

INFRASTRUCTURE PROJECT AND INFORMATION MANAGEMENT

Service Description

The Infrastructure Project and Information Management service is composed of two major processes:

- planning, designing and managing construction of infrastructure projects
- creating, recording, managing and providing infrastructure information

Planning, designing and managing construction of capital infrastructure projects Capital infrastructure projects include preservation, maintenance and expansion of the city's infrastructure systems including: transportation system of streets, alleys, bridges and bikeways; wastewater collection system; stormwater system of piped and open waterways and treatment facilities; airport facilities; and park and open space system facilities.

The infrastructure asset base is built either publicly, using city resources for planning, design and construction management, or privately through review, approval, and acceptance of privately constructed public infrastructure projects for new development.

Support processes for capital projects include real estate appraisal and acquisition; land use review; rate setting and financing mechanisms for improving and maintaining the infrastructure; environmental assessment for capital projects; and long-term planning associated with the Capital Improvement Program (CIP).

Creating, recording, managing and providing infrastructure information Documentation of the built infrastructure (final version of plans and maps) is recorded in infrastructure management systems and Geographic Information System (GIS) supporting asset management, system design, operation and maintenance activities and providing information to the public.

This service has an operating budget of over \$4 million, primarily in the Professional Services Fund, and is provided by approximately 50 FTE.

Historic Perspective

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| 1981 | Professional Services Fund established to recover operating costs associated with design and construction of capital improvements. |
| 1988 | Engineering Redesign Committee recommendation implemented forming two Project Teams, the Information Team and the Survey Team. |
| 1991 | Revision in Systems Development Charge legislation required creation of new methodology and administrative procedures for four new funds. |

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| 1999 | Established the Development Review, Survey and Acquisition Team to consolidate and coordinate Public Works land use review. |
| 1999 | Eugene Arterial and Collector Street Plan adopted including update to the 1996 Local Street Plan |
| 2000/01 | New Arterial and Collector Street Assessment Policy and new Local Street Assessment Policy. <i>MWMC Wet Weather Flow Management Plan</i> confirms the local wastewater system rehabilitation program. |
| 2001 | Organizational review of the Transportation Division completed and Transportation Planning Team moved to the Engineering Division. |
| 2003 | Public Improvement Design Standards adopted |
| 2005 | Review and structural changes to the Professional Services Fund to assure financial stability of the fund |
| 2006 | Adoption of Stormwater Development Standards and Stormwater Management Manual |

Citizen Involvement

The work program for this service is predominately guided by the Capital Improvement Program (CIP). The CIP is reviewed and approved by the Planning Commission, Budget Committee and the City Council. In addition, the Budget Committee and City Council approve the annual capital budget which determines the spending authority for the fiscal year. The Council also reviews and approves the formation of Local Improvement Districts and the levying of special assessments which includes multiple public hearings and meetings with citizens. The Planning Commission and City Council adopt policies that guide the design standards of capital projects and requirements of new development. Planning and rate setting efforts (SDC Rates Advisory Committee) provide opportunities for citizen involvement on ad-hoc committees.

Customer Input

Input typically occurs through petitions or polling of adjacent property owners regarding their interest in upgrading their street or installing sewers. Direct correspondence with property owners affected by a capital project through public hearings, information sessions, workshops, and surveys are other methods used.

Mission

We work in partnership with citizens, the City Council, City departments, and external agencies to plan, design, and manage construction of infrastructure. We provide information, analysis, planning, landscape architecture, and engineering services in a professional, innovative, and cost-effective manner,

balancing the development needs of a changing community with preservation of the natural environment.

Outcomes

- Create, enhance, modify, preserve and/or repair the City's infrastructure.
- Respond to the infrastructure needs of the community while preserving and enhancing the natural environment.
- Implement capital elements of long-range comprehensive plans for the City's infrastructure.
- Provide accurate and timely information for decisions regarding the City's infrastructure.

Operating Principles

- We provide professional services that are effective, economical and timely.
- We provide accurate, understandable and accessible information and technical expertise to meet the needs of our customers.
- We balance the goals and policies of the organization with the competing needs and interests of our customers and stakeholders by considering and integrating a variety of points of view.
- We provide proactive leadership to anticipate trends and future infrastructure needs of the community.

Current Operating Environment

External Trends

Citizen Participation

Citizens expect to be able to participate in shaping their environment, leading us to provide information about what we plan to do, requiring us to be more creative in how we deliver services, and compelling us to broaden the alternatives we consider and present. We need to consider and implement improved tools to communicate effectively with the public. We also need to consider how the increased level of citizen participation affects a project's budget and schedule.

Nationally, Context Sensitive Solutions (CSS) processes are being used to develop community support for transportation projects. The improvement of River Avenue to urban standards used a CSS process for the redesign of the project. In FY07 the City and neighborhood residents formed the Crest Drive Community Team to guide a CSS process for the design of Crest Drive, Friendly Street and Storey Boulevard.

Cost of Construction

Oregon's average Construction Cost Index (CCI) growth rate from 1990 through 2001 was 2.3%. Since 2004, the average annual growth rate for

Oregon's CCI has been 13.1%. Costs are rapidly increasing as a result of general inflation for commodity costs (driven by fuel prices), increases in construction material costs (world demand has changed), national and Oregon economic recovery (more private construction work) and national weather disasters (Hurricane Katrina). The rapidly increasing cost of construction requires us to better track our overall project budgets and manage the scope of our projects.

Regulatory Changes and Complexity

New environmental protection requirements established locally and by State and Federal governments are being incorporated into our processes for designing, reviewing and constructing streets, wastewater systems, stormwater facilities and parks and open spaces. Examples of recent regulations affecting our processes include: Goal 5 water resource protection and stormwater development standards (Stormwater NPDES Permit). In addition, there are existing federal, state and local regulations protecting wetlands and water quality. Efforts to address existing and new regulatory requirements necessitate changes to our processes, adjustments by those doing business with us, additional public participation, and more precision and thoroughness when writing standards for contractors to follow. These additional efforts also result in increased costs, and an overall lengthening of project timelines.

Internal Conditions

Sustainability

In February 2000 the City Council adopted a resolution committing city elected officials and staff to abide by sustainable practices in carrying out their duties. The resolution states:

"The concept of sustainability guides city policy and actions. The City of Eugene is committed to meeting its current needs without compromising the ability of future generations to meet their own needs. The City will ensure that each of its policy decisions and programs are interconnected through the common bond of sustainability as expressed in these principles. The cumulative and long-term impacts of policy choices will be considered as we work to ensure a sustainable legacy."

Recently, the Mayor's Sustainable Business Initiative task force reported the conclusions and recommendations of its work to the City Council. The recommendations include 11 specific recommendations for City government. It is anticipated that the focus on sustainability will continue to guide our management of public infrastructure projects.

Declining Transportation Infrastructure and Continued Funding Constraints

The deterioration of the transportation system is a result of the shortfall in funding for operation, preservation and maintenance. As maintenance is delayed, additional capital cost is required to rehabilitate the infrastructure. The inventory of streets needing to be reconstructed rather than requiring a less costly preservation technique (e.g. seal coat or overlay) continues to grow as maintenance is deferred. This issue has been partially addressed by the implementation of a reimbursement fee element to the transportation system development charge and a \$0.05 per gallon motor vehicle fuel tax. Currently, the Council is considering a transportation system maintenance fee to fund operation, preservation and maintenance of the transportation system infrastructure.

Performance Measures

Core Processes

Manage Infrastructure Projects

- Percent of survey respondents (residents involved in a project from the beginning conceptual stages or those who have identified a related service need) satisfied that local stormwater or street projects meet or exceed project objectives.

Manage Information

- Percent of internal customers satisfied with the usefulness of information, level of support, and availability of information for the following services:
 - Infrastructure maps and data management process
 - Infrastructure applications support

Total System

Effectiveness

- Cost increase as a result of change orders as a percentage of total project cost.

Efficiency

- Cost of design compared to contract cost. (Assessable and non-assessable)
- Cost of construction management compared to contract cost.

Financial

- Comparison of Eugene's professional services rate to private sector rates in public contracts for professional services.

Customer Satisfaction

- Percent of contractors satisfied with Capital Project Construction Plans and Specifications, Inspection, and Survey.

Strategy 1: Manage construction costs.

Objective: 80 percent of engineer's estimates are within 20 percent of awarded bid.

Work Activities:

- Include cost escalation factors for asphalt in construction contracts.
- Accept material and method substitutions to save time and cost.
- Plan to bid projects early in the calendar year to increase competition.
- Investigate the use of recycled materials.
- Track construction cost management strategies used by ODOT and other public agencies.

Strategy 2: Assess and refine tools to receive customer input into project development and implementation.

Objective: 80 percent of adjacent property owners/residents responding to a survey report they were provided the opportunity to contribute input prior to a project.

Work Activities:

- Continue to improve access to information about proposed and active projects using the Internet.
- Develop a survey to assess the appropriateness of tools and the effectiveness of gaining customer input.
- Update the Project Manager Manual.
- Continue to provide a centralized point for customer contact for assessment questions on assessable projects.
- Participate in the regional *Keep Us Moving* program.
- Further develop skills in Context Sensitive Solutions (CSS) process.

SYSTEM MAP

