



January 16, 2018

Mayor and Ames City Council:

Since we are about to embark on a two-year adventure to update our Land Use Policy Plan (LUPP), a final decision by the City Council regarding how much the city will expand, and in what direction, will not be known for some time. The final decisions regarding the LUPP will impact the long-range plans for our five utilities and transportation system and will help determine the associated infrastructure projects that will be included in future Capital Improvement Plans. However, even in the face of this uncertain future, there are currently significant needs to address our aging infrastructure and to assure connectivity in our road and utility systems within our existing city limits. It is with these goals in mind that I am attaching for your approval the City Manager's recommended Capital Improvements Plan (CIP) for Fiscal Years 2018/19 through 2022/23. This Plan calls for an investment of various City funding sources totaling \$208,492,089 over the next five years. The following are highlights of the proposed Plan.

**PUBLIC SAFETY - \$3,681,000**

For many years, Story County, the City of Ames, and Iowa State University have contracted with the same private company to provide radio service for our emergency and non-emergency departments. To date, this system has provided a high degree of interoperability. Unfortunately, the system is based on very old technology and performance/coverage issues are creating problems for our radio users. A consulting firm hired by the Story County E911 Board has estimated that a new county-wide system, including the radios, will cost \$8,000,000. While it is currently anticipated that the City will pay 25% of the total cost of the new system (\$2,000,000) as reflected in the **City-Wide Radio System** (page 9), the City's share of the project and/or the identified revenue source might change as further analysis is performed.

Over the past years, various City Council members have questioned the use of Local Option Sales Tax (LOT) funds for minor improvements to our fire stations. Staff is confident that the use of these "community betterment" funds for the fire station projects is

allowed under the referendum that established the local option tax. However, based on previous City Council feedback, the revenue sources for the **Fire Station #1 Concrete Replacement** (page 11), **Fire Station #1 Emergency Generator** (page 12), **Keyless Entry System** (page 13), and **Fire Station #3 Concrete Patching** (page 14) projects have been shifted from LOT to G.O. Bonds or General Fund in this CIP.

<b>UTILITIES - \$113,182,750</b>
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The largest dollar commitment to our City infrastructure over the next five years will be directed toward our five utilities. This investment is needed to maintain reliable service to our customers, assure safety for our employees and users, and protect our environment.

**ELECTRIC SERVICES - \$35,825,000**

You will note from a review of the projects reflected in this CIP that a major emphasis over the next five years will be to upgrade and modernize our transmission (\$3,320,000) and distribution (\$5,045,000) systems. This work will reduce the number and shorten the duration of electric outages to our customers.

We will continue our emphasis on the highly successful **Demand Side Management** program (page 23). The projected expenditure of \$6,000,000 over the life of this CIP is directed toward a wide array of incentives to encourage our customers to reduce our system peak load and thereby delay the next very expensive capacity expansion for our Electric Utility.

As always, the Power Plant will receive the major portion of our attention, with \$21,460,000 earmarked to maintain and upgrade our two base load units (Units 7 & 8) and two peaking units (Combustion Turbines 1 & 2). It is imperative that these units are in excellent working condition to ensure that the Refuse Derived Fuel produced from our garbage at the Resource Recovery Plant can be burned as an alternate fuel source, to provide a more economical source of electricity when the cost to purchase energy on the open market is more than the cost of our units to produce electricity, and to maintain a reliable option to produce electricity for our customers should our two transmission lines that are connected to the electrical grid become inoperable.

The City Council's commitment to sustainability is reflected in the **Street Light LED Retrofits** (page 26). The expenditure of \$1,000,000 over the next four years will complete a seven-year program to convert our High Pressure Sodium and Mercury Vapor fixtures with Light Emitting Diode (LED) fixtures. This changeover will result in lower maintenance costs, a reduction in energy usage, a decrease in the City's carbon footprint, and a lessening of glare on surrounding properties.

An interesting new project introduced in the CIP is the **Solid Waste Boiler Engineering Study** (page 43). If proven feasible, the construction of a new, smaller boiler for burning only Refuse Derived Fuel (RDF) from the Resource Recovery Plant will allow us to reduce the operating time for our larger boilers, Units 7 and 8, and purchase energy from the open market when economically attractive to do so. In this way the Electric and Resource Recovery utilities will benefit from this project. Currently, one of our larger boilers must stay operational in order to burn RDF even when it is cheaper to buy energy from the open market than to produce energy in our boilers.

### **WATER UTILITY- \$19,627,500**

Currently, there are approximately 10.4 miles of 4-inch water mains that should be replaced with larger distribution lines in order to improve fire-fighting capabilities and water quality. In response to this need, the **Water System Improvements** project (page 71) has been increased from \$6,500,000 in the previous CIP to \$7,550,000 in this CIP.

This CIP continues a commitment to a multi-year project to convert the current water meter reading system to an automated meter reading system. While the **Advanced Metering Infrastructure** project (page 53) involves water meter reading only, the new system, which will be in place by FY 2022/23, is designed to accommodate electric meters as well.

Now that the new Water Plant is operational, it is time to make plans for the old site. Therefore, the **Old Water Treatment Plant Demolition** (page 57) earmarks \$3,520,000 to clear the site of all structures except for the Technical Services Building, which will continue to house our Laboratory and Water Meter offices.

Even with a new facility, the **Water Plant Facility Improvements** project (page 54) reflects expenditures of \$1,861,000 over the next five years for additional pumps at the High Service Pump Station, dehumidification in the Lime Slaking Building, and modifications to the Supervisory Control and Data Acquisition (SCADA) system.

### **SANITARY SEWER - \$48,418,000**

The most impactful project in this utility will be **Nutrient Reduction Modifications** (page 68). This project will be required by the Iowa Department of Natural Resources in order to achieve its new numeric nutrient limits. To accomplish these new limits, our Water Pollution Control (WPC) facility will need to be converted to a “simultaneous nitrification/denitrification” treatment scheme. By the time it is fully implemented in FY 2024/25, this state-mandated project is estimated to cost our sanitary sewer customers approximately \$36,000,000. Of this total, \$13,530,000 is planned to be expended within the five year timeframe of this CIP.

The WPC Plant is now 28 years old and the various mechanical systems and structures at the facility are in need of repair. This CIP reflects \$14,285,000 for the major projects that have been identified as needing modifications: **Digester Improvements** (page 62), **Cogeneration System Maintenance** (page 63), **WPC Plant Facility Improvements** (page 64), **Clarifier Maintenance** (page 65), **Structural Rehabilitation** (page 66), **Flow Equalization Expansion** (page 67), and **Electric System Maintenance** (page 69).

The **Sanitary Sewer System Improvements** project (page 74) includes \$20,478,000 over the life of the CIP to identify and remove major sources of inflow/infiltration as a means of lowering the peak wet weather flow at the treatment plant. Based on a sanitary sewer system evaluation, the goal of this project will not be completed until FY 2025/26.

### **STORM WATER - \$7,962,000**

One of the on-going goals of the City Council is to mitigate the impact of over land flooding caused by excessive storm water runoff onto surrounding properties. Therefore, the CIP calls for \$7,422,000 over the next five years in the following projects: **Storm Water Erosion Control** (page 77), **Low Point Drainage Improvements** (page 78), **Storm Water Improvement** (page 79), **Storm Water Facility Rehabilitation** (page 81), and **Storm Water Quality Improvements** (page 82).

Currently, the City does not have an accurate modeling of the storm water system within its Geographic Information System as it does for our other utilities. The inclusion of the **Storm Water System Analysis** (page 80) in the CIP will aid in identifying areas with deficient storm water capacity throughout the city as well as potential projects to correct problem areas.

### **RESOURCE RECOVERY - \$1,350,250**

The implementation of the **Resource Recovery Systems Improvements** project (page 84) will assist with the purchase of new and replacement components and equipment at the Plant and provide funding for the two annual preventive maintenance projects, replacing the rotary disc screen rollers and rebuilding conveyors.

<b>TRANSPORTATION - \$85,858,339</b>
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### **STREET AND BIKE ROUTE SYSTEMS - \$72,318,050**

In anticipation of the City Council adopting our first ever Complete Streets Plan for our community, you will note that the financial commitment to our street and bike route systems as reflected in this CIP has increased over previous Plans.

For example, the CIP includes expenditures of \$7,912,300 for on-street bike routes and shared use paths over the next five years. This total averages \$1,582,460 per year, which is 32% greater than the Council's previous directive to spend an average of \$1,200,000 annually on these projects.

Of this total, \$3,491,800 will be spent on **Shared Use Path System Expansion** (page 101), \$888,000 on **Multi-Modal Roadway Improvements** (page 102), and \$625,000 on **Shared Use Path Maintenance** (page 103). The remainder of the commitment to shared use paths can be seen incorporated into street projects on pages 72, 89, 90, 94, 95, 97, 98, and 108.

The **Grand Avenue Extension** project (page 89) is progressing slowly but surely, as we have now received environmental clearance from the Department of Transportation. The next steps for the project will be to construct improvements at the South 16<sup>th</sup> Street and South Duff intersection and extend South 5<sup>th</sup> Street to South Duff. These projects are anticipated to begin construction in 2018. The remaining steps will be to construct the bridge over Squaw Creek as well as grade and pave the new road to South 16<sup>th</sup> Street in 2019/20. However, it should be noted that not all of the necessary right-of-way for the street has been purchased. If the property owners prove to be unwilling sellers, the completion date will need to be delayed to allow time for the City to purchase the property.

In response to the results of our annual citizen satisfaction survey, which indicates that roadway improvements and efficient traffic movement is a top priority of our residents, the CIP devotes \$50,235,000 towards maintaining, extending, and reconstructing our arterial, collector, and residential street systems (pages 90-98) along with \$6,469,250 to assure the safe and efficient flow of traffic through our community (pages 106-112).

### **TRANSIT - \$12,082,289**

The **Cy-Ride Vehicle Replacement** program (page 120) highlights our intention to purchase five new 40-foot buses, six new mini buses, and 25 used buses, as well as replace two Dial-a-Ride vehicles over the next five years. **Bus Stop Improvements** (page 123) receives an emphasis in the CIP where two to three shelters will be installed each year for our riders.

Since the existing maintenance/bus storage building is 33 years old, attention must be given the **Cy-Ride Building Expansion & Modernization** project (page 121) to assure that the major components of this facility are in good repair. Components such as the HVAC system, bus wash, fueling system, exterior wall coating, and exterior pavement will be repaired or replaced with the approval of this CIP.

As our ridership grew significantly over the years, **Cy-Ride Technology Improvements** (page 124) were added to improve our riders' experiences with our transit system. One new service that will be implemented over the next four years at a cost of \$850,000 was requested by our visually impaired riders to automatically announce bus stop locations when the vehicle arrives.

**AIRPORT - \$858,000**

Now that our beautiful new terminal building is in operation, we are making plans for our next major project at the Ames Municipal Airport. The **Airport Improvements** project (page 126) calls for the demolition and removal of our old terminal building, the repair of the City-owned hangars, and the completion of an environmental assessment as we move ahead to extend the length of our main runway from 6,000 to 8,000 feet.

**COMMUNITY ENRICHMENT - \$5,770,000**

**PARKS & RECREATION - \$4,620,000**

The projects associated with the parks system are intended to assure compliance with OSHA and ADA standards, address safety issues, and maintain service levels in our park system.

Funding in the **Park System/Facility Improvements** (page 130) will commit \$1,625,000 towards upgrades to numerous parks and structures in our system. One particularly exciting project is the demolition of the small wading pool in Brookside Park and the construction of a new, larger spray pool outside of the flood plain which no doubt will become a major attraction in our park system. The site for this new facility will be determined after public input is gathered.

Another highlight of this Plan is the removal of the current clubhouse at **Homewood Golf Course** (page 132) and the construction of a new, larger facility with a community room. This new facility will not only serve the needs of the golf course when open, but will also provide our residents with a year-round venue to host weddings, company outings, family gatherings, etc.

Through the use of our Park Development Fund, **Franklin Park** (page 134) will be improved further with the addition of lighting, walking path, shelter, and seating areas, while **Edwards Park** (page 137), which replaces the former elementary school site, is planned to receive a shelter, basketball pad, benches, drinking fountain, and picnic tables.

**STRENGTHENING OUR NEIGHBORHOODS - \$1,350,000**

For many years the City Council has been committed to strengthening both our residential and commercial neighborhoods. To this end, the following projects will assist in realizing this goal: \$250,000 for the **Neighborhood Improvement Program** (page 145), \$250,000 for the **Campustown Façade Program** (page 147), \$250,000 for the **Downtown Façade Program** (page 148), and \$600,000 for the **Neighborhood Curb Replacement Program** (page 117).



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We need to thank the members of our Executive Leadership Team for their ability to identify and prioritize the projects that are critical to maintaining the quality of life for our residents. In addition, Duane Pitcher, Finance Director; Nancy Masteller, Budget Officer; Emily Johnson, Finance Department Secretary; Bob Kindred, Assistant City Manager; Brian Phillips, Assistant City Manager; and Tasheik Kerr, Management Analyst, should be recognized for the important role they played in creating this CIP!

Sincerely,

A handwritten signature in cursive script that reads "Steve".

Steven L. Schainker  
City Manager