

# Akron Engineering Bureau

## 2005 Annual Report



### City of Akron Department of Public Service

Donald L. Plusquellic  
Mayor

Gerald Holland  
Service Director

David J. Celik, P.E.  
City Engineer

Vision  
City Engineer  
Design Division  
Environmental Division  
Construction Division  
Administrative Services  
Revenue/Expenditures

To: Customers  
From: David J. Celik, P.E.  
City Engineer



Re: **Akron Engineering Bureau, 2005**

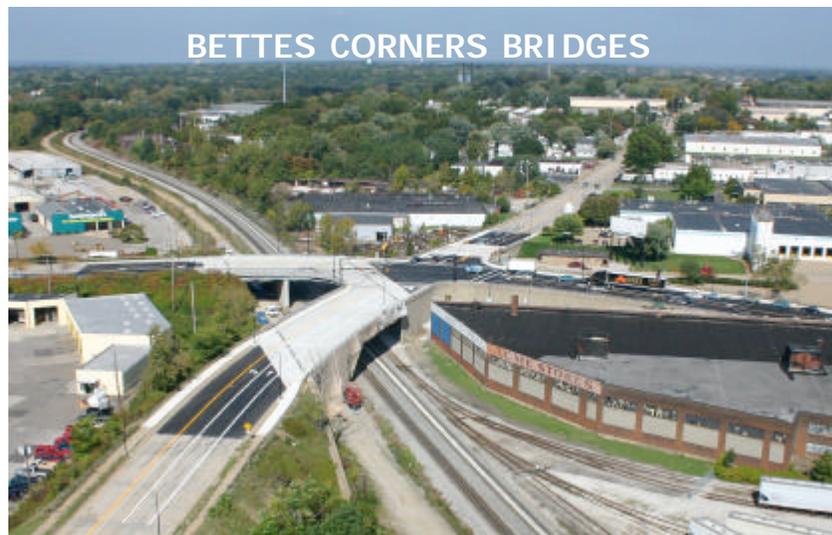
Enclosed for your review and consideration is the 2005 Akron Engineering Bureau Annual Report

I would like to briefly review last year. Generally, we met our goals for 2005. We completed the Action Plan for the WCO initiative, which is a major milestone in this process. We began to work on developing relationships with outside agencies and other governmental units that have common interests. We also continued our emphasis on training. Our primary focus is on cross training and enhancing technical skills.

In 2005, the Engineering Bureau was successful in attracting outside funds for construction projects. We received federal earmarks of more than \$10 Million in the SAFETEA-LU Transportation Act for new transportation projects and submitted successful Ohio Public Works Commission applications for 14 public improvement projects throughout the city.

2005 was another productive year with the Capital Budget. We awarded over \$19.4 million worth of projects and processed almost \$36 million in contractor and consultant payments. Some of the notable projects include: continued construction of the CSO Rack 40/31 project, Cascade Locks Bikeway, Hope VI public improvements to support the AMHA housing initiative, Hickory Street development, Bettes Corners bridge and we are providing construction inspection services for the reconstruction of US 224. In addition to these and the other projects in the Capital Budget, we administered 14 emergency projects. Most notable was the renovation of a former Brown-Graves building for the Biz-Mat waste handling facility.

The Engineering Bureau is looking forward to new challenges in 2006.



# AEB VISION



## Akron Engineering Bureau (AEB) Vision 2002

**Our vision is to provide professional engineering services that meet the infrastructure needs of our customers by:**

- Planning projects that meet the goals of the City.
- Designing projects in a cost effective manner.
- Constructing projects in compliance with the contract documents.

### **To reach this vision means:**

- Utilizing the experience, education and training of our employees to create a more flexible work force.
- Empowering our employees to manage projects more independently.
- Use of innovative plan development, design and construction techniques to minimize project costs.
- Maintaining the highest level of ethics and professionalism.

### **Long Term Vision Affirmation**

**We will affirm and re-enforce our vision by operating the AEB with the following philosophy:**

Reduce the need for supervision by creating additional Engineering Technician III and Civil Engineer III promotional opportunities, and filling those positions with capable and motivated employees who can independently coordinate all aspects of a project.

Assign employees based on:

- The overall needs of the AEB.
- The experience level necessary to administer the specific project.
- The opportunity to diversify the experience of the workforce.
- The expectation of minimizing project costs.

Rotate employees between the Design/Environmental Division and the Construction Division so that all employees become proficient in both project design and construction administration.

Maintain the proper balance between in-house design and consultant design.

Determine and monitor overhead rates including project development and programming costs in order to fully understand the cost-effectiveness of the AEB.

**Administrative Services**

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kostuke@ci.akron.oh.us

**Construction Division**

**James P. Weber PE**  
(330) 375-2740 Fax (330) 375-2344  
weberji@ci.akron.oh.us



**City Engineer**

**David J. Celik PE**  
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**Design Division**

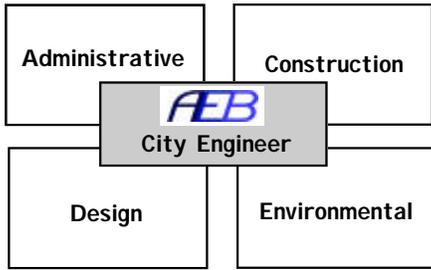
**Michael L. Madonio PE**  
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madonmi@ci.akron.oh.us

**Environmental Division**

**Patrick D. Gsellman PE**  
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gsellpa@ci.akron.oh.us



**CSO Rack 40**



# City Engineer



## Core Functions

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The Akron Engineering Bureau (AEB) is responsible for the planning, design and construction of the public improvement projects of the City of Akron. Our goal is to produce high quality projects on schedule and within budget. In 2005, the Akron Engineering Bureau awarded over \$19.4 million worth of public improvements. The Bureau also paid out nearly \$36 million in construction payments during the year. The types of projects include: street and sidewalk reconstruction, bridge maintenance and reconstruction; parks, playgrounds and athletic fields; building construction and rehabilitation and public utilities (water, storm and sanitary sewer system improvements).

AEB employees maintain cooperative working relationships with the public, City Council, the Administration, other City divisions, consulting engineering firms, utility company representatives, contractors, developers, suppliers and federal, state, county and other municipal agencies. While accomplishing our mission, the highest level of ethics and professionalism is maintained.

The Engineering Bureau continued its active participation in the World Class Organization (WCO) initiative in 2005. The City Engineer is a member of the Continuous Improvement Team (CIT) and Bureau employees have continued the work of the E3 Core Design Team.

## 2005 Goals

Reduced our in-house costs by increasing flexibility of employees working for multiple divisions.

Implemented the first phase of the Customer Service Request system.

Completed the 2003 project manpower projections.

Conducted an in-house training seminar for 19 Project Managers for our consultant contract development process.

Assigned fifteen Engineering Technicians to the Construction Division from the Design and Environmental Divisions for the construction season.

Assigned six Engineering Technicians to the Design or Environmental Divisions for the winter season.

Assigned four Civil Engineers to the Construction Division from the Design and Environmental Divisions to be Resident Project Representatives in an effort to reduce construction administration costs and develop design skills.

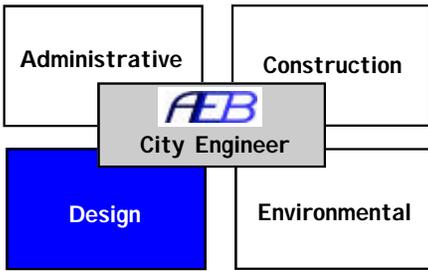


## Service Levels

In 2005 the Engineering Bureau processed 259 contractor invoices for \$30.4 million, and 463 consulting invoices for \$5.3 million, totaling \$35.7 million.

The Engineering Bureau awarded and administered 48 construction contracts with 23 different contractors for a total of over \$19.4 million in 2005.

The Engineering Bureau attended 24 public meetings to inform the public about City projects and procedures.



# Design Division



## Core Functions

- Programming/Budgeting
- Detail Design
- Project Management
- Public Involvement
- Transportation Program
- Consultant Contract Administration
- Standards and Specifications
- Plan Review
- Surveying
- Mapping



Cascade Locks Bikeway

Jim Anderson Wayne Bachus Travis Capper Jeff Caston Andrew Davis Michelle DiFiore Rick Fischer  
 Alicia Garnett Bob Geiser Jason Harris Dennis Hawthorne Christine Jonke Randy Keirns Leah Lee  
 Mike Madonio Bill Magyar Bill Marras Beth Mettle Jeff Miller Dianne Reed Phil Rohr Chad Root Rob  
 Scarletelli Adam Staller Sanford Taylor Michael Teodecki Don Vardon Jim Vechery David Wilkerson

## 2005 Goals

Provided monthly in-house training opportunities throughout the entire year for the Design staff on relevant topics.

Conducted in-house AutoCAD training for 34 employees by the end of January.

Worked with Administrative Services to create a consultant performance file to store and retrieve consultant performance evaluations. The evaluations can be used in the local selection process, the quality based selection process, and the annual supplemental services contract renewals.

## Major Accomplishments

Completed plans for several improvements along the East Market Street Corridor that include roadway improvements from Martha Avenue to Hilbish Avenue, a bridge deck replacement over Kelly Avenue, and a signalization upgrade from Summit Street to SR 8. Construction is scheduled to begin in 2006.

Completed plans for full improvements to Manchester Road Phase 1 from Carnegie Avenue to Waterloo Road. Construction is scheduled to occur in 2006.

Completed plans for signalization upgrades to the following: Tallmadge Avenue from Howard Street to Gorge Boulevard; Perkins Street from Main Street to SR 8; and Canton Road from Mogadore Road to Triplett Boulevard. Construction is scheduled to occur in 2006 for all three projects.

Completed plans for the extension of the Towpath Trail Bikeway from the intersection of Quaker Street and Ash Street to the existing trail at Lock 2 Park. Construction is scheduled to occur in 2006.

Worked successfully again with LeBron James through Nike to upgrade outdoor basketball courts at three locations including Perkins Pool Park, Lane-Miller Sports Complex, and Morgan Park.

Completed plans for the Stubbs Justice Center Roof Replacement project. Construction began in 2005 and will be completed in 2006.

Completed plans for public improvements in support of business expansions in the Five Points Renewal Area. Construction is scheduled to occur in 2006.

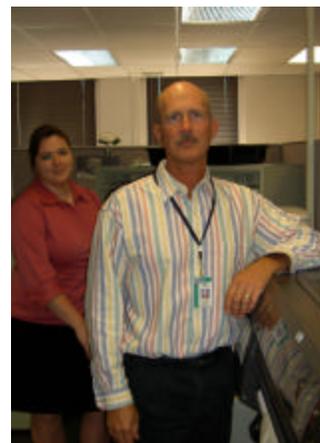
Completed plans for the demolition of the Canal Park Tower on State Street. Demolition of the structure will occur in early 2006.

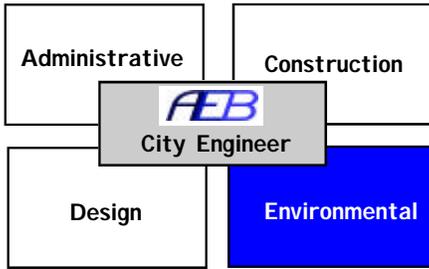
Completed plans for the build-out of the remainder of the Industrial Incubator. Construction began in 2005 and will be completed in 2006.

## Training

Irrigation Systems  
Brick Pavers  
QA/QC Measures  
CPR and AED Training  
Autoline Features of Survey Equipment  
Updates on Modular Block Retaining Walls  
Roundabouts  
State Plane Coordinate System  
AutoCAD 2005 Upgrade  
AutoCAD Project Design  
CSR Training

Performance Management  
ODOT's Project Development Process  
ODOT Government Day  
2005 AMATS Annual Meeting  
Civil 3D Fundamentals  
Safe and Efficient Intersections  
Ohio Transportation Engineering Conference  
AutoDesk University 2005





# Environmental Division



## Core Functions

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Detailed Design  
 Project Management  
 Developer Assistance, Coordination  
 and Plan Review  
 Storm Water Management  
 Sanitary Sewer Evaluation Studies  
 Water Pollution Control Station  
 Joint Economic Development Dis-  
 tricts (JEDD)  
 Slope Stability/Erosion Control  
 Brownfields  
 Facilities Planning

Combined Sewer Overflows (CSO)  
 GIS  
 Industrial Park Site Development



Brad Beckert   Scott Davenport   Patrick Gsellman  
 Genny Hanna   Tish Jernigan   Mark Pirie   Jeff VanNatten

## 2005 Goals

A draft report on the Northwest Storm Outlets was completed using in house staff. The report gave slope/ground conditions and a preliminary assessment for each location.

Working with Summit County Metro Parks as well as the neighboring park districts in Portage and Geauga Counties development of common goals and grant opportunities were discussed. Project priority lists were developed between the groups. Potential grant opportunities for these projects will be explored in 2006.

AEB actively participated in the Cuyahoga Valley Community Council



## Major Accomplishments

During September of 2005 the Water Pollution Control Station was the site for two pilot projects. The first pilot was WWETCO CMF technology (fuzzy filter) and the second pilot was the Bromine Disinfection technology. Both of these technologies are being evaluated for possible uses in the upcoming Combine Sewer Overflow Long Term Control Plan projects. The pilots were very successful and the results will be evaluated during design of the upcoming projects.

The Environmental Division processed 120 zoning comment requests for the Planning Department and 215 One Stop Plan Reviews were completed for the Building Department.

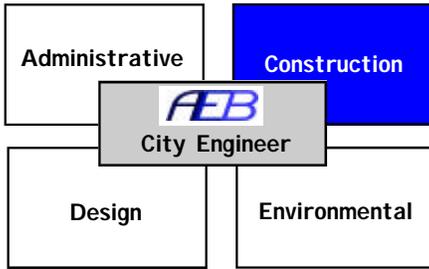
Cleveland Massillon Road Pump Station was bid in 2005. This project is a \$1.6 million project that replaces a county owned treatment plant. A significant amount of treated waste water will be removed from Yellow creek when the pump station is operational.

Mason Park Demolition project was designed and constructed in order to provide a suitable property for the Akron Public Schools to construct a new school building.

## Training

- AutoCADD Training
- AutoDesk Training
- Construction RPR Seminar
- Tour of CSO Facilities
- Tour of Tunnel facilities
- EPA Phase II Storm Water Seminar
- CPR/AED Training
- Brownfields
- EEO Laws
- Supervisory Training
- Fire Safety
- 
- Arbitration Dispute Resolution 2005
- Clean Ohio Application
- Environmental law Seminar
- Storm Water best management practices seminar
- Collection Systems Workshop
- Wetland Delineation and Permitting
- 7i Training
- CSR Training
- WEF AWWA Joint Utility Conference
- Design Div. Training Sessions
- Summit Soil & Water District





# Construction Division



## Core Functions

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Construction Project Administration  
 Plan Review  
 Materials Testing Laboratory  
 Bridge Inspection and Inventory  
 Public Involvement



Juan Pablo Ascarrunz Mike Brehob Dave Cooke T. Scott Davenport Karen Dyer Rick Falkenstein Fred Fassnacht  
 Bill Hahn Jim Hall Jason Harris Chuck Hirsch Mike Huber Kerry Jones Jason Kline Chad Kobelt Richard Kovach  
 Bill Magyar Jon Malish Paul McCutcheon Jeff Miller Cory Moke Mark Moore Larry Peaslee Barry Pruitt  
 Jody Richards Adam Staller Bill Stump Mike Watt Jim Weber David Wright MikeWytrzyaszczewski Jason Zajac

# 2005 Goals

Apply to the Ohio Department of Transportation for beautification grants for the White Pond Gateway. Application for phase I shall be submitted by February 1, 2005. Application for phase II shall be submitted by December 1, 2005.

Update the Resident Project Representative Source Book by March 31, 2005

Conduct the Resident Project Representative seminar by March 31, 2005.

Continue to monitor Gypsy Moth infestation and work with the Ohio Department of Agriculture to have the highest levels treated by June 15, 2005.

Update the landscape sections of the Construction and Material Specifications and write addenda by June 30, 2005.

Have 100% of the Resident Project Representatives using hand-held computers for daily reports by October 1, 2005.

## Major Accomplishments

### Transportation

Battles Avenue  
Cuyahoga Street, Phase II  
S. Hawkins Avenue  
Wolf Ledges Median Removal  
Bettes Corners Bridges  
North Main/Furnace Street Streetscape

### Parks and Recreation

Davenport Park Play Area  
Ed Davis Community Center Roof  
Waters Park Retaining Wall

### Buildings

Fire Station 9 HVAC Improvements  
Superblock Parking Deck Repairs  
Sewer Maintenance Roof Replacement

### Utilities

Barcelona Sewer Lining

### Petitioned Streets

Baird Street  
Bishop Street  
Raasch Avenue  
Roslyn Avenue

### Emergency Contracts

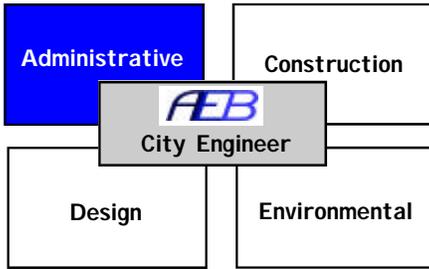
Sand Run Trunk Sewer  
ODNR Lock 1  
Morley Health Center Façade  
Willow Run Trunk Sewer  
Biz-Mat Building  
Market Street Sewer at Main Street  
Bonnie Brae Vault  
Bowery Street Sidewalk  
Courtland Avenue Storm Drainage  
Elizabeth Park Community Center Roof  
Good Park Clubhouse  
Mill Street Bridge  
Municipal Service Center Garage Door  
Portage Path Culvert

## Training

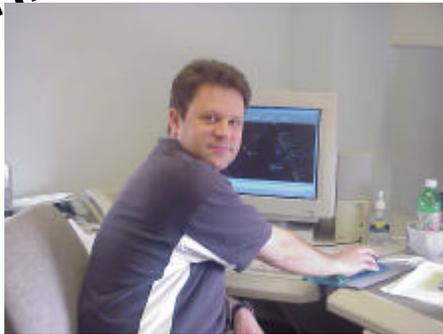
Asphalt Paving  
Concrete Testing  
Construction Contracts  
Design/Build  
HazMat  
RPR Seminar

Tree Sourcing  
World of Concrete





# Administrative Services Division



## Core Functions

- Legislation
- Contract Preparation
- Street Improvement Petitions
- Street Dedication Petitions
- Private Development Agreements
- Underground Records
- Central Records Files
- Service Counter
- Secretarial Staff
- Computer Mapping/GIS
- Resolving Legal Claims
- Computer Hardware Support
- Computer Software Support



Beverly Carlson Wendy Doyle Linda Fallon Brent Kelley Kenneth Kostura Marianne Kracker  
 Larry Thomas Patty Trudics

## 2005 Goals

Determine the feasibility of making bid documents available electronically, either on disk or on the Internet. This will make the bidding process more convenient to our customers and reduce the effort required by staff to process the bids. The goal includes restructuring procedures and training the staff.

Update the Engineering Bureau Employee Handbook by the end of the second quarter.

Update the Sewer Underground Record maps with as-built project information. All new as-built information will be added as it becomes available, plus the information from 20 backlogged projects.

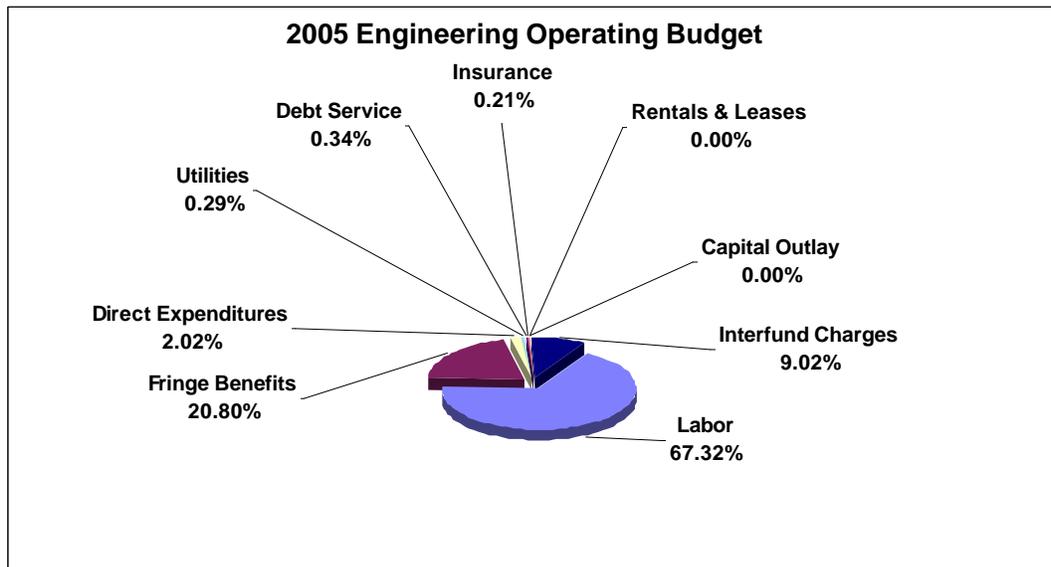
## Training

Morf Software Training  
Secretarial Support Cross-Training  
GIS Seminar  
Consultant Contract Seminar  
ODOT EEO/DBE Training  
AutoCAD Forum  
RPR Seminar  
Design Seminar  
Public Records and Open Meeting Laws in Ohio Seminar  
Front Desk Safety and Security

CSR Training  
CPR and AED Training  
Traffic Calming Webinar  
7i Training  
Transitional Work Program  
Performance Evaluation



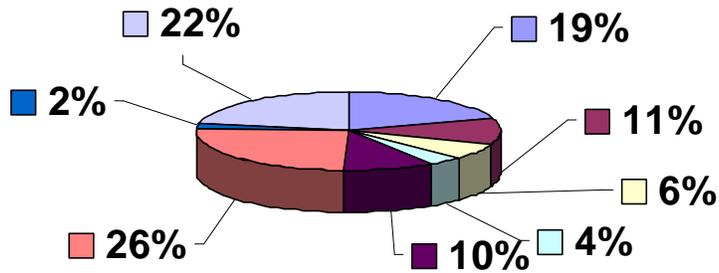
## 2005 Budget



# 2005 Capital Budget

## 2005 Sources of Revenue

- Income Tax
- General Obligation Debt
- Sewer Capital Fund
- Water Capital Fund
- Community Development
- Federal & State Transportation Funds
- Ohio Public Works Commission Funds
- Other



## 2005 Program Expenditures

- Public Utilities
- Transportation
- Economic Development
- Debt Service
- Housing & Human Resources
- Public Facilities
- Parks & Recreation
- Other

