

City of Ames Public Works Project/Construction Management Software

The City of Ames is looking to implement a Project/Construction Management Software to assist us with capital improvement planning and fund tracking. Our goal is to replace disconnected spreadsheets with a single authoritative system while retaining flexibility.

The following information is provided to help you frame your demonstration for our team and is not a procurement document.

How Public Works Operates Today

Our Capital Improvement Program currently includes 37 separate programs administered by the Public Works Department with approximately \$30M in improvements spent per fiscal year (July 1st through June 30th). Every year our CIP is updated and published with an outlook over the next 5 years. These improvements include:

- Streets
- Shared use paths
- Airport
- Water
- Sanitary sewer
- Storm sewer
- Stream/River/Pond restoration
- Right of Way restoration

These improvements are funded each fiscal year by one or more of the following:

- General obligation bonds
- Road Use Tax
- Water utility fund
- Sanitary sewer utility fund

- Stormwater utility fund
- State revolving loans
- MPO/STP funds
- Federal /State grants

Our staff is led by our Public Works Director and includes two division heads (Municipal Engineer and Traffic Engineer) who plan improvements and track funding; four engineers/PMs who manage/administer each project from design through construction; four construction observers who inspect and document each project through construction.; and an analyst who helps the engineers prepare construction pay applications and change orders. These will be the primary users of any software implemented.

Our current tools and workflow are heavily spreadsheet driven. Excel is used for:

- CIP planning
- Project tracking
- Bid tabs
- Quantity tracking
- Pay estimates
- Fund and account tracking

Data is duplicated across multiple files and sheets. Manual roll-ups and reconciliation are common. Field quantities are often transcribed later.

Local projects are bid by paper submission through our Purchasing Department. The Purchasing Department does have the ability to receive electronic bids through lonwave but they are not familiar with Iowa bid law , unit price bids, or the processes developed in Public Works so we choose to not use their system so we can ensure accuracy.

What we are currently tracking

A. CIP-Level Tracking

- Project name and description

- Fund source (GO Bonds, Road Use Tax, Water, Sanitary, Stormwater, Grant, etc.)
- Fiscal year(s)
- Budgeted amounts (preliminary cost estimates)
- Program-level rollups by fund

B. Project-Level Tracking (sortable by each)

- Finance account codes (fund, project number)
- Phase (planning, design, construction, close-out, complete)
- Project manager
- Inspector
- Contractor
- Designer (internal or consultant)
- Milestone dates
- Purchase order(s)
- Staff time allocation (hourly technicians and salary engineering)
- Planned vs. actual costs (design, construction, city staff)
- Bid-to-construction cost comparisons

C. Bidding and Contract Tracking

- Unit price bid items per Iowa SUDAS (these are standardized items)
- Engineer's estimate
- Bid tabulation of all bidders
- Awarded contractor and contract prices
- Change orders (signed by Contractor/Owner, Municipal Engineer, Public Works Director, and City Manager) these may go to council depending on amount and once approved, go to Purchasing for a purchase order.
- Revised contract amounts

D. Construction & Pay Estimates

- Quantity tracking by bid item (inspectors measure each item in the field and input the total into the spreadsheet)
- Multiple pay estimates per contract (typically 1 per month)
- Change orders affecting quantities and cost
- Running totals
- Remaining quantities
- Retainage
- Pay Estimate date range
- Monthly pay estimates (signed by Municipal Engineer and Public Works Director) these go to council for approval and then to finance for payment

I have attached the following to help explain our current process:

- Sample Bid Tab-Pay Est-Change Order document
 - Used by PMs and Analyst to generate forms for signature and processing
- Sample CIP Overall Budget Planning
 - This only includes the engineering division projects and not any traffic projects (airport, shared use path, signals, etc)
- Sample Project List
 - This only includes the engineering division projects and not any traffic projects (airport, shared use path, signals, etc)

What we would like vendors to demonstrate

Please focus on:

- How your system handles **unit-price contracts**
- Field quantity tracking and pay estimate generation
 - Is there mobile-friendly inspector entry?
 - Quantity tracking
 - Daily diary
- Fund and account-level cost tracking (GO Bonds, water funds, etc.)
 - Is there a way to manually import fund levels monthly (we rely on finance reports from our Naviline system to see remaining unencumbered funds)?

- Can timesheets be entered into the software?
- Contractor interaction and approvals
 - Can they self-register?
 - Can bids be submitted electronically?
 - Is there electronic approvals and signatures?
- Reporting and data export capabilities
 - Active projects listed by phase, contractor, designer, etc.
 - Number of projects completed per fiscal year
 - Number of projects inspected per fiscal year
 - Fund balance
- How your system would replace spreadsheet-based workflows