if there is to be no change, write “**zero days.**”

A modification should describe what new work will be done, why it is being added, how much it will cost, and how it will be paid for. Modifications require the signatures of the contractor and either the local project administrator or designated representative. (*A sample modification form is found starting on page 11-23.*)

A construction contract modification generally is required in the event of any of the following:

- Changes in specifications.
- Substitution of materials.
- Changes in testing requirements.
- Changes or extra work within the scope of the contract.
- Changes in design beyond the scope of the contract.
- Adding payment or credit for incentives/disincentives to the contract terms.
- Changes that result in an increase or decrease of 25 percent or more in “major” items, which are defined as those exceeding 10 percent of the original contract amount.
- Changes in deadline dates, completion dates or time extensions not covered elsewhere.

Contract modifications are covered in the “Project Record Keeping Manual,” which makes up the final part of this manual – Section 12: Construction Documentation.

11.5 Traveler Advisories (511)

Local administrators should use MaineDOT’s “511” traveler advisory system to alert motorists to lane closures, detours and other construction-related restrictions that may delay travel on roads classified as arterials and major/minor collectors. Administrators should complete a form that is available online (see below) and contact MaineDOT’s radio room at (207) 624-3999 or email the necessary information to Bruce.Campbell@maine.gov.

➔ On the Web:

- 511 Form: www.maine.gov/mdot/lpa/ft.htm
- 511 Website: www.511maine.gov

11.6 Final Inspection

When a contractor has completed work, the local project administrator schedules a final inspection involving the construction resident, the contractor, and appropriate MaineDOT personnel. (*Use the format of [Letter 26](#), on page 11-21.*) At the arranged time, the parties meet on site to inspect the project for flaws, incomplete work and necessary changes.

Afterward, a “punch list” is developed listing items needing to be addressed before the project will be accepted and considered complete. Once the local administrator determines that all punch-list items have been addressed, the administrator issues a letter stating that the project has been accepted and completed, with the date given. If the organization overseeing the project will assume maintenance responsibilities, the project at this point is turned over to that organization.

11.7 Project Closeout

A project cannot be closed out until all outstanding issues are resolved and the final payment is made. After the final review of the project, a copy of the final quantities is sent to the contractor stating that the final quantities are included and indicating which final documents are to be submitted. The notice to the contractor also identifies any issues remaining to be settled before final payment can be made.

Once the project is completed, the local administrator must send the MaineDOT project manager a final letter in the format of sample [Letter 27](#), found on page 11-22.

11.8 As-Built Plans

As-Built plans are the original contract design plans that have been revised, after construction is complete, to reflect accurately and graphically document the important features of the project as it was actually constructed.

As-Built plans must be accurate and reflect any alterations made to the original plans to ensure their use as a reference for designing future projects, as well as for repairing, replacing and maintaining our infrastructure. As-Built changes may include modifications to the horizontal and vertical location, changes in materials, and additions and/or deletions of items. They must be filed with MaineDOT within 90 days of completion of a locally administered project.

➡ Guidance is found in Appendix 11E, starting on page 11-25.

11.9 Project Evaluation

When a project is completed, MaineDOT rates the performance of the local administrator. Once the final invoice is processed, MaineDOT's project manager fills out an evaluation form assessing which tasks were handled well and which, if any, could be improved. Afterward, the local project administrator is given two weeks to provide comments and sign the completed form; if the deadline passes without a response, the evaluation is finalized unsigned. (*An evaluation form is found at the end of Section 1, "Project Administration."*)

An electronic version of the evaluation form is available online:

<http://www.maine.gov/mdot/lpa/ft.htm>

11.10 Retention of Records

A municipality or other local organization by federal law must retain the records for a finished project for **three years** after receiving final reimbursement. MaineDOT, however, recommends that all records be kept for at least four years for audit purposes. Such records consist of all project files, certified payrolls, and other relevant documents that may be requested from state or federal auditors.

➡ Record-keeping is covered in-depth in Section 12, "Construction Documentation."

Appendix 11A: Administrative Checklist



Construction Administration

Pre-Construction / Pre-Pave Meeting

- _____ **Notice of meeting** (at ADA compliant location) sent to:
- _____ Contractor
- _____ Affected utility companies
- _____ Fire, police, ambulance service, or hospital (if lane closures or detours involved)
- _____ MaineDOT Project Manager (**Letter 21 or e-mail**)
- _____ Project designer
- _____ Local project staff (resident, inspector, testing staff)
- _____ MaineDOT Field Quality Assurance Supervisor
- _____ *Kevin Cummings* (624-3429 - Kevin.Cummings@maine.gov)
- _____ **Agenda prepared**
- _____ **Meeting held, and plan for utilities agreed upon**
- _____ **Quality Control (QC) plans**
- _____ Submitted by contractor - per Section 1064 - at least 30 days before work is to start
- _____ Review, approve/reject the contractor's QC Plan (with MaineDOT assistance, if needed)
- _____ **Minutes of pre-construction/pre-paving meeting provided to project file and:**
- _____ Contractor & subcontractors
- _____ Other attendees
- _____ Invited but not represented entities (**Letter 22 or e-mail**)
- _____ MaineDOT Quality Assurance Field Supervisor
- _____ *Kevin Cummings* - Kevin.cummings@maine.gov
- _____ **On-the-Job Training Plan completed** (*if labor costs are greater than \$2.5 million*)
- _____ OJT training intent submitted to MaineDOT Project Manager (**Letter 23 or e-mail**)
- _____ OJT registration submitted to MaineDOT Project Manager (**Letter 24 or e-mail**)
- _____ **Traffic Control Plan received and approved**
- _____ **Soil Erosion Water Pollution Control Plan made**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Spill Prevention Plan made**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Schedule of Work set**
- _____ Received from contractor
- _____ Approved by Project Manager
- _____ **Contract information sent to MaineDOT for the Elation electronic payroll system**
- _____ *Contact is Sonya Everett: 624-3519 or Sonya.Everett@maine.gov*

▪ **Construction Testing & Documentation**

_____ **Minimum Testing Requirements determined and posted**

_____ **Acceptance Testing File created**

_____ Concrete

_____ Pavement

_____ Aggregate

_____ Other required documents for minimum testing

_____ Random numbers generated and pay factor calculations started for QA items

_____ **Project Diary created**

_____ Pages are set up by date and note weather, crew & equipment, hours worked, and activity

_____ Record any unusual or significant event (e.g., accident, discussion with a property owner, debate with the contractor)

_____ Entries in the Project Diary should be initialed daily

_____ **Inspector's Diary created**

_____ ▪ *Note: If a project is staffed by 1 person only, the Project Diary will suffice as long as the level of detail is the same as in an Inspector's Diary.*

_____ Pages are set up by date and note weather, crew & equipment, hours worked, and activity

_____ Field measurements

_____ Detailed work description

_____ Details of any grade checks done (subgrade and/or fine-grading)

_____ Needed undercuts

_____ Stationing of the day's completed grading would be entered with a statement, "Graded according to plans and within allowable tolerances."

_____ Person making entries in the Inspector's Diary should initial them daily

_____ **Final Quantity Book created**

_____ Book set up by item numbers

_____ Pages set up for original measurements (or computations from plan dimensions)

_____ Pages set up with a total-to-date column (makes estimates easy to compute)

_____ Entries and computations initialed and dated

_____ After item completed, compute final quantity

_____ **Drainage book created**

_____ Book set up by stationing, moving from outlet to inlet

_____ Room for original measurements or computations from plan dimensions (closed systems)

_____ Entries record the work done, noting any rock encountered, obstructions, delays, etc. ...

_____ All entries and computations are initialed and dated

_____ After a run is completed, compute final quantity and transfer to Final Quantity Book

_____ **Pit Authorizations completed**

_____ Received from Contractor

_____ Approved

_____ **Waste area agreements completed**

_____ Received from Contractor

_____ Approved

_____ **Contractor's Bulletin Board erected with required postings**

NOTE: A complete package of posters and their locations on the bulletin board can be found at: <http://www.maine.gov/mdot/civilrights/>

- _____ FHWA 1495 and 1495A - “Wage Rate Information”
- _____ FHWA 1022 - “Fraud Notice Poster”
- _____ OFCCP 1420 - “EEO is the Law”
- _____ Sexual Harassment is Against the Law
- _____ False Statements Notice
- _____ Jobs & Opportunity Women & Minorities
- _____ **Submit “Commercially Useful Function Form” to MaineDOT Civil Rights Office**
- _____
 - <http://www.maine.gov/mdot/civilrights/>
- _____ **Project signage monitored** (*condition to be noted in a Diary weekly*)
- _____ **Weekly statement of working days started** (*unless project is by completion date*)
- _____ **Quality Assurance (QA) steps:**
- _____ Certified Material Acceptance sampler appointed
 - *Municipal/consultant contact information should be shared with MaineDOT Independent Assurance Supervisor in the Bangor office: 941-4545*
- _____ Materials IA sampler appointed by MaineDOT, and contact information shared with the project’s Resident Engineer
- _____ MaineDOT contacted to see if Hot Mix Asphalt / Portland Cement Concrete plant either has been inspected recently or needs to be inspected:
 - *Kevin Cummings: 624-3429 - Kevin.cummings@maine.gov*
- _____ MaineDOT notified of HMA/PCC placement schedules to ensure that plant QC operations are monitored and scales checked at least twice in five days of production
- _____ Process any valid HMA disputes submitted by the contractor
 - *Contact Kevin Cummings: 624-3429 - Kevin.cummings@maine.gov*
- _____ Sampling and testing are done and documented by certified technicians, with sampling by municipality and possible testing by MaineDOT. (Check with Project Manager.)
- _____ **Weekly certified payroll received electronically** from each contractor/subcontractor
- _____ **Certified payroll checked** in “Elation” system for compliance with minimum wage rates
- _____ **Employees interviewed (2 each from the prime and each sub every 90 days)** to compare wages received vs. wages reported
 - <http://www.maine.gov/mdot/civilrights/>
- _____ **Subcontractor Approvals**
 - *For the compliance package, see www.maine.gov/mdot/contractors/publications/*
- _____ The municipality must approve subcontracts before any subcontractor can start work
- _____ Send copy of approved package to the MaineDOT project manager
 - *The project manager will arrange for the information to be forwarded to MaineDOT’s Civil Rights Office and the subcontractor added to the Elation system*
- _____ **“Buy America” (Special Provision 105)**
- _____ “Buy America” certifications must be received before payment can be made
- _____ **Monthly Progress payments received and approved**
- _____ Prepare estimate or receive estimate from contractor
- _____ Check estimate (if received from contractor)
- _____ Estimate given to contractor (FYI)
- _____ Estimate processed and payment sent to contractor

▪ Contract Modifications

Modifications to the construction contract are handled as follows:

Identify needed change, with estimated quantities and associated additional cost

Prepare an independent cost estimate of the additional work

Note the time associated with the change. (If no change, then note 0 additional days.)

Prepare a formal contract modification

Send draft of proposed modification to MaineDOT Project Manager (Letter 25 or e-mail)

Obtain MaineDOT’s approval of contract modification

Once MaineDOT approves, send the modification to the contractor for signature

When contractor has signed, local project administrator signs and dates the modification

Send copy of the executed modification to the contractor, with a copy to MaineDOT

Place original modification in Project Records

□ Project Completion

Final inspection by municipality, MaineDOT and contractor (Letter 26 or e-mail)

Final “punch list” developed

Final “punch list” of items completed

Notice of completion sent to contractor with notification of any liquidated damages

(Copy sent to MaineDOT Project Manager)

Copy of overruns/under runs sent to MaineDOT Project Manager

As-built plans completed and sent to MaineDOT Project Manager

Quality Assurance (QA) Certification

Material certification letter submitted to MaineDOT documentation group

Testing file submitted with documentation of minimum testing requirements

QA Pay Factors Computed by Resident and checked by MaineDOT representative

MaineDOT materials testing section notified of project completion

- *Contact Kevin Cummings - 624-3429 - Kevin.cummings@maine.gov*

Final quantity book completed

DBE Form completed by the contractor and signed by each DBE

OJT sign-off from MaineDOT (if project labor costs >\$2.5 million)

Final determination of OJT (*if applicable*)

Met

Did not meet but balance waived

Did not meet and contractor sanctioned

Final estimate paid and retainage released

Final billing sent to MaineDOT (Letter 27)

MaineDOT Project Manager completes and signs **project evaluation**, and

provides it to Local Project Administrator for review, comment and signature.

(This takes place when the work is completed and the final billing has been processed.)

NOTE: Records must be kept for **three years** from completion for federally funded projects. MaineDOT recommends retaining all records for at least four years in case of audit.

Appendix 11B: Resident/Inspector Checklists



GETTING STARTED ON YOUR PROJECT

- DETERMINE WHETHER YOU ARE ON A FEDERAL OR STATE FUNDED PROJECT
- OBTAIN A COPY OF THE ENGINEER’S ESTIMATE
- CIVIL RIGHTS POSTER CHECKLIST COMPLETE
- SUBCONTRACTOR APPROVALS PRINTED OUT AND ON FILE
- DBE UTILIZATION FORM ON FILE (PRINT OUT COMMERCIAL USEFUL FUNCTION FORMS)
- PIN UP PAYROLL TRACKING SHEET
- PAYROLL INTERVIEWS (*for every contractor on the project for 5 days or more, accumulatively, 2 interviews every 90 days are required*)
- LOCATE TESTING MINIMUMS – KEEP ON FILE – AND LINE UP MATERIALS TESTER
- KNOW YOUR PAY ITEMS – METHOD OF MEASUREMENT & BASIS OF PAYMENT
- SET UP FIELD BOOKS AND/OR FOLDERS

PRIOR TO POSTING ITEMS FOR PAYMENT

- MAKE NOTE OF ITEM INSPECTED AND ACCEPTED IN IDR/DIARY AND/OR CONSTRUCTION BK.
- “BUY AMERICA” – MUST BE SUBMITTED BY CONTRACTOR
- MATERIAL CERTIFICATION – CHECK TESTING REQUIREMENTS FOR REQUIRED CERTS
- PAY FOR 403 – HMA ITEMS IN THE SAME WEEK AS PLACEMENT TO APPLY ESCALATOR**

CLOSING OUT YOUR PROJECT

- DON’T FORGET 403 & 502 INCENTIVE/DISINCENTIVES (GENERATE CONTRACT MODIFICATION)
- BE SURE PAYROLLS ARE COMPLETE
- FIND “CHECKER” TO CHECK, SIGN, DATE **IHTD**, CONST. BOOK, COMPS, ETC.
- SEND “COMPLETION OF PHYSICAL WORK NOTIFICATION” LETTER (TO MDOT, FINAL PAYMENT E-MAIL ADDRESS AND CONTRACTOR)
- COMPLETE:
 - TIME CHARGE REPORT
 - RIGHT OF WAY ENCROACHMENT LETTER
 - CONTRACTOR EVALUATION (send copy to Contractor)
- CALL MAINEDOT PROJECT MANAGER TO COORDINATE CLOSEOUT PROCESS

WIN:
Resident:

Location:

Scope:
Inspector:

Responsible Project Personnel:	Resident	Inspector	Done
GETTING STARTED ON YOUR PROJECT			
Determine whether you are on a Federal or State funded project	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtain a copy of the Engineer's Estimate (don't assume that it is correct)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Determine whether there are any 3rd party agreements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subcontractor Approvals printed out and on file	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DBE Utilization Form on file (Print out CUFs)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Locate Testing Minimums - Page 1 of Testing File - Line up Materials Tester	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Civil Rights Poster Checklist Complete prior to Contractor starting work	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pin up Payroll Tracking Sheet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Payroll Interviews (for every contractor on the project for 5 days or more, accumulatively, 2 interviews every 90 days are required)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Know your Pay Items - Method of Measurement & Basis of Payment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Set up Books and/or Folders (names & initials of personnel making entries)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Make sure that both Resident & Inspector has all tools necessary to both inspect and document, ie., inspection tools, Construction Manual, etc.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Resident and Inspector discuss who is responsible for which items/activities			
Resident & Inspector discuss use of books and/or Fieldbook and format			
Resident & Inspector make time to discuss day to day activities			
Resident & Inspector use spare time to check eachother's comps			
Resident & Inspector update IDRs to FieldManager daily / weekly			
PRIOR TO POSTING ITEMS FOR PAYMENT			
Posting quantities should be checked prior to payment. Checks need to be initialed and dated and in should be in RED .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
"Buy America" - submitted by Contractor (may be found on Bill of Lading)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Material Certs - check Minimums for required certs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use "remarks" area in IDR posting to refer to notes/comments/ documentation/FQCB to justify payment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pay for 403 - HMA Items in the same week as placement to apply Escalator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Partial postings on unit Items need to come full circle in justification			
CLOSING OUT YOUR PROJECT			
Send "Completion of Physical Work Notification" Letter (to MDOT, Final Payment E-mail Address and Contractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't forget 403 & 502 Incentive/Disincentives (Generate Contract Mod)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are Payrolls / Elations Complete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Print out IHTD by Prop. Line once all postings have been made Complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time Charge Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ROW Encroachment Letter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contractor Evaluation (send copy to Contractor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Call MaineDOT Project Manager to coordinate project closeout	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix 11C: Communications



NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-Construction Meeting
MaineDOT WIN_____

Dear _____:

Your attendance is requested at the pre-construction meeting for **[insert project scope, WIN]** in the Municipality of _____ on **[insert meeting date/time]**. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Pre-construction Meeting Minutes
MaineDOT WIN _____

Dear _____:

Attached are the pre-construction meeting minutes for **[insert project scope, WIN]** in the Municipality of _____, held on **[insert meeting date]**. If you have any concerns or need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Meeting minutes

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

(For projects with labor costs exceeding \$2.5 million)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: On-the-Job Training Intent
MaineDOT WIN _____

Dear _____:

Attached for your information is on-the-job training intent for **[insert project scope, WIN]** in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

(For projects with labor costs exceeding \$2.5 million)

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: On-the-Job Training Registrations
MaineDOT WIN _____

Dear _____:

Attached for your information are the on-the-job training registrations for **[insert project scope, WIN]** in the Municipality of _____. If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Contract Modification Request
MaineDOT WIN_____

Dear _____:

I am requesting a contract modification for **[insert project scope, WIN]** in the Municipality of _____ . The change will consist of **[insert description of contract modification including scope change and/or extra costs]**.

An independent estimate of the cost of the additional work is attached. This modification will add **[number of days]** to the original contract.

(Note: The amount of time required by the modification must be noted. If there is no change in the schedule, then state "0 days" or indicate that the modification will not change the amount of time associated with the contract.)

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Draft contract modification

NOTE: THIS MAY BE COMMUNICATED BY E-MAIL

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Inspection, MaineDOT WIN _____

Dear _____:

Your attendance is requested at the Final Inspection for **[insert project scope, WIN]** in the Municipality of _____ on **[insert meeting date/time]**. At the time, we can also make available all documentation and testing required for the project.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

NOTE: THIS MUST BE SUBMITTED ON LETTERHEAD TO THE PROJECT MANAGER

Date

_____, Project Manager
Maine Department of Transportation
Bureau of Project Development, Multimodal Program
16 State House Station
Augusta, ME 04333-0016

Subject: Final Billing, MaineDOT WIN _____

Dear _____:

This letter serves as the official notification that all requirements for **[insert project scope, WIN]** in the Municipality of _____ were completed in accordance with the executed Project Agreement dated **[insert execution date]**. Attached is the final billing for the project.

If you need additional information, please let me know.

Sincerely,

_____, Local Project Administrator
Municipality of _____

Enclosure: Final billing

Appendix 11D: Sample Contract Modification



A sample form also is available on the MaineDOT website:
<http://www.maine.gov/tools/whatsnew/attach.php?id=196248&an=1>

SAMPLE CONTRACT MODIFICATION FORM

MUNICIPALITY:
 CONTRACT MODIFICATION NO.:
 PROJECT NO.:
 DATE:

TO: _____, you are hereby notified: The following change is authorized.
 This work has not been accomplished. The following work is to be accomplished in accordance with the provisions of your Contract. Payment will be made at bid prices.

DESCRIPTION:

REASON:

COST:

TIME: _____ (in days)

AMOUNT THIS ORDER: \$ _____

Local Project Administrator

Contractor

By signing this Modification the contractor agrees that all issues relating to the described work – including time – are satisfactorily resolved by this Modification. No other compensation will be sought or made.

Permit: Required / Not Required
 Date Applied For:
 Date Received:
 Recommended: Participating / Non-Participating

Approved / Not Approved: MaineDOT

By _____ Date _____

Title _____

Amount of This Modification: \$ _____
 Total Amount of All Modifications: \$ _____
 Percentage of Contract this Change: _____
 Percentage of Contract all Changes: _____

Federal Highway Administration Concurrence:
 Required / Not Required

Appendix 11E: As-Built Plans

“AS-BUILT” PLAN GUIDANCE

As-Built plans are the original contract plans that have been revised, after construction is complete, to accurately reflect and graphically document the important features of the project as it was actually constructed. As-Built plans are used as a reference for designing future projects, for repairing, replacing and maintaining our infrastructure, and for maintenance inspections of bridges. As-Built changes may include modifications to the horizontal and vertical location, changes in materials, and additions and/or deletions of items.

For locally administered projects, As-Built Plans should be filed with MaineDOT within 90 days of completion of a project.

A full-size set of contract plans shall be used to generate As-Built plans. Either a red medium felt tip marker or a blue or black medium ball point pen shall be used to mark up these plans—never use pencil. On each revised sheet, write in the lower right-hand corner “Revised As-Built” and initial; on all other pertinent unchanged plan sheets write “As-Built” and initial. On the Title sheet, place your signature instead of your initials.

Given below are guidelines for completing “As-Built.” The items listed are the minimum requirements; however, the Resident should show any additional changes that he/she considers pertinent information.

Revisions to include any changes to:

1. Project length, showing revised beginning and end stations.
2. Plan index.
3. Typical cross-sections.
4. Construction centerline (label it “Centerline as constructed”).
5. Geometrics.
6. Superelevations, showing revised cross-sections.
7. Drainage, on plan sheets and Drainage Summary.
8. Tree removals.
9. Guardrail.
10. Centerline profile grades.
11. Entrance dimensions and their surface treatment.
12. Fence locations.
13. Utility locations, including conduit, foundations, junction boxes, lighting, signs.
14. Structure elevations.
15. Pile locations or type.
16. Structural Steel or Precast members.
17. Structural details.

Any changes affecting the plans as the result of Bid Amendments shall also be included on the As-Built plans.

Information to include:

1. Year project was substantially completed.
2. Permanent bench marks, monuments and survey markers.
3. Year any buildings were removed or “Removed by Others – date”
4. Known ties to utilities.

For landscape projects, actual locations, quantities, and substitutions of plants shall be shown on the location sheets and the quantity sheet. Changes should be made by crossing out the original figures.

Plan sheets that should always be included in the “As-Built” are as follows:

1. Title sheet
2. Index
3. Plan sheets
4. Drainage Summary sheet
5. Typical Sections sheet
6. Geometrics sheet
7. Profile sheet
8. Structure sheets with details
9. Right-of-Way sheets

Although As-Built plans are not required to be included in the final project documents that are submitted to the Contracts Section, they should be turned in no later than the date on which the project finals are submitted. As-Built plans shall be submitted to the Resident’s direct supervisor.

Appendix 11F: Electronic Payroll Guidance





Elation Systems

MAINE DOT USER'S MANUAL (4014 Version)



FIGURE 1 - LOG-IN SCREEN

Elation Systems - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/>

ES Elation Systems

HOME COMPANY PRODUCTS SOLUTIONS SUPPORT CAREERS CONTACT US NEWS & PRESS

Customer Log in

Log in Name:
dtsbick

Password:
[]

Remember Log in Name

LOG IN

Unauthorized access is prohibited

[Forgot Password?](#)

Customer Log in

Browser Note: Microsoft Internet Explorer version 6.0 or later version is required to ensure the application works properly. Upgrading to the latest [Microsoft Internet Explorer](#) will greatly improve your online experience.

To optimize your experience, please set your screen resolution to 1024x768 or higher.

Log in Name = dt(first name initial)(first 4 last name)
Example - Scott Bickford = dt(s)(bick) = dtsbick
- Kevin Hanlon = dt(k)(hanl) = dtkhanl

Default Password = password1

If you do not have a login, contact Sonya Everett
sonya.everett@maine.gov

VeriSign Secured
VERIFY

Trusted sites

FIGURE 2 - OPENING SCREEN

Projects - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Projects/>

Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [\[Sign Out\]](#)

Payroll Reports Configuration

Home Programs Categories Projects Add Projects Correspondence Messages CPR Status CPR Report [Get Started/Help](#)

My Projects Search

Select all projects

Show all Project Categories

Role as an owner

- 006900.01 NORRIDGEWOCK
- 008869.00 GILEAD - .008869.00 ARRA
- 009199.00 DOVER-FOXCROFT
- 010010.00 DOVER-FOXCROFT ARRA
- 010014.00 POLAND
- 010017.00 LISBON - SABATTUS ARRA
- 010158.00 PORTLAND ARRA
- 011072.00 ELLSWORTH ARRA

All Project(s)

Offline Project(s)

Show Program(s)

[Advanced Project Selection](#)

Management Dashboard | Project Specific Dashboard

[Save Subscription](#) [Default Layout](#) [Set Layout](#)

Reports pending for review [Status Overview](#) [Unsubscribe](#) Wage Violation [Unsubscribe](#)

The left hand side has a list of jobs that you are assigned to.

The list is sorted by PIN. Click on the job you are interested in to open the Contractor list.

General Information [Work Dates](#) [Unsubscribe](#) Labor Hour Reported [Unsubscribe](#)

If you do not see your job - contact Sonya Everett sonya.everett@maine.gov

Period	Labor Hours
1/17-1/23	53,000
1/24-1/30	1,800
1/31-2/6	1,300
2/7-2/13	400
2/14-2/20	300

Overdue Upto 10 Days [Unsubscribe](#) Overdue Upto 30 Days [Unsubscribe](#)

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Done Trusted sites

FIGURE 3 - CONTRACTOR LIST

Projects - Microsoft Internet Explorer

Address: https://www.elationsys.com/app/Projects/

Scott Bickford / Maine Department of Transportation
 Online support 510-764-1870 X.100 [Sign Out]

If you do not see your Subcontractor, then the Subcontract has not been Approved and the sub should not be working on site.
 Contact Jean Tukey jean.tukey@maine.gov

Payroll Reports Configuration

Home Programs Categories Projects Add Projects Correspondence Messages CPR Status CPR Report Get Started/Help

My Projects Search

Select all projects

Show all Project Categories

ARRA

012676.00 LINCOLNVILLE ARRA

012737.00 AUBURN 013059.00 ARRA

012754.00 GARDINER..5918.00 ARRA

Edit Project

Assign Contractor

Controlled Insurance

Project Specific Rates

Workforce Requirements

Move Project Offline

Comments

Project Hiring Needs

All Project(s)

Offline Project(s)

Show Program(s)

Advanced Project Selection

012754.00 GARDINER, LITCHFIELD & OTHERS 015750...830.00 015831.00 015840.00 015918.00 ARRA Project Manager: Not Set Resident Engi

All Contractors Pending For Review Pending For Correction Display by ascending alphabet Stop payment

Project Team

The Lane Construction Corporation (Prime Contractor)

Activity Started : 06/06/09 Most Recent Activity : 10/31/09 Last login Date: 02/18/10 by Sharon Homstead
 Total Payroll Reports Submitted : 32 Total Non-Performance Reported : 0 Outstanding Issues : 3

Gorham Fence Company, Inc. Complete

Activity Started : 08/30/09 Most Recent Activity : 11/01/09 Last login Date: 01/04/10 by Leslie Carrier
 Total Payroll Reports Submitted : 11 Total Non-Performance Reported : 4 Outstanding Issues : 0

Hagar Enterprises, Inc. Star

Activity Started : 09/20/09 Most Recent Activity : 10/04/09 Last login Date: 02/08/10 by Cindy Hagar
 Total Payroll Reports Submitted : 5 Total Non-Performance Reported : 0 Outstanding Issues : 2

L&D Safety Marking Corp.

Activity Started : Most Recent Activity : Last login Date: 01/22/10 by lindsay piro
 Total Payroll Reports Submitted : 0 Total Non-Performance Reported : 0 Outstanding Issues : 0

Moulison North Corporation

Activity Started : Most Recent Activity : Last login Date: 02/02/10 by Beth Jones
 Total Payroll Reports Submitted : 0 Total Non-Performance Reported : 0 Outstanding Issues : 0

Norpine Landscape Inc

Activity Started : 06/27/09 Most Recent Activity : 11/21/09 Last login Date: 11/23/09 by Elizabeth Listowi
 Total Payroll Reports Submitted : 22 Total Non-Performance Reported : 17 Outstanding Issues : 0

Pratt & Sons, Inc.

Activity Started : 04/25/09 Most Recent Activity : 11/07/09 Last login Date: 12/08/09 by Sherry Madore
 Total Payroll Reports Submitted : 30 Total Non-Performance Reported : 10 Outstanding Issues : 1

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Done Trusted sites

FIGURE 4 - PAYROLL STATUS

Projects - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address: https://www.elationsys.com/app/Projects/

Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Reports Configuration

Home Programs Categories Projects Add Projects Correspondence Messages CPR Status CPR Report [Get Started/Help](#)

My Projects Search

Select all projects

Show all Project Categories

- ARRA
- 012676.00 LINCOLNVILLE ARRA
- 012737.00 AUBURN 013059.00 ARRA
- 012754.00 GARDINER..5918.00 ARRA

Edit Project

Assign Contractor

Controlled Insurance

Project Specific Rates

Workforce Requirements

Move Project Offline

Comments

Project Hiring Needs

All Project(s)

Offline Project(s)

Show Program(s)

Advanced Project Selection

Activity Started : **09/20/09** Most Recent Activity : **10/04/09** Last login Date: **02/08/10** by Cindy Hagar

Total Payroll Reports Submitted : **5** Total Non-Performance Reported : **0** Outstanding Issues : **2**

Fringe Benefits Apprentice Certificate Print Messages Change completion status Stop payment

Legend: Draft Submitted Accepted Rejected NonPerformance Flagged

No Certificate

Default shows last 5 - Click All then Show to see all weeks

Show CPR: All New Submit Draft Flagged Void

All 5 most recent weeks In month 10/09 Show

Drag following bar to select a month

Certified Payroll Report						
Weekending	Export	CPR	Accept	Action	Issues /Messages	Contract/Subcontract
10/4/2009	➔	➔	➔	➔		012754.00
9/27/2009	➔	✘	✘	✘		012754.00
9/20/2009	➔	✔	✔	✔		012754.00

Ready to Review

Reviewed & Rejected

Reviewed & Approved

L&D Safety Marking Corp.

Activity Started : Most Recent Activity : Last login Date: **01/22/10** by lindsay piro

Total Payroll Reports Submitted : **0** Total Non-Performance Reported : **0** Outstanding Issues : **0**

Moulison North Corporation

Activity Started : Most Recent Activity : Last login Date: **02/02/10** by Beth Jones

Total Payroll Reports Submitted : **0** Total Non-Performance Reported : **0** Outstanding Issues : **0**

Norpine Landscape Inc

Activity Started : **06/27/09** Most Recent Activity : **11/21/09** Last login Date: **11/23/09** by Elizabeth Listowi

Total Payroll Reports Submitted : **22** Total Non-Performance Reported : **17** Outstanding Issues : **0**

Pratt & Sons, Inc.

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Done Trusted sites

FIGURE 5 - MESSAGES & WARNINGS

Projects - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Projects/>

Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [\[Sign Out\]](#)

Payroll Reports Configuration

Home Programs Categories Projects Add Projects Correspondence Messages CPR Status CPR Report [Get Started/Help](#)

My Projects Search

Select all projects

Show all Project Categories

ARRA

012676.00 LINCOLNVILLE ARRA

012737.00 AUBURN 013059.00 ARRA

012754.00 GARDINER..5918.00 ARRA

Edit Project

Assign Contractor

Controlled Insurance

Project Specific Rates

Workforce Requirements

Move Project Offline

Comments

Project Hiring Needs

All Project(s)

Offline Project(s)

Show Program(s)

Advanced Project Selection

Legend: Draft Submitted Accepted Rejected NonPerformance Flagged

No Certificate

All Show to see all payrolls for a contractor

Show CPR: All New Submit Draft Flagged Void

All 5 most recent weeks In month 10/09

Drag following bar to select a month

Certified Payroll Report

Weekending	Export	CPR Accept	Action	Issues /Messages	Contract/Subcontract
10/31/2009					012754.00
10/24/2009					012754.00
10/17/2009					012754.00
10/10/2009					012754.00
10/10/2009					012754.00
10/3/2009					012754.00
10/3/2009					012754.00
9/26/2009					012754.00
9/26/2009					012754.00
9/19/2009					012754.00
9/19/2009					012754.00
9/12/2009					012754.00
9/12/2009					012754.00

Flag for problems - Click to view

Comment with Payroll - Click to view then click name

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Trusted sites

FIGURE 6 - PAYROLL REVIEW & APPROVAL OR REJECTION

PUBLIC WORKS PAYROLL REPORTING FORM -- Web Page Dialog

Employee Name	Address	SSN	Class	Rate	Hours	OT	DB	Unskilled	FICA	TAX	TAX	SDI	HOLIDAY	& WELF	PENSION	
Brandon Chickering	P.O. Box 262 BRISTOL, ME 04539	XXXX-XX-XXXX	S/1	12.75	10.75		23.5	12	29.97	38	19	7.01				
Fringe Benefit Statement									513					29.72	123.7	
Dylan Peaslee	P.O. Box 206 JEFFERSON, ME 04348	XXXX-XX-XXXX	E/X	7	1.5		8.5	10.04	4.54			1.06				
Fringe Benefit Statement									85.34					1.38	9.62	15.22
Brent Rainey	007-P.O. Box 204 WISCASSET, ME 04578	XXXX-XX-XXXX	S/0	12.75	10.75		23.5	17	46.42	88	46	10.85				
Fringe Benefit Statement									756.5					30.54	221.81	
John Ruit	224 Rock School House Road BRISTOL, ME 04539	XXXX-XX-XXXX	S/2	13.25	11.25		24.5	11	26.71	18	19	6.25				
Fringe Benefit Statement									451					33.76	103.72	

S = STRAIGHT TIME
 O = OVERTIME
 D = DOUBLETIME
 SDI = STATE DISABILITY INSURANCE

OTHER-Any other deductions and/or payments whether or not included or required by prevailing wage determinations must be separately listed. Use extra sheet(s) if necessary

Review for correct class and hours

Then Accept or Reject

Find Employees Public Report << Prev Next >> Statement of Compliance Accept Re

Go to page: 1 / 2

ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Wordpad New Tab

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx> Go Links Convert Select

ES Elation Systems Scott Bickford / Maine Department of Transportation
Online support 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit** Get Started/Help

Workplace

General Information

- Scheduling
- Field Report/Site Visit
- Site Interview Summary

Report

- Interview - CPR Reconciliation
- Follow Up

Type: Site Interview Other Schedule *P: In Process *F: Finished

March 2011

2010 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2012

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	Feb 27	28	Mar 1	2	3	4	5
2	6	7	8	9	10	11	12
3	13	14	15	16	17	18	19
	20	21	22	23	24	25	26

3rd Using the navigation at the top
Drag the Site Interview icon to the date you want to do the interview.

Each Interview is for one Contractor. You can place multiple Site Interview icons on the same day if you want to get more then one Contractor at a time.

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ON-SITE PAYROLL INTEVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit**

Get Started/Help

Workplace

General Information

- Scheduling
- Field Report / Site Visit
- Site Interview Summary

Report

- Interview - CPR Reconciliation
- Follow Up

Type: Site Interview Other Schedule *P: In Process *F: Finished

March 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Feb 27	28	Mar 1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26

When all done - "Save"

Set Reminder

Choose your Project from the Drop Down

Choose the prime or sub to Interview from the Drop Down

Assign the Interviewer

Save Delete

Time: 8:30 AM Reminder: [icon]

Project:* 011060.00 NAPLES

Vendor:* Wyman & Simpson, Inc.

Site interview template:* LABOR STANDARDS INTERVIEW

Assigned by: Bickford, Scott

Assign to:

- Gilman, Norma
- Hurd, Craig
- Liburt, Ann
- Luce, Floyd
- Hanlon, Kevin
- LaPerriere, Jackie
- Lidback, Leonard
- Macdougall, George

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ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit**

[Get Started/Help](#)

Workplace

General Information

Scheduling

Field Report / Site Visit

Site Interview Summary

Report

Interview - CPR Reconciliation

Follow Up

Search

Project Name: Company Name: Search Reset

New Legend: Draft Submitted FR Pending More Actions 16 PRE 1/1 NEXT

Status	Project Name	Contractor Name	# Employee	Report Date	Report User Name	Comments	Reconcile
By: Bickford, Scott To: Bickford, Scott Date: 03/04/2011 Time: 8:30AM	011060.00 ...	Wyman & Si...					
By: Pirruccello, Anthony To: Pirruccello, Anthony; Rudolph, Eric Date: 01/31/2011 Time: 8:30AM	011060.00 ...	R J Grondin ...					
By: Rudolph, Eric To: Rudolph, Eric Date: 01/24/2011 Time: 8:30AM	011060.00 ...	R J Grondin ...					
By: Rudolph, Eric To: Rudolph, Eric Date: 01/24/2011 Time: 8:30AM	011060.00 ...	Traffic Con...					
By: Rudolph, Eric To: Rudolph, Eric	011060.00 ...	Traffic Con...					

ALL A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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1st Click on Field Report / Site Visit

If there is a Scheduled Interview assigned to you - Click on it.
If not, Click New

ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit** [Get Started/Help](#)

Workplace [Submit Siteinterview](#) [Delete Siteinterview](#) [Add Employee](#) [Print](#) [Go Back](#)

Status: **New** Created by: **Bickford, Scott** [Select Employee - will auto fill the fields](#) [Comments](#)

Drop downs available **LABOR STANDARDS INTERVIEW**

CONTRACT NUMBER 011060.00 1st		EMPLOYEE INFORMATION Select Employee	
NAME OF PRIME CONTRACTOR Wyman & Simpson, Inc. Autofill		LAST NAME	FIRST NAME
NAME OF EMPLOYER Wyman & Simpson, Inc. 2nd		STREET ADDRESS	
SUPERVISOR'S NAME		CITY	STATE
LAST NAME	FIRST NAME	MI	ZIP CODE
		WORK CLASSIFICATION	WAGE RATE

ACTION	CHECK BELOW	
Do you work over 8 hours per day?	<input type="checkbox"/>	<input type="checkbox"/>

Fill in all information above this line. Print out to bring in the field for the payroll interview.

Scroll to bottom and click "save as draft"

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ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit** [Get Started/Help](#)

Workplace

- General Information
 - Scheduling
 - Field Report / Site Visit**
 - Site Interview Summary
- Report
 - Interview - CPR Reconciliation
 - Follow Up

Search

Project Name: Company Name: Search Reset

Legend: Draft Submitted Finished FR Pending More Actions 16

Status	Project Name	Contractor Name	# Employee	Report Date	Report User Name	Comments	Reconcile
Date: 01/24/2011 Time: 8:30AM							
By: Rudolph, Eric To: Rudolph, Eric Date: 01/24/2011 Time: 8:30AM	011060.00 ...	Traffic Con...					
By: Sample, Elation To: Sample, Elation Date: 11/02/2010 Time: 2:00PM	010158.00 ...	CPM CONST...					
	011060.00 ...	Wyman & Si...	1	03/09/2011	Bickford, Scott	Comments	
	011060.00 ...	Wyman & Si...	1	03/07/2011	Bickford, Scott	Comments	Reconcile
	011060.00 ...	Wyman & Si...	1	02/01/2011	Rudolph, Eric	Comments	Reconcile
	011060.00 ...	Wyman & Si...	2	02/01/2011	Rudolph, Eric	Comments (1)	Reconcile
	011060.00 ...	R J Grondin ...	2	02/01/2011	Rudolph, Eric	Comments (1)	Reconcile
	011060.00 ...	Wyman & Si...	1	12/17/2010	Pirruccello, Anthony	Comments (1)	Reconcile
	011060.00 ...	Wyman & Si...	1	11/18/2010	Pirruccello, Anthony	Comments	Reconcile
	010158.00 ...	CPM CONST...	1	11/04/2010	Sample, Elation	Comments	Reconcile
	010158.00 ...	CPM CONST...	1	11/04/2010	Sample, Elation	Comments (1)	Reconcile

ALL A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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Sort Options

Once the Interview is complete go to Field Report/Site Visit

Your saved Draft will be available below

Click on Comments to attach the scanned signed form

ON-SITE PAYROLL INTERVIEW

ACTION		CHECK BELOW	
		YES	NO
Do you work over 8 hours per day?		<input type="checkbox"/>	<input type="checkbox"/>
Do you work over 40 hours per week?		<input type="checkbox"/>	<input type="checkbox"/>
Are you paid at least time and a half for overtime hours?		<input type="checkbox"/>	<input type="checkbox"/>
Are you receiving any cash payments for fringe benefits required by the posted wage determination decision?		<input type="checkbox"/>	<input type="checkbox"/>
WHAT DEDUCTIONS OTHER THAN TAXES AND SOCIAL SECURITY ARE MADE FROM YOUR PAY? <input type="text"/>		<p>Completely fill in all information from the interview</p>	
HOW MANY HOURS DID YOU WORK ON YOUR LAST WORK DAY BEFORE THIS INTERVIEW? <input type="text"/>			
DATE OF LAST WORK DAY BEFORE INTERVIEW (mm/dd/yyyy) <input type="text"/>		TOOLS YOU USE <input type="text"/>	
DATE YOU BEGAN WORK ON THIS PROJECT (mm/dd/yyyy) <input type="text"/>		<input type="text"/>	
THE ABOVE IS CORRECT TO THE BEST OF MY KNOWLEDGE			
EMPLOYEE'S SIGNATURE <input type="text"/>		DATE (mm/dd/yyyy) <input type="text"/>	
INTERVIEWER <input type="text"/>		DATE (mm/dd/yyyy) <input type="text"/>	
SIGNATURE <input type="text"/>		TYPED OR PRINTED NAME <input type="text"/>	
INTERVIEWER'S COMMENTS		DATE (mm/dd/yyyy) <input type="text"/>	
WORK EMPLOYEE WAS DOING WHEN INTERVIEWED		DATE (mm/dd/yyyy) <input type="text"/>	
<p>Don't forget this part</p> <p>2011 Audit Finding because this part was not filled in on many interviews</p>		<p>ACTION (If explanation is needed, use comment's section)</p> <p>IS EMPLOYEE PROPERLY CLASSIFIED AND PAID? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>ARE WAGE RATES AND POSTERS DISPLAYED? <input type="checkbox"/> YES <input type="checkbox"/> NO</p>	

FOR USE BY PAYROLL CHECKER

IS ABOVE INFORMATION IN AGREEMENT WITH PAYROLL DATA?

YES NO

Click on Submit at bottom of form when completed - stays as Draft.

When you are sure the information is accurate

- click Submit & Finish SiteInterview - changes to Submitted

TO ADD THE ORIGINAL SIGNED PAYROLL INTERVIEW

- Go to the Field Report/Site Visit Screen
- Click on “Comment” on the right side of the screen in the row that you want to add it to
- Click “Upload Documents/Images”
- Click the “Add Files” button
- Browse to the location of the scanned original
- Double click the scanned file or single click and hit “open”
- Click the “Upload Files” button
- The box will close when done and you should see the attachment at the bottom of the comment box
- Type in a comment – such as “Original Attached”
- Uncheck the “Private Comment” box
- Click the “Submit Comment” button
- If you are successful, the comment will appear in the box by scrolling down. Also the “Comment” that you click in the second step will now say “Comments (1)”

ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
[Online support](#) 510-764-1870 X.100 [Sign Out]

Payroll Payments Reports Configuration **Audit**

[Get Started/Help](#)

Workplace

General Information

- Scheduling
- Field Report / Site Visit
- Site Interview Summary

Report

- Interview - CPR Reconciliation
- Follow Up

Search

Project Name: Company Name: Search Reset

Legend: Draft Submitted Finished FR Pending More Actions 16

Status	Project Name	Contractor Name	# Employee	Report Date	Report User Name	Comments	Reconcile
By: Rudolph, Eric To: Rudolph, Eric Date: 01/24/2011 Time: 8:30AM							
By: Sample, Elation To: Sample, Elation Date: 11/02/2010 Time: 2:00PM							
	011060.00 ...	Wyman & Si...	1	03/09/2011	Bickford, Scott	Comments	Reconcile
	011060.00 ...	Wyman & Si...	1	02/01/2011	Rudolph, Eric	Comments	Reconcile
	011060.00 ...	Wyman & Si...	2	02/01/2011	Rudolph, Eric	Comments (1)	Reconcile
	011060.00 ...	R.J Grondin ...	2	02/01/2011	Rudolph, Eric	Comments (1)	Reconcile
	011060.00 ...	Wyman & Si...	1	12/17/2010	Pirruccello, Anthony	Comments (1)	Reconcile
	010158.00 ...	CPM CONST...	1	11/04/2010	Sample, Elation	Comments	Reconcile
	010158.00 ...	CPM CONST...	1	11/04/2010	Sample, Elation	Comments (1)	Reconcile
	010158.00 ...	CPM CONST...	1	11/03/2010	Sample, Elation	Comments	Reconcile
	010158.00 ...	CPM CONST...	1	11/03/2010	Sample, Elation	Comments (1)	Reconcile

ALL A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

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Once the Interview and the Certified Payroll have been Submitted
Click on Reconcile

Draft →

Submitted →

Finished →

ON-SITE PAYROLL INTERVIEW

Audit - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Audit/NewDefault.aspx>

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Payroll Payments Reports Configuration **Audit**

[Get Started/Help](#)

Workplace

General Information

- Scheduling
- Field Report / Site Visit
- Site Interview Summary

Report

- Interview - CPR Reconciliation
- Follow Up

Site interview - Certified Payroll Reconciliation Report

Project Name: [011060.00 NAPLES \(Contract No.: 011060.00\)](#) Interview Date: [3/7/2011](#)
Contractor Name: [Wyman & Simpson, Inc.](#) Interviewer: [Craig Hurd](#)

Data Source	Employee Name	Classification	Approximate duration on project	Last day worked before the interview		Hourly Rate	Fringe Benefit (Paid In Cash)
				Date	Hours		
Site interview	COLBY, CORY J	Excavators	61 days	3/4/2011	18	\$ 25.00	N
Certified payroll	COLBY, CORY J	Unskilled	89 days	2/18/2011	8	NA	NA

Compare Site Interview with Certified Payroll

Finish

If OK, click Finish
Status will change from Submitted to Finished

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PAYMENT MODULE

Payments - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://www.elationsys.com/app/Payments/Default.aspx>

ES Elation Systems Scott Bickford / Maine Department of Transportation
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Payroll **Payments** Reports Configuration Audit

Home Projects Activity Pattern Messages Retainage Percentage [Get Started/Help](#)

My Projects Search

Select all projects

Show all Project Cate

Role as an owner

[Z TEST ENVIRONMENT](#)

This will be active on 2011 advertised projects

Elation Systems, Inc. (Prime Contractor)

Activity Started : 01/01/10 Total Payments Received : 2 (\$152,600.00) Last Login Date : 11/24/10 by Rick Shi
 Most Recent Activity : 02/05/10 Total Payments Made : 3 (\$26,000.00) Total Payments To Be Confirmed : 2

Legend: Confirmed Rejected Not Confirmed Draft Flagged [Summary](#)

Incoming Payments: ** You may check the box in front of date to confirm a payment.

Show Payments: All Status New Submit Rejected Void
 All 5 most recent payments In month 02 / 10 Drag following bar to select a month

Issue Date	Amount	Check #	Status	Action	Issues / Messages	Payer
02-01-2010 (SC)	\$109,000.00		<input checked="" type="checkbox"/>			Maine Department of Transportation
01-01-2010 (SC)	\$43,600.00		<input checked="" type="checkbox"/>			Maine Department of Transportation

Outgoing Payments:

Show Payments: All Status New Submit Rejected Void Draft
 All 5 most recent payments In month 02 / 10 Drag following bar to select a month

Issue Date	Amount	Check #	Status	Action	Issues / Messages	Payee
02-05-2010 (SC)	\$15,000.00		<input checked="" type="checkbox"/>			Elation Trucking, Inc.
01-05-2010 (SC)	\$1,000.00		<input checked="" type="checkbox"/>			Elation Trucking, Inc.
01-05-2010 (SC)	\$10,000.00		<input checked="" type="checkbox"/>			Elation Trucking, Inc.

A.D. Electric Co, Inc

Activity Started : Total Payments Received : 0 (\$0.00) Last Login Date : 03/09/11 by Karan Stark
 Most Recent Activity : Total Payments Made : 0 (\$0.00) Total Payments To Be Confirmed : 0

AD Rossi. A Registered Trade Name of Nicom Coatings Corporation

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STUCK??



George.macdougall@maine.gov 624-3353

Sonya.Everett@maine.gov 624-3519

*You can't break it; anything you can do in
the system can be undone.*

*If a Contractor has questions, Elation should
be contacted directly at 925-924-0340 X100 --
or contact Sonya Everett at 624-3519, or
sonya.everett@Maine.gov*

Local Project Administration Manual & Reference Guide

12. Documentation



MaineDOT

Integrity - Competence - Service

2014 Edition

PROJECT RECORD KEEPING MANUAL



2013

GUIDE FOR CREATING,
MAINTAINING AND
SUBMITTING,
CONSTRUCTION
PROJECT
DOCUMENTATION
AND RECORDS



MaineDOT

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REVISIONS

Rev No.	Revision Description	Page(s)
1	Added FHWA Construction Inspection Requirements	Appendix D
2	Added Final Inventory list	Appendix C
3	Responsibility of the Checker	109.10
4	Clarified the Definition of Lump Sum re: Contract Modifications	109.7
5	Pro-rating Lump Sum items in Contract Modifications	109.70
	Added the What, Why and How description to Contract Modifications	109.30
6	Figure; Contents of a Contract Modification	109.7
7	Figure; Common Excavation, Packaging references	203.5
8	Figure; ASCG, packaging references	304.10

SECTION 108 – MEASUREMENT AND PAYMENT

108.1 General.

This Section describes, in general, Departmental policies and acceptable methods for measuring and computing contract quantities for progress and final payments. Divisions 200 through 600 and 900 of this Manual explain in more detail, the requirements and procedures to follow.

There are two systems in use and acceptable to the Department for documenting and measuring quantities for payment: the traditional “paper” method, the computer software program Field Manager – Field Book and Field Pad method. Residents are encouraged to use the software program when feasible.

If the Resident chooses to use the paper method, they will have the following project records; a Final Quantity Book, a Final Quantity Computations Book, a Project Diary, Testing file and a Construction Book. Other fieldbooks may be required, such as a Drainage Book, depending on the complexity of the project. If Field Manager is used, the project records will consist of an Item History to Date instead of the Final Quantity Book, a Daily Diary, and Inspectors’ Daily Reports. The Inspector’s Daily Report is needed to generate progress estimate quantities. A Construction Book is almost always necessary; it is policy of the Department and good record practice that original field measurements must be entered in a bound fieldbook or PDA. The Final Quantity Computations Book may or may not be required, depending on the extent of computations needed to figure quantities.

Division 900 of this Manual explains further, and in more detail, project records required. It is suggested that you study Division 900 before proceeding beyond Sections 108 and 109.

For anyone needing training in the use of Field Manager, the Contracts Section will provide instruction in the application of this software program. You should contact the Contracts Section either directly or through your Supervisor for help.

Quantities for Progress Payments

After the formalities of contract award have been completed, the Contracts Section will initiate the first payment, which is Mobilization. The Resident will receive either a paper copy of the first estimate paid or an electronic transfer, depending on whether or not Field Manager is being used. The Resident should advise the Contracts Section, preferably before the contract is awarded, whether they will use paper or Field Manager to make progress payments. The Department encourages the use of Field Manager.

It is important to our highway and bridge contractors that they receive prompt and full payment of all monies due them for work satisfactorily performed. Unnecessary delay in paying the Contractor increases his or her cost of doing business, and these costs are ultimately passed on to the Department in the form of higher bid prices on future contracts. The Contractor is to be paid, on each progress estimate, the full estimated value of the work satisfactorily completed. The Resident should not hold payment of money due the Contractor other than what is sufficient to cover work still remaining to be done under a particular item. Quantities should be current to the end of the pay period, particularly for hot mix asphalt items because of the time-dependent nature of the asphalt escalator price adjustment Specifications. If a significant overpayment or underpayment is detected following the submission of a progress estimate, an additional estimate correcting the error should be submitted to the Contracts Section immediately. Section 108.2 of the Specifications further explains procedures for making progress payments

Contract Specifications require the Department to pay the Contractor a minimum of once a month, but it is policy to make a progress payment every two weeks. The Resident will determine the quantities or the Contractor may submit, as allowed in Section 108.2, a requisition for payment. The Resident will review the figures submitted by the Contractor and so note in the project records. The estimate will then be forwarded to the Contracts Section, either electronically or on a paper copy, for payment. The Contracts Section will process the progress estimate for payment minus a retent. This retained amount is based upon Section 108.3 of the Specifications.

Quantities for progress payment will be estimated with the help of the following guidelines:

Quantities paid by the unit: Progress estimates can be based on a percent of the estimated quantity or on actual field measurements of the work done to date. The Resident is cautioned not to pay too high a percent of the estimated quantity without first checking the Engineer's Estimate for accuracy.

Quantities paid lump sum: The Resident may pay a percent of the bid price, as work progresses; amount paid is dependent on amount of work done. Contract Specifications will state, for some items paid lump sum, what portion to pay as work progresses.

Quantities paid load count: Whether by weight or by volume, quantity to date can be readily determined from daily totals entered in the Final Quantity Book/Item History to Date.

Quantities paid by the hour or force account: Hourly work items and force account work are determined from Daily Reports of Labor and Equipment Rental.

Regardless of the methods used to arrive at quantities for progress payments, the Resident will keep on file the notes and measurements used to document payments.. These records may be needed to explain to Auditors and to the Contractor how Quantities were determined.

108.21 Using the Progress Estimate Form – Paper Copy

Estimates must be made out on the computerized print-out generated by the Contracts Section. The first form the Resident will receive will be labeled "Payment Voucher Summary" number 0001, and it will show partial payment for Item 659.10 – Mobilization. The Resident will also receive, at the same time, "Progress Estimate" number 0002. Present policy is to fax the completed estimate form to the Contracts Section for processing. The resulting "Payment Voucher Summary" and the next "Progress Estimate" will be sent to the Resident as e-mail attachments.

Tracking of funding allocations requires separate cost figures for highway and bridge expenditures, for what is federally participating and federally non-participating, and for town and utility reimbursements. Each category of funds is designated by a number as, for example: 0001 for highway, 0002 for bridge. Categories are assigned by the Project Manager. Work done under the original contract items or added to the project, whether unit price, lump sum or force account, must be coded to the correct category, i.e., highway, bridge, non-participating, etc.

Progress Estimate. Final Quantity Estimate or Final Estimate. During the progress of work, the Resident will place a checkmark on the "Progress Estimate" line. When the project is closed out with the Contracts Section, the "Final Quantity Estimate" line will be checked and the words "Final Quantity Estimate" will be written on the "Comment" line in the upper right-hand corner of the estimate. The Final Estimate will be made out by the Contracts Section when the retent is released and paid off.

Pay Period Ending – Year, Month, Day. The date, entered by the Resident, should be the end date for the period the work has been done. This end date will be as current with the work as is practicable; it will be the middle and/or the last day of the month and not the first day of the next month for the purposes of figuring asphalt escalator price adjustments.

New Items. This section is used to make modifications to the contract, such as: items from one Pin to another Pin under the same contract, new items added by contract modification paid by agreed unit price, lump sum or force account, categories added, or work made non-participating.

Modifications are made as follows:

Catg #: Enter the appropriate four digit category number.

Item # (Or None): The item number can be obtained from the Bid Item Dictionary located at http://www.maine.gov/mdot/contractor-consultant-information/item_dictionary_english.htm . If the item does not appear in the Dictionary, print the word "None" in its place, and write a very brief description of the item or work order in the "Description" column.

Authorized Quantity: Enter the estimated quantity shown on the Work Order. If there is no work order, enter the actual quantity.

Quantity to Date: Enter the quantity you want to pay at this time. Figures can be carried to two decimal places.

Unit Price: Enter the unit price shown on the Work Order, or defined in the contract or in the Specifications.

RWO/EWO: Enter the Work Order or a Resident's Work Order number. To move an existing bid item from one Pin to another Pin on the same contract, use the same item number and use RWO/EWO zero. Items that are to be added to the Schedule of items through existing mechanisms in the contract without a RWO/EXO, such as; rock excavation, structural excavation-major structures-below grade and HMA pay adjustment, can be added by writing SS, standard Specifications, in lieu of a RWO/EXO number.

Description: Enter a description only if "None" was entered as the Item #.

Changes to lump sum items will be done as separate line item entries under the New Items section described above. The lump sum item originally in the contract will show a zero quantity for payment and will be re-entered under New Items with the new price.

The "New Item" procedure, or more pertinently, contract modification, will be processed by the computer and print it in the body of the next estimate at the end of the appropriate code section or in a newly coded section.

Specifications provide a mechanism for paying for certain items added to the contract without the need of a price quote from the Contractor. The following is a list of items commonly used and how to pay for them

<u>To Pay For</u>	<u>Use Item</u>	<u>Unit Price</u>
Rock Excavation	203.20 ComExc	6 X Bid
Struct. Rock Excavation – Drainage	203.20 Com Exc	16 X Bid
Excavation for Slope Blanket	203.20 Com Exc	2 X Bid
Struct Rock Excavation – Major Str	206.082 Str Ea Exc – Major Sit	6 X Bid
Str Ea Exc – Major Str, Below Grade	206.082 Str Ea Exc – Major Str	1 ½ X Bid
Str Rock Exc – Mjr Str, Below Grade	206.092 Str RockExc – Mjr Str	1 ½ X Bid
Aggr Sub Crse – For Foundations	304.10 Aggr Subbase Crse – Grav	2 X Bid
Aggr Sub Crse – Slope Blanket	304.10 Aggr Subbase Crse – Grav	2 X Bid

Specifications provide a mechanism for paying for certain items that were bid to be measured using one method, but may have been measured using a different method. The following is a list of commonly used shrink and swell factors.

<u>Item Measured</u>	<u>Original Source Method</u>	<u>Shrink/Swell Measured Quantity</u>
203.20 Common Exc	IN-Place	
In-place		1.0
Truck Measured		.90
203.25 Borrow	In a Pit	
Pit		1.0
In-Place		1.15
Truck Measured		.90
304.10 ASCG	In-Place	
In-place		1.0
Truck Measured		.80
203.27 Rock Borrow	In-Place	
In-place		1.0
Truck Measured		.75
Measured Stockpile		.75

Stockpiled Materials. This section is used by the Resident to pay for stockpiled materials. Section 108.4 of the Specifications allows for the payment of non-perishable materials stored for future use on the project.

Departmental policy is as follows:

1. Partial payments may be made for certain materials delivered to the project but not yet incorporated into the work.
2. Payment will be shown on the progress estimate as a separate line item entry.
3. Materials will not be paid until the Contractor furnishes the Resident with copies of receipted bills.
4. As the stockpiled material is incorporated into the project and paid under the bid item, the stockpiled quantity should be reduced proportionally.
5. When work involving the stockpiled item is complete, that portion remaining in the stockpile, if any, shall be reduced to a "0" quantity on the progress estimate.

Payment for a stockpiled item is entered on the progress estimate as follows:

Category No.: Enter the appropriate four digit category number. Refer to New Items above, if necessary.

Item No: Enter the same item number as shown for the pay item in the contract.

Quantity To Date: Enter the quantity, typically 1, or a portion of 1. Figures can be carried to two decimal places.

Unit Price: The unit price for payment under the stockpiled item is determined from receipted bills. The unit price shall equal the dollar amount shown on receipted bills divided by the quantity.

RWO/EWO: MA, material allowance, shall be used designate this item as allowable stockpile payment After the first estimate is processed with the above information, the stockpiled item will appear in the body of the next estimate directly following the item as originally bid.

Retent Modification. This line is used by the Contracts Section to control the retent status of the Project.

Body of the Estimate. The Resident fills in only the “Quantity to Date” column of this section for each item that has changed since the previous estimate. The total quantity to date may be an increase or a decrease from the previous estimate. Entries will be made in red ink.

Quantities will be entered as follows: whole numbers to the left of the decimal point and tenths and hundredths, if required, to the right of the decimal point. Quantities or percentages can be entered to three decimal places. Numbers are free read; for example, 2 is the same as 2.0 or 2.00.

For quantities with a unit of Lump Sum, show the quantity for progress payment from 0.01 to 1.00. Be careful to place the number on the correct side of the decimal point, i.e., whole numbers to the left and tenths/hundreths to the right.

For items with a unit of Each, show the quantity as a decimal, for example, for a Field Office, 0.33 or 0.67 or 1.00.

If you are adding a Lump Sum item by work order, enter the quantity for payment as 1 L.S. and not 100% L.S. If payment shows as 100% LS, the mistake of paying 100 times the L.S. price can result.

108.22 Using the Progress Estimate Form – Field Manager.

Progress estimates may also be submitted to the Contracts Section electronically, using the Field Manager construction management software program.

To use Field Manager, the Resident must import the database file of his or her project to the Field Manager program. This file will be obtained from the Contracts Section, either by network transfer or by floppy disk. If a Resident is using Field Manager solely for the generation of progress estimates, it will be necessary to generate an IDR (Inspector’s Daily Report) posting the quantities for each item that needs to be paid, prior to each progress estimate submittal.

Once the IDRs’ have been generated and saved, the next estimate can be added. After adding and before generating the next estimate, it should be checked for accuracy. When the Resident is confident in its accuracy, they then generate it.

When an estimate is generated, a file is automatically created in the “outbox” folder of the “fieldmgr” folder, which is accessed by using “Windows Explorer” or “My Computer”. This file should then be transferred to the appropriate project folder located on the Network Neighborhood at Dotaugl/\$com-Cons/Field ManagerProjects for processing by the Contracts Section. If network connections are not possible, the file can be transferred by using a floppy disk.

When the Contracts Section receives the file, it is then processed in the Transport System and a “turnaround” file is created. This file is then picked up by the Resident, as described above, and imported back to the Field Manager program before the next estimate can be generated.

108.3 Quantities for Payment

Method of measurement and payment for items in the contract and for extra work are grouped as follows:

1. Plan Quantities.
2. Lump Sum Quantities.
3. Measured Quantities.

Specifications, under Sections “Method of Measurement” and “Basis of Payment” state how items in the contract are to be paid.

Plan Quantities. Quantity for final payment will be the figure shown in the Schedule of Items as defined in the contract Specifications or as mutually agreed to by the Resident and the Contractor.

If the Specifications state, that for some items, final payment will be based on the quantity shown in the Schedule of Items, more commonly referred to as the “plan quantity”, that figure will be paid whether the amount is estimated correctly or not. It may be altered only if a design change is made in the field. Example items are: granular borrow backfill and structural excavation for bridge abutments, granular borrow backfill for multi-plate pipes, and shoulder rehabilitation.

Final payment can also be based on plan quantity by agreement between the Resident and the Contractor.

Examples are: common excavation and gravel. For such an agreement to take place, two conditions have to be met: (1) the estimated quantity must be reasonably accurate and (2) work done under the item must be to the same limits as shown in the Engineer's Estimate. Reasonably accurate is defined as the Estimate being within five percent of the true figure. The Resident must check the Estimate before proposing the agreement. Errors and changes to limits of work will be taken into consideration and corrections made.

Payment based on "plan quantity" will be documented by notes of inspection and acceptance entered in the project records.

Lump Sum Quantities. Some items in the contract will be designated lump sum for payment as defined in the Specifications. Examples are: field office, structural concrete, and maintenance of traffic. "Lump sum" quantities must be documented by notes of inspection and acceptance recorded in the project records.

Measured Quantities. Payment for some items in the contract will be determined from measurements and computations of the actual work done. Sources for measured quantities can be: surface area measurements, three-dimensional volume measurements, average end area measurements, delivery slip measurements, weight measurements, hourly measurements, and force account measurements.

Surface Area Measurements. By Specifications, some items in the contract will be measured and paid based on surface areas. Examples are: clearing, butt joints, shoulder rehab, cold recycled-in-place pavement, and rehabilitation of structural concrete deck slab. Measurements and any sketches will be entered in a bound fieldbook; these can be taken in the field or scaled off the plans or a combination of both. Computations will be done in the same fieldbook or in the Final Quantity Computations Book.

Volume Measurements. Items measured by volume will be specified in the Contract. Examples are: common excavation, borrow, gravel, and concrete. Volumes can be figured using three dimensional field measurements, such as for roadway undercuts, or trench boulders. For large quantities, the average end area method will be used to figure earth excavation, rock excavation, and borrow. Any basic route survey textbook will explain in detail the average end area method. "Typical factors" will be used for figuring aggregate subbase course – gravel. Computer programs are available from the Survey Section to compute borrow and excavation.

If the Resident chooses to figure their own quantities rather than having the Survey Technicians do this, they must consider correcting between stations on curves as on ramps, for example. Also, it must be remembered that the average end area method is not usually accurate between any two stations, particularly if the areas cross sectioned differ considerably. This method is only accurate when at least three cross-sectional. Areas are used to compute a quantity.

Load Count Measurements, by Volume: Items paid load count will be identified by Special Provision in the Contract. In addition, Specifications allow load count Measurement up to specified maximum limits. Load count is used when it is not practical to measure the quantities by cross-section or by three dimensions.

When materials are measured by load count, the following rules apply

- a) A delivery slip must accompany each load.
- b) The slip must be of a printed format and it must be serially pre-numbered.
- c) It will contain the project number, item description, and truck number.
- d) It must be issued by the truck driver or Foreman present at the site and signed by him or her.
- e) The Inspector or Ticket Taker must witness every load dumped and as evidence, will sign the slip. Partial loads will be noted as: "3/4 full", for example.

Volume need not be shown on the slip but the Inspector will measure every truck body and enter measurements in a bound fieldbook, signed and dated. The Correct shrinkage factors will be applied when the quantities are figured for payment. Borrow and excavation measured load Count are reduced 10 percent; gravel is reduced 20 percent; concrete, riprap, and loam are measured on a "yard for yard" basis, i.e., no shrinkage or swellage is applied. Refer to the Specifications under the appropriate items for swellage and shrinkage factors.

Load Count Measurements, by Weight: Specifications require that hot mix asphalt items be measured by weight. A delivery slip will accompany each truckload of *mix* delivered to the job. Slips will contain the following information:

- a) Slips will be serially pre-numbered.

- b) Weight of each batch and total weight of the load will show on the slip if the plant weigh system is computerized. If not, only the total weight of the load needs to be shown, and the slip must be signed by a certified weigh master.
- c) The Paving Contractor's name must appear at the heading, in print.
- d) Every slip will be signed by the Ticket Taker.
- e) A Cover slip showing the day's total will be made out and signed by the Contractor's Representative and the Resident.

All weigh slips for hot mix asphalt must be kept in the Resident's office for the duration of the project. When the Resident submits their records to the Contracts Section for final review and close-out, delivery slips may be discarded but the Cover slips will remain with the project records.

The Testing Technician will do some check weighing to verify the accuracy of the scales. Check weighing procedures are explained in Division 100, Section 108, of the Specifications.

Hourly Work Items. Extra work, unforeseen, is sometimes measured and paid by the hour. This work can be paid by using the hourly bid items in the contract, by force account or by a combination of both. Section 109.07, of the Specifications and Section 109 of this Manual explain in detail, rules covering extra work. The Daily Report of Labor and Equipment Rental will be used to document the hours of labor and equipment, and materials used. Authorization for the work by the Resident or by Contract Modification and description will be noted in the Remarks portion of the Report which will be signed by both the Inspector or the Resident and the Contractor's Foreman or Superintendent.

This Section, Quantities for Final Payment, is intended to describe only in general, methods used to measure and pay final quantities. The Resident will refer to Divisions 200 through 600 and 900 for more detailed discussion of the requirements for field documentation, measurement, and payment.

SECTION 109 – CONTRACT MODIFICATIONS

General.

Specifications require the Contractor, as directed by the Resident, to perform extra or unforeseen work added to the contract a supplemental agreement, in the form of a contract modification, will be written to authorize and to document the added work.

Conditions Requiring Contract Modifications.

Contract Modifications will be initiated and written by the Department, normally by the Resident, and will be **signed** by the Resident. All Contract Modifications, except those initiated by standard Specifications i.e.; rock excavation & Quality Assurance Pay Adjustments, will require the **signature** of the Contractor and may also require the **signature** of administrative personnel within the Department, as explained further in the next Section. A contract modification will be written when the following conditions are present on the project:

1. Changes in Specifications.
2. Substitution of materials.
3. Changes in Testing Requirements.
4. Changes or Extra work with –in the scope of the contract.
5. Changes in design beyond the scope of the contract.
6. Adding or changing a D.B.E. subcontractor. (Requires a signature from Human Resources)
7. Adding payment or credit for Incentives / Disincentives to Contract Items.
8. Changes that result in an increase or decrease of 25 percent or more in major items of the contract. A major item is one that exceeds 10 percent of the original contract amount, as awarded. These changes may result in an increase or decrease in unit bid prices. Section 109.1.2 defines a major change.
9. Changes in deadline dates, completion dates, or time extensions not covered elsewhere.
10. Additional driveways, copy to Right of Way team member.
11. Municipal Government, County Government, or other State Agency request for additional work or change in proposed work. If the Agency involved requests additional work, it will be required to pay the non-federal share. The Contract Modification will clearly state what portion will be paid by the Agency and will be signed by a responsible person from that Agency.

109.3 Contents of a Contract Modification.

Every Contract Modification shall include the What, Why and How of the scope of work within the Contract Modification. The What describes the work that is to be incorporated, the Why is the reason(s) for adding the work and the How is a detail description(s) of how the work is to be paid. A more detailed list of contents is listed below.

1. Description and location of work.
2. Reason for the change or for the added work.
3. Method of payment, i.e. existing bid items, contractor quoted work, force account, and benefits to the project.
4. Procedures to be followed by the Contractor. Time constraints, Special Provisions, and Supplemental Specifications are to be made part of the Contract Modification, as applicable.

5. Price quotations, if required on Contractor Letterhead.
6. Time extensions and reasons for the extra time, if needed. A time extension is not granted unless the work directly affects the Contractor's progress, known as the "critical path".
7. Right-of-way acquisitions or easements if needed.
8. Cost estimates. The Resident will include with the Modification, his or her estimate of the cost of doing the work, whether it is done by unit price, lump sum, or force account. The Resident should arrive at the cost estimate independently of the Contractor's figures as much as possible. It should be more than just a review of the Contractor's numbers. An excellent source of historical data is the MDOT Bid History by items, which is located at <http://dot0dta1asora14.mdot.w2k.state.me.us:7778/freeprod/pBidHistEnglish.display>.
9. Approvals and **signatures**. The Contractor's **signature** shall be on all Modifications; it signifies their concurrence with performing and payment of the work. A Contract Modification is a supplemental agreement and is not legally part of the original contract unless it contains the **signatures of both parties**. Contract Modifications may be required to be submitted to the Resident's Supervisor for his or her approval and signature. Section 109.4 Contract Modifications – Resident Authority and 109.5 Contract Modifications Requiring Supervisor Approval explain further, and in more detail under what conditions additional signature are required.
10. Federal participation. All Contract Modifications on federally funded projects must be designated "**participating**" or "**non-participating**", i.e., whether or not Federal funds will be expended in the costs involved. In general, the FHW A will participate in the cost of all work except when an outside agency such as a Town, County, or a private developer requests the work, or the work is beyond the scope of the contract and is of no direct benefit to the project. Conditions under which FHW A approval is needed are outlined in Section 109.6 of this Manual and what approvals are required,

109.4 Contract Modifications - (Residents Authority)

The Department has authorized the Resident to execute certain work orders at the project level without the approval of their Supervisor, but subject to the following limitations:

1. Each Contract Modification is limited to \$10,000.00, not to exceed a cumulative cost of 3 percent of the awarded contract amount.
2. The Resident's authority is limited to construction of the project as intended and designed and does not extend beyond the original scope of the contract.

In addition to the above limitations, the requirements of Section 109.3-Contents of the Contract Modification will apply, as applicable.

109.5 Contract Modifications Requiring Supervisor Approval.

The following types of changes are considered to be beyond the limits of the Resident's authority to approve and therefore must be submitted to the Supervisor for concurrence and **signature**:

1. Changes in geometric design of the project or structural design of bridges, including foundations, and culverts greater than 1.8 m. in diameter.
2. Revision of typical plan cross-sections.
3. The addition, deletion, or relocation of any bridge or other structure which affects the function or intent of the approved design.
4. Changes in Right-of Way
5. The addition of work outside project limits. An exception is work necessary for erosion control, in which

case the property owner's permission is needed and put in writing.

6. Changes that alter contract Specifications or other requirements of the contract.
7. Changes that will affect the safety and operation of traffic other than what is allowed under the terms of the contract.
 2. Changes that result in an increase or decrease of 25 percent or more in major items of the contract. A major item is one that exceeds 10 percent of the awarded contract amount. These changes may result in increases or decreases in bid prices. Section 109.1.2, Division 100 of the Specifications – Green Cover, defines a major change.
9. Changes that exceed \$10,000.00 in cost and result in negotiated prices or payment by force account.
10. Changes which may require modification to previously approved environmental permits.
 2. Quality Control/Quality Assurance provisions added to the contract.
 2. Significant changes in completion dates or other time constraints, if not addressed as part of other work orders.

All of the above situations, the Resident can obtain verbal approval from his or her Supervisor before the Contractor does the work, and will follow up by a signed work order. The Supervisor's approval will be noted on the Contract Modification.

109.6 Contract Modifications Requiring Federal Approval.

Every construction season, the Federal Highway Administration will designate certain federally funded projects as "Direct Involvement" projects. On these jobs the FHW A will be involved in the design and construction more so than on other projects, and will do on-site visits on a regular basis. The Resident should ask their Supervisor or the Designer if his or her job is a Direct Involvement project.

Types of work orders described in Section 109.5 –Contract Modifications Requiring Supervisor Approval will also need concurrence from the FHW A on Direct Involvement projects. The Resident can obtain Federal approval verbally and so note on the Contract Modification this can be done by phone or when the FHWA Engineer visits the project, preferably prior to the work being done. Details of the conversation such as name of the FHW A Engineer and date the conversation took place should be recorded on the Contract Modification. A copy of the Contract Modification should be mailed to the FHW A for documentation. Copies of all Resident's Contract Modifications should also be sent to the FHW A prior to project completion.

109.7 Method of Payment for the Work.

The Specifications, Section 109.7 – Equitable Adjustments to Compensation, specifies that payment for extra work will be made by any one or a combination of the following methods:

1. Agreed Unit Prices.
2. Lump Sum.
3. Force Account.

Agreed Unit Price includes miscellaneous extras such as, but not limited to: labor, materials, equipment, supervision, overtime, travel time, benefits, small tools, transportation, profit, overhead, and other incidental items of work.

Lump Sum is all inclusive and includes extraneous items such as: profit, overhead, regular and overtime labor,

supervision, benefits, materials, equipment, and miscellaneous small tools.

Lump Sum payments for work included in a contract modification should be reserved for work that is difficult to measure, for example a temporary signal. A Lump Sum payment may also be used to track the cost of a particular scope of work, for example, the change(s) may include using several existing or added items. In this case the resident shall measure, inspect and accept the quantities and pay items per standard specification(s), and then when the scope of the work is complete, make the payment of all work Lump Sum.

It is becoming common practice for the contractors to request additional compensation for existing lump sum item(s) in the contract when work is added through contract modifications. For example, the resident decides to add 1000' of underdrain to a project and the contractor request that the lump sum items of Traffic Control, Erosion Control and Field Office be pro-rated for any days that may be added to the completion date. The resident may honor this request, but special attention should be given to the reasonableness of the cost before the agreement is reached. For example, a week is added to the contract and the pro-rated value for a field office is \$200 per day, then the resident should decide to move toward force account to pay for the actual cost of the contractor.

If agreement cannot be reached between the Contractor and the Resident on methods 1 or 2, the Contractor must accept payment on a force account basis. Reference is made to Specifications, Sections 109.3 – Extra Work and 109.7.2 – Basis of Payment.

Force Account should be used only when either of the following conditions are present:

1. The extent of the work is difficult to predict, and therefore the cost cannot be estimated with any degree of accuracy.
2. The Resident and the Contractor cannot come to an agreement on unit prices *or* lump sum prices. Sections 109.7.3, 109.7.4, and 109.7.5 of Division 100 – Specifications, explain in detail how to calculate payment made by force account.

The following is a brief summary of the contents of the Sections noted above:

Materials: actual cost supported by receipted bills plus 15 percent mark-up

Labor: payroll cost for regular and overtime plus 90 percent for laborers and foremen directly involved in the work.

Equipment: "Blue Book" rates, available from the Contracts and Specifications Section.

Mark-Ups: The Prime Contractor is allowed a 5 percent mark-up on a subcontractor's bill for profit and handling of paperwork. When force account work is involved, a 90 percent mark-up is allowed on payroll labor rates and a 15 percent mark-up is allowed on materials. No further mark-ups are permitted.

Regardless which method is used to pay for extra work, whether agreed unit prices, lump sum, or force account, estimating the cost before the work is done is necessary. The Resident should have an idea of what the work will cost before the Contractor submits their price. The figures will be submitted to the Supervisor with the Work Order; other documentation such as receipted bills and price quotes will remain in the Resident's project files. Back-up documentation and cost estimates for Resident's Contract Modification will be kept in the project files on site also.

Contract Modification

MDOT

3/12/2007 11:26 AM

FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Cont. Mod. Number	Revision Number	Cont. Mod. Date	Net Change	Awarded Contract Amount
21		3/12/2007	\$-1,000.00	\$2,373,386.00
Route				
Contract Location RTE.35				

Short Description

This section will contain the scope of work that is added by this contract modification

Description of Changes

This section will contain the information on how the added work is to be paid.

Such as;

- 1) using existing bid items
- 2) new bid items that include a quote from the contractor
- 2) Lump sum quote from the contractor, see attached
- 3) Force account

Also note all other considerations that are to be included with this contractor modifications

Such as but not limited to;

- 1) Specification and or testing revisions
- 2) Design revisions
- 3) Time extensions

New Items

Project: 002852.10, KENNEBUNK

Category: 0001, HIGHWAY ITEMS

Item Description	Item Code	Prop.Ln.	ItemType	Unit	Proposed Qty.	Unit Price	Dollar Value
TRAFFIC CONTROL PENALTY	652.3901	1215	CHANGE	EA	-1.000	1,000.00000	\$-1,000.00

Reason: Note the reason for adding this item to the contract.

Such as: ref project Diary date 8-17-07

Subtotal for Category 0001: \$-1,000.00

Subtotal for Project 002852.10: \$-1,000.00

Figure; Contents of a Contract Modification

Division 200 – Earthwork

201.5 Clearing, Tree and Stump Removal- Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure clearing and the removal of single trees and stumps.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing the subcontractor's clearing and selective clearing operations; equipment, personnel, and station to station limits of work will be noted. Workers and equipment need not be recorded every day unless there are frequent changes.

The Contractor, or more commonly the clearing subcontractor, will take the clearing limits from the plans and flag them in the field. If the Resident makes substantial changes or if the limits are not shown on the plans, a clearing list will be made up by the Resident and a copy given to the Contractor. For sample Inspector Diary entry, ref pg 90

Measurement and Payment.

Final quantity for payment can be plan quantity providing the estimated quantity is accurate and work is done as estimated. The Resident will adjust the plan quantity, upward or downward, according to changes made in the field.

Should the Resident find it necessary to establish new limits for the entire job, final pay quantity will be figured from these revised limits flagged in the field. A list of new limits will be made part of the project records.

Whether the Resident makes final payment based on plan quantity or based on a list of revised clearing limits, he/she must substantiate final payment by notes stating that clearing has been completed and accepted to limits flagged. These notes will be made in the Final Quantity Book or in the Construction Book.

Single trees and stumps required to be removed outside clearing areas will be field counted and entered directly in the Final Quantity Book for payment. All measurements will be signed and dated.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such; reference to measurements, clearing limits flagged, and statements of inspection will be made as necessary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

202.5 Removal of Structures, Obstructions, Pavement - Field Documentation, Measurement and Payment.

This Section describes the recordkeeping necessary to document and measure the removal of structures, pavement, and other existing structures designated to be removed under pay items in Section 202.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing, for example, demolition of buildings, removal of bridge superstructures and substructures, removal of pavement and other obstructions for which there is a pay item in the contract. Station to station limits of work done by the Contractor, if appropriate, and disposal will be noted. Disposal usually consists of hauling materials to a waste dump, turning over to a State or Town Official, or stockpiling for future use.

The Contractor may need a permit to dispose of certain building materials off the project. The Resident should review the special Provisions of the Contract and contact the Environmental Services Section in Augusta for advice regarding permits.

Special Provisions of the Contract may require that certain components of the existing bridge become property of the State or the Town. The Resident should obtain the signature of the individual receiving such materials.

Measurement and Payment.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such.

For items to be paid lump sum, the Resident will make reference to notes in the Project Diary that document progress of work. A statement of final inspection and acceptance will be made in the Final Quantity Book.

For items to be paid by the unit, such as removal of existing concrete, reference will be made to field measurements. These measurements will be entered in a Construction Book or directly in the Final Quantity Book; all measurements will be signed and dated.

For items to be paid plan quantity, such as removing existing pavement, the estimated quantity must be accurately figured and the actual work limits must be the same as those shown in the Engineer's Estimate. The Resident may have to adjust the Estimate to reflect field changes. As for lump sum items, the Resident will make references to Diary notes verifying that work has been done as estimated. These notes may be made directly in the Final Quantity Book. If the plan quantity is a "throw-in" quantity, i.e., has no basis other than a guess, the work in question will have to be field measured.

Removal of curb, fence, and guardrail will be incidental to the work in general. No separate payment will be made unless there exists specific pay items in the contract for these items.

All calculations and data entries must signed, dated and checked; the checker must sign and date their work.

203.5 Excavation - Field Documentation, Measurement, and Payment.

This section describes the recordkeeping necessary to document and measure excavation. It is recommended that you read Division 900 - Project Records of this Manual to better acquaint yourself with project recordkeeping in general.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report. By Specifications, the Contractor is required to place usable excavation within the slopes of the embankment;

no excavation can be hauled off the project without the Resident's approval. It is their responsibility to determine what material can be used on the job, or can be wasted, or stockpiled for future use. This becomes particularly important on a "borrow job" as the amount of wasted excavation directly affects the amount of borrow required. A project is a "borrow job" when material from off the project is required to meet the fill requirements of the contract.

The Resident, or the Inspector if one is assigned to cover excavation items, will keep daily notes of the Contractor's activities relative to earth and rock excavation. It is the Resident's option, whether or not the Inspector is to keep a Diary or Daily Report. The Resident may prefer to have all daily documentation entered directly in the Project Diary. Entries will be made documenting station to station limits of material excavated and locations where placed. It is important to record such information as: material directed to be placed within the core of the embankment or in waste storage areas within embankment limits, or to be stockpiled for future use on the project, or hauled to waste dumps off the job.

Circumstances surrounding the hauling of excavation off the project must be explained, particularly if the project is a borrow job. Material suitable to be placed in the embankment, but wasted without the Resident's permission will be deducted from borrow. Likewise, material only suitable to be placed in waste storage areas outside the core of the embankment, but wasted without permission will also be deducted from borrow. Excess excavation, not required for embankment construction, will be hauled off the project and disposed in waste dumps or other locations approved by the Resident. Excavation that the Contractor stockpiles away from the job for future use on the project will or will not be measured for a second payment, depending on whether or not the Resident has allowed stockpiling. Section 203 of the Specifications, Basis of Payment, allows payment for the rehandling of excavation when it is not possible for the Contractor to do otherwise.

Added undercuts, changes in ditches either in grade or offset, changes in backslopes such as flattening, changes in excavation limits to the approaches, and changes in drives must also be noted and measured for payment.

Grade Check Book. It is a requirement of the Department that the Resident or Inspector spot check the Contractor's grading operations to assure that fine-grading is done within construction tolerances stated in the Specifications. It is recommended although not a requirement, that a "Grade Check Book" be made part of the project records. This book will serve as a convenient and ready reference for checking sub grade, sidewalks, ditches, and backslopes on mainline and side roads, and also for keeping tract of what areas the Contractor has fine-graded and what areas have been spot checked. This book should be set up prior to the start of excavation and borrow operations so that the Resident, when in the process of figuring offsets and grades, will discover possible errors in the plans and will also become familiar with the geometrics of the job before work begins.

Whether or not the Resident uses a Grade Check Book, some written documentation must be entered in the project records that the Contractor's fine-grading operations have been checked and approved. These entries may be made in the Project Diary, Inspector's Diary, Daily Report, directly in the Final Quantity Book, or in the Grade Check Book if there is one.

For sample project diary documentation ref page 64, Final Quantity Entries ref page 65 & 66 and Construction Book entries ref page 80,82,85,88 & 92.

Measurement and Payment

Final quantity for payment can be the figure shown in the Schedule of Items in the contract, more frequently called the "plan quantity". The Resident may pay plan quantity as final payment but the following two conditions must be met: the quantity estimated, i.e., the Engineer's Estimate, must be reviewed for accuracy and considered reasonably accurate, and the limits of excavation in the field must approximate those estimated.

Frequently the plan quantity must be adjusted, upward or downward, because of changes made in the field and also because of increases or decreases in quantity of rock excavation estimated. The Engineer's Estimate must be reviewed to assure that rock is not included in the quantity of earth figured. Changes will be measured and recorded directly in the Final Quantity Book or in the Construction Book. Types of changes are described under Field Documentation, above. The Final Quantity Book and the Construction Book are described in Division 900, Section 901.3 of this Manual.

Field changes and added work will be measured by load count, by length, width, and depth, or by original and final cross-sections. Load count will be reduced by 10 percent to arrive at a quantity equivalent to what would be measured in its original position. Computations may be done in the Final Quantity Book, in the Construction Book, or on computation sheets that are part of the Final Quantity Computations Book. If the Resident uses the computer program "Field Manager", the Item History to Date will be generated in lieu of a Final Quantity Book.

Wasting of excavation without the Resident's permission will be measured and deducted from borrow. Measurement will be by load count or by length, width, and depth. Load count excavation will be reduced to 90 percent for deduction purposes; excavation measured in-place off the project will be deducted at 100 percent of quantity so measured.

Muck and grubbing excavated beyond limits shown on the plans will not be measured for payment unless the Resident has authorized a change in the limits. Lateral excavation limits for muck excavation are determined by the intersection of the bottom of the excavation and a 1: 1 slope line drawn down from the finish shoulder break. Borrow placed in over excavated areas will not be deducted unless the excavation beyond lateral limits is deliberate or due to negligence by the Contractor.

All pay quantities will be entered in the Final Quantity Book and referenced to the source document; the final pay quantity will be so labeled. A chain of referencing from the

Final Quantity Book to the original record is always needed. All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Rock Excavation: Unlike earth excavation, it is usually the case that the actual quantity of rock excavated will not agree with the Engineer's Estimate. Since soundings are normally taken some distance apart, original ledge cross-sections drawn on the plans do not accurately describe top of ledge, particularly where there is earth overburden. Abrupt changes in elevations are not always detected and also, boulders may be mistaken for solid ledge. This lack of detailed information results in errors in the estimated quantity, and therefore the "plan quantity" cannot be used to make final payment. If earth is paid plan quantity, it must be adjusted according to actual quantity or rock paid.

Rock has to be re-sectioned before removal; but, if the Contractor does not want to strip ledge prior to blasting, top of ledge elevations can be determined, by recording from a known elevation, depth the drill rig has to go before hitting solid rock. Section 203.04 General, requires that the Contractor remove overburden before original cross-sections are taken; it is the Resident's prerogative, therefore, whether or not to allow the Contractor to leave the earth in place before blasting.

Quantity of ledge for payment will be figured from "new" originals to the design cross-section if rock is removed to the construction limits described in Section 203.05 of the Specifications. No payment will be made for rock removed beyond the design cross-sections unless the Resident has directed a change in design. Section 203.18 Method of Measurement, Specifications, defines pay limits. Quantities will be computed by the average end area method. A computer program is available from the Augusta Office, Survey, to figure ledge quantities. Print-outs will be made part of the Final Quantity Computations Book.

Boulders, concrete, solidly mortared masonry, all defined in Section 203.01(b), and small quantities of rock

such as ledge nubbles, will be measured by three dimensions. Boulders encountered at sub grade during excavation operations will be measured as rock excavation and the portion estimated to be above sub grade will be deducted from earth excavation. A “pay” boulder is defined in Section 203.1(b) referred to above.

The situation may arise where ledge is not measured in its original position but is measured load count or in its final location as riprap or rock fill. The quantity so measured will be reduced to 75 percent to determine the amount of rock excavation for payment, the reason being that ledge swells after it is excavated. Measurements and sketches if needed for clarification will be entered in a bound field book, which would be the Construction Book or the Final Quantity Book.

If the job is bid “unclassified”, the Resident should make note of the elevation of actual top of ledge where backs lopes are designed on a Y4: 1. In deep ledge cuts, pay limits of earth overburden have to be adjusted depending on the elevation of the ledge.

If the Contractor wastes rock without the Resident’s permission and the result is an increase in the amount of borrow needed to meet the fill requirements of the contract, the quantity of rock wasted will be deducted from borrow at 100 percent of the quantity so measured. All measurements and load counts will be entered in a bound field book.

All quantities for payment will be entered in the Final Quantity Book and referenced to the source document. There must always be a trail of reference from the Final Quantity Book to the original record. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work. The final quantity for payment must be labeled as such and signed, checked, and dated.**

Item History to Date

MDOT

3/12/2007 12:13 PM

FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Item Description COMMON EXCAVATION			Item Code 203.20	Prop. Line 0050	Unit M3	Type ORIGINAL ITEM	Unit Price 8.00000
Authorized Quantity 23,500.000	Authorized Amount 188,000.00	Quantity Placed 23,523.000	Quantity Paid 23,523.000	Quantity Unpaid 0.000	Item Completed No		
Documentation All material that is not used on this project is being wasted at Cooper waste area			Attention No	Notes Ref book #4, Grade check book for subgrade checks			

Projects And Categories

Project	Project Description	Catg	Category Description	Authorized Quantity	Pending Changes	Quantity Placed	Quantity Paid	Quantity Unpaid
002852.10	KENNEBUNK	0001	HIGHWAY ITEMS	23,500.000	0.000	23,523.000	23,523.000	0.000

Contractors

Contractor	Remarks
A & V CONSTRUCTION, CORP.	

FIGURE: COMMON EXCAVATION – PACKAGING REFERENCES

203.6 Borrow - Field Documentation, Measurement, and Payment.

This section describes the recordkeeping necessary to document and measure borrow required to meet the fill requirements of the contract.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: Specifications, Section 203.03, Unauthorized Use of Materials, and Section 203.04 General, require that no excavation suitable for embankment construction be hauled off the project. The Resident or the Inspector is to make note of wasted excavation and the nature of it, since the more excavation the Contractor removes from the project, whether authorized or not, the more borrow is needed to construct the embankments.

The Resident or the Inspector will keep daily notes in the Project Diary or the Inspector's Diary/Daily Report relative to the Contractor's operations. Name of the pit that borrow is being hauled from and station to station limits it is being placed, whether in the core of the embankment or in waste storage areas. These areas, which are beyond the 1: 1 slope from the finish shoulder break, are to be reserved for the placement of grubblings or other excavation not suitable for constructing the core of the embankment. The Contractor should not be allowed to place borrow in these areas if there is waste excavation available.

Ideally, the Contractor should complete all excavation operations prior to hauling borrow to the project. If he/she places borrow on the job before all excavation is complete, the Resident should advise the Contractor that he/she is doing so at the risk of having some borrow deducted from the final pay quantity at a later time. As stated previously, no excavation is to be removed from the project if it can be placed either in the core of the embankment or in waste storage areas. The case may arise, usually because traffic has to be maintained on the existing road, where borrow has to be hauled to the job before excavation is complete. The result is that good excavation is wasted; in this situation the Contractor is not penalized. Discussions relating to these matters must be noted in the Diaries.

Borrow diverted for the Contractor's own use must be documented as well; materials used to maintain a haul road or town road, or to grade the equipment yard is all to be deducted from borrow if the material comes from a sectioned pit.

Grade Check Book. As stated previously under Section 203.5 - Excavation, documentation of subgrade checks is a requirement of the Department, whether the operation is in a cut or in a fill. Refer to Section 203.5, Grade Check Book, for further discussion of grade checks.

For sample final quantity book entries ref page 67, for construction book entries ref page 82 and for inspectors diary entries ref page 90 & 91

Measurement and Payment

Borrow: While common excavation can be paid plan quantity, borrow cannot. An exception is when the plans require backfill behind abutments and around multi-plate pipes to be granular borrow or gravel borrow. Specifications, Section 203, Method of Measurement, allow backfill around bridge structures to be paid plan quantity.

When the Designer estimates the quantity of borrow required for the project, he/she makes assumptions that may or may not be representative of what actually happens in the field, particularly on bridge projects. Quantity of excavation estimated to be available for fills is, to some extent, guesswork. Some of the excavation may not be suitable for embankment construction or a situation may exist on the job that makes excavation not available in a timely manner; an example would be traffic maintenance on the existing roadway. The result is that the actual quantity of borrow used on the job is usually not what is estimated.

For these reasons, final quantity of borrow must be determined from actual measurements. The Resident will use the following methods or a combination thereof:

Cross Sections. By Standard Specifications, the contract bid price for borrow is based on the material being

measured in its original position, i.e., in the pit. When measured any other way, the quantity must be adjusted as explained below. Original cross-sections are taken in the pit after the Contractor has stripped the surface and before excavating and hauling operations begin. The Survey Crew should flag the pit limits to alert the equipment operators not to remove material beyond the outer limits of the original cross-sections. Final sections will be taken after the pit has been graded and before grubblings, loam, or other material that can support a growth of grass has been spread. Specifications, Division 105.8.6, addresses pit rehabilitation.

Borrow pushed up and beyond the edge of pit at its perimeter will be deducted from the overall quantity measured for payment. The Survey Section uses a "total station" computer program to take cross-sections and to compute quantities; a print-out of each cross-section is available.

Load Count. It is frequently not practical to figure borrow quantities by cross-sectioning the source. Since nearly all borrow pits are commercial pits and therefore are available to the public, it is nearly impossible for the Contractor to guarantee or even assure the Resident that all material taken out of a sectioned pit will be hauled to the job.

Load count, providing the total quantity measured is less than 5000 cm, offers an alternative to the cross-sectional method. There are two problems common to load counted material: trucks not being fully loaded and drivers reporting more trips than what they actually haul. For these reasons, it is advisable to assign an inspector or ticket taker to witness and to collect delivery slips for every load hauled. If, because of lack of personnel, this cannot be done, the Resident or Inspector assigned must do a random check of the Contractor's hauling operations. The Resident should do a "time study", i.e., determine how long it takes for a driver, or more than one, to make a round trip from the pit to the site, and also to visually observe if the trucks are fully loaded.

Section 203.18, Method of Measurement, Specifications, requires that borrow by load count must be reduced to 90 percent of the quantity so measured.

In-Place Measure. A third method of measuring borrow is to compute the quantity in its final position, more commonly called "in-place-measure". This method is particularly suited to bridge projects. The procedure to follow is to figure the total quantity in the embankment from the design template to original ground or to bottom of grubbing limits. The excavation placed in the fill would be deducted from the total embankment and the resulting figure would be swelled 15 percent for final payment.

If earth excavation that is placed in fills is measured in its original position, it will be shrunk 15 percent before being deducted from the total embankment quantity. If it is measured in its final position, i.e., in the embankment, it will be deducted at 100 percent of the quantity so measured. If it is measured load count, it will be shrunk 25 percent before deduction.

If rock excavation that is placed in fills is measured in its original position, it will be swelled 33 percent before being deducted from the total embankment quantity. If it measured in its final position or by load count, it will be deducted at 100 percent of the quantity so measured.

Borrow Deductions. When the Resident computes the final pay quantity of borrow, he/she must determine if any of the material should be excluded from payment.

Unless directed by the Resident, all usable excavation will be placed in the core of the embankment and all waste excavation will be placed in waste storage areas, either as shown on the plan cross-sections or as directed in the field. Only excess excavation can be hauled offsite. Borrow diverted for the Contractor's own use or placed in unauthorized areas will be at their expense. Specifications, Section 203.18 - Method of Measurement, states that material placed outside the embankment will not be eligible for payment.

For deduction purposes, the following situations are to be considered:

Borrow is placed ahead of excavation operations which results in a surplus of excavation: Common excavation and rock excavation wasted will be swelled 15 percent before deduction; reference is made to Section 203.04.

Excavation is hauled off the job instead of being placed in the embankment and then later replaced with borrow because of convenience and ease of operation to the Contractor: The quantity of excavation that could have been placed in the embankment will be deducted from borrow at 100 percent of the quantity so measured.

Excavation is placed in the embankment beyond the design template in concentrated areas as opposed to being distributed throughout all fills, thus creating "fat" slopes: Earth and rock excavation placed beyond the

pay limits defined in Section 203.18 - Method of Measurement, Specifications – 6", will be deducted from borrow at 100 percent of the quantity so measured.

Borrow is placed in embankments beyond the design template, the result being "fat" slopes: Quantity placed beyond the pay limits defined in Section 203.18 will be deducted from borrow. Deduction will be made at 100 percent of the quantity so measured.

Borrow is diverted for the Contractor's own use: Material used to dress the Contractor's equipment yard or a waste dump, or to upgrade a haul road or town road will not be included for payment. Deduction will be made at 115 percent of the quantity so measured; refer to Section 203.03 - Unauthorized Use of Materials, Specifications.

Final quantity for payment will be entered in the Final Quantity Book. Subtotals, and deductions making up the final quantity for payment will be entered in the Final Quantity Book and referenced back to source. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

206.5 Structural Excavation - Field Documentation, Measurement, and Payment.

This Section describes the recordkeeping necessary to document and measure the excavation of earth and rock required to install culverts, bridge abutments, and other structures.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Drainage Book, and Construction Book: The Resident or Inspector will keep notes describing the Contractor's excavation operations required for the installation of drainage, bridges, and other structures. These notes will describe location and final disposition of the material, whether on the job or off the job.

Documentation of installation of culverts, underdrain, catch basins, and manholes will be entered in the Project Diary. If the drainage is extensive, a Drainage Book should be set up prior to the work being done and all notes pertaining to drainage work will be entered in the Drainage Book. Reference is made to Division 900 of this Manual for further explanation of the Drainage Book. Undercutting to provide a stable foundation, bedding, excavating rock, and material used to maintain traffic will be noted and measured for payment.

Documentation of construction of bridge abutments, pier footings, wingwalls, retaining walls, multiplate pipes, and other major structures will be entered in the Project Diary or Construction Book. The Construction Book will be used if layout and/or field measurements and sketches are required. Typical measurements would be for rock excavation and undercutting. Division 900 of this Manual explains the Construction Book and how it is used.

Documentation of installation of other miscellaneous minor structures will be entered in the Project Diary or the Construction Book. The Construction Book will be used if layout and measurements for removal of rock or unstable foundation material are required.

For sample construction book entries ref page 84 & 86 and for inspectors diary entries ref page 89,90,91 & 93.

Measurement and Payment.

Drainage and Minor Structures: In areas of full width construction and reconstruction of shoulders, excavation for culverts, catch basins, and other minor structures is incidental from sub grade down to 12" below the flow line of the pipe or bottom of the base. Excavation required below that point for stable foundation or change in grade will be paid under the item "Structural Earth Excavation-Below Grade". That quantity will not be paid plan quantity; this figure is a "throw-in" and is not necessarily based on work anticipated to be done. Quantity for payment must be field measured. Measurements and sketches will be entered in the Drainage Book, signed and dated. Depth will be as directed by the Resident and width will be the limits defined in Section 206.04 of the Specifications and sheet #605(1) of the Standard Details for underdrain.

Rock excavation for drainage and other minor structures will be the quantity actually excavated to the pay limits defined in Section 206.04 of the Specifications. Measurements and sketches will be entered in the Drainage Book, signed and dated.

Bedding material will be computed to depth authorized beginning at the flow line of the pipe or bottom of the base in the case of catch basins; width will be as defined in the Specifications.

Major Structures: Section 206.04 of the Specifications states that final payment for earth excavated for bridge abutments and piers will be the quantity shown on the plans unless the structure is founded on ledge. In this case payment for earth and rock removed would be based on field measurements. Since top of ledge shown on the plans is not accurate, new ledge originals would be needed. Original cross-sections will be taken at right angles to the centerline of bearing at close intervals.

Quantity of earth will be figured vertically from original ground or roadway sub grade to top of ledge and horizontally to pay limits shown on the plans or to 18" beyond the footing. If actual top of ledge is lower than the elevation shown on the plans, earth excavated below that elevation will be paid at 1 1/2 times the bid price for structural earth excavation. Typically, elevation of top of ledge is shown on the plans as, for example: 26 +/- . Such a designation would be interpreted to mean that only earth excavated below elevation 25 would be paid at 1 1/2 times the price. Another example would be: if the elevation shown were 26.0+/-, earth excavated below 25.9 would be paid at 1 1/2 times the price. Likewise, if the elevation of bottom of footing is lowered due to change in design, excavation below, the original elevation shown would also be paid at 1 1/2 times the price.

If the plans call for excavating into ledge for the footing, the Contractor is allowed a pay tolerance of up to 12"

below the elevation of the bottom of the footing. Rock excavated and concrete placed below the 12" tolerance will not be paid. If the Resident directs the Contractor to remove rock below bottom of footing elevation because of a change in design or because of the soft nature of the ledge, it will be paid at 1 ½ times the bid price for structural rock excavation.

"Pay" boulders, defined in Section 203.01(b) of the Specifications, that are found partly within the excavation limits for drainage and major structures will be measured and computed for payment as follows: that portion estimated to be within the structural excavation pay lines will be paid as such and the remainder will be paid as common rock excavation.

There will be no payment for rehandling structural excavation; the bid price includes excavating, rehandling as many times as necessary, and placing in its final position, whether it be in the embankment, waste storage areas, or off the project.

Final quantities of structural earth excavation-below grade and structural rock excavation will be entered in the Final Quantity Book and labeled as such. References will be made, as appropriate, to the Drainage Book or Construction Book for measurements and computations.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Division 300 – Bases

304.5 Aggregate Base and Subbase - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure aggregate base and subbase on the project.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's aggregate base and subbase operations. Information recorded will be: name of pit the material is coming from, station to station limits where it is placed, and whether placed in one lift or two lifts.

The Resident is responsible for quality assurance testing; he/she must assure that a Technician from the Department is available to do the testing required. Tests the Contractor may take are not to be counted toward the total number needed; these tests are to be considered as quality control for the Contractor's benefit only. Reference is made to Division 900, Section 901.4, of this Manual for further discussion of "Minimum Testing requirements".

Gravel can fail gradation or density or both. Corrective action directed by the Resident will be documented; more compactive effort may be required or material failing in gradation may have to be removed.

Sections 304.03 and 304.04 of the Specifications requires the Contractor to place the material in two lifts, but he/she can be allowed to place it in one. Gravel placed in one lift must meet density requirements full depth and therefore the lower portion of the one lift will be tested. If it fails, the Contractor must take whatever action necessary to attain passing density full depth.

Grade Check Book: The Department requires that the Resident or Inspector do random checks of sub grade and top of gravel to assure that the Contractor is placing gravel within construction tolerances. Checks should be done between stations as well as on station. Reference is made to Division 900, Section 901.3 and to Division 200, Section 203.5 for further discussion of the Grade Check book.

For sample project diary entries ref page 64, for final quantity book entries ref page 69, for construction book entries ref page 81 & 82 and for inspectors diary entries ref page 91 & 92.

Measurement and Payment.

Final quantity for aggregate base and subbase can be figured by anyone or a combination of the following methods:

Plan Quantity. Quantity for payment can be plan quantity providing the Resident reviews Engineer's Estimate for accuracy and the work is done to the limits estimated. It is often the situation that side streets and mainline approaches and drives are changed to match field conditions; the Estimate should be adjusted to meet these field conditions as necessary. Payment by plan quantity shall be documented by written agreement in the form of a Resident's Work Order. The agreement should state that the plan quantity will be adjusted upward or downward if changes are made in the field. Changes will be measured by three dimensions or load count described below.

In-Place Measurement. If the estimated quantity has no basis, commonly referred to as a "throw in" figure, gravel for the project will have to be refigured. Typical factors should be used for mainline travelway and shoulders where possible. Three dimensional measurements and/or plan dimensions can be used for drives, approaches and intersection areas. Gravel used to backfill undercut areas or to provide bedding for drainage can also be measured and computed by three dimensions to limits authorized. For drainage, depth will be figured from flow line of the pipe and width will be figured to the lateral pay limits defined in Section 206.04 of the Specifications.

Load Count. Gravel can be measured load count if: there is not a large quantity involved and the work involves mostly traffic maintenance or matching into, existing material. By Specifications, gravel measured load count will be reduced 20 percent for payment to arrive at an equivalent quantity measured in its final position. Refer to Section 304.06 of the Specifications for clarification.

Final quantity for payment will be entered in the Final Quantity Book and labeled as such. Reference will be made to grade checks, measurements, load count delivery slips, and computations in the project records, as necessary. Measurements and delivery slip totals must be entered in a bound book which can be the Final Quantity Book or the Construction Book. Reference is made to Division 900, Section 901.3 of this Manual for further discussion of field books. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Item History to Date

MDOT 3/12/2007 11:36 AM
FieldManager 4.1a

Contract: 002852.10, KENNEBUNK

Item Description			Item Code	Prop. Line	Unit	Type	Unit Price
AGGR SUBB COURSE - GRAVEL			304.10	0080	M3	ORIGINAL ITE	16.00000
Authorized Quantity	Authorized Amount	Quantity Placed	Quantity Paid	Quantity Unpaid	Item Completed		
12,400.000	198,400.00	12,701.000	12,701.000	0.000	No		
Documentation			Attention	Notes			
All material coming from the Smith Pit in Biddeford			No	See Book #5, Grade check book for all notes on Finegrade checks			

Projects And Categories

Project	Project Description	Catg	Category Description	Authorized Quantity	Pending Changes	Quantity Placed	Quantity Paid	Quantity Unpaid
002852.10	KENNEBUNK	0001	HIGHWAY ITEMS	12,400.000	0.000	12,701.000	12,701.000	0.000

Contractors

Contractor	Remarks
A & V CONSTRUCTION, CORP.	

Figure: 304.10 ASCG PACKAGING REFERENCES

307, 309 & 310 Recycled Pavement - Field documentation. Measurement, and Payment.

This Section describes the recordkeeping necessary to document and measure the recycling of existing pavement.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's operations on the road and in the plant.

Full Depth Recycled Pavement. Field notes will include weather conditions, station to station limits of work, and description of equipment used: pulverizer, grader/spreader, rollers. The Inspector will also document inspection procedures and check measurements of work done, such as: depth of grinding operations, cross-slope, and density of the finished product. Any added aggregate or recycled pavement used as necessary to restore cross-slope will also be noted, tested, and measured for payment if required.

Plant Mixed Recycled Pavement, Foamed Asphalt & CIP require a QC/QA plan to be submitted. Field notes will be the same as for recycled pavement with additional documentation regarding plant inspections.

For sample final quantity book entries ref page 70.

Method of Measurement.

Final quantity of recycled pavement can be figured by either of the two following methods:

Plan Quantity. Quantity for payment can be "plan quantity" providing the estimated quantity shown in the Schedule of Items is reasonably accurate and work is done to the limits estimated. Payment by plan quantity should be documented by written agreement such as a memo or Resident's Work Order, between the Resident and the Contractor.

The agreement must stipulate that the plan quantity will be adjusted upward or downward if changes are made in the field. Quantities paid "plan quantity" will be documented by notes of inspection and acceptance entered in the Project Diary, or directly in the Final Quantity Book.

In-Place Measurement. If the estimated quantity is not figured accurately enough to pay as a final figure, the final pay quantity will be determined from field measurements, or will be refigured from the plans, or a combination of both. Length will be distance between stations and width will be field measured. Frequency of width measurements will depend on road width consistency. All measurements, and sketches if required, will be recorded in a Construction Book or directly in the final Quantity Book and signed and dated. Irregularly shaped areas such as ramp and side street approaches and intersections will be broken down into basic geometric shapes and measured by length and width. Dimensions taken from the plans and corresponding notes of inspection and acceptance also recorded in a Construction Book or the Final Quantity Book.

Added Material. If specified in the contract, material added to maintain cross-slope in areas not designated on the plans or in the construction notes will be paid separately under the item used. Measurement will be by load count reduced by 20 percent for final payment. Every load will be documented by a delivery slip that has been signed and dated at the point of delivery by the Resident or Inspector. Daily totals will be entered in the Final Quantity Book. Refer to Section 304.06 - Method of Measurement of the Specifications and Special Provisions for further explanation of shrinkage factors.

The Special Provisions, Section 108 should also be reviewed for the incorporation of Asphalt Pay Adjustment and the procedure how to determine the adjustment.

Final Quantity. Final quantity for payment will be entered in the Final Quantity Book and so labeled. References will be made to statements of inspection and acceptance, plan dimensions, field measurements, and delivery slips, as necessary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Division 400 – Pavements

401.5 Hot Mix Asphalt Pavement - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure hot mix asphalt placed on the project.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Paving Report, Tally Sheet, Test and Data Reports: The Resident or Paving Inspector will document on a daily basis, the Contractor's paving operations. He/she will keep notes regarding: station to station limits of paving, inspection problems, observations regarding quality control, equipment, personnel, weather, and temperatures. It is strongly suggested that the Paving Inspector use the Paving Report. This document has a preprinted format that serves as a reminder to record all of this information. This report is to be filled in on a daily basis, prior to the start of the next day. Ticket taker will keep a tally of all loads delivered by noting delivery slip number, the location where placed and sign the delivery slip upon delivery. The primary purpose of the Truck Tally Sheet is to control the yield and to determine which loads are involved if a problem area develops. If the Resident can isolate the loads, he/she can correlate the questionable material with specific batching data on record in the plant and in this way the cause for the bad mix may be determined.

Contract Specifications state that quality of mix will be controlled by following the "QC/QA" requirements of Sections 401 and 106 of the Specifications. The Contractor will provide quality control by testing and inspection and will propose their quality control procedures by submitting a Quality Control Plan to the Resident for Departmental approval. Specifications, Section 401 outline the basic requirements of the Plan and also procedures for quality assurance testing that the Department will perform.

Section 401 of the Special Provisions defines the quality control and quality assurance requirements at three levels: Methods A, B, and C. Method A provides for pay incentives and disincentives. Method B provides for disincentives only. Quality control and quality assurance procedures are the same for Methods A and B.

Method C is used for mixes with quantities less than 250 tons, sidewalks, drives, and other mixes behind the curb that are generally referred to as "hand-placed". Quality control requirements are not as stringent as for Methods A and B. Section 401 defines the types and frequencies of QA tests to be taken.

Special Provision, Section 403, designates which method is to be used for a particular pavement item, usually based on quantity. To better understand quality control, quality assurance, and Methods A, B, and C, the contents of Specifications - Section 401 and Special Provision - Section 403 should be thoroughly read by the Resident and the Paving Inspector before paving operations begin. All quality control records and quality assurance records will be filed together in the Testing File daily.

For sample final quantity book entries ref page 71 and for inspectors diary entries ref page 93.

Measurement and Payment.

The delivery slip for each load of hot mix asphalt delivered to the project will be signed at the point of delivery by the Resident, Inspector or Ticket Taker. Daily total quantities for each pay item will be documented by a cover slip signed by the Contractor's Representative and the Resident or Inspector, and will be entered in the Final Quantity Book; all entries will be signed and dated. Delivery slips will be kept in the Resident's field office until the records are submitted to the Project Review Unit for final review. At that time the weigh slips may be discarded, but the cover slips will be kept as part of the project records.

Occasionally a load will be split between two pay items. Quantities will be determined by fractions noted on the slip, example: "pay 1/3 load as hand-placed". A rejected load will be documented by a note on the slip stating the reason such as: segregation, dry load, or low temperature.

Check weighing to verify the accuracy of the scales will be done twice during every five days of production. Section 401.085 of the Specifications explains the check weighing procedures.

Pay factor computations for incentives, disincentives, and penalties will be part of the Testing File but final cost figures will be entered in the Final Quantity Book with the digits 01 and descriptions added to the pertinent pay item number, for example: 403.20801 Incentive-HMA-9.5 mm.

Final quantity for payment will be figured in the Final Quantity Book from daily totals. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

Division 500 – Structures

501.5 Foundation Piles - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document the installation and measurement of foundation piles.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Pile Driving Inspector will keep notes describing the Contractor's pile driving operations; personnel, equipment, working hours, and which abutment or pier being worked will be recorded.

The Resident will make a note in the Project Diary of the following: approval of the pile driving equipment, approval of driving procedures, approval of driving hammer, inspection and approval of pipe piles before Contractor places concrete. Sections 501.03 - Equipment and 501.04 - Driving Procedures and Tolerances of the Specifications address, in detail, equipment and driving of piles.

The Resident will document static and dynamic load testing. Static load testing: approval of testing procedures and the results will be recorded in the Project diary. Dynamic load testing: a report of test results will be submitted to the Resident and placed in the Testing File. Specifications, Section 501.07 - Pile Testing and Acceptance explains the requirements of load testing.

Pile tips and pile splicing procedures must be approved by the Resident. Notes will be made in the Project diary. Reference is made to Section 501.09 of the Specifications.

The Resident or the Pile Driving Inspector will complete the following records and make them part of the Final Quantity Computations Book:

Pile Layout Diagram. The layout diagram is a sketch of the outline of the foundation and the batter, identification, and location of each pile by number.

Pile Driving Report. This report identifies each pile driven by number, location, driving length, pay length, and cut-off length. It also gives the type of hammer and other data pertinent to the operation. This report must be kept current with the work and must be signed by the Inspector.

Report of Record Pile. This report is a driving log of a pile; it is an indication of the energy required and the resistance encountered during the driving operation. Two record piles are required for each foundation unit. These reports must also be signed and dated.

For sample project diary entries ref page 87 and for inspectors diary entries ref page 94.

Measurement and Payment.

Foundation Piles. Payment for piles furnished will be based on quantities ordered in writing by the Resident. Cut-off piles in excess of 10 feet for each piece will become property of the Department. A Special Provision in the Contract will designate how the excess will be disposed.

Payment for piles installed will be determined from pay lengths shown on the Pile Driving Report; pay length is the difference between the driving length and the cut-off length. In the case of pipe piles, there is no payment for concrete in them.

Splices and Tips. These will be recorded for payment on the Pile Driving Report.

Loading Tests. These tests will be paid per each; reference will be made to appropriate Diary notes and test results for documentation of quantities paid.

All final quantities for payment for piles delivered, piles driven, load tests, splices, and tips will be entered in the Final Quantity Book. References to documentation of quantities will be made to pile driving reports, to test results, and to entries in the Project Diary or Inspector's Diary for statements of approval. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

502.5 Structural Concrete - Field Documentation Measurement and Payment.

This Section describes the recordkeeping necessary to document and measure concrete for major and minor structures.

Field Documentation. -

Project Diary, inspector's Diary/Daily Report: The Resident or inspector will keep notes describing the Contractor's pre-placement and placement activities, such as: excavation and preparation for erection of forms and installation of reinforcing steel. Equipment, personnel, weather, temperatures, and location of work site will be recorded also.

It is policy of the Department that the Inspector document in writing the inspection and approval of forms and reinforcing steel before a concrete placement. The Contractor is also required to do a "dry run" with the screed machine before the deck placement. The Inspector will note their observations during the dry run and also measure and record thickness of the deck slab as the concrete is placed. Notes can be entered in the Project Diary or Inspector's Diary or directly in the Final Quantity Book.

Concrete for sign bases, light bases, traffic signal bases, and other minor structures will be documented by Inspector's statements verifying that placement of forms, steel cages or mesh, anchor rods, and conduit have been checked and accepted.

For sample final quantity book entries ref page 72 & 73, for construction book entries ref page 84 and for inspectors diary entries ref page 89.

Measurement and Payment.

Final quantity for payment will be lump sum or by the cubic meter computed in-place as specified in the Schedule of Items in the Contract Book.

Lump Sum. This method of payment is specified in the bid schedule if the dimensions of the structure, be it abutment, pier, or deck, are clearly defined and not subject to change in the field. Final quantity for payment will be entered in the Final Quantity Book as "Lump Sum" and reference will be made to inspection and approval of forms, dry run of screed machine, check of the slab thickness, as appropriate.

Cubic Meter. Concrete paid by the unit is usually specified when the dimensions of the structure are not clearly identified, as when the footing is on ledge, or when the work consists of extending an existing abutment or placing a new footing on dry laid granite. In this situation, concrete is measured by delivery slip. The Inspector will sign the slip when the concrete is delivered to the site and he/she will also note amount wasted if any. The note will say, for example: "wasted 1!4 cu meter", Quantity of concrete wasted shall be co-signed by the Contractor's Representative to show agreement with the amount in question. Delivery slip daily totals will be entered in the Final Quantity Book. The concrete may also be measured in-place providing a sufficient number of field measurements are taken; measurements will be entered in the Construction Book. All delivery slip totals and field measurements will be signed and dated.

Seal Concrete. When the item Structural Concrete - Placed Under Water, also known as "seal concrete", is bid by the cubic meter, and the distribution slab above it, part of the item Structural Concrete - Piers or Abutments, is also bid by the cubic meter, the following shall apply:

1. Top of seal is below plan elevation: Quantity of distribution slab is figured from plan measurements for payment and the difference between the plan measured quantity and the delivery slip quantity is paid as seal concrete. Presumably the delivery slip quantity for the distribution slab will be greater than the plan measured quantity.
2. Top of seal is above plan elevation: Quantity of distribution slab is determined from delivery slips for payment and the difference between the plan measured quantity and the delivery slip quantity is paid as seal concrete. Presumably in this case, the delivery slip quantity for the distribution slab will be less than the plan measured quantity.

To determine whether top of seal is above or below plan elevation, check shots will have to be taken to determine the approximate elevation of the seal.

Occasionally the Schedule of Items will specify concrete to be paid by the cubic meter as opposed to lump

sum even though the dimensions of the substructure are clearly shown on the plans and will not change in the field. In this situation the concrete can be paid plan quantity providing the estimated amount is figured to the same degree of accuracy as it would be for final payment. The Resident will check the calculations and so note in the Final Quantity Book.

Where a footing is founded on ledge, concrete placed more than 12" below the designated bottom elevation of the footing will not be included in the pay quantity of concrete figured in-place. Likewise, if the concrete is figured by load count, quantity below the 12" line will be figured in-place and deducted from the total delivery slip quantity.

Since final ledge cross-sections will have already been taken to figure structural rock excavation, these same cross-sections will be used to compute quantity of concrete for payment or to figure quantity for deduction.

If the item "concrete fill" is added to the contract by work order, the lateral pay limits of the fill must be specified in the work order and the final quantity must reflect a deduction or non-payment for concrete placed beyond pay limits.

Contract Specifications stipulate that quality of concrete will be controlled by following the "QC/QA" requirements of Sections 502 and 1 06 of the Specifications. The Contractor will propose their quality control procedures by submitting a Quality Control Plan to the Department for approval. The Contractor will do quality control testing and the Resident will do quality assurance testing.

There are basically three levels of QC/QA: Method A, Method B, and "Non-QC/QA "; Special Provisions will specify the method for each item. Method A provides for incentives and disincentives; Method B provides for disincentives only. The Non- QC/QA method is used when the concrete in question must only meet the minimum quality standards in the Specifications. Examples are: armored joint repairs, surface repairs to wingwalls, bridge decks, abutments, piers, or box culverts, and modifications to concrete endposts. Cylinder breaks below what is allowed in the Specifications will be reason for either rejection of the concrete, or negotiation of a price credit. Quality control and quality assurance are explained in detail in Sections 106 and 502 of the Specifications.

Final quantity for payment will be entered in the Final Quantity Book: References will be made to source documentation, such as: Final Quantity Computations Book, delivery slips, form checks, and reinforcing steel checks. Delivery slip quantities and form checks, and re-steel checks will be entered in the Construction Book or directly in the Final Quantity Book.

Quality control records, quality assurance records, and pay factor computations will be filed in the Testing File for each day's placement. Incentive and disincentive computations and cost figures will be entered in the Final Quantity Book with digits 01 and descriptions added to the pertinent pay item number, for example: 502.2101 Incentive-Str Conc Abuts & Ret Walls. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

503.5 Reinforcing Steel - Field documentation Measurement and Payment.

This section describes the recordkeeping necessary to document and measure reinforcing steel delivered and placed in the structure.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress on this item; also to be noted are crew, equipment, weather, and location work is taking place, i.e., abutment, footing, pier, deck, or sign base.

When the steel is delivered, the Resident/Inspector will inspect the material for condition and proper storage. He/she will record inspection and acceptance in the Project Diary or directly in the Final Quantity Book. Delivery invoices will be kept as part of the project records.

When the Contractor places the re-steel, the Resident/Inspector will inspect for bar size, length, splice assembly, and proper positioning within the forms. He/she will document acceptance of reinforcing steel and splices by notes entered in the Project Diary or directly in the Final Quantity Book. Inspection will also be noted in the project records for re-steel placed in minor structures, such as traffic signal bases, sign bases, or concrete sidewalks.

Measurement and Payment.

Quantity for payment of reinforcing steel delivered and placed will be the quantity shown on the Steel Schedule in the contract plans, checked and corrected as necessary.

Final quantities of re-steel will be entered in the Final Quantity Book, signed and dated. Reference will be made to the Steel Schedule, computations in the Final Quantity Computations Book, and to statements of inspection and acceptance in the Project Diary or other project records.

Final quantity of splices will be entered in the Final Quantity Book. Reference will be made to the plans for the number paid; additional splices requested by the Contractor and approved by the Resident will not be measured for payment. Reference will also be made to Project Diary entries for documentation of splices installed and accepted.

Steel mesh placed in sidewalks, sign bases and traffic signal bases will not be measured for payment but is included in the bid price per unit. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

504.5 Structural Steel - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document payment, delivery, and erection of structural steel.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will record, on a daily basis, the Contractor's progress in the erection of structural steel. He/she will keep notes regarding, but not limited to: the installation of beams, splices, diaphragms, and bearing assemblies. Crew, equipment, weather, and location, i.e., which span, girder, or abutment being worked on and lot numbers of materials will be noted.

Documentation for payment will be as follows:

Fabrication and Delivery. When the steel is brought on the job, the Resident and or Inspector will identify and record which girders, braces, bearing assemblies, and other hardware are delivered, and he/she will inspect for fabricating and shipping defects. Items to consider are:

1. Full bearing of bearing stiffeners.
2. Web buckles in welded girders within tolerance.
3. Welds in proper locations.
4. Burrs and roughness removed.
5. No loose or scaly rust in splice areas.

Notes will be made in the Project Diary or directly in the Final Quantity Book, signed and dated.

The Department will perform through the services of a private Testing Agency, shop and mill inspection of structural steel fabrication. The Fabrication Engineer will forward a copy of the Inspection Reports to the Resident. In addition, the Inspector should become familiar with the many other details of inspection explained in Section 504.4 of this Manual.

Erection. The following tests will be done and documented in the project records at the time steel is erected:

Rotational Capacity Test. Specifications, Sections 504.28 and 713.02 require that a "rotational capacity" be done on two sets of nuts, bolts, and washers in every lot delivered to the project. This test determines the compatibility of the components. The results will be noted in the Project Diary or directly in the Final Quantity Book.

Bolt Tension Test. Specifications require the Contractor to install and test bolt tension in girder splice connections and diaphragm/cross-brace connections using the following methods:

1. Calibrated Wrench Method. If the Contractor makes use of a calibrated torque wrench to do QC testing, the Resident or Inspector will use the Calibrated Wrench Method to perform QA testing. Ten percent of all bolts or a minimum of two bolts per connection in all girder splices will be checked and noted on the splice inspection diagram.
2. Turn of the Nut Method. If the Contractor uses this method, the Inspector will witness the tightening of all bolts in the girder splices and so note on the splice inspection diagram. This inspection procedure should be verified weekly with a calibrated torque wrench. For diaphragm and cross-brace connections, the Inspector will observe the Contractor doing the turn of the nut method is acceptable; other test procedures are not required.
3. DTI Method. The DTI method of installation will be checked by the Inspector with a "feeler gauge". The Inspector will further verify the accuracy of the feeler gauge by checking bolt tension with a calibrated torque wrench on a weekly basis.
4. Inspection of Tension Control Bolts. The Inspector will inspect the bolts to verify that the spline has been snapped off. A spot check with the calibrated torque wrench will be done every week as required for methods noted above.

Departmental policy requires that the Inspector verify bolt tension in girder splices and cross-brace and diaphragm connections. Any of the above methods will be used and the results will be recorded in the Project Diary, Construction Book, or in the Final Quantity Book. On a multi-span structure, a splice layout diagram is suggested to keep account, on a daily basis, of which splices have been checked and accepted; notes will be made directly on the diagram. This sheet will become part of the project records. An overview of the structural steel layout, such as the one found in the contract plans may be used.

Measurement and Payment.

Final quantity for payment will be entered in the Final Quantity Book; references will be made to field inspections, rotational capacity tests, bolt tension tests, and other notes of inspection. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

505.5 Shear Connectors - Field documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure for payment, stud welded shear connectors.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes documenting the Contractor's progress on this item; crew, equipment, and location of work, i.e., which span and which girder, will be noted. Field welding will be done by a prequalified welder, as required under Section 504.49 of the Specifications.

The Resident or Inspector will inspect all shear connectors to assure an acceptable 360 degree weld and will also perform the "bend test" described in Section 505.04 of the Specifications. These inspection procedures will be recorded in the Project Diary or directly in the Final Quantity Book.

Measurement and Payment.

Quantity for payment, lump sum, will be recorded in the Final Quantity Book, signed and dated. Reference will be made to statements of inspection and acceptance in the project records. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

507.5 Railings - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping necessary to document and measure for payment, the installation of bridge railing.

Field Documentation

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes documenting the Contractor's progress on this item. Crew, equipment, and location of work will be noted, for example: which span if a multi-span structure, and which side, left or right, will be recorded.

Measurement and Payment.

If the item is paid lump sum, notes of inspection and acceptance will be made in the Project Diary or directly in the Final Quantity Book. If the item is paid plan quantity, the Resident will check the accuracy of the computations and will refigure the quantity from the plans if necessary. He/she will also make entries in the Project Diary or Final Quantity Book relative to inspection and acceptance. If the item is paid by the unit, field measurements will be entered in the Construction Book or the Final Quantity Book, signed and dated.

Final quantity for payment will be entered in the Final Quantity Book, and referenced to source documentation, such as: field measurements, plan calculations, or statements of inspection and acceptance, as appropriate.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.

508.5 Membrane Waterproofing - Field Documentation. Inspection and Payment.

This Section describes the recordkeeping required to document and measure the installation of membrane waterproofing on bridge decks.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's preparation and installation of membrane waterproofing on bridge decks. Crew, equipment, weather conditions, and temperatures will be noted. Manufacturers' names of primer, membrane, and mastic will be recorded and verified with the Department's Qualified Products List before approval for use. Acceptance of the item after work is completed will be recorded in the Project Diary.

For sample inspectors diary entries ref page 93

Measurement and Payment.

Final quantity for payment will be lump sum entered in the Final Quantity Book. Reference will be made to notes of inspection and final acceptance. **All calculations and data entries must be signed, dated, and checked; the checker must sign and their entries.**

509.5 Structural Plat Pipe and Arches-Field documentation, Measurement and Payment.

This Section describes the recordkeeping required to document and measure the assembly and installation of structural plate pipes and pipe arches.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress of the installation of the structural plate pipe. Notes will be made regarding, but not limited to: assembly in the dry or in the trench, excavation, bedding, torque checks, stream diversion, cofferdams, and backfilling. Crew, equipment, and weather will also be noted.

To document payment for the item, the Resident/Inspector will inspect and note acceptance of bedding and will check the tension in 10 % of the bolts using a calibrated torque wrench. Bolts are to be torqued to 100-300 ft-lbs. A wrench should be available from the Contractor.

For sample inspectors diary entries ref page 94.

Measurement and Payment

Final quantity for payment will be lump sum and will be entered in the Final Quantity Book, signed and dated. Reference will be made to notes in the Project Diary that document inspection and acceptance of bedding and the checking of bolt tension. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

There is no separate payment for excavation. Sections 206.01 (a) and 206.04(a) of the Specifications state that payment for excavation is incidental to the price bid for the structure. The quantity of granular borrow for payment will be that shown on the plans; reference is made to Section 203.18, second paragraph, of the Specifications.

510.5 Special Detour - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document and measure for payment the installation of a detour on the project.

Field Documentation.

Project Diary, Inspector's Diary/Inspector's Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress in the construction of the detour. The Inspector must be familiar with the contract Specifications, Section 510, to assure that the detour has been designed and constructed according to plan. Acceptance, maintenance, satisfactory removal, and clean-up of the site will be noted. Crew, equipment, and weather conditions will also be recorded.

Measurement and Payment.

Final quantity for payment will be lump sum and will be entered in the Final Quantity Book, signed, and dated. Reference will be made to notes of inspection, acceptance, and disposal recorded in the project records. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

Departmental policy is: If, during removal of the detour, the Contractor uses some of the excavation as permanent fill and if the use of this excavation does not cause a waste of usable excavation elsewhere on the project, the material in question will be measured and paid as common borrow.

511.5 Cofferdams - Field Documentation. Measurement. and Payment.

This Section describes the recordkeeping required to document and measure the installation, maintenance, and removal of cofferdams.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep a record describing the inspection and acceptance Contractor's work and submittal, approval and adherence to their Water Pollution Control Plan. Type and size of cofferdam, type of pumping operations and adequacy of the sedimentation basin and sedimentation control will be noted.

For sample final quantity book entries ref page 76, inspectors diary entries ref page 93 & 94.

Measurement and Payment.

Final Quantity Book: Final quantity for payment, lump sum, will be entered in the Final Quantity Book, signed and dated. References will be made to Project Diary entries that document acceptance of the item. The item is not accepted until the removal and clean-up of the cofferdam(s), Sedimentation Basin(s), and pump(s) has been disposed in a manner satisfactory to the Resident. Payment is made regardless of the extent of work required to build the cofferdam. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

513.05 Slope Protection - Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's progress on this item. Preparation for placing concrete or crushed stone as called for on the plans, i.e., setting grades, excavating as necessary, compacting the slope, as well as crew, equipment and weather will be recorded.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book and referenced to field measurements or plan dimensions. Measurements and calculations will be entered in the Construction Book, signed and dated. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

515.5 Protective Coating for Concrete, Surfaces - Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will record the Contractor's work activities on this item such as surface preparation and condition before applications, note the name of manufacturers material being used, verification of the material with the Departments Approved Product list, application rate of each coat, and notes of inspection and acceptance, crew, equipment, time of each application and weather conditions will also be documented.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be by the square meter or lump sum. Total units will be computed from field measurements or from dimensions scaled from the plans. Measurements, dimensions, and calculations will be entered in the Construction Book and the total transferred to the Final Quantity Book. Lump sum will be entered directly in the Final Quantity Book.

Final quantity for payment will be signed and dated. References will be made to measurements, calculations, and notes of inspection and final acceptance. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

518.5 Rehabilitation of Structural Concrete - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's activities on this item; crew, equipment, weather conditions, location of work, i.e., which lane and which span if appropriate, will be recorded. Also to be documented are: name brand of patching material, bonding grout, and verification of the material with the Departments Approved Product list.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be determined from field measurements recorded in the Construction Book, signed and dated. Rehabilitation of Structural Concrete can involve one or a combination of three items: above re-steel, to re- steel, or below re-steel. If these items overlap in area, the item involving the largest surface area should be measured first and should be all encompassing, i.e., include the other items. These other items should then be measured after and deducted from the largest area. This method of measurement will avoid confusion and result in greater accuracy.

The final quantity will be entered in the Final Quantity Book and referred to field measurements in the Construction Book. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

520.5 Expansion Devices. Non-Modular- Field Documentation, Measurement, and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will make notes regarding: type of seal used, whether gland or compression, manufacturer's name, preparation of surface areas prior to installation, name of lubricant or sealant, and other Specifications requirements. Crew, equipment, weather conditions and temperatures will also be recorded.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book by the unit. Reference will be made to appropriate Diary entries that document inspection and acceptance. **All calculations and data entries must be signed, dated and checked; the checker must sign and date their entries.**

523.5 Pot Bearings - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will inspect and note approval of : 1) when the bearings have been delivered to the site and properly stored 2) when the bearing area has been prepared; 3) when the holes are drilled and the anchor bolts grouted in place 3) note the manufactures name and verification of grout on the Department Approved product list 3) when the preformed pads, plates, and bearings are set; and 4) when the temperature adjustments have been made and the sole plates are welded to the girders. Any or all of these steps may be combined along with a final acceptance of the work.

Approved shop drawings, shop inspection reports and test results will be forwarded to the Resident by the Fabrication Engineer in advance of delivery of the bearing assemblies to the site.

Measurement and Payment.

Final Quantity Book: Final quantity for payment bid and measured by the unit for each assembly will be entered in the Final Quantity Book. References will be made to notes of inspection and acceptance of seating areas and test results for the grout. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

525.5 Granite Masonry - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Dairy/Daily Report: The Resident or Inspector will note inspection and acceptance of granite stones, anchors, mortar, and caulking material. He/she will also inspect and note the Contractor is preparing the areas prior to setting the stones.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be calculated from field measurements or plan dimensions recorded in the Construction Book. Final quantity will be entered in the Final Quantity Book, signed, dated, and referred to notes of inspection and acceptance in the Project Diary. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

526.5 Concrete Barrier - Field Documentation Measurement and Payment

Field Documentation.

Project Diary, Inspector's Diary/Daily Report: The Resident or Inspector will note when the type of barrier installed, the inspection and acceptance of forms and re-steel. Sometimes this item is pre-cast. In this situation, refer to the inspection reports written by the Inspector at the plant at the time the barriers were cast. When it is necessary to reset, a note of a spot check of the dimensions for plan conformity and will also inspect for location as shown in the traffic control plan or other contract documents.

Measurement and Payment.

Final Quantity Book: Final quantity for payment will be lump sum or by the meter.

If the Temporary Concrete Barrier is measured and paid by the linear foot, measure the total length acceptable and enter it directly in the Final Quantity Book. If the item is measured and paid Lump Sum, enter the "Lump Sum" in the Final Quantity Book.

Permanent Concrete Barrier Type II, IIIa, and IIIb will be measured for payment by Lump Sum complete in place and entered directly in the Final Quantity Book.

Permanent Transition Concrete Barrier will be measured by each barrier connecting bridge rail to guardrail complete in place and entered directly in the Inspectors Daily Report or the Final Quantity Book.

The final figure will be entered in the Final Quantity Book, signed, dated, and referenced to Diary entries for inspection and acceptance and to field measurements recorded in the Construction Book if the item is measured by the unit. **All calculations and data entries will be signed, date, and checked; the checker will sign and date their work.**

Division 600 – Miscellaneous Construction

603.5 Pipe Culverts and Storm Drains

604.5 Manholes and Catch Basins

605.5 Underdrain

Field Documentation

Drainage Book, Construction Book: The Resident or Inspector will keep drainage installation notes in the Drainage Book if the drainage is extensive, or in a Construction Book. If the drainage is a minor item in the contract. Section 901.3 - Field Books in Division 900, of this Manual describes in more detail the contents of these fieldbooks.

The Resident or Inspector should note the inspection of the material as it arrives on the project to insure that the material meets specifications, fits the application and is free of damage from delivery. The installation notes should include the inspection of line and location, grade, special connections, bedding & backfill material and compactive effort.

The Resident or Inspector will note the placement of any excavated material that is not used for backfilling. Excavated material should not be wasted unless there is no possible use for it on the project.

For sample project diary entries ref page 63 and for inspectors diary entries ref page 90 & 91.

Measurement and Payment

Excavation to install drainage is incidental to the item except for rock and excavation “below grade”, defined in the Specifications. If a boulder or a concrete obstruction measuring two cubic meters or more is encountered in the excavation, that portion within the limits of the trench is paid as structural rock and the portion outside the limits is paid as common rock excavation. Portions within and outside the trench limits can be estimated in fractions, example “ 1/2 boulder outside trench”.

In a “full construction” area, if a portion of the boulder or concrete is above subgrade, that quantity will be paid as rock excavation and deducted from common excavation.

Underdrain special connections (elbows, wyes or tees) will be counted and 3 feet added per connection to the overall length of the run of pipe.

After acceptance of the catch basin or manhole, the height from floor to top of grate should be measured and recorded for final payment. Units up 2.5 meters [8 ft] will be 1 each. One fifth of a unit [one eighth of a unit] will be added for each additional 0.5 meters [1 ft] over 2.5 meters [8 ft] measured to the nearest 0.5 meters [1 ft]. Rebuild, alter and adjust items are measured as 1 each.

Section 206.5 in Division 200 of this Manual further describes structural excavation for drainage.

Final Quantity Book: Final quantity for payment will be by the linear measurement. The final figure will be entered in the Final Quantity Book, signed, dated, and referenced to Diary entries for inspection and acceptance and to field measurements recorded in the Construction Book if the item is measured by the unit.

All calculations and data entries will be signed, date, and checked; the checker will sign and date their work.

606.5 Guard Rail - Field Documentation. Measurement. and Payment.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, Guardrail Book: The Resident or Inspector will document the Contractor's progress on guard rail items. If guardrail work on the project is extensive and if several items are involved, for example: remove, modify, and reset, or adjust, or remove and reset, the Resident should set up a "Guardrail Book". Each run of guardrail to be worked on will be entered in this book primarily by location, i.e., station to station, left or right, and further identified by type of work to be done, whether remove, modify, and reset, or adjust, etc. As a run is completed and accepted, it will be so noted by the Inspector and dated.

All of the above documentation can be entered in the Construction Book if guardrail is not a major item in the contract.

Measurement and Payment

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to source documentation in the Guardrail Book, or in the Construction Book for lesser quantities.

Final quantities will be field measured or figured from station to station. **All calculations and data entries must be signed, dated, and checked; the checker must sign their entries.**

609.5 Curbing- Field Documentation. Measurement. and Payment.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, or Construction Book: The Resident or Inspector will note the Contractor's progress on these items; approximate station to station limits of work, crew, equipment will be recorded and notes of inspection and acceptance.

Notes of inspection will include, in the case of vertical curbing, the condition of the curbing when it arrives on the project to insure size and tolerance specification. Notes will also include the bedding and backfill material and line and grade.

Field measurements will be entered directly in the Final Quantity Book or in the Construction Book after the curb is complete, accepted and installed. If the curbing is extensive, the Resident should set up a "Curb Book" or at least dedicate a part of the Construction Book before the Contractor begins work. The location of each item of curb, i.e., "new", "reset", or "circular", and terminal, should be identified by sketches, station to station limits, left or right shall be noted.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to measurements.

For sample project diary entries ref page 64.

Measurement and Payment

No separate payment is made for excavation to install curb, whether new or reset. Excavation is incidental to the curb item or to roadway excavation. There is no payment to remove existing curb; only curb that is reset is measured for payment. Removal of existing curb that is not used is incidental to other items in the contract.

All calculations and data entries will be signed, dated, and checked; the checker must sign and date their work.

610.5 Stone Fill. Rip Rap, Blanket. and Stone Ditch Protection.

Field Documentation

Project Diary, Inspector's Diary/Daily Report, Construction Book: The Resident or Inspector will make notes documenting progress of work on these items. They will record source of material, whether rock from within the excavation limits on the project, pit tailings, or rock quarry.

Measurements, sketches, and computations will be recorded in the Construction Book or directly in the Final Quantity Book.

Final Quantity Book: Final quantity for payment will be entered in the Final Quantity Book, signed, dated, and referenced to measurements and calculations. Quantities will be determined from surface area measurements to limits authorized by the Resident and to depths shown on the plans.

If riprap or stone fill is placed under water or on rough, irregular ground as required by the Resident or called for on the plans, quantity for payment can be measured by delivery slip with no reduction in volume. Reference is made to Section 610.05 of the Specifications.

Measurement and Payment

If the source of material is rock excavation, there will be no deduction from borrow, even though rock excavation is designated for use in the embankment, i.e., even though the project is a "borrow" job. Specifications, Division 100, Section 104.3.13 allows the use of ledge for items designated under this Section without deduction from borrow.

There will be no payment for excavation beyond the face of riprap, stone ditch protection, and stone blanket; only the excavation from original ground to face of the finished slope is allowed, i.e., excavation is incidental to riprap where rock is actually placed. More detailed explanation is given in Section 610 of the Specifications.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

615.5 Loam. 616.5 Sod. 618.5 Seed. 619.5 Mulch - Field Documentation. Measurement. and Payment.

These Sections describe the recordkeeping necessary to document and measure for payment loam, sod, seed, and mulch placed on the project.

Field Documentation.

Project Diary, Inspector's diary/Daily Report: The Resident or Inspector will keep notes describing the Contractor's loam, sod, seed, and mulch operations. They will record location of areas worked, personnel, equipment, and weather conditions. Depth of loam will be spot checked and recorded; loading of the hydroseeder with seed, lime, fertilizer, and mulch will also be documented.

Contract Specifications require that, at the Resident's directive, a second seeding be applied within 60 calendar days of the first seeding at the Contractor's expense if there is no acceptable growth of grass at the first seeding. The Resident must notify the Contractor before the end of the 60-day period for the Specifications requirements to remain valid. Reference is made to seed Specifications in the Contract Book for further clarification.

Measurement and Payment.

Final quantity for payment will be plan quantity or the quantity determined from measurements.

Plan Quantity. Specifications state that final payment for seed and mulch will be based on the quantities shown in the Schedule of Items if estimated areas agree within 15 percent of actual areas. A review and check of the Engineer's Estimate for reasonableness is an acceptable way to verify the quantity shown in the Schedule of Items. The plan quantity will be adjusted, upward or downward, if changes are made in the field.

Measurements. If the plan quantity is inaccurately figured or has no basis, i.e., is a "throw in" amount, quantities of seed and mulch will be determined from field measurements or from dimensions scaled off the plans.

The accuracy and frequency of measurements will depend on the project. On a rural overlay job, station-to-station limits and typical widths scaled off the plans or field measured are acceptable. On an urban job, areas will be divided into common shapes and field measured by length and width.

Loam and sod will be field measured. Field measurements and scaled measurements will be entered in the Construction Book, signed, and dated. Final pay quantity will be entered in the Final Quantity Book and labeled as such, signed and dated; references will be made to source documentation such as measurements and loading of the hydroseeder. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their entries.**

626.5 Foundations. Conduit, and Junction Boxes for Highway Signing. Lighting, and Signals - Field Documentation. Measurement. and Payment.

Field Documentation.

Project Diary, Inspector's Diary/Daily Report, Sign Book: The Resident or Inspector will keep notes regarding the Contractor's progress of work on the installation of foundations, poles, signs, lights, and traffic signals. The Resident or Inspector will document inspection and approval of forms, re-steel or steel wire mesh, anchor rods, and conduit in the foundation units.

The Resident or Inspector should keep a log of foundations installed, lengths of conduit buried, junction boxes sign locations, signal support poles and light pole foundations and documented in an Inspectors Diary or Construction book

If the project is primarily a signing or lighting job, the Resident should set up a "Sign Book" before the Contractor begins work. Signs will be identified in this book by location. The Resident or Inspector will note type of sign required and will record when the foundation is placed, when the poles, signs and lights are erected, and length of conduit and wiring installed. As noted above, inspection and acceptance of forms, re-steel, anchor rods, and conduits will be recorded; other pertinent information will be noted as required.

Measurement and Payment.

Final Quantity Book: Final quantity for foundations, junction boxes, conduit, and wiring will be entered under the appropriate items in the Final Quantity Book. Reference will be made to field counts or field measurements. The Sign Book can be eliminated if signing and lighting are not a major portion of the contract; measurements and documentation can be entered directly in the Final Quantity Book or in the Construction Book. **All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.**

629.5 Hand Labor 631.5 Equipment Rental Field Documentation. Measurement. and Payment.

Field Documentation.

Daily Report of Labor and Equipment Rental: The Resident will use this form to document hours for payment. Approval for hourly work, if not bid items, will be in writing by Work Order, and verbally by the Resident if bid items are involved. A detailed explanation of the work performed, inspected and accepted, and reference to the pertinent work order or "authorization by the Resident" should be noted in the Remarks section of the Report.

For sample project diary entries ref page 63, for final quantity book entries ref page 77, for inspectors diary entries ref page 90 & 91, and for a sample DREW from ref page 98

Measurement and Payment.

Whereas payment for hourly work often is extra and unforeseen and therefore authorized by work order, the Resident should refer to Division 100 of this Manual and the Specifications for explanation of price determination for labor and equipment.

Section 109 of this Manual further explains the circumstances under which a Work Order is required.

Specifications, Section 629, allow payment for overtime labor under the following circumstances:

- A. When the Resident requires the work to be done during the Contractor's normal overtime hours.
- B.. When the Resident directs the Contractor to do the work within a limited period of time and overtime is necessary to complete the work.
- C. When the work is of an emergency nature and overtime is required.

Final Quantity Book: Final quantities for payment will be entered under the appropriate hourly items as bid, and will be signed, dated and referred to Daily Reports of Labor and Equipment Rental.

All calculations and data entries must be signed, dated, and checked; the checker must sign and date their work.

Division 900 – Project Record and Closeout

This Division explains how the Resident is to prepare project records for close-out and final payment.

<u>Section</u>	<u>Title</u>
901	Preparation of Project Records
902	Review, Close-out, Final Payment

SECTION 901 - PREPARATION OF PROJECT RECORDS

901.1 General This Section describes the requirements for preparation of the project records by the Resident for final review. Field record-keeping and testing procedures for the individual pay items are explained in the appropriate sections of this Manual.

Project Records. Project records are grouped as follows:

<u>Section</u>	<u>Title</u>
901.2	Project Diary
901.3	Final Quantity Book
901.4	Construction Book
901.5	Drainage Book
901.6	Inspectors Diary
901.7	Final Quantity Computation Book
901.8	Testing File
901.9	Miscellaneous Records
901.10	Responsibility of the Checker

901.2 Contents of a Project Diary

Every job must have a Project Diary, or, in the case of Field Manager, a Daily Diary or a combination Daily Diary and Inspector's Daily Report. The Project Diary is intended to give the reader a general accounting of the Contractor's and subcontractors' day by day activities such as: pay items worked and ,locations, source and disposition of excavation, borrow, gravel, and pavement grindings, All Directives given to the Contractor and non-routine matters must be recorded as well. Examples are: Traffic Accidents, the Contractor adherence to traffic maintenance and erosion control, disregarding contract Specifications, not staffing the job appropriately to complete work within required time limits, and other issues that could result in contractor claims. Matters dealing with town officials, utilities, developers, and other abutters should also be recorded. Information recorded in the Project Diary/Daily Diary should be factual and pertinent information; personal opinions and speculative remarks should not be included.

Examples of a project Diary template and typical boilerplate entries are located in Appendix A pgs 89 through 94.

901.3 Contents of a Final Quantity Book

Final Quantity Book/Item History to Date: The Final Quantity Book, or Item History to Date if the job is set up using Field Manager, is the mainspring of the project records. Every bid item originally in the contract and all

work orders involving additional payment must be entered in this book; no job can be paid off without it.

Funding of a contract is sometimes divided into several funding sources, which usually result in pay items being grouped under different categories and PINs within the contract. The Final Quantity Book must be organized to reflect the different categories and pin numbers. PINs and categories will show on the first progress estimate, but if the Resident needs this information before the first estimate is issued, the Contracts Section will provide it.

A reference trail from the final pay quantity to the original documentation, whether it is notes of inspection and acceptance, measurements, or computations, must always be provided. It is suggested that the Resident and their inspectors enter original documentation and calculations to the extent feasible, directly in the Final Quantity Book

Urban full construction or reconstruction projects usually involve the town, sewer/water districts or other utilities. A formal agreement called a Municipal Agreement or a City- State Agreement drawn up between the parties will stipulate payment responsibilities and other contractual responsibilities. These agreements will frequently make the Town or the Utility District liable for a share of the project cost. The Resident should have a copy of these agreements; there may be several and they are available from the Project Manager. Items involved will normally show as a category in the progress estimate, but if not, they still need to be entered as a separate entity in the Final Quantity Book.

The Final Quantity Book/Item History to Date will have no more than one item per page. Item number, description, and estimated quantity will be entered at the top of the page. Final pay quantity will be entered at the bottom and so labeled. **All entries in the Final Quantity Book must be signed, dated, and checked; the checker must sign and date each entry as well. All final quantities in the Item History to Date must also be signed, dated, and checked, and the checker must sign and date the entries. Signatures in the Item History to Date may be signed manually or an electronic signature can be used.**

Examples of Final Book entries are located in Appendix A pgs 65 through 79.

901.4 Contents of a Construction Book

Construction Book: This book is a catch-all; whether the Resident uses Field Manager or the conventional method of keeping project records, i.e., field books, a "construction book" is handy to have and usually necessary. Complex field measurements, field data, or sketches that must be recorded before that work is buried and cannot be easily recorded in the Final Quantity Book/Item History to Date can be entered in the Construction Book.

Typically, measurements for riprap, loam, seed, mulch, undercuts, top of ledge elevations, boulders, gravel used for traffic maintenance, grade checks on concrete forms and drainage systems, and layout in general will be entered in the Construction Book.

One form of a Construction book is referred to as a Grade Check Book. On a large, full construction project a grade check book should be set up prior to the work being done. This book will provide the Inspector with a handy tool to use for checking subgrade, top of gravel ("fine-grading"), ditches and backslopes. A copy may be given to the Contractor's grade foreman for them to use. The Contractor's foreman is in effect performing a Quality Control activity and the Department's Inspector is performing a Quality Assurance activity by checking, at random, the Contractor's grading accuracy.

Examples of a Construction Book entries are located in Appendix a pgs 80 through 88.

Examples of a Grade Check Book entries are located in Appendix a pgs 81 and 83 .

901.5 Contents of a Drainage Book

Drainage Book: If a job has a large quantity of drainage, such as on a complex urban project, documentation of drainage installations should be entered in a separate book called a Drainage Book. This book should be organized before the work is done; each run of pipe and each catch basin or manhole would have its own page or pages.

As the work progresses, inspector's notes and measurements would be entered under the appropriate run: length of pipe and catch basins installed, gravel used for traffic maintenance, undercutting and bedding material used, ledge removed, riprap at pipe inlets or outlets, or utilities encountered, could be part of the daily entries. Quantities for payment would then be summarized in this book and transferred into the Final Quantity Book/Item History to Date.

Examples of Drainage Book entries are located in Appendix a pgs 84, 86, 90 & 91.

901.6 Contents of an Inspectors Diary

Inspector's Diary or Inspector's Daily Report: If a job is staffed by more than one inspector, the Resident may want the inspectors to keep diaries. This diary would contain the same boilerplate information as the Project Diary but would have a more detailed accounting of the Contractor's activities and progress of work. The Inspector's observation notes and some measurements may also be recorded. Again, only pertinent and factual information should be included; no personal opinions or speculative statements should be included.

Examples of an Inspectors Diary entries are located in Appendix a pgs 89 through 94.

901.7 Contents of a Final Quantity Computations Book.

This book contains all computations that support pay quantities and that are done on 8 ½ by 11 sheets or other loose sheets. These computations may be done manually or may be computer generated. Whether the Resident uses the conventional paper method or the software program Field Manager, a Final Quantity Computations Book will be needed, as necessary. Dimensions, measurements, and computer data used in the computations must be referenced to source, whether it is plans or field measurements. **All calculations and data entries must be signed, dated, and checked; the checker must also sign and date all calculations and data entries.**

Computation sheets will be filed by pay item, beginning with the lowest numbered. Example: Item 201 - Clearing. A summary sheet will precede the computations for each pay item. Totals shown on each summary sheet will be transferred to the appropriate pay item in the Final Quantity Book. The pages of each item should be numbered consecutively. Computation sheets will be bound together in a red binder, titled in one inch lettering: Project Number, Project Identification Number (PIN), Town, and Final Quantity Computations Book.

Daily Reports of Hourly Work and Flagger Reports should be filed in the Final Quantity Computations Book, located as items 629-631, and item 652, respectively. Following the item computation sheets is a copy of all Extra Work Orders, and Resident's Work Orders. A list of plotting rolls and plans, and a list of field books is also required. Index tabs will be used to locate each pay item or list.

901.8 Content of the Testing File.

The Minimum Testing Requirements, also known as the "Minimums", specify the frequencies and types of tests to be taken of materials used on the project. The Minimums are determined by the Materials Section in Bangor, and are available at the following network: Network Neighborhood/DOTBGR/Shared/Minimums. General testing requirements will be found in each Section of this Manual. The Minimums may vary from these general testing requirements to meet the needs of each particular project. The Northern Area Acceptance Testing Supervisor issues the "Minimums" for all projects; he will e-mail the requirements to the Resident. Alternately, the "Minimums" are available at the above noted address.

Exhibit 20 is a sample set of Minimum Testing Requirements.

The Resident is to use the list of Minimum Testing Requirements as a guide to test job materials. The minimum number of any particular test should not be less than the listed requirement without justifiable reason. Changes are to be explained by memo filed with the item involved. The most frequently seen change is a decrease in the number of densities required. However, due to changes in material sources, borderline materials, or work being done in several small sections (mostly on urban projects), more tests than the minimum may be necessary. The Resident must use his discretion to determine when more tests are necessary. The Resident must also explain the outcome of failing materials, i.e., removed and replaced, or accepted on the basis of substantial conformance.

If a contract contains Acceptance Methods that allow pay adjustments for hot bituminous pavement and for concrete, the Contractor's QC test data and the Engineer's Q A test data will be filed together for each day such testing is performed under the pertinent item. Pay adjustment computations will also be filed with the test

data. These calculations will be done by the Resident and checked by someone knowledgeable in the calculation of pay adjustments.. The Contractor should be given the opportunity to review the adjustments before the Resident submits the project records to the Contracts Section for review.

The Testing File documents the quality of materials incorporated into the project. Reports and related data will be filed chronologically with the most recent on top and will be grouped and tabbed by pay item in the same order as shown on the list of Minimum Testing Requirements, a copy of which must be included in the front. The Testing File will be bound by a black acco-press binder and with the following information on white labels: Testing File, Project No., PIN, and Town. Index tabs will be used to separate and identify the items.

901.9 Miscellaneous Project Records

Project files consist of job records exclusive of final quantity computations, field books, and test data, turned in to the Contracts Section at the completion of the project. The following types of records should be grouped and submitted in manila envelopes: general correspondence, right-of-way records, utility records, submittals (shop drawings), permits, payrolls, payroll interviews, delivery slips, and cover slips. The envelopes should be labeled with the project number, town, and contents. Work orders, flagger reports, and daily work reports become part of the Final Quantity Computations Testing File. The preliminary engineering file, known also as "PE" file, the engineer's estimate and one copy of the bid book (Special Provisions) should also be turned in with the project records. Extra copies of the proposal book, delivery slips for hot mix asphalt, and progress estimates, vouchers, and estimate computations may be discarded before the project records are submitted for final review. The most recent progress estimate must be kept, as it will be used to prepare the Final Quantity Estimate during final review.

901.10 Responsibility of the Checker

All entries to the project records that generate payment to the contractor must be checked. The responsibility of the checker is to;

1. Check any and all quantities from Final Quantity book or Item History to date back to the original source measurements.

Example: Item 203.21 Rock Excavation

The checker will start with the Final Quantity book or Item History to date and locate that the reference(s) back to the original source measurement(s), usually a construction book or Inspectors Daily Report, and check the calculations and insure the quantity was deducted from common excavation if the rock was located above subgrade.

2. Check to insure that all required references to any notes of inspection and acceptance accompany the quantities that are to be paid.

Example: Item 304.10 Aggregate Subbase Course-Gravel

The checker will start with the Final Quantity book or Item History to date and insure that references are made from any pay quantity to source of material being placed, station to station limits, compactive effort and number and depths of lifts and finegrade checks.

3. Check to insure that the specifications were applied correctly.

Example: Item 206.61 Structural Earth Excavation – Drainage and Minor Structures Below Grade

The checker will insure that the quantity for payment doesn't include the first foot of excavation.

SECTION 902 – Review, Closeout and Final Payment

This Section describes the procedure the Resident is to follow when project records are submitted to the Project Review Unit of the Contracts Section for final review and close-out of the project.

902.1 General

The purpose of the final review is to assure that both the quality and quantity of materials and work performed by the Contractor are tested and documented according to Departmental policy and procedure.

After the job records have been assembled as described in Section 901, the Resident will contact the Project Review Unit and make an appointment to submit the records for final review. This should take place within 60 calendar days of physical completion of the project. Physical completion is described in Section 107.9, Division 100, of the Specifications.

902.2 Review

The Resident and someone in the Contracts Section, the “Reviewer”, will go over the project records together to assure that the final quantities for payment are substantiated by field measurements and other original documentation as required. A project review checklist, copy following, is to be used as a guide. Also at this time, the Testing File will be reviewed to verify that materials have been tested according to the list of Minimum Testing Requirements and Departmental policy.

Pages 99 through 102 are sample final review checklists and page 103 is a sample on-site review checklist.

Work and materials that are not documented and tested in accordance with Departmental policy may require additional tests, measurements, or field documentation, or may be shown as “non-participating” on the Final Quantity Estimate, that is, ineligible for Federal funds.

As part of the review, the Final Quantity Estimate will be made out and labeled as such used to make progress payments, the Resident should contact the Project Review Unit, prior to submitting records for review, so that a paper copy of the most recent progress estimate can be prepared. This estimate will then be used to make out the Final Quantity Estimate. Every project must have a paper copy of the Final Quantity Estimate as part of the final contract documents.

Quantities to be billed to Towns, Sewer & Water Districts, Utility Companies, Developers, and Abutters are to be summarized and forwarded to the Bureau of Finance & Administration. Municipal Agreements, discussed under section 901.3 are to be reviewed and billings done accordingly. The Reviewer and the Resident will prepare together, at the time of final review, the bills to be sent; the Reviewer will present these bills to the Bureau of Finance and Administration.

It is sometimes the case that it is necessary to go back to the job to do repair work or to make changes after the project has been completed and the Contractor has been released from further obligations. By FHW A agreement, work done after project completion that involves a change in design is participating. Work that consists of restoring to original condition as designed would be considered maintenance work and not eligible for Federal Funds.

It may be done by the original Contractor or a Contractor on an active project nearby, by Town forces, or Maintenance Division forces, depending upon costs and the availability of crews and equipment. Transfer of costs from the active project to the project involved, payments to the Town, and transfer of funds to the Maintenance Division will be done by the Contracts Section with the assistance of the Resident. A work order will be required to document costs and payment procedure.

In addition to the Final Quantity Estimate, the following final documents are also required:

Time Charge Report: This report shows the required contract completion date and actual completion date. The Resident will discuss time overruns with their supervisor and document resolution of such overrun by a memo to the Project Review Unit, whether it is a time extension or assessment of liquidated damages. A meeting with the Contractor may be required in the process. Exhibit 25 is a sample Time Charge Report.

Right-of-Way Encroachment Memo: This memo lists kind and location of encroachments within the right-of-way, only if new right-of-way is taken. Pre-existing encroachments need not be reported. Page 97 is a sample

Right-of-Way Encroachment memo.

Contractor Evaluation: This form is an evaluation of the Contractor's performance during construction of the project. It must be completed and signed by the Resident and co-signed by the Contractor's Superintendent. Page 105 is a sample Contractor Evaluation packet.

Explanation of Overruns and Underruns: Written explanations of overruns and underruns are no longer required when final records are submitted for review. Significant quantity overruns and underruns will be discussed at the final team meeting. The final team meeting will be coordinated by the Resident With the Project Manager. Minutes of the meeting will be written by the Resident and distributed to team members and functional managers.

The Resident should complete the above three documents prior to final review; these documents are available from the Contracts Section in Augusta. The Final Quantity Estimate will be made out during the final review process.

Two brief reports, in the form of memos to the project file and usually one page each in length, will be written by the Reviewer. One memo addresses final quantities and the other addresses testing of materials. The "Final Quantities" memo states that project records have been reviewed and properly substantiate quantities of work incorporated into the job, with exceptions if any. The "Testing Memo" states that the testing records have been reviewed and properly substantiate the quality of materials incorporated into the project, and again, exceptions are noted, if any. Secondary documentation and explanations are made part of the memos when there are exceptions.

It may be the situation that, at the completion of final review, there remains contractor issues that are unresolved, usually: potential liquidated damages, disagreement over pay factors for hot-mix asphalt or concrete, or contractor claims. The Resident likely will be called on to help settle these items by meeting in Augusta with their Supervisors and with the Contractor; this will be done before the Project Review Unit makes final payment and the project is closed out.

902.3 Close-Out and Final Payment.

A project cannot be closed out until all outstanding issues are resolved on the project and final payment is made.

Following the final review, the Contracts Section will send a copy of final quantities to the Contractor with a cover letter stating that the final quantities are included and what final documents are to be submitted and issues remaining to be settled before final payment can be made. Contractor's final documents are:

1. Certificate of Materials, Section 700 - Specifications.
2. "Buy America" Statement, Appendix A, Section 3, Buy America, Div 100, Specifications.
3. Letter "All Bills Paid", Subs 1 0 1.2, Definitions-Closeout Documentation, Div-100, Specifications.
4. FHWA Form "PR-47" on projects with full Federal oversight over \$1 million in estimated cost - Division 100,
5. A statement of "Agreement with Final Quantities"

Section 101.2 - Closeout Documentation of Division 100, Specifications, discusses the above listed documents. Contractor Evaluation Forms, and PR-47 Forms are available from the Contracts Section.

Contractors will not generally submit the "All Bills Paid" letter until they have seen the Final Quantity Estimate and have settled all items of contention with the Department, liquidated damages being the most frequent one.

A portion of the monies withheld from the Contractor (the "retent") may be paid at the time of final review or prior to it, depending on the status of the job. If there are no liquidated damages, no claims or disagreements with quantities, or no remaining work to be done in the field (such as clean-up), most of the retent may be paid. A fixed amount will be held pending the receipt of final documents.

After the Contractor submits the final documents to the Project Review Unit and all issues have been settled, final payment is made. This payment includes final adjustments, and also the remainder of the retent. When the "Final Estimate" is paid, the project records are filed with the Program. The Bureau of Finance and Administration will continue the close-out process by issuing the last check to the Contractor, and working with the FHW A for reimbursement for the Federal share of the project.

APPENDIX A

SAMPLE DOCUMENTATION

THE FOLLOWING IS A LIST OF REQUIRED DUTIES BY THE PROJECT RESIDENT:

- REVIEW THE WAGE SCHEDULE BEFORE THE PRE-CONSTRUCTION MEETING.
- IDENTIFY MISSING WAGE RATES
- ENSURE THE PRIME CONTRACTOR HAS SUBMITTED REQUESTS FOR ALL THE MISSING WAGE RATES TO THE CIVIL RIGHTS OFFICE
RICK.STEPHENS@MAINE.GOV FORMS ARE AVAILABLE ON ELATIONS.
- REQUEST THE DBE UTILIZATION SHEET FROM
SHERRY.TOMPKINS@MAINE.GOV
- CHECK TO MAKE SURE YOU HAVE SUBCONTRACTOR COMPLIANCE PACKETS FROM JEAN.TUKEY@MAINE.GOV
- CONTACT ANN.LIBURT@MAINE.GOV TO ATTAIN LOGIN AND PASSWORD TO THE [HTTPS://WWW.ELATIONSYS.COM](https://www.elationsys.com) WEBSITE IN ORDER TO BE ABLE TO REVIEW THE PAYROLL FROM THE GENERAL AND SUBCONTRACTORS.
- THE ELATIONS SYSTEMS MANUAL CAN BE FOUND AT:
<http://www.maine.gov/mdot/contractors/publications/>
- CHECK THE CONTRACTORS BULLETIN BOARD FOR ACCURACY AND COMPLETENESS, REFERENCE THIS IN THE PROJECT DIARY
- START AND COMPLETE YOUR PAYROLL TRACKING SHEET WEEKLY
- REVIEW THE SUBMITTED PAYROLLS FOR APPROPRIATE CLASSIFICATIONS
- COMPLETE THE (CUF) COMMERCIALY USEFUL FUNCTION FORM FOR EACH DBE /WBE DURING THE PROJECT AND SUBMIT TO
SHERRY.TOMPKINS@MAINE.GOV
- **CONDUCT 2 PAYROLL INTERVIEWS EVERY 90 DAYS FOR THE PRIME CONTRACTOR AND EACH SUB THAT WORKS 5 OR MORE DAYS ON THE PROJECT DURING EACH 90 DAY PERIOD. Please enter payrolls into the Elations System.**
- FOR ANY UNRESOLVED PAYROLL ISSUES, CONTACT THE CIVIL RIGHTS OFFICE
RICK.STEPHENS@MAINE.GOV
- FOR ELATIONS SOFTWARE ISSUES CONTACT ANN.LIBURT@MAINE.GOV
- ON-THE-JOB TRAINING (OJT) AND CONTRACTOR COMPLIANCE QUESTIONS CONTACT: GIGI.OTTMAN-DEEVES@MAINE.GOV

DATE	DAY	WEATHER
MDOT:		
PERSONEL		
CONTRACTOR		
PERSONEL		
EQUIPMENT		
WORKING HOURS		
SUB CONTRACTOR		
PERSONEL		
EQUIPMENT		
WORKING HOURS		
VISITORS		
PROJECT ACTIVITIES		
<input type="checkbox"/>	ITEM NUMBER, LOCATION & LIABLE CONTR/SUB	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF ANY EXCAVATION	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF GRAVEL AND BORROW	
<input type="checkbox"/>	NON-ROUTINE ACTIVITIES	
	A: CONTRACTORS' NON ADHERANCE TO CONTRACT SPEC'S: MTCD'S & SEWPC	
	B: MDOT DIRECTIVES GIVEN TO CONTRACTOR IE: C.O. RELOCATIONS, CHANGES IN DESIGN, UNDERCUTTING & REWORK.	
	C: CONTRACTOR IS INADEQUETLY STAFFING THE JOB FOR THE TYPE OF WORK	
	D: ANYTHING RELATED TO POTENTIAL CONTRACTOR CLAIMS	
	E: ANY DISCUSSIONS WITH TOWN OFFICIALS, UTILITIES, DEVELOPERS AND ABUTTERS	
	G: TRAFFIC ACCIDENTS & OTHER HAZARDS	
ENTERED BY : NAME & DATE		

6/12/2002	FRIDAY	SUNNY 80'S
MDOT:		
BILL BITTERMAN, RESIDENT		
BILLY BOB BENNET, INSPECTOR		
M&H:		
6:00AM TO 5:00 PM		
1 SUPT	1 COMPRESSOR	
5 WORKERS	2 TRUCKS	
2 LARGE EXC.	1 5 TON VIB ROLLER	
1 APE	1 CHAMPION GRADER	
1 D6 DOZER		
HASTINGS TREE REMOVAL SERVICES		
ITEMS 652.361 AND 656.75		
MTCD AND SEWPC INSPECTED AND ACCEPTED FOR THE WEEK		
ITEM 201.23 SINGLE TREE		
HASTINGS CUT AND REMOVED SINGLE TREE AT THE CORNER OF PINE STREET AND RT 4		
ITEM 603.159	12" OPT III CULV PIPE	
INSTALLED 12" OPT I CULV PIPE AT STA 12+56 RT		
ITEM 604.097	6' B1-C CATCH BASIN	
INSTALLED AT STA 12+56 RT		
ITEM 631.2	STUMP CHIPPER	
HASTINGS USED STUMP CHIPPER TO GRIND 2 STUMPS		
M&H MULCHED ALL DISTURBED AREAS		
COMPLAINT FROM BILL SIMPSON , PROJ SUPT ABOUT DELAYS FROM UTILITIES NOT SHOWN ON PLANS AS WELL AS SLOW PRODUCTION. HE THEY WILL KEEP RECORDS FOR POSSIBLE CLAIM. HE HAS ALSO REQUESTED INFORMATION ON ALTERNATE WORK AT THE OTHER END OF THE PROJECT STA 42+50 TO 45+75		
ENTERED BY : BILL BITTERMAN 6-12-02		

6/16/02 MONDAY FAIR 60'S

3

MDOT: BILL BITTERMAN, RESIDENT
BILLY BOB BENNET, INSPECTOR

M&H: 6:00AM TO 5:00 PM
1 SUPT 1 COMPRESSOR
5 WORKERS 2 TRUCKS
2 LARGE EXC. 1 5 TON VIB ROLLER
1 APE 1 CHAMPION GRADER

ITEM 304.10, STA 3+00 TO 4+25

AFTER PLACING/COMPACTING LOWER LAYER OF ASC GRAVEL, THE SUBGRADE MATERIAL BEGAN TO PUMPING INTO THE LOWER ASC GRAVEL LIFT. THE RESIDENT DIRECTED THE CONTRACTOR TO EXCAVATE AND REMOVE THE CONTAMINATED GRAVEL. ROADWAY STABILIZATION GEOTEXTILE WAS THEN PLACED ON THE SUB-GRADE SURFACE BEFORE PLACING ASC GRAVEL. THIS WORK WILL BE PAID UNDER ITEM 203.20 COMMON EXC AND 304.10 ASC-GRAVEL. REF TO BOOK 4 PAGES 5 THROUGH 7 FOR FIELD MEASUREMENTS ROADWAY STABILIZATION GEOTEXTILE WILL BE PAID PER RESIDENTS WORK ORDER #1 (AMOCO 2006 INSTALLED)

THERE WAS AN ACCIDENT ON THE PROJECT TODAY AT STA 2+25 AT 10:00 AM +/- . VEHICLE NO 1 (FORD EXPLORER PLATE NO 4356 JJ) REAR-ENDED VEHICLE NO 2 (CHEVY S-10 PLATE NO 763784 I) WHICH WAS STOPPED FOR FLAGGER ED KNOWLES WITHIN THE WORK ZONE. THE ACCIDENT WAS INVESTIGATED BY JOEL RAMICH OF THE FARMINGTON POLICE DEPT. ALL SIGNS WERE UP AND TRAFFIC CONTROL DEVICES WERE SATISFACTORY. REFER TO CORRESPONDENCE FILE FOR A COPY OF THE POLICE/ACCIDENT REPORT COMPLETED ACCIDENT REPORT AND FORWARDED TO THE MDOT LEGAL DEPT.

ENTERED BY : BILL BITTERMAN 06-16-02

6/17/02 MONDAY FAIR 70'S

MDOT: BILL BITTERMAN, RESIDENT
BILLY BOB BENNET, INSPECTOR

M&H: 6:00AM TO 6:00 PM
1 SUPT 1 COMPRESSOR
5 WORKERS 2 TRUCKS
2 LARGE EXC. 1 5 TON VIB ROLLER

SUB: PIKE IND, 4 ROLLERS, 1 PAVER, 12 TRUCKS, 1 SERVICE TRUCK, 1 WATER TRUCK & 1 BOBCAT.

PERSONNEL: 1 SUPT, 1 FOREMAN, 7 SKILLED, 12 UNSKILLED, 2 LABORERS & 2 QC/QA WORKERS

ITEM 304.104

FINEGRADE COMPLETE AND ACCEPTED STA 22+00 TO 35+25

ITEM 403.207

PAVING OPERATIONS BEGAN AT STA 22+00 TO 35+25

CALL FROM BILL COBURN-FABRICATION INSPECTOR

RE: CONCRETE CURBING. BILL HAD SOME CONCERNS ABOUT THE PERMABILITY. HE WILL VIST GAGNE THEIR VEAZIE TOMORROW AND WILL E-MAIL ME THE RESULTS OF THE TEST IF THERE IS A PROBLEM, REFER TO CORRES. FILE FOR RECORD.

ITEM 211.20

STA 2+00 TO 5+00, EXCESS MATERIALS FROM INSLOPE WORK REMOVED AND TAKEN TO APPROVED WASTE AREA (SMITH PIT)

ITEM 203.20

STA 2+00 TO 12+00, PIKES RECLAIMER ON PROJECT, STA 2+00 TO STA 5+00 TO REMOVE PVMT IN FULL EXCAVATION AREA, LOADER PLACING MAT'L IN TRUCKS TO BE STOCKPILED ON SITE AND PLACED AS ASG AT A LATER DATE. TO BE PAID AS COMMON EXC AND ASG. RECLAIMED STA 5+00 TO 12+00, GRADED AND COMPACTED, TO BE PAID AS 307.

DENNY DOYLE, MDOT, ON SITE TO TEST 307 COMPACTION

ENTERED BY : BILL BITTERMAN 6-17-02

202.20 COMMON EXCAVATION 600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
15+00	21+00	600	600 ✓	BBB	37478
20+00	21+25	144.44 ✓	744.44 ✓		
16+25		68.67 ✓	813.11 ✓		
16+50		-1.46 ✓	811.65 ✓	BBB	
17+00	17+80	-11.59 ✓	800.06 ✓		
19+00	19+75	58.2	858.25		

FINAL PAY QUANTITY: 800.06 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

202.20 COMMON EXCAVATION

1

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 3 PG 2 FOR SUBGRADE CHECKS

BK 3 PG 1

BK 3 PG 1

DEDUCT ROCK EXC, BK 4 PG 3

DEDUCT ROCK EXC, BK 3 PG 6

BK 4 PG X



203.21 ROCK EXCAVATION

600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
17+50	17+80	11.59 ✓	11.59 ✓	BBB	8/20/2002
16+50		2.46 ✓	14.05 ✓	BBB	8/12/2002
21+25	22+20	14.6 ✓	28.65 ✓	BBB	8/12/2002

FINAL PAY QUANTITY: 24.64 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

202.20 COMMON EXCAVATION

2

REF

CONSTRUCTION BK 3 PG 6

INSP DIARY BK 4 PG 3

CONSTRUCTION BK 3 PG 10

203.25 GRANULAR BORROW 600 CY @ \$12.00

STA	STA	QTY	ACC. QTY	ENT BY	DATE
30+00	32+00	275	275	BBB	37478
33+28 RT		21.43	276.43	BBB	
19+00	19+75	42.5	318.93		

FINAL PAY QUANTITY: 318.93 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 4 PG 2 MULTI PLATE BACKFILL COMPLETED TO PLANS & SPEC
BK 4 PG 2 FOR ADDITIONAL EXCAVATION (UNDERCUT)
BK 4 PG 2 MAINTENACE OF TRAFFIC

211.2 INSLOPE EXCAVATION 1500 FEET @ \$3.00/ft

STA	STA	LENGTH	ACC. LENGTH	ENT BY	DATE
2+00RT	3+25RT	125' ✓	125' ✓	BBB	6/20/2002
4+05FT	5+00RT	95' ✓	220' ✓	BBB	6/20/2002
5+40RT	6+00RT	60' ✓	280' ✓	BBB	6/20/2002
6+35RT	6+75RT	40' ✓	320' ✓	BBB	6/20/2002
8+25RT	9+50RT	125' ✓	445' ✓	BBB	6/21/2002
10+80RT	11+90RT	160' ✓	605' ✓	BBB	6/21/2002
1+00 LT	12+00 LT	435' ✓	1040' ✓	BBB	6/26/2002
21+50RT	22+50RT	100' ✓	1140' ✓	BBB	6/27/2002
23+25RT	24+50RT	125' ✓	1265' ✓	BBB	6/27/2002
25+35RT	25+55RT	25' ✓	1290' ✓	BBB	6/27/2002
26+50RT	26+75RT	25' ✓	1315' ✓	BBB	6/27/2002
27+75 RT	28+25RT	50' ✓	1365' ✓	BBB	6/27/2002
28+50RT	29+50RT	100' ✓	1465' ✓	BBB	6/27/2002
21+00LT	30+00LT	325' ✓	1790' ✓	BBB	7/1/2002

FINAL PAY QUANTITY: 1790 FT ✓

ENTERED BY : BILL BITTERMAN 11-08-02

✓ CHECKED BY: BWD1-2-03

REF.

DIRECT ENT.

completed accord to plan/spec, waste hauled to Smith's waste area



REF TO INSP DIARY #1 PAGE 5

DIRECT ENT.

completed accord to plan/spec, waste hauled to Ames waste area



REF TO INSP DIARY #1 PAGE 8

304.104 AGGREGATE SUBBASE COURSE GRAVEL-PLAN QTY

STA	STA	QTY	ACC. QTY	ENT BY	DATE
15+00	21+00	600	600	BBB	37489
20+00	21+25	69.44	669.44		

FINAL PAY QUANTITY: 669.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

600 CY @ \$16.00/CY

7

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

BK 3 PG 4 THRU 16 FOR FINEGRADE CHECKS

ADDITION MATL USED IN DRIVES, REF INSP DIARY PG 22-32

307.32 FULL DEPTH RECYLED PAVEMENT (UNTREATED)

STA	STA	AREA	ACC. LENGTH	ENT BY	DATE
30+50	58+75	7,525	27,525	BBB	

FINAL PAY QUANTITY: 27,525 SY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

27,525 SY @ \$4.00/SY

8

REF

NOTE: THE ENGINEERS ESTIMATE WAS REVIEWED AND APPEARS TO BE REASONABLE AND ACCURATE.

REF: RWO NO 1; CONTRACTOR AGREED TO PLAN QTY PAYMENT PLUS ANY ADDITIONAL EXCAVATION OUTSIDE OF EXCAVATION LIMITS OR AS DIRECTED.

REF CONSTRUCTION BK 3, PG 10-12 FOR FINEGRADE CHECKS

403.208 HOT MIX ASPHALT, 12.5 MM					
COVER			ACCUM		ACCUM
SLIP NO	DATE	QTY	QTY	M.L.	M.L.
3456	8/4/2002	1,856.25	✓ 1,856.25	1,856.25	✓ 1,856.25
3457	8/5/2002	1,795.50	✓ 3,651.75	1,795.50	✓ 3,651.75
3458	8/6/2002	1,601.25	✓ 5,253.00	1,300.00	✓ 4,951.75
3460	8/7/2002	1,109.50	✓ 6,362.50		
3461	8/16/2002	1,649.25	✓ 8,011.75	1,649.25	✓ 6,601.00
3466	8/17/2002	1,780.50	✓ 9,792.25	1,540.50	✓ 8,141.50
3469	8/18/2002	963.75	✓ 10,756.00		
TOTALS			10756.50 ✓		8,141.50 ✓

3470 37487 230.50 ** ✓

FINAL PAY QUANTITY: 10,756.00 MG (PARTICIPATING)

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

FINAL PAY QUANTITY: 230.50 TONS ✓ (NON-PARTICIPATING)

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

10,850 MG TONS @ \$41.00/TON					600 CY @	9
SHLDR	ACCUM					
QTY	QTY	LOT NO	ENT BY	DATE		
		1	BBB	8/5/2002		
		1	BBB	8/6/2002		
301.25	✓ 301.25	✓ 1	BBB	8/7/2002	*	
1,109.50	✓ 1,410.75	✓ 1	BBB	8/8/2002		
		2	BBB	8/17/2002		
240.00	✓ 1,650.75	✓ 2	BBB	8/18/2002		
963.75	✓ 2614.50	✓ 2	BBB	8/19/2002		
	2614.50	✓				

* REF INSPECTORS DIARY BK 4 PAGE 23 FOR QTY BREAKDOWN

** NON-PARTICIPATING MIX ON MAPLE LANE TO BE PAID BY TOWN OF FARMINGTON

502.21 STRUCTURAL CONCRETE, ABUTMENTS AND

DATE PLACED	LOCATION	QTY (CY)	ACCUM QTY	ENT BY
5/17/2002	N. ABUTMENT FTG	18.35 ✓	18.35	BBB
5/19/2002	S. ABUTMENT BREASTWALL	8.03 ✓	26.38	BBB
6/2/2002	S. ABUTMENT FTG	17.39 ✓	43.77	BBB
6/4/2002	S. ABUTMENT BREASTWALL	8.41 ✓	52.18 ✓	BBB

FINAL PAY QUANTITY: 52.18 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

RETAINING WALLS. 250 CY @ \$525.00/CY

12

DATE	REF
	F.Q. COMP SECTION 502 FOR F.Q. CALCULATIONS
	PROJECT TESTING FILE SECTION 502
5/17/2002	BK 5 PG 10 FOR FORMS/RE-STEEL CHECKS
5/19/2002	BK 5 PG 10 FOR FORMS/RE-STEEL CHECKS
6/2/2002	BK 5 PG 11 FOR FORMS/RE-STEEL CHECKS
6/4/2002	BK 5 PG 11 FOR FORMS/RE-STEEL CHECKS

502.22 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING

DATE PLACED	LOCATION	QTY (CY)	ACCUM QTY	ENT BY
5/2/2002	N. ABUTMENT FTG	9.56	9.56	BBB
5/20/2002	S. ABUTMENT FTG	10.51	20.07	BBB

FINAL PAY QUANTITY: 20.07 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

WALLS (PLACED UNDER WATER) \$325/CY

13

DATE	REF
5/3/2002	DEL SLIP #5832, WASTED 2 CY, INSP. DIARY PG 12 FOR ELEV CHECKS
5/21/2002	DEL SLIP #5832, WASTED 1.26 CY, INSP. DIARY PG 12 FOR ELEV CHECKS

F.Q. COMP SECTION 502 FOR F.Q. CALCULATIONS

503.12 REINFORCING STEEL, FABRICATED AND DELIVERED

LOCATION	LBS	ACCUM LBS	ENT	DATE
N ABUT FTG	1563	1563	BBB	3/7/2003
N ABUT BRST WALL	2525	4088	↓	↓
N ABUT WEST WING	1375	5463		
N ABUT EAST WING	1375	6838		
S ABUT FTG	1563	8401		
S ABUT BRST WALL	2525	10926		
S ABUT WEST WING	1250	12176		
S ABUT EAST WING	1410	13586		

FINAL PAY QUANTITY: 13,536 lbs

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

13,536 LB @ \$0.50/LB

REF

BK 3 PAGE 7

BK 2 for notes of inspection and acceptance

BK 3 PAGE 8

BK 3 PAGE 9

BK 3 PAGE 10

BK 3 PAGE 11

BK 3 PAGE 12

BK 3 PAGE 12

BK 3 PAGE 12

509.12 STEEL STRUCTURAL PLATE PIPE ARCH

DATE

7/18/2002 PIPE DELIVERED ON PROJECT TODAY
AND FOUND TO BE FREE ANY DAMAGE DUE
TO DELIVERY.

7/23/2002 REMOVED EXISTING STEEL PIPE

7/25/2002 INSTALLED 1 STRUCTURAL STEEL PLATE ARCH
PER LINE, GRADE AND SPEC. AND IS ACCEPTED
AS OF THIS DAY.

FINAL PAY QUANTITY: 1 LUMP SUM

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

1 L.S. @ \$32,000

15

REF:

FOR NOTES OF INSPECTION REF INSP. DIARY PG 8-12

TORQUE CHECKS BK 4 PG 32

511.07 COFFERDAM

DATE INSTALLED	DATE REMOVED	ENT BY	DATE:
-------------------	-----------------	-----------	-------

7/19/2002		BBB	
-----------	--	-----	--

7/20/2002		BBB	
-----------	--	-----	--

	7/22/2002	BBB	
--	-----------	-----	--

FINAL PAY QUANTITY: 1 LS

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

1 LS @ \$11,000

16

REF

DOWNSTREAM COFFERDAM INSPECTED AND ACCEPTED,
INSP DIARY BK 4 PG 3

UPSTREAM COFFERDAM INPSECTED AND ACCEPTED,
INSP DIARY BK 4 PG 22

UPSTREAM/DOWNSTREAM COFFERDAM REMOVED TODAY AND
THIS ITEM IS COMPLETE.

REF INSP DIARY BK 4 PG 5-20 FOR NOTES OF INSPECTION

631.12 ALL PURPOSE EXCAVATOR (INCL OPERATOR)

DREW NO.	NO OF HRS	ACCUM HRS	ENT BY	DATE
1	2 ✓	2 ✓	BBB	7/1/2002
2	10 ✓	12 ✓	BBB	7/6/2002
3	3 ✓	15 ✓	BBB	7/16/2002
5	8 ✓	23 ✓	BBB	7/25/2002
6	10 ✓	33 ✓	BBB	8/5/2002
8	8 ✓	41 ✓	BBB	8/12/2002
TOTAL		41 ✓		

FINAL PAY QUANTITY: 41 HRS ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

20HRS @ 100.00/HR

REF

INSP DIARY BK4 PAGE 4

INSP DIARY BK 4 PAGE 12

INSP DIARY BK 4 PAGE 13

INSP DIARY BK 4 PAGE 22

INSP DIARY BK 4 PAGE 55, REF CONTRACT MOD #5

INSP DIARY BK 4 PAGE 56, REF CONTRACT MOD #5

652.33 DRUMS

DATE COUNTED	EA	REF	ENT BY	DATE
9-27-01	10	DIRECT ENT	BBB	9/27/2002
10-15-01	22		BBB	10/05/2002
10-30-01	22		BBB	10/10/2002
10-25-01	36		BBB	10/25/2002
11-05-01	66	BK 3 PGE XX ✓	BBB	11/5/2002
11-10-01	25	DIRECT ENT	BBB	11/20/2002
11-17-01	30	DIRECT ENT	BBB	12/5/2002

MAXIMUM AMOUNT = 66 DRUMS ✓

FINAL PAY QUANTITY: 66 EA ✓

ENTERED BY : BILL BITTERMAN 12-10-02

CHECKED BY: ABC 1-2-03 ✓

50 EA @ \$65.00

1

656.75 TEMP SOIL EROSION AND WATER POLLUTION

ACCEPTED	INSPECTED	WEEK ENDING
O.K.		8/8/2002
	O.K.	8/15/2002
	O.K.	8/22/2002
	O.K.	8/29/2002
	O.K.	9/6/2002
	REF TO REMARKS	9/10/2002
	REF TO REMARKS	9/11/2002
	O.K.	9/13/2002
	O.K.	9/20/2002

FINAL PAY QUANTITY: 1 LS OF \$20,000 ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

1 L.S. @ \$20,000

26

REMARKS
MIKE CLARK, OES, REVISED AND APPROVED SEWPCCP, PAY 10%

PAID 50%

- ✓ DEDCUT \$100 FOR NON COMP TO PLAN, REF TO CORRESPENCE DATED 9/10/02 AND PROJECT DIARY PAGE 45
- ✓ DEDCUT \$100 FOR NON COMP TO PLAN, REF TO CORRESPENCE DATED 9/11/02 AND PROJECT DIARY PAGE 70

NOTE: THE DEDUCTIONS ARE MADE UNDER SAME ITEM #
W.O. SS, FOR A \$200 LS DEDUCT

202.20 COMMON EXCAVATION

COMMON EXC STA 20+00 TO 21+25 (TAPERED ENDS)
FROST HEAVE AREA

SECTION	W1	W2	DEPTH	AREA SF	LENGTH	VOLUME
1	0	0	0	0	25	487.5
2	24'	28'	1.5'	39	75	2925
3	24'	28'	1.5'	39	25	487.5
4	0	0	0	0		
TOAL VOLUME =						3900 CF

ITEM 202.20

TOTAL VOLUME FOR THIS SECTION = (3900)/27 = 144.44 CY

ITEM 304.104 ASG QTY = 144.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

DEPTH = 18"

202.20

COMMON EXC STA 16+25 L

REGRADE ENTRANCE TO MATCH NEW ROADWAY ELEV

DATE	TRUCK NO	NO OF LOADS	VOLUME VOL/LOAD	VOLUME CY
37530	117	2	10.5	21
37530	120	3	11.2	33.6
10/2/2002	117	1	10.5	10.5
10/2/2001	120	1	11.2	11.2

TOTAL 76.3 CY

T.M. QTY REDUCTION

ITEM 202.2 TOTAL QTY .9(76.3) = 68.67 CY

REFER TO BOOK #4 PAGE 60 FOR TRUCK MEASUREMENTS

ITEM 304.104

NOTE: TRUCK REMOVED EXC AND RETURNED WITH ASC WITH ONE ADDITIONAL LOAD BY TRUCK NO 117

TOTAL 76.3 CY
TRK #117 10.5

86.8 CY

T.M. QTY REDUCTION

ITEM 304.104 TOTAL QTY .8(86.8) = 69.44 CY

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

SUBGRADE CHECKS

LEFT		STA	RIGHT	
16'	12'	15+00	12'	16'
15+50				
16+00				
16+50				
17+00				
17+50				
18+00				
18+50				
19+00				
19+50				
20+00				
20+50				
21+00				
CHECKED BY B. SMITH 10-10-02				

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES ENT BY BBB 8-3-02

CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES ENT BY BBB 8-3-02

NOTE: DEPTHS EXPRESSED IN INCHES BELOW C-1' F.G

2

LEFT		STA	RIGHT	
16'	12'	15+00	12'	16'
-2%	-2%	15+00	-2.0%	-2%
25"	24"	21"	24"	24.75"
15+50				
-2%	-1.50%	15+50	-2.0%	-2%
24.25"	23.25"	21"	24"	24.75"
16+00				
-2%	-1.0%	16+00	-2.0%	-2%
23.5"	22.5"	21"	24"	24.75"
16+50				
-2%	-0.50%	16+50	-2.0%	-2%
22.75"	21.75"	21"	24"	24.75"
17+00				
-2%	+1.0%	17+00	-2.0%	-2%
20.5"	19.5"	21"	24"	24.75"
17+50				
-2%	+2.5%	17+50	-3.0%	-3.0%
18.5"	17.5"	21"	25.25"	26.75"
18+00				
-2%	+4.0%	18+00	-4.0%	-4.0%
16.25"	15.25"	21"	26.25"	28.75"
18+50				
-2%	+4.0%	18+50	-4.0%	-4.0%
16.25"	15.25"	21"	26.25"	28.75"
19+00				
-2%	+2.5%	19+00	-3.0%	-3.0%
18.5"	17.5"	21"	25.25"	26.75"
19+50				
-2%	+1.0%	19+50	-2.0%	-2%
20.5"	19.5"	21"	24"	24.75"
20+00				
-2%	-0.5%	20+00	-2.0%	-2%
22.75"	21.75"	21"	24"	24.75"
20+50				
-2%	-1.5%	20+50	-2.0%	-2%
24.25"	23.25"	21"	24"	24.75"
21+00				
-2%	-2.0%	21+00	-2.0%	-2%
25"	24"	21"	24"	24.75"
CHECKED BY B. SMITH 10-10-02				

TRUCK MEASUREMENTS

TRUCK	MEASUREMENTS	QTY
		M3
<u>M# H</u>	<u>LXWXH</u>	
#017	3.93X2.21X1.22=10.6 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #017 = 10.6-.112 =	10.5
<u>M# H</u>	<u>LXWXH</u>	
#03	2.21X1.22=10.6 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #03 = 10.6-.112 =	10.5
<u>M# H</u>	<u>LXWXH</u>	
#032	3.83X2.11X1.12=9.05 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #032 = 10.6-.112 =	8.9
<u>M# H</u>	<u>LXWXH</u>	
#08	3.83X2.11X1.12=9.05 MINUS HOIST = 1.22X.46X.2=.112	
	TOTAL FOR TRUCK #08 = 10.6-.112 =	8.9

CHECKED BY: ABC 1-2-03

ENT	DATE
BY	
BBB	37470
BBB	37470
BBB	37470
BBB	37470

BBB 37470

BBB 37470

BBB 37470

BBB 37470

FINEGRADE CHECKS

LEFT		STA	RIGHT	
16'	12'		12'	16'
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02		15+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-2-02	
		15+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		16+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		16+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		17+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		17+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		18+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		18+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		19+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		19+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		20+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	
		20+50		
CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02		21+00	CHECKED & FOUND TO BE WITHIN ALLOWABLE TOLERANCES, ENT BY BBB 8-3-02	

NOTE: DEPTHS EXPRESSED IN INCHES BELOW C-1' F.G

LEFT		STA	RIGHT	
16'	12'		12'	16'
-2%	-2%	15+00	-2.0%	-2%
4"	3"	0"	3"	4"
-2%	-1.50%	15+50	-2.0%	-2%
3.25"	2.25"	0"	3"	4"
-2%	-1.0%	16+00	-2.0%	-2%
23.5"	1.5"	0"	3"	4"
-2%	-0.50%	16+50	-2.0%	-2%
1.75"	.75"	0	3"	4"
-2%	+1.0%	17+00	-2.0%	-2%
-0.5"	-1.5"	21"	3"	4"
-2%	+2.5%	17+50	-3.0%	-3.0%
-2.5"	-3.5"	0"	4.25"	5.25"
-2%	+4.0%	18+00	-4.0%	-4.0%
-4.75"	-5.75"	0"	5.75"	6.75"
-2%	+4.0%	18+50	-4.0%	-4.0%
-4.75"	-5.75"	0"	5.75"	6.75"
-2%	+2.5%	19+00	-3.0%	-3.0%
-2.5"	-3.5"	0"	4.25"	5.25"
-2%	+1.0%	19+50	-2.0%	-2%
-0.5"	-1.5"	0"	3"	4"
-2%	-0.5%	20+00	-2.0%	-2%
1.75"	0.75"	0"	3"	4"
-2%	-1.5%	20+50	-2.0%	-2%
3.25"	2.25"	0"	3"	4"
-2%	-2.0%	21+00	-2.0%	-2%
4"	3"	0"	3"	4"

CHECKED BY B. SMITH 10-10-02

7/24/1900 STRUCTURAL EARTH EXC-MAJOR STRUCTURES

	BS	HI	FS	ELEV	REMOVAL DEPTH BELOW FTG ELEV 8.5'
TMB #3	3.8'	19.3'			
EL = 15.5'					
1			12.0	7.3	1.2'
2			12.3	7.0	1.5'
3			12.1	7.2	1.3'
4			12.5	6.8	1.9'

AVERAGE DEPTH OF UNDERCUT BELOW ELEV 8.5' = 1.5'

ITEM 206.082 STRUCT EARTH EXC-MAJOR STRUCT

VOLUME = $.5(12+14) \times 4' \times 1.5' = 78 \text{ CF}/27 = 2.89 \text{ CY}$

ITEM 203.25 GRAVEL BORROW

VOLUME = $2.89 \times 1.15 \text{ (SWELL)} = 3.32 \text{ CY}$

ITEM 206.092 STRUCT ROCK EXC-MAJOR STRUCT

TOP OF LEDGE ELEVATIONS

	BS	HI	FS	ELEV
3	3.8	19.3'	10.0	9.3'
4			10.2	9.1'
5			9.2	10.1'
6			8.8	10.5
7			8.4	10.9'
8			8.2	11.1'

TOP OF LEDGE WEIGHTED AVERAGE ELEVATION

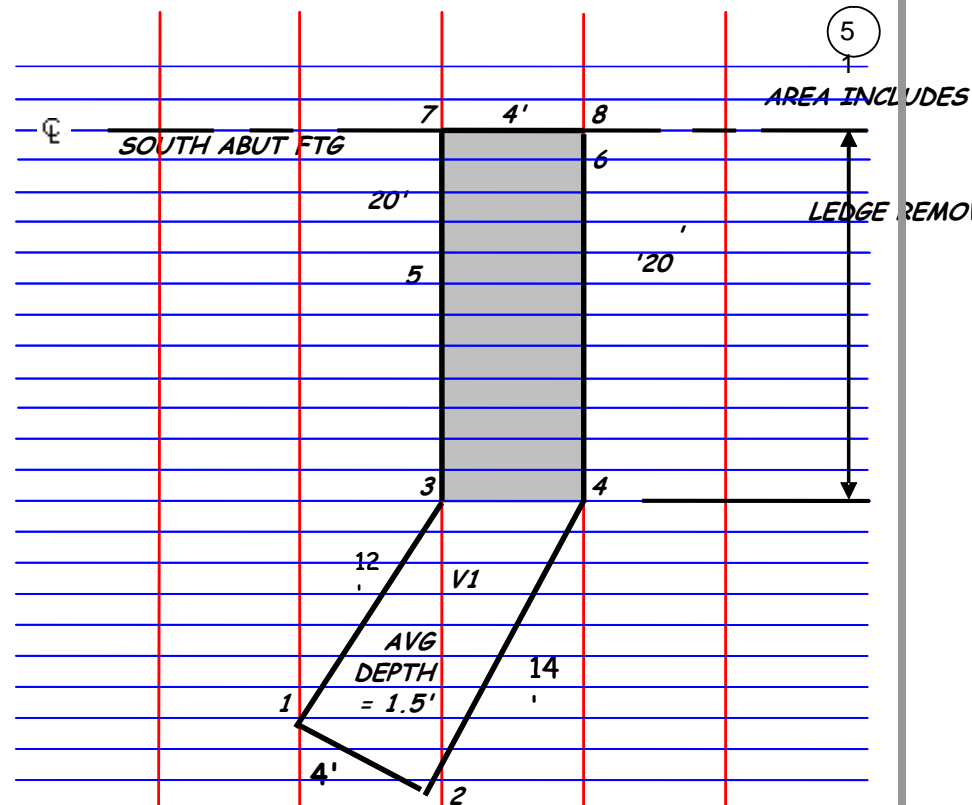
= $(9.3 + 9.1 + 2(10.1+10.5) + 10.9 + 11.1)/8 = 10.2'$

BOTTOM OF LEDGE ELEVATIONS

	BS	HI	FS	ELEV
3	3.8	19.3'	12.3	7.0
4			12.2	7.1'
5			12.0	7.3'
6			12.1	7.2'
7			12.2	7.1
8			12.3	7.0

BOTTOM OF LEDGE WEIGHTED AVERAGE ELEVATION

= $(7.0 + 7.1 + 2(7.3+7.2) + 7.1 + 7.0)/8 = 7.16$



ITEM 206.092

VOLUME OF LEDGE ABOVE PLAN ELEV OF 8.5

VOLUME = $(10.2-8.5) \times 21.5 \times 5.5' \text{ (18" PAY LIMIT)} = 201.0 \text{ CF}$

VOLUME = $201.0 / 27 = 7.44 \text{ CY} \checkmark$

ITEM 000.00, STRUCT ROCK BELOW PLAN ELEV TO BE PAID

1.5 TIME 206.092

VOLUME OF LEDGE BELOW PLAN ELEV OF 8.5'

VOLUME = $(8.5-7.15)' \times 21.5' \times 5.5' = 159.64 \text{ CF} / 27 = 5.9 \text{ CY} \checkmark$

ITEM 502.22 CONCRETE UNDERWATER

REF DELIVERY SLIP NO BRI-9046

QTY PLACED ON LEDGE TO PLAN ELEV = 6.5 CY \checkmark

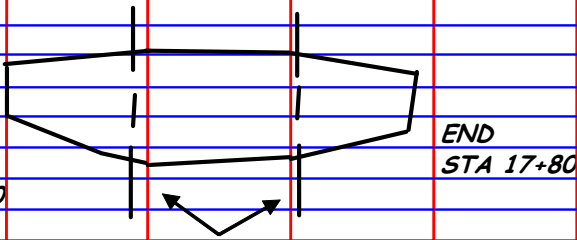
MEASURED/CALCULATED BY: BILL BITTERMAN 8-30-02

CHECKED BY: ABC 1-2-03 \checkmark

203.21 ROCK EXCAVATION

REMOVING ROCK ABOVE SUBGRADE STARTING AT STA 17+00

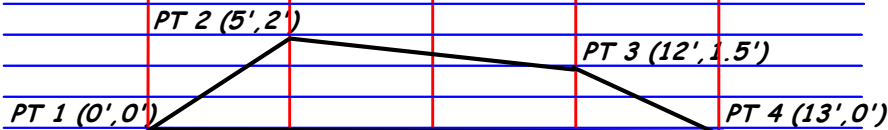
PLAN



TWO SECTIONS WERE TAKEN AT STA 17+60 AND 17+72

SECTION AT STA 17+60

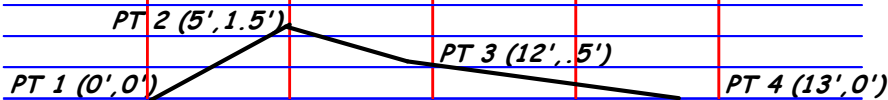
NOTE: ZERO ELEV DEPICTS SUBGRADE



TBM	BS	HI	FS	ELEV	
= SG	5.5	5.5			
PT 1			5.5	0'	✓
PT 2			3.5	2.0'	✓
PT 3			4.0	1.5'	✓
PT 4			5.5	0'	✓

SECTION AT STA 17+72

NOTE: ZERO ELEV DEPICTS SUBGRADE



TMB = SG	BS	HI	FS	ELEV	
		5.5			
PT 1			5.5	0	✓
PT 2			4.0	1.5'	✓
PT 3			5.0	.5"	✓
PT 4			5.5	0	✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03 ✓

AREA OF SECTION =

$$.5((X_1(Y_4 - Y_2) + X_2(Y_1 - Y_3) + X_3(Y_2 - Y_4) + X_4(Y_3 - Y_1)))$$

AREA OF SECTION AT 17 + 60

POINT	X	Y	DIFFERENCE OF Y'S	DOUBLE AREA	
				+	-
1	0	0	0-2=-2		0 ✓
2	+5	+2	0-1.5=-1.5		7.5 ✓
3	12	+1.5	2-0=2	24 ✓	
4	+13	0	1.5-0=1.5	19.5 ✓	
1	0	0	0		0
				43.5 ✓	-7.5 ✓
TOTAL = +43.5 - 7.5 = 36					✓
AREA = 36 X .5 = 18 SF					✓

AREA OF SECTION AT 17+ 80

POINT	X	Y	DIFFERENCE OF Y'S	DOUBLE AREA	
				+	-
1	0	0	0-1.5=-1.5		0 ✓
2	5	1.5	0-.5=-.5		2.5 ✓
3	12	0.5	1.5-0=1.5	18 ✓	
4	13	0	.5-0=.5	7.5 ✓	
1	0	0	0		0
				25.5 ✓	2.5 ✓
TOTAL = +25.5 - 2.5 = 23					✓
AREA = 23 X .5 = 11.5 SF					✓

VOLUME OF ROCK REMOVED

STA	AREA SF	AVERAGE		VOLUME CF
		AREA SF	LENGTH FT	
17+50	0			
17+60	18	9 ✓	10 ✓	90 ✓
17+72	11.5	14.75 ✓	12 ✓	177 ✓
17+80	0	5.75 ✓	8 ✓	46 ✓
TOTAL VOLUME =				313/27 = 11.59 CY ✓

ITEM 203.21 = 11.59 CY, ITEM 203.20 DEDUCT 11.59 CY ✓

206.07 STRUCTURAL ROCK EXCAVATION

206.07 STRUCTURAL ROCK EXCAVATION FOR 12" UD TYPE C
FROM STA 10+80 TO 11+90

TRENCH PAY WIDTH = DIA + 18" = 30" = 2.5' ✓

TOP OF ROCK ELEV.

	BM	BS	HI	FS	ELEV
	#3 = 23.5'	4.5	19.0		
STA					
10+90				9.0	10.0 ✓
11+00				8.8	10.2 ✓
11+10				8.6	10.4 ✓
11+20				8.5	10.5 ✓
11+30				8.2	10.8 ✓
11+40				8.1	10.9 ✓
11+50				8.4	10.6 ✓
11+60				8.6	10.4 ✓
11+70				8.5	10.5 ✓
11+80				8.8	10.2 ✓
11+90				9	10 ✓

BOTTOM OF ROCK ELEVATIONS

	BM	BS	HI	FS	ELEV
	#3 = 23.5'	4.2	19.3'		
STA					
10+85				9.7	9.6 ✓
10+90				9.6	9.7 ✓
11+00				9.4	9.9 ✓
11+10				9.5	9.8 ✓
11+20				9.5	9.8 ✓
11+30				9.4	9.9 ✓
11+40				9.6	9.7 ✓
11+50				9.5	9.8 ✓
11+60				9.4	9.9 ✓
11+70				9.5	9.8 ✓
11+80				9.6	9.7 ✓
11+90				9.5	9.8 ✓
11+95				9.7	9.6 ✓

STA	TOP LEDGE	BOTTOM LEDGE	AREA	AVG AREA L'	VOLUME
10+85	0	9.6	0		
				.25 X 5	1.25 ✓
10+90	10.0	9.8	0.5		
				.875 X 10	8.75 ✓
11+00	10.2	9.7	1.25		
				1.25 X 10	12.5 ✓
11+10	10.4	9.9	1.25		
				1.5 X 10	15 ✓
11+20	10.5	9.8	1.75		
				2.13 X 10	21.3 ✓
11+30	10.8	9.8	2.5		
				2.75 X 10	27.5 ✓
11+40	10.9	9.7	3		
				2.5 X 10	25 ✓
11+50	10.6	9.8	2		
				1.63 X 10	16.3 ✓
11+60	10.4	9.9	1.25		
				1.5 X 10	15 ✓
11+70	10.5	9.8	1.75		
				1.5 X 10	15 ✓
11+80	10.2	9.7	1.25		
				.875 X 10	8.75 ✓
11+90	10	9.8	0.5		
				.25 X 5	1.25 ✓
11+95	0	9.6	0		
(END OF ROCK EXC)					
TOTAL VOLUME =					167.6 CF ✓

NOTE: ALL FINAL ROCK ELEV ABOVE THE FLOW LINE -1 FT
PAY LIMIT (PIPE ELEV. 10.4 TO 10.0)

ITEM 206.07

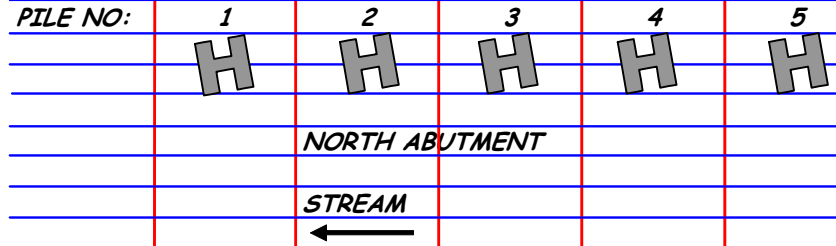
TOTAL VOLUME = 167.6/27=6.2 CY ✓

MEASURED & CALCULATED BY : BILL BITTERMAN 11-08-02
CHECKED BY: ABC 1-2-03 ✓

501.36 STEEL H-PILES

PILE NO.	HEAT NO.	DATE DRIVEN	LENGTH (FT)	CUT OFF	LENGTH
1	191244	5-2-02	50.32	4.1"	89.3 ✓
	194352	5-6-02	40.26	11.33'	
DRIVEN LENGTH					
2	191248	5'-2'-02	50.32	7.2"	89.0 ✓
	194350	5-6-02	40.27	11'-6"	
DRIVEN LENGTH					
3	191248	5'-2'-02	50.33	6"	89.2' ✓
	194348	5-6-02	40.27	11'-0"	
DRIVEN LENGTH					
4	191244	5'-2'-02	50.31	4"	89.3' ✓
	194427	5-6-02	40.25	11'-6"	
DRIVEN LENGTH					
5	191246	5'-2'-02	50.31	6"	89.1' ✓
	194352	5-6-02	40.26	11'-2"	
DRIVEN LENGTH					

PILE NO.	501.361		501.36		
	DRIVEN LENGTH (FT)	ACCUM (FT)	PILES DELIVERED (FT)	(FT)	ACCUM (FT)
1	89.3' ✓	89.3'	50.32' ✓	40.26' ✓	90.58
2	89.0' ✓	178.3	50.32' ✓	40.27' ✓	181.17
3	89.2' ✓	267.5	50.33' ✓	40.27' ✓	271.77
4	89.3' ✓	356.8	50.31' ✓	40.25' ✓	362.33
5	89.1' ✓	445.9 ✓	50.31' ✓	40.26' ✓	452.9' ✓



NOTE: THE PILE #'S ARE NOT THE SAME AS THE BEAM #'S
ALL PILES ARE HAVE A 10 DEGREE SKEW

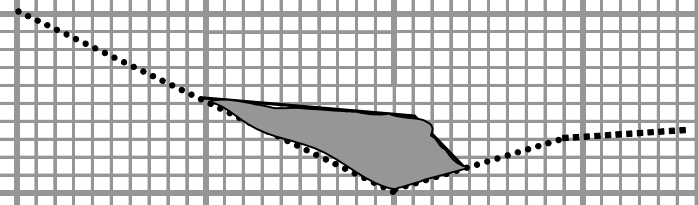
ITEM 501.36: PILES DELIVERED = 452.9'

ITEM 501.361: PILES IN PLACE = 445.9'

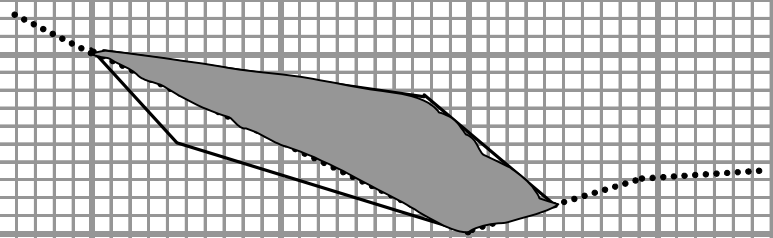
MEASURED/COMPS BY BILL BITTERMAN 5-7-02

CHECK BY: ABC 8-08-02 ✓

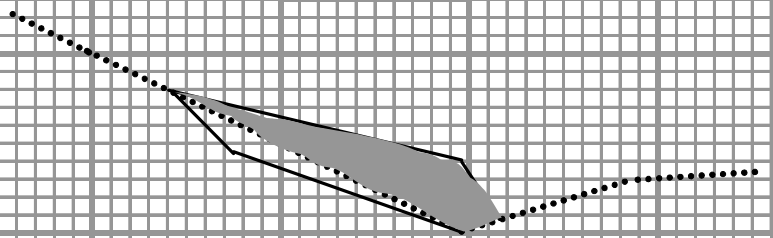
..... DESIGN GRADE
 █ 203.21 ROCK EXCAVATION
 ——— ROCK PROFILE



STA 21+50



STA 21+75



STA 22+90

ITEM 203.21

NOTE: ALL AREAS WERE MEASURED WITH A PLANIMETER FROM THE ADJACENT CROSS SECTIONS

STA	AREA	AVERAGE AREA	LENGTH (FT)	VOLUME (CY)	
21+25	0	2.9	25	2.7	✓
21+50	5.8	7.5	25	6.9	✓
21+75	9.2	6.5	15	3.6	✓
21+90	3.8	1.9	20	1.4	✓
22+10	0				
		TOTAL		14.6	✓

ITEM 203.21 TOTAL = 14.6 CY ✓

MEASURED/CALC BY: BILL BITTERMAN 8/20/02

CHECKED BY: ABC 1-2-03

DATE	DAY	WEATHER
PROJECT ACTIVITIES:		
<input type="checkbox"/>	ITEM NUMBER, LOCATION & LIABLE CONTR/SUB	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF ANY EXCAVATION	
<input type="checkbox"/>	SOURCE AND DISPOSITION OF GRAVEL AND BORROW	
<input type="checkbox"/>	NON-ROUTINE ACTIVITIES	
A:	CONTRACTORS' NON ADHERANCE TO CONTRACT SPEC'S: MTCD'S & SEWPC	
B:	MDOT DIRECTIVES GIVEN TO CONTRACTOR IE: RELOCATIONS, CHANGES IN ALIGNMENT UNDERCUT & REWORK	
C:	CONTRACTOR IS INADEQUETLY STAFFING THE JOB FOR THE TYPE OF WORK	
D:	ANYTHING RELATED TO POTENTIAL CONTRACTOR CLAIMS	
E:	ANY DISCUSSIONS WITH TOWN OFFICIALS, UTILITIES, DEVELOPERS AND ABUTTERS	
G:	TRAFFIC ACCIDENTS & OTHER HAZARDS	
ENTERED BY : NAME & DATE		

7/16/2002	SUNNY 70'S	1
ITEM 206.082		
COMPLETED EXCAVATION AT THE NORTH ABUTMENT SECTION, UPSTREAM OF CENTERLINE, DEWATERED AREA, CLEANED OFF LEDGE, AND PLACE 12.2 CY OF CONCRETE		
ITEM 502.26		
PLACED 10.82 CY OF CONCRETE FILL, 1.25 CY OF CONCRETE WAS SPILLED BEYOND THE FORMS AND WILL NOT BE PAID FOR. THE REMAINING CONCRETE WAS PLACED IN THIS SECTION TO THE ELEV OF THE BOTTOM THE FOOTING SHOWN ON THE PLANS. SECTION CURED WITH WATER AND CONT'D WETTED		
BILL SIMPSON, OES CONSULTANT ON -SITE TO REVIEW SEWPC DEVICES AND 3 ISSUES WERE BROUGHT TO MY ATTENTION, AND WERE DIRECTED IMMEDIATELY TO JEFF SIMPSON, W&S SUPER. AND WERE ALL ISSUES WERE RESOLVED.		
ITEM 206.082		
ALL EXCAVATED MATERIAL WAS DETERMINED TO BE UNUSABLE AND WAS TAKEN TO THE SMITH WASTE AREA		
ITEM 652.36 AND 656.75		
ALL MTCD'S AND SEWPC DEVICES ARE INPLACE AND IN GOOD WORKING CONDITION AT THE END OF THE DAY		
ENTERED BY: BILL BITTERMAN 7-16-02		

7/17/2002 TUESDAY

FAIR 50'S

ITEM 211.20

WHILE PERFORMING INSLOPE WORK, DISCOVERED THAT THE EXISTING BACK SLOPES ARE NOT AS SHOWN ON THE X-SECTIONS AT STA 20+00 TO 21+35 LEFT DO NOT DEPICT ACTUAL FIELD CONDITIONS, EXISTING SLOPES ARE STEEPER AND INFRINGE ON DETAILED GUARDRAIL PLACEMENT.

DIRECTED CONTRACTOR TO REMOVE 9 STUMPS AND TO CUT BACKSLOPES TO FIELD STAKED MATCH POINT (WITHIN THE R O W,

DIRECTED THE CONTRACTOR TO REMOVE 9 SINGLE TREES THESE TREES WERE OUTSIDE OF THE CLEARING LIMITS BUT REQUIRED REMOVAL DUE TO ACTUAL BACKSLOPES MATCH POINTS AND SIGHT DISTANCE, AND OVERALL POOR CONDITION OF THE TREES.

THE 9 TREES POSED A VERY SERIOUS HAZARD TO VEHICULAR TRAFFIC.

STUMP & TREE REMOVAL WILL BE PAID BY RWO, EXCAVATING AND SHAPING BACKSLOPES WILL BE PAID WITH EXISTING BID ITEMS (MANPOWER AND EQUIPMENT RENTAL TIME)

ENTERED BY: BILL BITTERMAN 7-17-02

6/7/01 FRIDAY

SUNNY 70'S

2

ITEM 603.159 CULVERT PIPE OPTION III

REMOVED EXISTING 12" CMP AND INSTALLED 48' OF 12" CORR. POLYETHYLENE PIPE AT STA 12+75. PIPE WAS INSTALLED PER LINE, GRADE AND SPEC. BACKFILLED WITH EXCAVATED MATERIAL AND COMPACTED EACH 8" LIFT THERE WAS ALSO AN UNDERCUT BELOW THIS PIPE BECAUSE OF UNSTABLE UNDERLYING BLUE CLAY. THIS UNDERCUT WAS APPROVED BY THE RESIDENT ENGINEER.

UNDERCUT MEASUREMENTS

ITEM 206.061 STRUCT EARTH EXC. - BELOW GRADE THE PIPE WAS UNDERCUT BY 24" +/- FROM PROPOSED FLOW LINE

AVERAGE DEPTH = $22+27.5+26+24.5+23.5/5=24.7''$
MAX WIDTH=PIPE DIA + 15"(EACH SIDE)=42"
LENGTH = 40'
QTY = $(24.7''-12'') \times (15''+12''+15'') \times 40' / 27 = 5.5 \text{ CY}$

ITEM 203.25 GRANULAR BORROW

ITEM USED TO BACKFILL UNDERCUT
TOTAL QTY = 5.5 CY

BORROW MEASUREED IN PLACE MUST BE SWELLED BY 15%

TOTAL QTY = $5.5 \times 1.15 = 6.33 \text{ CY}$

ENTERED BY : BILL BITTERMAN 6-7-02

9/10/2002 FRIDAY

SUNNY 70'S

ITEM 603.159

CONTRACTOR ARRIVED AT THE SITE TODAY WITH THE OPTION III, ALL PIPE IS CERTIFIED ASHTO M-294 STAMP

ITEM 631.12

USED 2 HRS OF APE, REF TO DREW NO. 3, TO CREATE A BETTER SWALE THROUGH THE PROPERTY OF MRS SMITH. MRS SMITH BROUGHT TO OUR ATTENTION THAT THE WATER RUNOFF FROM THE ROAD COLLECTS NEAR HER HOUSE AND ASKED THE MDOT TAKE REMOVE A HIGH SPOT IN HER LAWN TO ALLOW FOR BETTER DRAINAGE THE HIGH SPOT WAS LOCATED WITHIN THE ROW

ITEM 652.33

COUNTED 22 DRUMS USED ON THE PROJECT TODAY

ITEM 304.10

CONTINUED TO PLACE ASC-GRAVEL IN WELL COMPACTED LIFTS FROM ST 12+00 TO 15+50

NOTE: D. WEISNER ON PROJECT TODAY TO TEST COMPACTIONS

ENTERED BY: BILL BITTERMAN 9-10-02

6/8/2001 TUESDAY

SUNNY 70'S

3

603.09 CB STA 33+28 RT

INSTALLED 8' PRECAST CB WITH 2' SUMP FOR EXISTING 24" CIP. REMOVED A PORTION OF A LARGE CONCRETE STRUCTURE IN ORDER TO INSTALL CB SUMP. SEE OPPOSITE PAGE FOR PAY DEPTH & QTY'S BACKFILLED WITH STONE FOR CB BEDDING. OUTSIDE CB = 4' DIAMETER EXCAVATED 18" OUTSIDE WALL AND USED A 235 B'HOE WITH HOE RAM TO REMOVE CONCRETE BACKFILLED WITH EXCAVATED MATERIAL, AND COMPACTED EACH LIFT. ALL WORK DONE ACCORDING TO PLANS & SPEC

ITEM 203.07 STRUCTURAL ROCK EXCAVATION

BROKE OFF EXISTING CONCRETE STRUCTURE TO INSTALL CB SUMP

BOTTOM OF SUMP CONC ELEV = 90.5' FROM PLANS ✓

AVERAGE ELEV OF TOP OF BURIED CONCRETE

TBM #	BS	HI	FS	ELEV.	
101.5		3.5	105	✓	
			9.0	96	✓ TP OF CONC
			9.3	95.7	✓ TP OF CONC
			9.9	95.1	✓ TP OF CONC
			10.0	95	✓ TP OF CONC

AVERAGE TOP ELEV OF BURIED CONCRETE = 95.45'

BOTTOM OF UNDERCUT ELEV = 89.5'

DEPTH OF CONCRETE REMOVED = 95.45 - 89.5 = 5.95' ✓

WIDTH OF CONCRETE REMOVED = 4' + 2(1.5') = 7' ✓

ITEM 203.07 STRUCT ROCK EXCAVATION

VOLUME = 3.14 X (7/2)² X 5.95 = 65.42 CF / 27 = 2.42 CY ✓

ENTERED BY : BILL BITTERMAN 06-08-02

CHECKED BY: ABC 1-2-03 ✓

37422 MONDAY

SUNNY 70'S

4

ITEM 202.20

CONTRACTOR IS MILLING EXISTING PAVEMENT AND STOCKPILING MAT'L AT APPROVED STAGING AREA TO BE USED LATER AS AS6 GRAVEL. CONTRACTOR IS EXCAVATING MAT'L FROM STA 15+00 TO 21+00. QTY TO BE MEASURED PLAN QTY. REF TO BK 3 PG 2 FOR SUBGRADE CHECK AND CONTRACTOR IS TAKING MAT'L TO THE SMITH'S WASTE AREA.

ITEM 304.104

CONTRACTOR IS BACKFILLING EXC AREAS WITH MAT'L FROM THE ALLISON PIT AND PLACING AND COMPACTING IN LIFTS FROM STA 15 + 00 TO STA 21+00. MILLINGS WAS USED TO PLACE THE FINAL LIFT. QTY IS TO BE MEASURE PLAN QTY REF TO BK 3 PG 3 FOR FINEGRADE CHECKS

ITEM 203.21

ROCK WAS REMOVED FROM STA 16+50 FIELD MEASURED VOLUME = 4.5' X 3.3' X 4' = 59.4 CF / 27 = 2.2 CY

ITEM 202.20

DEDUCT ROCK QTY OF 1.46 CY FROM ITEM 202.2

ENTERED BY : BILL BITTERMAN 6-15-02

ITEM 203.25

GRANULAR BORROW THE CONTRACTOR OPTED TO USE A BEDDING OF CRUSHED STONE FOR THE CB THE BEDDING WILL BE PAID AT THE CONTRACT PRICE OF 203.35 GRANULAR BORROW

VOLUME OF GRANULAR BORROW

ELEV OF BOTTOM OF CONC SUMP = 92.00 ✓

ELEV OF BOTTOM OF UNDERCUT = 87.5' ✓

MEASURE UNDERCUT FOR PAYMENT ✓
92.00 - 4"(CONC) - 12" (FIRST FT FREE) = 90' - 8"

DEPTH OF UNDER CUT
90.75 - 87.5 = 3.25' ✓

VOLUME

$(3.14 \times (7/2)^2 \times 3.25) / 27 = 4.63 \text{ CY}$ ✓

SWELL = 4.63 X 1.15 = 5.32 CY ✓

ENTERED BY : BILL BITTERMAN 11-08-02

CHECKED BY: ABC 1-2-03

6/10/2002 MONDAY

SUNNY 70'S

ITEM 403.208

PAVING 12' ML AND 4' SHOULDERS IN ONE PASS.

BOTH ARE METHOD A DENSITIES ARE EXCLUDED FROM THE PAY FACTOR FOR THE MATERIAL PLACED ON THE THE VARIABLE WIDTH SHOULDERS ONLY.

MIKE SMITH, PAVING SUPT. AND MYSELF AGREED THAT THE TONAGE ON M.L. AND SHLDR ARE TO SPLIT IN THE FOLLOWING MANNER.

$ML = (7,100' \times 12' \times 2) / 9 \times 110\#/SY/IN / 2000 = 3,000 \text{ TONS}$

~~1,601.25 T~~ - 3,000 T = 301.25 TONS

REF COVER SLIP #3458 QTY OF 1601.25 TONS FOR ITEM 403.208

ITEM 508.13

AD ROSSI ON SITE TO INSTALL MEMBRANE

ON BRIDGE DECK. THE DECK WAS "SHOT BLASTED" USING A BLASTAC MACHINE USING SMALL BLACK STEEL PELLETS.

THE DECK WAS BLASTED COMPLETED AND FREE OF LATANCE.

3 MOISTURE READING WERE TAKEN BY THE CONTRACTOR USING A SOVEREIGN PORTABLE ELECTRONIC MOISURE MASTER

WITH RESULTS OF 3.2, 3.2 & 3.3., THE READINGS

WERE TAKEN AT STA 1+005, CL, STA 1+009 1.5 M RT, AND STA 1+112; 2M LT RESPECTIVELY.

ROSSI PRIMED THE DECK USING ROYSTON RAYBOND 713 BATCH NO. BA A 23908

ROSSI PLACED 32.4 SM OF ROYSTON 10AN EASYPAVE

MEMBRANE AND ALL EDGES WERE SEALED WITH MASTIC

THE PRIMER AND MEMBRANE PRODUCTS ARE ON THE MDOT APPROVED PRODUCT LIST

37110 MONDAY

SUNNY 70'S

5

ITEM 511.07

CONTRACTOR INSTALLING UPSTREAM

AND DOWNSTREAM COFFERDAMS. BUILDING

SEDIMENTATION BASINS ON DOWNSTREAM

SIDE OF BRIDGE ON EXISTING LOGGING. THE

CONTRACTOR WAS NOTIFIED THAT THE BASIN

NEEDS MORE BALES PER EROSION CONTROL PLAN.

CONTRACTOR IS TAKING MAT'L TO THE SMITH'S WASTE AREA.

ITEM 509.12

CONTRACTOR HAS FINISHED ERECTING

PIPE ARCH THIS A.M. AND STARTED TIGHTENING

THE BOLTS WITH COMPRESSOR. PERFORMED TORQUE

CHECK ON BOLTS

ITEM 203.21

ROCK WAS REMOVED FROM STA 16+50

FIELD MEASURED

VOLUME = $5' \times 3.3' \times 4' = 66 \text{ CF} / 27 = 2.44 \text{ CY}$

ITEM 202.20

DEDUCT ROCK QTY OF 2.44 CY FROM ITEM 202.2

ITEM 206.061

DIRECTED CONTRACTOR TO UNDERCUT UD TO AVOID

EXISTING UTILITY, THE UTILITY IS NOT LOCATED AS PER PLAN.

FIELD MEASURE FROM FLOW LINE

DETH BELOW FLOWLINE -AVG 2.5 FT

WIDTH = 2.5'

LENGTH = 45'

QTY = $(2.5-1' \text{ PAY LIMIT}) \times 2.5' \times 45' / 27 = 6.25 \text{ CY}$

ENTERED BY : BILL BITTERMAN 8-7-02

37109 MONDAY

SUNNY 70'S

ITEM 511.07

UPSTREAM AND DOWNSTREAM COFFERDAMS COMPLETED PER PLAN AND SPEC AND GOODWIN'S WAS ONSITE TO DELIVER PUMP AND PIPES. WATER IS NOW BEING DIVERTED FROM ABOVE COFFERDAM TO DOWNSTREAM BASIN.

ITEM 509.12

SPOT CHECKED TORQUE ON BOLTS AFTER PIPE WAS IN THE GROUND AND RE-TORQUE AND FOUND TO BE WITHIN SPECIFICATIONS.

ITEM 652.36

MTCD ARE OF FOR THE DAY. ROAD WAS CLOSED THIS AM TO TRAFFIC. ALL DETOUR SIGNS WERE PUT INTO PLACE THIS MORNING AS PER PLAN.

ITEM 652.312 AND 526.301

TYPE III BARRICADES IN PLACE AND TEMP CONC BARRIERS PUT IN PLACE BEHIND TYPE III AS PER PLAN ON THE NORTH ANDOVER ROAD ENTERING AND EXITING THE WORK AREA NEAR THE MULTIPLATE.

ENTERED BY: BILL BITTERMAN 8-06-02

7/2/2002 TUESDAY

HOT & HUMID

6

ITEM 501.36 AND 501.361

COMPLETE ASSEMBLY OF DELMAR D19-42 DIESEL HAMMER, TECH ANDY PETREE ON SITE TO OVERSEE ASSEMBLY & OPERATION OF HAMMER.

ABUTMENT NO. 1

THE LAST OF THE SPLICES ARE COMPLETED AS TODAY BY KEN DUNLOP, CERTIFIED WELDER ID NO 564-9873

ITEM 501.02

CONTRACTOR USED PREFABRICATED PILE SPLICES (AFF CHAMPION SPLICES), WELDED SPLICES TO INSIDE OF FLANGE ALSO WELDED OUTSIDE OF FLANGES. A PARTIAL PENETRATION GROOVE WELD WITH 45 DEGREE BEVEL ON THE UPPER MEMBER.

USED AIRCO CODE ARC7018MR SHIELDED METAL ARC WELDING ELECTRODES (ACCORDING TO MDOT APPROVED LIST)

ITEM 501.361

DROVE PILES # 1,2,3,4 & 5 TO REFUSAL AND CUT PILES TO REQ'D ELEVATIONS

NOTE:

FRED AGHARAZI, AATECH, ON SITE TO PERFORM PILE DRIVING ANALYSIS, (DYNAMIC LOAD TEST) ON FIRST DRIVEN PILE PILE #5, PILE CAPACITY AND ALLOWABLE DRIVING STRESSES CONFIRMED, PILE REFUSAL DETERMINED BY 4 BLOWS/ 0 " REF TO TESTING FILE FOR ITEM 501.361

ENTERED BY: BILL BITTERMAN 7-02-02

APPENDIX B

EXAMPLE MEMO'S AND FORMS

Maine Department of Transportation - Contracts Division Time Charge Report

Project No. 12999.00

Town/City Augusta Calculated By: B. Bitterman

Contractor: General Corp. Checked By: Robert Clark

**All following documents must have same completion date; Diary Entry,
Physical Work Completion Letter and Time Charge Report**

<u>Contract Completion Information</u>	<u>This section for Road/Bridge Open Deadlines</u>
Orig. Contract Completion Date <u>10/14/2013</u>	Road / Bridge Open <u>9/1/2013</u>
Days Added by Contract Mods <u>4</u>	Days over (Subject to LDs) <u>6</u>
Revised Completion Date <u>10/18/2013</u>	LD Value \$ <u>375.00</u>
Physical Work Complete Date <u>10/18/2013</u>	Total LDs applied \$ <u>2250.00</u>
Days over (Subject to LDs) _____	<u>This section for Fabrication Deadlines</u>
LD Value \$ _____	Days over (Subject to LDs) _____
Total LDs applied \$ _____	LD Value \$ _____
	Total LDs applied \$ _____

<u>This section for use in case of approved/scheduled shutdown</u>	
(Winter) Suspension Date _____	Work Resumed Date _____

CM#	DAYS	CM#	DAYS	CM#	DAYS
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

List work not subject to Time Charge (for example; paving postponed, or remedial):

Additional Remarks:



JOHN ELIAS BALDACCI
GOVERNOR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

DAVID A. COLE
COMMISSIONER

Example No 1; Memo free of Encroachments

Project 009999.00 - Augusta

ENGINEERS STATEMENT OF RIGHT OF WAY ENCROACHMENT

The above mentioned project was inspected on February 9, 2005 and appears to be free of all Right of Way Encroachments.

Bill Bitterman
Resident Engineer

Example No 2; Memo with Encroachments

Project 009999.00 - Augusta

ENGINEERS STATEMENT OF RIGHT OF WAY ENCROACHMENT

The above mentioned project was inspected on February 9, 2005 and appears to be free of all Right of Way Encroachments with the following exceptions:

1. Sta. 18+576 LT. Easy Self Storage sign on post.
2. Sta 22+320 LT. Granite Mailbox post.

Bill Bitterman
Resident Engineer



PRINTED ON RECYCLED PAPER

THE MAINE DEPARTMENT OF TRANSPORTATION IS AN AFFIRMATIVE ACTION - EQUAL OPPORTUNITY EMPLOYER

Maine Department of Transportation - Project Development Waste Area Permit

Project No: _____

Town: _____

Upon receipt of written permission from _____
(Property Owner)

_____ is authorized to place waste material from this project at
(Contractor)

(Description of Waste Area)

, in accordance with Sections 104.3.2 & 105.8.3 & 203.06 & 211.08, State of Maine, Department of Transportation,
Standard Specifications Highways and Bridges, Revision of December 2002.

All waste areas and entrances to the waste area shall be uniformly graded to drain, loamed or covered with
other earthy material that will support growth of grass, seeded and hay mulched.

All trees which are damaged, uprooted or otherwise moved as a result of the waste material, and trees which
have had waste material placed around them to the extent that they will die, shall be cut and removed.

Grading, Loaming, Seeding and Hay Mulching shall not be paid directly, but shall be incidental to other
items in the contract.

The contractor is responsible for relocating and disposing of waste. Any fill material generated from this
Project shall not be placed, stored, or disposed of in a wetland at an off-site location unless the Contractor provides the
Department with written evidence that all Permits necessary for such use have been obtained. Such evidence must be
signed by the Owner of such site, and otherwise acceptable to the Department.

If no Permits are required due to **no impact** to a natural resource, then this should be stated.

Approval: _____
Property Owner

Agreed: _____
Contractor's Representative

*original copy to Contractor and additional copy for Resident's file.

**MAINE DEPARTMENT OF TRANSPORTATION
DAILY REPORT OF EQUIPMENT RENTAL**

TOWN Augusta
 PROJECT NUMBER: 9999
 CONTRACTOR M&H

REPORT No. 12
 AUTHORIZATION Residents Directive
 DATE Thursday, August 21, 2004

LABOR

ITEM NO.	CLASS	RATE	TIME	TOTAL
				0
629.05	Hand Labor	\$35	6	210
				0
				0
				0
				0
				0
TOTAL				210

EQUIPMENT RENTAL

ITEM NO.	TYPE	RATE	TIME	TOTAL
				0
631.12	APE	\$100	6	600
631.15	Earth Roller (Inc. Op)	\$75	2	150
631.172	Truck Large, (Inc. Op)	\$55	6	330
				0
				0
				0
TOTAL				1080

MATERIAL

QUANTITY	DESCRIPTION	RATE	TOTAL
			0
			0
			0
			0
			0
			0
			0
TOTAL			0

SUMMARY	
TOTAL LABOR	\$210.00
TOTAL EQUIPMENT	\$1,080.00
TOTAL MATERIAL	\$0.00
TOTAL THIS REPORT	\$1,290.00
PREVIOUS REPORT	
TOTAL DATE	\$2,580.00

APPROVED: _____
 RESIDENT

APPROVED: _____
 CONTRACTOR REPRESENTATIVE

DESCRIPTION OF WORK:

Work performed as directed at Sta 5+40 to 5+70 RT at the entrance to Bittermans Gas-n-Go. The Entrance was re-graded to insure drainage from the parking lot to the new Catch Basin at Sta 5+28 RT. Ref bk 1 page 28 for notes of inspection and acceptance.

RESIDENT: _____
 DATE: _____
 REVIEWED BY: _____

PROJ. NO. _____
 TOWN/BRIDGE: _____

CLOSEOUT REVIEW GUIDLELINES FOR OVERLAY PROJECTS

LABOR COMPLIANCE

Verify that employees are paid at wages not less than those contained in applicable wage decision	
Verify receipt of hourly breakdown for fringe benefits from Contractor	
Review documented employee interviews by appropriate MDOT personnel - Notify supervisor if missing	
Reviewer check of certified payrolls for accuracy	
Has Wage Rate Compliance Officer been notified of any problems?	

PROJECT DIARY

Daily entries showing working hrs, crew, equipment, weather, contractor and state personnel	
Time charge report	
MTCD and maint of Erosion Control items, weekly notes:	
Description of work done by item	
Other entries relating to contacts, claims and other potential problems	

FINAL QUANTITY BOOK

Book set up same as progress estimates	
Extra work & agreed unit prices documented, and referenced to Proj Diary	
Plan quantity per Resident Work Order & references proper documentation (<i>check engineers est</i>)	
Force Account Blue Book rates (maximum), receipted bills of mat'l + 15%, specialty 15%	
Quantities checked, signed, and referenced to construction book entries	
Billings & quantites: DOT to Municipality, DOT Maintenance or utility company	
QC/QA incentive/disincentive calculated	

GENERAL DOCUMENTATION REQUIREMENTS

Unit price Item, field measurements, sta to sta, limits, signed, checked	
LS Item ref to record of work done, inspec & accept documented in Pro diary, Final Quantity Book	
Force Account Items, doc by Daily Reports of Extra Work, receipted bills for specialty work and mat'l	
Participating	
Approval by Design and/or Supervisor if required	
Copy to FHWA on projects with Federal Oversight	
Copy to Finals Folder for scanning	

PAVEMENT ITEMS

Delivery slips, Cover slips totals signed, dated and entered in Final Quantity Book	
Tack coat delivery invoices, referenced to Certification of Analysis	
Daily reports of Extra Work	
Flaggers certified	
QC/QA test file	
Asphalt esclator for recycling if 108 Special Provision	

DRAINAGE

Drainage diary & installaion notes and layout notes, sta to sta & offsets documented	
Ledge removal quantity measured	

MISCELLANEOUS ITEMS

Have appropriate DBE letters and reports been completed	
Waste area Authorizations	
Contractor E-vals	
ROW Encroachment letter	
QC/QA for any fill and base material	
Hourly equipment rental items entered on DREWS	
Third party billing	

Notes:

RESIDENT: _____

CLOSEOUT REVIEW GUIDELINES FOR FULL CONSTRUCTION PROJECTS

LABOR COMPLIANCE

Verify that employees are paid at wages not less than those contained in applicable wage decision	
Verify receipt of hourly breakdown for fringe benefits from Contractor	
Review documented employee interviews by appropriate MDOT - Notify supervisor if missing	
Reviewer check of certified payrolls for accuracy	
Has Wage Rate Compliance Officer been notified of any problems?	

PROJECT DIARY

Daily entries showing working hrs, crew, equipment, weather, contractor and state personnel	
Time charge report	
MTCD and maint of Erosion Control items, weekly notes:	
Description of work done by item	
Other entries relating to contacts, claims and other potential problems	

FINAL QUANTITY BOOK

Book set up same as progress estimates	
Extra work entered, agreed unit prices and ref to Proj Diary or written documentation	
Plan quantity per RWO references documentation (<i>check engineers est</i>)	
Force Account Blue Book rates, receipted bill mat'l + 15%	
Quantities checked, signed, and references construction books	
Billings quantites: DOT to City, maintenance or utilities	
QC/QA incentive/disincentive calculated	
Copy to Finals Folder for scanning	

GENERAL DOCUMENTATION REQUIREMENTS

Unit price Item, field measurements, sta to sta, limits, signed, checked	
LS Item ref to record of work done, inspec & accept documented in Pro diary, Final Quantity Book	
Force Account Items, doc by Daily Reports of Extra Work, receipted bills for specialty work and mat'l	
Contract Modifications (Change Orders - Resident Work Orders) - signed, Part & non Part	
Approval by Design and/or Supervisor if required	
Copy to FHWA on projects with Federal Oversight	

EXCAVATION AND BORROW

Source and Final placement noted in Project Diary (Pit author and waste areas)	
Checks on-subgrade, finegrade, ditch and backslopes	
Field changes documented by measurements	

AGGREGATE BASE AND SUBBASE

Finegrade checks, field measurements of drives and other changes	
QC/QA gradation and compaction	

DRAINAGE

Drainage diary notes and layout notes, sta to sta & offsets	
Ledge removal measured	

PAVEMENT ITEMS

Delivery, Cover and Tack slips totals signed, dated and entered in FQB (certificate of analysis)	
QC/QA test file	

MISCELLANEOUS

Flaggers certified	
Waste area Authorizations	
Contractor E-vals	
ROW Encroachment letter	
Hourly equipment rental items entered on DREWS & signed	
Third party billing	

REVIEWERS' NAME: _____ **DATE:** _____

RESIDENT: _____
 DATE: _____



PROJ. NO. _____
 TOWN _____

CLOSEOUT REVIEW GUIDELINES FOR BRIDGE PROJECTS

LABOR COMPLIANCE

Verify that employees are paid at wages not less than those contained in applicable wage decision	
Verify receipt of hourly breakdown for fringe benefits from Contractor	
Review documented employee interviews by appropriate MDOT - Notify supervisor if missing	
Reviewer check of certified payrolls for accuracy	
Has Wage Rate Compliance Officer been notified of any problems?	

PROJECT DIARY

Daily entries showing working hrs, crew, equipment, weather, contractor and state personnel	
Time charge report and ROW encroachment letter	
MTCD and maint of Erosion Control items, weekly notes:	
Description of work done by item	
Other entries relating to contacts, claims and other potential problems	

FINAL QUANTITY BOOK

Book set up same as progress estimates	
Extra work entered, agreed unit prices and ref to Proj Diary or written documentation	
Plan quantity per RWO references documentation (<i>check with Engineers est.</i>)	
Force Account Blue Book rates, receipted bill mat'l + 15%, specialty 15%	
Quantities checked, signed, and references construction books	
Billings quantites: DOT to City, maintenance or utilities	
QC/QA incentive/disincentive calculated	

GENERAL DOCUMENTATION REQUIREMENTS

Item by unit, field measurements, sta to sta, limits, signed, checked	
item by LS, ref to record of work done, inspection and acceptance, in Proj diary, FQB	
Item force account, documented by DREWS, receipted bills for specialty work and mat'l	
CO's, EWO's and RWO:	
Approval by Design and/or Supervisor if required	
Copy to Finals Folder for scanning	
Copy to FHWA on projects with Federal Oversight	

BRIDGE ITEMS

Pile reports, layouts, record piles	
Forms and re-steel checks, summary sheets, elev requirements	
Structural steel, inspection and acceptance, torque checks, calibrations, rotational capacity	
shear commectors, bent test and weld inspection	
Painting , coat thickness:	

BRIDGE APPROACH WORK

Roadway excavation, waste site, grade checks	
Base mat'l, source, QC/QA, finegrading	

DRAINAGE

Drainage diary and installation notes and layout notes, sta to sta & offsets	
Ledge removal measured	

PAVEMENT ITEMS

Delivery, Cover and Tack slips totals signed, dated and entered in FBQ (certificate of analysis)	
Flaggers certified	
QC/QA test file	

MISC:

Contractor E-vals, Waste Area authorization	
Third party billing	

REVIEWERS' NAME: _____ **DATE:** _____

NOTES

RESIDENT: _____
 DATE: _____
 REVIEWED BY: _____



PROJ. NO. _____
 TOWN/BRIDGE: _____

REVIEW GUIDELINES FOR ONSITE REVIEWS

LABOR COMPLIANCE

	Dates	
Wage Rate Posters & Presentation of Wage-Hour Outline & EEO Outline		
Copy of applicable wage decision available		
Are payrolls and certifications received within the 7 days allowed		
If not received within allowable time, what action taken to correct		
Verify that employees are paid correct wages		
Verify receipt of hourly breakdown for fringe benefits from Contractor		
Reviewer spot check of certified payrolls for accuracy		
Document & review employee interviews by appropriate MDOT personnel		
Has Wage Rate Compliance Officer been notified of any problems?		

FIELD BOOKS

	Dates	
Signatures, weather, working day number, contract hours, personnel, Eqpmnt, State Personnel, survey notes identified, crew names & duties		

CLEARING

	Dates	
Measuring referenced to source _____		
Inspection of limits after work done.		
If paid plan qty, verify work done according to plan _____		

EXCAVATION

	Dates	
Source and final placement noted in diary _____		
Embankment core staked out, waste storage areas designated/owner sign _____		
Design changes in backslopes. _____		
Documentation of excavation limits in backslopes and ditches _____		
Grubbing, undercuts, muck excavation, measured, documented _____		
If paid plan, verify accuracy of estimate & work done to plan _____		
<i>excavation by truck measure reduce 10%</i>		

BORROW

	Dates	
Source and final placement noted in diary. _____		
Pit rehabilitation.		
Location of pit described, layout shown _____		
Final cross-section or statement of inspection plus 500' check section _____		
<i>measurements :ip swell 15%, truck measure deduct 10%, & check Engineers est</i>		

STRUCTURAL EXCAVATION AND DRAINAGE

	Dates	
Culverts: drainage installation notes regarding backfill, line and grade _____		
Bedding, width and depth measurement for undercut _____		
Length of pipe measured or documented.		
Catch Basins: diameter of hole measured for undercut _____		
Multiplate: depth of bedding, width of excavation, disposition of over- _____		
Compensation for over-excavation if a borrow job _____		
<i>rock w/0 rock ex minor struct pay 16 times common ex/ rock w/0 rock major struct pay 6 times struct earth</i>		

GRAVEL BASE SUBBASE

	Dates	
Gravel checks, sub grade & top of gravel checks for mainline, side roads _____		
<i>truck measure reduce 20% & check Engineers est & how to measure plan or truck measure</i>		

Maine Department of Transportation Contractor's Performance Rating

The Resident shall complete the rating and should use those personnel that actively participated in the inspection of the work and/or the administration of the contract. At the project closeout meeting the rating will be discussed with the Assistant Project Manager and Contractor's Superintendent. The Rating will be forwarded to the Contractor's area office, the Program Manager and included in the contract closeout documentation. The Resident shall assure that the rating reflects the contractor's performance on the contract indicated. Below and above standard performance shall include a memo referencing documentation in the project records. Categories listed reflect areas of performance the Contractor demonstrated in completing the terms and conditions of the Contract. The Resident shall use the attached *RATING DESCRIPTIONS*.

DATE:	CONTRACTOR:
PROJECT TOWN(S):	PIN(S):
Project Type:	Resident:
<input type="checkbox"/> Bridge Construction	Project Manager:
<input type="checkbox"/> Highway Construction	Project Start Date:
<input type="checkbox"/> Paving	Project Completion Date:
<input type="checkbox"/> Marine Construction	Contract Amount \$
<input type="checkbox"/> Buildings	Subcontract Amount\$
<input type="checkbox"/> Traffic Signals and/or Lighting	Type of Report
<input type="checkbox"/> Other:	<input type="checkbox"/> Annual <input type="checkbox"/> Interim <input type="checkbox"/> Final

Signatures

MaineDOT Resident

Contractor's Superintendent

Cc:

MaineDOT Program Manager

Contractors District Office

CONTRACTOR PERFORMANCE RATING

QUALITY OF WORK	ABOVE STANDARD	STANDARD	BELOW STANDARD
1. Contractor Quality Control			
2. Workmanship			
3. Compliance with Contract Requirements			
4. Adequacy of Personnel			
5. Contractor Engineering and Survey Layout			
6. Adequacy of Equipment			

SUBCONTRACTORS

7. General Contractor's Management of Subcontractor(s)			
--	--	--	--

COOPERATION

8. Partnering (Team Building)			
9. Attitude (Cooperation)			

ENVIRONMENTAL

10. Compliance with Environmental Requirements			
--	--	--	--

SAFETY

11. Compliance with Traffic Requirements			
12. Compliance with Safety Requirements			

IMPLEMENTATION OF FEDERAL, STATE, LOCAL, PROCEDURES AND REGULATIONS

13. Compliance with Labor Standards and EEO Requirements			
14. Compliance with DBE Requirements			
15. Compliance with OJT Requirements			

PROCEDURAL/ADMINISTRATIVE

16. Adequacy of Supervision			
17. Adequacy of Processing Paperwork			
18. Adherence to Progress Schedule			

NOTE: All Above and Below Standard ratings must be submitted with a Memo to project file with reference to supporting documentation.

Maine Department of Transportation Accident Report Form

Date of Accident _____	Project # _____
Resident / Inspector _____	Project Location _____
Contractor _____	Time of Accident _____ AM / PM
Contractors Rep. _____	Personal Injury? YES / NO

Investigated By (check one) <input type="checkbox"/> State Police <input type="checkbox"/> Local Police <input type="checkbox"/> County Sheriff Officers; Name _____
Police report Available? Yes / No _____ Pictures Available? Yes / No _____

Total # Vehicles _____	Total Occupants _____ Date/Time _____	Total People Injured _____ Date /Time _____
Project Manager notified Yes / No _____		Risk Management Notified Yes / No _____
Safety Coordinator Notified Yes / No _____		624-7422 or 1-800-525-1252
Driver(s) Name & Address		
1) _____		
2) _____		
3) _____		

ACCIDENT DESCRIPTION:

Comments _____

Any Witnesses Yes / No Please list name and address.

- 1) _____
- 2) _____
- 3) _____

1 copy project File
 1 copy Legal Division : Phone 207-624-3020, Fax 207-624-3021
 1 copy Risk Management: Phone 1-800-525-1252

MDOT Labor Interview Questionnaire

(1) Project #	(2) Town	(3) County		
(4) Prime Contractor		(5) Subcontractor		
(6) Employee	(7) Social Security #	(8) Classification	(9) Wage Rate	(10) Fringe
(11) Are you satisfied that you are paid and classified correctly?				
<input type="checkbox"/> Yes		<input type="checkbox"/> No		If answer is no, please explain below
(12) Is any money deducted from your pay except Income Tax, Social Security or Court Ordered Deduction?				
<input type="checkbox"/> Yes		<input type="checkbox"/> No		
If answer is yes, please explain below				
(13) Signature of employee				
(14) Is permission given to divulge to your employer, the information in this statement?				
<input type="checkbox"/> Yes		<input type="checkbox"/> No		
(15) Interviewers comments				
(16) Interviewer's Signature				

State of Maine – Department of Transportation

FRINGE BENEFIT STATEMENT

October 26, 2004

CONTRACTOR/SUBCONTRACTOR	CONTRACT NUMBER	FEDERAL AID PROJECT #	DATE
TO: RESIDENT ENGINEER/LABOR COMPLIANCE OFFICER		BUSINESS ADDRESS	

The following information (as shown on wage rate determinations) paid to or on behalf of employees in various crafts or classifications is used to check payrolls or applied to force account work on the above contract.

THIS FORM MUST BE COMPLETED AND SUBMITTED WITH THE FIRST CERTIFIED PAYROLL, OR WHEN THERE HAVE BEEN ANY CHANGES.

CLASSIFICATION	FRINGE BENEFIT HOURLY AMOUNT	NAME AND ADDRESS OF PLAN, FUND, OR PROGRAM
Effective Date _____	Vacation \$ _____	_____ _____ _____
	Health & Welfare \$ _____	
	Pension \$ _____	
Travel Pay \$ _____	Apprentice/ Training \$ _____	
	Other \$ _____	_____
CLASSIFICATION	FRINGE BENEFIT HOURLY AMOUNT	NAME AND ADDRESS OF PLAN, FUND, OR PROGRAM
Effective Date _____	Vacation \$ _____	_____ _____ _____
	Health & Welfare \$ _____	
	Pension \$ _____	
Travel Pay \$ _____	Apprentice/ Training \$ _____	
	Other \$ _____	_____
CLASSIFICATION	FRINGE BENEFIT HOURLY AMOUNT	NAME AND ADDRESS OF PLAN, FUND, OR PROGRAM
Effective Date _____	Vacation \$ _____	_____ _____ _____
	Health & Welfare \$ _____	
	Pension \$ _____	
Travel Pay \$ _____	Apprentice/ Training \$ _____	
	Other \$ _____	_____

Inspector's Daily Report

MDOT

3/10/2006 10:21 AM
FieldManager 4.1a

Contract: 012115.00, TRAINING FMGR 2006

IDR Date 3/10/2006	Day of Week Friday	Sequence No. 1	Import Date N/A	Project / Resident Engineer LENNY LIDBACK
Inspector's Initials-Name SA Administrator			Federal Project Number STP-1211(500)X	
Prime Contractor LANE CONSTRUCTION CORP. (THE)				
Entered By SA, Administrator		Revised By SA, Administrator		Revision Date 3/10/2006 8:54 AM
				Revision No. 1
Temperatures Low: 21 ° F High: 28 ° F			Weather Sunny	
Comments This IDR is for the purpose of creating an estimate for payment only.				

Contractors

Contractor's Name	Personnel	No.	Hrs.	Equipment	No.	Hrs.
LANE CONSTRUCTION CORP. (THE)						

Item Postings

Project: 012115.00, EASTON

Category: 0001, HIGHWAY ITEMS

Item/ Material Description	Item Code	Prop.Ln.	Location	Quantity	Unit	Brkwn	ID	Attn
AGGR SUBB COURSE - GRAVEL	304.10	0120	Sta 10+00 to Sta 12+00	163.000	CY			
Contractor: LANE CONSTRUCTION CORP. (THE)								
Item Remarks: Ref inspectors notes in construction book #2 pages 2,5,6,7,& 8. For finegrade checks ref book 3 pages 2 & 3. For comps see FQCB.								
ALL-PURPOSE EXC (INC OPERATOR)	631.12	0450	On Project	7.000	HR			
Contractor: LANE CONSTRUCTION CORP. (THE)								
Item Remarks: Ref Drew # 8 located in FQCB. and Inspecters notes in Book 2 page 13.								
COMMON EXCAVATION	203.20	0050	Sta 10+00 to Sta 12+00	163.000	CY			
Contractor: LANE CONSTRUCTION CORP. (THE)								
Item Remarks: Ref inspectors notes in construction book #2 pages 2,5,6,7,& 8. For subgrade checks ref book 3 pages 2 & 3. For comps see FQCB.								
FLAGGER	652.38	0560	On Project	207.000	HR			
Contractor: LANE CONSTRUCTION CORP. (THE)								
Item Remarks: Ref Flagger report # 2 & 3 located in FQCB.								
MAINT OF TRAFFIC CONTR DEVICES	652.36	0550	On Project	10.000	CD			
Contractor: LANE CONSTRUCTION CORP. (THE)								
Item Remarks: ref construction book 3 pages 5 & 10 for notes of acceptance								

Reviewed By: _____ (Signature) _____ (Date)

Contract: 012115.00

IDR: 3/10/2006, SA, 1

Page 1 of 1

Inspector's Daily Report

MDOT

3/10/2006 1:12 PM

FieldManager 4.1a

Contract: 012115.00, TRAINING FMGR 2006

IDR Date 3/10/2006	Day of Week Friday	Sequence No. 3	Import Date N/A	Project / Resident Engineer LENNY LIDBACK
Inspector's Initials-Name SA Administrator			Federal Project Number STP-1211(500)X	
Prime Contractor LANE CONSTRUCTION CORP. (THE)				
Entered By SA, Administrator		Revised By		Revision Date
Temperatures Low: 56 ° F High: 72 ° F		Weather sunny		
Comments This IDR is for the sole purpose of creating an estimate to pay for Butt Joints.				

Item Postings

Project: 012115.00, EASTON

Category: 0001, HIGHWAY ITEMS

Item/Material Description	Item Code	Prop.Ln.	Location	Quantity	Unit	Brkwn ID	Attn
PAVEMENT BUTT JOINTS Contractor: LANE CONSTRUCTION CORP. (THE)	202.203	0040	Throughout the project, drives and entrances.	413.000	SY		
Item Remarks: Ref Construction bk 2, pgs 20 & 21 for notes of inspection. Ref bk. 4 for pgs. 1-3 for measurements and comps.							

Reviewed By: _____
(Signature)
(Date)

Inspector's Daily Report

MDOT

3/10/2006 1:02 PM
FieldManager 4.1a

Contract: 012115.00, TRAINING FMGR 2006

IDR Date 3/10/2006	Day of Week Friday	Sequence No.	Import Date N/A	Project / Resident Engineer LENNY LIDBACK
Inspector's Initials-Name SA Administrator			Federal Project Number STP-1211(500)X	
Prime Contractor LANE CONSTRUCTION CORP. (THE)				
Entered By SA, Administrator		Revised By	Revision Date	Revision No.
Temperatures Low: 58 ° F High: 76 ° F		Weather sunny		
Comments This IDR is for the sole purpose of payment for Structural pipe arch. Work order # 3				

Item Postings

Project: 012115.00, EASTON

Category: 0001, HIGHWAY ITEMS

Item/ Material Description	Item Code	Prop.Ln.	Location	Quantity	Unit	Brkdown	ID	Attn
STEEL STR PL PIPE ARCH:	509.12	0605	on Project	1.000	LS			

Contractor: LANE CONSTRUCTION CORP. (THE)

Item Remarks: The pipe arch assembly ref bk. 2 pg.10 for torque readings. Installing coffer dams to prepare for pipe installation. Ref. Inspector notes bk. 2, pages 10,11, & 12. Ref bk 2, pgs. 15-16 for excavation and installation grade checks ref.bk.3 pg. 21 -22.

Reviewed By: _____ (Signature) _____ (Date)

APPENDIX C

Project Records Final Documentation Inventory List

PROJECT RECORDS FINAL DOCUMENTATION INVENTORY LIST AS NEEDED

1. COMPLETION OF PHYSICAL WORK NOTIFICATION (E-MAILED TO CONTRACTOR, FINALPAYMENT.MDOT@MAINE.GOV AND CC TO NAMES LISTED ON LETTER).
2. PROJECT PLANS – ½ SIZE
3. SPECIAL PROVISIONS BOOK WITH ADDENDUMS
4. TIME CHARGE REPORT
5. RIGHT OF WAY ENCROACHMENT LETTER
6. CONTRACTOR EVALUATION
7. PAYROLL TRACKING SHEET, PAYROLLS AND INTERVIEWS
8. SUBCONTRACTS
9. SCHEDULE OF WORK
10. SOILS REPORT
11. PERMIT(S)
12. TRAFFIC CONTROL PLAN
13. EROSION CONTROL PLAN WITH CONTRACTOR LOG
14. PROGRESS MEETING MINUTES
15. ENGINEERS ESTIMATE
16. PROJECT DIARY (FIELD MANAGER-CONVERT TO PDF)
17. FINAL QTY BOOK (FIELD MANAGER-CONVER TO PDF)
18. FINAL QUANTITY CHECKER'S SHEET (FIELDMANAGER ONLY)
19. CONSTRUCTION BOOK(S)
20. INSPECTORS DIARY(S)
21. DRAINAGE BOOK(S)
22. GRADE CHECK BOOK(S)
23. FINAL QUANTITY COMPUTATIONS FILE
24. TESTING FILE
25. FABRICATION REPORTS
26. INSPECTOR SUBMITTAL REPORTS (BRIDGE PAINTING)
27. CORRESPONDENCE FILE
28. COVER SLIPS (MANILA ENVELOPES)
29. TRUCK AND DELIVERY SLIPS (MANILA ENVELOPES)
30. AS-BUILTS (TO BE SUBMITTED TO PROGRAM-NOT CONTRACTS)

APPENDIX D

FHWA Inspection and Documentation Requirements

Labor Compliance

Become familiar with the U.S. Department of Labor (USDOL) labor compliance provisions contained in Form FHWA 1273. Evaluate the effectiveness of the contractor and the contracting agency in administering these requirements:

- ▼ Weekly payrolls are submitted from the prime contractor and all subcontractors.
- ▼ Statements of compliance are signed and attached to payrolls.
- ▼ Seven-day pay periods are established and constant.
- ▼ Wages and fringe benefits are at rates not less than those predetermined by the Secretary of Labor as contained in the contract provisions.
- ▼ Work performed by any specific class of employees, including helpers and apprentices, conforms to the classifications set forth in the contract provisions.
- ▼ Employee classifications are correct for the work performed.
- ▼ Payroll forms reflect number of hours worked per day and per week.
- ▼ Gross and net wages are shown.
- ▼ When hours worked exceeds 40 in any work week, 1.5 base rate is paid.
- ▼ All weeks to date are accounted for.
- ▼ There is no evidence of any disproportionate employment of laborers, helpers, or apprentices that would indicate avoidance of the appropriate journeyman wage rate provisions.
- ▼ Trainee/apprentice documentation on file.
- ▼ Spot check interviews with employees of the contractor and subcontractors; comment on how these interviews are documented in project records. Make several spot interviews with employees and document findings.
- ▼ The contract wage rates are posted and available to the contractor's and subcontractor's employees.
- ▼ Unresolved violations are properly dealt with in accordance with STA, FHWA, and USDOL procedures.
- ▼ FHWA representatives are kept aware of labor discrepancies.
- ▼ The STA is preparing and submitting the Semi-Annual Labor Compliance Enforcement Report, Form FHWA 1494.

Bulletin Board

Verify that the prime contractor maintains a bulletin board in a prominent location where employees congregate. Refer to the appendix of FHWA's Contract Administration Core Curriculum Manual for a listing of job site posters and Federal forms to be displayed (www.FHWA.dot.gov/programadmin/contracts/poster.htm).

Construction Safety

Become familiar with the USDOL Occupational Safety and Health Administration (OSHA) provisions contained in 29 CFR 1926 (see the OSHA Web site: www.osha.gov).

- ▼ Evaluate the effectiveness of the contractor and the contracting agency in administering safety and health requirements.
- ▼ Document STA guidance provided to field engineers and inspectors on their role and responsibility.
- ▼ Inspect the project to identify potential safety and health hazards; photograph concerns for discussion with the STA and the contractor.
- ▼ Document how many contractor personnel workdays have been lost to project injury.
- ▼ Obtain a copy of OSHA Document 2202 for a quick reference.

APPENDIX D

Guide for Making Inspections-in-Depth on Federal-Aid Highway Construction Projects

General

Purpose of Inspections-in-Depth

The need for and purpose of making inspections on Federal-aid highway construction projects can be found in 23 United States Code (USC). Representing the Secretary of Transportation, we are charged with certain responsibilities. 23 USC 114 states:

The construction of any highways or portions of highways located on the Federal-aid system shall be undertaken by the respective State transportation departments or under their direct supervision...such construction shall be subject to the inspection and approval of the Secretary.

This responsibility is further clarified in memoranda dated June 22, 2001, Policy on the Stewardship and Oversight of the Federal Highway Programs, and January 8, 2003, Stewardship and Oversight of the FHWA Construction Programs (see Appendix A).

It is recognized that because of staffing and time limitations, it will not be possible to make thorough inspections of all active projects with FHWA oversight. From time to time, however, the division field engineer should designate a number of representative projects upon which comprehensive, thorough, complete, and detailed inspections and analyses of a selected phase or phases of the construction and engineering are to be made. The primary purpose of an inspection-in-depth (IID) and analysis of the findings is to evaluate the accuracy, adequacy, and effectiveness of procedures, methods, controls, and operations used by the contractor and the State to assure high quality construction, accurate determination of quantities, and correct payment in accordance with the contract provisions. Should the findings on these inspections disclose the need for additional controls, supervision, or improvements, a statewide process review/product evaluation (PR/PE) should be conducted.

Intent of Guide

IIDs, like PR/PEs, are a tool to support the State transportation agency's (STAs) construction management program. This guide is intended to provide assistance to field engineers in the performance of IIDs. It is neither practicable nor desirable to specify precisely each step to be taken on an IID because of the many variations encountered on different projects and the specific reasons for making a particular inspection. It is expected that divisions may supplement this guide by adding material applicable to the conditions in their particular jurisdictions.

Scope of Inspection-in-Depth

IIDs may be specific or broad in nature. Steps presented herein are intended to facilitate the inspection of the more common types of work and to obtain a reasonable degree of uniformity. This guide is not a substitute for the exercise of good judgment, especially in determining the scope and depth of the inspection.

Refer to the generic inspection guidelines linked to the FHWA headquarters Construction and Maintenance Web page (www.fhwa.dot.gov/construction/reviews.htm).

Basis of Evaluation

Base the engineering evaluation of construction work on the approved plans, specifications, special provisions, contract provisions and applicable agency standards, instruction manuals, and operating procedures. Ensure that program or project concerns are brought to the attention of the appropriate officials with a recommendation for effecting desirable improvements on present and future work.

Responsibility of Inspecting Engineer

The field engineer is directly responsible for all work in his or her assigned area. *Make the IID as defined in the division's operating procedures.* If specialized knowledge of the construction project work is necessary, ensure that the IID is a team effort with the appropriate technical specialists as team members.

Reach agreement with State personnel on corrective action that will be taken to address findings, and establish a time frame for implementing the action. Elevate the discussion to the STAs resident engineer, district office, or central office if required. Notify the FHWA division office if a condition or deficiency requires immediate attention and resolution cannot be obtained on-site. In situations where immediate attention is not required, the following approaches are available to assure the appropriate action is taken:

- a. Transmit the inspection report by letter requesting appropriate corrective action (this should always be the first step when resolution cannot be resolved at the project level).
- b. Make the affected item of work nonparticipating.
- c. Suspend Federal participation in progress payments (49 CFR 18.43).
- d. Make the project nonparticipating.

The goal is for FHWA field engineers and STA field personnel to reach agreement on appropriate action to address findings of concern; in rare situations, more aggressive action is required. Consult with the FHWA division office management when these situations occur.

Selection of Project or Phase of Operations

Select the particular projects and phases of operations for an IID in consultation with your supervisor and construction management program. Base the selection on defined objectives. Schedule the inspection of any individual phase when that particular phase is actively under way on the project. Evaluate new construction techniques whenever possible and prepare a summary report for posting on the FHWA headquarters Construction Web page (www.fhwa.dot.gov/construction/reviews.htm).

Frequency of Inspections-in-Depth

The number and frequency of IIDs will vary according to the need for such reviews and according to the availability of personnel to make them. Inspections-in-depth are preferred to more general contact reviews. Contact reviews typically do not provide adequate knowledge of the substantive operations underway. Contact reviews do provide an opportunity to review project time and cost status, as well as to maintain rapport with the project team. Within each division, there will be certain areas of the State that will warrant more emphasis than others; similarly, there will be certain phases of operations that will require more concentration of effort.

Time Required for Inspection

The time required for each inspection will depend upon the extent of inquiry and investigation considered warranted by the circumstances encountered and the number of construction operations involved. Ensure that sufficient time is available to thoroughly investigate the phases of the operations that are the objective of the inspection. Adequate review of paving operations on a major project, for example, may require about three days at the project site.

Contract Documents

Prior to visiting the site of the project selected for inspection, study the plans and specifications governing the work to assure familiarity with all phases of the project. Place special emphasis on the features that are anticipated to be the focal points of concern during the inspection. In States where the contractor is required to develop a project-specific quality control plan, ensure that the plan is an integral part of any IID that involves material or product acceptance.

State Construction and Materials Manuals

Prior to visiting the site of the project selected for inspection, review the STA's construction and materials manuals for applicability to the work. These documents set forth the basic operating instruction to STA field personnel and generally define inspection and acceptance procedures.

Quality Assurance Requirements

23 CFR 637 sets forth the policies, procedures, and guidelines to assure the quality of materials and construction on Federal-aid highway NHS projects. Become familiar with the requirements within this regulation and ensure that they are being properly administered on the project. Focus specific attention on these processes:

- ▼ Random quality control sampling and testing performed by qualified personnel employed by the contractor or vendor.
- ▼ Random verification sampling and testing by qualified testing personnel employed by the STA or its designated agent, excluding the contractor or vendor (split samples not acceptable).
- ▼ Optional use of contractor's quality control for the acceptance decision when properly verified by the owner.
- ▼ Use of qualified laboratories for all testing of materials as a basis of acceptance.
- ▼ Independent assurance sampling and testing by qualified personnel employed by the STA or its designated agent, excluding the contractor or vendor.

Evaluation of Project Personnel

Evaluate the STA and contractor personnel assigned to the project for adequacy as to number, knowledge, skills, and abilities. Consider findings made on previous inspections on the same project or other projects that may be reoccurring.

Obtain information by general and technical discussion of the work and by reviewing diaries and project records. Strive for open communication and to develop an atmosphere of trust. Avoid focusing on minor issues of very low risk.

Observe the attentiveness and effectiveness demonstrated by the project personnel at the site. The on-site review quite often provides a better basis for evaluation than the specifics of an individual's education or on-the-job experience as documented in personnel records. Include comments on the attentiveness and effectiveness of the project personnel in the report. Adequate and assertive responses to questions are good indications of proper experience. Comment on education and experience data only when it appears that certain individuals are not adequately performing their duties and their performance is believed to result from lack of training and experience.

Adequacy of Delegated Authority

Evaluate the extent of the authority that has been delegated to project engineering personnel; verify that delegation of authority is adequate to permit conducting the work effectively. Ascertain whether inspectors and other engineering personnel below the level of the project engineer have been given sufficient instruction to have adequate understanding of their authority and responsibilities. Verify that project personnel understand and have an appropriate number of contract documents and other guidance material.

Preconstruction Conference

Determine if a preconstruction conference was held and, if so, who participated, whether an agenda was used, and if minutes were developed. Read the minutes to familiarize yourself with the project. Confirm that issues raised during the preconstruction conference have been properly resolved.

Report Summary, Recommendations, and Followup

Prepare a report of each IID and distribute in accordance with division office procedures. Refer to example forms for inspections as shown in Appendix G and on the FHWA headquarters Construction Web page: www.fhwa.dot.gov/construction/reviews.htm.

Within the report, identify the project, location, contractor, and project engineer; provide a general description of the work and a more detailed description of the particular phases of work involved in the inspection. Use inspection questionnaires based on the specific contract requirements and STA procedures.

Discuss deficiencies, irregularities, and concerns, along with exemplary work, in adequate detail to provide an understanding of the issue. Emphasize recurring concerns by using photographs, charts, and tabulations.

Avoid overemphasizing deviations from desirable procedures that are trivial in character or that do not have significant effect on the value or serviceability of the completed project nor on the effectiveness of the control over the work.

Include a concise summary statement of the important findings and recommendations for corrective actions if any are required. Whenever improvements are necessary or

desirable, ensure that there is appropriate followup to verify that corrective action is taken and that the desired results are accomplished. In some instances, conditions and practices found on one project will indicate the need for checking whether similar conditions and practices exist throughout the State or jurisdictional subdivision thereof or on other projects where the same engineers and contractors are involved. Establish reasonable time frames for the resolution of issues.

Document followup in subsequent reports. When the conditions and actions are limited to one project, report further developments in either special followup reports or in subsequent regular intermediate or final inspection reports. When the conditions are found to exist generally or on a number of projects and the corrective actions have corresponding application, report specific followup actions in special reports. Cross-reference the original IID report and provide the same distribution as the original IID report.

Consider withholding further Federal funds from the project or projects as appropriate when the necessary improvements are not accomplished.

Ensure that the original of the report and all significant work papers are made a part of the division's project files.

Project Supervision and Control

Preconstruction Conferences

Most STAs require that a preconstruction conference be held prior to work commencing. All parties involved in the contract—and representatives from other contracts that could affect the project—should attend. Minutes from the conference should have been prepared and should document, as a minimum:

- ▼ Railroad or utility adjustments
- ▼ Public relations and the interests of abutting property owners
- ▼ Contractor's work plan and schedule of operations
- ▼ Contractor's backup plan for major stages of construction
- ▼ Specific contract requirements
- ▼ Safety measures, traffic management, and traffic control considerations
- ▼ Environmental commitments
 - ▼ Erosion and sedimentation control
 - ▼ Dust abatement
 - ▼ Noise mitigation
- ▼ Rights-of-way available for use by the contractor
- ▼ Time limits and performance of operations including materials delivery considerations
- ▼ Construction time and cost control
- ▼ Emergency response to incidents

Attend these meetings on full involvement projects, if possible, or review the minutes during inspection trips.

Project Diary, Inspectors' Daily Reports, and Orders to Contractor

Examine the project diary, inspectors' daily reports, progress charts, and other data compiled in the field office to facilitate job control. Diaries and inspectors' daily reports are very important documents and must be complete yet concise, accurate, and factual to be effective. Ensure that diary entries are signed and dated and have been reviewed by the engineer in charge. Verify that discussions with the contractor are confirmed in writing and are made a part of the official project file. Review and confirm that there is a complete audit trail for work performed, measured, and paid.

Subcontracting

Ensure the STA's subcontracting procedures on NHS projects meet the requirements set forth in 23 CFR 635.116. State procedures should be followed for non-NHS projects. Review and comment on the extent of subcontracted work. Verify that each subcontract has been approved by the State or that an FHWA-approved contractor certification process is being followed. Review copies of the subcontracts to see that they comply with the contract and contain Form FHWA 1273. Assess the prime contractor's general administration of subcontract work. Ensure that Disadvantaged Business Enterprise (DBE) subcontractors are performing a commercially useful function.

Engineering Surveys

Evaluate the adequacy of the project base control and subsequent construction survey procedures. When the staking of part or all of the work is by the contractor or a consultant, it is recommended that there be adequate verification checks by the STA to assure that the work is correct. If there are survey errors that have led to contract change orders, determine if FHWA participation is appropriate.

Examine a sample of survey notes covering slope staking for grading operations or layout for bridges and culvert construction to determine the degree of clarity and orderliness of procedures. Verify that checks have been made to avoid errors in layout.

Examine a sample of survey notes used for measurement of pay quantities, such as cross-sections, to determine accuracy and correctness of procedures used.

Ensure that project control staking is adequately protected during construction operations.

Quality Assurance

Evaluate the project's quality control and acceptance procedures, personnel, and facilities. If required by the contract, the contractor must develop a quality control plan to define sampling, testing, and inspection procedures to be followed. Refer to Appendix B and Appendix E for samples of quality control plan requirements and actual project-specific plans. The contract will also define required acceptance testing, whether by the STA or by the contractor with STA verification. Ensure that adequate quality control and acceptance is being exercised and that materials incorporated in the work are in substantial conformity with the contract.

Project Laboratory

Verify that contractor-furnished laboratories meet contract requirements. Ensure that scales and measuring devices have current certifications for accuracy. Typical equipment requirements for various construction operations are as follows:

- (1) Grading: sieves, scales, liquid limit devices, compaction test equipment, field density equipment, hot plates or field stove, oven, sampling equipment, sample containers, and drying pans.
- (2) Subbase and base course: sieves, sample splitters, scales, hot plates, devices for determination of moisture content and liquid limit, drying pans, and apparatus for making laboratory compaction tests and for determining in-place densities.
- (3) Hot mix asphalt (HMA): thermometers, sieves, sample splitters, scales, hot plates or field stove, burn-off oven, equipment for taking samples from the pavement, and apparatus for determining pavement density and stability of the HMA mixture.
- (4) Portland cement concrete: slump cone or other specified equipment for determining consistency of the mix, air meter, concrete cylinder or beam molds, sieves, sample splitters, scales, pans, stove or hot plate, and containers for determining unit weights.

Determine what method is used by the STA to “qualify” the laboratories used for NHS project testing as required by 23 CFR 637. If the IID permits review of the STA’s central laboratory, verify that it has been accredited by the Accreditation Program of the American Association of State Highway and Transportation Officials (AASHTO) or a comparable laboratory accreditation program approved by FHWA (23 CFR 637). District laboratories may be accredited by the AASHTO Accreditation Program or a comparable laboratory accreditation program approved by FHWA or reviewed by the STA’s central laboratory.

Materials Inspection Personnel

Identify the inspectors assigned to the particular phases of the work and discuss their responsibilities with them. Focus on these responsibilities:

- ▼ Inspection duties
- ▼ Field diary entries
- ▼ Tests required and frequency
- ▼ Test results and statistical summaries
- ▼ Action on marginal or failing tests
- ▼ Records forwarded to the project engineer
- ▼ Inspectors’ particular sampling and testing qualifications

Appraise the technical ability and effectiveness of the inspector and evaluate the adequacy of the control methods applied on the project. Observe the inspector’s sampling and testing techniques to ensure that the specified procedures are being followed.

Test Reports

Check the project files to verify these testing conditions:

- ▼ All materials are covered by adequate quality control and acceptance tests, and the frequency of sampling and testing is in accordance with the contract’s schedule of test requirements.
- ▼ The statistical method used to verify the contractor’s test population has been validated by independent random STA tests.
- ▼ Third-party independent assurance test results (split samples) compare favorably with project quality control and acceptance tests.

Report minimum and maximum test results and statistical summaries with appropriate remarks regarding the suitability of the material. Evaluate project office procedures for filing test reports, checks made to ensure that all necessary reports have been received, methods to readily identify unsatisfactory or borderline materials, and general house-keeping methods in the handling of the reports.

Ensure that any deviations from the specifications indicated by the test results are explained and that all corrective actions taken are documented. Comment on the disposition of all nonconforming materials received on the project. Verify the process for getting deviations listed in the project’s final material certification on NHS projects (23 CFR 637.201).

Verify that certifications, inspections, and test reports on manufactured materials document conformity with the specification and that the test reports on file cover the materials actually delivered to the project. Determine whether certifications for iron and steel products conform to Buy America requirements.

Witness the sampling and testing of quality control and acceptance tests to the extent practical. Take independent measurements of width and depth of bases, surfaces, and other components of the construction, including structures, to validate that the project is being constructed in substantial compliance with the plans and specifications.

Measurement of Quantities

Ensure that the methods used in the measurement of quantities meet contract requirements (23 CFR 635.123).

Determine the frequency of contractor progress payments. Verify that the appropriate quantities of completed work are reported for progress payments. Comment on whether or not a new overall estimate is made for each progress estimate or if computed monthly work quantities are merely added on the estimate of work done during each succeeding period; the latter could result in cumulative errors of consequence. Check the quantity calculations for two or three major items and one or more minor items. Note significant digits. The validity of final estimates cannot be greater than the accuracy exercised in making the field measurements used in the computations. Careless field measurements are difficult to detect, but an examination of the field books will provide some indication as to the extent to which good survey and measurement practices are being followed. Identify in the report what bid items or stockpiled materials were reviewed, if properly identified, dates and personnel making the measurements, proper explanations and initials on corrections, and overall legibility.

At the final estimate stage, review final quantities in considerable detail on a few items. Note assumptions made, significant figures, accuracy observed, and amount of checking done. Indicate the extent of checks and reviews made beyond the project level, such as in the district and central offices. Where appropriate, evaluate the additional checks to assure the sufficiency of the validation.

The following is a summary of recommended inspection techniques:

- ▼ Verify that the items reviewed were measured in the units called for in the contract provisions and that the methods of measurement prescribed in the contract and in authorized instructions were followed.
- ▼ Examine project records to insure that all materials measured for payment were delivered and incorporated into the project or stockpiled for future incorporation.
- ▼ When payment is based on weight or mass, verify the accuracy of the measurements; consider the calibration of scales, checking of truck tare weights, and weighing of haul loads.
- ▼ Where payment is based on loads delivered to the project, either on a weight or volume basis, verify the procedures followed for assuring validity in receipt of haul tickets. Discuss the procedures in effect with the project personnel. Focus on practical concepts (falsified haul tickets can be determined by analyzing project records and determining that the number of trips reported was impossible considering time and length of haul involved).
- ▼ Where area methods of measurement are specified, make dimensional checks to the extent necessary to verify the actual work performed. Ensure that measurements were made at the proper time and prior to the subsequent placement of other courses of materials.
- ▼ Where final quantities are determined by volume computations, verify the method of measurement and documentation of calculations.

Construction Changes and Extra Work

On full oversight projects, be aware of circumstances that required the changes in the plans and specifications. Comment on the need for the construction change and whether the revisions and additions are necessitated by conditions that could not be reasonably anticipated before the project was advertised for bids. Discuss weaknesses in the preparation of plans, specifications, and estimates, and other deficiencies of this nature to assist in funding determinations and in strengthening the State's design procedures and the FHWA's review procedures. Document the steps taken by the Construction Unit to inform Design of plans errors and omissions resulting in change orders.

Verify that proposed changes are consistent with sound design and construction practices and are compatible with the objectives sought in the original design and environmental clearances. Ensure that decisions are in the public interest, are not swayed by the expediency of construction convenience, and are not counter to the intended design concepts.

Support cost-effective changes that improve aesthetics, reduce overall construction costs, and improve the safety of the highway. Verify if project personnel take steps to incorporate these advantages into the project (e.g., an unexpected surplus of excavation becomes available that could be placed within an interchange loop or used to flatten embankment slopes, thus eliminating guardrail and increasing the safety features of the highway).

Become familiar with the Division/STA Stewardship Plan, the definition of major and minor changes, and the approval process on full oversight projects; refer to 23 CFR 635.102 and 23 CFR 635.120. Evaluate the reasonableness of unit prices, labor, overheads (field and unabsorbed home office), and rental rates established for items of work to be performed. Since the cost to process a change order is a direct project expense, consider the following “rules of thumb” when evaluating changes: obtain a better product at no increase in cost or time; obtain an equivalent product at a

savings in cost or time; use a change when the product as designed can not be constructed at no fault of the contractor (differing site conditions, “acts of God,” etc.).

Ensure that project personnel have evaluated and documented the effect of the contract change to the approved project schedule. Include the appropriate time extension on the change order; refer to 23 CFR 635.121.

Contract Time Charges, Time Extension, Liquidated Damages, and Cost Control

Verify that project personnel are assessing the correct time charges. Compare work completed, as noted in project diaries, to contract time charges. Evaluate the contractor’s critical path method schedule to support time charges. Ensure that contractors are provided formal warning when work is behind schedule and that corrective actions are requested.

Ensure that the correct liquidated damages are assessed on projects that exceed the allowable contract time; refer to 23 CFR 635.127.

Review contract expenditures and changes to ensure that the work is constructed in accord within the approved scope, cost, and termini.

Grading and Associated Items

Maintenance of Traffic

Verify that maintenance of traffic and preservation of abutting property owners' interests are in accordance with contract provisions. Observe that the proper barricades, signing, striping, and flagging are in place to ensure the maximum safety to the public and the workers. Examine the project diaries and other project records to verify that revisions to the approved traffic control plans are documented. Drive through the project and verify that a stranger to the area can satisfactorily pass through or reach a destination within the project termini. Ensure that maintenance of traffic is reviewed daily by project personnel, followups on findings are made, and field corrections documented.

Utilities

Observe the coordination of the work between the contractor and railroad or utility companies, the supervision and inspection by the project personnel, and the efficiency and economy with which the work is being performed. Where the work is reimbursable, verify project record documentation:

- ▼ Labor used, including classifications, number of personnel, and hours worked.
- ▼ Equipment used (including type, capacity, and amount of usage).
- ▼ Materials utilized (whether they are used or new).
- ▼ Materials retired and their disposition (e.g., salvaged, returned to stock, or junked). Evaluate the procedures and practices used to determine if retired materials should be left in place, salvaged, returned to stock, reused, or junked, and the appropriate credits.
- ▼ Special features such as unusual soil conditions, rock, presence of excessive moisture, dewatering required, adequacy of backfilling operations, weather, and unusual conditions that affect the prosecution and cost of the work.
- ▼ Contract units constructed if time and material reimbursement is not used.

Removal of Structures and Obstructions

Verify that any structures and other improvements removed were disposed of in compliance with contract provisions. Ensure that any hazardous materials, such as lead-painted girders, were sent to the appropriate disposal site and that the required documentation is in the contract files. Where salvage value is required, verify that the appropriate Federal share is credited to the contract.

Clearing and Grubbing

Prior to work beginning, verify that these conditions are met:

- ▼ Clearing limits are clearly marked.
- ▼ Trees, shrubs, and other items that are to remain are marked and protected.
- ▼ Project survey control is marked and protected.
- ▼ Erosion control features are in place.
- ▼ Project personnel are familiar with environmental commitments.
- ▼ A plan is in place for stockpiling merchantable timber unless it is the property of the contractor.
- ▼ Burning plans have been approved by the appropriate jurisdiction.

Observe the adequacy of operations for removal of stumps, organic materials, and other objectionable materials to the specified depth throughout the required limits of construction. Verify procedures for stockpiling topsoil including stockpile erosion control.

Grading and Drainage

Review the soil survey report or soil profile sheets to become familiar with conditions:

- ▼ Identification or classification of the soil or rock types expected to be encountered throughout the project (Note: this information is useful should a differing site claim be submitted by the contractor.) Verify if the bidding contractors had access to the soils report.
- ▼ Location of areas requiring special treatment and the type of treatment specified.
- ▼ Location of borrow materials for embankment and subgrade improvement if specified.
- ▼ Requirements for soil selection in placing poorer soils in lower portions of fill sections and better soils in top lifts.

Verify that the quality control and acceptance procedures are being followed to ensure that specification requirements are met.

Ensure that information on the following conditions is included in the project records:

- ▼ Depth of lifts compacted.
- ▼ General conditions under which embankments are placed.
- ▼ Moisture and density tests required.
- ▼ Density curves utilized and method for matching the curve to the soil type(s) being compacted.
- ▼ Test results obtained.
- ▼ Subexcavation required, the quality of replacement material, and the methods used for measuring and paying. Note whether subexcavation was anticipated and properly provided for in the contract or if payment is by contract change order.
- ▼ Examine and comment on the uniformity of embankment and cut sections, compliance with contract requirements, and proper slope for drainage. (Assuming the catch points remain as designed, fill slopes constructed with a steeper slope than designed can significantly increase embankment quantities and can result in excessive erosion and safety concerns.)
- ▼ Erosion control procedures.
- ▼ Control exercised to secure the required finished grade and cross-section including slope rounding.
- ▼ Measurement of roadway cross-sections as to conformity with plans.

- ▼ Final measurements of borrow areas.
- ▼ Borrow area appearance and drainage.
- ▼ Roadway and borrow excavation quantity calculations including overhaul.
- ▼ Actual versus anticipated (design) shrink or swell and the method used to calculate actual values.
- ▼ Watering quantities unless subsidiary to the bid item.
- ▼ Culvert material certifications, backfill densities, and alignment.

Pay particular attention to those areas that are difficult to properly control, such as the outside edges of embankments, shallow fills, small work areas, and transitions from cuts to fill.

Review and comment on underdrain installations. Note if underdrain quantities were as anticipated or if major overruns have occurred. Overruns could indicate that additional predesign geotechnical investigation would have been appropriate. Comment on the liaison between the project personnel and the central laboratory in resolving major soil and foundation problems arising during construction.

Review and comment on the waterway, ditches, and drainage structures. Note whether there are abrupt changes in ditch alignment, horizontal or vertical, that could result in future erosion. Verify compliance with the approved Storm Water Pollution Prevention Plan on file in the project office. Verify that appropriate permanent erosion control measures are incorporated at the discharge of culverts and other waterways. Check for sediments leaving the right-of-way.

Match test reports covering the acceptance of corrugated metal culvert pipe and concrete pipe against the actual pipe delivery reports. Verify that the alignment, bedding, and joint construction were examined prior to the backfilling operations and a determination made that the pipe has not been damaged in handling and placing operations. Observe backfilling operations and witness density tests to ensure proper inspection control is being exercised. Evaluate installation procedures and inspection control.

Ensure grade and drain operations are properly supervised and inspected and that the STA has a qualified grade inspector at the point of grading operations during all grading operations.

Structures

Included in this category along with bridges are poured-in-place culverts of any span length.

- ▼ Verify that the quality assurance procedures maintain effective inspection at all points of work. Ensure that operations performed away from the actual site of work, such as the production of concrete at a central plant or manufacturer facility, are covered.
- ▼ Include the division structural engineer in reviews.

The structures inspection category covers driven piling, drilled shafts, shallow foundations, structural steel, general structural concrete, prestressed concrete members, and temporary structures.

Driven Piling

For more information, see "Design and Construction of Driven Pile Foundations, Volume II," FHWA-HI-97-014.

Evaluate pile driving documentation:

- ▼ Equipment and procedures to be followed.
- ▼ Inspector responsibility (observational or directional).
- ▼ Primary contact if problems are encountered.
- ▼ Routing of copies of driving records and daily inspection reports.
- ▼ Required data in the pile driving report.
- ▼ Material certificates.

Inspect piles and equipment prior to driving:

- ▼ Spot check that piles meet specifications for type, size, length, strength, and quantity.
- ▼ Confirm driving shoes and splices (if specified) and connection requirements.
- ▼ Confirm that piles are not damaged.
- ▼ Confirm proper handling and storage.
- ▼ Pile driving hammer is the specified type and size.
- ▼ Hammer cushion is of approved material type, size, and thickness.
- ▼ Helmet properly fits the pile.
- ▼ Pile cushion is correct type material and thickness (concrete piles only).
- ▼ Predrilling, jetting, or spudding equipment (if specified) meets specifications.
- ▼ Lead system meets specifications.

Evaluate inspection of test or indicator pile driving (if required by contract):

- ▼ Correct test pile location.
- ▼ Test pile driving criteria followed.
- ▼ Proper ram weight.
- ▼ Hammer in good working order.
- ▼ Proper alignment of hammer with pile.
- ▼ Helmet remains properly seated on the pile.
- ▼ Hammer hoist line is always slack during driving.
- ▼ Requirements for dynamic testing met.
- ▼ Ground heave noted and recorded.
- ▼ Cut-off elevation checked and recorded.
- ▼ Visual damage of pile recorded.
- ▼ Static testing criteria met.
- ▼ Coordination with designer if additional test piles are required.
- ▼ Coordination with designer when production pile driving is allowed.

Evaluate inspection during production pile driving:

- ▼ Pile driving sequence is proper.
- ▼ Pile plumbness is within tolerance.
- ▼ Driving shoes and splices meet contract requirements.
- ▼ Pile driving logs are properly maintained (see below).
- ▼ Dynamic testing indicates capacity and no damage during driving.
- ▼ Periodic checks are made on the hammer and pile cushions.
- ▼ Ground heave is noted and recorded.
- ▼ Visual damage of pile is recorded.
- ▼ Hammer is warmed up prior to retap.
- ▼ Pipe piles are visually inspected prior to concrete filling.

Ensure that pile driving records contain these items:

- ▼ Project identification number.
- ▼ Project name and location.
- ▼ Structure identification number.
- ▼ Date and time of driving (start, stop, interruptions).
- ▼ Name of contractor.
- ▼ Hammer information.
- ▼ Hammer and pile cushions.
- ▼ Pile location, type, size, and length.
- ▼ Pile number or designation matching pile layout plans.
- ▼ Pile ground surface, cut-off, final tip elevation, and embedded length.
- ▼ Driving resistance data throughout driving.
- ▼ Cut-off length, length in ground, and order length.
- ▼ Comments on unusual observations, including reasons for all interruptions.
- ▼ Signature and title of the inspector.

Drilled Shafts

For more information see “Drilled Shaft Foundation Inspection” (National Geotechnical Inspector Qualification Program), NHI Course No. 132070A.

Evaluate preconstruction preparation items as applicable:

- ▼ Review contract requirements.
- ▼ Preconstruction meeting held and minutes documented.
- ▼ Drilled shaft installation plan submitted and approved.
- ▼ Concrete mix design approved.
- ▼ Trial mix designed and concrete slump loss test run.
- ▼ Procedure for taking required soil or rock core samples shaft bottom.
- ▼ Procedures for protection of existing structures.
- ▼ Site preparation completed in accordance with the plans.
- ▼ Procedures for coffer dam inspection.
- ▼ On-site equipment and tools meet the approved drilled shaft installation plan.
- ▼ Correct size(s) casing.
- ▼ Correct slurry mixing equipment.
- ▼ Desanding equipment.
- ▼ Proper tremies.
- ▼ Proper drilled shaft inspection forms are utilized.

Review the findings from the trial shaft installation:

- ▼ Not a production shaft unless allowed by contract.
- ▼ Met contract requirements.
- ▼ Problems encountered resulted in positive revisions to installation techniques or equipment.

Verify production drilled shaft excavation and cleaning procedures as applicable:

- ▼ Shafts are constructed in the correct location and within horizontal tolerances.
- ▼ A benchmark is available and is used to record shaft elevations.
- ▼ Required soil or rock core samples of shaft bottoms are obtained.
- ▼ Slurry levels, tests, and test reports are conducted according to specifications.
- ▼ Soil/rock excavation inspections forms have been completed.
- ▼ Permanent/temporary casings meet specifications.
- ▼ Belling meets specifications.
- ▼ Excavation logs for each shaft are maintained.
- ▼ Completed shafts are within vertical alignment tolerances and to the proper depths.
- ▼ Shaft excavation time meets the specified time limit.
- ▼ Shaft over-reaming is performed in accordance with specifications.
- ▼ Shaft bottoms meet cleanliness requirements.
- ▼ Shaft inspection forms are completed.

Inspect reinforcing cages to ensure:

- ▼ Correct size, configuration, and tying of reinforcing steel.
- ▼ Use of proper spacers.
- ▼ Correct length of splices.
- ▼ A positive method to secure cages from settling or floating during concrete placement.
- ▼ Proper elevation of the top of the cage.

During concreting operations, ensure these conditions:

- ▼ Slurry is tested prior to concrete placement (if applicable).
- ▼ Temporary casings are removed in accordance with specifications.
- ▼ The discharge end of the tremie is maintained at least 1.5 m (5 ft) into concrete mass.
- ▼ The concrete head in tremie is maintained at least 1.5 m (5 ft) above top of slurry.
- ▼ The height of concrete free-fall (dry shaft only) is limited as specified.
- ▼ Placement of concrete occurs within the specified time limit.
- ▼ Concrete placement and volume forms are completed for each shaft.
- ▼ Contaminated concrete overflows shafts until good concrete appears.
- ▼ Concrete acceptance tests are performed as required.

Verify the following postinstallation steps:

- ▼ In open water, shafts are protected 7 days or until concrete reaches specified strength.
- ▼ Permanent casing is cut off at proper elevation.
- ▼ Nondestructive evaluations are completed (if required).
- ▼ Shafts meet all applicable construction tolerances.
- ▼ Drilled shaft logs have been completed.
- ▼ All pay items have been documented.

Shallow Foundations

For more information, see “Shallow Foundations,” FHWA-NHI-01-023.

Evaluate foundation preparation:

- ▼ All unsuitable materials are removed to the approved subgrade.
- ▼ A shoring system is used for excavations greater than 1.5 m (5 ft) deep, or appropriate slopes are constructed.
- ▼ If blasting is required, the blasting program is designed to limit overblasting.
- ▼ Bearing soils exposed overnight or to rain are protected from degradation.
- ▼ Compacted subgrade fill meets material and compaction specifications.

Evaluate groundwater control:

- ▼ The contractor has a site drainage plan to prevent surface water intrusion.
- ▼ Bearing soils softened by intrusion of water are removed prior to footing placement.
- ▼ The contractor has a groundwater control plan when groundwater table is near bottom of excavation.
- ▼ Sump pumps are an option for controlling ground water intrusion in cohesive soils.
- ▼ The contractor’s groundwater control plan includes method(s) to control perched water tables in cohesionless soils without causing piping (well points are an option to control ground water intrusion in cohesionless soils).

Verify:

- ▼ Foundation-bearing stratum in the field is the same as that considered in design.
- ▼ All unsuitable material is removed from below the footing.
- ▼ Required fill material is placed in accordance with specifications.
- ▼ Reinforcing steel and concrete are placed in accordance with contract plans and specifications.
- ▼ Limits of pay for structural excavation.

Structural Steel**Review these items:**

- ▼ Procedures for fabrication shop inspection. Verify compliance on current project.
- ▼ Erection sequence and equipment requirements for lifting. Verify compliance with the approved erection plan.
- ▼ Field connecting and splicing. Focus on field splicing, specifically the inspection procedures employed for field welds and high-strength bolting; welder certifications; required and field-applied torque; method for calibrating torque wrenches.
- ▼ Bearing seats at correct elevation and alignment.
- ▼ Expansion devices properly set.
- ▼ Field cleaning, priming, and painting.

General Structural Concrete**Review:**

- ▼ Minutes from the prepour meeting (attend if possible).
- ▼ Forms for support, tightness, form release agent, defects in the lumber, and removal of debris.
- ▼ Approvals of the formwork and falsework and means of checking deflections during concrete placement operations.
- ▼ Approved mix design and source of materials; verify proper sequence for adding admixtures.
- ▼ Condition, tying, and support of the reinforcing steel and other imbedded items such as conduits, void spaces, bolts for railings, etc.; ensure damage to coatings is repaired.
- ▼ Inspection and record procedures used for documenting that reinforcing steel and other imbedded items are placed in accordance with the plans and that the number, sizes, and splice lengths of bars are verified and correctly summarized for pay purposes.
- ▼ Record heat numbers of reinforcement delivered and installed; verify correlation to test reports or certifications.
- ▼ Methods used in placing and finishing the concrete.
- ▼ Air content and strength testing.
- ▼ Time between batching and placement of each load of concrete.
- ▼ Procedures for assuring that the riding surface, curbs, and walks, etc., conform to the proper grades and cross-section.
- ▼ Final finishing and curing procedures.
- ▼ Fabrication, erection, alignment, and quality of workmanship in the railings.

Examine those physical features of completed work that are visible:

- ▼ Apparent workmanship and degree of care given by the quality control and acceptance process.
- ▼ Visual lines and grades.
- ▼ Straightness of overhangs, curb chamfers, railings.
- ▼ Uniformity of the surface texture.
- ▼ Surface drainage and outfalls.
- ▼ Uniformity of position of roller-bearing devices.
- ▼ Conformance of expansion plates to the grades of the deck and required gap.
- ▼ Final cleanup; the removal of temporary supports, detour facilities, and debris.

Review field office documentation:

- ▼ Test reports.
- ▼ Pay quantities. Verify that calculations meet standard specification requirements.
- ▼ Delivery records (invoices, delivery tickets, reports, etc.) on incorporated materials.
- ▼ Verify that test and inspection reports covering materials incorporated in the minor structures document compliance with the contract.

Prestressed Concrete Members

Review during construction:

- ▼ Procedures for prestress plant inspection; verify compliance on current project.
- ▼ Erection sequence and equipment requirements for lifting; verify compliance with the approved erection plan.
- ▼ Bearing seats at correct elevation and alignment.
- ▼ Inspect beams for correct camber, length, alignment, and damage.

Temporary Structures

Ensure:

- ▼ Shop drawings or plans are signed by a registered professional engineer.
- ▼ Structure meets plan requirements for minimum roadway width, vertical clearance, and minimum opening size.

Subbase and Base

- ▼ Verify if this should include subgrade.
- ▼ Verify that the quality control and acceptance procedures maintain effective inspection at all points of work.

Subgrade

- ▼ Verify procedures used to document subgrade preparation for grade, cross-section, surface uniformity, moisture content, density, and correction of soft spots prior to placing subsequent pavement structure.
- ▼ Verify subbase and base as-constructed and material properties.

On projects where the final thickness of the pavement structure is established from test results obtained from the constructed subgrade, verify the frequency and adequacy of the on-site sampling and testing; check that the recommended thickness is in conformity with the State's design criteria for thickness of flexible pavements.

Aggregate Material Sources

- ▼ Examine material sources (pits or quarries) for uniformity of materials, presence of pockets or lenses of deleterious material, pit operations, supervision, and other production procedures.
- ▼ Check on any materials source testing and approvals.
- ▼ Comment on the uniformity of product.
- ▼ Document whether the source has been designated by the STA or selected by the contractor and approved by the STA.
- ▼ Verify that appropriate environmental clearances were obtained.
- ▼ Inspect processing equipment for compliance with specifications. If more than one material is proportioned and mixed into a combined subbase or base material in order to comply with the specifications, either in a central plant or by road mixing operations, determine the types, quality, and proportions of the materials used and the tests performed to ensure that the specified proportions are followed and that the end product complies with the specified requirements.

On-site Production

- ▼ Review quality control and acceptance moisture, density, aggregate quality, and gradation tests.
- ▼ Verify subbase and base width and compacted thickness.
- ▼ Ensure that soft or failing subgrade areas were replaced prior to placement of subbase or base.
- ▼ Verify method used for documenting pay quantities.

Paving

Verify that the quality control/quality acceptance procedures maintain effective inspection at all points of work.

Conventional Seals

Evaluate:

- ▼ Contractor's equipment and procedures.
- ▼ Condition (properly cleaned, patched, and graded) of the surface to receive the prime or surface treatment asphalt.
- ▼ Control of heating and means for the verification of the quantity and temperatures of the asphalt.
- ▼ Quality and quantity of aggregate.
- ▼ Weather conditions at the time of application.
- ▼ Technique for application of cover stone and the attention given to the obtainment of uniformity and completeness of coverage.
- ▼ Rolling and subsequent maintenance of the cover stone during the curing or setting period.
- ▼ Requirements for opening to traffic.

Hot-Mix Asphalt Pavements

Prior to observing work, examine the prepave meeting minutes. Use these notes to become familiar with work processes to be observed. Discuss procedures established to maintain continuous and effective inspection at all points of work and proper liaison between quarry, plant, and paving operations. Verify that plant production has been designed to meet delivery, laydown, and compaction rates (i.e., continuous production with minimal stops and starts).

Evaluate:

- ▼ Equipment, to determine whether its type, size, and operation comply with the contract requirements, if applicable.
- ▼ Backup equipment in case of breakdowns.
- ▼ Procedures for checking and maintaining payment records for asphalt and the asphalt mix, and for documenting that all items paid for are actually incorporated into the pavement; pay particular attention to criteria established to define acceptance.
- ▼ Diaries, plant and road reports, and other day-to-day records of the operations.

- ▼ Use of control charts to control operations.
- ▼ Operation of cold-feed proportioning, the dryer, screening, and batching equipment.
- ▼ Mixing time.
- ▼ Substrata condition ahead of the placement of the hot-mix asphalt (i.e., tack or prime coat, cleaning, patching, absence of raveling, etc.).
- ▼ Adequacy and effectiveness of the contractor's operations and the STAs inspection of the laying operations.
- ▼ Continuity in the delivery, laydown, and compaction (minimal stops and starts).
- ▼ Temperature of the mix versus required range (plant and laydown).
- ▼ Thickness and calculated spread rate.
- ▼ Slope pavement (eliminate edge dropoffs for errant vehicles).
- ▼ Density results.
- ▼ Finished section smoothness, cross-section, and transitions.
- ▼ Grade match into manholes, curb and gutter, and water valves.
- ▼ Work zone safety and control.
- ▼ Uniformity of gradation, asphalt content, and other mix properties.
- ▼ Applicable contract warranties.

Observe field inspector and laboratory personnel as they perform their normal duties. Comment on inspections of the batching operations, weighing of trucks (both empty and full), collection of samples at all points and where they are taken, performance of the various tests, adequacy of the facilities and equipment, etc. Comment on how soon test results are available and necessary adjustments or corrections are made based on this information.

Portland Cement Concrete Pavement

Verify that the QA procedures maintain effective inspection at all points of work.

Prior to observing the work:

- ▼ Examine the prepave meeting minutes.
- ▼ Become familiar with work processes to be observed.
- ▼ Discuss procedures established to maintain continuous and effective inspection at all points of work and proper liaison between quarry, plant, and paving operations.
- ▼ Verify that the mix design and material sources have been approved.

Forms

Examine completed forms in advance of concrete placing operations:

- ▼ Take sufficient measurements to ensure compliance with applicable specifications; identify the location of measurements by station.
- ▼ Quality of foundations material under forms.
- ▼ Line and grade.
- ▼ Method of securing forms to substrata.

Joints

Verify:

- ▼ Alignment of the dowel bars meets contract requirements (generally bars should be parallel to the centerline of the slab—not necessarily at right angles with joint, i.e., skewed joints—and parallel to surface pavement). Document the frequency and results of checks made after paving operations have been completed; this is particularly important when dowel bar inserters are used in the paving train.
- ▼ Dowel baskets are securely fastened to the substrata.
- ▼ Dowel bars are lubricated, free of deformities, and properly capped.
- ▼ Preformed expansion joints are properly secured; comment if they are tilted or displaced by strike-off or finishing equipment.

Paving Operations

Allow sufficient time to become reasonably familiar with all the operations involved; this should include the beginning and ending of the day's operations.

Verify:

- ▼ Type of equipment used and if in compliance with contract requirements.
- ▼ Mixing and delivery time is in compliance with contract requirements.
- ▼ Adequacy of batch design and batch control.
- ▼ Tests for slump, or consistency, and air content.
- ▼ Methods of making, transporting, and curing concrete test specimens; when possible, witness flexural or compressive tests.
- ▼ Frequency and adequacy of control tests.
- ▼ Theoretical yield against actual yield to ensure conformity with the specified mix proportions.
- ▼ Method of placing concrete.
- ▼ Finishing operations including micro and macro texture.
- ▼ Curing operations.
- ▼ Joint forming, sawing, depth of cut, uncontrolled cracking before or during sawing operations, cleaning, and sealing operations.
- ▼ Surface smoothness.
- ▼ Pavement thickness as determined from core measurements.
- ▼ Applicable contract warranties.

Environmental Commitments

Verify:

- ▼ Environmentally sensitive areas fenced off as appropriate.
- ▼ Certified biologist and archeologist available as needed.
- ▼ Mitigation features (temporary and permanent) constructed as defined within environmental (NEPA) clearance documents such as noise, erosion, dust, and sediment control, etc.

Signs

Review:

- ▼ Procedures for shop inspection; verify compliance on current project requirements.
- ▼ Shop drawings or plans; ensure they are signed by a registered professional engineer if applicable.
- ▼ Material certifications.
- ▼ Sign placement relative to field conditions and safety requirements.
- ▼ Tightening procedures for bolts.
- ▼ Structural members for cracking or defects in coatings.
- ▼ Proper retroreflectiveness.
- ▼ Proper coverage of signs when not in use.
- ▼ Proper breakaway features.

Guardrail and End Treatments

Strong Post W-Beam Guardrail

Verify:

Height

- ▼ Roadside installations: 706 mm (27-28 in) to top of w-beam rail.
- ▼ Median installations: 550 mm (22 in) to center of rail with no rubrail, or 610 mm (24 in) to center of rail and 300 mm (12 in) to center of rubrail.

Blockout

- ▼ Wood blockouts with wood posts toenailed to prevent rotation of blockout.
- ▼ Wood blockouts with steel posts routed and fit around edge of steel post.
- ▼ Steel blockouts only if speeds are 72 km (45 mph) or less.
- ▼ Recycled or composite blockouts connected in a manner that prevents rotation.

Rail

- ▼ Splices lapped to prevent snagging for the direction of traffic nearest the rail.

Location

- ▼ Slope in front of w-beam guardrail no steeper than 1:10.
- ▼ Preferred minimum offset from shoulder is 0.6 m (2 ft).
- ▼ No rigid objects within 0.9 m (3 ft) of the back of the line of posts unless measures have been taken to further stiffen the system.

Terminals

- ▼ Strut on ground or partially buried.
- ▼ Wood post holes near ground (see manufacturer's drawing for height and number of drilled posts as well as need for soil tubes).
- ▼ Steel posts hinged for breakaway design.
- ▼ Slope approaching and around terminal no steeper than 1:10.

Concrete Barrier

Verify:

Height

- ▼ Basic: 810 mm (32 in) minimum to top of w-beam barrier.
- ▼ Heavy truck traffic: 1070 mm (42 in) to top of barrier.

General

- ▼ Ensure that all concrete barriers are terminated in a backslope with an approved crash cushion or with an approved transition to guardrail design.

NOTE: Substantiate the above dimensions with the approved plans and details or manufacturers recommendations prior to the review. For further information on these issues or other types of roadside hardware, see the AASHTO Roadside Design Guide (see Appendix E).

Miscellaneous

Landscaping and Planting

Ensure the contract-specified landscaping and planting items meet design concepts of aesthetics and erosion control.

Fertilizing, seeding, and mulching

- ▼ Evaluate both quality and rate of application of the materials used.
- ▼ Record information from tags on seed bags and compare to contract requirements.
- ▼ Examine project test reports on the materials used and the rates of application.
- ▼ Verify that the time or season of planting is appropriate.
- ▼ Where sufficient time has elapsed since planting, examine and document apparent growth as a percentage of the surrounding undisturbed area (70 percent growth is generally required by the National Pollutant Discharge Elimination System [NPDES] permit).

Shrubs, trees, and other plantings

- ▼ Check to assure that the quantity, size, and quality meet specifications.
- ▼ Visit the source nursery or other source of supply if possible.
- ▼ Document methods and procedures used in planting, watering, and caring for trees and shrubs.
- ▼ Discuss applicable warranty provisions and procedures for administering.

Other Items

There are many items that may be included in projects that are not specifically mentioned in this Guide. Some are incidental to other bid items, and some are bid separately. Become familiar with the specific contract requirements and inspect in a similar manner.

There are other items of work that consist principally of the assembly and erection of components of manufactured products that are delivered to the project site. Examples of these items are signs, signals, lighting, and pump station equipment. Confirm the method of acceptance of these types of work. Generally, a manufacturer's certification that verifies the material characteristics of the product is required for acceptance. Ensure that these certifications are on file in the project records.

Project Cleanup

Evaluate the overall effectiveness of the contractor's operations in successfully completing all items of work. Field review the entire project and note:

- ▼ Surplus materials including stumps and brush have been disposed of in accordance with the contract.
- ▼ The project presents a pleasing appearance.
- ▼ Encroachments exist upon the right-of-way; pay particular attention to signs that overhang the right-of-way in urban areas.
- ▼ Borrow pits and ditches drainage are as required.
- ▼ Borrow areas, both on the right-of-way and on private property, have been regraded and seeded, and pit releases have been obtained from the owners.
- ▼ Haul roads have been restored and abandoned roadbeds obliterated.