PROJECT MANAGEMENT MANUAL

Municipality of Anchorage
Project Management & Engineering Department
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PROJECT MANAGEMENT MANUAL
REVISION LOG

Rev. No.	Date Executed	Description	Articles Revised or Added	New/*Revised* Template
1.	3-17-04	Purchasing Rules for Utility Agreements <$10K / $10K - $50K / >$50K	6.3.2	AM for (Utility Relocation) Sole Source Memorandum Utility Work Order ($10K - $50K) Utility Work Order (<$10K)
2.	3-17-04	Clarification on who prepares Purchase Requisitions and Bid Tabulations. Re-label hotlink Requisition Form for consistency	8.2.6	Re-label hotlink: Purchase Form
3.	3-17-04	Add bullet #5: Paragraph regarding PAS: Clarify that PAS will prepare all Requisition Forms for PM&E	1.5	no
4.	3-17-04	Add Article 1.6 Clerical Support, explains function of Clerical Support in assisting PMs and PAs	Add 1.6	no
5.	3-17-04	Article 6.3.4, Sub-article "LUC Formation Procedures", add "Important Note #1" regarding public notice and other misc. text changes	6.3.4	AS42.05.385 aka: HB380
6.	4-20-04	AWWU Funding Transfer Rules for AMC24.60.120 Relocations and Betterments	Delete 6.5.1 Add 6.8	no
7.	pending	Contract Change Order Rpt to Assembly within 60 days of final pay estimate		
8.	pending	Add project close-out matrix Section 10.8		
9.	4-28-04	Policy to routinely TV or inspect storm drains as part of data collection	Revise 3.1.3 & 5.3 Delete 5.4 & Reserve	no
10.	3-19-04	Create PMM Revisions log and insert in the Manual. Revise 1.0 Introduction, adding instruction on how users can verify their print copy is up to date.	1.0	Add PMM Log as first page of the PMM
11.	Pending	Requirement to submit AIM when substantial changes (50% of contract or $250K) are pending.		
12.	4-28-04	Project Budget Form: Update version 3.7 to version 3.9	3.3	
13.	6-16-04	Clarify how and why regarding public hearings and Clarification of UDC and P&Z review requirements	4.2.5 4.2.8	
14.	pending	SWPPP Letter Template		
15.	pending	SWPPP Electronic NOI Filing		

16.	pending	Templates for Utility Invoice Return		
17.	pending	ROW Acquisition Plat per AMC 21.15.123		
18.				

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EXHIBITS

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ABBREVIATIONS

ACS	Alaska Communications System
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADOT&PF	Alaska Department of Transportation and Public Facilities
A/E	Architects and/or Engineers
AM	Assembly Memorandum
AMATS	Anchorage Metropolitan Area Transportation Solutions
AMC	Anchorage Municipal Code
AO	Assembly Ordinance
AR	Assembly Resolution
ARRC	Alaska Railroad Corporation
ASD	Anchorage School District
AWWU	Anchorage Water and Wastewater Utility
CEA	Chugach Electric Association
CIP	Capital Improvement Plan
COE	US Army Corps of Engineers
CZM	Coastal Zone Management
DC/VR	Design Clarification/Verification Request
D/MBE	Disadvantaged/Minority Business Enterprise
DNR	Alaska Department of Natural Resources
DSR	Design Study Report
Enstar	Enstar Natural Gas Company
EPA	US Environmental Protection Agency
F&WS	US Fish and Wildlife Service
FEMA	Federal Emergency Management Agency
GCI	General Communications Systems
IGP	Intra-governmental use permit
LUC	Levy upon connection
MASS	Municipality of Anchorage Standard Specifications
MEA	Matanuska Electric Association
ML&P	Municipal Light and Power
MOA	Municipality of Anchorage
MTA	Matanuska Telephone Association
NTP	Notice to Proceed
OEO	Office of Equal Opportunity
OS&HP	Official Streets and Highways Plan
P&P	Plan and Profiles
P&ZC	Planning and Zoning Commission
PA	Project Administrator
PAC	Project Advisory Committee

PAS	Project Administrative Support
PAI	Potentially Affected Interest
PFI	Pre-Final Inspection
PIP	Public Involvement Plan
PM	Project Manager
PM&E	Project Management & Engineering Department
PS&E	Plans, specifications and estimate
PSC	Professional Services Contract
RID	Road Improvement District
ROW	Right-of-Way
ROWA	Right-of-Way Acquisition Section
RFP	Request for Proposal
SSP	Standard Special Provisions
SWP3	Storm Water Pollution Prevention Plan
T&M	Time and materials
TCP	Temporary Construction Permit
TIP	Transportation Improvement Program
UDC	Urban Design Commission
USCG	US Coast Guard

1 INTRODUCTION

This manual presents the series of tasks and activities performed by the Project Manager (PM) and Project Administrator (PA) from the beginning of project planning to the final stages of project closeout. In particular, the responsibilities of the PM/PA and policies of PM&E are stressed. Additionally, the interactions PM/PA's have with PM&E staff, other municipal agencies, outside agencies, and the public is also emphasized.

While you may be viewing this Project Management Manual in printed form, bear in mind that by its very nature the PMM is subject to ongoing update and revision in order to keep pace with changing Municipal policies and with improved methods of project manaqement. In its most current version, the PMM is found in read only online form on the municipal intranet site at G:\Pm&e\DIV\Pub\PMM. Within the online text, hyperlinks have been created pointing to all of PM&E's relevant forms and template documents. These hyperlinks appear twice for each exhibit, once in the Table of Exhibits (located right after the table of contents) and again at the location in the text where the exhibit is first referenced.

Users of printed versions of the PMM are encouraged to access the online version frequently to check the PMM Revision Log (which is incidentally the first page of the PMM). Users may then compare the dates between their paper copy of the revision log and the online version, to ascertain what revisions have occurred since their paper copy of the PMM was last printed.

Specific information is given in the log as regards which articles and exhibits where added, deleted or revised by each revision. The user can then copy all pages and exhibits affected by the revision directly from the online version and use them to replace the outdated pages in the printed version. After all revisions have been posted to a users printed copy, the latest PMM Revision Log should also be printed to replace the outdated log at the front user's paper copy.

Requests for revisions, updates, and improvements to the PMM should be coordinated with the Clerical Support Supervisor (ref: Article 1.6 The Keymaster) who is the only designated member of PM&E with read/write access to the online PMM files.

1.1 Project Manager

Management authority and responsibility rests with the PM. The PM is the single point of contact for all project activities from planning through project closeout. This broad authority gives the PM the responsibility for project success. Their activities include the following:

- Responsibility for the project's technical and financial directions and for ensuring external and internal customer satisfaction with project results.
- Administer professional service, design and construction contracts, including involvement in design contract negotiations.
- Establish initial project budgets, cost estimates, cash flow projections and master schedules.
- Develop and provide monthly updates of project schedules and budgets.
- Monitor project schedules and budgets to ensure financial and schedule milestones are met.
- Resolve public questions and concerns about the project.
- Coordinate with other municipal agencies and/or private utilities and companies involved in the project.
- Oversee easement acquisition/utility relocation and permitting activities.

- Prevent or resolve problems occurring during project development and execution.
- Participate in the development of bidding documents and the construction contract award process (as applicable).
- Analyze problems occurring during the project and take actions to ensure project goals are met.
- Provide regular progress reports and monthly briefings.
- Ensure project records and documentation are properly maintained.
- Select and assign projects to staff engineers and consultants.
- Set schedules for interim project reviews.
- Perform as the Quality Assurance manager for the project.

1.2 Project Administrator

Aside from being assigned ultimate responsibility for the project, the project administrator (PA) may be designated by the PM to perform any of the duties as described above including acting as the single point of contact on matters pertaining to design and construction contracts. The degree of duties performed on behalf of the PM will vary depending on the experience level of the PA and the working relationship between the PM and the PA. Duties typically performed by the PA include the following:

- Contract administration for A/Es and contractors
- Contract negotiation and execution
- Draft project correspondence
- Attend and assist with production of public meetings
- Coordinate and administer the process of utility relocation, regulatory agency permitting and right-of-way (ROW) acquisition
- Monthly project website and schedule updates
- Coordinate and conduct project design review and approval processes
- Coordinate and track progress of project submittals
- Construction observation and Quality Assurance review
- Respond to inquiries from the public, affected property owners, and other agencies

1.3 Architect and/or Engineer

The architect and/or engineer (A/E) IS responsible for designing the project and preparing plans, specifications and estimate (PS&E). PM&E's own engineering staff, especially on smaller design projects where a quick turn around is required, may perform A/E services in-house. Large projects requiring a full range of professional services (soils, investigation, survey, public involvement, hydraulic analysis, etc.) are typically performed by A/E's who have been awarded a qualification-based professional services contract (PSC) with the Municipality. PM&E also enters into professional services term contracts with A/E firms wherein specific services are provided such as soils investigation, surveying, civil, structural and electrical design, construction support and even comprehensive project management services.

1.4 Project Administrative Support

Project Administrative Support (PAS) plays a key role in maintaining the flow of project documents through the Municipal system. They are also a key interface between the PM and the Municipality's Finance Division. Typical duties include the following:

- Overall control of funds and expenditure accountability
- Grant and loan administration
- Developing, programming, and updating the Capital Improvement Plan (CIP)
- Processing of payroll, accounts payable, administration of work authorizations, project-costing support
- Preparing Requisition Forms for the Purchasing Officer for all PM&E contracts and contract amendments.

1.5 Right-of-Way Acquisition

The Right-of-Way (ROW) Acquisition Unit is responsible for acquiring all real property rights for Municipal capital projects and federal-aid projects. The major components of the acquisition process include:

- Identification of property rights to be acquired
- Identification of property owners/tenants
- Establishment of just compensation and fair market value
- Conduct negotiations with property owners
- Administer legal acquisition of all property rights required for a project

1.6 Clerical Support

The Clerical Support staff assists with the execution of project management and administration by providing the following services:

- Maintenance of project hard copy files and electronic files;
- Preparation of bid tabulations;
- Word processing functions including but not limited to final proofing and preparation of project correspondence, project specifications (in-house design), procedure manuals such as this Project Management Manual, Assembly memorandums, contracts and contract amendments;
- Maintenance of all electronic forms, templates, Standard Special Provisions and various procedure and criteria manuals;
- Processing of all incoming and outgoing mail including distribution of reports, plan sets and specifications for review.

All work to be performed by the Clerical Support staff must be submitted to the Clerical Support Supervisor who will apportion the work to the Clerical Support staff and ensure timely completion. All PM's and PA's are strongly encouraged to routinely route all draft correspondence and documents through Clerical Support to assure that current templates are being used, formatting is consistent, and that work is verified for correct spelling and grammar before is mailed out.

2 PROJECT PLANNING

2.1 Capital Improvement Plan

The CIP is a 6-year program of improvements that provides primary scope, schedule, and budget direction to PM&E's design and construction program. It must be annually updated and approved by the Anchorage Assembly. Thus, the period covered by the CIP includes the current budget year and the five years that follow.

The CIP document presents basic project information, including:

- Project title, category, and a brief description of its scope
- Priority for the project
- Total project development costs and year-to-year cash flow requirements
- Estimated operation and maintenance costs and debt service
- Funding sources

2.2 Pre-Design Activities

Once the CIP identifies a project as having the required priority status and available funding, the pre-design phase is initiated. The intent of pre-design is to evaluate the proposed project for conformity with long-range comprehensive planning, potential assessments, and coordination with other proposed projects.

- Project consistency with the Municipality's Anchorage 2002—Anchorage Bowl Comprehensive Plan (2001). Of particular concern is Title 21 of the Anchorage Municipal Code (AMC), which presents land use regulations, such as zoning and development criteria.
- Consistency with the Official Streets and Highways Plan (OS&HP) and the Areawide Trails Plan (1997).
- Potential for assessments as a result of the project. If assessments are required, State and Municipal codes provide for formal procedures, which must be strictly observed.
- Coordination with overlapping projects. AMC Title 24 requires that overlapping or conflicting projects be coordinated to minimize costs, damage to public facilities, and public inconvenience.
- Check the CIP file for other data
- Identify zoning and conditional use requirements

3 PROJECT INITIATION AND TRACKING

3.1 Overview: Project Initiation and Tracking

This chapter describes the procedures and resources available to the PM for project initiation and tracking.

3.1.1 Project Funding Sources

Typically, PM&E funding comes from Anchorage Road and Drainage Service Area bonds, Anchorage Parks and Recreation bonds, state grants, or federal grants.

Local Bond Funding

Local bond funding is provided annually as Anchorage voters approve bond propositions included in the April Municipal election. The Anchorage Assembly approves bond propositions for inclusion in a Municipal election each year in February. The bond propositions are usually very similar to the CIP approved in November of the previous year. Public hearings are held before the Assembly prior to bond approval by the Assembly.

State Grant Funding

Each year, local Alaska governments prepare and submit prioritized lists of capital projects for state grant funding consideration. The CIP provides a framework from which to build the Legislative program, which is used to formally request funding for various projects. State grants which are authorized by the legislature are funded under the guidelines of the 70/30 Matching Grant Program under which the State of Alaska funds 70% of a project's cost and the local government commits to providing the other 30%. Each fall, the Municipal Assembly approves the 70/30 Grant package, thus committing municipal contribution to the projects.

Federal Funding

Federal funding is also requested annually. The Anchorage Metropolitan Area Transportation Solutions (AMATS) Transportation Improvement Program (TIP) determines the allocation of available federal funding. Projects are nominated and prioritized similarly to the CIP process described above. Project priorities are established locally and cooperatively between the Municipality and the Alaska Department of Transportation and Public Facilities (ADOT&PF). Each year, ADOT&PF submits a budget to the Legislature for approval. This budget includes federal funding for the Anchorage area consistent with the approved TIP. In the CIP, projects that are proposed for federal funding are also consistent with the approved TIP.

3.1.2 Project Files

Once a project is funded and assigned to a PM, the PAS assigns a project number and sets up a project file. Originals of all project-related documents should be routed to the appropriate project file with copies to the other project staff as required. Care should be taken to ensure that the central project file contains complete documentation, regardless of whether the project staff chooses to maintain their own project files. Documents

should be filed according to the appropriate file index. File indexes are set up for the following:

- Locally Funded (Civil Projects)
- Federally Funded (Civil Projects)
- Buildings
- Non-Project or Program Projects

3.1.3 Project Data Collection

During project initiation, typical PM&E project budgets and schedules can be effectively developed utilizing standard assumptions based on past experience. These standards are described in more detail in the following articles of this chapter.

If the project is complex or unusual in scope, the PM may be compelled to collect other available existing information about a proposed project during the initiation phase so that potential variables which could impact budget and schedule are identified early on. Additional data collection resources available to the PM during project development may include the following:

- Reference 500-scale maps to ascertain planning and zoning implications of a proposed project.
- The PM&E Materials Section can provide files containing any previously performed geotechnical investigation in the project area.
- Collect all available utility record drawings to identify existing utilities in the project area.
- PD&PW's ROW Section can provide record drawings (if they exist) to determine if there are existing improvements in the project area.
- Reference the CIP file to determine what assumptions about the scope of work and existing conditions were made in the development of the project proposal.
- Check with Flood Hazard Permit Office and the Coastal Zone Management Office to determine if the project is located in, or affected by, a dedicated floodplain or designated wetlands.
- Arrange for TV inspection of area storm drains with Street Maintenance.

3.2 Project Schedule

Presently, PM&E uses Microsoft Project for scheduling all projects. Schedule templates (Bond Funded Schedule Template, and Federal Aid Funded Schedule Template) are available for use in developing new project schedules. The templates are based on a typical but complex project and include a comprehensive list of typical schedule tasks required from developing the Request for Proposal (RFP) through final acceptance. The concept for using the template in developing a schedule is to copy a new schedule from the template and then to delete any tasks in the template that are not applicable to the new project. Projects of low complexity or short duration will require only a small number of available tasks to be chosen from the template. Even with the templates, it may be necessary for the project scheduler to add new task descriptions when unique situations are part of the project development. Once the schedule has been developed, the PM updates the schedule on a monthly basis. The updated project

schedule provides the summary-level information needed for completing required monthly updates to the project database. The project database is described in Section 3.4.

3.3 Project Budget

The project budget is initially developed using the estimated cost of construction, which is determined during the planning process. Whether a project is bond or federally funded, the PM can reference the CIP or TIP, respectively, for the construction estimate. Then, as additional information becomes known about the project, the PM should make adjustments to the estimated cost of construction.

PM&E has developed Project Budget Factors, which can be applied to the construction cost estimate to determine estimates for the design development components of the project budget. Using this process, the PM then completes a Project Budget Form for the new project. The PM should ensure that the budget is as realistic as possibly by consistently updating the budget line items to reflect current experience and known information about the project.

Once the PM is satisfied with the project budget, the completed Project Budget Form should be submitted to the PAS for setup of a cost center and entry into the Peoplesoft system for tracking of available funds, actual costs, and budget to actual comparison during the life of the project.

The PAS will provide the PM with Peoplesoft-generated printouts of the project budget, which should be continually updated whenever warranted and returned to the PAS for entry into the Municipal accounting system.

3.4 Project Database

A web-based project database has been developed by Technical Support Services. PMs are expected to keep the project database updated on an as needed, or at least monthly basis. The project schedule and budget, described in Sections 3.2 and 3.3, respectively, are essential tools to be used by the PM in keeping the project database current. In addition to schedule and budget information, the project database may contain the following project information:

- Project file, RFP, contract number(s), etc.
- Location map
- Current status
- Project category
- Project need and scope
- Related links
- Construction status
- PM, PA, engineer, inspector and contractor (names and contact information)
- Schedule of public meetings
- Assembly, legislative and affected Community Council Districts
- Related documents may contain photos, schedules shown as Gantt charts, Design Study Report (DSR), drawings, public meeting transcripts, etc.

The project database is used to generate the PM&E Roads, Drainage and Safety Project Status Report for use during the monthly project review meetings. This meeting is attended by representatives of all area utilities and PM&E for identification of areas where a PM&E project may cause conflicts with utilities or overlap with proposed utility projects.

The project database also makes up a real time project information website, which is used by executive management, the public, and other agencies having an interest in the project to obtain project status information. It is of critical importance that the information contained in the project database be kept as current and accurate as is reasonably possible.

3.5 Other Management Tools

Other tools the PM must consider include the following:

- Maintain a project diary to document important decisions, conversations and events, which may affect project outcome
- Maintain a log of incoming and outgoing telephone calls
- Utilize the Project Development Checklist to confirm that all essential project activities are planned and executed

3.6 Contracting for Professional Services

PM&E routinely conducts a qualification-based competitive Request for Proposal (RFP) to select professional A/E services firms to perform complete design services for its projects. Procurement of A/E services is a two-step process: solicitation and contract negotiation/award.

3.6.1 Professional Services Solicitation

Request for Proposal Preparation

Purchasing is responsible for preparing the RFP. The PM must give Purchasing certain information in order to issue the RFP. The PM prepares and submits the following information to Purchasing:

- Project goals and objectives
- A summary of the proposed scope of work and location map
- Project schedule
- Total project development budget

Purchasing will compile the RFP using the information supplied by the PM and will add the following:

- Explicit instructions and guidelines on proposal length, format, required attachments, such as Disadvantaged/Minority Business Enterprise Statements (D/MBE), and the proposal due date
- A description of the criteria that will be used in evaluating proposals, the maximum scores for the criteria responses, and other guidance on information the proposer should incorporate into their proposal

- A description of the selection process, including the possibility of interviews in case the scores on written proposals do not identify a clear winner
- A sample professional services contract for proposers to review and offer comment

Once the PM has compiled the requested information for an RFP, the package is given to PAS for preparation of a purchase requisition (non-encumbering). The RFP and purchase requisition should then be forwarded to Purchasing. Note that the main body of the RFP should be transmitted as a Microsoft (MS) Word file to facilitate any edits by Purchasing. Purchasing will finalize the RFP.

The PM also determines whether or not D/MBE participation goals are required. This requirement can be confirmed through consultation with the PAS. If D/MBE participation is required, the PM must complete and submit a Data for Setting Goals on Municipal Projects form to the Municipality's Office of Equal Opportunity (OEO), a section of the Employee Relations Department. The PM will need to evaluate opportunities for D/MBE participation within the project and estimate the fee associated with this work. OEO will use this data to establish participation goals.

Purchasing will review the RFP, request necessary changes, and coordinate with OEO on D/MBE participation goals. Unless there are significant comments, Purchasing will typically make all necessary changes and attach any special D/MBE forms to complete the RFP. Upon approval of the RFP, Purchasing will advertise the RFP packages with a cover letter that identifies when the proposals are due, where they are to be submitted, and a date and location for the pre-proposal meeting.

3.6.2 RFP Advertising and Pre-proposal Meeting

Once complete, Purchasing will advertise the RFP and coordinate the pre-proposal meeting. The meeting is typically scheduled 10 days after the RFP is first advertised and is held at the Purchasing Department. A Purchasing staff member will lead the meeting and the PM must attend to address any questions or comments raised by prospective proposers. Subsequent to the pre-proposal meeting, all comments must be submitted in writing to Purchasing and, if appropriate, be forwarded by Purchasing to the PM for a response. If questions or comments require clarification or amendment, Purchasing will issue an addendum (with technical input provided by the PM) illustrating these changes to all RFP holders. The addendum may include an extension of the RFP response period.

3.6.3 Proposal Evaluation/Selection

The PM will organize a committee of three to five individuals to review and evaluate submitted proposals. Members of the selection committee are typically Municipal employees, although other agencies may participate. The Municipal Manager must approve the proposed selection committee members. Committee members are given copies of the proposals with written scoring instructions and are asked to read and score them based on the RFP criteria. A selection committee meeting is held to compile individual scores and discuss any discrepancies or apparent non-responsiveness of any proposal. The highest-scoring proposal is selected if the compiled scores indicate a clearly superior response (typically scoring 10 percent or more above the next highest

proposal). In instances where scores are close or for projects of significant size, oral presentations may be used for the final selection process.

Once preliminary selection has been made, an Authority to Negotiate Memorandum is drafted by the PM, approved by the PM&E Director and forwarded to Purchasing for review. Purchasing will either approve the recommendation, or request additional work by the selection committee (such as oral presentations). Once a selection is approved, the selected firm (but no other proposers) can be notified and a schedule set for negotiations and contract award.

3.6.4 Negotiations

To initiate negotiations, the PM should meet with the selected A/E to discuss project scope and schedule. This discussion should provide the consultant with the necessary information to draft a narrative design scope, schedule and fee proposal. Because the scope will become an attachment to the Professional Services Contract (PSC), the scope should as precisely as possible describe the services to be provided for the project. In addition, a detailed scope will permit the PM to rigorously evaluate the fee proposal and make necessary scope adjustments to keep the design contract within budget constraints.

The PM should review past project cost history to gain a sense of proportion on scope and fees. However, the PM must also consider that each project is unique and will have special requirements. The purpose of the negotiations is not to minimize the cost of the consultant's services, but rather to define a complete scope of services to be provided and a reasonable fee for these services.

PM&E typically compensates consultants on a lump-sum basis for well-defined tasks. Tasks for which the scope cannot be accurately defined at an early stage of the project will be reimbursed on a time-and-material (T&M) basis under the additional services portion of the contract. Thus, the PM can include contingencies in contract negotiations without committing to incurring those costs.

3.6.5 Assembly Approval for Contract Award

Assembly approval is not required for contracts with a total value equal to or less than $100,000, and the PM can proceed directly to contract preparation and execution. However, Purchasing prepares a report of contracts issued in amounts less than $100,000 and distributes it to inform Assembly members of such actions. Contracts having a negotiated value greater than $100,000 will require Assembly approval to award.

For contracts requiring Assembly approval, the PM will prepare a Recommendation of Award for submittal to Purchasing. The Recommendation of Award must include the negotiated contract amount, the project's account distribution number and the funding source information. The PAS provides the funding account distribution number upon request by the PM. Purchasing will prepare an Assembly Memorandum (AM) and have the Recommendation of Award placed on a future Assembly meeting agenda. Assembly approval takes 3 to 6 weeks, depending on the Assembly meeting schedule.

3.6.6 Contract Preparation and Execution

After submitting the Recommendation of Award, and while waiting for Assembly approval, the PM can assemble the Professional Services Contract (PSC) package. A digital PSC template is maintained by the Clerical Support Section, and is updated by incorporating information from the Legal Department and from Purchasing. The PM must edit the template by adding the project title and consultant information, and select the appropriate options (e.g., contract duration, amount, and other contract items as appropriate). The funding account distribution number, funding amount and funding source should be added to the signature page of the contract. The PSC package is complete and ready to submit to Purchasing once all of the following are attached:

- Recommendation of Award
- Purchase Requisition (encumbering)
- Approved Assembly Memorandum
- Three copies of the contract with appendices
- Appendix A: Scope of Services (the consultant will be asked to prepare this, based on the negotiated scope of work)
- Appendix B: Compensation Schedule (fees for Basic and Additional Services)
- Appendix C: Statement of Direct Labor Rates (the consultant's rate schedule.)
- Appendix D: Insurance Certification(s)

The PM then forwards the PSC package to Purchasing. Purchasing will obtain notarized consultant signatures and all other required MOA signatures. This process takes approximately 4 to 6 weeks. If necessary, the process can be expedited by monitoring the contract with phone calls and personal visits to the approving departments. Purchasing will return two copies of the fully executed contract to the PM.

3.7 A/E Contract Award

Upon receipt of the fully executed contract, the PM will draft a Notice to Proceed with Professional Services for signature by the Municipal Engineer. One original will be placed in the PM&E project file and the other will be attached to the NTP letter, which is then sent to the A/E.

3.8 A/E Contract Amendment

It may become necessary to issue an amendment to an A/E contract. Depending on the size of the contract amendment, Assembly approval may be necessary before it can be executed. The PM's responsibility is to negotiate the amount of the amendment with the A/E and draft the Assembly Memorandum (AM) requesting approval of a contract amendment. A draft of the contract amendment can be completed while Assembly approval is being obtained.

Prior to execution, the contract amendment needs to be reviewed and approved by Purchasing. The complete contract amendment package must contain:

- Copy of original contract
- Copy of any prior amendments
- Copy of approved AM and map
- Change order requisition form (obtain from the PAS)
- Three copies of the contract amendment (funding authorization number needs to be added to the signature page)

As with the original contract, the amendment package is routed to Purchasing for execution.

4 PUBLIC INVOLVEMENT

Goal 1: Comprehensive, Appropriate Opportunities for Public Participation

Although some PM&E projects will generate only minor interest with the public, a thorough effort must be made to invite all potentially affected interests to provide input.

Objectives:

- Provide early and continuous participation in the project development process
- Provide timely notice of project milestones and participation opportunities
- Tailor the Public Involvement Plan (PIP) to allow participation of all members of the public, including those members unable to attend meetings.

Goal 2: Effective Communication with the Public

Effective communication regarding project decisions, financial requirements, impacts to property, and other issues of public interest is critical.

- Make presentations simple and easy to understand
- Clearly present the anticipated impacts of the project
- Employ a variety of methods for involvement and communication between the public and the project team
- Listen to those potentially affected interests; make communication a two-way exchange

Goal 3: Responsiveness to Public Input—Understand and Manage Stakeholder Expectations

Public involvement is more than just communicating to the stakeholders—it is communicating with and managing the process to achieve an outcome that gains acceptance of the completed project. Consensus does not mean that all are satisfied with the project results; it means stakeholders are willing to accept project outcomes as derived through the public involvement process.

A great deal of public involvement is emotional and/or spontaneous, and concerns expressed by the public often cannot be fully addressed at the meeting in which they are presented. Public input (including questions, comments, and requests) should be noted and addressed in some manner.

4.1 Potentially Affected Interests

A potentially affected interest (PAI) is a member of the public or an agency that may have an interest in the project. PAIs fall into one or more of the following groups:

- Property owners and tenants that abut the project corridor or study area
- Members of the “traveling” public that will be potentially affected by the construction activities (road closures, detours, speed reduction, etc.)
- Individuals or public interest groups concerned about PM&E’s actions or approach in dealing with regional issues
- PAI’s who take an interest in the outcome of the project

4.1.1 Techniques for Identifying PAIs

PAI identification is the PM's responsibility and should be undertaken at the beginning of the design study phase. If the project funding justifies a public involvement specialist, then this individual will provide the necessary services. Otherwise, the PM may use available support staff. PAIs, who are not adequately notified, often challenge the public involvement process and can generate significant delays in project development because a "time out" is required to perform additional public involvement.

PAIs are identified through a variety of activities. They are listed below:

- Mailing lists developed from tax records and other sources
- Community council newsletters and appearances; refer to the Federation of Community Councils at www.communitycouncils.org
- "Word-of-mouth" from other PAIs
- Sign-in sheets at meetings and telephone/email contacts
- Published notices for the project, including paid advertising in newspapers, television, and/or radio or news coverage
- Consultation with Assembly members
- Discussion with public agencies having jurisdiction over elements of the project

4.2 Public Involvement Tools and the Project Manager's Responsibilities

The PM has a variety of tools available for public involvement. As discussed above, the PM may be able to justify a public involvement consultant. However, these tasks are often left to the PM and support staff. Regardless, the PM should continuously monitor the public involvement process to ensure that it is effective.

4.2.1 Newsletters

Typically, a project information newsletter is a single-sheet document, with text on both sides. The newsletter is periodically published during the project to provide written updates on project milestones, upcoming meetings and other related news. Minimum elements of a newsletter are as follows:

- Project title and description
- Location map
- PM, PA, and design consultant names, contact phone numbers, fax numbers, mailing addresses, and email addresses
- Summary of project status
- Description of next project milestone (and preferably the entire project timeline)
- Date, time and location of next public meeting, if appropriate

Newsletters have evolved into multi-media documents that include text, maps, photography, and other digital graphics.

Newsletters can be distributed by mail-outs, door hangers, handouts at meetings, and "postings" on a project website.

4.2.2 Letters

Letters differ from newsletters in that they are:

- Printed on PM&E letterhead
- Directed to specific individuals, such as the property owner of record
- Address a specific issue, such as an easement request
- Often require a reply from the addressee

Letters should be prepared using proper business communication style and format. The purpose of the letter should be clearly stated as early as possible in the letter, preferably in the first sentence. If a response is requested, a self-addressed, stamped envelope should be included, as well as a response form that simplifies the recipient's required action, such as checking one of a series of boxes followed by statements.

4.2.3 Community Council Presentations

Anchorage community councils meet monthly, except during the summer when many councils suspend their meeting schedule. These meetings offer several advantages to the PM:

- Councils circulate newsletters throughout the community. The PM can email a brief article for publication and receive widespread distribution at no cost. However, the PM should recognize that not every resident of the community council receives the newsletter. Thus, meeting notices should also be circulated through a newsletter or letter published and distributed by the project team.
- Community councils have large meeting locations well known in the community. Chairs, tables, podium, screens, and audiovisual equipment are usually available, although this should be confirmed. The broad agenda of council meetings may attract more people than would come to a meeting specifically for the project.
- However, community council meetings have some potential disadvantages. The PM does not chair the meeting, and thus has limited control. Also, agendas at community councils are often full, thus limiting the amount of time available to present the project. Sometimes the meetings are adjourned before the project comes up on the agenda.
- PMs must recognize that they are guests on the agenda and should respect the timelines established by the community council. Be prepared to keep your presentation within the time frame established on the agenda.

Appearances at community council meetings should be scheduled at least one month in advance. The PM should contact the community council president to be placed on the agenda. A few hints follow:

- If you need audiovisual equipment, visit the meeting room ahead of time to confirm electrical outlets, walls that can be used as screens, etc.
- Once your appearance has been scheduled, make a follow-up call to the president to confirm that you are coming, and get an approximate time for your presentation.

- Be on time; better yet, come early and study the audience and the other issues before the meeting
- Obtain copies of the sign-in sheet for the meeting
- Bring copies of any project newsletters and your business card for distribution at the meeting.

4.2.4 Neighborhood Meeting / Open House

Neighborhood meetings and open houses are organized and hosted by the PM and/or PA. Thus, they focus exclusively on project-related business. It is advised that these meetings be held in a neutral public place, such as a school or church.

Neighborhood Meetings

Neighborhood meetings have an agenda, an expected goal for the meeting, and a more formal presentation of the project. The PM or public involvement specialist moderates, typically from the front of the room, with the public seated as a single audience. Advantages of neighborhood meetings include the following:

- The PM has better control over the flow of information.
- A meeting transcript can be produced, which includes a list of attendees.
- The public can interact more completely with itself and the project team. The PM can get a better sense of public consensus (or lack thereof) on specific issues and alternatives.
- Disadvantages include the following:
- Information is presented in a serial (rather than parallel) fashion; thus, attention wanders, time runs short, etc.
- A single audience member can disrupt the entire meeting and potentially have a negative effect on the outcome.

Open House

Open houses do not have agendas, but rather have “stations” at which project team members present and discuss specific project elements, such as one of the design alternatives, ROW impacts, or construction-phase traffic control. Meeting attendees circulate from station to station, interacting with team members more directly. In addition, attendees can ignore the stations in which they have no interest. The advantages of an Open House include the following:

- Visitors can focus on the parts of the projects that interest them.
- The multiple stations tend to break the attendees up into smaller groups, facilitating more one-on-one communication.
- A greater amount of time can be spent on individual project issues, as requested by attendees.

Disadvantages include the following:

- Attendees may not visit a particular station and therefore miss important project information.
- Attendees may have difficulty integrating all the project elements and "seeing the big picture."
- It may be difficult for the PM to develop a general sense of the attendees' opinions on project issues and alternatives.

These meetings are typically held in public schools or churches near the project. The PM should contact the Anchorage School District to coordinate available facilities and dates. Most of the hints provided in the community council meeting discussion above apply here as well.

4.2.5 Public Hearings

Public hearings are formal meetings required by ordinance or statute. Specific meeting notice must be given and project information must be presented, and public testimony heard and recorded.

The PM may encounter public hearing requirements when faced with site plan review by the Planning & Zoning Commission (P&Z) or Urban Design Commission (UDC), rezoning actions, or condemnation actions to support ROW acquisition.

Detailed information regarding the rules and requirements for a hearing can be obtained directly from the text of the particular ordinance or statute involved, a commission-provided "guidelines packet," or from the appropriate Planning Department staff during a pre-application conference.

4.2.6 Project Advisory Committee

Significant or controversial projects may require formation of a Project Advisory Committee (PAC). A PAC is a small committee selected from volunteers that represent a cross-section of the project's PAIs. The purpose of the PAC is to permit this small, select group to participate formally in the project development process. The PAC is an exceptional step, with the following characteristics:

- PACs are small and should be limited to 6 to 12 members.
- PAC members should represent a cross-section of project area residents and property owners and other key interest groups.
- The PAC should meet frequently (often monthly).
- PAC members are individually provided copies of all milestone project documents.
- The PAC participates in document reviews, alternatives analysis, budgeting, and many other project activities.
- The PAC typically coordinates with the Assembly representatives of the affected district and, thus, has substantial political influence.
- The PAC will develop endorsements in favor of or in opposition to major project decisions.

Because PACs represent a significant commitment of time and resources, the PM should only organize them after a review of the project's public involvement program.

PACs are typically formed by inviting self-nominations through other public involvement activities, such as:

- Discussion at public meetings or open houses
- Newsletter articles
- Letters

Once nominations are gathered, the PM selects committee members. In many cases, it will be possible to accept everyone who applies to the PAC. However, it is important that members of the public recognize that committee membership is by selection and that attending PAC meetings does not automatically confer membership.

PAC members must agree to abide by rules of order during meetings and should recognize that while their input is important, the PM and PM&E will ultimately make project decisions and that some of these decisions may contradict the wishes of the PAC.

The PM and/or public involvement specialist should chair the PAC and be responsible for preparing and distributing agendas, preparing meeting minutes, and handling the meeting logistics (reserving rooms, audio-visual equipment, creating sign-in sheets, refreshments, etc.).

4.2.7 Consultant-Developed Project Websites

Chapter 3.4 explains the PM&E project database and how it is used to make project information available online through the PM&E website. For most projects, the PM&E project website provides sufficient online project information to all PAIs.

For large or controversial projects, the PM may determine that a specific project website should be developed and maintained by the engineering consultant. This is especially useful when a larger than normal amount of public involvement is expected, and in situations where project success depends on promotion of information about the project to the PAIs. Where project-specific websites are developed, the site should always share a link with the PM&E project website and the PM&E site should provide a link to the consultant-provided site.

4.2.8 Coordination with Boards and Commissions

Other Municipal boards and commissions before which the PM may be required to appear include the following:

- Planning and Zoning Commission site plan review is required for proposed road improvement projects involving collector streets or greater, rezoning proposals, and conditional use permits (primarily for facility projects).
- Urban Design Commission approval is required for proposed road improvement projects of arterial streets or greater (as defined in the OS&HP), or any project having a constructed value greater than $500,000.

  - Note: Planning staff may advise PM&E to present a collector street project to the UDC in order to avoid a time-wasting limited P&Z approval, conditioned upon a future (60 days) approval by P&Z. This usually occurs when staff believes that P&Z will order a discretionary UDC review on its own motion.
- Parks and Recreation Commission or Anchorage School Board appearances are occasionally necessary when property under their management is involved.
- All boards and commission either require, or make available an opportunity for, a pre-application conference. This conference is a wide-ranging informal discussion with staff as regards application overview, submission format, scheduling, other important procedural requirements, and usually produces many helpful hints from staff.
- More information can be obtained at www.ci.anchorage.ak.us/Services/Boards/index.html

4.3 Matrix of Typical Public Involvement Programs

During project planning, the PM will request a PIP that articulates the project approach. The following elements should be included in the PIP:

- A summary of the proposed program, including a schedule that is integrated into the overall project schedule
- A list of resources needed to implement the PIP, including a budget
- A list of project staff and their responsibilities (identify the public involvement specialist, if one is used)

The PM will need to reassess this plan at project milestones to validate its adequacy in addressing public concerns and issues. Where it is determined that additional public involvement is required, the PM should implement the appropriate activities.

The following tables present typical PIPs for various projects. These programs should be considered as guidelines; the PM must remain sensitive to public participation and feedback throughout the project, and manage project execution to address concerns and issues that might arise.

Table 4.3.1 Planning Phase Public Involvement Matrix

Public Activity	Public Involvement
Scoping/Data Collection	Newsletter/Open House/Community Council
Alternatives Analysis	Newsletter
Draft Report	Newsletter/Open House/Community Council
Final Report	Newsletter/Open House/Community Council (only if major changes)

Table 4.3.2 Design Phase Public Involvement Matrix

Project Type	Pavement Rehabilitation (Overlay)	Road Reconstruction (Minor)	Road Reconstruction (Major/RID)	New Road or Major Upgrade
Project Startup	Door Hanger w/ Letter	Newsletter	Newsletter	Newsletter
Design Study			Comm. Council Mtg / Newsletter / Open House	Newsletter/Open House/Comm. Council
65% Design		Community Council	Public Hearing* / Comm. Council Meeting	Open House / Comm. Council / Public Hearing*
100% Design		Newsletter	Newsletter	Open House / Comm. Council
Pre-Construction	Door Hanger	Door Hanger/Open House	Door Hanger/Open House	Door Hanger / Open House / Comm. Council

*Required for RID

5 DESIGN

5.1 Project Management's Role in the Design Process

Whether a project is to be designed by a professional services consultant or by in-house design staff, the PM's role remains essentially the same.

- Ensure that the project schedule is accurately developed and updated monthly.
- Ensure that the project budget is developed and kept current.
- Identify the project scope and direct the designer toward development of design documents that will satisfy the purpose and need for the project.
- Communicate issues concerning schedule, budget and scope to all project participants. When needed, initiate corrective action.
- Guide the PIP with the goal that all PAIs feel well-informed and satisfied that their concerns are a valid part of the design process.
- Assure timely and through review of the design documents including clarification of unclear comments and adjudication of conflicting comments when received.
- Monitor funding requirements and coordinate with the PAS to ensure that adequate funding is authorized and available on a timely basis.
- Administer the design consultant contract.
- Ensure that all utilities are informed about the project, that utility conflicts are identified during design reviews, and the relocation designs and agreements are executed without delaying the project.
- Ensure the design incorporates identification of ROW requirements, and coordinate with Real Estate Service so that ROW needs are met in a timely manner.
- Ensure all required regulatory agencies are informed about the project and that required permits are obtained.

5.2 Design Standards and References

The following is a listing of the most commonly used references and standards for most design projects. All specifications and standards must be included where appropriate.

5.2.1 Municipality of Anchorage Standard Specifications (MASS)

MASS is the standard specifications document for all street and utility construction work for the MOA. Any changes, deletions, or revisions to the MASS specifications, as well as the Standard Details (Division 90) must be included in the Construction Bid Documents. MASS is updated and reissued about every 10 years by the Purchasing Department. Between MASS updates, changes in law, methodology and standard practices will dictate that additional articles of specifications will need to be written and updated to accommodate current projects.

The PM&E design supervisor maintains an ongoing compilation of modifications to MASS, referred to as the Standard Special Provisions (SSP). The document resides on the PM&E digital files at G:\Pm&e\Pf\Templates. The SSPs should be viewed as a living document, always evolving, and even though the document should always be applied

during the development of design specifications, it also must always be carefully edited to accommodate the specific needs of the individual project.

5.2.2 PM&E Design Standards

The following standards are to be used on all PM&E projects. These standards are intended to be updated periodically. Any conflict with MASS should be covered in the individual project construction documents.

- MASS
- Design Criteria Manual
- Design Criteria for Sanitary Sewer and Water Improvements, which is available from the Anchorage Water and Wastewater Utility (AWWU) Planning Section. Future updates will be available in electronic format.

5.2.3 Alaska Department of Environmental Conservation Regulations

Alaska Department of Environmental Conservation (ADEC) Regulations 18 AAC 72, Wastewater Disposal, and 18 AAC 80, Drinking Water, have specific design and submittal requirements that must be covered in project plans and specifications.

- Most projects require ADEC review/approval; therefore, current standards must be incorporated in design.
- Include physical properties in design standards: Most ADEC standards are on the ADEC Internet web site, (http://www.state.ak.us). Contact ADEC directly for a listing of plan review submittal requirements. Include any ADEC PAS requirements in the design.

5.3 Available Resources for Project Data Collection

Article 3.1.3 lists available resources for project data collection that may be performed during project initiation. If these resources were not consulted during project initiation, the AE will typically complete this process as one of their first tasks.

Following is a list of potential available resources that need to be researched by the AE in the early stages of design development:

- Reference 500-scale maps to ascertain ROW, easement and planning and zoning implications of a proposed project. See Chapter 7 for a detailed description of the ROW acquisition process.
- Consult with PM&E Materials Section to examine files containing any previously performed geotechnical investigation in the project area.
- Collect all available utility record drawings to identify existing utilities in the project area.
- Collect any record drawings that may exist to determine if there are documented improvements in the project area. PD&PW's ROW Section can provide copies of record drawings on request.

- Check with Flood Hazard Permit Office and the Coastal Zone Management Office to determine if the project is located in, or affected by, a dedicated floodplain or designated wetlands.
- Arrange for TV inspection of area storm drains with Street Maintenance.
- Check with Traffic Engineering to see if traffic counts and accident records have been collected in the project area.
- Check with the MOA's Planning Department to determine whether any traffic modeling for the project area has been performed.
- For projects within subdivisions, it is appropriate to check for subdivision covenants which may include specific conditions affecting plans and specifications.

5.4 RESERVED

5.5 Elements of a Typical Project Design

5.5.1 Design Study Report

The Design Study Report (DSR) contains a collection of all data required for further design development. Additionally, the final DSR will either validate the need of the project or, in some cases, will result in the no-build alternative.

The DSR is first submitted as a "draft" for review by the project stakeholders. The PMs will use their own discretion, based on the scope and depth of the project, in developing the draft DSR review distribution list. For a comprehensive list of potential reviewers, refer to the master preliminary design review distribution memo (see Article 5.5.3). At this stage, it is recommended that all potentially affected or interested stakeholders review and comment on the DSR, as this is the appropriate time to address primary issues affecting the project design outcome.

The draft DSR review concludes with the PM providing direction to the consultant as to the extent the reviewers' comments to be incorporated into the final DSR and subsequent design phases. The final DSR is then prepared with a recommended alternative and resolution of primary project issues documented in print.

If the project's scope is of limited nature and there is a single alternative, then the design study phase can be bypassed. If there are only a few relevant issues affecting the smaller project, they can be evaluated and summarized in a brief design study memorandum.

A typical DSR will contain the following elements:

- Schedule and timelines
- Agency coordination / permit requirements
- Phasing
- Assessment issues
- ROW requirements (see Chapter 8)
- Recommended alternatives
- Traffic study

- Geotechnical analysis
- Utility conflict report (see Chapter 7, Utility Coordination)
- Design survey
- Cost estimate
- Conceptual drawings (see Article 5.5.2)
- Assessment of existing storm drain condition
- Hydraulic Analysis

5.5.2 Conceptual Design (35%) Submittal

Typically, the draft DSR submittal will include 35 percent complete plans for review. For these projects, the 35 percent plans are reviewed concurrently with the draft DSR. Exceptions to combining the draft DSR and 35 percent drawings are made when the project has a high degree of uncertainty about the preferred alternative selection, and for smaller projects where a DSR (or design study memorandum) is submitted before completion of the 35 percent plan.

On large projects where the conceptual (35%) plans are submitted for review subsequent to development of the final DSR, the depth of the review is at the discretion of the PM. (See Article 5.5.3.) Alternatively, the PM may elect to skip the conceptual plan submittal, and move directly to the preliminary plans phase, which will save time and design administration cost.

The minimum requirements for conceptual design (35%) include the following:

- Project design layout
- Plan and Profile base sheets
- General details
- Specifications outline
- Updated construction estimate

5.5.3 Preliminary Design (65%) Submittal

Preliminary design (plans, specifications and estimate [PS&E]) review sets should be widely distributed to all potentially impacted utilities, regulatory agencies, and interested municipal, state and federal departments, agencies and commissions. PM&E Clerical Support Section staff maintains a template Design Review Distribution Memo, which is useful for ensuring that all of the appropriate recipients are included in the preliminary design distribution. The selection of reviewers is determined on a case-by-case basis depending on the complexity, location and other factors surrounding the project. The detailed construction estimate is not widely distributed, but is distributed to other PM&E staff (e.g., design supervisor, inspector, PA) for internal review.

The PM collects all review comments and meets with the designer to provide direction on the extent that the review comments are to be considered in the final design. Most contracts require the design consultant to provide a written confirmation as to how each of the comments received will be handled.

Before it is widely distributed, the PM should perform a cursory review of the preliminary design submittal to determine that the A/E has in fact submitted a 65 percent design. If the submittal is determined to be deficient, it should be returned to the A/E for completion before it is widely distributed for review. When applicable, a preliminary design (65%) submittal should include the following:

- Title sheet and legend
- Typical sections
- Plan and Profile sheets for entire project showing existing utilities, surface features, curbs, medians, trails and walkways, elevations, etc.
- Layout tables
- Complete details
- Specifications and special provisions
- ROW parcel maps
- Signalization
- Illumination
- Signing and striping
- Retaining walls, bridges and all structural features
- Utility relocations / improvements
- Landscaping
- Drainage
- Driveways
- Detailed construction estimate and material quantity calculations

5.5.4 Final Design (98%) Submittal

The Final Design submittal is essentially a complete plans, specifications and estimate package with all design work completed and all preliminary design review comments incorporated into the documents as previously directed. The final design review often involves only the PM, PA, and assigned project inspector. However, if a project has a high level of involvement by a particular agency, such as design of a new water or sewer facility, the PM will want to forward plans to AWWU for a final review by the AWWU engineer. As with all phases of design review, the PM determines distribution on a project-by-project basis.

A well-prepared final design submittal will not generate a large number of comments. The final review process is intended to confirm that the design documents have been prepared as directed, to allow for required modifications due to last minute changes, and to ensure that the documents are 100 percent complete to the satisfaction of the project team. The final design review is also a good time for the project team to become thoroughly familiar with the final design documents before the advertising and construction phases begin.

The final design submittal should include the following:

- Completed design drawings
- Specifications with all bid documents inserted
- All required permits
- Copies of easements and TCPs
- Detailed engineer's estimate

The PM will direct the consultant on how to proceed with the review comments generated. The consultant's next step is to prepare a Pre-Advertisement Check Set, which is discussed in more detail in Chapter 6.

5.6 Permitting and Agency Approvals

Typically, the A/E is responsible for identifying required permits and agency approvals. The PM is responsible for monitoring permitting activities and assuring that necessary permits/approvals are obtained a timely manner and with reasonable conditions for construction.

5.6.1 Listing of Regulatory Agency Permit Requirements

Wetland Permits: Construction activities within designated wetland areas US Army Corps of Engineers (COE) and MOA Department of Community Planning.

Habitat Permits: Stream-related work usually associated with wetlands work. (Alaska Department of Fish and Game [ADF&G] and possibly US Fish and Wildlife Service [F&WS]).

Coastal Zone Management (CZM) Consistency Certifications: Obtained from the Alaska Department of Administration, Division of Governmental Coordination (DGC).

Storm Water Pollution Prevention Plan (SWP3): Municipal projects are covered by a general permit administered by the US Environmental Protection Agency (EPA) www.epa.gov/npdes, which requires a SWP3 to be filed on all projects equal to or greater than one acre. The PM should make sure that the contract Special Provisions contain instructions to the contractor to comply with the requirements of this permit.

ADOT&PF ROW Permits: Required whenever a municipal project affects State-owned ROW.

Flood Hazard Permits: Work within a designated floodplain. (PM&E and Federal Emergency Management Agency [FEMA]).

Clean Water Act Discharge Permits and Alaska Discharge Permits: Covers work causing discharge or runoff into any stream (EPA and ADEC).

Alaska State Land Use Permits: Covers work on state lands, (DNR).

Alaska Railroad Permits: Covers work within railroad ROW.

Coastal and Shoreline Permits: Covers work along shorelines and in navigable waterways, US Coast Guard (USCG) and COE.

Be sure to schedule timely pre-application reviews with permitting agencies to prevent delays and "unforeseen surprises" for larger projects that may require expedited permit reviews.

5.6.2 Municipal Development Services Plan Review

Plan reviews by certain divisions of Development Services are necessary under many project conditions. Typically these reviews are conducted concurrently with other agency reviews as part of the preliminary design (65%) review process. However, due to the significant delays that can result from failing to obtain these reviews, it is important to mention them specifically during a discussion on plan review and permitting.

Building Safety Electrical Review: All plans containing design for anything electrical (illumination, traffic signals, heat trace, load centers) must be reviewed and approved by the Building Official at completion of final design

Building Safety approval is crucial for the following reason: On completion of all electric facilities (but prior to energizing) the contractor must obtain a "green tag" which signals to the electrical utility that a municipal electrical inspector has approved the facility installation. The electric utility will not energize any electrical facility without a green tag in place. Building Safety policy requires that before an electrical inspector will be assigned to inspect a new facility, Building Safety must have a record of having reviewed and approved the final design. If the electrical inspector has no record of plan review, the contractor will not be able to schedule an electrical inspection, resulting in delays in obtaining a green tag.

Plans to be approved by Building Safety should be submitted for review and comment at completion of Preliminary Design (65%) and again at completion of Final Design. If no corrections are required to the final design, the Building Official will place a signed plan approval stamp on the final review plans and return them to the project manager. The Project Manger should ensure that any plans containing electrical facilities have been reviewed and approved by the Building Official prior to the project being advertised or bid.

Building Safety Review for Building Permit: A comprehensive review of all structure and public facility designs must be conducted, and a building permit issued, before work can begin on any such projects. This does not apply to typical road and drainage projects but is a critical element of all building designs.

Fire Department Review: Plans should be submitted to the Fire Marshall for review and comment pertaining to emergency access, fire safety and fire hydrant placement.

5.7 Planning & Zoning Commission & Urban Design Commission Review

AMC 21.15.015 grants authority to the Planning and Zoning Commission (P&ZC) to make binding recommendations regarding site-planning design for any public facility. Many of PM&E's projects fit into the definition of public facility, which is defined in AMC 21.15.015(H) as "any building in which government operations or activities occupy more than 4,000 square feet, any

dedicated park exceeding 1.5 acres in area, any street of collector or greater capacity and any snow disposal site." (The designation "snow disposal site" has recently been interpreted to include sedimentation basins).

The P&ZC's recommendations, and subsequent final approval, will also require that the facility landscaping design has been reviewed and approved by the Urban Design Commission (UDC). AMC 21.10.028 establishes the UDC and gives the UDC power and duty to review and decide upon public facility project landscaping (in accordance with AMC 21.15.025).

Early in the design process, while the draft DSR is still in progress, the PM should contact the Planning Department's P&ZC staff to communicate about the project, discuss schedule and submittal requirements, and identify any particular challenges that may be anticipated in obtaining UDC and P&ZC approval and final recommendations.

Although not required, an informal review of the Draft DSR by P&ZC is often requested by PM&E for public facility projects of large scope or complexity. P&ZC staff comments gathered at this early stage of design development will often give designers a head start on producing acceptable site and landscaping plans during the formal reviews.

5.7.1 Public Facility Review Process

The formal review process is summarized below; however, the PM is cautioned to consult closely with Planning Department staff to ensure that current schedule and submittal requirements are in compliance with P&ZC and UDC policy. A project schedule should allow 5 to 6 months to complete the review process described below:

- Preliminary UDC Review
  - Submit 13 copies of plans (40% complete) and completed application 4 weeks before the UDC meeting.
  - Time for a 10-minute presentation of the project by the PM will be on the UDC meeting agenda.
  - Conditions for approval will be sent to the PM.
- P&ZC Review
  - Submit 21 copies of plans (preliminary design or 65%) 6 weeks before the P&ZC meeting.
  - P&ZC staff will distribute the plans for agency review and comment.
  - Plans will be on the consent agenda with the case to be decided at the meeting. Typically, there is no presentation by the PM.
  - P&ZC will pass a resolution regarding their recommendations for the project.
- Final UDC Review
  - Submit 11 copies of 90 % complete plans 4 weeks before the UDC meeting.
  - Plans must address all preliminary review conditions.
  - PM may be on the agenda to make a 10-minute presentation of the project.
  - Conditions for approval will be sent the PM.

- Final Sign Off
  - Submit 4 copies of the revised site and landscape plans and copy of the final UDC approval and P&ZC resolution.
  - All conditions of final UDC approval and P&ZC recommendation must be met.
  - Staff will stamp plans and initial conditions of approval.

5.8 Managing the Design Consultant's Services and Performance

The PM or his designee, the PA, is the single point of contact, and manages the consultant's scope, schedule and budget. The PM is ultimately responsible for administration and oversight of the consultant's work. It is important to keep in perspective that the consultant works for you and they are your resource for getting a project designed and built. To properly manage resources, the PM must monitor and document the consultant's activities. The following are key areas of emphasis in regular tracking and documenting the consultant's activities:

- Regular communications
- Changes to the scope and basis of contract
- Progress payments
- Budget tracking
- Schedule tracking
- Project status reporting
- PSC close-out

6 UTILITY COORDINATION

6.1 Overview

Utility coordination requires a considerable expenditure of time on behalf of the PM and PA during project design and construction. Diligent utility coordination, starting very early in the design process, is critical in avoiding design delays. Additionally, utility relocations can be expensive so the PM must ensure that the cost of utility relocations is factored into the project budget early on and that the budget is updated regularly as cost estimate data improves.

Utility coordination begins with the identification of known and potential impacts to area utilities that the project will encounter. Next, the utility relocation design, usually performed by the owning utility, must be completed along with the drafting and authorization of a utility relocation agreement before bidding the project. During construction, careful coordination between the general contractor and the owning utility's contractor is necessary, and a considerable amount of effort by the PM, PA and Inspector is involved.

6.2 Utility Identification

The A/E is responsible for performing initial identification of existing utilities in the project area during the data collection phase of the DSR. All known utility owners in the project area should be contacted and copies of available utility as-built drawings obtained. Further, it is highly recommended that underground utility locates be performed throughout the project area. Underground utility markings and aboveground utility features are then located in the ground survey so they can be shown in plan and profile as the design develops.

For all but the simplest projects, a Utility Conflict Report is prepared and included in the DSR, which identifies all known utilities and lists all known and potential utility conflicts as well as providing a conceptual estimate of relocation costs. On complex projects, the A/E and PM may want to meet with the utility owner to begin the coordination effort even as the Utility Conflict Report is being development.

Sometimes the utility owner will want to upgrade or expand their system in the project area. It is advantageous for all parties to construct these betterments (as defined by AMC 24.30.010) before, or concurrent with, the road improvement project. Betterments, when desired by the utility owner, can be accommodated by allowing the work to be coordinated with the project. However, all betterments must be designed and constructed at the utility owner's expense.

All utility owners in the project area should be included in the Draft DSR review distribution. This ensures that the utility owner is aware of the proposed project and becomes involved in the process of identifying and resolving utility impacts caused by the project. The owner utility's review comments enable the A/E to conceptually identify all of the proposed relocation and betterment requirements of the project. When the Final DSR is issued, the A/E will include an updated Utility Conflict Report incorporating the utility owner's comments and improved cost estimates.

6.2.1 Utilities within the Municipality of Anchorage

Depending on the specific project location, any of the following utilities may be potentially located within a MOA project.

- Enstar Natural Gas Company (Enstar)—Privately owned. Maintains an underground natural gas distribution system.
- Anchorage Water and Wastewater (AWWU)—Owned by MOA. Below- grade water and wastewater distribution system within the Municipality. Above-grade facilities include fire hydrants and valve boxes, which are often located in the street.
- Municipal Light and Power (ML&P)—Owned by MOA. Above- and below- grade electrical power distribution, mostly confined to the downtown area and adjacent neighborhoods.
- Chugach Electric Association (CEA)—Above- and below-grade electrical power distribution in east and south Anchorage, Hillside, Girdwood, and more centrally located neighborhoods not in the ML&P district.
- Matanuska Electric Association (MEA)—Above- and below-grade electrical power distribution in Eagle River and all communities north to Eklutna.
- Matanuska Telephone Association (MTA)—Above and below-grade telephone system including fiber optic cable and cellular phone installations in Eagle River and all communities north to Eklutna.
- Alaska Communication Systems (ACS)—Above- and below-grade telephone system including fiber optic cable and cellular phone installations.
- General Communication systems (GCI)—Above- and below-grade cable TV and communications system.
- Alaska Fiber Star, Inc.— Below-grade fiber optic cable in various MOA locations.
- Alaska Railroad Corporation (ARRC)—ARRC is not a utility but a rail transportation infrastructure. However, projects with ARRC facilities within the project limits have coordination requirements that are handled almost exactly in the same manner as utilities.

6.3 Municipal Code and Policy Affecting Utility Relocation

AMC provides specific rules affecting utility distribution facilities and their treatment when conflicts occur because of Municipal street improvements. AMC 24.60.120 defines responsibility for relocation costs. AMC 21.90, sometimes referred to as the “undergrounding ordinance”, must be applied when relocating any overhead facility. The PM needs to become familiar with the details of these codes so that accurate direction is provided to the A/E and owning utility company during the relocation design process.

6.3.1 Determination of Eligibility Reimbursement

AMC 24.60.120 describes in detail the criteria much must be met by an existing utility before the expense of designing and constructing a utility relocation will be reimbursed to the utility owner. It is common on most projects, and for most utilities, that the terms of AMC 24.60.120 can be met by the utility and reimbursement will be provided to the utility. However, there will always be exceptions, and it is incumbent on the PM to verify

that the utility is in compliance with AMC 24.60.120 before authorizing the utility to begin relocation design on a reimbursable basis.

6.3.2 Assembly Approval of Utility Relocation Costs

Assembly approval of utility relocation orders is necessary when the estimated cost for the utility relocation design or construction task being authorized exceeds $50,000 (AMC 7.15.040). An Assembly Memorandum (Utility relocation) must be prepared by the PM and submitted for Assembly approval in much the same manner as when obtaining Assembly approval for a contract amendment (reference Chapter 3.7). The approved Assembly Memorandum is then packaged with a Purchase Requisition and a Sole Source Memorandum and forwarded to Purchasing. Purchasing must approve the submittal and issue a Purchase Order *before* the PM can issue a NTP (or agreement) to the utility.

When the estimated cost for the tasks being authorized is over $10,000 but under $50,000 Assembly approval is not required. However, the PM still must ensure that a Sole source Memorandum and Purchase Requisition is sent to the Purchasing Officer and that a Purchase Order is issued by the Purchasing Office *before* issuing a Utility Work Order (between $10,000 and $50,000) to the utility.

When the estimated cost for the tasks being authorized is $10,000 or less, the PM may issue a Utility Work Order ($10,000 or less) to the utility simultaneously with submission of a Purchase Requisition to the Purchasing Office.

6.3.3 Undergrounding Ordinance

AMC 21.90 contains specific requirements concerning overhead utility distribution lines. In particular, the PM should be aware when the project requires relocation of overhead distribution utilities. AMC 21.90.010 defines a “relocation” of any overhead utility distribution lines as “any change in alignment of more than six spans.” The ordinance specifies that any “relocation’ of existing overhead lines that are not in conformance with the specific undergrounding ordinance requirements must be installed as an underground distribution at the time of their relocation. The terms and conditions of AMC 21.90 are very detailed and many exceptions may be applicable, which would allow exemption from these typically costly requirements. Familiarity with AMC 21.90 and the particular attributes of each project should be applied to the ordinance when determining whether it will affect the relocation.

6.3.4 Levy Upon Connection (LUC)

A modern non-frost-susceptible urban roadway section has evolved into a composite cross-section of geotechnical fabric, classified gravel fill, insulation board, concrete curb, and asphalt pavement; resulting in a structure that has become difficult and expensive to repair to its original condition after a utility road cut. In this light, it has become imperative to install all foreseeable deep utilities (e.g., water and sewer) beneath the road cross-section before its initial construction. This general rule is limited, of course, by foreseeable economic usefulness.

Where such a utility installation is supported by an AWWU improvement district (WID or LID) or concurred to by AWWU for system enhancement reasons (looping, fire service, etc.), it can easily be incorporated into the project in the normal manner, that is, incorporating the water and sewer designs into the roadway design, with full AWWU reimbursement for the design and construction.

However, in cases where no improvement district can be supported by ballot, and where no system enhancement rationale exists, a project-specific improvement district must be enacted by the Anchorage Assembly. This legislative enactment allows PM&E to levy, upon connection, the future users for a pro rata share of the costs of design and construction of those utility systems. It is from this method of cost recovery — a levy upon connection — that the process takes its sobriquet: LUC (pronounced "luck").

LUC Formation Procedures

- Coordinate with AWWU to determine if a system enhancement rationale exists for main extensions.
- Coordinate with AWWU to notify residents, through the road project newsletters, that an opportunity exists to form water or sewer improvement districts (main and lateral extensions), and to schedule joint AWWU and PM&E improvement district public meetings.
- Following the improvement district public meetings, AWWU will ballot the property owners within the affected area to determine if a district may be formed.
- To the extent that a successful ballot is returned, or that an aforementioned system enhancement rationale is found, the requirement to form a PM&E project-specific improvement district (LUC) disappears with AWWU reimbursing the full cost of the water and sewer betterments.

NOTE: "Title 24 relocations" are not considered betterments reimbursable under a LUC, and the cost for such utility work must be internalized within the road project in accordance with the provisions of the ordinance (see AMC 24.60.120).

- Once it has been ascertained that a LUC is required, the PM will draft an Assembly Memorandum (requesting approval to form an LUC) and an Assembly Ordinance (creating the LUC). Supporting cost documentation should always be attached.
- The package is submitted to the Assembly for introduction and to schedule a Public Hearing.

IMPORTANT NOTE #1: A separate notification to adjacent property owners specific to the formation of the LUC must be made in accordance with AS 42.05.385, or as it is commonly known, "HB 380." Neither AWWU's prior LID/WID notices nor project newsletters will satisfy this requirement.

IMPORTANT NOTE #2: The ordinance for the formation of the LUC must be heard and approved by the Assembly **before** the award of the road construction contract containing the utility work is approved by the Assembly. Close timing could mean that the PM must petition the Assembly to change the order of the items on the Assembly Agenda to move the road construction contract from the Consent Agenda to New Business, so it will be considered and approved by the Assembly **after** the LUC has been issued. The easier

method, of course, is to schedule the approval of the LUC far enough in advance of the road construction contract award date so these close timing problems can be avoided.

- The PM is advised to maintain close coordination with AWWU whenever the formation of a LUC is being investigated and subsequently administered. It is reasonable to anticipate that LUC procedures will be revised and refined over time as procedural efficiencies are realized through practice.

6.4 Design Review by Utilities

All affected utilities should have initially reviewed the Draft DSR and Utility Conflict Report as described in Article 7.2. Similarly, all subsequent design submittals should be submitted to the utility owners with a request for comments. Obtaining comments from utilities known to be in the area at each design phase is necessary even if no impacts are identified, in order to detect unanticipated impacts that all too often surprise the project team late in the design process.

6.5 Utility Relocation Design

Reimbursable utility relocation design does not begin until a written authorization to proceed from the PM is received by the utility owner. If the coordination effort has been successfully executed, conceptual relocation needs will be established by the time the preliminary (65%) design drawings are submitted for review. The relocation design authorization letter is often submitted at this time, along with the preliminary design review drawings and specifications. The timely completion of relocation design by the utility owner requires diligent and consistent coordination by the PM and the A/E. Be assured that the utility engineer assigned to design the relocation of your project has many other tasks at hand is not likely to give your project adequate priority without frequent communications.

It is important to include adequate information for bidders about all utility relocations (and betterments) that are to be performed by the utility owner during construction. If the utility relocation is complex, informational utility relocation plan sheets should be included in the drawings. In all cases, specific coordination requirements must be spelled out in detail in the special provisions.

6.6 Utility Agreements

For large projects designed by professional services consultants, responsibility for coordinating and drafting the utility agreements is included in the PSC. Each utility owner will have their own forms and procedures for agreement and authorization. As long as the project is funded locally, PM&E finds it is satisfactory to utilize the owning utility's format for relocation agreements. However, PM&E does maintain templates for locally funded utility agreements and cost estimates for situations where they need to be written in-house. The basic elements of any relocation agreement are a detailed description of the scope of relocation work to be performed, a summary of any specific coordination requirements, an estimate of costs to be reimbursed, details on how the reimbursement request shall be submitted for payment, and authorized MOA and owning utility signatures.

For federally funded projects all utility agreements must be written in the same format as utility agreements written by the ADOT. This is because, as of this writing, all federally funded utility relocations are administered by the ADOT during construction. An example of federally funded utility agreements and cost estimates can be found in the Exhibits, and the AE and PM are

advised to coordinate the utility agreement very closely with the ADOT Highway Safety and Utilities Section during each step of the utility relocation design/agreement process.

6.7 Construction Coordination of Utility Relocations

The PM should request attendance by representatives of all impacted utilities at the pre-construction meeting. The utility's contractor's work must be carefully coordinated so as not to cause any delays to the MOA contractor. Such delays are a common source of claims by MOA contractors. During the pre-construction meeting, special provisions regarding utility relocation coordination should be reviewed with all parties present. The PM should review the general contractor's schedule submittal to ensure that all utility relocations are accommodated.

Ongoing communications between PM&E project staff, the general contractor and the owning utility company's representative will be the norm as construction and relocation planning is executed. The PM should review daily inspection reports to ensure that the utility and general contractor's efforts are well documented. The details of these reports may be instrumental later on in the handling of contractor delay claims and utility company requests for reimbursement.

6.8 PM&E-AWWU Utility Relocation and Betterment Fund Transfers

6.8.1 Relocation Design & Construction

In cases of AMC 24.60.120 eligible relocations both the design costs and the construction cost are to be internalized within the road project. Since the design is usually accomplished under PM&E's road design contract and the construction under PM&E's road construction contract, no PM&E-AWWU fund transfers are implicated. In cases where AWWU accomplishes its own design, a short "one-page" utility agreement shall be executed between PM&E and AWWU setting forth the general scope, the estimated cost of the work, and the cost basis (lump sum, time and materials, etc.). This agreement will be used by PM&E's Administrative Support Services Division to allocate funding the AWWU bill for collection.

6.8.2 Betterment Design & Relocation

6.8.2.1 Betterment Design

In cases of non-eligible relocations, that is "betterments," it is a design performed by AWWU that implicates no PM&E-AWWU fund transfers, while it is a design accomplished under PM&E's road design contract that requires reimbursement by AWWU to PM&E. In order to secure this reimbursement, a utility agreement shall be executed between PM&E and AWWU setting forth the scope, the estimated cost of the work, and the cost basis (lump sum, time and materials, etc.). This agreement will serve to (1) trigger PM&E's Administrative Support Services Division to send an appropriate journal entry to AWWU for payment, and (2) to support PM&E's demand for payment.

6.8.2.2 Betterment Construction

In cases of non-eligible betterments, construction efforts of $5,000 or less shall be handled by journal entry process, and thus requiring a utility agreement executed between PM&E and AWWU setting forth the scope, estimated cost of

the work, and the cost basis. This will be used to (1) trigger PM&E's Administrative Support Services Division to send an appropriate journal entry to AWWU for payment and (2) to support the demand for payment.

In cases of non-eligible betterments, construction efforts in excess of $5,000 the same requirement for utility agreement occurs, but additionally the agreement must contain a statement instructing AWWU to obtain its own Purchase Order for the value betterment work defined in the agreement. This separate AWWU Purchase Order requirement applies to both original contracts in excess of $5,000 as well as change order in excess of $5,000.

Note.1: When AWWU betterments are handled in this manner, separate bid schedules are required so the betterment costs can be clearly tracked.

Note 2: Work under separate AWWU Purchase Orders require that PM&E (usually the PM&E Inspector) transmits a copy of the road constructor's Application for Payment directly to AWWU (usually to the AWWU Inspector) for review and approval in advance of the Pay Estimate being prepared by the PM&E's Administrative Support Services to Division. The Pay Estimate internal signature routing remains unchanged, except that after signature by the Municipal Engineer, the Pay Estimate must be routed to AWWU's General Manager for signature (usually expedited to meet contract payment deadlines), where it is then forwarded directly to Accounts Payable at City Hall.

Note 3: All utility agreements, including short "one-page" agreements, shall be copied to the support services divisions of both PM&E and AWWU.

Note 4: Recommendations of Award and Assembly Amendment Memoranda that involve AWWU betterment work must include an AWWU fund certification and a concurrence line for the AWWU General Manager.

Note 5: Field decisions that increase the quantities or otherwise financially impact AWWU shall be reported to PM&E's Administrative Support Services Division by the Project Administrator through the medium of a short memorandum or e-mail stating the project name, file number, nature of increase, and estimated amount. In support of this notification each Inspector must inform the appropriate Project Administrator when an AWWU overrun or other AWWU cost impact arises. This notification requirement applies even to projects where no initial AWWU involvement. (It is important to estimate the cost at the beginning of the work and give the required notice. Do not wait for task completion. Follow up revisions to the estimated cost can easily be made when the task is complete.)

7 RIGHT OF WAY ACQUISITION

7.1 Overview

AMC 25.20 provides the Municipality authority to acquire real property for public purposes and establishes mandatory procedures for acquiring real property.

Right-of-Way Acquisition (ROWA) Services, a unit of PM&E, is responsible for acquisition of real property such as fee title, easements and permits for all municipal projects. ROWA Services is also responsible for land conveyances, land disposal and relinquishment of easements for property that is no longer required by the Municipality. The Municipal Surveyor directs the activities of ROWA Services.

It is extremely critical to the timely and successful completion of ROW acquisition that the PM maintains close communication with ROWA Services throughout the ongoing acquisition effort. It is typical of ROWA Services to require on-call support from the PM and design consultant in the form of meetings with property owners, clarification of design details and design revisions to accommodate unanticipated technicalities. Arguably, no other single aspect of project design development has more potential to cause delay to timely delivery of bid-ready project documents than ROW acquisition.

There are several kinds of property rights that may need to be acquired for a project.

- Temporary construction permit (TCP)
- Slope easement
- Drainage easement
- Utility easement
- Public use easement
- Landscape easement
- Full ROW (fee) take
- Intra-governmental use permit (IGP)

7.2 Identification of Property Rights to be Acquired

It is the design consultant's responsibility to identify and present preliminary information regarding type, quantity and location of ROW acquisition needs for a project. The PM should include ROWA Services in the review distribution of the draft DSR and all subsequent reviews unless the project is known to have no ROW involvement. If the project has complex or numerous ROW acquisition requirements, the PM is advised to meet with the ROWA Services staff at the onset, and regularly throughout the design process, to communicate acquisition schedule needs, design alternatives, and potential problems affecting the pending ROW acquisition effort.

The PM must remember to evaluate the utility relocation design for ROW acquisition needs, and communicate them to ROWA Services as early in the design process as possible. Normally, utility relocations are designed by the utility. Without continuous oversight by the PM, the relocation design may not identify utility easement acquisition requirements until very little time remains in the overall design schedule.

After the final DSR has been approved and during preparation of the preliminary design plans, the design consultant will submit ROW plans, parcel plats and legal descriptions for all affected ROW within the project limits to the PM. The PM should complete a Right-of-Way Acquisition Request form and submit it to the Municipal Surveyor with the final DSR, ROW maps, parcel plats and legal descriptions attached. This will authorize ROWA Services to begin the acquisition process.

7.3 Identification of Property Owners / Tenants

ROWA Services staff completes this process using the services of a title company, property assessment records, directories, and site visits.

7.4 Establishment of Just Compensation / Fair Market Value

ROWA Services staff contracts with qualified fee appraisers to provide appropriate appraisal services; e.g., narrative appraisals, minimal value reports, value findings. Typically, large takes, those having values over $250,000, will have an appraisal review performed by a second qualified fee appraiser. The PM&E Director has responsibility for establishing the MOA estimate of just compensation.

7.5 Acquisition

ROWA Services staff begins expeditious good faith negotiations with affected property owners by presenting an offer of just compensation, which includes fair market value of the rights acquired, any damages to the remainder, and/or any costs to cure.

Property possession takes place only after the owners have been paid and property acquisition has been concluded by one of the following means:

- *Negotiated Agreement*: Based on the approved value estimate or Review Appraiser's Determination of Just Compensation. ROWA Services staff conducts negotiations and the Mayor's designee, typically the PM&E Director, approves the agreement. Payment is made either through a title company or the MOA Finance Department.
- *Administrative Settlement*: Any settlement made that differs from the approved value estimate or Review Appraiser's Determination of Just Compensation. Administrative Settlements may be made when normal efforts to acquire have failed and it is determined that a negotiated settlement is reasonable, prudent and in the best public interest. ROWA Services advises the PM when an Administrative Settlement is being considered. The Mayor's designee, typically the PM&E Director, must approve administrative Settlements. Payment is made either through a title company or the MOA Finance Department.
- *Condemnation Action*: ROWA Services staff and the PM must acquire MOA Assembly approval of eminent domain. This approval requires preparation of a Decisional Document. Typically, the design consultant, at the direction of the PM, prepares the Decisional Document. The PM is responsible for coordinating the development of the Decisional Document, and, together with the design consultant, attending the Assembly meeting to respond to any questions that may be presented. ROWA Services is responsible for scheduling the request for eminent domain authority approval on the Assembly meeting agenda and coordinating with the PM and the design consultant on the Decisional Document. The Condemnation Handbook details condemnation procedures and Decisional Document content.

7.6 Completing the Acquisition Process

Although the PM relies on ROWA Services to secure the necessary ROW for a project, it cannot be overstated that the PM's involvement throughout the acquisition process is critical to successful completion of the design. This applies not only in terms of timely completion, but also to ensure that the secured permits and easement accommodate the work and that all affected property owners have had their concerns resolved.

Before printing the bid documents, the PM should obtain copies of all acquired permits, easements and property owner agreements for incorporation into the bid documents. ROWA Services often will include specific terms in the permit or easement document, such as paving a driveway or enhancing private property with landscaping, as part of a negotiated settlement. By including copies of all permits and easements in the bid documents, it becomes the responsibility of the construction contractor to accommodate any special agreements made by ROWA Services during negotiations. The PM, PA and inspector should be familiar with the permits, easements and associated agreements, as well as including a discussion of the easements and terms with the contractor at the pre-construction conference.

8 BIDDING

8.1 General

Solicitation and award of bids for construction projects is governed by AMC Chapter 7.20. For most contracts, a formal "Invitation to Bid" must be issued. The steps required for this process are discussed below.

Table 8.1-1

Activity	Time
Final Purchasing Review	2 Weeks
Bid Advertise	3 Weeks
Bid Open (Engineers Review) Recommendation of Award	1 Week
Assembly Approval	4 Weeks
Notice of Intent to Award & Contract Execution	2 Weeks
Total Time Period	12 Weeks

8.1.1 Waiver of Formal Bidding Procedures

In rare circumstances, it may be an advantage to waive the formal bidding procedures in order to quickly award the contract. Formal bidding procedures include advertising time and the time to obtain assembly approval.

In such cases, the PM&E Director can issue a Request of Waiver of Formal Bidding Procedures. If Purchasing waives the formal bidding procedures, they will select certain contractors to bid on the work. Following the award of the contract, the Assembly receives an information memorandum.

8.1.2 Final Purchasing Review

The PM submits a completed Information Supplied by Department form to the Purchasing Department along with a final PS&E set. Purchasing will review the bid documents and special provisions, and may request changes by the PM prior to release of the bid for advertising.

8.1.3 Invitation to Bid

At the completion of the review process, Purchasing will prepare a dated and signed copy of the Invitation to Bid. This copy includes dates for the pre-bid conference, the bid opening, and the post-bid conference. (Purchasing will set these dates). The document is then transmitted to the designer to be included in the original contract specifications. The designer produces the specified number of plans and specifications for distribution to bidders. While the copies of the plans and specifications are being printed, Purchasing arranges for publication of the Invitation to Bid. The ad must be published at least once in a general circulation newspaper at least 14 days before the date set for opening bids.

8.1.4 Bid Set Delivery

The designer will deliver 50 bound, individually rolled, and consecutively numbered sets of the bid documents to Purchasing by 9 a.m. on the date the advertisement is to be published. Two sets (normally sets numbered 1 and 2) will be pre-assigned and delivered to the PM—one for their records and one for the PM&E files. Purchasing will distribute the bidding documents as dictated by AMC Chapter 7.20. This marks the beginning of the pre-bid phase.

8.2 Procedures

During this phase, bidders obtain the documents and begin preparations of their bids. A pre-bid conference is conducted by Purchasing. This is also the time when any errors, omissions, or inconsistencies in the contract documents are noted by the designer and made a part of the bid documents by an Addendum. The pre-bid phase generally lasts two to three weeks with a minimum time of 14 days as required by AMC Title 7, Article 1.20.020.

8.2.1 Pre-Bid Conference

The pre-bid conference is held 8 to 10 days after the Invitation to Bid is published. It is conducted by Purchasing and attended by the designer, PM, and all other parties involved with the construction of the project including the plan holders, representatives of Municipal and State agencies, and representatives of utility companies. The PM will confirm that each of the above, who are not plan holders, know the time and date for the pre-bid conference. The conference is held to answer any questions potential bidders have about the project and the bid documents.

8.2.2 Errors / Changes in the Bid Documents

During their review of the bidding documents, potential bidders may have questions concerning the project or discover errors or inconsistencies in the documents. Bidders' questions must be directed to Purchasing. Any required design revisions, clarifications or corrections must be conveyed to the bidders by issuance of an addendum to the construction bid documents.

8.2.3 Addendum

The addendum is prepared by the designer and delivered to the PM. The PM verifies that all changes, additions, deletions, or clarifications to the bidding documents are clearly explained and, if necessary, detailed with drawings. The PM will transmit the addendum to Purchasing. If the addendum is not received by Purchasing before 10 days from the date of the bid opening, the bid date opening will have to be extended to allow adequate time for distribution to, and review by, the plan holders.

8.2.4 Bid Opening

Bid opening will be conducted by Purchasing at the scheduled time and date. Typically, the PM and designer or consultant, along with other interested parties, attends the opening. The PM should deliver the engineer's construction cost estimate to Purchasing in a sealed envelope annotated with the project name and Invitation to Bid number

before bid opening. The engineer's construction cost estimate is announced following the opening of the submitted bids.

NOTE: Before bid opening, a copy of the engineer's estimate should be delivered to the Clerical Support Section so they may begin advance preparation of the Bid Tabulation.

After bid opening, MASS allows a maximum time limit of 45 days for the Purchasing Department to issue a written Notice of Award or Notice of Rejection to the low bidding contractor. It is important, therefore, that the subsequent steps taken after bid opening by the PM are carried out as quickly as possible.

8.2.5 Review of Bids

Following the bid opening, Purchasing will provide the PM with copies of the bids. The design consultant will check all bids for errors, inconsistencies and for unbalanced bids. There is also the potential that, due to irregularities, unbalanced bidding, or generally high bids, which exceed project funds, all bids will be rejected. At this point, the project may be re-bid or canceled.

Purchasing will review each bid for conformance with requirements of MASS, including bonding, EEO statutes, and D/MBE participation. The project manger will submit copies of the bids and the engineer's estimate to the Clerical Support Section so the detailed bid tabulation can be completed prior to bid opening.

8.2.6 Recommendation of Award

After review of the bids, and upon finding no discrepancies, the PM will prepare a Recommendation of Award to be signed by the PM&E Director and submitted to Purchasing. The Recommendation of Award includes the funding account distribution number, contract amount and funding source, which are obtained from the PAS.

Before sending the Recommendation of Award to Purchasing, the PM should attach a copy of the bid tabulation (prepared by Clerical Support) and a Requisition Form (provided by Project Administration Support).

8.3 Contract Execution

On acceptance of the Recommendation of Award, Purchasing will prepare an AM and will take steps to obtain Assembly approval to award the contract prior to executing the construction contract. Concurrently, Purchasing will prepare the construction contract and a Notice of Intent to Award for the successful contractor. Immediately following Assembly approval, Purchasing will send the Notice of Intent to Award and 3 copies of the contract to the contractor for execution. The contractor is given 5 working days after receipt of the Notice of Intent to Award to furnish a signed contract and all required bonding and insurance certification to Purchasing. Purchasing has 10 days to administer the internal contract set up and approval process and to submit a Notice of Award along with a fully executed contract to the contractor.

8.3.1 Contract Agreement

The following are the necessary attachments to the contract as it is routed for signature and approval:

Construction Contract, New

- Contract transmittal (Purchasing)
- Assembly Memorandum (Purchasing)
- Recommendation of Award (PM&E)
- Purchase Order (PM&E, obtain from PAS)
- Bid Tabulations (PM&E, obtain from Clerical Support Section)
- The contract with all appendices and insurance certification (Purchasing)

9 CONSTRUCTION

9.1 Overview of Construction Administration Procedures

PM&E has full responsibility for construction administration and inspection of CIP projects. The PM is responsible for the project and supervises the PA who provides contract administration services and the inspector who monitors the day-to-day construction progress of the job.

Within the organization of the project team, the inspector is responsible for:

- Being the eyes and ears of the PM at the project site
- Ensuring that the work is performed in compliance with the plans and specifications
- Keeping the PM informed of construction conditions and anticipated changes in the work
- Keeping current job records
- Seeing that convenience to the public is maintained
- Investigating and resolving citizens concerns and complaints

Effective construction project administration requires that the entire project team become very familiar with the current MASS In particular, the General Provisions contain detailed instructions to the contractor on procedures for bidding and award, interpretation of scope, control of the work, legal relationships, and measurement and payment. Additionally, the Special Provisions typically contain modifications to MASS, which the project team should be aware of. The PM and PA should also be familiar with the Construction Inspection Manual in order to gain a comprehensive understanding of their role in properly administering the construction process.

9.2 Preconstruction

Preconstruction can be described as the time between the contractor's receipt of the executed contract and the contractor's receipt of a signed Notice to Proceed. The General Provisions in MASS details various administrative procedures and submittals to be completed at this time. The primary component of the preconstruction phase is the preconstruction conference.

9.2.1 Preconstruction Conference

A Preconstruction Conference is required to be held within 5 days after the contractor has received the signed contract and before construction starts. The intent of the conference is to:

- Highlight the responsibilities and authority of each individual involved with the contract
- Give all involved parties an opportunity to discuss the project, particularly if the project affects other Municipal agencies or utilities
- Inform the contractor of PM&E's management structure and administrative requirements
- Collect contractor's written submittals as defined by MASS such as the names and 24-hour phone numbers of key personnel and identification of which employees are authorized to sign change orders, pay estimates, etc.

- Provide all parties involved with the construction an opportunity to identify any potential problem areas such as easement conditions, material delivery, sensitive utility situations, or public convenience problems
- Remind the contractor of the need to submit schedule and product submittals within the time specified
- Discuss safety concerns making it clear the contract places responsibility for safety of workmen and the public in the hands of the contractor
- Answer questions or clarify the intent of specification wording or notes on the drawings
- Stress importance of maintaining up to date record drawings
- Stress importance of notices for pending road closures, driveway access, etc.
- Issue the NTP and establish the contract completion date
- Provide the contractor with 10 stamped approved sets of contract drawings
- Stress site cleanup at the end of the workday and overall project cleanup

The PA will schedule the Preconstruction Conference, coordinating the date and time with the PM and the contractor. When the meeting time has been established, a Notice of Preconstruction Conference Letter is sent to the contractor with a Preconstruction Conference Agenda attached.

Preconstruction conference attendees include the contractor, PM, PA, design engineer, inspector, and representatives of other public agencies and utilities directly affected by the work. The Preconstruction Conference Notification Memorandum should be faxed to all potentially interested parties as soon as the time and date for the meeting has been established. The PA will bring sufficient copies of the Preconstruction Conference Agenda to the meeting for all anticipated attendees, a Preconstruction Meeting Sign-in Sheet, and 10 sets of approved drawings and specifications for the contractor as required by the contract documents. The PA is responsible to record the meeting. Attendees should be informed that the meeting is being recorded and advised that the meeting tape will be placed in the PM&E project file and will be available upon request.

9.3 Notice to Proceed

The Notice to Proceed (NTP) should be issued within 10 days of contract award to comply with MASS, unless the special provisions change the time frame. The NTP includes the effective date, contract completion date, and the name of the individual charged with responsibility for the project on behalf of the Municipality (the PM).

The NTP is normally issued at the Preconstruction Conference, although in some cases the NTP is issued as a NTP and Winter Shutdown for contracts awarded during adverse weather conditions. In these cases, the Preconstruction conference will be held before construction actually commencing, and a Notice to Resume Work will be issued at the appropriate time.

Before any work can proceed in the Municipal ROW, the Traffic Engineering Department must approve the contractor's traffic control plan. The contractor submits the Traffic Control Plan to the PM, who will give it a cursory review before forwarding it to the Traffic Engineering Department. The Traffic Engineering Department will have 5 working days to review and accept or reject the plan. Successive submittals will also be reviewed within 5 working days. Before the

contractor can begin work, a ROW permit from the Right Of Way Enforcement Section should be obtained. The Right Of Way Enforcement Section will require a copy of the NTP and the approved Traffic Control Plan before a ROW permit will be issued.

9.4 Preconstruction Walk-through

Before commencing work, the contractor should be offered the opportunity to walk through and inspect the condition of the project. An AWWU representative needs to be notified so they may accompany the contractor and inspector during the inspection of AWWU's facilities on the project site. During this preconstruction walk-through, it is PM&E policy to videotape or photograph the pre-existing conditions of the job site.

9.5 Public Relations / Notice of Intent to Construct

Construction proceeds more smoothly when the public has received advance notification of impending construction, particularly in the neighborhoods impacted by the construction. Elected officials, emergency support agencies, public transportation agencies and the Anchorage School District also appreciate knowing in advance when a particular roadway will be disrupted.

When the NTP has been established, and if not done during pre-construction (Section 9.2), a Notice of Intent to Begin Construction memorandum, with attached map showing the construction area should be issued. This information is provided to the Clerical Support Section for fax distribution.

One week before the contractor mobilizes, door hangers containing a Notice of Construction flyer will be distributed to residences and businesses directly fronting the project site. The intent of this notification is to explain the scope of the project, provide affected residents with the estimated construction schedule, identification of the contractor with daytime phone and 24-hour emergency phone numbers and the names and contact information for the Municipal representatives of the project (inspector, PA and PM). Thanking the residents/business owners for their patience during the construction period, and inviting comments and questions is a nice concluding touch. If provided for in the contract, the Notice of Construction door hangers may be handled by the contractor. If not, the inspector typically performs this task.

9.6 Payment for the Work

MASS Section 10.07 Article 7.5 describes the procedures for progress payments. MASS allows 8 days from the contractor's submittal of the partial payment request until approval of the Application for Partial Payment. Once the approved contract pay estimate has been signed by the contractor, the Municipality has 15 days to make payment to the contractor. PM&E has developed the following procedures to ensure that progress payments are made within the time constraints afforded by MASS:

- When possible, the PA should discuss pay item quantities to be submitted with the contractor before the partial payment request is formally submitted for approval.
- The contractor is instructed to submit the partial payment estimate to a designated member of the PAS, who will date and log the submittal. The PAS staff will prepare and attach the In-house Pay Estimate Control Sheet, and forward it to the PA for processing and approval signatures.

- The PA should consult with the inspector regarding the claimed quantities, installed or stockpiled, for payment. If there are disputed pay items, MASS requires written notice within an 8-day time limit to the contractor stating the reasons for rejection. However, the PA should contact the contractor and attempt to resolve the disputed items immediately, when possible. Once all pay items are determined to be acceptable, the partial payment request is approved by the PA and forwarded to the PM, who will review and sign the contract pay estimate before returning the submittal to the PAS.
- The PAS will arrange for the contractor to come to the PM&E office to sign the contract pay estimate. The contractor's signature starts the clock on the 15-day payment requirement. The PAS then attaches a Contract Pay Estimate and Change Order Control Sheet and routes the package to the PM. The PM and PM&E Director signs off and the package is returned to PAS for accounts payable entry. Once a check has been generated, PAS contacts the contractor to inform them the check is ready.
- A Partial Payment Estimate is usually processed once a month. The contractor can, however, request a mid-month draw. Only the first sheet of a partial payment estimate form is submitted and the item-by-item sheets are not included. A mid-month draw is then processed with a pay estimate and change order control sheet just like a partial payment estimate. The amount of the mid-month draw is subtracted from the next regular partial payment estimate.

9.7 Change Order

Any change in the scope of work resulting in a change in contract price must be incorporated into the contract through a Contract Change Order. Only the PM is authorized to approve change orders.

Depending on the size of the change order relative to the amount of the original contract, Assembly approval may be required. The detailed criteria for whether or not Assembly approval is needed is spelled out in Municipal Ordinance 7.15.080.

When a change order requires Assembly approval, the PA or PM prepares the Assembly Memorandum (requesting approval for contract change order) and submits it to the Clerical Support Section where it will be logged into the Municipal electronic workflow process, which will cause it to be placed on the Assembly agenda. It typically takes about two weeks once an AM is submitted to get it on the agenda for a subsequent assembly meeting.

Regardless of whether Anchorage Assembly approval is required, all change orders will require signatures by the contractor, the PM, the PM&E Director and the Purchasing Officer.

9.8 Compensation for Additional Work

Generally, a lump sum award for any work that is additional to the contract should be agreed upon between the contractor and the PM, but this is not always possible because of time constraints or difficulty prior to beginning the work in identifying the full scope of the work.

One exception is when the increased (or decreased) work is of a nature that allows the change to be compensated by simply changing the quantities for existing bid items. This method should be used when it can be done.

When the work is of an urgent nature, or is difficult to estimate, the increased work is accomplished using time and materials (T&M) procedures. MASS Section 10.07, Article 7.3 Payment for Time and Material, states the contractual requirements for T&M work.

T&M can be an expensive means of accomplishing additional work. Good record keeping of materials, equipment, and labor involved is critical to minimizing the cost impact of work to be compensated by T&M. The contractor should be clearly advised in advance of any T&M work that copies of time cards and invoices for any materials and equipment rentals must be submitted as backup with all requests for payment for such work. It is best to reach daily agreement with the contractor's superintendent on the work force and hours involved, so that any differences can be resolved while the events are fresh in both parties' minds. Accordingly, labor and equipment rates should be agreed on before performing significant quantities of T&M work.

Change orders can be written to incorporate multiple tasks resulting in changes to contract price regardless of which methods for tracking compensation have been used.

9.9 Subcontractor / Supplier Claims Against the Contractor

Not every contractor is prompt in paying suppliers and subcontractors. Recognizing this, MASS Section 10.06, Article 6.11 and Article 7.6 provides a method for the affected parties to get relief without going to court. When a claim is received, the PM will have the claimant fill out and return a form entitled Affidavit of Claim Against Municipal Contractor.

A copy of the Notice of Claim (cover letter), attached to the Affidavit of Claim Against Municipal Contractor is then sent by certified mail to the contractor. The contractor is required to contest the claim or prove the claim has been satisfied within 21 days of receiving this notice. If the contractor disputes the claim, they shall submit a Request for Payment of Disputed Claim and/or take other action as detailed in MASS Article 7.6.

9.10 Certified Payroll and D/MBE forms

Certified Payroll submittals and established D/MBE goals are required by the contract only for projects involving federal funds. On local bond and state grant funded project, the D/MBE and certified payroll requirements in MASS should be deleted by the Special Provisions.

When the contract does involve federal funds, the required D/MBE forms should be attached to the pay estimate forms for review by the PA. If the D/MBE forms are not properly completed by the contractor, the pay estimate should be returned as "incomplete."

9.11 Submittals for Materials and Shop Drawings

A Submittal List of all materials and shop drawing submittals required by MASS has been compiled for the convenience of the contractor and the PM. This list is for information purposes only and does not preclude additional submittals required in the special provisions. The contractor is responsible for routing all submittals to the PA who will forward them to the A/E for review. The submittal is then returned to the PA, stamped as either acceptable or rejected by the A/E.

Timeliness is a crucial factor in processing submittals. The PM will see that submittal times and schedules are adhered to by the contractor, the designer and other reviewers. The PM shall

record all submittal transactions on a Material/Shop Drawing Submittal Log to ensure tracking of the submittal review process.

9.12 Design Clarification / Verification Request

The contractor will often raise questions about the plans or field conditions that require consultation with the project designer. The contractor or the PA should document such occurrences by completing a Design Clarification/Verification Request (DC/VR). Adherence to this procedure is of benefit to all parties. The DC/VR serves as an official conduit for the flow of information between the contractor, the PM and the project designer. Properly used and prepared, the completed DC/VRs in the project file will serve to document key dates, the nature of the questions or proposals and the response provided. DV/CRs become an important source document of issues resulting in changes to contract price and even contractor claims. Finally, a review of the DV/CRs at project completion will help ensure that changes in the work are properly incorporated into the record drawings.

9.13 Permission to Enter Property

Occasions will arise when a contractor needs access to private property for which no right of access by easement or TCP has been obtained in advance. If the contractor's need for access is to perform work at the Municipality's direction, the property owner's signature must be obtained on a Permission to Enter form. This task is usually handled by the inspector or PA. If the property owner refuses to sign, the contractor will be directed to construct improvements only to the property line. If access to private property is desired by the contractor for the convenience of the contractor, the contractor is still required to obtain written permission of the property owner (MASS Section 10.06.16), but without the Municipality's involvement in obtaining written permission(s).

9.14 Winter Shutdown

It is not uncommon for a construction project to require more than a single summer season to reach completion. MASS Section 10, Article 5.24 details the contractual obligations of suspension of work to include shutdown for winter weather. The exact date of winter shutdown will vary from year to year depending on weather conditions, but generally the average, winter shutdown will occur in mid-October. The PM will issue a Winter Shutdown letter informing the contractor of the effective date, with a copy sent to the Street Maintenance Supervisor. After the contractor has secured the site, responsibility for drainage, snow removal and access to adjacent property becomes the responsibility of Street Maintenance. Contract time is suspended during winter shutdown.

In the spring, generally around May 15, again depending on weather conditions, the PM will issue a Notice to Resume Work letter to the contractor. This letter establishes the effective date that contract time begins and the resulting contractual final completion date. Additionally, all affected agencies should be notified that construction in the project area is going to resume with a Notice of Intent to Resume Construction.

10 PROJECT CLOSE-OUT

10.1 Overview

Project closeout procedures apply to all projects, regardless of size. As is recommended in Chapter 9, the PM, PA and inspector need to become extremely familiar with the detailed closeout contract provisions in the General Provisions of MASS as well as the Special Provisions for the particular project.

10.2 Pre-Final Inspection

As stated in MASS, "the contractor, by his own comprehensive inspection, will determine when all work is completed and all other contract requirements are fulfilled." The contractor then notifies the PM to request a Pre-Final Inspection (PFI). Upon receiving the PFI request, but before scheduling the PFI, the PM should tour the project site with the inspector to determine that the contractor's request is based on a project site that is indeed substantially complete. MASS defines substantial completion as the point at which, in the opinion of the engineer (PM), the project is essentially complete and available for the owner's beneficial use. If the project has not attained substantial completion the contractor's request for a PFI should be denied until the contract work is actually completed.

If the contractor's request for a PFI is to be granted, the inspection should be arranged by the PM so that representatives of the contractor, Project Management, and the A/E can attend. Often it will also be necessary to have representatives of Street Maintenance, Parks and Beautification, AWWU or other agency representatives present for the PFI. During the inspection, the PM will discuss any identified incomplete work, unacceptable work or defects requiring correction with the contractor and compile a substantial completion punch list.

The substantial completion punch list is then attached to a Notice of Substantial Completion letter and delivered to the contractor. Once established in writing, the date of substantial completion starts any maintenance period which may be applicable.

10.3 Final Inspection

After the contractor has completed all of the items presented on the Substantial Completion Punch list, a final inspection of the project will be requested. The PM should attend the final inspection with a contractor representative to verify that all items on the punch list have been completed. If the final inspection reveals uncorrected deficiencies, MASS states that the PFI procedure is to be repeated, at the contractor's expense, until an acceptable final completion walk-through has been accomplished.

10.4 Certificate of Completion

A Certificate of Completion is issued to the contractor by the PM as soon as the PM has verified that the contractor has satisfactorily completed all of the following:

- All items on the Substantial Completion Punch list
- Submittal of the certified record drawings (MASS Section 10, Article 4.17)
- Submittal of all Operation and Maintenance Manuals
- Submittal of all required code compliance inspection reports (MASS Section 10, Article 5.26)

- The Certificate of Completion formally establishes the date of final completion for the contract and begins the warranty period. A Certificate of Completion is also a required attachment for the PAS to process the contractor's request for final payment.

10.5 Final Payment

Upon completion of the contract work and receipt of the Certificate of Completion, the contractor will prepare and submit a request for final payment to the PM. Before the PM approves the request for final payment, the contractor must also have filed a notarized Certificate of Compliance (Reference MASS Article 7.7). The Certificate of Compliance warrants that the contractor has paid all subcontractors, suppliers and taxes, and that no lien exists or potentially exists against the work.

10.6 Warranty Period

MASS, Section 10, Article 3.7 specifies that the warranty period is to begin on the final completion date established in the Certificate of Completion and lasts for one calendar year from that date. The Special Provisions will sometimes modify the warranty. Accordingly, as the end of the warranty period approaches, the PM should send the contractor a Notice of Warranty Inspection, which identifies a time and location for the final warranty inspection to begin. The PM will also need to notify Street Maintenance and Parks and Beautification of the warranty inspection when ongoing maintenance of the constructed facilities involves those departments.

Following the final warranty inspection and depending on whether or not defects are identified for correction, the PM will send a Release from Warranty (no defects noted) or a Release from Warranty (noted defects corrected), to the contractor stating that the contractor is released of further responsibility for any warranty on the project. In cases where warranty items are identified for correction, additional final warranty inspections will need to be scheduled until all defective work is corrected to the satisfaction of the PM. The contractor's bonding company will not release their bond for the project until the contractor has received a Release from Warranty.

10.7 Record Drawings and Archives

As described in Article 10.4, the contractor will have submitted an acceptable set of record drawings before issuance of the Certificate of Completion by the PM. The PM is responsible for seeing that the as-built information from the contractor's record drawings is transferred to the original mylars and stamped with a "Record Drawing" identification and disclaimer. The inspector usually performs this task during the winter season. Upon completion, the mylars are submitted to the Municipal ROW enforcement officer to be scanned into the Municipal database for future reference.

10.8 Project Summary

The PA is responsible for completing a Project Summary at the conclusion of project closeout. This form records all of the key dates, costs and quantities for the project on a one-page form that is placed in the project file for future reference.