Providing public services within the constraints of limited financial resources is a problem that all communities face—especially communities experiencing rapid population growth. The planning and improvement of public facilities for water supply, sewage treatment, parks and recreation, transportation, housing, health care, education, and other facilities are of particular concern to residents and officials.

Capital improvements programming is one financial management technique for the planning of community facilities. By looking beyond year-to-year budgeting to determine what, when, where, and how future improvements should be made, capital improvements programming enables officials to avoid unplanned capital expenditures.

The following definitions are included as a basis for the discussion of programming capital improvements that is contained in this publication.

A capital expenditure is a major nonrecurring project or facility expected to provide service beyond the annual budget cycle period. Some examples of capital expenditures might be a sewage treatment plant, a fire station, or street lights.

A capital program is a plan for capital expenditures to be incurred over a fixed period of time, and the projected resources to finance it. The time period may be adjusted to coincide with the development schedule.

A capital budget is a more detailed plan of specific projects and financing to be adopted with the annual operating budget.

Capital improvements are major projects requiring the expenditure of public funds over and above annual operating expenses. Expenditures may be for purchase, construction, or replacement of the physical assets of the community. The purchase of land needed for community use is a capital improvement, as is acquisition or construction of facilities such as:

- airport
- police station
- street/road improvement
- courthouse
- sanitary landfill
- traffic lights
- drainage system
- bridges
- street lights
- fire station
- sidewalks
- water treatment
- clinic
- sewage
- plant
- library
- treatment
- park
- plant
- hydrants.

Neil L. Meyer, Extension Economist, University of Idaho

WREP 30 October 1980
What is programming capital improvements?

Programming capital improvements is the presentation and updating of a proposed schedule of public works debt and equipment to be built or purchased by a local government during a specified period of time—usually 5 years. It covers a jurisdiction's entire range of public facilities and service requirements. As anticipated future projects are listed in the program in order of construction priority, with cost estimates and the anticipated need for financing each project.

A capital improvements program is based upon a jurisdiction's goals and objectives (as defined by the local government) and upon proposals submitted by various officials, departments, and citizens. The land acquisition and construction activities of all neighboring and overlapping jurisdictions (municipalities, counties, school districts, and others), as well as findings, should be considered in the capital improvements program.

Three- to six-year plans, with the first year reflecting the annual capital improvements plan, are generally considered to be suitable. Two years is too short a period for effective programming, because planning and financing major facilities usually takes a longer time. Three to seven years or more may project the program far too into the future to be of practical value. Five-year periods are used in the examples included in this publication.

The benefits

A systematic approach to planning capital projects provides the following advantages:

- Focusing on community goals, needs, and capabilities. Capital projects should reflect community objectives, anticipated future capital requirements.
- Planning for projects, those that are needed or desired will be constructed during the life of the program.
- Serving wider community interests. Developed with citizen input, the capital improvements program keeps the public informed about future community planning decisions.
- Annual capital budgeting. Local governments that already have annual capital budget, or are in the process of developing such a budget, will note similarities between the capital budget and the capital improvements program, and may consider the capital improvements program to be a valuable planning tool.
- Modernity. All federal and state agencies have used the capital improvements program to estimate future tax loads and service costs.

Its role in jurisdictional planning and management

A local government's capital improvements program affects and is affected by both internal activities, such as budgeting and planning, and intergovernmental activities. Budgeting and planning must take into account the existing facilities and potential new facilities.

Annual capital budgeting. Local governments that already have an annual capital budget, or are in the process of developing such a budget, will note similarities between the capital budget and the capital improvements program, and may consider the capital improvements program to be a valuable planning tool.

Other governmental units. Capital improvements programming affords a basis for ordering the complex relationships among overlapping jurisdictions. In many cases, the local government will have to deal with special authorities and agencies. These agencies have power to finance their activities through tax levies or revenue bonds backed by user charges. Although each city, county, or special district has its own capital improvements program, there is a growing recognition that on such matters as streets, highways, schools, parks, and other capital improvement facilities, there is a need to coordinate planning among all the agencies affected by a capital project. A capital improvements program should refer to capital facilities planned by other governmental units serving the jurisdiction.
Certain facts must be at the coordinating body’s disposal: a complete inventory of existing facilities, their condition, and their capacity; any existing policies for the future physical development of the community; basic data concerning the ability of the community to pay for planned improvements; and priorities of the community’s residents.

Under any organization, it is important for citizens to have access to the procedure. This can be accomplished with the capital improvements advisory committee.

- Operating departments. The primary responsibility of the operating departments in the programming process is to initiate project requests. These requests are prepared on standard forms, with information about why various projects are needed, and how the projects relate to other programs and long range aspirations.

- Finance officer. The finance officer is responsible for: 1) the financial analysis and projections needed as a background for capital improvements programming; 2) review of the implications of both the capital and the operating budgets of the individual project requests; and 3) determining the best possible means of financing each project. If the finance department staff is too small to assume these tasks, the planning agency may gather much of the needed financial data.

- Governing body. The jurisdiction’s legislative body and citizens should participate in the establishment of goals and procedures for capital improvements programming. Ultimate responsibility for the selection, modification, or rejection of a program lies with the governing body. Individual representatives of the legislative body may also become directly involved in the preparation of the program as members of the planning commission or a special capital improvements committee.

Capital improvements programming usually is most successful when it has been made mandatory. The governing body or chief executive should assign specific responsibilities for annual preparation of the program, establish general policy and procedures to be followed, and provide a schedule for completion of the various stages. These may be formalized in the city or county charter, administrative budget calendar, or by ordinances or resolution.

- Citizen’s advisory committee. A citizens’ advisory committee, representing the jurisdiction as a whole, may be established to assist in developing the overall program. Such a group can be particularly helpful in getting public support for bond issues needed to put various aspects of the program into effect. Usually appointed by the governing body, the advisory committee might include representatives of civic, business, labor, and other organizations.

- Consultants. Lacking skilled planning personnel, small communities often seek the help of consultants in developing capital improvements programs. When a local government must undertake large-scale public works projects, a professional planner, engineer, or architect may also be called in for technical assistance. Consultants should be required to work within the framework of established community goals and under the direction of responsible local officials.

The process

The major steps in programming capital improvements are:

1. Submission of project proposals to the program coordinator;
2. Evaluation of each project and selection of projects for inclusion in the program;
3. Financial analysis of the jurisdiction’s ability to pay for the projects and selection of the means to be used in financing them;
4. Preparation of a proposed capital improvements program;
5. Consideration and final approval of the program by the governing body;
6. Public approval of financing arrangements for individual projects;
7. Annual review and revision of the program.

Each of the steps in the programming process is discussed below in greater detail.

Submission of project proposals

Operating departments of the local government should be responsible for proposing capital improvement projects. In some localities, citizen organizations, church groups, charitable organizations, local chambers of commerce, union groups, and others have been invited to participate in these activities. Project proposals could also be initiated by the chief executive or members of the jurisdiction’s governing body.

Each unit prepares a list, in order of priority, of capital projects it believes to be needed or desirable within the next years (Figure 1). Guidance should come from the chief executive or governing body on criteria for evaluating projects and the general development goals of the community. The prioritized project proposal lists should then be submitted to the capital improvements program coordinator for consideration.

The program coordination staff then supplies each operating department, agency, organization, or individual with a project description form on which proposed projects are to be submitted (Figure 2). Certain information should be provided for each project:

- Name, description, location, and purpose of the project;
- Estimated costs for each project, including planning, land acquisition, construction, and other related costs;
- Impact of the new project on operating costs and revenue, including estimated annual costs of maintenance, additional personnel, and necessary equipment, as well as the anticipated revenue potential of the project;
- Schedule of construction phases and project expenditures;
- Justification and departmental priority of the project;
- Recommendations on how the project is to be financed, including any available grants from the state or federal government or other sources;
- Current status of the project, indicating preliminary planning, engineering, land acquisition, and construction.

A thorough inventory of existing facilities and services, an evaluation of their adequacy, and a statement of departmental objectives and priorities should be formulated. Without this type of information, projects listed may represent merely wishful thinking or the pressures of certain groups for pet projects.

The completed departmental project description forms should then be submitted to the capital improvements program coordinator.

Project evaluation and determining priorities

After a list of capital improvement needs has been received from each department, the program coordinator may arrive at tentative priorities by classifying each project according to an established set of criteria. The criteria are often developed from the guidelines of the comprehensive plan, which inte-
Capital Improvements Program
Project Description

Department: Public Works Department

Project Title: Main Street Resurfacing
Location: Downtown Moscow
Project Description: Matte seal with 3-inch overlay

Justification: Identified in comprehensive plan; important element of Downtown Revitalization

<table>
<thead>
<tr>
<th>Project Status</th>
<th>Land Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>--Preliminary estimate</td>
<td>--Not yet acquired</td>
</tr>
<tr>
<td>--Plans in preparation</td>
<td>--Partly owned</td>
</tr>
<tr>
<td>--Plans and specifications completed $312,000</td>
<td>--Jurisdiction owned</td>
</tr>
<tr>
<td></td>
<td>--No land involved</td>
</tr>
</tbody>
</table>

Estimated costs:
- Engineering $34,000 Future operating budget impact
- Land acquisition $247,000 Personnel
- Construction $31,000 Operating/maintenance
- Furniture and equipment $312,000 Other
- 10 percent allowance for contingencies $312,000 Total annual impact none

Cost ($ thousands):
- Planning/design $4,000 1960
- Land acquisition $20,000 1961
- Construction 257,000 1962
- Other

Total $312,000

Funding Sources:
- Local $312,000
- Other (specify) Federal (Urban Development) $312,000

Total $312,000

Figure 2. Sample project description form for a proposed capital improvement project.

Figure 3. Sample project evaluation form for a proposed capital improvement project.

CAPITAL IMPROVEMENTS PROGRAM
PROJECT EVALUATION FORM

(Part of Downtown Revitalization)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Supporting Facts</th>
<th>Points*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive plan</td>
<td>Identified in comprehensive plan.</td>
<td>2</td>
</tr>
<tr>
<td>Need</td>
<td>Important element for Downtown Revitalization.</td>
<td>2</td>
</tr>
<tr>
<td>Extent of service</td>
<td>Will improve service to downtown.</td>
<td>1</td>
</tr>
<tr>
<td>Public support</td>
<td>Strong support; Main St. is badly in need of repair.</td>
<td>2</td>
</tr>
<tr>
<td>Number of people served</td>
<td>Entire city.</td>
<td>2</td>
</tr>
<tr>
<td>Public health or safety</td>
<td>Smooth, well marked street will be safer for travel.</td>
<td>2</td>
</tr>
<tr>
<td>Efficiency of service</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Related projects</td>
<td>Part of program to upgrade all streets in downtown area.</td>
<td>2</td>
</tr>
<tr>
<td>Legal requirement</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Economic impact</td>
<td>No direct impact, but identifiable impact as part of Downtown Revitalization.</td>
<td>1</td>
</tr>
<tr>
<td>Revenue generated</td>
<td>Not appreciable.</td>
<td>0</td>
</tr>
</tbody>
</table>

Total: 16

* 2 points—very important and highly relevant.
1 point—important and relevant.
0 points—no importance and not relevant.
Financial analysis

The financial analysis is intended to provide an estimate of projected financial capacity, for the difference between expected recurring revenues and expected recurring expenditures. The analysis is, in essence, a cash flow projection, and helps predict how much debt the municipality might require in the future to finance capital projects.

Table 1. History of revenue sources ($ thousands) and sample projections.

<table>
<thead>
<tr>
<th>Year</th>
<th>Property taxes</th>
<th>Other taxes</th>
<th>Government aid</th>
<th>License &amp; fees</th>
<th>Total revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$4,090</td>
<td>$1,750</td>
<td>$2,360</td>
<td>$56</td>
<td>$8,000</td>
</tr>
<tr>
<td>2</td>
<td>5,137</td>
<td>750</td>
<td>2,370</td>
<td>95</td>
<td>8,780</td>
</tr>
<tr>
<td>3</td>
<td>5,386</td>
<td>830</td>
<td>2,810</td>
<td>96</td>
<td>9,954</td>
</tr>
<tr>
<td>4</td>
<td>5,807</td>
<td>900</td>
<td>3,000</td>
<td>59</td>
<td>10,193</td>
</tr>
<tr>
<td>5</td>
<td>6,528</td>
<td>937</td>
<td>3,100</td>
<td>71</td>
<td>11,281</td>
</tr>
<tr>
<td>6</td>
<td>7,525</td>
<td>952</td>
<td>3,650</td>
<td>75</td>
<td>12,912</td>
</tr>
<tr>
<td>7</td>
<td>8,110</td>
<td>1,030</td>
<td>4,310</td>
<td>85</td>
<td>14,405</td>
</tr>
<tr>
<td>8</td>
<td>8,352</td>
<td>1,072</td>
<td>4,090</td>
<td>60</td>
<td>15,155</td>
</tr>
<tr>
<td>9</td>
<td>8,838</td>
<td>1,120</td>
<td>5,120</td>
<td>96</td>
<td>16,000</td>
</tr>
</tbody>
</table>

Table 2. History of expenditure patterns ($ thousands) and sample projections.

<table>
<thead>
<tr>
<th>Year</th>
<th>Public safety</th>
<th>Public works</th>
<th>Public education</th>
<th>Other</th>
<th>Total operating cost</th>
<th>Debt services</th>
<th>Total expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>$700</td>
<td>840</td>
<td>4,180</td>
<td>1,580</td>
<td>7,300</td>
<td>700</td>
<td>8,000</td>
</tr>
<tr>
<td>12</td>
<td>810</td>
<td>870</td>
<td>4,195</td>
<td>1,585</td>
<td>7,540</td>
<td>744</td>
<td>8,284</td>
</tr>
<tr>
<td>13</td>
<td>880</td>
<td>905</td>
<td>4,955</td>
<td>1,600</td>
<td>7,550</td>
<td>797</td>
<td>8,347</td>
</tr>
<tr>
<td>14</td>
<td>925</td>
<td>1,025</td>
<td>5,450</td>
<td>1,560</td>
<td>7,950</td>
<td>847</td>
<td>8,797</td>
</tr>
<tr>
<td>15</td>
<td>985</td>
<td>1,075</td>
<td>5,950</td>
<td>1,575</td>
<td>8,475</td>
<td>904</td>
<td>9,379</td>
</tr>
<tr>
<td>16</td>
<td>1,065</td>
<td>1,120</td>
<td>6,456</td>
<td>1,690</td>
<td>10,440</td>
<td>3,240</td>
<td>13,680</td>
</tr>
<tr>
<td>17</td>
<td>1,146</td>
<td>1,160</td>
<td>7,030</td>
<td>1,705</td>
<td>12,100</td>
<td>3,400</td>
<td>15,500</td>
</tr>
<tr>
<td>18</td>
<td>1,220</td>
<td>1,180</td>
<td>7,670</td>
<td>1,770</td>
<td>12,020</td>
<td>3,490</td>
<td>15,510</td>
</tr>
<tr>
<td>19</td>
<td>1,308</td>
<td>1,160</td>
<td>8,351</td>
<td>1,776</td>
<td>12,913</td>
<td>3,087</td>
<td>16,000</td>
</tr>
</tbody>
</table>

Expenditures

The first task in analyzing expenditures is to define the major categories and commodities over time. Expenditure projection is concerned with recurring expenses, any nonrecurring capital expenditures should be separated out. Table 2 indicates expenditure patterns appropriate for the jurisdictional unit (Table 2). Expenditure categories should include objects of expenditure that increase or decrease over time.

Forecasting. Since the capital improvement program will cover 3 to 6 years and cost estimates for the later projects should reflect the cost of under-projection at that time, a standard inflation factor can be used in cost estimates to account for future inflation.

1 Assume annual 3 percent increase in revenue from assessed valuation and assume charge in assessed valuation.
2 Assume other tax revenue grows by $45,000 per year.
3 Assume government aid grows at the rate of 6 percent per year.
4 Assume licenses and fees revenue grows by $5,000 per year.
5 Assume other revenue grows by $90,000 per year.
Proposed capital improvements program

A draft of the proposed capital improvements program for the jurisdiction should be prepared by the program coordinator after the projects and improvements projects have been described in detail, evaluated, and prioritized, and the financial analysis has been completed. With such information, the program coordinator is better prepared to develop a long range program that is acceptable to the jurisdiction's governing body.

The coordinator's report should contain a list of projects and the proposed timing for their completion, and a description and justification of each project. Financial data on the capital cost of the programs should also be included in the report along with the source of funding for each project, estimates of the resulting maintenance and operation costs, and, finally, the anticipated effect of the capital improvements program upon the tax rate and indebtedness of the community.

Projects recommended for the first year of the program should be presented in greatest detail to the public to obtain the forthcoming annual capital budget. In addition, the text of the proposed capital improvements program may be supplemented effec-

References


Many small communities do not have professional staff to do capital programming and will need to rely on outside sources. Some suggested sources of help for small communities are:

- League of Cities or Association of Cities
- League of Counties or Association of Counties
- Cooperative Extension
- Councils of Government (COG's)
- Private consultants.

This publication is part of the Coping with Growth series produced by the Western Rural Development Center. Other titles in the series include:

- Evaluating Fiscal Impact Studies: Community Guidelines
- Minimizing Public Costs of Residential Growth
- Coping with Rapid Growth: A Community Perspective
- Citizen Involvement Strategies in Community Growth Issues
- Interagency Coordination and Rapid Community Growth
- The Public Policy Process: Its Role in Community Growth
- Economic Multipliers: Can a Rural Community Use Them?
- Incoming Population: Where Will the People Live?
- Growth Impacts on Public Service Expenditures: Some Questions for the Community
- Assessing Fiscal Impact of Rural Growth
- What Does the Impact Statement Say About Economic Impacts?
- Needs Assessment Techniques
- Population Change: Do You Know the Trends in Your Community?

Copies may be obtained from the Extension Service at cooperating institutions or from the Western Rural Development Center in Corvallis, Oregon.