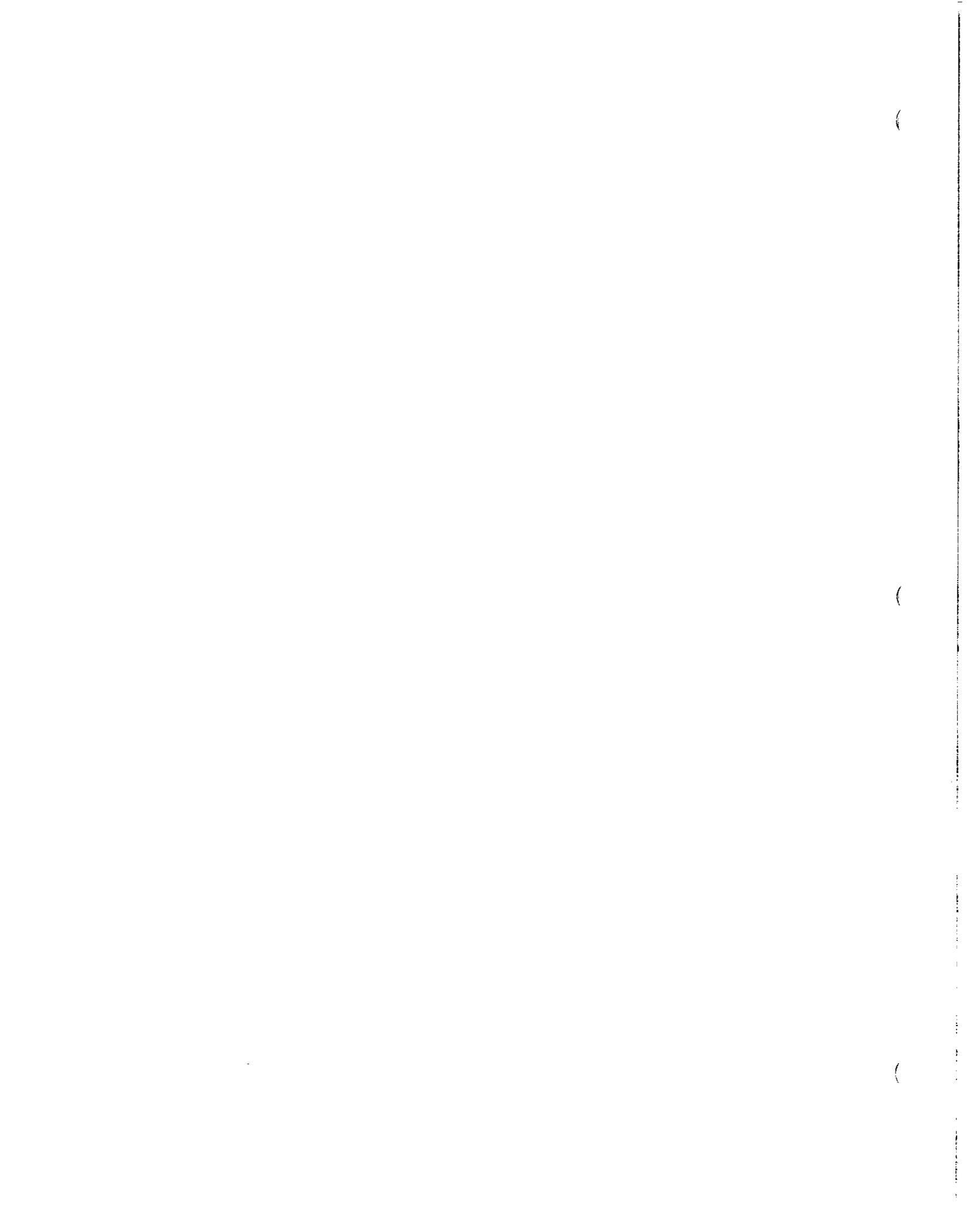


CAPITAL PROJECT PLANNING AND MANAGEMENT

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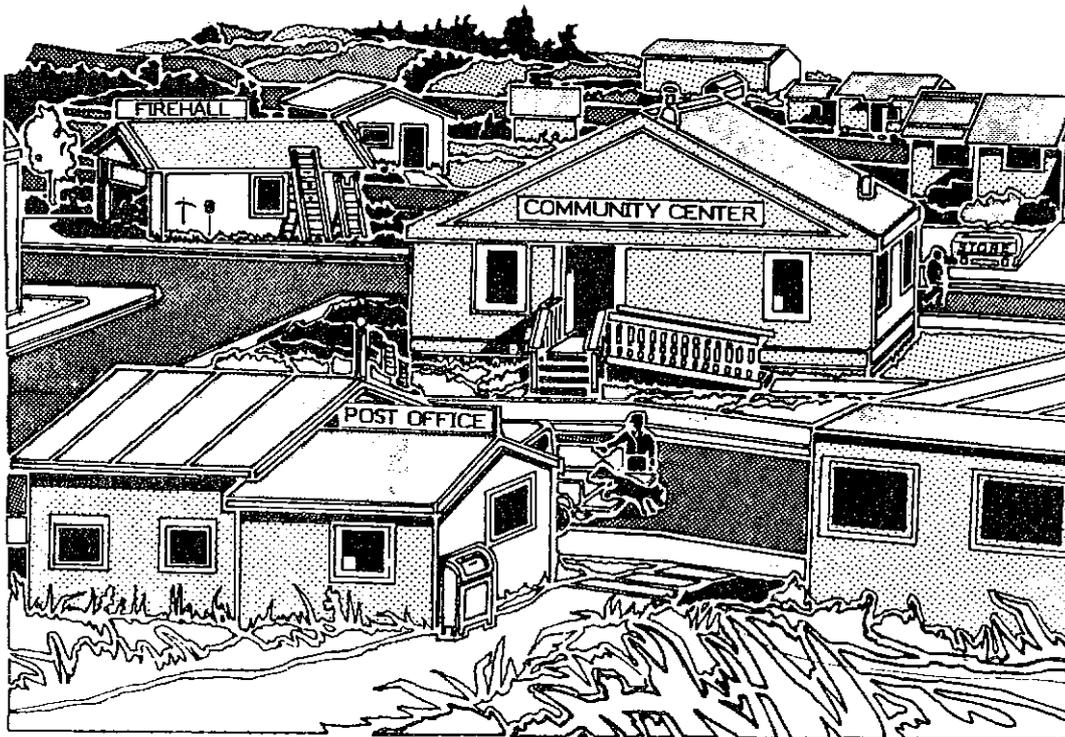
INTRODUCTION

A **capital project** is a project that involves a major expenditure and has a useful life of at least a few years. Every community has capital projects constructed in or near the community. The projects may consist of housing, a community building, a health clinic, a water or sewer system, or an erosion control project. In rural Alaskan communities, these projects are typically funded by governmental grants or state legislative appropriations. Larger communities may sell bonds to raise money for projects. However they may be funded, communities perform two related tasks in providing capital projects: the development of a **capital improvement program (CIP)** and project construction.

This section discusses capital improvement programs which communities prepare to guide the planning and scheduling of publicly financed capital projects. Also, it describes different ways the community may be involved in the construction of capital projects. Both the CIP and project construction are opportunities for a community to get the most out of its capital funds.

CAPITAL IMPROVEMENT PROGRAM (CIP)

A CIP is a program for identifying, planning, financing, and scheduling capital improvements. Preparing a community capital improvement program is a valuable process for a local

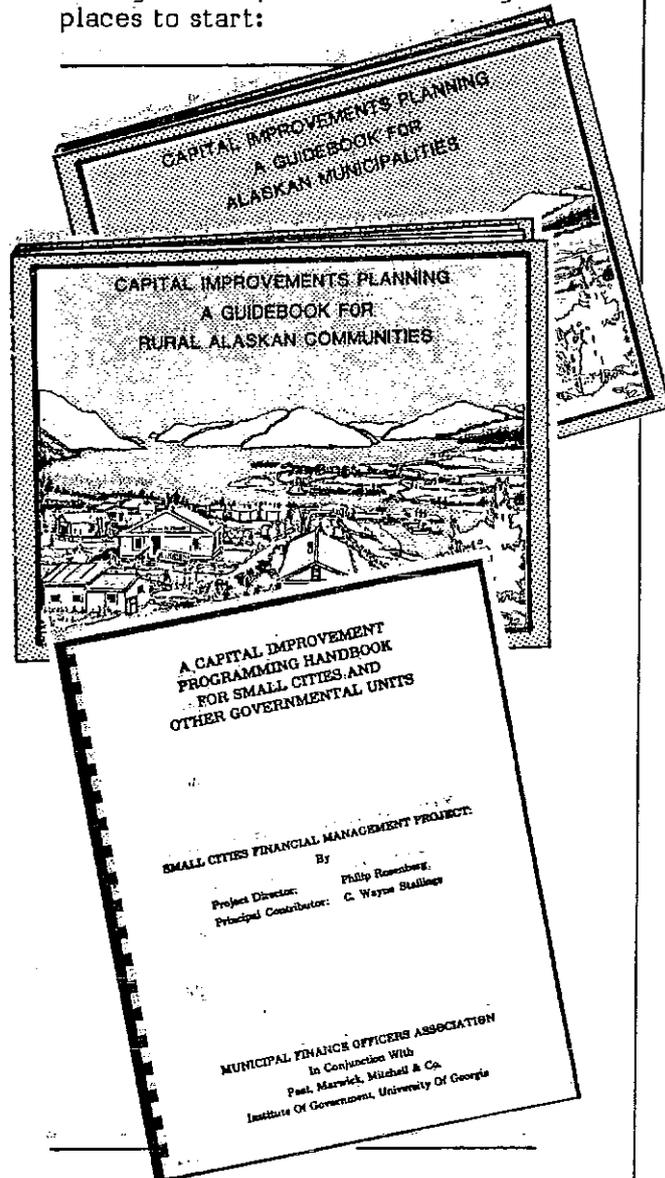


governing body to carry out. Some advantages to a community preparing a CIP are:

- Community involvement in identifying projects helps the decision makers develop a full understanding of the community's capital improvement needs and act on the needs before they become critical.
- Devoting time to analyzing the community's needs produces a more realistic list of projects for the community.
- Ranking projects, by need, cost, funding requirements, and other criteria, enables the community to place funding emphasis on the the high priority projects it can afford to operate and maintain.
- Scheduling helps the community to avoid building at the wrong time or undertaking too much construction at one time. This improves the chances that local labor is used on projects.
- Scheduling and funding projects in a planned manner offers the community cost savings; it may avoid purchases of unnecessary equipment and materials and may, through buying materials for more than one project, obtain quantity discounts.
- Developing written project descriptions and justifications provides funding sources information they need to decide which projects to fund.

A TYPICAL CIP PROCESS

A great deal of information exists about the CIP process. The following three publications are good places to start:



Community officials are encouraged to review these publications. Additional information and technical assistance are available from the Department of Community and Regional Affairs, Division of Municipal and Regional Assistance's regional offices.

The following steps are commonly followed in the preparation of a Capital Improvement Program:

- Step 1.** Establish a CIP work program and schedule.
- Step 2.** Identify capital improvement needs.
- Step 3.** Evaluate and rank capital improvement needs.
- Step 4.** Prepare additional information about priority projects.
- Step 5.** Complete and adopt the CIP.
- Step 6.** Seek and budget funds for first year projects.
- Step 7.** Update the CIP.
- Step 8.** Perform ongoing project management.

Each step in the preparation of a CIP is summarized in the following discussion.

STEP 1. Establish a CIP Work Program and Schedule

Once the community has decided to prepare a CIP, it develops a work program and schedule to guide this effort. The work program should include:

- 1. An identification of tasks to be accomplished.
- 2. An identification of those responsible for each of the tasks.
- 3. A list of needed information.
- 4. A program for involving community residents.
- 5. A schedule for carrying out the work program and preparing the CIP.
- 6. A period of time, usually five to six years, that will be covered by the CIP.

The community may find it useful to prepare a checklist of the above items that identifies each task, the person or group responsible for that task, and the dates for starting and completing the work.

CIP WORK PROGRAM			
<u>Task</u>	<u>Who Will Be Responsible?</u>	<u>Start Date</u>	<u>Completion Date</u>
1. Establish Schedule and Procedures.	_____	_____	_____
2. Identify CIP Needs.			
a. Inventory existing services and facilities	_____	_____	_____
b. Review community plans	_____	_____	_____
c. Distribute project nomination forms	_____	_____	_____
d. Conduct public meeting	_____	_____	_____
3. Evaluate project nominations	_____	_____	_____
4. Gather project information. (Preliminary design and cost information.)	_____	_____	_____
5. Complete and Adopt CIP. (Establish priorities.)	_____	_____	_____
6. Prepare funding request for first-year projects.	_____	_____	_____
7. Update CIP (annually).	_____	_____	_____

STEP 2. Identify Capital Improvement Needs

This step entails two activities:

1. Conducting an inventory and analysis of existing facilities and plans.
2. Preparing a list of needed facilities, including new facilities and improvements to existing ones.

The inventory and analysis of existing facilities can be done using a standard inventory form that can be copied and used for all of the community's existing facilities. (Capital Improvements Planning: A Guide For Rural Alaska Communities contains sample forms for CIPs.) Using a standard form ensures that the same information is gathered for all facilities. This makes it easier to evaluate and rank proposed projects.

The community should review any plans and CIPs prepared for the community including documents prepared by federal or state agencies. These documents often contain information useful to the community in preparing its own CIP. Also, it may be useful to

review CIPs prepared by other communities of similar size.

Once existing capital facilities are inventoried and existing plans are reviewed, the community prepares a list of proposed projects. Involving the community residents in this effort, such as through public meetings held to discuss community needs, will help the governing body develop a more useful CIP.

STEP 3. Evaluate and Rank Capital Improvement Needs

Step 2 produces a list of desired capital improvements. The next step is to evaluate and rank the projects in order of importance to the community. It is not realistic to expect that all of the projects can be funded and built in one or two years. A priority list needs to be developed as the basis for funding requests and scheduling.

In order to rank projects, criteria are developed against which every listed project is evaluated. The illustrated criteria represent the types of information a community should have to properly judge the importance of each project.

SAMPLE LIST OF REVIEW MATERIALS

- Community Comprehensive Plan
- State of Alaska DOT/PF 6-year CIP
- Coastal Management Plan
- School District CIP
- Regional Housing Authority Plans

SAMPLE EVALUATION CRITERIA

Cost

- Importance of Project -- Critical to Public Well Being
- New Versus Existing Facility
- Time Requirement to Build
- Availability of Funding
- Number of Residents to Benefit
- Urgency (Need for Project)
- Priority in Current CIP
- Relationship to Other Projects (Timing Schedule)
- Compatability with Community Goals and Objectives

It is important to develop evaluation criteria that are appropriate for your community, are reasonable, and are understood by the community as a whole.

STEP 4: Prepare Additional Information About Priority Projects

It is necessary to obtain additional information about top ranked projects for which the community will seek funding. The information is used to more fully describe each project and provide justification for its funding. The preliminary ranking of projects prepared in Step 3 may change as more is learned about the projects.

Examples of the types of additional information to be prepared include:

- Alternative solutions
 - Combined facilities
 - Repair and/or remodeling of existing facilities
- Basic design information
 - Size
 - Building layout
 - Utilities
 - Access
- Location
 - Available sites
 - Site preparation costs
 - Site ownership
- Estimated construction costs
 - Materials
 - Labor
 - Equipment
 - Insurance
 - Contractor's fees
 - Professional fees (architect, engineer,

- construction manager)
 - Administrative costs
 - Fuel costs
 - Freight costs
- Estimated operation and maintenance (O & M) costs
 - Heat
 - Electricity
 - Insurance
 - Repairs
 - Routine maintenance
- Estimated revenues
 - User fees
 - Rent
 - Lease fees

STEP 5. Complete and Adopt the CIP

Using the information gathered in Step 4, the community reviews and adjusts the preliminary project rankings. Final project rankings are determined in the same way that the preliminary rankings were in Step 3. The same criteria are still applicable, although they may be modified or expanded as a result of Step 4.

The local governing body then prepares a master list of the capital projects in order of priority. The list includes estimated costs, an estimated schedule of expenditures by year, and potential funding sources for each project. This master list, or CIP, should be reviewed at a community meeting and then adopted by resolution or ordinance. It becomes the official community CIP when adopted.

STEP 6. Seek and Budget Funds for First Year Projects

The CIP includes a list of capital improvement projects and their rankings, as well as their estimated

costs, schedules, and possible funding sources. The next step is to prepare funding requests and submit them to the appropriate agencies or organizations, or to the state legislature.

It is important to determine what requirements these funding sources have for capital project funding requests. The community can save time and effort if it knows in advance what it is required to submit and the application deadlines. The more complete and well thought out a funding request is, the more informed the funding source will be when it decides whether or not to fund the project.

STEP 7. Update the CIP

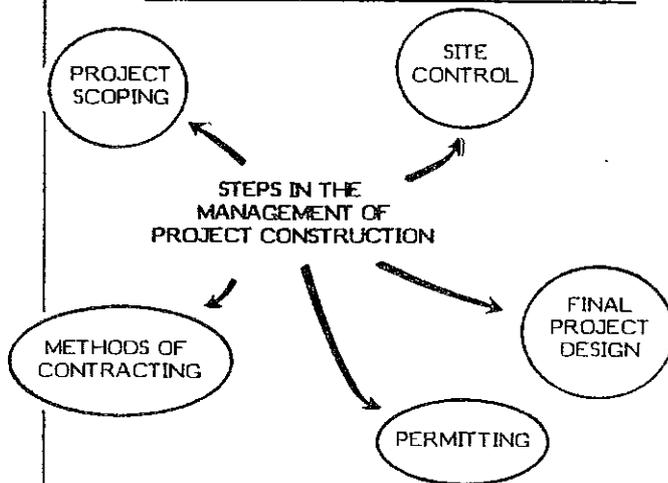
A CIP is prepared for a certain period of time, usually five or six years. It should be reviewed every year and revisions should be made in response to:

- Projects completed or underway.
- New or changed funding programs.
- New community needs or priorities.
- Changes in community goals or policies.

STEP 8. Perform Ongoing Project Management

Once the community receives funding, it must proceed with project development and construction. A community's role in managing capital projects gives it the opportunity to make sure that project construction meets the needs and objectives established by the community. Construction Management Guidebook: A Guidebook to Help Communities Prepare for Construction Projects (1986), available from the

Department of Community and Regional Affairs, discusses in detail the steps required to effectively manage the construction of a capital facility. The remainder of this section presents an overview of this material.



MANAGEMENT OF CAPITAL PROJECT CONSTRUCTION

A community, in preparing a CIP, develops goals and objectives to guide its selection and scheduling of capital projects. After a project is

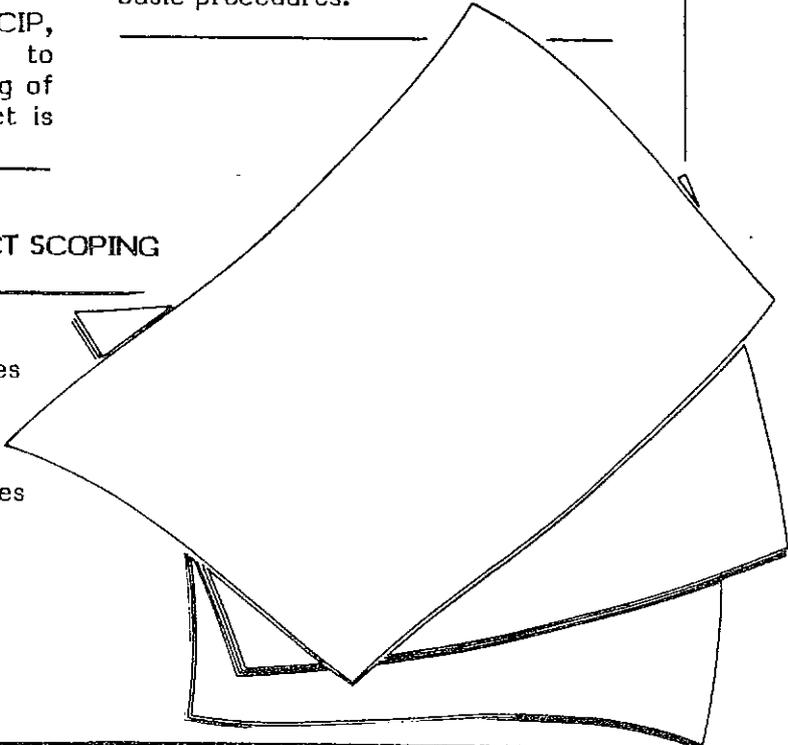
funded, the community sets more specific objectives to be met by the construction of the project. For example, these objectives might address local hire, building design, and quality of construction. This overview of the community's role in the construction management of capital projects outlines procedures and considerations that a community can use to develop objectives for the construction phase and to implement them.

Project Scoping

Project scoping provides the community an opportunity to thoroughly think through the project. Scoping a project means to establish the community-wide objectives to be met by the capital construction project. Scoping may be a simple or complex process, depending on the size and complexity of the project. Regardless of its complexity, a scoping effort consists of the same basic procedures.

PROJECT SCOPING

- Establish Project Objectives
- Setting Priorities
- Assessing Project Objectives
- Community Involvement
- Project Financing
- Project Scheduling



1. Establish Preliminary Project Objectives. Determine the objectives, or results, the community ideally wants the capital project to obtain. Common objectives established for community projects address:

Deadlines -- when the project will be finished.

Function -- what the project is intended to do.

Cost -- keeping the project within the limits of available funding.

Appearance -- making the facility "fit in" with the rest of the community.

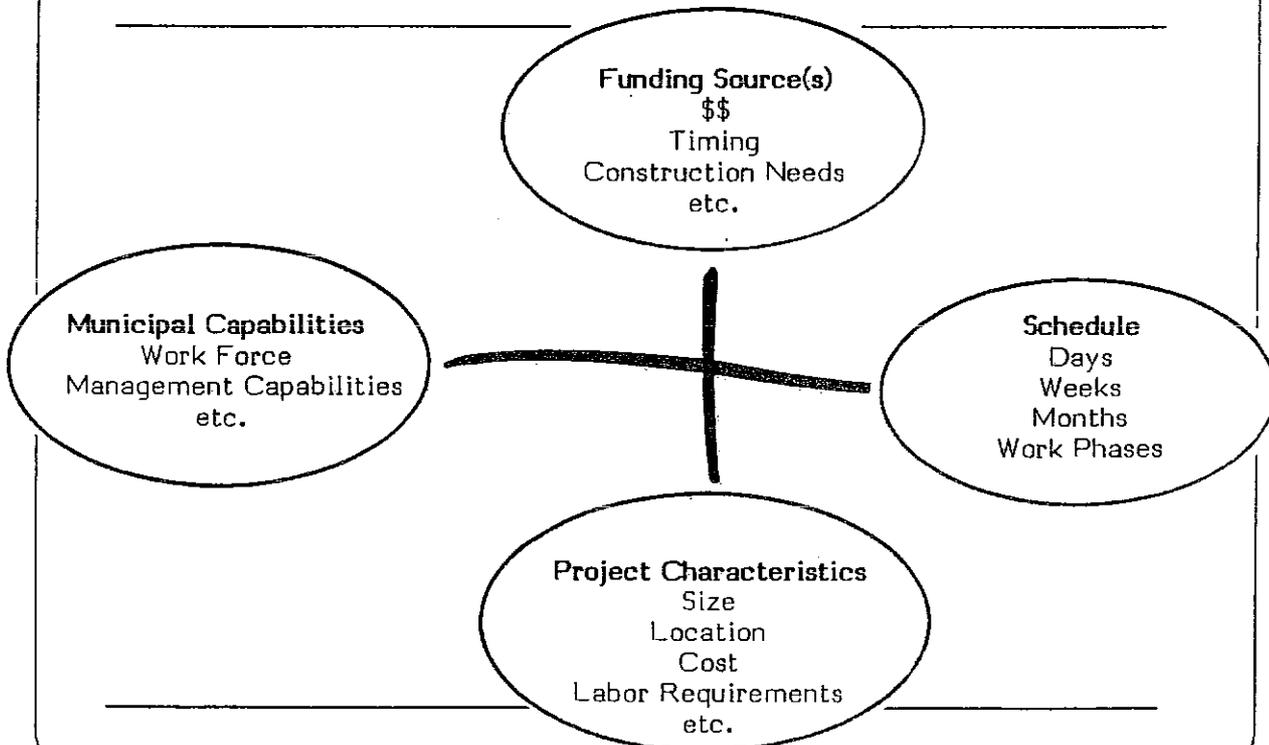
Design -- providing adequate space and layout for the facility's intended uses.

Location -- placing the facility in the most convenient or appropriate location.

Maintenance -- minimizing operating and maintenance costs by proper design and construction.

2. Setting Priorities. The importance of each community objective should be determined. Setting priorities involves trade-offs and compromises; for example, completing the project before winter may be more important than trying to schedule around the summer activities of the local labor force.

3. Establish Final Project Objectives. In this step, the community investigates in detail the amount of funding available for the project, potential scheduling conflicts or constraints, the number and types of workers the project will require, and whether they can be supplied locally. It also assesses financial and safety risk. Finally, the community reviews its priorities, which may change in light of this additional information, and sets final project objectives.



4. Community Involvement. With the above information at hand, the community determines what level of involvement it wishes to have in the project. A variety of factors should be reviewed by the community, such as:

- Complexity of project.
- Schedule.
- Local expertise.
- Community interest.
- Local labor skills.



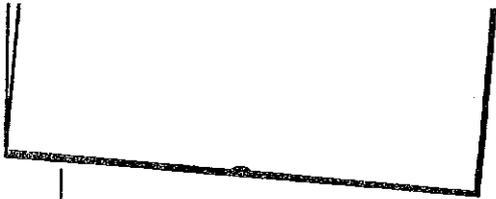
does it want little or no involvement? The level of community involvement should reflect the community's capabilities.

5. Project Financing. The community should understand the project's finances, deadlines, payment schedules, and reporting requirements. These may vary depending on the funding source.

The community must have sufficient money available to pay for key activities, such as ordering materials and paying workers, throughout the

<u>REVENUES</u>	<u>SOURCE</u>	<u>AMOUNT</u>	<u>EFFECTIVE DATE</u>	<u>EXPIRES</u>	<u>PURPOSES</u>
	Legislature	\$235,000	7/01/87	6/30/90	Building Materials
	RDA Grant	100,000	7/01/87	7/01/88	Labor/Equipment

<u>EXPENDITURES</u>	<u>SOURCE</u>	<u>DATE</u>	<u>EXPECTED AMOUNT</u>	<u>TO</u>
	Legislature	7/15/87	\$ 2,500.00	Labor
		7/19/87	7,250.00	Materials
		8/03/87	115,800.00	Materials
		8/11/87	3,500.00	Shipping



All of this information is gathered when the community prepares its objectives and priorities. Now the community uses this information to decide what role it will have in the capital construction project. Is the community able and does it want to be deeply involved throughout, or

course of the project. The availability of cash, or cash flow, must be such that it meets the schedules of the project because stopping a project to wait for cash can be costly.

The community is responsible for properly administering the funds it has received through grants, loans, or legislative appropriations. Depending upon the level of community involvement, the community will want to establish an appropriate accounting system to keep track of project revenues and expenditures.

6. Scheduling. Preparing a realistic schedule is important because delays in construction are expensive. The schedule must relate the different stages of project construction (site acquisition, site preparation, surveying, ordering materials, etc.) to the availability of funds, local labor, contractors, and other project personnel. The schedule should take into account barge schedules, and other important seasonal activities.

interest (e.g., a lease) in the site may give it sufficient site control for the purpose of the project.

Constructing a capital project on land the community does not own, or have permission to use, is a trespass. It can result in delays, additional costs, and hard feelings; it may jeopardize the project. If the site for a project has not been determined, a community should follow these steps:

**WAYS SITE CONTROL
MAY BE OBTAINED**

- | | |
|-----------------|--|
| • LEASE | • ANCSA, SEC. 14(c)(3)
RECONVEYANCE |
| • PERMIT | • EMINENT DOMAIN
(CONDEMNATION) |
| • PURCHASE | • DONATION/GRANT |
| • EASEMENT | • STATE ENTITLEMENT |
| • LAND EXCHANGE | • SURPLUS PROPERTY TRANSFER |



NOTE: The choice of method of obtaining site control is normally determined by negotiations with the owner of the site. Sometimes, funding requirements will determine what type of site control is required.

7. Summary. Through the scoping process, the community will prepare project objectives and an accurate and detailed project description, it will decide what its role in the project will be and how to proceed.

Site Control

Site control means having sufficient ownership or property interest in the project site to allow the capital project to be constructed and used. If the community owns the site, it has the most complete form of site control. If the community does not own the site, acquiring a lesser

1. Determine site requirements.

What type of site does the project require and where should it be located? It is best to identify more than one site if possible. Consider such things as size and shape of the site, soil conditions, drainage (slope), wind direction, access to utilities, and access to the site. Does the site have to be on or near a river or the coast? Are there physical hazards (erosion, flooding, etc.) nearby?

2. Determine ownership.

Who owns each of the sites identified? Research state and federal land status records to see if the sites are pub-

licly or privately owned. Do they have other valid existing rights (mining claims or Native allotments) on them? Verify the records of the individual owners of each site.

3. Determine type of site control. What type of site control is needed for the project? Can it be easily obtained? Check funding sources for site control requirements. Where possible, identify the types of site control available or possible for each site: fee simple title (complete ownership), or less than fee simple (lease, permit, or easement).

4. Determine method of site acquisition. What is the best method for acquiring adequate site control? Site control can be obtained by purchase, lease, **14(c)(3) reconveyance**, **eminent domain** (condemnation), land exchange, permit, or donation. Examine the expense and time required for all forms of obtaining site control. Determine which methods are more desirable and use this to guide future negotiations with the landowner.

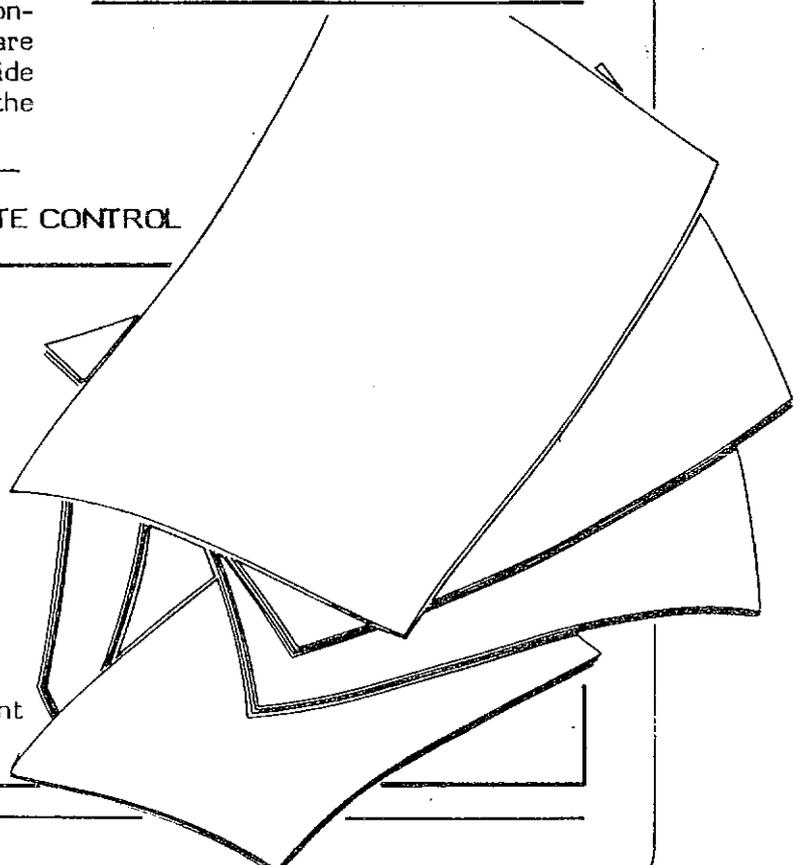
5. Enter negotiations. The community will have to enter into negotiations with the landowner to acquire site control. Matters subject to such negotiations are the size of the site, its value, the form of site control, and the length of time the community needs to retain site control.

6. Prepare documentation. Upon completion of negotiations, a legal document should be prepared that states the terms and conditions agreed to for transferring property rights. This document will, at a minimum, consist of:

- A legal description of the site.
- The transfer of the property rights.
- Proof that the other party has the right to transfer these property rights.

OBTAINING SITE CONTROL

- Site Requirements
- Ownership
- Type of Site Control
- Site Acquisition
- Negotiations with Owner
- Documentation
- Record the Transfer Document



Whenever possible, the site should be surveyed and the plat of survey incorporated into the transfer document. Authorized individuals representing the two parties must sign this document. Professional legal assistance will ensure that the document is properly prepared and that it adequately protects the community's interests.

7. Record the transfer document.

Recording the document transferring property rights is the final step. Any legal document pertaining to ownership or use of land should be recorded to protect both parties. If conflicts should arise later, state law recognizes property rights on the basis of the order in which legal documents are recorded. The transfer document recorded first is the document that will be accepted as officially establishing property rights. (See Land Records, Chapter 4, Section 2 for additional discussion of recording land transfers.)

Final Project Design

The community relies on a preliminary project design up to this point. Now that project objectives are identified, priorities set, and a site selected, the final project design can be prepared. This final design is the basis for construction blueprints, final ordering of materials, and selecting a labor force and subcontractors; it is quite detailed.

The community may make additional trade-offs as the design is finalized. Available funding may be too limited to build the size facility originally desired. An interest in reducing operating and maintenance costs may result in changing some features of the facility. If the community desires changes, it should clearly communicate its desires to the project designers.

Equally important, the community should select professional designers (architects or engineers) that understand the special considerations of building in rural Alaska. These professionals must be able to effectively communicate with the community to be responsive to its needs.

State funding provided for capital projects generally cannot be used for operating and maintenance expenses. Municipalities that construct capital facilities are expected to pay these costs from locally generated revenues. Since locally generated revenues, such as user fees, are often limited or non-existent, the project should be designed so that O & M costs are kept to a minimum. If the capital facility is a building, it will be in use for a long time, 20 to 30 years or more. The long-term O & M costs should be considered and adequate provisions be made for paying them.

Permitting

Most capital projects require one or more permits from state or federal agencies, or both, depending upon the type of project. Some larger communities require local permits, also. The community should research the permits needed for a project well in advance of its construction because permits may require a lengthy review process, and result in conditions or restrictions being placed on the project. Permits that take a long time to be issued should be started first, as early in the project as possible, to avoid delays.

The state Department of Environmental Conservation has published the Directory of Permits. This directory lists information on all permits required for construction

projects in Alaska. Copies and additional information can be obtained from the Department of Environmental Conservation.

State law requires that most building construction plans be reviewed and approved by the State Fire Marshall. The project designer should routinely arrange for this review early in the project design stage. The Fire Marshall is located in the Division of Fire Prevention, Department of Public Safety.

In addition, public buildings must meet state approved electrical and plumbing codes. This requirement is routinely dealt with by an engineer, architect, and builder licensed in Alaska. However, if the community has not employed these professionals, it will be necessary to have electrical and plumbing design and

construction approved by the Department of Environmental Conservation.

Methods Of Contracting

Having completed the final design, acquired site control, and obtained the necessary permits and the Fire Marshall's approval, the community is ready to contract with an individual or a firm to construct the facility. There are a number of options available to the community in carrying out this task.

The community should select the contracting method that best suits its needs and capabilities, and best meets its objectives. The project scoping exercise highlighted the key factors to be considered by the community in selecting a contracting method:



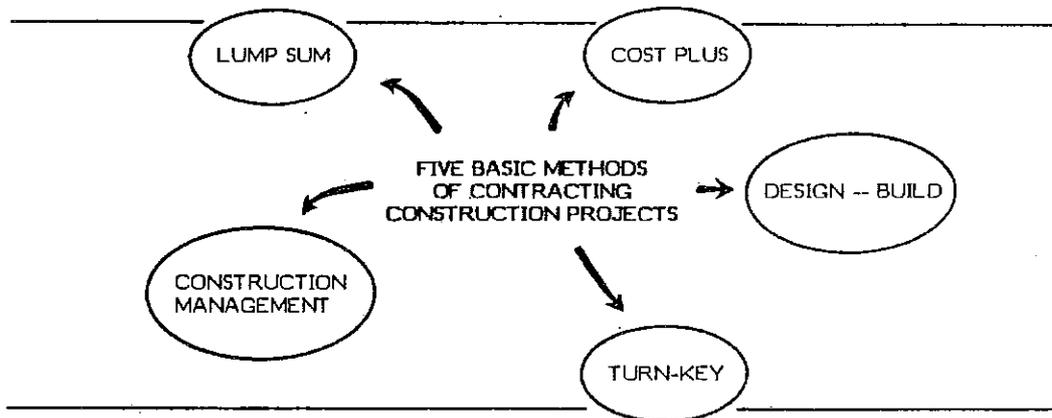
KEY FACTORS TO CONSIDER IN SELECTING A CONTRACTING METHOD

- Overall Project Complexity
- Labor Force Requirements
- Project Schedule
- Funding Requirements
- Local Capabilities (Administrative & Labor)
- Desired Level of Community Involvement
- Degree of Risk

NOTE: A community should select a method of contracting that suits its **needs** and **capabilities**, and that best meets the community's project objectives.

Five methods of contracting are discussed below. Each method responds to the above criteria differently. The community's task is to sort through the advantages and disadvantages of each contracting method and select the one that best suits its needs and capabilities.

1. Lump Sum. A lump sum contract means that the contractor is paid a fixed fee, or a lump sum, for the completion of a specific project. The contractor receives this amount regardless of what it actually costs to complete the project. The payment may be made in installments, or in full at project completion. This is the most commonly used method of contracting.



These five methods have variations and construction projects often use a modified method or a combination of methods. A thorough description of each type of contracting is too lengthy and detailed for the purpose of this section. The Construction Management Guidebook referenced previously offers more detailed information.

Project specifications must be well-written and complete to enable the contractor to clearly understand what he is bidding on. Both parties need to fully understand what is expected of each other to prevent problems later in the project. The contract should be explicit and thorough.



- KEY ADVANTAGES**
- Fixed cost
 - Contractor assumes the risk
 - Community involvement high for less complex projects

- KEY DISADVANTAGES**
- Local hire often not a priority with contractor
 - Community involvement less with more complex projects
 - Less defined the project, the higher the risk and the cost

2. Cost Plus. Payments made under this type of contract are based upon reimbursement for actual expenses plus an additional amount. The

ried out on a "pay as you go" basis. Also, it assumes that the community has access to additional funds to cover any unforeseen increases in project costs.

COST PLUS

KEY ADVANTAGES

- Contractor more willing to use local labor
- Project can sometimes be started quicker
- Higher level of community participation likely
- Project cost may be lower than lump sum because of less risk factor

KEY DISADVANTAGES

- Administrative requirement may be higher
- Risk to community may be higher
- Contractor selection may be more difficult
- Delays increase project cost

additional amount, the "plus", may be either a fixed amount or a percentage of the actual expenditures; it represents the contractor's profit.

A **cost plus** contract allows a project to be started before all the final design work and project specifications are finished. This method of contracting requires the community to pay close attention to all project billings because the project is car-

It may be advantageous for the community to specify incentives in the payment provisions of the contract to encourage the contractor to keep project costs as low as possible or to complete the project ahead of schedule.

3. Design-Build. Under this option, the community hires one contractor who is responsible for both designing the project and building it. The

DESIGN BUILD

KEY ADVANTAGES

- Project start-up may be quick
- Efficient for projects of a repetitive nature
- Community administrative requirements can be minimal

KEY DISADVANTAGES

- Proposals more difficult to evaluate
- Coordination between contractors more involved
- Contractors less likely to use local labor
- Project changes more difficult to make

contractor often subcontracts to another firm to do either the design or the construction because few firms do both.

This option tends to reduce the level of community involvement. Changes in project design are more difficult to achieve once the **design-build** contract is in effect. This means that the community must include provisions in the contract that address all of its needs and objectives. Design-build contracts afford an earlier start of construction, as it can begin prior to final design.

Payment is usually made upon the community's acceptance of the completed project. The contractor is concerned with speed and efficiency because he pays for everything until that time. Turn-key contractors usually employ their own work crews and are reluctant to make changes in the project. The community performs periodic project inspections to ensure its interests, per the contract, are being met. The inspections must be efficient and technically sound. If the community does not have the technical qualifications to do the inspections, it

TURN-KEY

KEY ADVANTAGES

- Project more likely to be completed quickly
- Project costs can be reduced
- Level of risk to community low
- Project costs known up front

KEY DISADVANTAGES

- Contractor less likely to employ local labor
- Community has minimum involvement throughout the project
- Any community involvement requires high levels of technical expertise
- Contractor selection is more difficult

4. Turn-key. The **turn-key** method of contracting places virtually all project responsibilities on the contractor. The community is involved only in developing the concept of the project, providing the funding, and hiring the contractor. The contractor does the final project design, obtains interim financing (if necessary), acquires site control, obtains all necessary permits, and completes all construction activities. When the contractor is finished, the community "turns the key" to enter the completed facility.

should hire a professional to ensure that the project is being constructed properly and is meeting community objectives.

5. Construction Management. Under this contracting method, The community hires an individual or firm to manage the construction project. The construction manager carries the project from project scoping and design to construction and final inspection. The construction manager is the community's

CONSTRUCTION MANAGEMENT

KEY ADVANTAGES

- Project start-up is quick
- Community objectives and input are easier to incorporate
- Better project cost control
- Local labor more readily used
- Risk more easily identified and shared by community and construction manager

KEY DISADVANTAGES

- Not practical for small projects
- Success or failure rests largely with the construction managers
- Community must be able to make decisions quickly and often

agent, or representative, and acts on the community's behalf. The community functions as the general contractor and the construction manager's job is to see that the community's interests are protected.

The construction management approach is typically used for larger projects that are more complex and more expensive. The construction manager coordinates all of the project's subcontractors, keeps the project on schedule and within budget, and facilitates community participa-

tion. A good construction manager acts as an employee of the community.

Entering Into A Contract

Having selected a method of contracting, the community must prepare for entering into a contract to construct the capital facility. The steps for doing this are:

ENTERING INTO A CONSTRUCTION CONTRACT

- Preparing a Bid Request
- Advertise (Request Bids)
- Contractor Selection
- Contract Negotiations and Signing

Preparing a Bid Request. This task requires that the community specify everything that the contractor must know in order to submit a responsive bid. The contractor must know the following:

- Project description and purpose.
- Budget and payment schedule.
- Construction schedule.
- Method of contracting.
- Site information.
- Management.
- Local hire requirements.
- Community objectives.
- Special considerations or problems.

This is a critical part of the contracting process because failure to include important information may jeopardize the project. The information requested of the bidder is used to develop criteria for evaluating the bids.

Advertise. Nearly all publicly funded projects must be competitively bid. Under certain circumstances, this requirement can be waived if hiring a certain contractor is justified on the basis of overriding considerations. Otherwise, a community should seek competitive bids by advertising in one or more newspapers of wide circulation, trade journals, state and local or regional newspapers. The community may identify potential contractors and mail bid packages directly to them. Reaching a wide audience of potential contractors is in the community's interest when it is requesting bids.

Contractor Selection. The community establishes procedures for reviewing and ranking bids. It prepares evaluation criteria based upon the

information requested in the bid package. A group of individuals, or a committee, is organized to review all bids and submit recommendations to the community decision makers. It is critical that the selection process be fair, consistent, and legal.

Contract Negotiations and Signature. Depending upon how responsive the top bid is to the bid request, the community may need to negotiate contract terms with the selected contractor. Negotiations are an opportunity the community and the contractor may have to ensure that misunderstandings and disagreements are cleared up before the contract is signed. The community must clearly understand its negotiation options before approaching the selected contractor. Having more than one contractor to choose from allows the community to initiate negotiations with the next ranked bidder if negotiations with the top choice are not successful. Once agreement is reached, the contract is signed by the duly authorized representatives of both parties.

Contract Administration

Signing the contract does not free the community from further obligations. Instead, it starts the community's contract administrative responsibilities. If it is the recipient of the project funds, the community is responsible for properly managing those funds and satisfying any reporting requirements. Also, the community is responsible for seeing that the project is completed properly and in keeping with the community's objectives.

The community should establish procedures for administering the contract. A local contact (project coordinator) knowledgeable about the project should be appointed. This

may be the construction manager if this method of contracting has been selected. It is important that the contractor have someone to contact for quick answers. The community should decide under what circumstances the governing body is to become involved and let the contractor know.

An **accounting system** needs to be set up to track project expenditures. Typical components of a project accounting system are:

- Chart of accounts - a record of revenues and expenditures by source of funding used for financial reporting to the funding agencies.
- Check register - a record of every check written on the project account.
- Payroll journal - a record of all payments made for labor and project administration personnel used for determining payroll taxes.

Opening a separate checking account exclusively for the project makes it easier to account for all project expenses. If the community acts as general contractor and directly employs the laborers, it will need to obtain federal and state tax identification numbers and pay federal and state payroll taxes. Worker's compensation insurance and appropriate liability insurance must be purchased for the project. The community may wish to consider other types of insurance coverage for the construction materials and the project itself while it is under construction.

It is common for construction projects, particularly large ones, to be audited. An audit is often required as a condition of a grant or appropriation. The community must under-

stand these **audit requirements** and keep the appropriate financial records. Failure to adequately monitor and keep records of the project's expenditures may result in the funding source withholding project funds.

Also, the community must keep an accurate record of all actions and decisions relating to the project. These include:

- Minutes of the governing body's meetings.
- Correspondence with all contractors, funding sources, materials suppliers, and others directly related to the project.
- All permits and correspondence with permitting agencies.
- Contracts and all amendments and correspondence pertaining to contracts.
- Copies of all payroll tax forms, payments, and schedules.
- Copies of all funding documents and special conditions.
- Copies of insurance policies, premium notices, and correspondence with the insurance companies.
- All bills submitted during the project.
- Copies of all financial reports prepared for funding agencies.
- A complete list of materials purchased and used.
- Copies of all inspection reports.

The more complex a project is, the more important it becomes to conduct thorough inspections periodically. The community needs to decide how and when it will perform inspections and who will perform them. If local expertise is not available, the community may wish to hire a qualified inspector. The matter of inspections is important; inspections provide the justification for the community to withhold contractor's payments for unsatisfactory performance.

Contracting Procedures Summary. A community does a lot of work to prepare for entering into a contract. However, the community must not assume that its job is done once the ink dries on the contract. Contract procedures, particularly administration, are as important as a good design to a successful project. Even the best of designs will fail if the construction is not managed properly.

FORCE ACCOUNTING

When a community decides to act as the general contractor and construct the capital project itself, it must hire the labor force and put those construction workers on its payroll. This is **force accounting**. Force accounting may be legally used by a variety of entities. For the purposes of this discussion, the entity is an incorporated city.

When a city elects to use force accounting, it is responsible for:

- Hiring and firing workers.
- Setting wage scales.
- Paying wages.
- Determining if and when to give raises or demotions.
- Maintaining a project payroll journal.

- Paying payroll taxes and filing the necessary reports.
- Obtaining worker's compensation insurance and additional liability insurance, if needed.
- Establishing (if none already exist) and enforcing personnel policies.
- Establishing project personnel management procedures.

Force accounting may not be the wisest choice for a city to make. It requires a substantial administrative effort on the part of the city. In addition to the city's commitment, the labor force, collectively and individually, must be committed to the project.

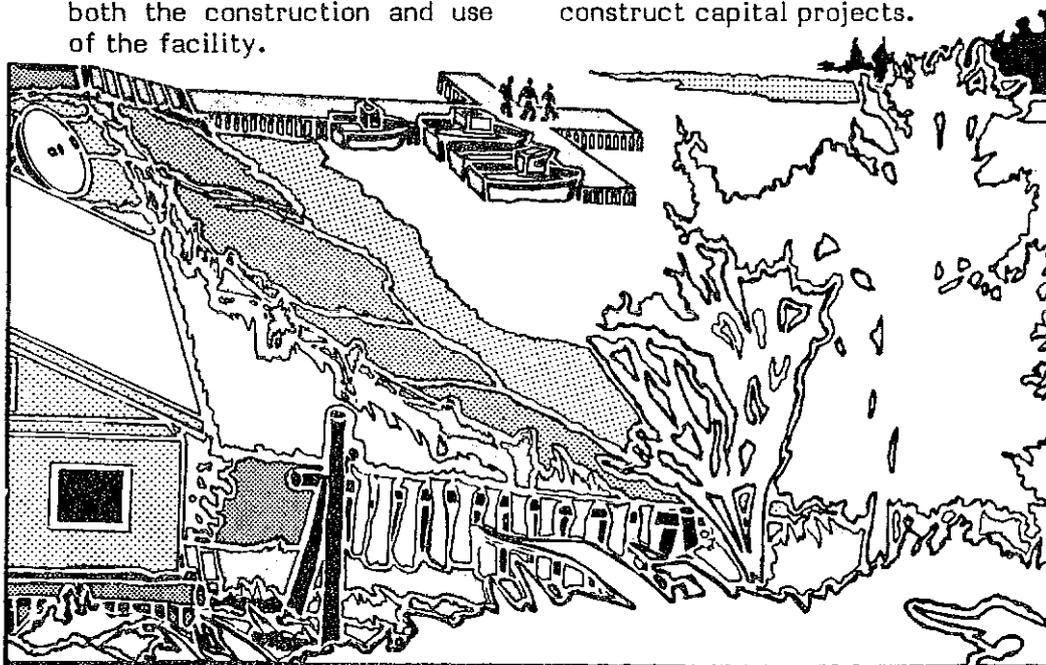
The use of force accounting requires special considerations on the part of the city. They are:

- **Project scheduling.** Local labor may require training before starting the project. Allowances for seasonal activities may be necessary. Local labor may prefer a shorter work day than contract labor. Accordingly, the project schedule may have to be adjusted.
- **Labor costs.** Although individual labor costs may be lower than those for contract labor, total costs over the life of the construction project may be equal to or greater than contract labor costs. If using local labor results in inefficiencies, more hours must be worked to complete the project. A community may consider the use of less skilled and less costly labor under an on-the-job training program (OJT). With adequate supervision, such an arrangement keeps labor costs down while serving to train local people for future projects.

- **Equipment costs.** A contractor provides all of the necessary equipment as part of his contract. Under force accounting, the city must provide whatever equipment is required. For most rural communities, purchasing or leasing equipment is expensive. Purchased equipment must be maintained at additional expense. If the laborers do not have tools, the city will have to lease and/or purchase hand and power tools.
- **Personnel qualifications.** The success of force accounting depends on the abilities of the local bookkeeper and the local contact person, or project manager. If the city has hired outside professional assistance, that individual or firm must be competent and reliable.
- **Project inspections.** A project constructed by force account benefits from periodic and thorough inspections. This will help to prevent problems during both the construction and use of the facility.

A city considering force accounting should evaluate its project objectives and weigh them against the factors discussed above. The city must decide whether force accounting or contracting provides the greater benefit overall to the community.

Force accounting has advantages for a community that wants to realize more direct benefits from capital construction projects. It offers increased local control and the opportunity to build up a local skilled labor force that can compete for future projects. A greater portion of the project budget is kept in the community through the employment of local workers. However, the community, through taking on additional responsibilities and performing an increased administrative role, must work for these increased benefits. If the benefits of force accounting are in keeping with a community's objectives and the community is willing and able to accept the increased responsibilities, then force accounting may be the appropriate method for it to use to construct capital projects.



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