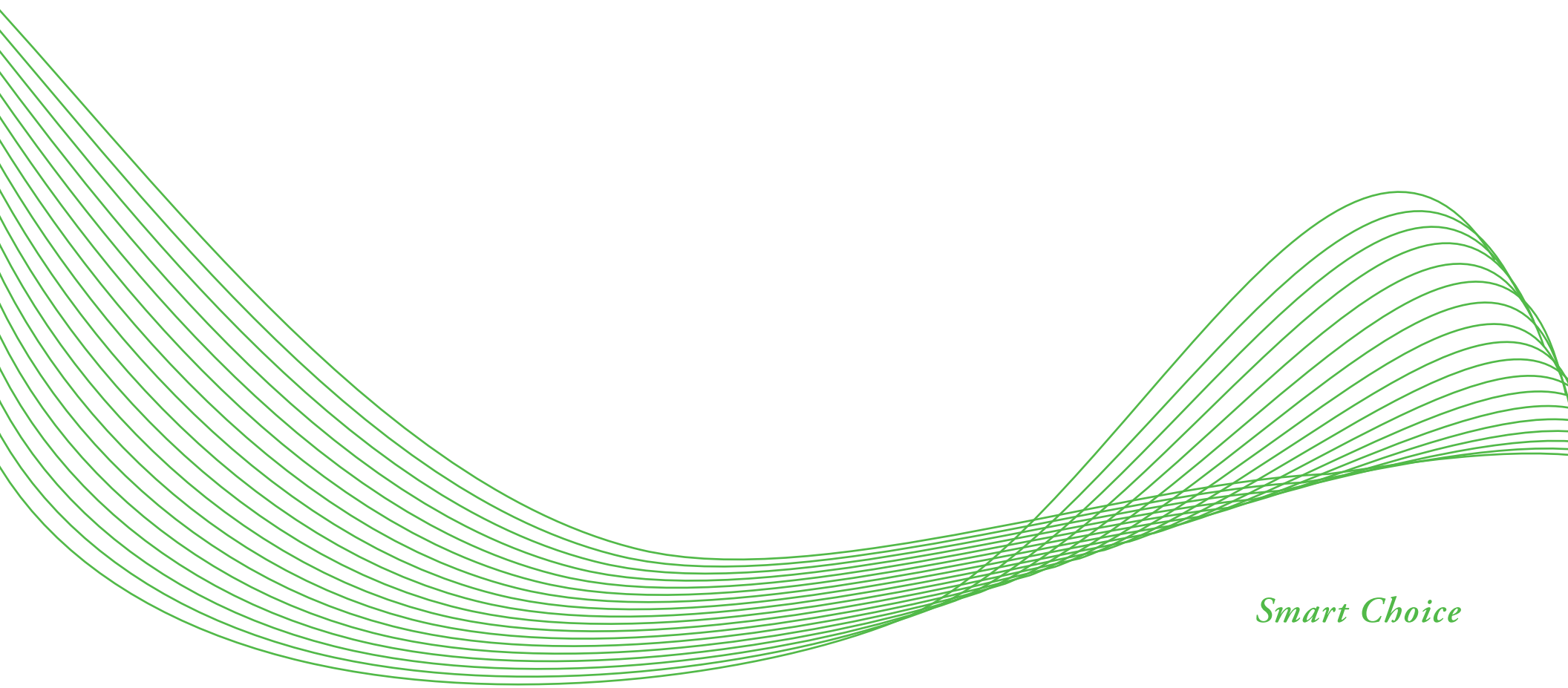
CITY OF
Ames™

CITY OF AMES, IOWA

CAPITAL IMPROVEMENTS PLAN

2015-2020

The theme for this year's CIP is the Library renewal project, a plan that expanded and renovated the Ames Public Library at its current location. The project increased the building from 48,000 square feet to 77,455 square feet, renovated all areas of the library, and transformed this beloved community asset into the open and inviting library Ames deserves. The design for the project is based on years of planning and study along with feedback from many public forums. Artist renderings, photographs, and floor plans fill the pages of this year's Capital Improvements Plan.



Smart Choice

July, 2015

Mayor and Ames City Council:

A quick look around the community will reinforce the fact that the City of Ames is experiencing an economic boom unlike any we have seen for many years. Construction work is progressing throughout our city on new residential subdivisions, apartment complexes, senior living centers, commercial developments, and industrial projects. With this economic resurgence comes physical expansion and a corresponding responsibility on our part as a City to build the necessary infrastructure to accommodate this growth. This infrastructure must meet not only the basic needs of our citizens in the form of safety, transportation, and utilities, but should also satisfy the quality of life desired by our current and prospective residents who are making the choice of whether or not to stay in or relocate to the city of Ames.

To meet these obligations, the Capital Improvements Plan (CIP) for FY 2015-16 through FY 2019-20 reflects a commitment of $251,885,728. Please note that this CIP reflects some of the most significant projects ever undertaken by the City within a five year span.

To assist with your understanding of what has been included in this document, I have provided a few highlights of the CIP.

PUBLIC SAFETY - $5,030,510

The **Accessibility Enhancement Program** (page 18) is being introduced into the CIP. This program replaces the Sidewalk Safety Program by combining the elements of the previous program along with additional accessibility upgrades to intersection crosswalk panels, audible and vibrotactile traffic control devices, and on-street or parking lot stalls. This program increases the City's commitment to accessibility by $50,000 per year.

Multi-Modal Roadway Improvements Program (page 23) continues the City's desire to create a safer interaction between bicyclists and motorists using techniques such as bike detection, on-street bike lanes, and sharrows.

Traffic adaptive systems have been added to the fifth year of the CIP in the **Traffic Signal Program** (page 20). These systems will allow for real time optimization of traffic and pedestrian flow at signalized intersections that will promote increased travel efficiency throughout the city.

As the second phase of the upgrade to the Police Department space in City Hall is about to be completed, during the next five years we will shift attention to making various improvements to our three fire stations for such projects as restroom additions, driveway repairs, and roof replacement (pages 10, 11, and 12).

UTILITIES - $161,436,200

Resource Recovery - $2,105,800

During the five years of the CIP, approximately $1,600,000 has been identified for various projects to improve the Resource Recovery system (page 28). This work includes replacement of rollers, conveyors, gears, drains, flooring, and pumps in the facility. The largest project in this category is the construction of a cold storage building scheduled for the last year of the CIP (page 29). This new facility will house the glass crushing operation as well as serve a consolidated location for equipment storage currently housed in the plant.

Water - $60,079,000

The CIP reflects the largest single project ever considered by the City of Ames, the **New Water Treatment Plant** (page 31). This new $74,000,000 facility, with its 15 million gallon per day capacity, is designed to meet all current federal and state water quality standards as well as accommodate our projected drinking water needs for the next 20 years. A related project calls for the **Demolition of the Old Water Treatment Plant** (page 37). This project is scheduled to take place once the new plant is fully commissioned. It should be noted that the two-story Technical Services Complex that houses the Water Meter and Laboratory Services Divisions will remain at the site.

As our demand for potable water increases and our existing wells begin to fail, the need for a **Water Supply Expansion** project (page 32) becomes more important. Three new wells with a capacity to pump 1.5 million gallons per day are planned to be constructed north of the North River Valley Park, east of the Skunk River.

Over the next five years, $5,375,000 will be invested in the **Water System Improvements** program (page 39) to install larger water mains, remove/abandon 4-inch supply lines, and eliminate duplicate water mains with the goal of reducing rusty water problems and improving water flow in the older sections of our city.

One project that needs special attention is the **Campustown Public Improvements** program (page 40). Much of the public infrastructure in this business district was installed in the early 1900s. As Campustown becomes a focal point for commercial and multi-family developments, it is important that we take action to construct new water lines, sanitary sewer lines, storm sewer lines, and to reconstruct streets in this area. The magnitude of this project will cause major disruption to the businesses in the district. Therefore, a great deal of communication will be required as we pursue this $1,550,000 project.

Storm Sewer - $12,144,400

Unfortunately, many of us have experienced numerous 100-year floods during the past 20 years in Ames. In an effort to reduce damage related to river flooding in those developed sections of our community that historically have been impacted, the five year plan includes a **Flood Mitigation - River Flooding** project (page 42). This $5,854,000 project to "restore" the Squaw Creek channel 2,000 feet on both sides of the South Duff bridge was identified in a recently completed Flood Mitigation Study as the most cost-effective strategy to mitigate flooding in the area.

As our community continues to grow, we must be prepared for the impact of the runoff from the resulting development on surrounding properties. The CIP acknowledges this and earmarks $5,570,400 over the next five years in various projects to improve our storm water system (pages 43 through 47).

Sanitary Sewer - $32,072,000

In order to meet existing clean water standards and secure our next operating permit from the Iowa Department of Natural Resources, we had to decide whether to engage in a very costly expansion of our Water Pollution Control plant or concentrate our efforts on replacing deteriorated sanitary collection lines. Faulty lines allow infiltration of storm water into our treatment process, thereby increasing the demand for expanded capacity at our WPC plant to treat this clean water.

Having concluded that the latter approach is the most cost-effective strategy, two projects are included in the CIP. The **Sanitary Sewer Rehabilitation Program** (page 50) earmarks $18,338,000 over the next five years to rehabilitate/reconstruct deficient sanitary sewer sections to remove major sources of infiltration of clean water from our treatment process. In addition, the **Flow Equalization Expansion** project (page 56) calls for $1,075,000 to increase the capacity of our equalization basins by six million gallons, thereby reducing the possibility for a future need to bypass the treatment process during excessive flow events.

It is hard to believe our Water Pollution Control Plant is 25 years old and, therefore, in need of major repairs. Because of the needs identified in a recently completed Long-Range Facility Plan, the CIP includes $9,992,000 over the next five years for various maintenance projects at the Plant (pages 54, 55, 57, 58, 59, 60, 61, and 63).

In an effort to accomplish the City Council's goal to promote economic development, the **East Industrial Area Sewer Extension** project (page 51) has been identified in the CIP. The project involves the installation of this sewer line just east of the Interstate 35. Once completed, we will be able to act more quickly to open up this industrial area for development.

Electric - $55,035,000

The second largest project included in this CIP involves the conversion of our Power Plant's fuel source from coal to natural gas. This project, which began in FY 2014/15, is estimated to cost $26,000,000. Approximately $15,000,000 of this **Unit 7 and 8 Fuel Conversion** project is reflected in this CIP (page 76). This project is estimated to reduce the carbon emissions from the Power Plant by approximately 312,000 tons per year. This project, coupled with our current contract for wind energy and use of Refuse-Derived Fuel from our Resource Recovery Plant, is a major step in meeting the Council's commitment to sustainability.

In order to assure that the Power Plant is in good working order so that our customers can continue to receive reliable service, the CIP includes $15,380,000 towards various improvements to this critical facility (pages 77, 78, 80, 81, 82, 83, 84, and 85).

Service reliability also is reliant upon strong transmission and distribution systems. These systems allow the City to acquire lower cost energy from the open market when available and to obtain energy when our Power Plant is taken off line due to a mechanical failure or for preventive maintenance. Therefore, over the life of this CIP, $8,355,000 is anticipated to be spent on various projects to these systems (pages 68, 70, 71, 72, 73, 74, and 75).

Recent successes in assisting with the expansion of existing and attracting new industries in the City have led to an increasing demand for electricity. Realizing that the most cost-effective strategy for meeting this energy demand growth is to financially encourage demand reduction, the CIP earmarks $5,000,000 to the **Demand Side Management** program (page 67). This program provides incentives to our electric customers to encourage a reduction in their consumption by installing more efficient equipment. To date, it is estimated that this program has reduced demand on our electric system by 15 megawatts, thereby delaying the need to invest in the very costly expansion of our electric production capacity.

TRANSPORTATION - $79,784,018

Streets - $67,015,018

In response to the feedback received from our annual Citizen Satisfaction Survey, a substantial amount of City funds in the CIP are devoted to improvements to our transportation infrastructure. One project of particular note is the **Grand Avenue Extension** project (page 93). This improvement will help alleviate traffic congestion along our busiest street corridor, Highway 69 from Grand Avenue to Highway 30. With the elimination of federal earmarks, this $18,000,000 project has been delayed

over the years as the staff seeks non-City revenue to partially fund the project. As the search for alternative funding continues, the CIP calls for us to initiate the required environmental study of the proposed route in FY 2015/16.

The CIP proposes spending approximately $32,000,000, predominantly from Road Use Tax funds, G.O. bond proceeds, and Federal and State grants, to reconstruct and repair our street system. A sophisticated structural evaluation tool is utilized to help prioritize reconstruction and repair of deteriorated street sections.

New to the CIP is the **Iowa State University Research Park Phase III** project (page 91). Already one of the most successful economic generators in this community, few lots remain available to accommodate companies wishing to locate their business in the park. Therefore, the CIP calls for $6,949,718 to widen University Boulevard as well as extend water and sewer lines to the Phase III area. Fortunately, approximately 58% of this total cost will be paid from an Iowa Department of Transportation RISE grant.

Shared Use Paths - $3,183,300

In order to provide a safe and convenient alternative to the automobile, the **Shared Use Path System Expansion** (page 94) and the **Shared Use Path Maintenance** (page 109) projects have been included in the CIP. Over the next five years, $3,183,300 has been earmarked to repair and expand our shared use path system.

Bridges - $3,320,000

A 2012 bridge report indicated the 6th Street bridge needed to be replaced ($3,020,000) and the decking on the East Lincoln Way bridge required repairs ($300,000). This work has been included in the **Bridge Rehabilitation Program** (page 105).

Airport - $5,312,000

To enhance the capacity of the Ames Municipal Airport to accommodate larger aircraft, we are making plans to extend our main runway to 8,000 feet as reflected in the **Airport Improvements** project (page 118). A companion project will involve the **Terminal Building Replacement**. It is anticipated that this new 6,500 square foot facility will cost $2,410,000. Commencement of this project will occur once the additional revenue needed to partially finance this initiative is identified in a Fixed Base Operator contract, or from some other source.

Transit - $7,457,000

CyRide continues to experience unprecedented growth in ridership. Unfortunately, the availability of federal funds for cities to purchase buses has been eliminated. Therefore, over the next five years we will rely on the purchase of 20 40-foot used buses to meet our vehicle needs as reflected in the **CyRide Vehicle Replacement** program (page 111). In addition, we will continue our commitment to improving and updating our **CyRide Shop and Office Equipment** (page 113) **and CyRide Building**

Expansion & Modernization (page 112) where $2,111,000 has been earmarked for these improvements. Plans are also in place to install one new bus stop shelter per year over the life of this CIP (page 114).

COMMUNITY ENRICHMENT - $5,635,000

Strengthening Our Neighborhoods - $750,000

The popular **Neighborhood Improvement Program** continues to receive funding in this CIP (page 133) with the goal of improving the appearance of our neighborhoods and promoting a greater sense of community through resident participation in neighborhood projects. In addition to residential neighborhoods, the City Council continues to support our commercial neighborhoods as well. Towards this end the **Downtown and Campustown Facade** programs (pages 135 and 136) include $500,000 to motivate property owners to make exterior improvements to their buildings in accordance with an approved set of design standards unique to each business district.

Parks & Recreational Facilities - $4,254,000

Over the five year life of this CIP, $4,254,000 has been identified to improve our park system and related recreation facilities. Of this total, $2,439,000 is planned for park improvements (pages 122, 124, 126, and 130), $255,000 is earmarked for recreation building improvements (page 123), $700,000 is reflected for aquatic facility improvements (pages 125 and 127), $300,000 is identified for Ice Arena improvements (page 128), and $360,000 is highlighted for Golf Course improvements (page 129). In anticipation of the new housing development that is expected in the north growth area and the corresponding need for a new park, the **Rose Prairie Park Development** project (page 131) is being reflected into the CIP for the first time.

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As always we need to thank our department heads for their ability to gaze into the future and identify which capital improvement projects are warranted to meet the needs and desires of our citizens. In addition, the preparation of the CIP document is the result of the hard work of Duane Pitcher, Finance Director; Nancy Masteller, Budget Officer; Emily Burton, Finance Department Secretary; Bob Kindred, Assistant City Manager; Melissa Mundt, Assistant City Manager; and Brian Phillips, Management Analyst. These professionals are deserving of special recognition for their efforts!

Respectfully submitted,

Steve

Steven L. Schainker
City Manager

CITY OF AMES, IOWA

FIVE-YEAR CAPITAL IMPROVEMENT PLAN
2015-2020

TABLE OF CONTENTS

HOW TO USE THE C.I.P. DOCUMENT

The 2015-2020 Capital Improvements Plan for the City of Ames is organized according to the City's program structure of services. This format allows decision makers to consider proposed improvements in much the same manner as the annual operating budget. First-year portions of these projects can also be identified in the annual operating program budget.

1. The **Description/Justification** section outlines the basic work to be done and the intended outcome or result of the project, outlines the reasons behind the proposal of the project, and also the advantages to the City of undertaking the project. The section may also describe the disadvantages to the City of either waiting to do the project, or of disapproving it altogether.

2. The **Comments** section outlines any additional information related to the project, including status changes from a previous year, its relationship to other projects or future developments, impacts on operating budgets and others.

3. The **Location** section will list a street location or various locations for each project. Specific locations for Public Works projects can also be found on the City of Ames website at www.cityofames.org/pwcipmap.

In addition to the above information, the bottom of each page lists the types of costs (planning, construction, etc.) which will be associated with the project for each year of the present C.I.P. Below that is shown the source of financing for the project in each year.

INDEX TO 2015 – 2020 CAPITAL IMPROVEMENTS PLAN
CITY OF AMES, IOWA

UTILITIES SUMMARY – continued

UTILITIES SUMMARY – continued

TRANSPORTATION SUMMARY, continued

COMMUNITY ENRICHMENT / INTERNAL SERVICES – SUMMARY

PROJECTION OF DEBT CAPACITY

	2013/14 ACTUAL	2014/15 BUDGETED	2015/16 PROJECTED	2016/17 PROJECTED	2017/18 PROJECTED	2018/19 PROJECTED	2019/20 PROJECTED
1. Total Actual Valuation	3,536,735,367	3,604,369,966	3,789,598,226	3,903,286,173	4,020,384,758	4,140,996,301	4,265,226,190
2. State Mandated Debt Limit	176,836,768	180,218,498	189,479,911	195,164,309	201,019,238	207,049,815	213,261,310
3. City Reserve (25% of Limit)	44,209,192	45,054,625	47,369,978	48,791,077	50,254,810	51,762,454	53,315,328
Un-Reserved Debt Capacity	132,627,576	135,163,873	142,109,933	146,373,232	150,764,428	155,287,361	159,945,982
4. Outstanding Debt	62,260,000	64,110,000	56,605,000	48,885,000	41,310,000	34,075,000	27,710,000
5. Proposed Issues	-	-	13,892,990	8,138,600	6,990,000	7,090,000	7,510,000
6. Balance of Proposed Issues	-	-	-	13,604,039	20,827,906	26,350,185	31,400,623
Total Debt Subject to Limit	62,260,000	64,110,000	70,497,990	70,627,639	69,127,906	67,515,185	66,620,623
7. Available Un-Reserved Debt Capacity ($)	70,367,576	71,053,873	71,611,943	75,745,593	81,636,522	87,772,176	93,325,359
8. Available Un-Reserved Debt Capacity (%)	53.06%	52.57%	50.39%	51.75%	54.15%	56.52%	58.35%
9. Total Debt Capacity ($)	114,576,768	116,108,498	118,981,921	124,536,670	131,891,332	139,534,630	146,640,687
10. Total Debt Capacity (%)	64.79%	64.43%	62.79%	63.81%	65.61%	67.39%	68.76%

Notes:

1. *Total assessed valuation plus utility valuation growth assumption is 3.0% per year.*
2. *State of Iowa statutory debt limit is 5% of total actual valuation.*
3. *City Policy reserves 25% percent of available debt capacity.*
4. *Current outstanding debt subject to limit at Fiscal Year End includes all debt in which property taxes are pledged.*
5. *Debt issues subject to limit proposed are part of Capital Improvement Plan.*
6. *Debt Balance on Issues in Capital Improvement Plan.*
7. *Debt capacity available after deducting the reserved capacity.*
8. *Percentage of debt capacity available after deducting the reserved capacity.*
9. *Debt capacity available prior to deducting the reserved capacity.*
10. *Percentage of Debt capacity available prior to deducting the reserved capacity.*

SUMMARY OF MAJOR BOND ISSUES

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
2015/16:				
TRAFFIC		450,000		
West Lincoln Way Intersection Improvements	450,000		38%	IDOT Grant/Developer
STORM SEWER		144,000		
Flood Mitigation - River Flooding	144,000		14%	Previous Bonds/FEMA Grant
STREETS ENGINEERING		4,230,000		
Asphalt Street Pavement Improvements	1,300,000		70%	Previous Bonds/Electric
Grand Avenue Extension	280,000		100%	
Concrete Pavement Improvements	1,100,000		92%	Road Use Tax/Electric
Arterial Street Pavement Improvements (13th Street)	400,000		27%	MPO/STP Funds
Downtown Street Pavement Improvements (Clark Avenue)	800,000		94%	Electric Utility Fund
Seal Coat Pavement Improvements	350,000		100%	
STREETS MAINTENANCE		2,320,000		
Bridge Rehabilitation Program	2,320,000		100%	
AIRPORT		867,000		
Terminal Building Replacement	867,000		36%	Abated Bonds/FAA/Grant
2015/16 SUBTOTAL		**8,011,000**		

SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
SANITARY SEWER (ABATED G.O. BONDS)		2,000,000		
East Industrial Area Sewer Extension	2,000,000		99%	Sewer Utility Fund
STREETS ENGINEERING (ABATED G.O. BONDS)		2,938,990		
ISU Research Park (TIF abated)	2,938,990		42%	RISE Grant
AIRPORT (ABATED G.O. BONDS)		943,000		
Terminal Building Replacement (Airport revenue abated)	943,000		39%	G.O. Bonds/FAA/Grant
2015/16 TOTAL		**13,892,990**		
2016/17				
STORM SEWER		1,858,600		
Flood Mitigation - River Flooding	1,194,000		25%	FEMA Grant
Storm Sewer Erosion Control Program	664,600		67%	SRF Funding
STREETS ENGINEERING		6,280,000		
Asphalt Street Pavement Improvements	1,200,000		100%	
Grand Avenue Extension	300,000		30%	Federal/State Grants
Concrete Pavement Improvements	985,000		90%	Road Use Tax/Electric
Arterial Street Pavement Improvements (West Lincoln Way)	345,000		100%	
Downtown Street Improvements (Sherman Avenue)	375,000		100%	
Seal Coat Pavement Improvements	1,050,000		100%	
CyRide Route Pavement Improvements (S 3rd and S 4th)	525,000		28%	MPO/STP Funds/Electric
Collector Street Pavement Improvements (Hoover Avenue)	1,500,000		100%	
2016/17 TOTAL		**8,138,600**		

SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
2017/18				
UTILITIES		1,150,000		
Campustown Public Improvements	1,150,000		74%	Water/Sewer/Electric Funds
STREETS ENGINEERING		5,840,000		
Asphalt Street Pavement Improvements	1,750,000		100%	
Grand Avenue Extension	1,530,000		33%	MPO/STP Funds/Grants
Concrete Pavement Improvements	815,000		94%	Road Use Tax
Arterial Street Pavement Improvements (East Lincoln Way)	420,000		27%	MPO/STP Funds/Electric
Downtown Pavement Improvements (Main Street Alley)	250,000		83%	Electric Utility Fund
Seal Coat Pavement Improvements	500,000		100%	
Collector Street Pavement Improvements (E 20th Street)	575,000		92%	Electric Utility Fund
2017/18 TOTAL		**6,990,000**		
2018/19				
STREETS ENGINEERING		7,090,000		
Asphalt Street Pavement Improvements	1,200,000		100%	
Grand Avenue Extension	1,500,000		23%	MPO/STP Funds/Grants
Concrete Pavement Improvements	1,550,000		97%	Road Use Tax
Arterial Street Pavement Improvements (North Dakota)	700,000		100%	
Downtown Pavement Improvements (Market Avenuue)	250,000		100%	
Seal Coat Pavement Improvements	1,050,000		68%	Road Use Tax
Collector Street Pavement Improvements (Hickory Drive)	750,000		94%	Electric Utility Fund
Cherry Avenue Extension	90,000		30%	Federal/State Grants
2018/19 TOTAL		**7,090,000**		

SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
2019/20				
STREETS ENGINEERING		7,510,000		
Asphalt Street Pavement Improvements	1,500,000		100%	
Grand Avenue Extension	2,000,000		38%	MPO/STP Funds/Grants
Concrete Pavement Improvements	770,000		88%	Road Use Tax/Electric
Downtown Pavement Improvements (Lincoln Way Alley)	250,000		83%	Electric Utility Fund
Seal Coat Pavement Improvements	930,000		65%	Road Use Tax
CyRide Route Pavement Improvements (9th Street)	600,000		100%	
Collector Street Pavement Improvements (Meadowlane Ave)	950,000		95%	Electric Utility Fund
Cherry Avenue Extension	510,000		20%	Grants/Electric Utility
2019/20 TOTAL		**7,510,000**		
GRAND TOTAL GENERAL OBLIGATION BONDS		**43,621,590**		

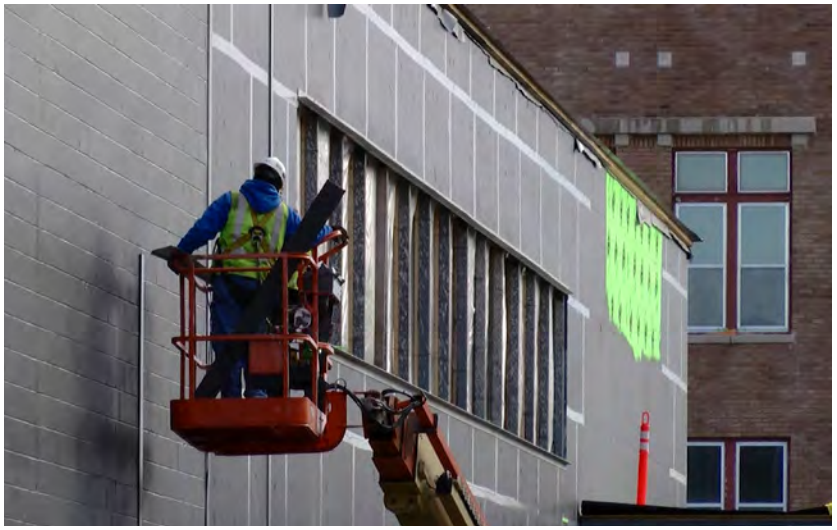
SUMMARY OF MAJOR BOND ISSUES, continued

REVENUE BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT BOND FUNDED	OTHER SOURCES OF FUNDING
2015/16:				
ELECTRIC		18,875,000		
Units #7 and #8 Fuel Conversion	15,000,000		100%	
Cooling Tower Repairs	3,875,000		100%	
2015/16 YEAR TOTAL		**18,875,000**		
2019/20:				
ELECTRIC		10,000,000		
New Electric Generation Capacity	10,000,000		100%	
2019/20 YEAR TOTAL		**10,000,000**		
GRAND TOTAL REVENUE BONDS		**28,875,000**		


STOP

CITY-WIDE PROGRAM SUMMARY

LIBRARY EXTERIOR CONSTRUCTION



CAPITAL IMPROVEMENT PLAN - GRAND TOTALS

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Public Safety	5,030,510	2,243,175	604,335	679,000	752,000	752,000	7
Utilities	161,436,200	69,061,900	36,510,100	17,655,600	15,670,100	22,538,500	25
Transportation	79,784,018	20,543,718	11,553,000	15,166,000	17,213,500	15,307,800	87
Community Enrichment	5,635,000	1,425,000	1,190,000	1,025,000	1,025,000	970,000	119
Total Expenditures	**251,885,728**	**93,273,793**	**49,857,435**	**34,525,600**	**34,660,600**	**39,568,300**	
REVENUES:							
Debt	136,636,590	65,148,990	29,183,600	10,450,000	10,660,000	21,194,000	
City	75,636,410	18,458,875	13,276,685	15,862,650	15,503,200	12,535,000	
Other	39,612,728	9,665,928	7,397,150	8,212,950	8,497,400	5,839,300	
Total Revenues	**251,885,728**	**93,273,793**	**49,857,435**	**34,525,600**	**34,660,600**	**39,568,300**	

CAPITAL IMPROVEMENT PLAN - EXPENDITURE SUMMARY BY PROGRAM

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Public Safety:							
Fire	336,510	145,175	25,335	124,000	42,000		8
Electric	40,000	40,000					13
Traffic	4,654,000	2,058,000	579,000	555,000	710,000	752,000	15
Total Public Safety	**5,030,510**	**2,243,175**	**604,335**	**679,000**	**752,000**	**752,000**	
Utilities:							
Resource Recovery	2,105,800	365,900	318,100	361,600	264,100	796,100	27
Water Treatment	53,154,000	29,301,000	20,454,000	1,414,000	475,000	1,510,000	30
Water Distribution	6,925,000	975,000	1,100,000	2,650,000	1,100,000	1,100,000	38
Storm Sewer	12,144,400	1,930,000	6,556,000	1,255,000	1,255,000	1,148,400	41
Sanitary Sewer	20,493,000	5,525,000	3,579,000	3,685,000	3,795,000	3,909,000	49
WPC Treatment	11,579,000	4,835,000	1,748,000	650,000	3,211,000	1,135,000	53
Electric	55,035,000	26,130,000	2,755,000	7,640,000	5,570,000	12,940,000	65
Total Utilities	**161,436,200**	**69,061,900**	**36,510,100**	**17,655,600**	**15,670,100**	**22,538,500**	

CAPITAL IMPROVEMENT PLAN - EXPENDITURE SUMMARY BY PROGRAM, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES, continued:							
Transportation:							
Streets/Engineering	62,190,018	13,274,718	9,532,000	11,166,000	13,761,500	14,455,800	89
Streets/Maintenance	4,825,000	3,635,000	350,000	280,000	280,000	280,000	103
Transit	7,457,000	1,002,000	1,491,000	3,620,000	772,000	572,000	110
Airport	5,312,000	2,632,000	180,000	100,000	2,400,000		116
Total Transportation	**79,784,018**	**20,543,718**	**11,553,000**	**15,166,000**	**17,213,500**	**15,307,800**	
Community Enrichment/Internal Services:							
Parks and Recreation	4,254,000	1,049,000	785,000	825,000	825,000	770,000	120
City Manager	250,000	50,000	50,000	50,000	50,000	50,000	132
Planning and Housing	500,000	100,000	100,000	100,000	100,000	100,000	134
Public Works	135,000	65,000	70,000				137
Internal Services/Facilities	496,000	161,000	185,000	50,000	50,000	50,000	139
Total Community Enrichment	**5,635,000**	**1,425,000**	**1,190,000**	**1,025,000**	**1,025,000**	**970,000**	
GRAND TOTAL EXPENDITURES	**251,885,728**	**93,273,793**	**49,857,435**	**34,525,600**	**34,660,600**	**39,568,300**	

CAPITAL IMPROVEMENT PLAN - REVENUE SUMMARY BY TYPE

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES:						
Debt:						
G.O. Bonds	43,621,590	13,892,990	8,138,600	6,990,000	7,090,000	7,510,000
G.O. Bonds (previously issued)	1,000,000	1,000,000				
Electric Revenue Bonds	28,875,000	18,875,000				10,000,000
State Revolving Fund Loans	63,140,000	31,381,000	21,045,000	3,460,000	3,570,000	3,684,000
Total Debt Funding	**136,636,590**	**65,148,990**	**29,183,600**	**10,450,000**	**10,660,000**	**21,194,000**
City:						
Road Use Tax	5,810,500	1,125,750	977,750	985,000	1,140,000	1,582,000
Local Option Sales Tax	8,340,810	1,489,175	1,825,335	1,625,000	1,668,500	1,732,800
Electric Utility Fund	25,194,400	6,562,500	2,507,850	7,652,350	5,429,600	3,042,100
Water Utility Fund	14,345,500	3,935,750	3,946,750	2,178,000	1,625,000	2,660,000
Sewer Utility Fund	11,227,500	3,424,750	2,006,750	1,000,000	3,436,000	1,360,000
Storm Sewer Utility Fund	4,142,000	575,000	830,000	959,000	948,000	830,000
Resource Recovery Fund	2,105,800	365,900	318,100	361,600	264,100	796,100
Transit Fund	3,755,800	660,300	799,800	1,031,700	732,000	532,000
Airport Construction Fund	352,600	72,000	30,600	10,000	240,000	
Ice Arena Reserve Funds	300,000	220,000		60,000	20,000	
Fleet Services Fund	61,500	27,750	33,750			
Total City Funding	**75,636,410**	**18,458,875**	**13,276,685**	**15,862,650**	**15,503,200**	**12,535,000**

CAPITAL IMPROVEMENT PLAN - REVENUE SUMMARY BY TYPE, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES, continued:						
Other:						
MPO/STP Funds	8,745,000	1,060,000	1,532,000	1,920,000	1,840,000	2,393,000
Federal/State Grants	22,942,728	6,611,728	5,308,600	3,417,000	4,307,000	3,298,400
Federal Transit Administration	2,850,000	301,700		2,548,300		
Federal Aviation Administration	2,849,400	450,000	149,400	90,000	2,160,000	
Iowa State University	1,090,600	167,500	347,150	237,650	190,400	147,900
Iowa Department of Transportation	800,000	800,000				
Ames Community School District	50,000	25,000	25,000			
Developer Funds	250,000	250,000				
Private Funds	35,000		35,000			
Total Other Funding	**39,612,728**	**9,665,928**	**7,397,150**	**8,212,950**	**8,497,400**	**5,839,300**
GRAND TOTAL REVENUES	**251,885,728**	**93,273,793**	**49,857,435**	**34,525,600**	**34,660,600**	**39,568,300**


CAT
248
CAT

PUBLIC SAFETY

LIBRARY INTERIOR RENOVATION

PUBLIC SAFETY - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Fire	336,510	145,175	25,335	124,000	42,000		8
Electric	40,000	40,000					13
Traffic	4,654,000	2,058,000	579,000	555,000	710,000	752,000	15
Total Expenditures	**5,030,510**	**2,243,175**	**604,335**	**679,000**	**752,000**	**752,000**	
REVENUES:							
Debt:							
G.O. Bonds	450,000	450,000					
City:							
Road Use Tax	2,554,000	658,000	504,000	480,000	235,000	677,000	
Local Option Sales Tax	751,510	260,175	100,335	199,000	117,000	75,000	
Sub-Total City Funding	3,305,510	918,175	604,335	679,000	352,000	752,000	
Other:							
MPO/STP Funds	400,000				400,000		
Iowa State University	125,000	125,000					
Iowa D.O.T. Safety Grant	500,000	500,000					
Developer	250,000	250,000					
Sub-Total Other Funding	1,275,000	875,000			400,000		
Total Revenues	**5,030,510**	**2,243,175**	**604,335**	**679,000**	**752,000**	**752,000**	

PUBLIC SAFETY - FIRE

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Self-Contained Breathing Apparatus	145,175	145,175					9
2 Fire Station #2 Restroom	25,335		25,335				10
3 Fire Station #1 Concrete Replacement	124,000			124,000			11
4 Fire Station #2 Roof Replacement	42,000				42,000		12
Total Expenditures	**336,510**	**145,175**	**25,335**	**124,000**	**42,000**		
REVENUES:							
City:							
Local Option Sales Tax	336,510	145,175	25,335	124,000	42,000		
Total Revenues	**336,510**	**145,175**	**25,335**	**124,000**	**42,000**		

SELF-CONTAINED BREATHING APPARATUS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

Ames firefighters utilize Self-Contained Breathing Apparatus (SCBA) while performing firefighting operations to enter hazardous environments or to operate in areas that are oxygen deficient. The SCBA is an essential piece of personal protective equipment that may be used with little or no advance warning, so they must always be kept in ideal working order.

The current SCBAs are reaching their life expectancy and the units need to be replaced or refurbished. The cost to replace the SCBAs and equipment is estimated at $290,350, which includes: 41 SCBA units with face piece and voice amplifier, regulators, and spare cylinders.

The project includes the hardware and software needed to support the maintenance of the equipment. In addition, the supplied air units used in confined space operations and four rapid intervention kits will be replaced.

Approval has been received to purchase one-half of the SCBA equipment in FY 14/15. This request is for the remaining equipment in FY 15/16: 41 SCBA units, including an additional cylinder, face piece, and regulator.

COMMENTS

Federal regulations state the life of the cylinder is 15 years. The SCBA cylinders must be replaced at minimum to comply with DOT regulations. The City purchased the cylinders in May of 2001, and they expire in May of 2016.

2014/15: Approval already received to purchase one-half of the SCBA units - $145,175
2015/16: Purchase second half of the SCBA units - $145,175

LOCATION

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Equipment		145,175	145,175				
	TOTAL	**145,175**	**145,175**				
FINANCING:							
Local Option Sales Tax		145,175	145,175				
	TOTAL	**145,175**	**145,175**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Fire	Fire	030-2272-429

FIRE STATION #2 RESTROOM **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
Fire Station #2 is approximately 49 years old. The building was designed during a time when no consideration was given to accommodate female firefighters. The current fire station has two restrooms; the main one is equipped with two showers, a stool and a urinal. The second one is located next to the truck room and is considered a half-bath (stool and lavatory).

This project calls for adding an additional 3/4 restroom (stool, lavatory, and shower), to better accommodate female firefighters and conform to ADA requirements. Fire Station #2 restrooms are often used by firefighters, the public, and other city/county/ISU agencies, especially during events.

The construction of the additional restroom requires relocation of an existing storage closet that is used to store firefighting gear and maintenance equipment. The estimated cost for the total project is $25,335.

COMMENTS
A plan will be developed by a designer who is working with the Inspections division to ensure the restroom is code compliant. Estimates will be updated as needed.

LOCATION
Fire Station #2, 132 Welch Ave.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		25,335		25,335			
	TOTAL	**25,335**		**25,335**			
FINANCING:							
Local Option Sales Tax		25,335		25,335			
	TOTAL	**25,335**		**25,335**			

PROGRAM - ACTIVITY: Public Safety – Fire
DEPARTMENT: Fire
ACCOUNT NO.

FIRE STATION # 1 CONCRETE REPLACEMENT **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION – Fire Station One was constructed in 1979. Underground fuel tanks were originally installed underneath the rear drive. The tanks were removed and the void was filled, but settling of the pavement has occurred, causing accelerated damage. Public works engineers evaluated the concrete and agreed the concrete will need to be replaced within five years, estimated at $124,000.

LOCATION
Fire Station #1, 1300 Burnett Ave.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		124,000			124,000		
	TOTAL	**124,000**			**124,000**		
FINANCING:							
Local Option Sales Tax		124,000			124,000		
	TOTAL	**124,000**			**124,000**		

PROGRAM - ACTIVITY: Public Safety – Fire

DEPARTMENT: Fire

ACCOUNT NO.

FIRE STATION #2 ROOF REPLACEMENT **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION
Fire Station #2 is approximately 49 years old. The building was designed with a flat structure roof comprised of a rubber membrane mechanically fastened roofing system. The existing roof was installed in 1992. Since the roof was installed, roof top mechanical systems have been added, which required penetrations to the roof's membrane. This has created additional areas where water can leak into the structure.

Within the last few years additional leaks have caused water damage to the ceiling tile and soaked insulation. A contractor has made several repairs but leaks continue to appear. The contractor has suggested that the roof should be replaced within 5 years.

COMMENTS
The estimated cost is between $40,100 and $42,000 (with added contingency). Estimates will be updated as needed.

LOCATION
Fire Station #2, 132 Welch Ave.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		42,000				42,000	
	TOTAL	**42,000**				**42,000**	
FINANCING:							
Local Option Sales Tax		42,000				42,000	
	TOTAL	**42,000**				**42,000**	

PROGRAM - ACTIVITY: Public Safety – Fire
DEPARTMENT: Fire
ACCOUNT NO.

PUBLIC SAFETY - ELECTRIC

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Outdoor Storm Warning System	40,000	40,000					14
Total Expenditures	**40,000**	**40,000**					
REVENUES:							
City:							
Local Option Sales Tax	40,000	40,000					
Total Revenues	**40,000**	**40,000**					

OUTDOOR STORM WARNING SYSTEM **PROJECT STATUS:** Advanced

DESCRIPTION/JUSTIFICATION
The City's outdoor storm warning system is made up of a central controller in the Police Department dispatch center and eighteen radio controlled individual storm sirens. This program allows the City to acquire larger, new sirens to augment and eventually replace the smaller, older sirens, and fill in gap areas.

LOCATION
The siren being added in FY 2015/16 will provide coverage to the Northern Growth area along Grant Avenue and near Ada Hayden Heritage Park.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Equipment and Installation		40,000	40,000				
	TOTAL	**40,000**	**40,000**				
FINANCING:							
Local Option Sales Tax		40,000	40,000				
	TOTAL	**40,000**	**40,000**				

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Electric	Electric	030-4802-429

PUBLIC SAFETY - TRAFFIC

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 West Lincoln Way Intersection Improvements	1,200,000	1,200,000					
2 Accessibility Enhancements Program 3	750,000	150,000	150,000	150,000	150,000	150,000	17
Regional Transportation Count Program 4	325,000	125,000	50,000	50,000	50,000	50,000	18
Traffic Signal Program	1,452,000	400,000	250,000	250,000		552,000	19
5 Traffic Calming Program	45,000	45,000					20
6 Traffic Engineering Studies	650,000	50,000	50,000	50,000	500,000		21
7 Multi-Modal Roadway Improvements	182,000	88,000	29,000	55,000	10,000		22
8 U.S. 69 Intersection Improvements	50,000		50,000				23
							24
Total Expenditures	**4,654,000**	**2,058,000**	**579,000**	**555,000**	**710,000**	**752,000**	
REVENUES:							
Debt:							
G.O. Bonds	450,000	450,000					

PUBLIC SAFETY - TRAFFIC, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES, continued:						
City:						
Road Use Tax	2,554,000	658,000	504,000	480,000	235,000	677,000
Local Option Sales Tax	375,000	75,000	75,000	75,000	75,000	75,000
Sub-Total City Funding	2,929,000	733,000	579,000	555,000	310,000	752,000
Other:						
MPO/STP Funds	400,000				400,000	
Iowa State University	125,000	125,000				
Iowa D.O.T. Safety Grant	500,000	500,000				
Developer	250,000	250,000				
Sub-Total Other Funding	1,275,000	875,000			400,000	
Total Revenues	**4,654,000**	**2,058,000**	**579,000**	**555,000**	**710,000**	**752,000**

WEST LINCOLN WAY INTERSECTION IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This project is for constructing turn lanes and installing traffic signals at the Franklin Avenue/Lincoln Way intersection. A traffic impact report for the South Fork Subdivision justified these improvements.

Increased traffic flow from the South Fork Subdivision necessitated left-turn lanes at the Lincoln Way approaches to both the Franklin Avenue and the Dotson Drive intersections to accommodate heavy turning movements. Turn lanes and a new traffic signal system were added at the Dotson Drive/Lincoln Way intersection in 2014. Additional turn lanes and replacement of the signals at the Franklin Avenue/Lincoln Way intersection are planned for 2015/16. Planning and land acquisition for the project occurred in 2014/15.

Turn lanes on Lincoln Way will mitigate left-turning, rear-end, and right-angle traffic accidents. Improvements will also support traffic coordination along Lincoln Way. An existing agreement requires the developer and the City to share equally in the construction cost of these improvements.

COMMENTS

2015/16 Franklin Avenue/Lincoln Way (engineering and construction)

The Franklin Avenue/Lincoln Way intersection improvement project is anticipated to meet the terms of the development agreement in 2015/16.

The street widening for turn lanes will increase street maintenance and snow removal activities.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	200,000	200,000				
Construction	1,000,000	1,000,000				
TOTAL	**1,200,000**	**1,200,000**				
FINANCING:						
G. O. Bonds	450,000	450,000				
Iowa D.O.T Safety Grant	500,000	500,000				
Developer (50% of construction less 50% of Safety Grant)	250,000	250,000				
TOTAL	**1,200,000**	**1,200,000**				

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Traffic	Public Works	376-7550-429
		320-7550-429

ACCESSIBILITY ENHANCEMENT PROGRAM **PROJECT STATUS:** Scope Change Cost Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

This new annual program replaces the Sidewalk Safety Program by combining activities of the old program with additional accessible upgrades at traffic signals and other publicly owned parking facilities. Funding from this new program will provide for removing and replacing sidewalk intersection crosswalk panels and handicap ramps at locations that fail to meet the Americans with Disabilities Act (ADA) requirements to have truncated dome warning panels installed. It also includes retrofitting existing signalized traffic control devices with audible and vibrotactile push-buttons, and upgrading parking stalls to current accessible standards in any on-street location or parking lot owned by the City of Ames. This program may be combined with and used in conjunction with roadway, traffic signal replacement, or shared use path improvement projects for pedestrian ramp reconstruction.

This program provides safer pedestrian facilities and limits the City's liability for injury to residents using public sidewalks that are in a deteriorated condition. The program also improves ADA accessibility at municipal facilities.

COMMENTS

In 2013/14, the inventory of the ramps was modified to align with the new changes. Staff will prioritize other locations not included in currently programmed projects based upon the City's ADA Transition Plan which has been developed in coordination with state and local human service agencies.

Cost changes in this new program increase the total funding by $50,000 for work associated with traffic signal and parking stall facility modifications.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	150,000	30,000	30,000	30,000	30,000	30,000
Construction	600,000	120,000	120,000	120,000	120,000	120,000
TOTAL	**750,000**	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**
FINANCING:						
Road Use Tax	375,000	75,000	75,000	75,000	75,000	75,000
Local Option Sales Tax	375,000	75,000	75,000	75,000	75,000	75,000
TOTAL	**750,000**	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety - Traffic	Public Works	030-7510-429-7517 060-7510-429-7517

REGIONAL TRANSPORTATION COUNT PROGRAM **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

This program is the result of an ongoing need for transportation-related data in the Ames regional area. This program will be to collect and manage travel demand data from all transportation modes: walking, biking, and various forms of motorized travel. Data from this program will be used to track critical transportation system performance measures which are used to analyze and forecast transportation system needs and priorities. Each year consists of an annual base for data collections services. Additional data collection hardware will be identified a on a year-by-year basis. The City of Ames has already invested $175,000 to install 26 (of a planned total of 36) permanent count stations that are being brought into service in 2015.

COMMENTS

2015/16	Data collection base ($50,000), Phase 2 of Permanent Count Station project (10 Locations, $75,000)
2016/17	Data collection base ($50,000)
2017/18	Data collection base ($50,000)
2018/19	Data collection base ($50,000)
2019/20	Data collection base ($50,000)

The 2015/16 year completes installation of the permanent count stations in the Ames area. These data collectors continuously record traffic volumes, speeds, and classification on arterial and collector streets throughout the network. This data will support Long Range Transportation Planning and Modeling efforts, as well as Pavement Management, Safety Analysis, and other system performance measures as needed.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		250,000	50,000	50,000	50,000	50,000	50,000
Construction		75,000	75,000				
	TOTAL	**325,000**	**125,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Road Use Tax		325,000	125,000	50,000	50,000	50,000	50,000
	TOTAL	**325,000**	**125,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Traffic	Public Works	060-7515-429

TRAFFIC SIGNAL PROGRAM **PROJECT STATUS:** Cost Change Site Change Revenue Change Delayed

DESCRIPTION/JUSTIFICATION

The Traffic Signal Program is the annual program that provides for replacing older traffic signals and for constructing new traffic signals in the City. This program will result in improved visibility, reliability, and appearance of signals. Although recent advances in technology have elongated the normal, useful life for traffic signal installations well past the previously expected 25 years, some of the older-generation traffic signals still in use exceed their functional age. Components at those installations (including conduits, wiring, signal heads, and poles) need to be completely replaced. This program also provides funding for those maintenance needs. In addition, this program provides for the necessary upgrading of the traffic signal system as technology continues to change. In recent years, traffic signal replacements have included radar detection systems instead of in-pavement loop detection systems that had previously been used (and that were frequently the point of vehicle detection failure). Another advantage of the radar detection system is that it detects bicycles in addition to vehicles.

COMMENTS

Proposed locations:

2015/16	Maintenance/Equipment upgrades at various locations ($150,000) and a new Traffic Signal at US30 Westbound Off-Ramp/University Boulevard ($250,000)
2016/17	Lincoln Way/Hyland Avenue signal replacement
2017/18	Dayton Avenue/East Lincoln Way signal replacement
2018/19	No project
2019/20	Traffic Adaptive System (Lincoln Way – Beach Avenue to Hyland Avenue)

In 2015/16 there is the addition of a new traffic signal location installed at University/HW30 Westbound Off-Ramp as identified in the traffic impact study for the Iowa State University Research Park expansion. The cost of the signal is to be split 50/50 between ISU and the City. The projects included in 2018/19 and 2019/20 are Traffic Adaptive Systems, which is a form of Intelligent Transportation System (ITS) infrastructure that conducts real-time optimization of traffic and pedestrian flow at signalized intersections. Traffic adaptive systems provide significant improvement in efficiency and will provide reliable travel times during all times of the day.

A continued trending in increasing material costs (specifically for copper wiring and steel for the poles and mast arms) and additional Federal design requirements (such as additional ADA facilities) have resulted in an increased cost of a standard traffic signal. The delay and cost change in 2019/20 reflects current bidding prices for Traffic Adaptive Systems as gathered during the 2014 construction season. Staff will be exploring competitive grant opportunities to offset some of the additional costs.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		223,000	75,000	38,000	38,000		72,000
Construction		1,229,000	325,000	212,000	212,000		480,000
	TOTAL	**1,452,000**	**400,000**	**250,000**	**250,000**		**552,000**
FINANCING:							
Road Use Tax		1,327,000	275,000	250,000	250,000		552,000
Iowa State University		125,000	125,000				
	TOTAL	**1,452,000**	**400,000**	**250,000**	**250,000**		**552,000**

PROGRAM – ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Public Safety – Traffic	Public Works	060-7568-429 320-7568-429 060-7569-429

TRAFFIC CALMING PROGRAM **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This program is the result of completing the Neighborhood Traffic Calming Handbook. This handbook is meant to serve as a technical guide, compiling nationally recognized best practices in the field of traffic calming, and then modifying those methods and their application to fit the context of the Ames community.

The 2015/16 location has been identified as Hyde Avenue. This project is to be coordinated with the paving of Grant Avenue. Some residents on Hyde Avenue have been concerned about speeding in their area, and with the paving of Grant Avenue, this route to the Gilbert schools is anticipated to still be an issue. Specific measures to be used are still to be determined.

Cost change is due to updated cost estimates.

LOCATION

2015/16 Hyde Avenue (Grant Avenue to Bloomington Road)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		45,000	45,000				
	TOTAL	**45,000**	**45,000**				
FINANCING:							
Road Use Tax		45,000	45,000				
	TOTAL	**45,000**	**45,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Traffic	Public Works	060-7512-429

TRAFFIC ENGINEERING STUDIES **PROJECT STATUS:** Scope Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

The studies planned for this annual program will focus on examining the traffic signal system, the bicycle path (shared use path) system, and accident data to provide traffic information used for planning future capital improvement projects. These studies will identify those projects that will improve the efficiency, effectiveness, and safety of those systems.

COMMENTS

2015/16	Shared Use Path Utilization & Regional Trail Connectivity Study
2016/17	Multi-Modal Crash Analysis: GIS-Based Safety Evaluation Tool
2017/18	Travel Time Reliability Study
2018/19	2045 Long Range Transportation Plan Update
2019/20	No Project

The 2015/16 project will gather traffic volumes of bicycles/pedestrians on the City's shared use path system by time of day and facility type to prioritize maintenance and winter maintenance activities. This will aid in prioritizing alternative funding source pursuits. It will also focus on routes in and out of the Ames region to provide a planning tool for programming improvements needed to connect Ames to the greater Central Iowa Trail system.

The 2016/17 project will expand on a traffic safety tool that was completed for the City in 2011. This study will take those procedures/tools and automate (updating as needed) them in the GIS system. As updated annual data becomes available, the calculations and comparisons will be simplified from the current manual process. In addition, instead of the current site by site analysis, this tool will be city-wide. It is anticipated that this tool will help not only to obtain grants, but also to identify issue locations and ultimately to report safety performance measures.

The project shown in 2018/19 will be an update to the Long Range Transportation Plan (LRTP) for the Ames region. Typically an update to the LRTP takes approximately 24 months to complete. The LRTP is federally required to be update every 5-years, and therefore the anticipated date for approving this update is October 1, 2020.

Reprioritization has resulted in updating the timing of studies.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		650,000	50,000	50,000	50,000	500,000	
	TOTAL	**650,000**	**50,000**	**50,000**	**50,000**	**500,000**	
FINANCING:							
Road Use Tax		250,000	50,000	50,000	50,000	100,000	
MPO/Planning Funds		400,000				400,000	
	TOTAL	**650,000**	**50,000**	**50,000**	**50,000**	**500,000**	

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Traffic	Public Works	060-7538-429

MULTI-MODAL ROADWAY IMPROVEMENTS **PROJECT STATUS:** Scope Change Cost Change

DESCRIPTION/JUSTIFICATION

Multi-modal transportation refers to the various modes used by Ames residents to travel around the transport system. The modes specifically addressed in this program include bicycling and automobiles. This program is aimed at improving the roadway to create a safer interaction between these modes using alternatives such as bike detection, on-street bike lanes, and sharrows. Bike lanes consist of a portion of the roadway designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. Sharrows, also known as shared lane markings, are markings used in lanes shared by bicycles and motor vehicles when a travel lane is too narrow to provide a standard width bike lane. Bike detection improvements include retrofitting signalized intersections to radar detection to facilitate the movement of bicycles. These improvements retrofit the existing street to provide a useful and appropriate route of travel for these popular modes used by Ames residents. The proposed locations and treatments are identified in the Long-Range Transportation Plan.

LOCATIONS

2015/16 **Bike Detection:** (9th Street/Grand Avenue, Welch Avenue/Lincoln Way, 13th Street/Northwestern Avenue; Lynn Avenue/Lincoln Way)

2016/17 **Sharrows:** Clark Avenue (6th Street to 24th Street)

2017/18 **Sharrows:** Hoover Avenue (30th Street to Bloomington Road); Northwestern Avenue (6th Street to 30th Street) - will coordinate with roadway surfacing projects

2018/19 **Sharrows:** Duff Avenue (6th Street to Lincoln Way)

The 2015/16 project has been reprioritized based on citizen feedback to improve the safety for biking at key signalized intersections. This includes inclusion of both the Welch Avenue and Lynn Avenue locations as directed by City Council during the Campustown bike safety discussion in May 2014. As a result, bike detection at selected intersections will be done in 2015/16 rather than sharrows on Clark Avenue as previously planned (scope change). This change adds $81,000 in cost that year. The remaining projects in this program were delayed to allow for the bike detection installations.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		17,400	8,000	2,900	5,500	1,000	
Construction		164,600	80,000	26,100	49,500	9,000	
	TOTAL	**182,000**	**88,000**	**29,000**	**55,000**	**10,000**	
FINANCING:							
Road Use Tax Fund		182,000	88,000	29,000	55,000	10,000	
	TOTAL	**182,000**	**88,000**	**29,000**	**55,000**	**10,000**	

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Public Safety – Traffic	Public Works	060-7521-429

US 69 INTERSECTION IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
Intersection improvement projects along US 69 within and just outside the City limits are targeted to alleviate congestion and reduce accidents.

COMMENTS
Proposed schedule:
2016/17: 13th Street/Grand Avenue (planning/public participation)

The Long Range Transportation Plan (LRTP), adopted in September 2010, included this project as a high (short-term) priority. Responses from the public input survey during the 2010 LRTP update showed this intersection as the clear, highest priority for further study.

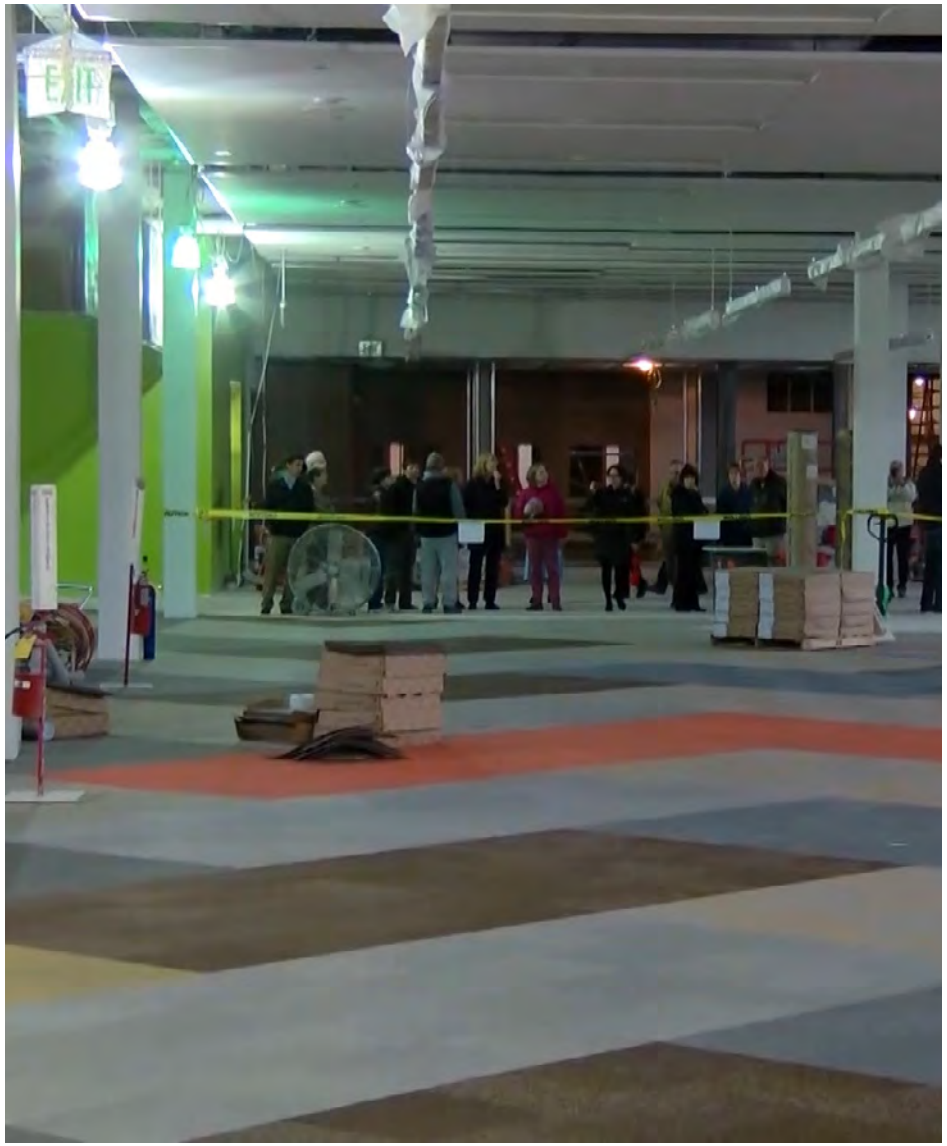
This project will commence during 2016/17 with community interactions, discussion with adjacent property owners and the general motoring public that will continue through the design of improvements. Public involvement will continue as design alternatives are developed. Following this initial public participation phase, design, construction and land acquisition costs will be programmed into the CIP.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Public Discussion		50,000		50,000			
	TOTAL	**50,000**		**50,000**			
FINANCING:							
Road Use Tax		50,000		50,000			
	TOTAL	**50,000**		**50,000**			

PROGRAM – ACTIVITY: Public Safety – Traffic
DEPARTMENT: Public Works
ACCOUNT NO.

UTILITIES

LIBRARY INTERIOR RENOVATION



UTILITIES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Resource Recovery	2,105,800	365,900	318,100	361,600	264,100	796,100	27
Water Treatment	53,154,000	29,301,000	20,454,000	1,414,000	475,000	1,510,000	30
Water Distribution	6,925,000	975,000	1,100,000	2,650,000	1,100,000	1,100,000	38
Storm Sewer	12,144,400	1,930,000	6,556,000	1,255,000	1,255,000	1,148,400	41
Sanitary Sewer	20,493,000	5,525,000	3,579,000	3,685,000	3,795,000	3,909,000	49
WPC Treatment	11,579,000	4,835,000	1,748,000	650,000	3,211,000	1,135,000	53
Electric	55,035,000	26,130,000	2,755,000	7,640,000	5,570,000	12,940,000	65
Total Expenditures	**161,436,200**	**69,061,900**	**36,510,100**	**17,655,600**	**15,670,100**	**22,538,500**	
REVENUES:							
Debt:							
G.O. Bonds	5,152,600	2,144,000	1,858,600	1,150,000			
G.O. Bonds (previously issued)	500,000	500,000					
Electric Revenue Bonds	28,875,000	18,875,000				10,000,000	
State Revolving Fund Loans	63,140,000	31,381,000	21,045,000	3,460,000	3,570,000	3,684,000	
Sub-Total Debt Funding	97,667,600	52,900,000	22,903,600	4,610,000	3,570,000	13,684,000	

UTILITIES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES, continued:						
City:						
Resource Recovery Fund	2,105,800	365,900	318,100	361,600	264,100	796,100
Water Utility Fund	14,034,000	3,858,000	3,863,000	2,128,000	1,575,000	2,610,000
Sewer Utility Fund	11,166,000	3,397,000	1,973,000	1,000,000	3,436,000	1,360,000
Storm Sewer Utility Fund	3,892,000	525,000	780,000	909,000	898,000	780,000
Electric Utility Fund	24,444,400	6,412,500	2,407,850	7,452,350	5,379,600	2,792,100
Sub-Total City Funding	55,642,200	14,558,400	9,341,950	11,850,950	11,552,700	8,338,200
Other:						
Iowa State University	965,600	42,500	347,150	237,650	190,400	147,900
Iowa Department of Transportation	800,000	800,000				
Grant Funds	6,360,800	761,000	3,917,400	957,000	357,000	368,400
Sub-Total Other Funding	8,126,400	1,603,500	4,264,550	1,194,650	547,400	516,300
Total Revenues	**161,436,200**	**69,061,900**	**36,510,100**	**17,655,600**	**15,670,100**	**22,538,500**

UTILITIES - RESOURCE RECOVERY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Resource Recovery System Improvements	1,605,800	365,900	318,100	361,600	264,100	296,100	28
2 Resource Recovery Cold Storage Building	500,000					500,000	29
Total Expenditures	**2,105,800**	**365,900**	**318,100**	**361,600**	**264,100**	**796,100**	
REVENUES:							
City:							
Resource Recovery Fund	2,105,800	365,900	318,100	361,600	264,100	796,100	
Total Revenues	**2,105,800**	**365,900**	**318,100**	**361,600**	**264,100**	**796,100**	

RESOURCE RECOVERY SYSTEM IMPROVEMENTS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This program is to purchase new and replacement components and equipment at the Resource Recovery Plant. Also included is funding for materials for two annual preventive maintenance projects (replacement of the rotary disc screen rollers (RDS) and chains, and rebuilding 20% of the C-1 conveyor). Resource Recovery personnel perform the work to complete the preventive maintenance projects.

COMMENTS

Proposed projects:

2015/16	Preventive Maintenance materials for the replacement of the RDS rollers and chains ($46,250); replace tipping floor concrete at C-1 area ($180,000); rebuild 20% of the C-1 conveyor ($19,550); #1 mill armored teeth and combs ($39,300); Programmable Logic Controller (PCL) and electric upgrade ($18,800); electric system arc flash study ($12,000); and replace floor drains in the processing and tipping floor areas ($50,000)
2016/17	Preventive Maintenance materials for the replacement of the RDS rollers and chains ($46,250); rebuild 20% of the C-1 conveyor ($19,550); #1 mill armored teeth and combs ($39,300); dust collection vessel ($205,000); and replace tipping floor scale house ($8,000)
2017/18	Preventive Maintenance materials for the replacement of the RDS rollers and chains ($46,250); rebuild 20% of the C-1 conveyor ($19,550); #1 mill armored teeth and combs ($39,300); fire system air compressor ($15,000); #1 mill replacement hydraulic pumps ($50,000); #1 mill replacement rotor ($36,000); scale software upgrade ($20,500); and 2nd dust collection vessel (final of 4 new) ($135,000)
2018/19	Preventive Maintenance materials for the replacement of the RDS rollers and chains ($46,250); rebuild 20% of the C-1 conveyor ($19,550); #1 mill armored teeth and combs ($39,300); replace Atlas Copco compressor ($60,000); locker room remodel ($20,000); replace spark detection system ($37,000); glass crusher parts replacement – rotor, delabeler, prebreaker ($18,000); and replace C-2 belt ($24,000)
2019/20	Preventive Maintenance materials for the replacement of the RDS rollers and chains ($46,250); rebuild 20% of the C-1 conveyor ($19,550); #1 mill armored teeth and combs ($39,300); #1 mill planetary gear ($141,000); and replace floor drains in the processing and tipping floor areas ($50,000)

The cost increase is due to updating costs of scheduled items; and adding the #1 mill armored teeth and combs in 2016/17 through 2018/19, the PLC and electric upgrade and the electric system arc flash study in 2015/16, the replacement of the tipping floor scale house in 2016/17, the second dust collection vessel in 2017/18, and the items for the 2019/20 project schedule.

LOCATION

Arnold O. Chantland Resource Recovery Plant, 110 Center Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
System Improvements		1,605,800	365,900	318,100	361,600	264,100	296,100
	TOTAL	**1,605,800**	**365,900**	**318,100**	**361,600**	**264,100**	**296,100**
FINANCING:							
Resource Recovery Fund		1,605,800	365,900	318,100	361,600	264,100	296,100
	TOTAL	**1,605,800**	**365,900**	**318,100**	**361,600**	**264,100**	**296,100**

PROGRAM - ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Utilities – Resource Recovery	Public Works	590-8903-489

RESOURCE RECOVERY COLD STORAGE BUILDING **PROJECT STATUS:** Delayed

DESCRIPTION/JUSTIFICATION
This project will provide for construction of a cold storage building on Resource Recovery property to the east of the plant.

COMMENTS
Resource Recovery has been storing equipment for the plant at various places at the Power Plant and in the glass crusher room at the Resource Recovery plant. A cold storage building on Resource Recovery property will provide safe, secure storage for all Resource Recovery equipment at a single location and will give Resource Recovery personnel full-time access to the equipment.

This project is being delayed to allow for coordination with potential gasification projects.

LOCATION
Arnold O. Chantland Resource Recovery Plant, 110 Center Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		500,000					500,000
	TOTAL	**500,000**					**500,000**
FINANCING:							
Resource Recovery Fund		500,000					500,000
	TOTAL	**500,000**					**500,000**

PROGRAM - ACTIVITY: Utilities – Resource Recovery
DEPARTMENT: Public Works
ACCOUNT NO.

UTILITIES - WATER TREATMENT

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 New Water Treatment Plant	44,834,000	26,768,000	18,066,000				31
2 Water Supply Expansion	3,883,000	2,170,000	1,713,000				32
3 Advanced Metering Infrastructure	1,963,000	100,000	440,000	458,000	475,000	490,000	33
4 Water Plant Facility Improvements	439,000	63,000	235,000	141,000			34
5 Source Water Protection Plan	200,000	200,000					35
6 Well Field Standby Power	815,000			815,000			36
7 Old Water Treatment Plant Demolition	1,020,000					1,020,000	37
Total Expenditures	**53,154,000**	**29,301,000**	**20,454,000**	**1,414,000**	**475,000**	**1,510,000**	
REVENUES:							
Debt:							
State Revolving Fund Loans	44,109,000	26,418,000	17,691,000				
City:							
Water Utility Fund	8,434,000	2,883,000	2,763,000	803,000	475,000	1,510,000	
Other:							
FEMA Hazard Mitigation Grant	611,000			611,000			
Total Revenues	**53,154,000**	**29,301,000**	**20,454,000**	**1,414,000**	**475,000**	**1,510,000**	

NEW WATER TREATMENT PLANT **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

The existing Water Treatment Plant utilizes components that date back to the mid-1920s. Concern over the structural condition of the facility, along with a projected need for additional capacity, triggered an Infrastructure and Capacity Assessment to determine the most appropriate, cost-effective course to meeting the community's drinking water needs over the next 20 years. The assessment quantified the numerous structural, mechanical, and electrical challenges with trying to renovate the existing facility. The final conclusion of the assessment, endorsed by City Council in July 2009, resulted in a plan to construct a new 15-million-gallon per day (mgd) lime softening facility on a new site.

COMMENTS

The cost estimate shown below is based on the actual bid price for Contract 2 (treatment building) and on the final cost estimate for Contract 1 (interconnecting pipeline). A 5% contingency is included. The greatest portion of the project is being funded through loans from the Iowa Drinking Water State Revolving Fund (DWSRF). These loans are offered at 1.75% interest and will be repaid over 20 years out of water revenues. The project has been awarded a loan forgiveness of approximately $6,224,000 for constructing the facility to a LEED (Leadership in Energy and Environmental Design) certified standard. A small portion of the expenses for smaller movable equipment with a useful life shorter than the 20 year loan (furniture, a/v equipment, maintenance equipment) is shown coming from the Water Fund.

The anticipated project schedule and budget are as follows:

2008/09	$ 774,000	Alternative analysis and pre-design
2009/10 – 2013/14	$ 899,000	Land acquisition and easements
2012/13 – 2016/17	$ 8,900,000	Final design and construction inspection
2013/14 – 2016/17	$ 62,626,000	Construction phase
2013/14 – 2016/17	$ 835,000	LEED registration and commissioning, permits, special inspections, equipment allowances
Total	$ 74,034,000	

LOCATION

New Water Plant, 1800 E. 13th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering/Legal/Administrative		3,134,000	1,605,000	1,529,000			
Construction		41,700,000	25,163,000	16,537,000			
	TOTAL	**44,834,000**	**26,768,000**	**18,066,000**			
FINANCING:							
Water Utility Fund		725,000	350,000	375,000			
Drinking Water State Revolving Fund		37,885,000	26,418,000	11,467,000			
DWSRF Forgivable Loan		6,224,000		6,224,000			
	TOTAL	**44,834,000**	**26,768,000**	**18,066,000**			

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Water Treatment	Water & Pollution Control	510-3933-489
		512-3933-489

WATER SUPPLY EXPANSION **PROJECT STATUS:** Cost Change Scope Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

As old wells fail and need to be replaced and as demand for treated water increases, additional wells must be drilled. This project will provide new and replacement source water capacity. The currently developed water supply is adequate to meet normal demands until at least 2020. Under drought conditions, however, the yield of the aquifer is reduced, requiring additional wells to achieve the same source water capacity.

COMMENTS

The oldest well field still in use was developed in the 1950s and 1960s. Many of these wells are losing capacity, and the effectiveness of rehabilitating them is decreasing. Site separation constraints make it impossible to re-drill replacement wells in the same well field. Additionally, summer demands during the recent droughts suggest that the source water capacity should be increased in conjunction with the increased treatment capacity that will be available in the new Water Plant. The location for the next well field has been revised using a detailed ground water hydraulic model. New wells are now proposed to be constructed on City-owned land north of East 13th Street and east of the Skunk River. Development of the well field will consist of an interconnecting pipeline and three new wells, each with a capacity of 1,000 gallons per minute (~1.5 million gallons per day). The cost change is primarily associated with updated construction costs and with the addition of backup power generation to the project. Timing of the project would bring the new wells on-line concurrently with the start-up of the new Water Plant. Further into the future, additional source water supplies are planned along I-35 south of Ames.

FY 2012/13	$ 10,104	Test drilling
FY 2014/15	$ 563,000	Design (engineering, survey, geotechnical evaluations)
FY 2015/16	$2,170,000	Construction of three wells and a portion of the pipeline in North River Valley Well Field
FY 2016/17	$1,713,000	Continued construction of pipeline, security, backup power generation and controls from North River Valley Well Field to the New Plant
Total	$4,456,104	

LOCATION

North River Valley Well Field – North of E. 13th and east of Skunk River

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		3,883,000	2,170,000	1,713,000			
	TOTAL	**3,883,000**	**2,170,000**	**1,713,000**			
FINANCING:							
Water Utility Fund		3,883,000	2,170,000	1,713,000			
	TOTAL	**3,883,000**	**2,170,000**	**1,713,000**			

PROGRAM - ACTIVITY: Utilities - Water Production

DEPARTMENT: Water & Pollution Control

ACCOUNT NO. 510-3943-489

ADVANCED METERING INFRASTRUCTURE **PROJECT STATUS:** Cost Change Schedule Change

DESCRIPTION/JUSTIFICATION

This is a multi-year project to convert the water meter reading system from the existing generator/remote technology to the current industry standard of Automated Meter Reading / Advanced Metering Infrastructure (AMR/AMI). While the project includes water meter reading only, the system that will be implemented will accommodate electric meters as well, should that be desired in the future.

COMMENTS

The water meter reading system currently in place is a mechanical system that transmits the meter reading from the water meter (located inside the property) to a remote register on the outside of the property using a low-voltage cable. This technology is obsolete and, as of March 2013, is no longer available. A cross-departmental team evaluated multiple technology platforms utilizing various combinations of "walk-by or drive-by" reads, radio reads, cellular reads, and other methods of obtaining meter readings. The team has concluded that an AMR walk-by or drive-by system would be the most cost-effective, short term solution to replace the old technology. The City has entered into a contract with Itron, Inc. to provide the radio read system, reading equipment and software; and Badger Meter, Inc. to provide water meters for this project. This system is capable of being upgraded to a more sophisticated AMI system in the future that could provide more detailed data collection and could allow meter reading from the office without the need to send a meter reader out into the field.

The cost to convert the entire inventory of water meters to the new reading technology is estimated at approximately $3,752,000 (in 2014 dollars) for equipment (18,990 meters @ $167 per meter); contracted installation (18,990 meter @ $27 per meter); and the necessary field equipment, software, and training ($68,000). The implementation schedule has been accelerated and is now proposed to be accomplished over seven years instead of the ten year schedule shown in previous CIPs, based on concerns expressed by several vendors about integrating multiple generations of technology. A smaller number of meters will be installed in each of the first two years to allow staff to evaluate the time and complexity required. In the remaining five years the installation will be accomplished by a combination of City staff and contracted installation. The "normal" quantity of routine meter replacements (approximately 1,000 per year) and meters for new construction (approximately 400 per year) are included in the operating budget; annual quantities beyond that level (approximately 2,200 per year) are included in this project.

The program is starting in FY 2014/15 with $417,000 budgeted to purchase new meters and cover all the initial costs (software and equipment) of initiating the system.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Equipment		1,963,000	100,000	440,000	458,000	475,000	490,000
	TOTAL	**1,963,000**	**100,000**	**440,000**	**458,000**	**475,000**	**490,000**
FINANCING:							
Water Utility Fund		1,963,000	100,000	440,000	458,000	475,000	490,000
	TOTAL	**1,963,000**	**100,000**	**440,000**	**458,000**	**475,000**	**490,000**

PROGRAM - ACTIVITY: Utilities – Water Meter

DEPARTMENT: Water & Pollution Control

ACCOUNT NO. 510-3947-489

WATER PLANT FACILITY IMPROVEMENTS **PROJECT STATUS:** Cost Change Delayed

DESCRIPTION/JUSTIFICATION
This project involves annual equipment repairs, major maintenance activities, replacement, and upgrades at the Water Treatment Plant and associated remote facilities such as wells, elevated tanks, and booster pump stations.

COMMENTS
The schedule for these improvements is as follows:

2015/16	$ 63,000	Replace high service pump #3
2016/17	$ 135,000	Lime pond security improvements
	$ 100,000	Remote site access control
2017/18	$ 141,000	Construct maintenance building at new treatment plant site

Because of the planned replacement of the Water Treatment Plant, no major facility improvements are planned for the existing plant. The only maintenance and repairs being performed are those necessary to keep the facility operational until the new plant comes online in three years. The projects identified are stand-alone improvements separate from the treatment plant. Additional improvements may be identified in future years. The schedule may change in response to impending failures, regulatory agency requirements, etc.

The Lime Pond Security Improvements and Remote Site Access Control projects were delayed a year to ensure compatibility with the security system to be installed at the new Water Treatment Plant. Replacing high service pump number #3 will increase the flexibility for the plant operators to match demand with pumping rates, and will also improve electrical efficiency. The Maintenance Building at the new treatment plant site will provide storage for lubricating grease and oils separate from the main building, reducing the potential for a large value loss due to fire. Additionally, it will house the facility's tractor and mowers.

The cost change is due to updated cost estimates for high service pump #3 and for the maintenance building.

LOCATION
Various locations

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		439,000	63,000	235,000	141,000		
	TOTAL	**439,000**	**63,000**	**235,000**	**141,000**		
FINANCING:							
Water Utility Fund		439,000	63,000	235,000	141,000		
	TOTAL	**439,000**	**63,000**	**235,000**	**141,000**		

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities - Water Treatment	Water & Pollution Control	510-3910-489

SOURCE WATER PROTECTION PLAN **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION
This project will develop a source water protection plan to protect the alluvial aquifer that supplies the City's municipal drinking water.

COMMENTS
Source water protection plans assist utilities in protecting their drinking water supplies from contamination. They generally consist of 1.) Assessing the specific susceptibility of the source water to contamination, and 2.) Implementing strategies that minimize or mitigate that risk of contamination.

The City water supply currently consists of 22 wells located in four well fields. The City has another well field planned in North River Valley Park. These relatively shallow alluvial wells can be susceptible to impacts from both surface water and ground water contaminants.

This project will include two discrete portions. The first will utilize existing modeling data of the Ames Aquifer to create a comprehensive plan for protection of the municipal drinking water aquifer. The second will include a specific investigation into changes in water chemistry observed in Well Number 22, possibly by contracting with ISU for a graduate student to perform the work. The actual implementation of any mitigation measures will be incorporated into future CIP plans.

LOCATION
Varies

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering/Study		200,000	200,000				
	TOTAL	**200,000**	**200,000**				
FINANCING:							
Water Utility Fund		200,000	200,000				
	TOTAL	**200,000**	**200,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities - Water Production	Water & Pollution Control	510-3920-489

WELL FIELD STANDBY POWER **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION
This project will provide standby electrical power to select wells located in the Hunziker Youth Sports Complex.

COMMENTS
Iowa's Water Supply Design Standards require that a water system have redundant electrical power available. Redundancy may be provided either through "connection to at least two independent public power sources" or by "portable or in-place internal-combustion engines." Redundant power is provided at the Water Treatment Plant and in the High Service Pump Station. Currently, however, none of the city wells are connected to a redundant power supply. Installing standby power was one of the recommendations contained in the utility's 2005 Vulnerability Assessment and Emergency Response Plan. Now that immediate priority recommendations in those documents have been addressed, standby power is now being proposed.

The wells located in the Hunziker Youth Sports Complex are among the highest capacity wells in the City's inventory. Installing standby power to at least some of these wells would allow the water utility to continue to produce treated water, at a reduced capacity, in the event of a prolonged power outage. As future well fields are developed, standby power will become a standard design element.

The most recent update to the Story County Hazard Mitigation Plan specifically included the need for standby power for existing wells. This makes the project eligible for Pre-Hazard Mitigation Grants. The funding source has been changed from Drinking Water SRF loans to a FEMA Hazard Mitigation Grant with a 25% local match from the Water Utility Fund. The project may be accelerated should grant funding become available sooner.

LOCATION
300 E 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		98,000			98,000		
Construction		717,000			717,000		
	TOTAL	**815,000**			**815,000**		
FINANCING:							
Water Utility Fund		204,000			204,000		
FEMA Hazard Mitigation Grant		611,000			611,000		
	TOTAL	**815,000**			**815,000**		

PROGRAM - ACTIVITY: Utilities - Water Production
DEPARTMENT: Water & Pollution Control
ACCOUNT NO.

DEMOLITION OF OLD WATER TREATMENT PLANT

PROJECT STATUS: New

DESCRIPTION/JUSTIFICATION
This project will demolish the treatment structures at the old Water Treatment Plant site.

COMMENTS
The timeline for the new Water Treatment Plant anticipates the facility beginning operation during the summer of 2017. Once the facility has been fully commissioned and is performing reliably, the treatment structures at the old plant can be torn down. This project will demolish the filter building, chemical feed building, external treatment basins, administrative offices, and ¾ million gallon ground storage reservoir. The two-story Technical Services Complex that houses the department's Water Meter and Laboratory Services Divisions will remain. Demolition will take place over a period of three years beginning in FY 2019/20.

FY 2019/20	$ 1,020,000	Demolish ¾ million gallon reservoir, maintenance building, and cold storage buildings
FY 2020/21	$ 1,450,000	Demolish clarifiers, mix tanks, recarbonation tanks, lime feed, CO_2 feed, pipe galleries
FY 2021/22	$ 1,050,000	Demolish treatment building
Total	$ 3,520,000	

LOCATION
300 E. 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering / Admin		110,000					110,000
Construction		910,000					910,000
	TOTAL	**1,020,000**					**1,020,000**
FINANCING:							
Water Utility Fund		1,020,000					1,020,000
	TOTAL	**1,020,000**					**1,020,000**

PROGRAM - ACTIVITY: Utilities - Water Treatment

DEPARTMENT: Water & Pollution Control

ACCOUNT NO.

UTILITIES - WATER DISTRIBUTION

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Water System Improvements	5,375,000	975,000	1,100,000	1,100,000	1,100,000	1,100,000	39
2 Campustown Public Improvements	1,550,000			1,550,000			40
Total Expenditures	**6,925,000**	**975,000**	**1,100,000**	**2,650,000**	**1,100,000**	**1,100,000**	
REVENUES:							
Debt:							
G.O. Bonds	1,150,000			1,150,000			
City:							
Water Utility Fund	5,600,000	975,000	1,100,000	1,325,000	1,100,000	1,100,000	
Sewer Utility Fund	125,000			125,000			
Electric Utility Fund	50,000			50,000			
Sub-Total City Funding	5,775,000	975,000	1,100,000	1,500,000	1,100,000	1,100,000	
Total Revenues	**6,925,000**	**975,000**	**1,100,000**	**2,650,000**	**1,100,000**	**1,100,000**	

WATER SYSTEM IMPROVEMENTS **PROJECT STATUS:** Cost change

DESCRIPTION/JUSTIFICATION

This program provides for replacing water mains in areas that experience rusty water problems. It also provides for installing larger distribution mains in areas that have 4" supply lines, transferring water services from 4" water mains in streets where larger water mains exist, and abandoning 4" water mains. Eliminating duplicate water mains, where possible, improves water flow and helps reduce rusty water. Installing larger distribution lines in areas that have a high concentration of 4" supply lines and less than desirable fire-fighting capacity (predominantly in the older areas of the community) provides larger supply quantities in relation to the current and proposed land uses, in accordance with the Land Use Policy Plan. This program may also include the replacement of leaking valves on larger water mains along major roadways where the complexity of the project encourages replacement by a contractor.

COMMENTS

Water system improvements and water service transfers will be completed at various locations in the community. Project locations will be coordinated with upcoming roadway improvement projects to minimize construction impacts to neighborhoods.

The cost increase is due to the need to replace the 4" water mains and old cast iron water mains in order to provide fire-fighting capacity and improved water quality in the system. The system currently has 13.6 miles of active 4" water main. Improvements to these water mains will result in reduced maintenance costs.

LOCATION

2015/16 Water Main Replacement:
Country Club Boulevard (Pearson Avenue to Beach Avenue); South Duff Avenue (Lincoln Way south approximately 700 feet); East Avenue; and East 3rd Street

2015/16 Water Service Transfer:
10th Street (Grand Avenue to Curtiss Avenue); Gray Avenue (Sunset Drive to Greeley Street); and East 2nd Street (Duff Avenue to Des Moines Avenue and Center Avenue east to end)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		805,000	145,000	165,000	165,000	165,000	165,000
Construction		4,570,000	830,000	935,000	935,000	935,000	935,000
	TOTAL	**5,375,000**	**975,000**	**1,100,000**	**1,100,000**	**1,100,000**	**1,100,000**
FINANCING:							
Water Utility Fund		5,375,000	975,000	1,100,000	1,100,000	1,100,000	1,100,000
	TOTAL	**5,375,000**	**975,000**	**1,100,000**	**1,100,000**	**1,100,000**	**1,100,000**

PROGRAM – ACTIVITY: Utilities – Water Distribution
DEPARTMENT: Public Works
ACCOUNT NO. 510-8462-489

CAMPUSTOWN PUBLIC IMPROVEMENTS **PROJECT STATUS:** Cost Change Revenue Change Scope Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION
This project identifies public improvements necessary as part of the upcoming projects to revitalize Campustown. The water mains, storm sewers, and sanitary sewers along a portion of Welch Avenue (Lincoln Way to Hunt Street) date back to the early 1900s. Considering the age of the infrastructure as well as the increased demand from redevelopment, updated water, storm, and sanitary mains are critical. These improvements will be coupled with new pavement improvements in the area.

COMMENTS
In addition to this major project in FY 2017/18, commencing in FY 2014/15 City Council directed staff to conduct a temporary test project to expand the pedestrian space on the east side of Welch Avenue. Monitoring and feedback from this test project will be considered in these major public infrastructure improvements.

Overall the test project includes: Develop a project to temporarily close parking on east side of 100 and 200 blocks of Welch Avenue (1. Develop concept drawings for Jersey barrier, planters, and other materials. Consider sharrow markings on the 200 block of Welch. Identify a project timeline and costs. 2. Determine data-gathering requirements for the test period. 3. Gather feedback from CAA regarding the options. 4. Return project information to the City Council for approval prior to budget/CIP adoption. 5. Implement the project.) This test project will be implemented in spring/summer 2015 under separate funding.

The cost and revenue changes are the result of adding electric improvements to the construction project as well as including Electric Fund revenue participation for these improvements.

LOCATION
Welch Avenue (Lincoln Way to Hunt Street)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		300,000			300,000		
Construction		1,200,000			1,200,000		
Electric		50,000			50,000		
	TOTAL	**1,550,000**			**1,550,000**		
FINANCING:							
G.O. Bonds		1,150,000			1,150,000		
Water Utility Fund		225,000			225,000		
Sewer Utility Fund		125,000			125,000		
Electric Utility Fund		50,000			50,000		
	TOTAL	**1,550,000**			**1,550,000**		

PROGRAM - ACTIVITY: **DEPARTMENT:** **ACCOUNT NO.**
Utilities – Water Distribution, Storm Sewer, and Sanitary Sewer Public Works

UTILITIES - STORM SEWER

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Flood Mitigation - River Flooding	5,854,000	1,078,000	4,776,000				42
2 Storm Sewer Improvement Program	1,250,000	250,000	250,000	250,000	250,000	250,000	43
3 Storm Sewer Erosion Control Program	2,645,400	327,000	1,000,000	475,000	475,000	368,400	44
4 Low Point Drainage Improvements	750,000	150,000	150,000	150,000	150,000	150,000	45
5 Storm Water Facility Rehabilitation Program	425,000	25,000	100,000	100,000	100,000	100,000	46
6 Storm Sewer Water Quality Improvements	500,000	100,000	100,000	100,000	100,000	100,000	47
7 Storm Sewer System Analysis	720,000		180,000	180,000	180,000	180,000	48
Total Expenditures	**12,144,400**	**1,930,000**	**6,556,000**	**1,255,000**	**1,255,000**	**1,148,400**	
REVENUES:							
Debt:							
G.O. Bonds	2,002,600	144,000	1,858,600				
G.O. Bonds (previously issued)	500,000	500,000					
Sub-Total Debt Funding	2,502,600	644,000	1,858,600				
City:							
Storm Sewer Utility Fund	3,892,000	525,000	780,000	909,000	898,000	780,000	
Other:							
Grant Funds	5,749,800	761,000	3,917,400	346,000	357,000	368,400	
Total Revenues	**12,144,400**	**1,930,000**	**6,556,000**	**1,255,000**	**1,255,000**	**1,148,400**	

FLOOD MITIGATION – RIVER FLOODING **PROJECT STATUS:** Cost Change Revenue Change

DESCRIPTION/JUSTIFICATION

Following the floods of 2010, the City Council established a goal of mitigating the impact of future flooding in Ames. A comprehensive Flood Mitigation Study was completed in late 2013 that considered many possible mitigation alternatives across a wide range of factors, including: degree of reduction of flood water elevation, estimated annual damage reduction, construction costs, ongoing operations and maintenance costs, environmental impacts, and likelihood of obtaining federal grant funding.

COMMENTS

On December 10, 2013, the City Council approved a series of flood mitigation measures. These included discrete elements targeted at: A.) Undertaking a 'stream restoration' of Squaw Creek; B.) Working with IDOT to improve the conveyance capacity of the US Highway 30 bridge; C.) Working through the Squaw Creek Watershed Management Authority to pursue flood mitigation alternatives in the upper reaches of the watershed; and D.) Conducting a workshop to review and discuss the range of possible floodplain regulatory approaches.

This project involves a 'restoration' of the Squaw Creek channel. While the exact scope of work is yet to be defined, a central component would include conveyance improvements within the channel approximately 2,000 feet either side of the South Duff Avenue bridge. This would reduce the water surface elevation of a 1% annual chance flood (i.e. – a "100-year" flood) by approximately 2 feet on South Duff Avenue, a major damage center. As part of this project, staff will evaluate alternatives for providing natural stabilization and restoration options. A consultant will be retained in FY 2015/16 to begin the detailed design work. Outside grant funding through FEMA, REAP, and other possible sources will be pursued. The budget for this project will be updated for the FY 2016/17 CIP once the detailed design work is further along.

A possible future conveyance improvement activity (not included in the five-year CIP) is the lengthening of the Highway 30 bridge by the Iowa Department of Transportation. That work would involve extending the span of the bridge by approximately 430' to the west, at an estimated cost of $7,740,000 (in 2013 dollars).

The cost change is the result of updated cost estimates. Using previously issued General Obligation Bonds in the first year resulted in the revenue change.

LOCATION

South Duff Avenue and Squaw Creek

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Design/Engineering	639,000	500,000	139,000			
Easements	578,000	578,000				
Construction	4,637,000		4,637,000			
TOTAL	**5,854,000**	**1,078,000**	**4,776,000**			
FINANCING:						
General Obligation Bonds	1,338,000	144,000	1,194,000			
General Obligation Bonds (previously issued)	500,000	500,000				
FEMA Hazard Mitigation Grants	4,016,000	434,000	3,582,000			
TOTAL	**5,854,000**	**1,078,000**	**4,776,000**			

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Storm Sewer	Public Works	371-8612-489 376-8612-489 560-8612-489

STORM SEWER IMPROVEMENT PROGRAM **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This annual program is to repair or replace deteriorated storm sewer pipes and intakes. Areas of concentration for storm sewer repairs will be those locations programmed for street improvements and those areas where structural deficiencies are identified.

Many intakes are brick or concrete and have experienced repeated "freeze/thaw" conditions during winters and springs. This repeated freeze/thaw action causes bricks and mortar to deteriorate, resulting in collapsed intakes. This program provides for a proactive response by contractually repairing/replacing intakes on a scheduled basis. In addition to the contractual work provided in this program, City crews provide immediate repair of those intakes that pose an immediate concern for life, health, or safety.

COMMENTS

Maintenance crews, through citizen inquiries and/or storm sewer inspections, have identified storm sewer structural deficiencies within the system. These include areas where the pipe has cracked or is missing sections or pieces of pipe. This program will provide funding to correct these deficiencies.

Completion of the Storm Sewer System Analysis may identify the need for additional improvements as part of the program.

LOCATIONS

2015/16: Mortensen Parkway (University Boulevard to Beach Avenue) – replace/rehab extra deep storm intakes: $100,000
Main Street (under Railroad tracks to Lincoln Way) – clear pipe blockage: $50,000
Other locations as determined

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		175,000	35,000	35,000	35,000	35,000	35,000
Construction		1,075,000	215,000	215,000	215,000	215,000	215,000
	TOTAL	**1,250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**
FINANCING:							
Storm Sewer Utility Fund		1,250,000	250,000	250,000	250,000	250,000	250,000
	TOTAL	**1,250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities - Storm Sewer	Public Works	560-8643-489

STORM SEWER EROSION CONTROL PROGRAM **PROJECT STATUS:** Delayed Cost Change Site Change Revenue Change

DESCRIPTION/JUSTIFICATION
This annual program provides for stabilization of areas that have become eroded in streams, channels, swales, gullies, or drainage ways that are part of the storm sewer system. This program provides a more permanent control of the erosion and will reduce recurring maintenance costs in these areas.

COMMENTS
An inventory of drainage ways within the City has been established based on National Pollution Discharge Elimination System (NPDES) Phase II requirements. Following the floods of 2010, an Urban Stream Assessment was updated, which rated the stream banks of each tributary of Ada Hayden, College Creek, Clear Creek, Onion Creek, Worle Creek, Squaw Creek, and the South Skunk River. This assessment identified areas where stabilization is a priority. As monitoring activities associated with the NPDES permit requirements continue, further locations for future improvements will be identified.

LOCATION
2015/16: Teagarden Drainage Improvements (South Branch drainage channel improvements)
2016/17: South Skunk River bank stabilization (Southeast 16th Street to East Lincoln Way)
2017/18: South Skunk River watershed (along existing shared use path near Homewood Golf Course and Inis Grove)
2018/19: South Skunk River watershed (along existing shared use path near Homewood Golf Course and Inis Grove)
2019/20: Squaw Creek (near Orchard Drive)

The State Revolving Fund (SRF) Sponsored Project funding for this program is a grant connected with SRF funding for the Sanitary Sewer Rehabilitation Program (page 50). The South Skunk River bank stabilization/watershed projects are to mitigate and protect public infrastructure from future damage.

The 2016/17 project (South Skunk River bank stabilization) has been delayed from 2015/16 in the previous CIP ("Flood Mitigation – Localized Flooding" program) and has been combined with this Storm Sewer Erosion Control Program. It is now planned for 2016/17 and will coordinate with construction of a segment of the Skunk River Trail (Shared Use Path System Expansion) (page 94).

The cost change is due to moving the 2016/17 project to this program and to updated cost estimates for the 2017/18 and 2018/19 projects. The revenue change is due to moving into this program the GO Bond funding from the "Flood Mitigation – Localized Flooding" program for the 2016/17 project.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	468,000	67,000	200,000	67,000	67,000	67,000
Construction	2,177,400	260,000	800,000	408,000	408,000	301,400
TOTAL	**2,645,400**	**327,000**	**1,000,000**	**475,000**	**475,000**	**368,400**
FINANCING:						
G.O. Bonds	664,600		664,600			
Storm Sewer Utility Fund	247,000			129,000	118,000	
State Revolving Fund Grant Program	1,733,800	327,000	335,400	346,000	357,000	368,400
TOTAL	**2,645,400**	**327,000**	**1,000,000**	**475,000**	**475,000**	**368,400**

PROGRAM - ACTIVITY: Utilities - Storm Sewer
DEPARTMENT: Public Works
ACCOUNT NO. 560-8632-489

LOW POINT DRAINAGE IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This is the annual program for drainage improvements to decrease flooding at low points. Low point drainage improvements are not focused on residential street locations, but rather on those locations most in need of the improvements as affected by standing water, flooding, and insufficient pipe capacity. The program identifies core locations for improvements each year. In addition, improvements are made at miscellaneous locations identified throughout the year.

During heavy rain, some areas become flooded and damage to private property occasionally occurs. This program provides for installation of drainage improvements to decrease this flooding at low points. In 1994, the following criteria were established for evaluating and prioritizing drainage situations: 1) Potential damage from storm runoff; 2) Emergency vehicle access limitations created by runoff; 3) Number of people affected; 4) Number of structures affected; 5) Street classification; 6) Land use; and 7) Benefits of a project to adjacent areas. Based on these criteria, target areas for improvements are established. These improvements may include construction of detention areas, new pipe systems, and replacement systems to increase the ability to control the runoff so it can be carried by downstream systems.

COMMENTS

Addressing these drainage issues will reduce flooding problems on both public and private property. The amount of time spent setting out barricades in areas that flood during heavy rains will also be reduced. Future projects will be prioritized based on the results of the Sanitary Sewer System Evaluation.

LOCATION

2015/16 Westwood Drive (400 block)
2016/17 Little Bluestem Court
2017/18 Crystal Street (200 block)
2018/19 15th Street (Wilson Avenue to Clark Avenue)
2019/20 Airport Road and South Riverside Drive area

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		150,000	30,000	30,000	30,000	30,000	30,000
Construction		600,000	120,000	120,000	120,000	120,000	120,000
	TOTAL	**750,000**	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**
FINANCING:							
Storm Sewer Utility Fund		750,000	150,000	150,000	150,000	150,000	150,000
	TOTAL	**750,000**	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**

PROGRAM - ACTIVITY: Utilities - Storm Sewer
DEPARTMENT: Public Works
ACCOUNT NO. 560-8654-489

STORM WATER FACILITY REHABILITATION PROGRAM **PROJECT STATUS:** Cost Change Delayed

DESCRIPTION/JUSTIFICATION

In accordance with *Municipal Code*, new developments within the community are required to provide storm water management quantity control. This means maintaining storm water runoff discharge at pre-developed conditions through use of extended detention and/or retention. Through establishment of developers' agreements, the City of Ames has accepted responsibility for the long-term maintenance of many of these facilities. As these facilities age, sediment accumulates, volunteer vegetation becomes more prevalent, erosion occurs, and structures need to be improved. This annual program addresses those concerns.

COMMENTS

As part of the new post-construction storm water management ordinance adopted in April 2014, commercial and industrial land owners are responsible to maintain their own storm water facilities. This ordinance also outlines that the homeowner's association/owner for residential development will maintain all water quality features. However, the City is responsible for long-term maintenance of the regional detention facilities providing water quantity control.

Delay and cost change are due to introducing the survey and hydraulic analysis for Pete Cooper's Subdivision project in 2015/16 to better identify a project scope for the future 2016/17 project.

LOCATION

2015/16 Pete Cooper's Subdivision (SE 5th Street/South Dayton Avenue) (survey and hydraulic analysis)
2016/17 Pete Cooper's Subdivision (SE 5th Street/South Dayton Avenue) (construction and design)
2017/18 Bloomington Heights West Subdivision (west of Hyde Avenue)
2018/19 Northridge Heights Subdivision (near GW Carver)
2019/20 Spring Valley Subdivision (detention area north of 4811 Idaho Circle)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		105,000	25,000	20,000	20,000	20,000	20,000
Construction		320,000		80,000	80,000	80,000	80,000
	TOTAL	**425,000**	**25,000**	**100,000**	**100,000**	**100,000**	**100,000**
FINANCING:							
Storm Sewer Utility Fund		425,000	25,000	100,000	100,000	100,000	100,000
	TOTAL	**425,000**	**25,000**	**100,000**	**100,000**	**100,000**	**100,000**

PROGRAM - ACTIVITY: Utilities – Storm Sewer

DEPARTMENT: Public Works

ACCOUNT NO. 560-8622-489

STORM SEWER WATER QUALITY IMPROVEMENTS **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

Improvement/treatment of water quality for new development and re-development in the Ames community has been incorporated into the newly adopted Post Construction Stormwater Management Ordinance. This addresses removal of sediment and nutrients before they enter waterways such as Squaw Creek and South Skunk River. This program includes treatment of the water quality volume from public impervious area (pavement).

COMMENTS

This new program includes installation of bioretention cells, vegetated swales, native landscape, and rain gardens, soil quality restoration, and other approved best management practices at various locations in the community. These best management practices may be combined with a street improvement project, where the neighborhood/adjacent land owners agree to help with day-to-day maintenance.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		75,000	15,000	15,000	15,000	15,000	15,000
Construction		425,000	85,000	85,000	85,000	85,000	85,000
	TOTAL	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**
FINANCING:							
Storm Sewer Utility Fund		500,000	100,000	100,000	100,000	100,000	100,000
	TOTAL	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**

PROGRAM - ACTIVITY: Utilities – Storm Sewer

DEPARTMENT: Public Works

ACCOUNT NO. 560-8601-489

STORM SEWER SYSTEM ANALYSIS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

In recent years, localized flash flooding has occurred at various locations around the City of Ames during high rainfall events. The City does not currently have as accurate a method of mapping the storm sewer system within the Geographic Information System (GIS) as it does with other utility systems. As the Sanitary Sewer System Evaluation continues to progress and rehabilitation of the sanitary sewer system is completed to remove infiltration/inflow, additional pressure is added to the storm sewer system. Localized flooding could potentially increase. Therefore, this project includes establishment of an accurate GIS storm sewer system and hydraulic modeling of the network.

COMMENTS

This analysis will aid in identifying deficient storm sewer capacity and future storm sewer improvements.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		720,000		180,000	180,000	180,000	180,000
	TOTAL	**720,000**		**180,000**	**180,000**	**180,000**	**180,000**
FINANCING:							
Storm Sewer Utility Fund		720,000		180,000	180,000	180,000	180,000
	TOTAL	**720,000**		**180,000**	**180,000**	**180,000**	**180,000**

PROGRAM - ACTIVITY: Utilities – Storm Sewer

DEPARTMENT: Public Works

ACCOUNT NO.

UTILITIES - SANITARY SEWER

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Sanitary Sewer Rehabilitation Program	18,338,000	3,470,000	3,554,000	3,660,000	3,770,000	3,884,000	50
2 East Industrial Area Sewer Extension	2,030,000	2,030,000					51
3 Clear Water Diversion	125,000	25,000	25,000	25,000	25,000	25,000	52
Total Expenditures	**20,493,000**	**5,525,000**	**3,579,000**	**3,685,000**	**3,795,000**	**3,909,000**	
REVENUES:							
Debt:							
G.O. Bonds	2,000,000	2,000,000					
State Revolving Fund Loans	17,338,000	3,270,000	3,354,000	3,460,000	3,570,000	3,684,000	
Sub-Total Debt Funding	19,338,000	5,270,000	3,354,000	3,460,000	3,570,000	3,684,000	
City:							
Sewer Utility Fund	1,155,000	255,000	225,000	225,000	225,000	225,000	
Total Revenues	**20,493,000**	**5,525,000**	**3,579,000**	**3,685,000**	**3,795,000**	**3,909,000**	

SANITARY SEWER REHABILITATION PROGRAM **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This is the annual program for rehabilitation/reconstruction of deficient sanitary sewers and deteriorated manholes at various locations throughout the City. Most of the problem areas are in sewers that can be bundled into a construction package for cost efficiency, or in problem areas deeper than City crews are equipped to handle. This program, therefore, provides for those repairs by outside firms.

COMMENTS

System improvement locations are being identified through the Sanitary Sewer System Evaluation (SSSE) field investigation, which is over 95 percent complete. Through manhole inspections, smoke testing, and televising, severe structural defects (ratings of 4 or 5) have been identified as priorities within this program. It is highly recommended by national standards to fix structural defects with ratings of "5" within 12 months. According to national standards, structural defects with ratings of "4" are necessary to be fixed within five years. It is currently estimated that there are $25.7 million in rating 4 and 5 structural defects to be made in the system. At a rate of $3.47 million per year (plus accounting for the unknowns in the additional 5 percent yet to complete), it is estimated that improvements may take 10 years to complete. This program does not yet reflect any capacity issues that may be identified during modeling efforts associated with the SSSE. Suggested work activities include rehabilitating or replacing manholes, repairing or lining pipe, and similar work. City maintenance crews are continuing to also complete projects identified by the SSSE, as equipment and staffing enables. The goal of the SSSE is to identify and remove major sources of inflow/infiltration as a means of lowering the peak wet weather flow at the treatment plant. Capacity deficiencies will be identified as the SSSE progresses, as weather permits.

Cost change is the result of updated cost estimates due to inflation in construction costs. State Revolving Fund (SRF) financing is increased after 2015/16 to offset these increased cost estimates.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		3,420,000	684,000	684,000	684,000	684,000	684,000
Construction		14,918,000	2,786,000	2,870,000	2,976,000	3,086,000	3,200,000
	TOTAL	**18,338,000**	**3,470,000**	**3,554,000**	**3,660,000**	**3,770,000**	**3,884,000**
FINANCING:							
Sewer Utility Fund		1,000,000	200,000	200,000	200,000	200,000	200,000
State Revolving Fund (SRF)		17,338,000	3,270,000	3,354,000	3,460,000	3,570,000	3,684,000
	TOTAL	**18,338,000**	**3,470,000**	**3,554,000**	**3,660,000**	**3,770,000**	**3,884,000**

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities - Sanitary Sewer	Public Works	520-8543-489 522-8543-489

EAST INDUSTRIAL AREA SEWER EXTENSION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This project includes extending sanitary sewer main to the western limits of the proposed East Industrial annexation area. This area is located north of Lincoln Highway, directly east of the current City limits, west of 590th Avenue and south of the Union Pacific Railroad (UPRR). The project intent is to extend sewer to the western edge of this area in order to be positioned for future extensions to serve the proposed industrial development.

COMMENTS
Water service rights for this area are currently being claimed by Central Iowa Water Association (CIWA). Development in this area will not occur until a territory transfer or service agreement is reached with CIWA. The capability of CIWA to provide adequate domestic and fire fighting needs is yet to be confirmed. Thus, this project does not include any water main extensions at this time. Future water distribution system improvements to serve the area to 590th Street are estimated at $4,000,000.

This project only extends sanitary sewer to the western vicinity of the proposed industrial annexation area. In addition, future sanitary sewer extensions will be needed to extend service to the eastern limits of the development area at 590th Street. That work is estimated to cost at least another $2,000,000.

Prior to construction of this initial extension, a preliminary engineering planning study should be completed. This planning study will include evaluating proposed routing to ensure that this extension will be sized and positioned to serve the future development area. It will also include development of a report for submission to Iowa DNR. In addition, coordination will take place with the Federal Highway Administration to obtain an agreement regarding the crossing of Interstate 35.

This project would not move forward unless an agreement with CIWA is reached.

LOCATION
East Lincoln Way

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Planning	30,000	30,000				
Engineering	200,000	200,000				
Construction	1,800,000	1,800,000				
TOTAL	**2,030,000**	**2,030,000**				
FINANCING:						
G.O. Bonds (Sewer Utility revenue abated)	2,000,000	2,000,000				
Sewer Utility Fund	30,000	30,000				
TOTAL	**2,030,000**	**2,030,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Sanitary Sewer	Public Works	520-8519-489

CLEAR WATER DIVERSION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This is the annual program providing for diversion of footing drain discharge from sanitary sewers to storm sewers.

Clear water from footing drains causes overloading and backups in the sanitary sewer as well as increases in the volume of clean water that is treated at the sewage treatment facility. The Clear Water Diversion program historically involved diverting footing drain discharge from sanitary sewers to storm sewers. This diversion results in lower volumes of clean water needing treatment at the sewage treatment facility, thereby decreasing operating and maintenance costs of that facility. In addition, customers should experience fewer, less severe sewer backups.

COMMENTS
The Inflow and Infiltration Study, undertaken in 1995, showed that in order for clear water diversion to be cost effective, an individual sump pump must discharge in excess of 1,000 gallons per day. To encourage participation in the footing drain grant program, City Council authorized grants to participating property owners. In all, 2,334 footing drain grants were paid to property owners under this program through July 1, 2011, when the grant program was suspended.

After 2010/11, **the footing drain grant portion of this program was suspended and construction of collector lines to eliminate icing on streets has been reduced**. Through completion of the Sanitary Sewer System Evaluation, the future need of the footing drain grant program will be analyzed.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		125,000	25,000	25,000	25,000	25,000	25,000
	TOTAL	**125,000**	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**
FINANCING:							
Sewer Utility Fund		125,000	25,000	25,000	25,000	25,000	25,000
	TOTAL	**125,000**	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**

PROGRAM - ACTIVITY: Utilities - Sanitary Sewer
DEPARTMENT: Public Works
ACCOUNT NO. 520-8585-489

UTILITIES - WATER POLLUTION CONTROL

	PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:								
1	Residuals Handling Improvements	618,000	618,000					54
2	Digester Improvements	3,479,000	1,189,000		165,000	1,740,000	385,000	55
3	Flow Equalization Expansion	1,075,000	1,075,000					56
4	Facility Improvements	531,000	74,000	359,000		98,000		57
5	Clarifier Maintenance	920,000	200,000	210,000	250,000	260,000		58
6	Mechanical & HVAC Replacements	565,000	565,000					59
7	Electrical System Maintenance	397,000	116,000	281,000				60
8	Structural Rehabilitation	2,207,000	786,000	308,000		1,113,000		61
9	Lift Station Improvements	212,000	212,000					62
10	Cogeneration System Maintenance	1,275,000		290,000	235,000		750,000	63
11	Nutrient Reduction Modifications	300,000		300,000				64
	Total Expenditures	**11,579,000**	**4,835,000**	**1,748,000**	**650,000**	**3,211,000**	**1,135,000**	
REVENUES:								
Debt:								
	State Revolving Fund Loans	1,693,000	1,693,000					
City:								
	Sewer Utility Fund	9,886,000	3,142,000	1,748,000	650,000	3,211,000	1,135,000	
	Total Revenues	**11,579,000**	**4,835,000**	**1,748,000**	**650,000**	**3,211,000**	**1,135,000**	

RESIDUALS HANDLING IMPROVEMENTS **PROJECT STATUS:** Delayed Cost Change

DESCRIPTION/JUSTIFICATION

The Water Pollution Control Facility generates approximately 30,000 gallons of treated solids, or residuals, each day. Throughout the year, these solids are held in the facility's storage lagoon and secondary digester, and are ultimately disposed of in the fall as fertilizer on City-owned farm ground adjacent to the facility. A comprehensive review of the solids handling portion of the facility took place in FY 2009/10. The study quantified a shortage in storage capacity, and recommended other modifications to the residuals handling process.

The study also identified contract land application as being more cost-effective than continued City application, based primarily on the high capital cost to replace the land application equipment. Contracted application has been used over the past three years and has proven to be very successful.

COMMENTS

The study identified a deficiency in the storage capacity of treated residuals that will become more severe as the community grows. This project will construct an additional 1.6 million gallons of storage capacity, with associated improvements in the residuals load-out facilities. The decant water return line from the residuals storage lagoon will also be replaced. An additional recommendation from the study to replace the digester mixing system is being incorporated into the separate Digester Improvements project in FY 2014/15.

Design work for the improvements began in mid-2013 and was completed in July 2014. The engineer's opinion of probable cost of construction was $1,790,000. Construction was delayed because the final cost estimate was significantly higher than the budgeted construction amount of $1,330,000. Total updated project costs are estimated to be $2,176,090. This includes engineering, construction, and a construction contingency.

2013/14	$ 101,418	Engineering
2014/15	$ 1,456,582	Engineering ($126,582) and Construction ($1,330,000)
2015/16	$ 618,000	Construction ($618,000)
Total	$ 2,176,000	

LOCATION

WPC Plant; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		618,000	618,000				
	TOTAL	**618,000**	**618,000**				
FINANCING:							
Clean Water State Revolving Fund		618,000	618,000				
	TOTAL	**618,000**	**618,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – WPC Plant	Water & Pollution Control	522-3446-489

DIGESTER IMPROVEMENTS **PROJECT STATUS:** Cost Change Advanced Scope Change

DESCRIPTION/JUSTIFICATION
The WPC Facility uses anaerobic digestion as a core treatment process for wastewater solids. The digestion process stabilizes the waste, reduces the volume of the solids, and provides a measure of pathogen destruction. The process also generates methane gas as a by-product. This gas is captured and used as a fuel source for on-site electrical generation.

Cleaning of the digesters is a major routine maintenance task necessary to ensure that adequate storage volume remains available for the treatment process to be effective. During the previous round of digester cleaning work, it was revealed that the interior piping's protective paint coat needs addressed. Recent process evaluations (Residuals Handling Study, 2010; Long-Range Facility Plan, 2012) identified a series of maintenance needs and improvements to the digesters to maintain the facility's solids handling capacity over the next 20 years. These activities include designing and replacing digester mixing systems, repainting the failing protective paint coatings on the exterior steel digester lids, and replacing piping and valves associated with digester pumping. In FY 2013/14 and 2014/15, the necessary engineering design work was completed and maintenance on the primary digesters was initiated. The scope change and cost change for this project is due to an increase in the construction contingency for the painting projects that have yet to be bid and to accelerate the replacement of the gas piping and safety equipment.

COMMENTS
The anticipated project schedule and budget are as follows:

2015/16	$ 1,189,000	Clean secondary digester ($89,000); repaint interior piping ($317,000); repaint exterior lids on all three digesters ($436,000); replace associated pump room piping and valves ($347,000)
2017/18	$ 165,000	Replace three waste activated sludge pumps ($55,000 each)
2018/19	$ 1,740,000	Replace methane gas piping and safety equipment ($1,404,000); replace 2 secondary digester sludge pumps ($336,000)
2019/20	$ 385,000	Replace 5 primary digester sludge pumps ($385,000)
Total	$ 3,479,000	

LOCATION
WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		145,000				100,000	45,000
Construction & Equipment		3,334,000	1,189,000		165,000	1,640,000	340,000
	TOTAL	**3,479,000**	**1,189,000**		**165,000**	**1,740,000**	**385,000**
FINANCING:							
Sewer Utility Fund		3,479,000	1,189,000		165,000	1,740,000	385,000
	TOTAL	**3,479,000**	**1,189,000**		**165,000**	**1,740,000**	**385,000**

PROGRAM - ACTIVITY: Utilities – WPC Plant
DEPARTMENT: Water & Pollution Control
ACCOUNT NO. 520-3450-489

FLOW EQUALIZATION EXPANSION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

The Ames WPC Facility uses an advanced secondary (i.e. biological) treatment process. The biological processes are designed to operate within a range of flow rates. If the flows increase too high or too rapidly, the biomass can be washed out of the treatment basins, negatively impacting the treatment effectiveness for several days or weeks to follow. Facilities like Ames' are commonly constructed with flow equalization basins. Ames currently has an effective flow equalization storage capacity of 4.4 million gallons.

When flows coming in to the plant exceed the hydraulic capacity of the biological process, the excess flow is diverted to the equalization basins and is later brought back through the treatment process, once the incoming flow rate drops below the capacity of the plant. On those rare occasions when the basins are completely filled and the influent flow rate has not yet dropped below capacity, the equalization basins begin a controlled overflow. The overflow is recombined with the treated plant effluent prior to discharge to the receiving stream, with the combined flow meeting all numeric discharge limits in the NPDES permit. From 1999 through 2006, this type of blending only occurred for a total of a few hours. With the heavy rainfall and flooding that took place in 2007 and 2008, the overflow was used for at least a portion of 12 different days. In the record flooding of August 2010, blending occurred for portions of six days. During the drought years of 2011, 2012, and 2013, no blending occurred. Blending occurred for just a few hours on July 2, 2014, in conjunction with another high water event when the South Skunk River exceeded flood stage.

COMMENTS

Based on a capacity evaluation conducted by the City's consultant as a part of the Long-Range Facility Plan, it has been determined that peak wet-weather flows can be appropriately processed through a combination of:

1. Operational modifications at the treatment plant;
2. Removal of 25% of the Inflow and Infiltration (I/I) reaching the WPC Facility through the Sanitary Sewer Rehabilitation Project; and
3. A 6-million gallon expansion to the equalization basin capacity.

The proposed project would add an additional 6.0 million gallons, increasing the plant's effective storage capacity to 10.4 million gallons.

LOCATION

WPC Plant; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		90,000	90,000				
Construction		985,000	985,000				
	TOTAL	**1,075,000**	**1,075,000**				
FINANCING:							
Clean Water State Revolving Fund		1,075,000	1,075,000				
	TOTAL	**1,075,000**	**1,075,000**				

PROGRAM - ACTIVITY: Utilities - WPC Plant

DEPARTMENT: Water and Pollution Control

ACCOUNT NO. 522-3456-489

WPC PLANT FACILITY IMPROVEMENTS **PROJECT STATUS:** Cost Change Scope Change

DESCRIPTION/JUSTIFICATION

It is necessary to plan for the orderly repair, replacement, and upgrade of the Water Pollution Control Facility equipment in order to continue high-quality treatment and comply with environmental regulations. This project involves annual equipment repairs, maintenance, replacement, and upgrades at the plant. This facility became fully operational in November 1989. Life expectancies for plant equipment vary from five to six years to more than ten years.

COMMENTS

The scope of this project has been updated following the completion of the Long-Range Facility Plan in late 2012. Individual projects have been prioritized to gradually increase to the level of re-investment recommended by the study. The project shown in FY 2015/16 is a new project that was triggered when a 30" pipeline elbow developed a leak and began spraying water inside a motor control center room, and was repaired as an emergency. There are two other elbows on that same pipeline that have been subjected to the same excessive wear from turbulence of the wastewater carrying sand and grit. The projects shown in FY 2016/17 and FY 2018/19 are unchanged from what has been shown in previous years.

2015/16	Raw Water Pump Station Elbow Repairs ($74,000)
2016/17	Trickling filter pump station repainting ($59,000); Grease receiving station upgrade ($300,000)
2018/19	Replace plant phone/paging system ($98,000)

LOCATION

WPC Plant; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		38,000		38,000			
Construction and Equipment		493,000	74,000	321,000		98,000	
	TOTAL	**531,000**	**74,000**	**359,000**		**98,000**	
FINANCING:							
Sewer Utility Fund		531,000	74,000	359,000		98,000	
	TOTAL	**531,000**	**74,000**	**359,000**		**98,000**	

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities - WPC Plant	Water & Pollution Control	520-3454-489

WPC CLARIFIER MAINTENANCE **PROJECT STATUS:** Advanced Cost Change

DESCRIPTION/JUSTIFICATION
This project includes major structural and mechanical maintenance activities for the eight clarifiers at the WPC facility.

COMMENTS
The clarifier drives and mechanisms were inspected in 2012. Replacement of the drives was originally recommended to begin in FY 2016/17, with priority given to the intermediate and final clarifiers. Staff has increasingly noticed issues with the intermediate and final clarifier drives and recommends advancing repairs so rehabilitation of the drives can be completed at a lower cost than total replacement. No significant structural concerns were identified with the metal mechanisms, and total replacement is not believed to be needed at this time. When the drives are replaced, the mechanisms will be re-evaluated and a replacement schedule prepared, if appropriate.

2015/16	Replace one intermediate and one final clarifier drive ($200,000)
2016/17	Replace one intermediate and one final clarifier drive ($210,000)
2017/18	Replace two of four primary clarifier drives ($250,000)
2018/19	Replace two of four primary clarifier drives ($260,000)

LOCATION
WPC Facility; four miles south of Highway 30, east of I-35

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Replace Intermediate Clarifier Drives	205,000	100,000	105,000			
Replace Final Clarifier Drives	205,000	100,000	105,000			
Replace Primary Clarifier Drives	510,000			250,000	260,000	
TOTAL	**920,000**	**200,000**	**210,000**	**250,000**	**260,000**	
FINANCING:						
Sewer Utility Fund	920,000	200,000	210,000	250,000	260,000	
TOTAL	**920,000**	**200,000**	**210,000**	**250,000**	**260,000**	

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – WPC Plant	Water & Pollution Control	520-3429-489

MECHANICAL AND HVAC REPLACEMENTS **PROJECT STATUS:** Cost Change Delayed

DESCRIPTION/JUSTIFICATION

Mechanical air handling systems are critical in a wastewater treatment facility both for life safety of building occupants and for extending the life of equipment. This project replaces the equipment described below with like-kind equipment. Many of the components have already been replaced once during the life of the treatment plant.

COMMENTS

Portions of the Administration Building's HVAC system have failed. The raw water pump station grit alley make-up air unit, solids contact building make-up air unit, and digester heat recovery unit are recommended for replacement based on their age and condition. The cost estimate for the digester heat recovery unit in FY 15/16 has been adjusted to account for the requirements of the Standard for Fire Protection in Wastewater Treatment and Collection Facilities (NFPA 820). In order to be more cost effective, staff proposes packaging the previous FY 2014/15 Solids Contact Units and Grit Alley Make Up Air Unit and the FY 2015/16 Digester Heat Recovery. Engineering for the units will be completed in FY 2014/15 and construction will be bid together in FY 2015/16. The Administration Building HVAC component was delayed one year to allow for the screw pump rehabilitation and painting to be bid as a single package.

2014/15	$118,000	Engineering ($35,000) and Construction of Solids Contact Units, Grit Alley Make-up Air Unit and Digester Heat Recovery ($83,000)
2015/16	$565,000	Construction of Solids Contact Heat Recovery Units, Grit Alley Make-Up Air Unit and Digester Heat Recovery Unit ($220,000), Engineering ($45,000) and Construction ($300,000) Administration Building HVAC replacement
Total	$683,000	

LOCATION

WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		45,000	45,000				
Construction/Equipment		520,000	520,000				
	TOTAL	**565,000**	**565,000**				
FINANCING:							
Sewer Utility Fund		565,000	565,000				
	TOTAL	**565,000**	**565,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – WPC Plant	Water & Pollution Control	520-3452-489

WPC ELECTRICAL SYSTEM MAINTENANCE **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

A dependable method of receiving and distributing power throughout the Water Pollution Control Facility campus is essential to provide necessary protection of the environment and public health. A planned program of major preventive maintenance is recommended to ensure the electrical system is reliable. This project also includes planned repair or replacement of electrical components.

COMMENTS

The list of projects is intended to implement a proactive Preventive Maintenance Program. Several of these projects were identified as part of the long-range facility program completed in 2012. Additional projects may be added in future years as equipment ages and additional work becomes necessary.

2015/16	$ 116,000	Replace exterior-mounted safety switches
2016/17	$ 281,000	Main switchgear preventive maintenance (every five years) ($63,000), Replace main circuit breakers ($218,000)
Total	$ 397,000	

LOCATION

WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction & Equipment		397,000	116,000	281,000			
	TOTAL	**397,000**	**116,000**	**281,000**			
FINANCING:							
Sewer Utility Fund		397,000	116,000	281,000			
	TOTAL	**397,000**	**116,000**	**281,000**			

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – WPC Plant	Water & Pollution Control	520-3438-489

STRUCTURAL REHABILITATION **PROJECT STATUS:** Cost Change Schedule Change

DESCRIPTION/JUSTIFICATION

In order to preserve the significant investment in infrastructure at the Water Pollution Control Facility, periodic structural rehabilitation of buildings and structures is necessary. Because of the value and significance of the structures identified in this project, it is essential that rehabilitation be made prior to a structural failure.

COMMENTS

A comprehensive evaluation of the structural condition of the buildings and structures was performed in 2012. Based on that assessment, the facility is generally in good condition; however, the facility is about 25 years old and is showing signs of age-related deterioration. As a part of the condition assessment, a schedule for structural rehabilitation was developed. The drivers for the schedule are the estimated remaining useful life in each structure and coordination with future improvements to the facility. The mix of projects shown is the same as was included in the prior CIP document; some elements have been shifted between years to group similar activities in the same fiscal year.

2015/16	$ 786,000	Repair precast and cast-in-place concrete deterioration (all except trickling filters) ($250,000); repair solids contact splitter box slabs and sidewalks ($333,000); address settling at Raw Water Pump Station ($37,000); repair perimeter curbs at base of digesters ($166,000)
2016/17	$ 308,000	Joint repairs at sludge pumping building ($46,000); clean and seal precast and cast-in-place concrete ($262,000)
2018/19	$ 1,113,000	Repairs to the Administration Building entrance slab ($184,000); repairs to joints in precast wall panels (all structures except trickling filters) ($450,000); stair support and sidewalk at SW clarifier stair ($18,000); repair drainage and moisture issues around multiple structures ($461,000)

LOCATION

WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		238,000	86,000	33,000		119,000	
Construction		1,969,000	700,000	275,000		994,000	
	TOTAL	**2,207,000**	**786,000**	**308,000**		**1,113,000**	
FINANCING:							
Sewer Utility Fund		2,207,000	786,000	308,000		1,113,000	
	TOTAL	**2,207,000**	**786,000**	**308,000**		**1,113,000**	

PROGRAM - ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Utilities – WPC Plant	Water & Pollution Control	520-3455-489

LIFT STATION IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This project includes a series of upgrades to the wastewater lift stations used to pump sewage from low-lying areas that cannot flow by gravity to the Water Pollution Control Facility.

COMMENTS
Major modifications to the South Dayton Avenue Lift Station and a replacement of the Orchard Drive Lift Station are underway in FY 2014/15. This project will perform a similar rebuild of the Northwood Lift Station in FY 2015/16.

LOCATION
2800 Block of Duff Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		19,000	19,000				
Construction		193,000	193,000				
	TOTAL	**212,000**	**212,000**				
FINANCING:							
Sewer Utility Fund		212,000	212,000				
	TOTAL	**212,000**	**212,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – WPC Plant	Water & Pollution Control	520-3457-489

COGENERATION SYSTEM MAINTENANCE **PROJECT STATUS:** Cost Change Scope Change

DESCRIPTION/JUSTIFICATION

The WPC Facility uses anaerobic digestion as a core treatment process for wastewater solids. The digestion process stabilizes the waste, reduces the volume of the solids, and provides a measure of pathogen destruction. The process also generates methane "bio-gas" as a by-product. This gas is captured and used as a fuel source for on-site electrical generation. The facility has three gas-fired engines capable of operating on either the bio-gas or natural gas. Each engine drives a dedicated electric generator. A heat recovery system on the engines uses the waste heat to warm the digesters.

COMMENTS

This project plans for the regular repair and replacement of the cogeneration system. An engineering study is being conducted in FY 2014/15 to ensure the continued cost effectiveness of the methane generator system prior to undertaking significant maintenance and equipment replacement costs in the upcoming years.

The engines require regular overhauls approximately every 25,000 hours of run time. MG #1 is too small to be used by itself to heat the digesters, making it impractical to use for routine electrical generation. This engine will be replaced with a boiler system in FY 2016/17. This system will provide backup heating capability for the digesters that is considerably less maintenance intensive than an engine/generator set, which can be used should the larger engines be out of service. MG #2 is scheduled for replacement in FY 2019/20 based on the projected end of its useful life.

The anticipated schedule of activities is as shown below.

2014/15	$ 22,500	Engineering Study
2016/17	$ 290,000	Replace MG #1 with boiler system
2017/18	$ 235,000	Overhaul MG #3
2019/20	$ 750,000	Replace MG #2
Total	$1,297,000	

LOCATION

WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		80,000					80,000
Construction		1,195,000		290,000	235,000		670,000
	TOTAL	**1,275,000**		**290,000**	**235,000**		**750,000**
FINANCING:							
Sewer Utility Fund		1,275,000		290,000	235,000		750,000
	TOTAL	**1,275,000**		**290,000**	**235,000**		**750,000**

PROGRAM - ACTIVITY: Utilities – WPC Plant

DEPARTMENT: Water & Pollution Control

ACCOUNT NO.

NUTRIENT REDUCTION MODIFICATIONS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

In early 2013, the Iowa Department of Natural Resources released the Iowa Nutrient Reduction Strategy. This strategy will require the State's 102 largest municipal wastewater facilities to install "technically and economically feasible process changes for nutrient removal." This project would convert the WPC facility to a "Simultaneous Nitrification/Denitrification" treatment scheme to achieve the new numeric nutrient limits.

COMMENTS

The Iowa Nutrient Reduction Strategy lays out a schedule for point source discharges based on the National Pollutant Discharge Elimination System (NPDES) permit renewal cycle for each facility. The next NPDES permit for Ames will be issued in 2015. Within two years of that permit reissuance, Ames must submit to IDNR a preliminary engineering report that evaluates the cost and feasibility of installing nutrient reduction at the facility. The facility will then receive a compliance schedule requiring the construction of nutrient reduction facilities during the term of the following NPDES permit (2020 to 2025).

2016/17	$ 300,000	Preliminary Engineering Report
2020/21	4,368,000	Final Design
2021/22 – 2022/23	31,216,000	Construction
Total	$ 35,884,000	

Construction of the nutrient removal facility will also achieve compliance with an anticipated reduction in ammonia limits, and would also eliminate the need for a substantial rehabilitation of the trickling filters. If the project is not needed due to changes in nutrient standards or other alternative solutions presented, then this project will change. The Simultaneous Nitrification/Denitrification treatment project could be replaced with an Integrated Fixed-film Activated Sludge (IFAS) modification to the solids contact units to achieve the lower ammonia limits ($3,160,000) and the trickling filter rehabilitation ($8,130,000). Staff is working with the Iowa League of Cities on a nutrient trading pilot project for water quality credits that potentially could affect the outcome of this project.

LOCATION

WPC Facility; four miles south of Highway 30, east of I-35

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		300,000		300,000			
	TOTAL	**300,000**		**300,000**			
FINANCING:							
Sewer Utility Fund		300,000		300,000			
	TOTAL	**300,000**		**300,000**			

PROGRAM - ACTIVITY: Utilities – WPC Plant

DEPARTMENT: Water & Pollution Control

ACCOUNT NO.

UTILITIES - ELECTRIC SERVICES

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Electric Services:							
1 Demand Side Management Program	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	67
Transmission:							
2 69 kV Transmission Reconstruction	2,330,000	250,000	520,000	520,000	520,000	520,000	68
3 161 kV Line Relocation	800,000	800,000					69
4 Top-O-Hollow Substation Expansion	2,075,000		125,000	1,950,000			70
5 Ontario Substation 69 kV Breaker Addition	1,150,000			150,000	1,000,000		71
Distribution:							
6 Mortensen Road Feeder Reconstruction	1,130,000		610,000	520,000			72
7 Dayton Avenue Substation Upgrade	1,150,000			200,000	950,000		73
8 Mortensen Road Transformer Protection	450,000				100,000	350,000	74
9 Vet Med Substation Switchgear Upgrade	70,000					70,000	75
Power Plant Capital:							
10 Units #7 and #8 Fuel Conversion	15,000,000	15,000,000					76
11 Continuous Emissions Monitoring System	500,000	500,000					77
12 Power Plant Relay/Control Replacement	675,000	175,000	250,000	250,000			78
13 New Electric Generation Capacity	10,500,000				500,000	10,000,000	79

UTILITIES - ELECTRIC SERVICES, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES, continued:							
Power Plant Maintenance:							
14 Cooling Tower Repairs	3,875,000	3,875,000					80
15 Power Plant Roof Replacement	780,000	230,000		550,000			81
16 Unit #7 Boiler Tube Repair	3,850,000	3,850,000					82
17 Feedwater Heater Tube Replacement	450,000	450,000					83
18 Unit #7 Turbine Generator 5-Year Overhaul	1,250,000		250,000			1,000,000	84
19 Unit #8 Turbine Generator 5-Year Overhaul	4,000,000			2,500,000	1,500,000		85
Total Expenditures	**55,035,000**	**26,130,000**	**2,755,000**	**7,640,000**	**5,570,000**	**12,940,000**	
REVENUES:							
Debt:							
Electric Revenue Bonds	28,875,000	18,875,000				10,000,000	
City:							
Electric Utility Fund	24,394,400	6,412,500	2,407,850	7,402,350	5,379,600	2,792,100	
Other:							
Iowa State University	965,600	42,500	347,150	237,650	190,400	147,900	
Iowa Department of Transportation	800,000	800,000					
Sub-Total Other Funding	1,765,600	842,500	347,150	237,650	190,400	147,900	
Total Revenues	**55,035,000**	**26,130,000**	**2,755,000**	**7,640,000**	**5,570,000**	**12,940,000**	

DEMAND SIDE MANAGEMENT (DSM)
ENERGY CONSERVATION PROGRAMS

PROJECT STATUS: No Change

DESCRIPTION/JUSTIFICATION

This project is to develop and administer programs aimed at reducing demand for electricity. Reductions in the demand for electricity positively impact future energy production/supply costs. Demand Side Management (DSM) programs are utility programs aimed at reducing consumer use of energy through conservation or efficiency measures. Ongoing programs are:

- Residential energy audits
- Residential high efficiency air conditioner rebates
- Residential low income weatherization
- Residential high efficiency lighting rebates
- Residential and commercial efficient appliance rebates
- Commercial custom rebates
- Solar installation rebates
- Residential new construction rebates
- Commercial high efficiency lighting rebates
- Commercial audits
- Power Watch education
- Green Choices alternative energy contribution
- Commercial/industrial power factor correction rebates

Load Management (LM) programs control energy consumption at any instant through the use of mechanical or electronic devices. Ongoing programs are:

- Prime Time Power air conditioner load control

New Demand Side Management (DSM) program changes under consideration are:

- Add rebate for air conditioner tune up to the High Efficiency Air Conditioner Rebate program
- Removal of compact fluorescent lamps (CFL) from Residential and Commercial Efficient Lighting Rebate programs
- Solar demo project
- Add a rebate for Energy Star qualified dehumidifiers to the Appliance Rebate program

New Load Management programs under consideration are:

- Interruptible rates for industrial customers
- Time of use rates

LOCATION

Electric Administration

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Program Development and Administration	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
TOTAL	**5,000,000**	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
FINANCING:						
Electric Utility Fund	5,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
TOTAL	**5,000,000**	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Administration	Electric	530-4815-489

69KV TRANSMISSION RECONSTRUCTION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This is a multi-year project to reconstruct older, deteriorated portions of 69kV transmission lines in project increments of between one and two line-miles of 69kV transmission line per year. The actual length and cost per mile varies by terrain, accessibility, and attachments. Candidate portions of line include the original MidAmerican 69kV tie line that connects the Ames Plant Switchyard to MidAmerican's 69kV source point south of Ames on Highway 69, the Ames Plant to Top-O-Hollow line, the Top-O-Hollow to Stange Road Substation Line, and the Vet Med to Mortensen Road Substation line. The total project will require at least five years and will reconstruct approximately 11 miles of deteriorated 69kV line. Related work will include the reconstruction of those portions of distribution line that are underbuilt on existing transmission lines and/or new distribution underbuild that are needed for capacity and/or reliability improvements and are a logical part of construction along the same line route.

COMMENTS

Iowa State University's (ISU) share of the project is based on a load-ratio-share at the time of implementation. For budgetary purposes, staff is assuming the ISU load-ratio-share to be 17%.

LOCATION

Various

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		330,000	50,000	70,000	70,000	70,000	70,000
Construction		2,000,000	200,000	450,000	450,000	450,000	450,000
	TOTAL	**2,330,000**	**250,000**	**520,000**	**520,000**	**520,000**	**520,000**
FINANCING:							
Electric Utility Fund		1,933,900	207,500	431,600	431,600	431,600	431,600
Iowa State University		396,100	42,500	88,400	88,400	88,400	88,400
	TOTAL	**2,330,000**	**250,000**	**520,000**	**520,000**	**520,000**	**520,000**

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Transmission	Electric	530-4856-489

161KV LINE RELOCATION **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION
Iowa Department of Transportation has proposed an improvement project along I-35 in the vicinity of the Skunk River that will require the relocation of a portion of the Ames 161kV transmission line. 100% of the cost of this relocation will be covered by IDOT.

COMMENTS

LOCATION
I-35 in the vicinity of the Skunk River and 260th Street overpass

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		150,000	150,000				
Construction		650,000	650,000				
	TOTAL	**800,000**	**800,000**				
FINANCING:							
Iowa Department of Transportation		800,000	800,000				
	TOTAL	**800,000**	**800,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Transmission	Electric	530-4812-489

TOP-O-HOLLOW SUBSTATION EXPANSION AND BREAKER ADDITION

PROJECT STATUS: No Change

DESCRIPTION/JUSTIFICATION

This project will convert the existing direct-buried underground 69kV transmission tap connection at the Top-O-Hollow substation to a more reliable dual-source overhead transmission connection, including the necessary relaying and breakers for high-speed/selective line and transformer protection. The scope of this project includes the replacement and expansion of the existing 13.8kV metalclad switchgear to provide the addition of a main breaker, upgrade obsolete air-blast breakers and electromechanical relays with vacuum interrupter breakers and microprocessor-based relaying equipment, and expand the battery and charger system to replace undersized batteries. The project includes the addition of a padmounted capacitor bank for power factor correction and replacement of undersized feeder conduits and cables. The addition of the dual 69 KV transmission source and upgraded 69kV and 13.8 kV relay protection will improve reliability of the 69kV transmission system, improve service to the customers served by this substation, improve worker safety, and provide improved protection to electrical assets from fault damage. The land for this project has been purchased previously to allow for the expansion of the existing substation. Use of breakers for transmission line, transformer, and 13.8kV main breaker protection is consistent with recommended engineering practices in the electric utility industry.

COMMENTS

Iowa State University's (ISU) share of the project is based on a load-ratio-share at the time of implementation. For budgetary purposes, staff is assuming the ISU load ratio share to be a conservative 7% of the total project cost (based on a 17% share of the 69kV facilities, which are estimated to be 40% of the project cost).

2008/09	Land Purchase	$ 24,883
2014/15	Engineering	250,000
2016/17	Engineering	125,000
2017/18	Construction	1,950,000
	Total	$ 2,349,883

LOCATION

Top-O-Hollow Substation, Top-O-Hollow Road west of Calhoun Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		125,000		125,000			
Construction		1,950,000			1,950,000		
	TOTAL	**2,075,000**		**125,000**	**1,950,000**		
FINANCING:							
Electric Utility Fund		1,929,750		116,250	1,813,500		
Iowa State University		145,250		8,750	136,500		
	TOTAL	**2,075,000**		**125,000**	**1,950,000**		

PROGRAM – ACTIVITY: Utilities – Electric Transmission

DEPARTMENT: Electric

ACCOUNT NO.

ONTARIO SUBSTATION 69KV BREAKER ADDITION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This project will add 69kV line and transformer breakers, a main breaker upgrade to the 13.8kV switchgear, and all new 13.8 kV and 69kV relaying and controls to Ontario Road Substation.

The addition of 69kV line and transformer breakers, 13.8kV main breaker, and relaying equipment at Ontario Substation will improve the reliability of transmission service to the substation. This will also improve service provided to customers served by this substation by shortening the duration of outages which may occur.

The use of breakers for 69kV transmission service and for switchgear main breakers for distribution substations is consistent with recommended electric utility industry engineering practices.

COMMENTS
Iowa State University's (ISU) share of the project is based on a load-ratio-share at the time of implementation. ISU's load-ratio-share decreases as the City's load increases, so the City will likely pay a larger share as the project is delayed. For budgetary purposes, staff is assuming the ISU load ratio share to be 8.5% (based on a 17% share of the 69kV facilities, which are estimated to be 50% of the project cost).

LOCATION
Ontario Substation, Delaware Avenue and Utah Drive

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		150,000			150,000		
Construction		1,000,000				1,000,000	
	TOTAL	**1,150,000**					
FINANCING:							
Electric Utility Fund		1,052,250			137,250	915,000	
Iowa State University		97,750			12,750	85,000	
	TOTAL	**1,150,000**			**150,000**	**1,000,000**	

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Transmission	Electric	530-4862-489

FEEDER RELOCATE AND EXTENSION (MORTENSEN ROAD AND STATE AVENUE)

PROJECT STATUS: Cost Increase Scope Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

This project will extend a 13.8kV overhead feeder approximately 1/2 mile north of Mortensen Road along the west side of State Avenue and approximately 1/4 mile of underground 13.8kV feeder along State Avenue and Tripp Street to provide service to new development along State Avenue and Tripp Street. The developer will offset the excess costs of underground for a portion of this feeder by installing the substructures for the necessary feeder extension through its development.

Iowa State University has requested that a portion of the existing 13.8kV double-circuit feeder crossing the ISU Athletic Fields north from Mortensen Rd be relocated along the west side of State Avenue as well, which will require the new feeder extension to be constructed as a double circuited overhead distribution line. ISU will provide the necessary easement to cross its property along State Avenue between Mortensen Rd and Tripp Avenue. Additionally, this project will reconstruct approximately 1/2 mile of deteriorated overhead distribution lines along Mortensen Rd between State Avenue and Welch Avenue. The Substation feeder exits are currently underground and will need to be completely replaced and rerouted as part of the overall construction of these feeder projects, including the installation of padmounted switchgear needed to create feeder ties. Iowa State will contribute the relocation portion of the costs of construction associated with this project. Both ISU and the City of Ames Electric customers will benefit from this project.

2014/15	Engineering	$ 50,000
2016/17	Engineering	90,000
2016/17	Construction	520,000
2017/18	Construction	520,000
	Total	$ 1,180,000

LOCATION

Mortensen Road Substation, 3040 Mortensen Road

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		90,000		90,000			
Construction		1,040,000		520,000	520,000		
	TOTAL	**1,130,000**		**610,000**	**520,000**		
FINANCING:							
Electric Utility Fund		880,000		360,000	520,000		
Iowa State University		250,000		250,000			
	TOTAL	**1,130,000**		**610,000**	**520,000**		

PROGRAM - ACTIVITY: Utilities – Electric Distribution

DEPARTMENT: Electric

ACCOUNT NO.

DAYTON AVE SUBSTATION SWITCHGEAR UPGRADES **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This project will upgrade two existing 13.8 kV distribution metal clad switchgear lineups at Dayton Avenue Substation. The oldest switchgear has obsolete air blast breakers, no main breaker, and electro-mechanical relays. This switchgear needs to be replaced with all-new switchgear with vacuum interrupter breakers, a main breaker, and microprocessor relays. The second switchgear has vacuum interrupter feeder breakers, which do not need to be replaced, but it has no main breaker and uses older-style relays. This project will provide for the addition of a main breaker and replacement of existing distribution relays with modern microprocessor based relays.

The addition of a main breaker will improve safety for workers and improve system reliability through the use of low maintenance breakers and relays.

These upgrades are consistent with recommended electric utility industry engineering practices.

LOCATION

Dayton Ave Substation, Pullman Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		200,000			200,000		
Construction		950,000				**950,000**	
	TOTAL	**1,150,000**			**200,000**	**950,000**	
FINANCING:							
Electric Utility Fund		1,150,000			200,000	950,000	
	TOTAL	**1,150,000**			**200,000**	**950,000**	

PROGRAM – ACTIVITY: Utilities – Electric Distribution

DEPARTMENT: Electric

ACCOUNT NO.

MORTENSEN ROAD SUBSTATION 69KV TRANSFORMER PROTECTION

PROJECT STATUS: No Change

DESCRIPTION/JUSTIFICATION
This project is for the addition of a 69kV breaker, relays and controls to replace the fuse protection on the distribution transformer.

COMMENTS
Use of breakers for transformer protection is consistent with recommended engineering practices in the electric utility industry and will minimize damage to the transformer and surrounding facilities and provide better worker safety in the event of a fault.

2018/19	Engineering	$ 100,000
2019/20	Construction	350,000
	Total	$ 450,000

Iowa State University's (ISU) share of the project is based on a load-ratio-share at the time of implementation. For budgetary purposes, staff is assuming the ISU load-ratio-share to be 17%.

LOCATION
Mortensen Road Substation, 3040 Mortensen Road

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		100,000				100,000	
Construction		350,000					350,000
	TOTAL	**450,000**				**100,000**	**350,000**
FINANCING:							
Electric Utility Fund		373,500				83,000	290,500
Iowa State University		76,500				17,000	59,500
	TOTAL	**450,000**				**100,000**	**350,000**

PROGRAM - ACTIVITY: Utilities – Electric Distribution

DEPARTMENT: Electric

ACCOUNT NO.

VET MED SUBSTATION SWITCHGEAR UPGRADE **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

This project will upgrade the original 13.8 kV distribution metalclad switchgear at the Vet Med Substation. The Vet Med expansion in 2011 installed two new transformers and switchgear, but the existing metalclad switchgear was not upgraded at that time. This project upgrades the metalclad switchgear to add a main breaker and replace older existing relays to current standards. The addition of a main breaker will improve worker safety and improve system reliability, since the use of low maintenance breakers and relays provides protection that operates more quickly and selectively.

These upgrades are consistent with good electric utility industry engineering practices.

2019/20	Engineering	$ 70,000
2020/21	Construction	350,000
	Total	$ 420,000

LOCATION

Vet Med Substation, South Riverside Drive

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		70,000					70,000
	TOTAL	**70,000**					**70,000**
FINANCING:							
Electric Utility Fund		70,000					70,000
	TOTAL	**70,000**					**70,000**

PROGRAM – ACTIVITY: Utilities – Electric Distribution

DEPARTMENT: Electric

ACCOUNT NO.

UNIT #7 AND #8 FUEL CONVERSION **PROJECT STATUS:** Cost Decrease Expanded Scope

DESCRIPTION/JUSTIFICATION

This project is required to meet future Environmental Protection Agency (EPA) air quality requirements for electric generating power plants. The City Council approved the conversion of the Ames Power Plant from coal-fired operation to natural gas-fired operation. Work will include:

- Hiring an engineering firm to develop bid specifications for burners to convert the Unit #7 and #8 boilers to operate on natural gas as the primary fuel source, and a Distributive Control System (DCS) to control the operation of the plant (complete).
- Evaluating the bids and selecting burners for each of the two units (complete).
- Developing piping routes/specifications and other plant specifications necessary to incorporate the new burners into the boilers (FY 2014/15).
- Hiring a general contractor(s) to provide the piping, equipment and installation to complete the coal to natural gas conversion (FY 2014/15).

2014/15	Engineering		4,000,000
	Materials and Installation		7,000,000
2015/16	Materials and Installation		15,000,000
		Total	$ 26,000,000

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Materials and Installation		15,000,000	15,000,000				
	TOTAL	**15,000,000**	**15,000,000**				
FINANCING:							
Electric Revenue Bonds		15,000,000	15,000,000				
	TOTAL	**15,000,000**	**15,000,000**				

PROGRAM - ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Utilities – Electric Production	Electric	530-4807-489

CONTINUOUS EMISSIONS MONITORING SYSTEM REPLACEMENT

PROJECT STATUS: No Change

DESCRIPTION/JUSTIFICATION

This project is for replacement of the continuous emissions monitoring systems on Units #7 and #8 boilers. Continuous emissions monitoring systems provide relative data on the makeup of the plant's emissions. Both systems have key components that are 30+ years old and are no longer supported by the manufacturer. Having a very limited supply of parts and support available will create reliability issues in the future. Due to a battery of testing required, replacement of key components individually can present many logistical issues as well as considerable cost increases due to testing needing to be repeated with each component replacement. With this in mind as well as a need for room to add analytical instrumentation to meet new EPA monitoring requirements in the future, a complete system change-out is recommended.

2014/15	Engineering	50,000
2015/16	Materials and Installation	500,000
	Total	$ 550,000

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Materials and Installation		500,000	500,000				
	TOTAL	**500,000**	**500,000**				
FINANCING:							
Electric Utility Fund		500,000	500,000				
	TOTAL	**500,000**	**500,000**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Production	Electric	530-4861-489

POWER PLANT RELAY/CONTROL REPLACEMENT **PROJECT STATUS:** Cost Increase Advanced

DESCRIPTION/JUSTIFICATION

This project will replace existing electro-mechanical 13.8kV feeders and 4160kV bus differential relays in the Power Plant. The existing relays are obsolete electro-mechanical devices which are becoming difficult to maintain/repair as replacement parts are no longer manufactured. By installing modern, programmable relays and updated controls in this location, long-term reliability can be improved by eliminating the obsolete and maintenance-intensive electro-mechanical relays.

These upgrades are consistent with recommended electric utility industry engineering practices.

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		175,000	175,0000				
Construction		500,000		250,000	250,000		
	TOTAL	**675,000**	**175,000**	**250,000**	**250,000**		
FINANCING:							
Electric Utility Fund		675,000	175,000	250,000	250,000		
	TOTAL	**675,000**	**175,000**	**250,000**	**250,000**		

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Production	Electric	530-4862-489

NEW ELECTRIC GENERATION CAPACITY **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

As the City of Ames grows, demand for electricity rises. To provide reliable electricity, utilities are required to maintain enough generating capacity to meet its peak usage plus a small margin for reserves. The City has 145 megawatts of generation capacity. The utility's current peak was set on July 25, 2012, at 130.7 megawatts. Since then, the City has avoided setting a new peak through targeted Demand Side Management, voluntary customer control, "peak alert" media, and favorable weather. To meet the City's needs in FY 2015/16 and FY 2016/17, the City will continue using these measures in an effort to keep its demand below the all-time peak. In addition, a pilot program may be developed with the utility's largest customers to reduce load on the hottest days and use the markets to buy short-term capacity. By 2019, it is projected that the capacity market will become constrained due to plant retirements caused by the Environmental Protection Agency's new environmental rules. The long term solution is to build or jointly own new generating capacity. A study will begin in FY 2016/17 to determine options to meet the City's long-term demand growth.

COMMENTS

2018/19	Engineering (estimated)	500,000
2019/20	Materials and Labor (estimated)	10,000,000
2020/21	Materials and Labor (estimated)	16,000,000
		26,500,000

Projected cost is $1,300 per kilowatt. Generation is typically added in incremental steps. A 20 MW generator is assumed for this project and projections indicate this new capacity would be enough to meet our future needs to 2027.

LOCATION

To be determined

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		500,000				500,000	
Equipment and Construction		10,000,000					10,000,000
	TOTAL	**10,500,000**				**500,000**	**10,000,000**
FINANCING:							
Electric Revenue Bonds		10,000,000					10,000,000
Electric Utility Fund		500,000				500,000	
	TOTAL	**10,500,000**				**500,000**	**10,000,000**

PROGRAM - ACTIVITY: Utilities- Electric Production

DEPARTMENT: Electric

ACCOUNT NO.

COOLING TOWER REPAIRS **PROJECT STATUS:** Cost Increase Advanced

DESCRIPTION/JUSTIFICATION

The #7 and #8 cooling towers are in need of replacement. Their proper operation is critical to the efficiency of the Power Plant. These towers are outdoor evaporative cross flow towers that are subject to severe environmental operating conditions. The #7 tower had a major rework in the late 1980s when most of the structure, fill, louvers and drift eliminators were replaced. The #8 tower has had minor repairs on several occasions during the last ten years, including limited structure repairs, as well as fill and drift eliminator replacements.

2014/15	Unit #7 & #8 – Engineering (estimated)	125,000
2015/16	Unit #7 & #8 Cooling Tower – Materials and Labor (estimated)	3,875,000
		4,000,000

COMMENTS

Staff has received two independent evaluations on the structural integrity of the towers, both concluding that replacement must be done soon. The particularly harsh winter of 2013/14 put an increased strain on the structures making then susceptible to collapse. The #8 louvers have deteriorated and need to be replaced. These louvers are made of pressed asbestos, which increases the cost of disposal. Due to operating requirements of the Power Plant, it is difficult to schedule these units for repairs because the plant cannot operate without them. These repairs are normally made during the scheduled five-year turbine generator overhauls, but the #8 tower needs to be replaced before that. The #7 tower needs major structural repair in the fan mounting areas and replacement of the fan drive shafts. The fan hubs, blades and shrouds are 42 years old and need to be replaced. The fan deck, hot water basin, and its support also need to be replaced. The recommendation in the inspection report is to replace both cooling towers. This project must be completed to ensure full generation capacity upon completion of the natural gas conversion.

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST							
Materials & Labor		3,875,000	3,875,000				
	TOTAL	**3,875,000**	**3,875,000**				
FINANCING:							
Electric Revenue Bonds		3,875,000	3,875,000				
	TOTAL	**3,875,000**	**3,875,000**				

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Production	Electric	530-4840-489

POWER PLANT ROOF REPLACEMENT **PROJECT STATUS:** Cost Increase Scope Change

DESCRIPTION/JUSTIFICATION

The Power Plant is executing a multi-year roof replacement and repair plan to address roof maintenance in the Plant. Leaking roofs can cause equipment failure if water penetrates electrical cabinet enclosures. Phases I and II of the plan were completed in FY 2008/09 and FY 2009/10 and addressed the roof sections over the turbine room and auxiliary bay. These phases were included in the operating budget of the Plant. This project is Phase III of the plan.

The roof at Gas Turbine 1 (GT1) was replaced 12 years ago with a rubber roof. There is an area in the last couple of years that has been attacked by oil vapors and needs to be replaced. Staff is planning on repairing the affected areas if possible and not replacing the whole roof.

In the Power Plant, there are also some leaks on the 4th level roof at the base of #8 stack that need repairs. These repairs are for a flat roof with aggregate on top. This area of roof is just above the electric control cabinets for #8 precipitators. The leaks on this section are likely due to the amount of work and stress on the roof from recent stack work.

COMMENTS

2015/16 – Repair the roof at the bottom of the #8 stack and a section of roof below #9 coal conveyor, and at the GT-1 site.
2017/18 - The roof sections over the boiler equipment.

LOCATION

Power Plant, 200 East 5th Street
Gas Turbine 1, Pullman Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		20,000	20,000				
Materials and Labor		760,000	210,000		550,000		
	TOTAL	**780,000**	**230,000**		**550,000**		
FINANCING:							
Electric Utility Fund		780,000	230,000		550,000		
	TOTAL	**780,000**	**230,000**		**550,000**		

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Utilities – Electric Production	Electric	530-4875-489

UNIT #7 BOILER TUBE REPAIR **PROJECT STATUS:** Advanced

DESCRIPTION/JUSTIFICATION

The Unit #7 boiler is forty years old and in need of tube repairs. Staff has developed a long-term plan to maintain the operation of the unit through maintenance, engineering, and re-tubing of the boiler. The cost estimates include labor and materials. The bottom throat of the boiler also needs to be enlarged to allow for an increased rate of refuse derived fuel (RDF) for burning.

COMMENTS

2014/15	Engineering	$ 150,000
2015/16	Material and labor for installation	3,850,000
	Total	$ 4,000,000

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Materials and Installation		3,850,000	3,850,000				
	TOTAL	**3,850,000**	**3,850,000**				
FINANCING:							
Electric Utility Fund		3,850,000	3,850,000				
	TOTAL	**3,850,000**	**3,850,000**				

PROGRAM - ACTIVITY: Utilities – Electric Production

Electric

ACCOUNT NO. 530-4873-489

FEEDWATER HEATER TUBE REPLACEMENT **PROJECT STATUS:** Advanced

DESCRIPTION/JUSTIFICATION

Feedwater heaters are devices that use extraction steam from the turbine to preheat the feedwater prior to it returning to the boiler. This increases the efficiency of the entire steam generating system. Two high pressure units were installed in 1982 on Unit #8, and in 1987 on Unit #7. Generally, feedwater heaters can lose up to twenty percent of their tubes and still maintain an adequate thermal transfer capability for normal operations. All the feedwater heaters have surpassed this number of plugged tubes, requiring their replacement. In the FY 2013/14 CIP, the feedwater heaters were budgeted for completion in FY 2016/17. The project is being advanced to FY 2015/16 to coincide with the plant work being done to convert the plant from coal to natural gas.

COMMENTS

Replacement of Unit #8's feedwater heaters was completed in FY 12/13. The replacement of Unit #7's feedwater heaters will be subject to regulatory approval, which will be requested in conjunction with the coal to natural gas conversion.

2011/12	Engineering	$ 23,006
2012/13	Unit #8 materials and labor	996,994
2015/16	Unit #7 materials and labor	450,000
	Total	$ 1,470,000

LOCATION

Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Labor and Equipment		450,000	450,000				
	TOTAL	**450,000**	**450,000**				
FINANCING:							
Electric Utility Fund		450,000	450,000				
	TOTAL	**450,000**	**450,000**				

PROGRAM - ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Utilities – Electric Production	Electric	530-4831-489

UNIT #7 TURBINE GENERATOR FIVE-YEAR OVERHAUL **PROJECT STATUS:** Scope Change

DESCRIPTION/JUSTIFICATION
The Unit #7 turbine generator will be disassembled and necessary repairs made every 5-7 years or after 20,000 hours of operation. An inspection was last done in 2007 and the unit is now due for an overhaul in FY 2016/17. However, based on current levels of operation of the unit, the overhaul scheduled for FY 2016/17 will only be a minor overhaul to inspect the bearings and generator. This work will then allow for a major overhaul to be delayed until FY 2019/20.

COMMENTS
This work is required to inspect the turbine and generator for repairs that may be needed to avoid catastrophic failure of equipment. This overhaul is recommended by boiler and machinery insurance carriers and follows accepted industry standards. Repairs and replacement of worn parts will be done as problems are located during the inspection. The budget covers the inspection process and normal repair/replacement work that should be expected after 20,000 hours of operation.

LOCATION
Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Materials and Labor		1,250,000		250,000			1,000,000
	TOTAL	**1,250,000**		**250,000**			**1,000,000**
FINANCING:							
Electric Utility Fund		1,250,000		250,000			1,000,000
	TOTAL	**1,250,000**		**250,000**			**1,000,000**

PROGRAM - ACTIVITY: Utilities – Electric Production

DEPARTMENT: Electric

ACCOUNT NO.

UNIT #8 TURBINE GENERATOR FIVE-YEAR OVERHAUL **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION
The Unit #8 turbine generator will be disassembled and inspected after 20,000 hours of operation. An overhaul/inspection was done in FY 2012/13 and is due again in FY 2018/19. This work is required to replace worn parts and inspect the turbine and generator for repairs that may be needed to avoid catastrophic failure of equipment. This overhaul is recommended by boiler and machinery insurance carriers and follows accepted industry standards.

COMMENTS
During the last overhaul/inspection of the unit in FY 2012/13, the contractor was able to repair/rebuild most of the worn parts, but noted that some of these will need to be replaced during the next overhaul. Turbine generator parts have long lead delivery times and need to be ordered well in advance of the generator repair process to prevent unnecessary delays in the assembly of the unit. This project involves procuring parts for the Unit #8 turbine generator overhaul, and then installing them in the following fiscal year. Parts to be ordered include first stage nozzle, several blading stages, and one diaphragm. Other parts to be procured will include pilot valve and cylinder, main operating valve, shaft and piston, speed relay valve shaft, cylinder and linkage, shaft packing sets, shaft and thrust bearings, and hydrogen seals.

LOCATION
Power Plant, 200 East 5th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Material/Parts		2,500,000			2,500,000		
Construction		1,500,000				1,500,000	
	TOTAL	**4,000,000**			**2,500,000**	**1,500,000**	
FINANCING:							
Electric Utility Fund		4,000,000			2,500,000	1,500,000	
	TOTAL	**4,000,000**			**2,500,000**	**1,500,000**	

PROGRAM - ACTIVITY: Utilities – Electric Production
DEPARTMENT: Electric
ACCOUNT NO.

TRANSPORTATION

LIBRARY OPENING DAY

TRANSPORTATION - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Streets/Engineering	62,190,018	13,274,718	9,532,000	11,166,000	13,761,500	14,455,800	89
Streets/Maintenance	4,825,000	3,635,000	350,000	280,000	280,000	280,000	103
Transit	7,457,000	1,002,000	1,491,000	3,620,000	772,000	572,000	110
Airport	5,312,000	2,632,000	180,000	100,000	2,400,000		116
Total Expenditures	**79,784,018**	**20,543,718**	**11,553,000**	**15,166,000**	**17,213,500**	**15,307,800**	
REVENUES:							
Debt:							
G.O. Bonds	38,018,990	11,298,990	6,280,000	5,840,000	7,090,000	7,510,000	
G.O. Bonds (previously issued)	500,000	500,000					
Sub-Total Debt Funding	38,518,990	11,798,990	6,280,000	5,840,000	7,090,000	7,510,000	
City:							
Road Use Tax	3,195,000	440,000	440,000	505,000	905,000	905,000	
Local Option Sales Tax	2,550,300	160,000	695,000	461,000	546,500	687,800	
Water Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000	
Sewer Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000	
Electric Utility Fund	750,000	150,000	100,000	200,000	50,000	250,000	
Transit Fund	3,755,800	660,300	799,800	1,031,700	732,000	532,000	
Airport Construction Fund	352,600	72,000	30,600	10,000	240,000		
Sub-Total City Funding	11,103,700	1,582,300	2,165,400	2,307,700	2,573,500	2,474,800	

TRANSPORTATION - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES, continued:						
Other:						
MPO/STP Funds	8,345,000	1,060,000	1,532,000	1,920,000	1,440,000	2,393,000
Federal/State Grants	16,081,928	5,350,728	1,391,200	2,460,000	3,950,000	2,930,000
Private Funds	35,000		35,000			
Federal Transit Administration	2,850,000	301,700		2,548,300		
Federal Aviation Administration	2,849,400	450,000	149,400	90,000	2,160,000	
Sub-Total Other Funding	30,161,328	7,162,428	3,107,600	7,018,300	7,550,000	5,323,000
Total Revenues	**79,784,018**	**20,543,718**	**11,553,000**	**15,166,000**	**17,213,500**	**15,307,800**

TRANSPORTATION - STREET ENGINEERING

	PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:								
1	ISU Research Park - Phase III	6,949,718	6,949,718					91
2	Asphalt Street Pavement Improvements	7,500,000	1,850,000	1,200,000	1,750,000	1,200,000	1,500,000	92
3	Grand Avenue Extension	17,730,000	280,000	1,000,000	4,650,000	6,500,000	5,300,000	93
4	Shared Use Path System Expansion	2,683,300	60,000	835,000	521,000	586,500	680,800	94
5	Concrete Pavement Improvements	5,620,000	1,200,000	1,085,000	865,000	1,600,000	870,000	95
6	Arterial Street Pavement Improvements	4,085,000	1,460,000	345,000	1,580,000	700,000		96
7	Downtown Street Pavement Improvements	2,075,000	850,000	375,000	300,000	250,000	300,000	97
8	Seal Coat Pavement Improvements	4,880,000	350,000	1,050,000	500,000	1,550,000	1,430,000	98
9	Right-of-Way Restoration	1,375,000	275,000	275,000	275,000	275,000	275,000	99
10	CyRide Route Pavement Improvements	2,467,000		1,867,000			600,000	100
11	Collector Street Pavement Improvements	3,925,000		1,500,000	625,000	800,000	1,000,000	101
12	Cherry Avenue Extension	2,900,000			100,000	300,000	2,500,000	102
	Total Expenditures	**62,190,018**	**13,274,718**	**9,532,000**	**11,166,000**	**13,761,500**	**14,455,800**	

TRANSPORTATION - STREET ENGINEERING, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES:						
Debt:						
G.O. Bonds	33,888,990	7,168,990	6,280,000	5,840,000	7,090,000	7,510,000
G.O. Bonds (previously issued)	500,000	500,000				
Sub-total Debt Funding	34,388,990	7,668,990	6,280,000	5,840,000	7,090,000	7,510,000
City:						
Road Use Tax	2,225,000	225,000	225,000	325,000	725,000	725,000
Local Option Sales Tax	2,050,300	60,000	595,000	361,000	446,500	587,800
Water Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000
Storm Sewer Utility Fund	250,000	50,000	50,000	50,000	50,000	50,000
Electric Utility Fund	750,000	150,000	100,000	200,000	50,000	250,000
Sub-Total City Funding	5,525,300	535,000	1,020,000	986,000	1,321,500	1,662,800
Other:						
MPO/STP Funds	8,345,000	1,060,000	1,532,000	1,920,000	1,440,000	2,393,000
Federal/State Grants	13,930,728	4,010,728	700,000	2,420,000	3,910,000	2,890,000
Sub-Total Other Funding	22,275,728	5,070,728	2,232,000	4,340,000	5,350,000	5,283,000
Total Revenues	**62,190,018**	**13,274,718**	**9,532,000**	**11,166,000**	**13,761,500**	**14,455,800**

IOWA STATE UNIVERSITY RESEARCH PARK PHASE III **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

This project is for installation of new street infrastructure, including water main, sewer, and three roundabouts, as part of the Iowa State University (ISU) Research Park Phase III Expansion. The roadway improvements will primarily be funded by a Revitalizing Iowa's Sound Economy (RISE) Grant, as approved by City Council on October 14, 2014. A Tax Increment Financing (TIF) District has been created to finance the remainder of the costs.

The roadway portion of this project includes improvements to reconstruct the intersection of University Avenue and Airport Road into a roundabout, to widen and extend the paving of University Avenue south through the newly planned intersection with North Drive, to construct North Drive through Plaza Loop, and the construction of Plaza Loop. Additional items included in the RISE grant funded project are on-street bike lanes, an off-street pathway (sidewalk) on the west side of University Boulevard, relocation of the City's electric lines, street lighting, on-street storm sewer facilities, and a bus stop pad.

The utilities portion of this project include improvements of water main and sanitary sewer main to serve developable lots with the ISU Research Park. Water main will be installed south along University Boulevard, east along the planned North Drive, and north along South Riverside Drive where it will connect back into the existing water main. The sanitary sewer main will be installed to gravity serve the developable lots.

COMMENTS

Engineering and construction will commence in 2014/15 and continue to projected completion in 2015/16. The general plan of expenditures are show below:

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		767,500	767,500				
Construction		6,182,218	6,182,118				
	TOTAL	**6,949,718**	**6,949,718**				
FINANCING:							
G.O. Bonds (TIF abated)		2,938,990	2,938,990				
RISE Grant		4,010,728	4,010,728				
	TOTAL	**6,949,718**	**6,949,718**				

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Engineering	Public Works	292-8192-439 320-8192-439

ASPHALT STREET PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Site Change Cost Change

DESCRIPTION/JUSTIFICATION

This is the annual program for reconstruction and resurfacing (rehabilitation) asphalt streets, typically located within residential neighborhoods. Streets within residential subdivisions have been installed using full-depth asphalt pavement since mid-1970. Full-depth replacement of these streets has become necessary due to structural pavement failure. Rehabilitation of existing asphalt streets is possible where the base asphalt layer is solid, but the surface course has failed. This program was created in accordance with City Council's goal of strengthening our neighborhoods.

COMMENTS

2015/16	Dotson Drive (Baughman Road to 225 ft south of Lincoln Way); Baughman Road; Beedle Drive (Aplin Road to Lincoln Way); Wellons Drive (Harris Street to cul-de-sac at north end); Wellons Circle; Jeffrey Lane (Harris Street north); Harris Street (Jeffrey Lane west to cul-de-sac); and Aplin Road (Beedle Drive to Wellons Drive)
2016/17	Pierce Avenue; Pierce Circle; and Tyler Avenue
2017/18	Reliable Street (Florida Avenue to North Dakota Avenue); Florida Avenue (Ontario Street to Reliable Street); Delaware Avenue (Ontario Street to Reliable Street); Hutchison Street (Georgia Avenue to Florida Avenue); and Idaho Avenue (Ontario Street north to end)
2018/19	14th Street (Burnett Avenue to Duff Avenue); and 15th Street (Clark Avenue to Duff Avenue)
2019/20	Northwood Drive (Duff Avenue west); Thompson Drive (Northwood Drive north to end); and Trail Ridge Road/Circle

Reconstructing these streets will reduce maintenance costs.

The site and cost changes are due to prioritization of Dotson/Baughman/Beedle/Wellons/Jeffrey/Harris/Aplin in 2015/16, the addition of Tyler Avenue in 2016/17, and the addition of 15th Street in 2018/19. These changes are supported by the pavement management data and the Sanitary Sewer System Evaluation results for future sanitary sewer rehabilitation/replacement.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	1,215,000	280,000	200,000	285,000	200,000	250,000
Construction	6,235,000	1,520,000	1,000,000	1,465,000	1,000,000	1,250,000
Electric Relocation	50,000	50,000				
TOTAL	**7,500,000**	**1,850,000**	**1,200,000**	**1,750,000**	**1,200,000**	**1,500,000**
FINANCING:						
G.O. Bonds	6,950,000	1,300,000	1,200,000	1,750,000	1,200,000	1,500,000
G.O. Bonds (previously issued)	500,000	500,000				
Electric Utility Fund	50,000	50,000				
TOTAL	**7,500,000**	**1,850,000**	**1,200,000**	**1,750,000**	**1,200,000**	**1,500,000**

PROGRAM - ACTIVITY:	DEPARTMENT:	ACCOUNT NO.
Transportation – Streets Engineering	Public Works	373-8119-439 376-8119-439 530-8119-439

GRAND AVENUE EXTENSION **PROJECT STATUS:** Cost Change Delayed

DESCRIPTION/JUSTIFICATION

This project is for the extension of Grand Avenue from Lincoln Way to South 16th Street. Included is South 5th Street (Grand Avenue to South Duff Avenue) as well as improvement to the South Duff Avenue (US 69)/South 16th Street intersection. Extending Grand Avenue to South 16th Street will divert traffic from the US Highway 69 corridor (Grand Avenue to Lincoln Way to South Duff Avenue) to the new extension. It will help alleviate the existing congestion and allow for easier access to businesses along US Highway 69. In addition, through traffic on the Grand Avenue extension will also encounter less traffic congestion.

COMMENTS

This roadway will include turn lanes, a bridge over Squaw Creek, a golf cart underpass at Coldwater Golf Course, and a bike path along the west side of the roadway. Street lighting has also been included in the project costs. Initial planning, environmental analysis (NEPA), and grant applications for this project began in 2013/14 ($423,000). **Future local funding for this program could be highly affected by the success of grants.**

LOCATION

2015/16 South Grand Avenue (Squaw Creek Drive to South 16th Street) and South 5th Street (Grand Avenue to South Duff Avenue) (NEPA Phase II)
2016/17 South Grand Avenue (Squaw Creek Drive to South 16th Street) and South 5th Street (Grand Avenue to South Duff Avenue) (planning and land acquisition)
2017/18 South Grand Avenue (Squaw Creek Drive to South 5th Street) and South 5th Street (Grand Avenue to South Duff Avenue) (engineering and construction)
2018/19 South Grand Avenue (South 5th Street to South 16th Street) (engineering, grading, and box culvert/golf cart passage)
2019/20 Grand Avenue (South 5th Street to South 16th Street) (engineering, bridge, paving); and South Duff Avenue (South 16th Street intersection improvements)

A Transportation Funding Study in 2012/13 identified federal and state grants that may be available for funding this project. The need to finish NEPA (environmental clearances) and the complexity of the project (with many grants for funding) have led to the delay. Cost increase is due to additional NEPA (environmental analysis) in 2015/16.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Planning	580,000	280,000	300,000			
Engineering	2,450,000			650,000	1,000,000	800,000
Land Acquisition	700,000		700,000			
Construction	14,000,000			4,000,000	5,500,000	4,500,000
TOTAL	**17,730,000**	**280,000**	**1,000,000**	**4,650,000**	**6,500,000**	**5,300,000**
FINANCING:						
G. O. Bonds	5,610,000	280,000	300,000	1,530,000	1,500,000	2,000,000
Federal/State Grants	7,820,000		700,000	2,420,000	3,700,000	1,000,000
MPO/STP Funds	4,300,000			700,000	1,300,000	2,300,000
TOTAL	**17,730,000**	**280,000**	**1,000,000**	**4,650,000**	**6,500,000**	**5,300,000**

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Engineering	Public Works	376-8181-439

SHARED USE PATH SYSTEM EXPANSION **PROJECT STATUS:** Site Change Delayed Cost Change Revenue Change

DESCRIPTION/JUSTIFICATION
This program provides for construction of shared use paths on street rights-of-way, adjacent to streets, and through greenbelts. The Transportation Plan identifies those paths that separate bicycle traffic from higher-speed automobile traffic.

COMMENTS
Scheduling the Skunk River Trail Extension segments as proposed will allow the South Ames Business Group to assist in right-of-way connections to those segments and will build from the Southeast Entry Plan. The projects included in this program are subject to acquiring voluntary easements from property owners.

Shared use path maintenance costs will increase due to new shared use path construction.

2015/16	South Dakota Avenue (Mortensen Road north to 902 South Dakota Avenue along east side of roadway) and pedestrian refuge island/rapid flashing beacon near 312/400 South Dakota Avenue for existing shared use path crossing
2016/17	Skunk River Trail (Southeast 16th Street to East Lincoln Way) (bridge construction and bank stabilization at Squaw Creek)
2017/18	Skunk River Trail (Southeast 16th Street to East Lincoln Way) (trail paving)
2018/19	Skunk River Trail (River Valley Park north)
2019/20	Squaw Creek (South Skunk River to South Duff Avenue)

The delay is a shift in fiscal year planned for the Skunk River Trail as staff and the consultant team work through land acquisition negotiations, including alignment alternatives. The Skunk River Trail (Southeast 16th Street to East Lincoln Way) project will be coordinated with the Storm Sewer Erosion Control Program in year 2016/17. The site change reflects the addition of a shared use path infill project along South Dakota Avenue, including the addition of a pedestrian refuge island/rapid flashing beacon system to enhance safety in year 2015/16.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	399,000	9,000	95,000	75,000	102,000	118,000
Land Acquisition	212,300		47,000		76,500	88,800
Construction	2,072,000	51,000	693,000	446,000	408,000	474,000
TOTAL	**2,683,300**	**60,000**	**835,000**	**521,000**	**586,500**	**680,800**
FINANCING:						
Local Option Sales Tax	2,050,300	60,000	595,000	361,000	446,500	587,800
MPO/STP Funds	633,000		240,000	160,000	140,000	93,000
TOTAL	**2,683,300**	**60,000**	**835,000**	**521,000**	**586,500**	**680,800**

PROGRAM – ACTIVITY: Transportation – Streets Engineering
DEPARTMENT: Public Works
ACCOUNT NO. 030-8175-439

CONCRETE PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Cost Change Site Change Delayed

DESCRIPTION/JUSTIFICATION

This annual program is to rehabilitate or reconstruct concrete street sections that have deteriorated, including joint sealing, in order to prevent premature breakdown of the pavement. This work will provide enhanced rideability to residents and visitors.

COMMENTS

2015/16: Friley Road (Gaskill Drive to Beach Avenue); and North 2nd Street (North Riverside Drive to North Maple Avenue)

2016/17: Dawes Drive

2017/18: Ford Street (South Dayton Avenue to Bell Avenue); and Bell Avenue (East Lincoln Way to Ford Street)

2018/19: 8th Street (Northwestern Avenue to Duff Avenue); Douglas Avenue (7th Street to 10th Street); Gaskill Drive (250 feet south of Friley Road to Country Club Boulevard); and Crawford Avenue (end to East 9th Street)

2019/20: Des Moines Avenue (Lincoln Way to East 3rd Street); Center Avenue (Lincoln Way to East 2nd Street); East 3rd Street (Duff Avenue to East Avenue); East 2nd Street (Duff Avenue to Center Avenue); and 5th Street (Northwestern Avenue to Allan Drive)

Repair of these streets will reduce maintenance and repairs needed for them.

The cost change is due to updated cost estimates for the projects. The site change and delay is due to Des Moines Avenue, Center Avenue, East 3rd Street, East 2nd Street and 5th Street formerly being shown in 2015/16. However, findings of the Sanitary Sewer System Evaluation indicate significant sanitary sewer repair is needed in each of these areas. Therefore, delaying will better coordinate this sewer rehabilitation/replacement. Friley Road and North 2nd Street have been advanced after considering updated pavement condition in addition to future sewer rehabilitation/replacement need.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	760,000	150,000	135,000	115,000	260,000	100,000
Construction	4,710,000	1,000,000	900,000	750,000	1,340,000	720,000
Electric Relocation	100,000		50,000			50,000
Street Lighting	50,000	50,000				
TOTAL	**5,620,000**	**1,200,000**	**1,085,000**	**865,000**	**1,600,000**	**870,000**
FINANCING:						
G.O. Bonds	5,220,000	1,100,000	985,000	815,000	1,550,000	770,000
Road Use Tax	250,000	50,000	50,000	50,000	50,000	50,000
Electric Utility Fund	150,000	50,000	50,000			50,000
TOTAL	**5,620,000**	**1,200,000**	**1,085,000**	**865,000**	**1,600,000**	**870,000**

PROGRAM – ACTIVITY: Transportation - Streets Engineering

DEPARTMENT: Public Works

ACCOUNT NO. 376-8163-439
060-8163-439
530-8163-439

ARTERIAL STREET PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Site Change Cost Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

This annual program utilizes current repair and reconstruction techniques to improve arterial streets with asphalt or concrete. These pavement improvements are needed to restore structural integrity, serviceability, and rideability. Targeted streets are reaching a point of accelerated deterioration. By improving these streets prior to excessive problems, the service life will be extended.

COMMENTS

2015/16	13th Street (ISU/Ames jurisdiction limit west of Crescent Street to UPRR)
2016/17	West Lincoln Way (County Line Road to west corporate limits)
2017/18	East Lincoln Way (South Duff Avenue to Skunk River)
2018/19	North Dakota Avenue (UPRR to Ontario Street)
2019/20	No project

Improving these streets will reduce maintenance costs. This reduction will allow for additional and earlier maintenance of other streets.

The site and cost changes are due to the addition of the 13th Street project and re-prioritization considering updated pavement management data and future sanitary sewer rehabilitation identified in the Sanitary Sewer System Evaluation.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	494,000	200,000	45,000	155,000	94,000	
Construction	3,491,000	1,260,000	300,000	1,325,000	606,000	
Street Lighting	100,000			100,000		
TOTAL	**4,085,000**	**1,460,000**	**345,000**	**1,580,000**	**700,000**	
FINANCING:						
G. O. Bonds	1,865,000	400,000	345,000	420,000	700,000	
Electric Utility Fund	100,000			100,000		
MPO/STP Funds	2,120,000	1,060,000		1,060,000		
TOTAL	**4,085,000**	**1,460,000**	**345,000**	**1,580,000**	**700,000**	

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation - Streets Engineering	Public Works	376-8147-439
		320-8147-439

DOWNTOWN STREET PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This annual program is for the rehabilitation/reconstruction of streets within the downtown area (Lincoln Way to 7th Street and Grand Avenue to Duff Avenue). These projects involve pavement reconstruction, rehabilitation of storm and sanitary sewers, and streetscapes. This program will meet the recommendations of the Downtown Improvements Study for the side streets in the downtown area.

COMMENTS

Improvements to the streets in the downtown area will enhance the Main Street Cultural District.

The cost change is due to updated cost estimates for the 2015/16, 2016/17, and 2017/18 projects.

LOCATION

2015/16	Clark Avenue (Lincoln Way to Main Street)
2016/17	Sherman Avenue
2017/18	Main Street Alley (Duff Avenue to Douglas Avenue); and Main Street Alley (Kellogg Avenue to Burnett Avenue)
2018/19	Market Avenue
2019/20	Lincoln Way Alley (Duff Avenue to Kellogg Avenue)

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	272,000	120,000	50,000	35,000	32,000	35,000
Construction	1,653,000	680,000	325,000	215,000	218,000	215,000
Electric	150,000	50,000		50,000		50,000
TOTAL	**2,075,000**	**850,000**	**375,000**	**300,000**	**250,000**	**300,000**
FINANCING:						
G. O. Bonds	1,925,000	800,000	375,000	250,000	250,000	250,000
Electric Utility Funds	150,000	50,000		50,000		50,000
TOTAL	**2,075,000**	**850,000**	**375,000**	**300,000**	**250,000**	**300,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Engineering	Public Works	376-8156-439 530-8156-439

SEAL COAT STREET PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This is the annual program for removal of built-up seal coat from streets with asphalt surface. This program restores surface texture, corrects structural deficiencies, removes built-up seal coat, and prevents deterioration of various streets. This resurfacing process results in better riding surfaces, increased safety with improved surface texture, and increased life expectancy of streets. Built-up seal coat on streets causes excess crown which results in vehicles dragging at driveway entrances. Complete removal of this built-up seal coat allows for repair to curb and gutter and placement of 4" of asphalt surface.

COMMENTS

The areas to be resurfaced are chosen each spring based on the current street condition inventory and funding availability. The intent is to maintain a consistent bond issue each year over five years. Cost estimates include funding for concrete curb and gutter repairs that need to be made prior to street asphalt being placed and also include pedestrian improvements to meet the most recent state and federal accessibility requirements.

Street maintenance operation costs for patching will be reduced for the streets involved in this program.

The cost change is due to balancing the level of G.O. Bonds to be issued and Road Use Tax funds.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		716,000	50,000	158,000	75,000	233,000	200,000
Construction		4,164,000	300,000	892,000	425,000	1,317,000	1,230,000
	TOTAL	**4,880,000**	**350,000**	**1,050,000**	**500,000**	**1,550,000**	**1,430,000**
FINANCING:							
G.O. Bonds		3,880,000	350,000	1,050,000	500,000	1,050,000	930,000
Road Use Tax		1,000,000				500,000	500,000
	TOTAL	**4,880,000**	**350,000**	**1,050,000**	**500,000**	**1,550,000**	**1,430,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Engineering	Public Works	376-8102-439

RIGHT-OF-WAY RESTORATION **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

In recent years, staff has continued to observe and analyze restoration of the Right-of-Way areas associated with CIP projects. Some areas have been restored with sod, while other areas have been restored using seed or dormant seed. Restoration success is inconsistent and appears to depend on the weather at the time of installation. In areas where vegetation is not anticipated to be successful, other forms of restoration have been used (such as pervious pavement or standard concrete). This program will enable better restoration through a separate contract with a contractor specializing in vegetation establishment (instead of having this as a subcontract in each CIP contract as has been past practice).

COMMENTS

Conditions for each restoration area will be considered independently to select the appropriate and sustainable alternative. Restoration examples include sod, native turf, and pervious and standard colored/stained concrete. $75,000/year has been added to this program cost (beginning in 2015/16) based on the CIP projects/workload that will be restored each year.

LOCATION

Various locations (coordinated with Public Works streets and utility projects)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		125,000	25,000	25,000	25,000	25,000	25,000
Construction		1,250,000	250,000	250,000	250,000	250,000	250,000
	TOTAL	**1,375,000**	**275,000**	**275,000**	**275,000**	**275,000**	**275,000**
FINANCING:							
Road Use Tax		875,000	175,000	175,000	175,000	175,000	175,000
Water Utility Fund		250,000	50,000	50,000	50,000	50,000	50,000
Storm Sewer Utility Fund		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**1,375,000**	**275,000**	**275,000**	**275,000**	**275,000**	**275,000**

PROGRAM - ACTIVITY: Transportation – Streets Engineering

DEPARTMENT: Public Works

ACCOUNT NO.
060-8194-439
510-8194-439
560-8194-439

CYRIDE ROUTE PAVEMENT IMPROVEMENTS **PROJECT STATUS:** No Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION
This is the annual program for pavement improvements to streets that are or were bus routes.

These streets were designed and built for light residential traffic. With these streets now designated as bus routes, accelerated deterioration of the street surface has occurred. Pavement improvements will restore street sections that will carry higher traffic volumes.

COMMENTS
2016/17 South 3rd Street (Grand Avenue to South Duff Avenue); and South 4th Street (Squaw Creek to Grand Avenue)
2019/20 9th Street (Grand Avenue to Clark Avenue)

Improving these streets will reduce maintenance needs for them. This reduction will allow for additional and earlier maintenance of other streets, which will prolong their useful life.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	450,000		365,000			85,000
Construction	1,967,000		1,452,000			515,000
Electric	50,000		50,000			
TOTAL	**2,467,000**		**1,867,000**			**600,000**
FINANCING:						
G. O. Bonds	1,125,000		525,000			600,000
Electric Utility Fund	50,000		50,000			
MPO/STP Funds	1,292,000		1,292,000			
TOTAL	**2,467,000**		**1,867,000**			**600,000**

PROGRAM - ACTIVITY: Transportation - Streets Engineering
DEPARTMENT: Public Works
ACCOUNT NO.

COLLECTOR STREET PAVEMENT IMPROVEMENTS **PROJECT STATUS:** Cost Change Delayed

DESCRIPTION/JUSTIFICATION

This is the annual program for reconstruction or rehabilitation of collector streets. Locations are chosen in accordance with the most current street condition inventory.

COMMENTS

2015/16	No project
2016/17	Hoover Avenue (24th Street to 30th Street)
2017/18	East 20th Street (Duff Avenue to Meadowlane Avenue)
2018/19	Hickory Drive (Westbrook Drive to Woodland Street)
2019/20	Meadowlane Avenue (Carr Drive to East 20th Street)

Collector street pavement improvements should result in lower street maintenance costs.

The cost change is due to updated cost estimates.

The Meadowlane Avenue (Carr Drive to East 20th Street) project has been delayed to coordinate with future sanitary sewer rehabilitation as identified in the Sanitary Sewer System Evaluation.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	587,000		250,000	75,000	112,000	150,000
Construction	3,188,000		1,250,000	500,000	638,000	800,000
Street Lighting	150,000			50,000	50,000	50,000
TOTAL	**3,925,000**		**1,500,000**	**625,000**	**800,000**	**1,000,000**
FINANCING:						
G. O. Bonds	3,775,000		1,500,000	575,000	750,000	950,000
Electric Utility Fund	150,000			50,000	50,000	50,000
TOTAL	**3,925,000**		**1,500,000**	**625,000**	**800,000**	**1,000,000**

PROGRAM – ACTIVITY: Transportation – Streets Engineering

DEPARTMENT: Public Works

ACCOUNT NO.

CHERRY AVENUE EXTENSION **PROJECT STATUS:** Delayed

DESCRIPTION/JUSTIFICATION

The Long Range Transportation Plan identifies the extension of Cherry Avenue south of East Lincoln Way as an important transportation connection for the community. By extending Cherry Avenue south and connecting both South East 3rd Street and South East 5th Street, traffic congestion is further relieved from the South Duff Avenue corridor. This project may open opportunities for multi-modal transportation connections to the South Duff Avenue commercial district. Planning in 2015/16 will include roadway alignment and traffic signal analysis.

COMMENTS

A Transportation Funding Study in 2012/13 identified federal and state grants that may be available for funding this project.

The addition of this street extension will result in increased snow removal and ice control costs.

2017/18 Cherry Avenue (Southeast 5th Street to East Lincoln Way) and Southeast 3rd Street and Southeast 5th Street (Cherry Avenue west to end) (planning and environmental analysis)

2018/19 Cherry Avenue (Southeast 5th Street to East Lincoln Way) and Southeast 3rd Street and Southeast 5th Street (Cherry Avenue west to end) (land acquisition and engineering)

2019/20 Cherry Avenue (Southeast 5th Street to East Lincoln Way) and Southeast 3rd Street and Southeast 5th Street (Cherry Avenue west to end) (engineering and construction)

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Planning	100,000			100,000		
Land Acquisition	150,000				150,000	
Engineering	350,000				150,000	200,000
Construction	2,200,000					2,200,000
Electric	100,000					100,000
TOTAL	**2,900,000**			**100,000**	**300,000**	**2,500,000**
FINANCING:						
G.O. Bonds	600,000				90,000	510,000
Road Use Tax	100,000			100,000		
Electric Utility Fund	100,000					100,000
Federal/State Grants	2,100,000				210,000	1,890,000
TOTAL	**2,900,000**			**100,000**	**300,000**	**2,500,000**

PROGRAM - ACTIVITY: Transportation - Streets Engineering

DEPARTMENT: Public Works

ACCOUNT NO.

TRANSPORTATION - STREET MAINTENANCE

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Bridge Rehabilitation Program	3,320,000	3,320,000					105
2 Neighborhood Curb Replacement Program	375,000	75,000	75,000	75,000	75,000	75,000	106
3 Pavement Restoration	375,000	75,000	75,000	75,000	75,000	75,000	107
4 Right-of-Way Appearance Enhancements	255,000	65,000	100,000	30,000	30,000	30,000	108
5 Shared Use Path Maintenance	500,000	100,000	100,000	100,000	100,000	100,000	109
Total Expenditures	**4,825,000**	**3,635,000**	**350,000**	**280,000**	**280,000**	**280,000**	
REVENUES:							
Debt:							
G.O. Bonds	2,320,000	2,320,000					

TRANSPORTATION - STREET MAINTENANCE, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES, continued:						
City:						
Road Use Tax	970,000	215,000	215,000	180,000	180,000	180,000
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000
Sub-Total City Funding	1,470,000	315,000	315,000	280,000	280,000	280,000
Other:						
Federal/State Grants	1,000,000	1,000,000				
Private Funds	35,000		35,000			
Sub-Total Other Funding	1,035,000		35,000			
Total Revenues	**4,825,000**	**2,635,000**	**350,000**	**280,000**	**280,000**	**280,000**

BRIDGE REHABILITATION PROGRAM **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

This program provides funding for necessary repairs recommended by the biennial Iowa Department of Transportation (IDOT) bridge inspections. The IDOT requires these inspections for bridges within the City of Ames.

COMMENTS

Both the 2012 and the 2014 Bridge Inspection and Maintenance Reports conducted on the 6th Street bridge over Squaw Creek recommended replacing the bridge due to its condition. The project has been configured to allow for the application of grants and permitting before actual construction. The first phase completed was a detailed design alternative study that focused on choosing the type of bridge, preferred aesthetics, and studying ADA issues. The current cost as shown reflects the inclusion of all aesthetics-related options, updated engineering and construction costs of the bridge, as well as the cost of adding the replacement of a small deteriorated asphalt section of the roadway to the east of the bridge.

The 2012 Bridge Inspection & Maintenance Report also recommended deck replacement and structural repairs to the East Lincoln Way bridge, although a re-evaluation of the bridge for the 2014 report determined that this previously recommended deck overlay is not needed at this time. Instead, only joint repairs and painting are currently recommended. These repairs will be done in FY 2015/16 and will be coordinated with other road work scheduled to be done on East Lincoln Way to provide the least interruption to the traveling public and to take advantage of cost efficiencies that can be realized by doing the projects simultaneously.

All recent modifications (which resulted in a cost increase to the roadway portion of the 6th Street bridge project and a cost decrease to the East Lincoln Way bridge project) yielded only a slight cost increase ($5,000) to this Bridge Rehabilitation Program.

LOCATION

2015/16 6th Street bridge over Squaw Creek (construction/engineering) ($2,360,000); 6th Street west and east of bridge (construction/engineering) ($660,000) and East Lincoln Way Bridge (construction/engineering) ($300,000)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		270,000	270,000				
Construction		3,050,000	3,050,000				
	TOTAL	**3,320,000**	**3,320,000**				
FINANCING:							
G.O. Bonds		2,320,000	2,320,000				
IDOT Grant (City Bridge Program)		1,000,000	1,000,000				
	TOTAL	**3,320,000**	**3,320,000**				

PROGRAM - ACTIVITY: Transportation – Streets Maintenance

DEPARTMENT: Public Works

ACCOUNT NO.
376-7751-439
320-7751-439
376-7753-439

NEIGHBORHOOD CURB REPLACEMENT PROGRAM **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This is the annual program for replacement of deteriorated curb and gutter in selected neighborhood areas. Curb and gutter replacement enhances neighborhood and right-of-way aesthetics.

Areas to receive curb and gutter replacement are selected by staff using input of neighborhoods, the condition of the curb, and the extent of needed repairs.

COMMENTS

Neighborhood Curb Replacement Program decision criteria approved by Council include the extent of curb deterioration, the number of residential structures in the block, and the longitudinal grade.

LOCATION

2015/16	South Maple Avenue (Lincoln Way to South 2nd Street)
2016/17	South 2nd Street (South Maple Avenue to South Oak Avenue)
2017/18	South 2nd Street (South Maple Avenue to South Hazel Avenue)
2018/19	South 3rd Street (South Russell Avenue to South Hazel Avenue)
2019/20	South 3rd Street (South Hazel Avenue to South Maple Avenue)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		62,500	12,500	12,500	12,500	12,500	12,500
Construction		312,500	62,500	62,500	62,500	62,500	62,500
	TOTAL	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**
FINANCING:							
Road Use Tax		375,000	75,000	75,000	75,000	75,000	75,000
	TOTAL	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Maintenance	Public Works	060-7770-439

PAVEMENT RESTORATION **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This annual program is for preventive and proactive maintenance of the streets. This allows for a large variety of possible maintenance activities including, but not limited to, slurry seal, full-depth concrete paving, milling and patching of asphalt, joint sealing, diamond grinding, partial depth patching, and new maintenance techniques to preserve and enhance City streets. Locations will be coordinated with street construction to gain the best possible life cycle of streets.

COMMENTS

This program allocates $75,000 annually to maintenance activities.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		375,000	75,000	75,000	75,000	75,000	75,000
	TOTAL	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**
FINANCING:							
Road Use Tax		375,000	75,000	75,000	75,000	75,000	75,000
	TOTAL	**375,000**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

PROGRAM - ACTIVITY: Transportation – Streets Maintenance

DEPARTMENT: Public Works

ACCOUNT NO. 060-7723-439

RIGHT-OF-WAY APPEARANCE ENHANCEMENTS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION
This project provides for the enhancement of the rights-of-way in the City of Ames. The funding could be used for a number of elements including retaining walls, entryway enhancements, median enhancements, and right-of-way restoration.

COMMENTS
In addition to retaining wall repairs, the right-of-way restoration portion will be used to replant or revitalize parking areas and medians. This program could also be used to complete entryway improvements in the City.

The Lincoln Way Medians project shown below is just for design activities. Formalizing agreements with partners such as Iowa State University and the Ames Foundation is vital for the success of this project. Once these agreements are reached, the project design may begin as programmed and the construction will be budgeted in a future Capital Improvement Plan year.

LOCATION

2015/16 Maxwell Avenue Retaining Wall ($35,000); and various other locations ($30,000)
2016/17 Lincoln Way Medians (Beach Avenue to Sheldon Avenue - Engineering) ($70,000); Various locations ($30,000)
2017/18 Various locations
2018/19 Various locations
2019/20 Various locations

The cost change is due to updated cost estimates for the projects in 2015/16 and 2016/17.

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	75,000	5,000	70,000			
Construction	30,000	30,000				
Right-of-Way Restoration	150,000	30,000	30,000	30,000	30,000	30,000
TOTAL	**255,000**	**65,000**	**100,000**	**30,000**	**30,000**	**30,000**
FINANCING:						
Road Use Tax	220,000	65,000	65,000	30,000	30,000	30,000
Private Funds	35,000		35,000			
TOTAL	**255,000**	**65,000**	**100,000**	**30,000**	**30,000**	**30,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Maintenance	Public Works	060-7731-439

SHARED USE PATH MAINTENANCE **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION

The shared use path transportation system has continued to expand throughout the community. The shared use paths have typically been constructed with five inches of asphalt or concrete pavement. Structural failure, drainage problems, and vegetation infringement are several causes for the need to improve the pavement. This annual program provides for those improvements.

COMMENTS

A completed pavement management system for shared use paths provided information to identify segments of the shared use path system that are in need of repair and will prioritize those segments accordingly. This inventory is currently being updated and it is anticipated that more segments in need of improvements will be indentified. This has resulted in a cost increase of $50,000/year to this program.

Spot repairs that are identified will be prioritized by severity of the repair that is needed and then addressed in the operations budget.

Improvement to the shared use path pavement will enhance the safety and usability of the transportation/recreational system and improve the aesthetics of the right-of-way.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		60,000	12,000	12,000	12,000	12,000	12,000
Construction		440,000	88,000	88,000	88,000	88,000	88,000
	TOTAL	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**
FINANCING:							
Local Option Sales Tax		500,000	100,000	100,000	100,000	100,000	100,000
	TOTAL	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Streets Maintenance	Public Works	030-7711-439

TRANSPORTATION - TRANSIT

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Vehicle Replacement	4,811,000	244,000	1,044,000	3,153,000	205,000	165,000	111
2 Building Expansion and Modernization	1,815,000	585,000	260,000	310,000	410,000	250,000	112
3 CyRide Shop/Office Equipment	296,000	48,000	62,000	62,000	62,000	62,000	113
4 Bus Stop Improvements	250,000	50,000	50,000	50,000	50,000	50,000	114
5 Technology Improvements	285,000	75,000	75,000	45,000	45,000	45,000	115
Total Expenditures	**7,457,000**	**1,002,000**	**1,491,000**	**3,620,000**	**772,000**	**572,000**	
REVENUES:							
City:							
Transit Fund	3,755,800	660,300	799,800	1,031,700	732,000	532,000	
Other:							
Federal Transit Administration	2,850,000	301,700		2,548,300			
Federal/State Grants	851,200	40,000	691,200	40,000	40,000	40,000	
Sub-Total Other Funding	3,701,200	341,700	691,200	2,588,300	40,000		
Total Revenues	**7,457,000**	**1,002,000**	**1,491,000**	**3,620,000**	**772,000**	**532,000**	

DESCRIPTION/JUSTIFICATION

CyRide will replace/expand its bus fleet by five buses each year to meet ridership demand and replace vehicles that can no longer be operated in daily service. Additionally, CyRide received a federal grant for four 60-foot articulated buses that will be delivered in FY 2017/2018 and has a pending grant application for two 40-foot buses, which, if approved, would be delivered in FY 2016/2017. CyRide has four vehicles used for administrative support and in the operations division for drivers to switch shifts. These vehicles are on a four- to six-year replacement schedule, ultimately replaced when they no longer are mechanically sound. The two maintenance trucks are on a ten-year replacement cycle.

COMMENTS

In total, these purchases are programmed as follows:

2015/16: Purchase five used 40' buses ($125,000); replace administrative vehicle 906 - Prius ($30,000); replace Dial-A-Ride bus ($87,000);
2016/17: Purchase five used 40' buses ($125,000); purchase two new 40' buses ($814,000); replace maintenance truck 999 ($75,000); replace administrative vehicle 294 – Escape ($30,000)
2017/18: Purchase five used 40' buses ($125,000); purchase four new 60' buses ($2,998,000); replace administrative vehicle - Terrain ($30,000)
2018/19: Purchase five used 40' buses ($125,000); replace administrative vehicle ($30,000); replace maintenance truck 007 ($50,000)
2019/20: Purchase five used 40' buses ($135,000); replace administrative vehicle ($30,000)

All vehicles, except the new buses, will be 100% locally funded. The new buses will be funded with 80-85% federal funding, including the State of Iowa's Iowa Clean Air Attainment Program (ICAAP) funds that are a distribution of federal dollars. The large bus purchase includes $2,000 in FY 2015/16 for a visit to the bus manufacturing facility, which is an FTA requirement.

LOCATION

CyRide, 1700 University Boulevard

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Large Buses - 40' New	3,814,000	2,000	814,000	2,998,000		
Minibuses	87,000	87,000				
Used Buses	635,000	125,000	125,000	125,000	125,000	135,000
Administrative Vehicles	275,000	30,000	105,000	30,000	80,000	30,000
TOTAL	**4,811,000**	**244,000**	**1,044,000**	**3,153,000**	**205,000**	**165,000**
FINANCING:						
Transit Fund	1,609,800	242,300	392,800	604,700	205,000	165,000
Federal Transit Administration	2,550,000	1,700		2,548,300		
ICAAP Funds	651,200		651,200			
TOTAL	**4,811,000**	**244,000**	**1,044,000**	**3,153,000**	**205,000**	**165,000**

PROGRAM - ACTIVITY: Transportation – Transit

DEPARTMENT: CyRide

ACCOUNT NO. 552-1159-439
552-1165-439

CYRIDE BUILDING EXPANSION & MODERNIZATION **PROJECT STATUS:** Scope Change

DESCRIPTION/JUSTIFICATION

CyRide's original bus storage building is 31 years old and major components of the building are at the end of their useful lives. Additionally, the facility is housing more vehicles than it was originally designed for, creating higher wear and tear on the facility. As a result, this plan has been developed to keep the facility in a state of good repair, as is required by the Federal Transit Administration:

COMMENTS

2015/16: Replace three of the ten HVAC units heating the bus storage area ($60,000); replace portions of the exterior concrete, not part of the 2013/14 facility construction project ($75,000); architectural/engineering services for pit and hoist replacement ($25,000); replace bus hoists ($50,000); replace the seven oil/water separation pits in the original section of CyRide's facility ($375,000)

2016/17: Replace three of the ten HVAC units heating the bus storage area ($60,000); replace bus hoists ($200,000)

2017/18: Replace bus hoists ($250,000); replace one of the ten HVAC units heating the bus storage area ($60,000)

2018/19: Replace a portion of CyRide's bus storage roof ($160,000); replace bus wash ($250,000)

2019/20: Replace fueling system with a high-speed fueling system ($250,000)

The HVAC units and bus hoists are original to the building; the warranty on CyRide's current bus storage roofs expired in 1994 on the oldest section and in 2010 on the newest section; CyRide's current bus washer will be 11 years old at the time of replacement, which is past the expected 10-year life for this type of equipment, and the portion of the concrete parking lot are crumbling under the weight of the buses.

This plan does not include bus storage expansion and assumes that the 13-20 buses not able to fit within the facility will be housed outdoors. However, the 2014/15 Capital Improvement Plan included a $200,000 commitment to a state grant that was not approved. This funding will be retained in a reserve account until funding is secured for a building expansion project.

LOCATION

CyRide, 1700 University Boulevard

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Architectural/Engineering		25,000	25,000				
Construction		1,790,000	560,000	260,000	310,000	410,000	250,000
	TOTAL	**1,815,000**	**585,000**	**260,000**	**310,000**	**410,000**	**250,000**
FINANCING:							
Transit Fund		1,515,000	285,000	260,000	310,000	410,000	250,000
Federal Transit Administration		300,000	300,000				
	TOTAL	**1,815,000**	**585,000**	**260,000**	**310,000**	**410,000**	**250,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Transit	CyRide	552-1159-439 552-1170-439

CYRIDE SHOP AND OFFICE EQUIPMENT **PROJECT STATUS:** Scope Change

DESCRIPTION/JUSTIFICATION

This project is to address replacement of shop and office equipment used for CyRide operations. Because FY 2016/17 – FY 2019/20 shop purchases in this category are smaller items where replacement need is less predictable, they have been generally described in this CIP. Specific shop needs will be identified annually to efficiently operate CyRide and address OSHA, Department of Natural Resources, and other federal requirements as they are implemented at a total cost of approximately $50,000 per year. Additionally, four to seven computers and equipment will be funded each year at an estimated cost of $12,000-$14,000 per year.

COMMENTS

The FY 2015/16 shop and office equipment expenditures include the replacement of four computers and the following shop equipment:

- West End of Maintenance Shop - High Light ($2,000)
- Fuel Lane Side Lights ($2,000)
- Diesel Particulate Filter Equipment - Two-Step Process (Heat Cleaner - $12,000 and Air Cleaner - $18,000)

LOCATION

CyRide, 1700 University Boulevard

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Computers		62,000	14,000	12,000	12,000	12,000	12,000
Shop Equipment		234,000	34,000	50,000	50,000	50,000	50,000
	TOTAL	**296,000**	**48,000**	**62,000**	**62,000**	**62,000**	**62,000**
FINANCING:							
Transit Fund		296,000	48,000	62,000	62,000	62,000	62,000
	TOTAL	**296,000**	**48,000**	**62,000**	**62,000**	**62,000**	**62,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Transit	CyRide	552-1159-439

BUS STOP IMPROVEMENTS **PROJECT STATUS:** Scope Change Cost Change

DESCRIPTION/JUSTIFICATION

One of the most frequently requested customer suggestions received by CyRide is regarding the condition or lack of amenities at its more than 435 bus stop locations throughout the city. Therefore, over the next five-year period (FY 2015/16 through FY 2019/20), CyRide will install two to three new bus shelters and move existing bus shelters to new locations each year, thereby increasing the total number of bus shelters for CyRide's customers. The specific locations will be identified each year based on CyRide's ability to complete installation at sites that year and the bus stop priority list based on a previous bus stop improvements study. In addition to shelters, concrete pads, amenities and connections to sidewalks will be included to make using the bus easier for customers. In total, approximately $50,000 per year in improvements will be completed. Funding for these improvements will be provided by 80% federal dollars administered under a grant from the State of Iowa and 20% local funding from CyRide's budget.

COMMENTS

An earlier project developed a new prototype shelter (located at Dickinson and Mortensen) that will be implemented in new locations with this project.

LOCATION

Various locations throughout Ames

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Pads, Benches, Shelters		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Transit Fund		50,000	10,000	10,000	10,000	10,000	10,000
Federal 5310 Grants		200,000	40,000	40,000	40,000	40,000	40,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Transit	CyRide	552-1174-439

CYRIDE TECHNOLOGY IMPROVEMENTS **PROJECT STATUS:** Scope Change

DESCRIPTION/JUSTIFICATION
CyRide has equipped its bus fleet with video camera technology that has improved customer safety and information. As a result, CyRide has developed a bus video replacement system that replaces the video system on five buses each year at an annual cost of $45,000. These systems must be replaced periodically as the existing equipment has become obsolete and is not supported by the vendor. CyRide currently has four different video systems on its bus fleet, which are used to investigate customer complaints and identify operational issues.

COMMENTS
The FY 2015/16 camera replacement funds will rehabilitate existing cameras and purchase several new cameras to complete camera systems in all CyRide buses due to fleet expansion that occurred during FY 2014/15.

CyRide's administrative offices are the only portion of the facility currently equipped with a video surveillance system. This system is seven years old, not capable of expansion, and experiencing reliability issues. CyRide's maintenance shop and bus storage areas would be added to a new system to complete coverage of the facility. This new system would be completed over the two-year period of FY 2015/16 and FY 2016/17.

Adequate safety and security of federal assets is a priority and has been a recommendation in federal reviews completed of CyRide's operations.

LOCATION
CyRide, 1700 University Boulevard

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Bus Security Cameras		225,000	45,000	45,000	45,000	45,000	45,000
Building Security System		60,000	30,000	30,000			
	TOTAL	**285,000**	**75,000**	**75,000**	**45,000**	**45,000**	**45,000**
FINANCING:							
Transit Fund		285,000	75,000	75,000	45,000	45,000	45,000
	TOTAL	**285,000**	**75,000**	**75,000**	**45,000**	**45,000**	**45,000**

PROGRAM - ACTIVITY:
Transportation – Transit

DEPARTMENT:
CyRide

ACCOUNT NO.
552-1159-439
552-1166-439

TRANSPORTATION - AIRPORT

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Terminal Building Replacement	2,410,000	2,410,000					117
2 Airport Improvements	2,902,000	222,000	180,000	100,000	2,400,000		118
Total Expenditures	**5,312,000**	**2,632,000**	**180,000**	**100,000**	**2,400,000**		
REVENUES:							
Debt:							
G.O. Bonds	1,810,000	1,810,000					
City:							
Airport Construction Fund	352,600	72,000	30,600	10,000	240,000		
Other:							
Federal Aviation Administration	2,849,400	450,000	149,400	90,000	2,160,000		
State Grant Funds	300,000	300,000					
Sub-Total Other Funding	3,149,400	750,000	149,400	90,000	2,160,000		
Total Revenues	**5,312,000**	**2,632,000**	**180,000**	**100,000**	**2,400,000**		

AIRPORT TERMINAL BUILDING AND HANGAR **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION
This is a special program to facilitate the design and construction of a new Terminal Building and attached Hangar at the Ames Municipal Airport.

COMMENTS
FY 2014/15 will begin the site work portion of the Terminal Building and Hangar project to prepare the site for construction of the Hangar in summer of 2015, which is estimated to be approximately an $700,000 first phase of the project. FY 14/15 will be funded using $450,000 in Federal Funds and $250,000 in G.O. Bonds. Staff will also be applying for an additional $100,000 in State funds, however this is a competitive grant selection process and therefore those funds are not shown in the funding summary for FY 2014/15. If received, State grant funds will reduce revenue abated bonds. Revenue abated bonds will be repaid from user fees. The FY 2015/16 terminal building replacement project will continue with the second phase that will update the current aged facility. The overall project is anticipated to be complete in the summer of calendar year 2016. This project assumes that the private sector will construct the hangar and donate the structure to the City of Ames, which the projected value is estimated to be $960,000.

LOCATION
Ames Municipal Airport

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		440,000	440,000				
Construction		1,970,000	1,970,000				
	TOTAL	**2,410,000**	**2,410,000**				
FINANCING:							
G.O. Bonds		867,000	867,000				
G.O. Bonds (Revenue Abated)		943,000	943,000				
FAA Funding		450,000	450,000				
State Grant Funds		150,000	150,000				
	TOTAL	**2,410,000**	**2,410,000**				

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Airport	Public Works	376-7076-439
		330-7076-439

AIRPORT IMPROVEMENTS **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION
Airport improvement projects are accomplished through this program.

COMMENTS
The projects included in this program are determined by the Airport Master Plan which details Airport development needs for a ten-year period. The Master Plan Update that was completed in 2007 identifies projects that qualify for Federal Aviation Administration (FAA) funding.

2015/16	Taxiway Rehabilitation (Runway 01/19)
2016/17	Master Plan partial update and runway extension justification
2017/18	Runway Extension (environment assessment and engineering design report)
2018/19	Runway Extension (land acquisition)
2019/20	No Project

The FY 2015/16 project will be to repair a small area of the taxiway parallel to the main runway 01/19 near its southern end where the pavement is failing. The rest of the projects shown beginning in FY 2016/17 represent the steps necessary to extend the main runway 01/19 from approximately 6,000 feet to a new 8,000 feet. The purpose is to accommodate future growth of the airport by making it possible for larger aircraft to land in Ames year-round. Cost changes in 2017/18 and 2018/19 are due updated estimates of cost for the environment assessment and land acquisition respectively.

LOCATION
Ames Municipal Airport

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		684,000	44,000	180,000	100,000	360,000	
Construction		2,218,000	178,000			2,040,000	
	TOTAL	2,902,000	222,000	180,000	100,000	2,400,000	
FINANCING:							
Airport Construction Fund		352,600	72,000	30,600	10,000	240,000	
FAA Funding		2,399,400		149,400	90,000	2,160,000	
State Grant Funds		150,000	150,000				
	TOTAL	2,902,000	222,000	180,000	100,000	2,400,000	

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Transportation – Airport	Public Works	330-7077-439

COMMUNITY ENRICHMENT

LIBRARY INTERIOR LIGHTING

COMMUNITY ENRICHMENT/INTERNAL SERVICES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
Parks and Recreation	4,254,000	1,049,000	785,000	825,000	825,000	770,000	120
City Manager	250,000	50,000	50,000	50,000	50,000	50,000	132
Planning and Housing	500,000	100,000	100,000	100,000	100,000	100,000	134
Public Works	135,000	65,000	70,000				137
Internal Services/Facilities	496,000	161,000	185,000	50,000	50,000	50,000	139
Total Expenditures	**5,635,000**	**1,425,000**	**1,190,000**	**1,025,000**	**1,025,000**	**970,000**	
REVENUES:							
City:							
Local Option Sales Tax	5,039,000	1,069,000	1,030,000	965,000	1,005,000	970,000	
Ice Arena Capital Reserve Funds	300,000	220,000		60,000	20,000		
Road Use Tax	61,500	27,750	33,750				
Water Utility Fund	61,500	27,750	33,750				
Sewer Utility Fund	61,500	27,750	33,750				
Fleet Services Fund	61,500	27,750	33,750				
Sub-Total City Funding	5,585,000	1,400,000	1,165,000	1,025,000	1,025,000	970,000	
Other:							
Ames Community School District	50,000	25,000	25,000				
Total Revenues	**5,635,000**	**1,425,000**	**1,190,000**	**1,025,000**	**1,025,000**	**970,000**	

COMMUNITY ENRICHMENT - PARKS AND RECREATION

	PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:								
1	Park System Improvements	1,560,000	440,000	550,000	220,000	350,000		122
2	Recreation Facility Improvements	255,000	140,000	30,000		35,000	50,000	123
3	Playground Equipment Improvements	245,000	50,000	60,000		95,000	40,000	124
4	Municipal Pool	150,000	50,000	50,000	25,000	25,000		125
5	Ada Hayden Heritage Park	284,000	104,000	75,000			105,000	126
6	Furman Aquatic Center	550,000	25,000		500,000		25,000	127
7	Ames/ISU Ice Arena	300,000	220,000		60,000	20,000		128
8	Homewood Golf Course	360,000	20,000	20,000	20,000	300,000		129
9	Moore Memorial Park Pedestrian Bridge	350,000					350,000	130
10	Rose Prairie Park	200,000					200,000	131
	Total Expenditures	**4,254,000**	**1,049,000**	**785,000**	**825,000**	**825,000**	**770,000**	

COMMUNITY ENRICHMENT - PARKS AND RECREATION, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
REVENUES:						
City:						
Local Option Sales Tax	3,904,000	804,000	760,000	765,000	805,000	770,000
Ice Arena Capital Reserve Funds	300,000	220,000		60,000	20,000	
Sub-Total City Funding	4,204,000	1,024,000	760,000	825,000	825,000	770,000
Other:						
Ames Community School District	50,000	25,000	25,000			
Total Revenues	**4,254,000**	**1,049,000**	**785,000**	**825,000**	**825,000**	**770,000**

PARK SYSTEM IMPROVEMENTS **PROJECT STATUS:** Scope Change Cost Change Advanced Delayed

DESCRIPTION/JUSTIFICATION
To maintain City parks in a safe and quality manner, the projects listed below address maintenance issues and improvements at various locations.

COMMENTS

2015/16: Inis Grove Park: Replace stair system ($25,000); Construct restroom (north of tennis courts) to replace existing restroom (west of Shagbark Shelter) ($250,000)
McCarthy Lee Park: Resurface tennis courts ($30,000); Pave path from the upper portion to the lower portion of the park ($20,000)
Brookside Park: Renovate restroom ($75,000)
River Valley Park: Add recreational features to the project to replace the Low Head Dam with rock rapids ($40,000)

2016/17: Inis Grove Park: Renovate restroom adjacent to Duff Avenue ($125,000)
Brookside Park: Replace light fixtures and add additional poles with fixtures ($75,000)
River Valley Park: Install irrigation on north sports fields ($70,000); Remove baseball field ($20,000); Install parking lot at north sports fields ($200,000); Renovate softball infields on all six diamonds ($60,000)

2017/18: Inis Grove Park: Install irrigation on sport fields ($30,000)
Carr Park: Remove bath house and construct new shelter with restroom ($140,000)
Gateway Hills Park: Install erosion control at Carroll Marty Disc Golf Course ($50,000)

2018/19: Gateway Hills Park: Install restroom ($50,000)
Brookside Park: Remove wading pool and construct a spray pad out of the flood plain ($300,000)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		118,000	32,500	35,500	15,000	35,000	
Construction		1,442,000	407,500	514,500	205,000	315,000	
	TOTAL	**1,560,000**	**440,000**	**550,000**	**220,000**	**350,000**	
FINANCING:							
Local Option Sales Tax		1,560,000	440,000	550,000	220,000	350,000	
	TOTAL	**1,560,000**	**440,000**	**550,000**	**220,000**	**350,000**	

PROGRAM – ACTIVITY:
Community Enrichment

DEPARTMENT:
Parks and Recreation

ACCOUNT NO:
030-4906-459
030-4910-459
030-4913-459
030-4940-459

RECREATION FACILITY IMPROVEMENTS **PROJECT STATUS:** Scope Change Cost Change

DESCRIPTION/JUSTIFICATION

To maintain City facilities in a safe and quality manner, the projects listed below address maintenance issues at various facilities within the Parks and Recreation Department.

COMMENTS

2015/16: Total = $160,000

Community Center: Replace volleyball standards ($15,000); replace gymnasium separation curtain ($15,000)
Auditorium: Replace carpet in the aisles ($10,000); add sound shell components ($20,000)
Bandshell: Replace stage lighting ($50,000); paint exterior ($30,000)

2016/17: Total = $30,000

Community Center: Refinish wood gymnasium floor ($30,000)

2018/19: Total = $35,000

Administrative Office: Exterior building improvements/repairs ($35,000)

2019/20: Total = $50,000

Bandshell: Renovate changing rooms ($50,000)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering/Design		8,500				3,500	5,000
Construction		246,500	140,000	30,000		31,500	45,000
	TOTAL	**255,000**	**140,000**	**30,000**		**35,000**	**50,000**
FINANCING:							
Local Option Sales Tax		255,000	140,000	30,000		35,000	50,000
	TOTAL	**255,000**	**140,000**	**30,000**		**35,000**	**50,000**

PROGRAM – ACTIVITY: Community Enrichment

DEPARTMENT: Parks and Recreation

ACCOUNT NO: 030-4902-459
030-4905-459

PLAYGROUND EQUIPMENT IMPROVEMENTS **PROJECT STATUS:** Cost Change

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

During the past 25 years, the City has replaced old play equipment throughout the park system. The life expectancy of play equipment is 20 – 25 years. Therefore, it is necessary to begin replacement of playground equipment that was installed at the beginning of this cycle.

COMMENTS

2015/16: Replace equipment in Daley Park ($50,000)
2016/17: Install new equipment in Teagarden Park ($30,000); Replace equipment in Hutchison Park ($30,000)
2018/19: Replace equipment adjacent to Shagbark Shelter in Inis Grove Park ($60,000); Replace equipment in Christopher Gartner Park ($35,000)
2019/20: Replace equipment in Lloyd Kurtz Park ($40,000)

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		245,000	50,000	60,000		95,000	40,000
	TOTAL	**245,000**	**50,000**	**60,000**		**95,000**	**40,000**
FINANCING:							
Local Option Sales Tax		245,000	50,000	60,000		95,000	40,000
	TOTAL	**245,000**	**50,000**	**60,000**		**95,000**	**40,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Parks and Recreation	030-4967-459

MUNICIPAL POOL **PROJECT STATUS:** Revenue Change Cost Change

DESCRIPTION/JUSTIFICATION

In 2006, 2009, and 2012, engineering consultants were retained to provide recommendations regarding mechanical, electrical, structural, and any other needed improvements for Municipal Pool. In 2012, consultants were given the goal of keeping this facility operational until approximately 2017. Their 2012 study indicated substantial improvements, totaling $450,000, were needed between 2013 and 2017. It was suggested these improvements be made as soon as possible. The consultants also stated in their report that following **2017**, major repairs to this facility could be cost prohibitive.

The City and Ames Community School District's joint use agreement for Municipal Pool expires on **April 30, 2015.** All capital costs are shared equally by the City and Ames Community School District. Over a 19-year period (FY 1995/96 and continuing through FY 2014/15), the City and School District will have invested approximately $1,900,000 ($100,000 per year average) in capital improvements at this facility. The School District is moving forward with plans to build a competitive pool with a minimum water depth of six feet. When its facility is built, all capital and operational expenses related to Municipal Pool will become the responsibility of the City.

COMMENTS

2015/16: Total $50,000 – To be determined
2016/17: Total $50,000 – To be determined
2017/18: Total $25,000 – To be determined
2018/19: Total $25,000 – To be determined

LOCATION

Municipal Pool, 1925 Ames High Drive

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Architects/Engineering		15,000	5,000	5,000	2,500	2,500	
Construction		135,000	45,000	45,000	22,500	22,500	
	TOTAL	**150,000**	**50,000**	**50,000**	**25,000**	**25,000**	
FINANCING:							
Local Option Sales Tax		100,000	25,000	25,000	25,000	25,000	
Ames School District		50,000	25,000	25,000			
	TOTAL	**150,000**	**50,000**	**50,000**	**25,000**	**25,000**	

PROGRAM – ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Parks and Recreation	030-4916-459

ADA HAYDEN HERITAGE PARK **PROJECT STATUS:** Scope Change Advanced

City of Ames, Iowa
Capital Improvements Plan

DESCRIPTION/JUSTIFICATION

The current water supply at the Ada Hayden Park north restroom facility and drinking fountains is separate from the City's municipal drinking water system. It utilizes its own well and basic treatment system. This system is unable to meet the Iowa Department of Natural Resources (IDNR) standards for drinking water. As a result, potable water is not available at the site for washing hands and for the drinking fountains. This project will include a new service line that connects the restroom facility to either the City's water distribution system or an adjacent rural water system. Until a satisfactory resolution is determined, the sinks and fountains will be turned off.

Currently, 25 acres on the north portion of the park are comprised of pasture vegetation which is cut for hay every year. The property adjacent to this section of the park (to the north) will be developed in the near future. It is important to establish this area of the park with prairie. Due to its deep root system, prairie will minimize storm water runoff from this housing development, thus reducing potential pollution to the lake. Prairie will also increase wildlife habitat.

By adding a wetland overlook to view wildlife and installing a fishing pier on the north pond (Jensen's Pond), these areas of the park will be enhanced and able to be enjoyed more fully by park visitors.

COMMENTS

2015/16: Install water service to north restroom and drinking fountains ($104,000)
2016/17: Establish prairie on north portion of the park ($75,000)
2019/20: Construct a wetland overlook ($30,000); Install a fishing pier on the north pond ($75,000)

LOCATION

Ada Hayden Heritage Park, 5205 Grand Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		27,700	12,200	5,000			10,500
Contracted Work							
Construction		256,300	91,800	70,000			94,500
	TOTAL	**284,000**	**104,000**	**75,000**			**105,000**
FINANCING:							
Local Option Sales Tax		284,000	104,000	75,000			105,000
	TOTAL	**284,000**	**104,000**	**75,000**			**105,000**

PROGRAM - ACTIVITY: Community Enrichment

DEPARTMENT: Parks and Recreation

ACCOUNT NO. 030-4925-459

FURMAN AQUATIC CENTER **PROJECT STATUS:** Scope Change

DESCRIPTION/JUSTIFICATION

This facility opened in May 2010. It has been operational for five seasons with an average of approximately 100,000 visitors per summer. To ensure it remains a quality facility, structural and mechanical items have been identified and will be addressed in a systematic manner.

Pool consultants have stated that a new, major feature should be installed every five years to ensure that admissions remain high. This will reduce the need to subsidize the operation. The Master Plan for the site allows for three major features to be added: speed slides adjacent to the Lazy River, a family slide, and a water bowl adjacent to the 50-meter pool. In FY 2015/16, a determination will be made as to which of the features will be selected for construction.

COMMENTS

2015/16: Refinish the exterior of the slides ($25,000)
2017/18: Install an additional water feature ($500,000)
2019/20: Install a shelter adjacent the parking lot ($25,000)

LOCATION

Furman Aquatic Center, 1365 13th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering/Design		25,000			25,000		
Construction		525,000	25,000		475,000		25,000
	TOTAL	**550,000**	**25,000**		**500,000**		**25,000**
FINANCING:							
Local Option Sales Tax		550,000	25,000		500,000		25,000
	TOTAL	**550,000**	**25,000**		**500,000**		**25,000**

PROGRAM - ACTIVITY: Community Enrichment
DEPARTMENT: Parks and Recreation
ACCOUNT NO. 030-4907-459

AMES/ISU ICE ARENA **PROJECT STATUS:** Cost Change Scope Change

DESCRIPTION/JUSTIFICATION

The Ames/ISU Ice Arena is 13 years old (opened April 2001). With the goal of maintaining a quality facility, numerous items need to be replaced. An energy efficiency study was conducted in 2012. The last identified enhancement to be completed is replacing lighting in FY 2015/16.

Funding for capital improvement projects is provided through the Ice Arena Capital Reserve Fund. Each year, the City and Iowa State University each contribute $20,000 to this fund to ensure that the facility is well-maintained. As of June 30, 2014, this fund totaled $397,436.

COMMENTS

2015/16: Replace rubber flooring in hallway and locker rooms ($175,000); replace lighting above the ice and throughout the building ($20,000); install surge protection throughout the Ice Arena ($25,000)
2017/18: Replace dasher board system ($60,000)
2018/19: Convert to new refrigerant (i.e. Freon) ($20,000)

*** The Ice Arena's cooling tower experienced a partial failure leaving half of the tower not operational. The cooling tower replacement has been added into the FY 2014/15 CIP, causing other projects to be delayed.**

LOCATION

Ames/ISU Ice Arena, 1505 Gateway Hills Park Drive

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Equipment		60,000			60,000		
Construction		225,000	205,000			20,000	
Engineering/Design		15,000	15,000				
	TOTAL	**300,000**	**220,000**		**60,000**	**20,000**	
FINANCING:							
Ice Arena Capital Reserve Funds		300,000	220,000		60,000	20,000	
	TOTAL	**300,000**	**220,000**		**60,000**	**20,000**	

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Parks and Recreation	571-4928-459 572-4928-459

HOMEWOOD GOLF COURSE **PROJECT STATUS:** Scope Change Cost Change

DESCRIPTION/JUSTIFICATION
To enhance the services provided, the projects listed below will address facility needs.

The cart paths, once completed, will provide a continuous path around the golf course. This will allow carts to be used, even if the ground is to wet, by limiting cart use to the paths. Currently, carts are not rented in wet conditions.

The current clubhouse was moved to the site in 1970, is not energy efficient, and lacks adequate storage in the lower level for carts. This project will replace the current clubhouse, address the above stated deficiencies, and include restrooms. The building can also be designed to maximize an open floor plan which would provide program opportunities in the winter months.

COMMENTS
2015/16: Install asphalt cart paths ($20,000)
2016/17: Install asphalt cart paths ($20,000)
2017/18: Install asphalt cart paths ($20,000)
2018/19: Replace the current clubhouse with a new building ($300,000)

LOCATION
Homewood Golf Course, 401 E 20th Street

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering		30,000				30,000	
Construction		330,000	20,000	20,000	20,000	270,000	
	TOTAL	**360,000**	**20,000**	**20,000**	**20,000**	**300,000**	
FINANCING:							
Local Option Sales Tax		360,000	20,000	20,000	20,000	300,000	
	TOTAL	**360,000**	**20,000**	**20,000**	**20,000**	**300,000**	

PROGRAM – ACTIVITY: Community Enrichment
DEPARTMENT: Parks and Recreation
ACCOUNT NO: 030-4902-459

MOORE MEMORIAL PARK PEDESTRIAN BRIDGE **PROJECT STATUS:** Delayed

DESCRIPTION/JUSTIFICATION

Moore Memorial Park is 90 acres; 50 acres are located east of Squaw Creek and 40 acres are west of the creek. The 50-acre parcel was developed into a community park in 1991. The 40-acre parcel has been leased to Iowa State as an agricultural research plot for $3,000 per year.

In response to community input to connect parks via hard surface trails, a pedestrian bridge will link these two parcels of City property. This improvement has become viable because ISU recently acquired the YMCA grounds located adjacent the City's 40-acre parcel. In the event ISU allows public access through its parcel, several miles of recreational trails would be linked together. Staff will meet with ISU officials to determine if public access will be allowed through this parcel of land in the future.

COMMENTS

2019/20: Install a pedestrian bridge across Squaw Creek at Moore Memorial Park ($350,000)

LOCATION

Moore Memorial Park, 3050 Northridge Parkway

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Engineering/Design		40,000					40,000
Construction		310,000					310,000
	TOTAL	**350,000**					**350,000**
FINANCING:							
Local Option Sales Tax		350,000					350,000
	TOTAL	**350,000**					**350,000**

PROGRAM - ACTIVITY: Community Enrichment

DEPARTMENT: Parks and Recreation

ACCOUNT NO.

ROSE PRAIRIE PARK DEVELOPMENT **PROJECT STATUS:** New

DESCRIPTION/JUSTIFICATION

As the North Growth development occurs, it is imperative to develop a neighborhood park to serve residents in this area. The Parks and Recreation Master Plan identifies a neighborhood park for this area which will serve a 1/4 to 1/2 mile radius. Standard amenities in neighborhood parks include: basketball pad with goals, a small shelter, a play structure and swings, and utilities. In addition, this park may require paths and sidewalks.

COMMENTS

2019/20: Develop the Rose Prairie Neighborhood Park ($200,000)

LOCATION

Rose Prairie Development

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Park Development		200,000					200,000
	TOTAL	**200,000**					**200,000**
FINANCING:							
Local Option Sales Tax (Park Development Reserve)		200,000					200,000
	TOTAL	**200,000**					**200,000**

PROGRAM - ACTIVITY: Community Enrichment

DEPARTMENT: Parks and Recreation

ACCOUNT NO.

COMMUNITY ENRICHMENT - CITY MANAGER

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Neighborhood Improvement Program	250,000	50,000	50,000	50,000	50,000	50,000	133
Total Expenditures	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	
REVENUES:							
CITY:							
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000	
Total Revenues	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	

NEIGHBORHOOD IMPROVEMENT PROGRAM **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

The Neighborhood Improvement Program was originally designed to enhance the appearance of City neighborhoods with the addition of permanent physical improvements and to promote a greater sense of community through resident participation in neighborhood projects. The program focused solely on providing City grants to help residents accomplish those projects that they have identified as top priorities for their neighborhoods. Competitive proposals are solicited from neighborhood groups and are rated by a Review Panel, which consists of City staff and citizens, according to the following criteria approved by the City Council: public impact, neighborhood participation, safety, environment, housing, and public space. Neighborhood residents are expected to provide a local match to these grants on a dollar-for-dollar basis in the form of labor, materials, and/or cash.

Since the program was initiated in 1996/97, 119 neighborhood projects have been funded by the City, totaling $354,407. Projects have included cul-de-sac, right-of-way and median landscaping; playground construction and/or restoration; alleyway beautification; street trees; pond renovation; installation of rain gardens, historic house plaques and medallions; prairie restoration; construction of a neighborhood message center; construction of a shelter house in a neighborhood City park; park sidewalks; neighborhood basketball courts; landscaping of neighborhood entryways; installation of neighborhood barbecue grills; renovating "DZ Triangle," and neighborhood clean-up days.

With the implementation of the Neighborhood Liaison Program, the City is committed to creating great neighborhoods with a sense of community. To complement this initiative, eligibility for these funds has been expanded beyond the original intent of the Neighborhood Improvement Grant Program to include such projects as sub-area planning elements and other support programs for neighborhood associations. In addition, the application period is now open-ended with the requirement that the funds be expended one year from date of Council approval.

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Construction		50,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Local Option Sales Tax		50,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM – ACTIVITY: Community Enrichment

DEPARTMENT: City Manager's Office

ACCOUNT NO. 030-0420-459

COMMUNITY ENRICHMENT - PLANNING & HOUSING

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Downtown Façade Program	250,000	50,000	50,000	50,000	50,000	50,000	135
2 Campustown Façade Program	250,000	50,000	50,000	50,000	50,000	50,000	136
Total Expenditures	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	
REVENUES:							
City:							
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000	
Total Revenues	**500,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	

DOWNTOWN FAÇADE IMPROVEMENT PROGRAM **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This project was introduced in FY 2001/02 to facilitate private improvements to the façades of the buildings in the Downtown area. Downtown Design Guidelines were approved by the City Council in 2001 to ensure that financial assistance for façade improvements is consistent with the historical character of Downtown. In order to qualify for these funds, improvements must be made to at least one of the following exterior elements: upper façades, storefronts, transoms, display windows, kick plates, entrances, signs, or awnings/canopies. Beginning in FY 2011/12, the City Council expanded the program guidelines, and implemented a review and award period in spring each year. Additionally, to aid in comparing applications, the City Council also established a scoring process.

Under this program, the City provides up to $15,000 in grant funds to be matched dollar for dollar. In addition, a $1,000 grant is available to subsidize the cost of an architect. Through November 2014, the program has awarded 36 grants to 35 property owners for a total amount of $486,671.

COMMENTS
This program continues to support the City Council's goal to strengthen Downtown. As interest in this program continues, funding can be expanded or City Council may consider appropriating funds to priority projects.

LOCATION
Downtown Ames

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Incentives (Loans or Grants)		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Local Option Sales Tax		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Planning & Housing	030-1030-459

CAMPUSTOWN FAÇADE IMPROVEMENT PROGRAM **PROJECT STATUS:** Cost Change

DESCRIPTION/JUSTIFICATION
This program provides financial incentives to enhance the appearance and use of existing buildings with commercial uses in the Campustown District. The program is designed to encourage and maintain the eclectic culture and 'uniqueness' of Campustown; to increase safety, security, and investments by property and business owners; and to add to the vitality of Campustown.

COMMENTS
The Campustown Façade Improvement Program seeks to encourage the creation of a place that is walkable, transparent, eclectic, sustainable, social, and historic. Beginning in FY 2014/15, the first step in the process was to hire a consultant to assist the City in the development of a "Vision Statement," prepare an "Idea Book," review design ideas and guidelines, provide assistance to applicants, determine costs and feasibility, and conduct workshops and working meetings with applicants and City Staff. The second step is to implement two pilot projects to include construction and evaluation. For FY 2015/16, the program will begin to fund competitive matching grant applications that are consistent with the approved Campustown Façade Program.

This program will address the City Council's goal to revitalize Campustown. If development and interest in this program continues, funding can be expanded.

LOCATION
Campustown

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Incentives (Loans or Grants)		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Local Option Sales Tax		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Planning & Housing	030-1031-459

COMMUNITY ENRICHMENT - PUBLIC WORKS

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 Municipal Cemetery Improvements	135,000	65,000	70,000				138
Total Expenditures	**135,000**	**65,000**	**70,000**				
REVENUES:							
City:							
Local Option Sales Tax	135,000	65,000	70,000				
Total Revenues	**135,000**	**65,000**	**70,000**				

AMES MUNICIPAL CEMETERY IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION

This project provides funding to restore and improve lanes at the Cemetery. This five-year program for restoration and improvement maintenance, which began in 2011/12, will enhance the rideability and appearance of all paved lanes within the cemetery for at least ten years. Funding in 2016/17 will be used to replace water lines in the Cemetery. The water lines are currently galvanized pipe that experience several breaks per year. New piping will allow for consistent water service to Cemetery visitors.

COMMENTS

There are nearly two miles of paved lanes north of 9th Street within the Ames Municipal Cemetery boundaries. These lanes provide public access for visitors to gravesites and for funerals as well as for access for crews and equipment for funeral preparations and maintenance of the sites and grounds. Prior to 2008/09, endowed care funds were used for surface maintenance of the cemetery lanes. Beginning in 2008/09, state regulations were put into place that prohibited the use of these funds for all cemetery costs. As a result of these new regulations and loss of funding created by them, maintenance of the lanes was stopped. Continued use created structural and surface deterioration of the lanes. Bumpy rides and messy appearance of the lanes detract from the tranquility and value of this City-owned asset. In meeting with a Cemetery Focus Group, the condition of the lanes and access to water were mentioned as needed improvements, along with the need to upgrade benches and trash cans which were placed in the operating budget.

2015/16	Lane construction/maintenance
2016/17	Water line replacement

FISCAL YEAR PRIORITY			1	1			
		TOTAL	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**
COST:							
Construction		135,000	65,000	70,000			
	TOTAL	**135,000**	**65,000**	**70,000**			
FINANCING:							
Local Option Sales Tax		135,000	65,000	70,000			
	TOTAL	**135,000**	**65,000**	**70,000**			

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Community Enrichment	Public Works	030-9524-469

INTERNAL SERVICES - FACILITIES/FLEET SERVICES

PROJECT/REVENUE DESCRIPTION	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20	PAGE
EXPENDITURES:							
1 City Hall Improvements	250,000	50,000	50,000	50,000	50,000	50,000	140
2 City Maintenance Facility Improvements	246,000	111,000	135,000				141
Total Expenditures	**496,000**	**161,000**	**185,000**	**50,000**	**50,000**	**50,000**	
REVENUES:							
City:							
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000	
Road Use Tax	61,500	27,750	33,750				
Water Utility Fund	61,500	27,750	33,750				
Sewer Utility Fund	61,500	27,750	33,750				
Fleet Services Fund	61,500	27,750	33,750				
Total Revenues	**496,000**	**161,000**	**185,000**	**50,000**	**50,000**	**50,000**	

CITY HALL IMPROVEMENTS **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This City Hall improvements program is focused on major maintenance or replacement of items for the building, Veterans Memorial, and parking lots on the west side of the building and across the street to the east.

City Hall's mechanical, electrical, plumbing, sprinkler, and numerous other support systems were installed in 1990. Funds have been allocated per year for equipment or system failures that may occur and are beyond the funding levels in the maintenance budget.

LOCATION
City Hall, 515 Clark Avenue

		TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:							
Maintenance		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
FINANCING:							
Local Option Sales Tax		250,000	50,000	50,000	50,000	50,000	50,000
	TOTAL	**250,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Internal Services	Facilities	030-2930-419

CITY MAINTENANCE FACILITY ROOF REPLACEMENT **PROJECT STATUS:** No Change

DESCRIPTION/JUSTIFICATION
This project replaces the roof of the City Maintenance Facility on Edison Street in east Ames. This facility is shared by Public Works and Fleet Services.

The current roof was installed in two phases, one in 1986 and one in 1993. Flat roofs have a 20-year life cycle, and these roofs are 27 and 20 years old, respectively. The warranties expired in 1996 and 2003. Holes and rips are now being repaired as they occur. Staff suspects that roofing materials may contain asbestos; therefore, the engineer's estimates include asbestos abatement for these two roofs.

COMMENTS

2015/16	Roof Replacement for Phase II - $111,000
2016/17	Roof Replacement for Phase III - $135,000

LOCATION
City Maintenance Facility, 2207 Edison Street - East Ames, north of Lincoln Way, just west of Dayton Avenue

	TOTAL	2015/16	2016/17	2017/18	2018/19	2019/20
COST:						
Engineering	5,000	2,500	2,500			
Construction Administration	5,000	2,500	2,500			
Asbestos Abatement	16,000	16,000				
Construction	220,000	90,000	130,000			
TOTAL	**246,000**	**111,000**	**135,000**			
FINANCING:						
Road Use Tax	61,500	27,750	33,750			
Water Utility Fund	61,500	27,750	33,750			
Sewer Utility Fund	61,500	27,750	33,750			
Fleet Services Fund	61,500	27,750	33,750			
TOTAL	**246,000**	**111,000**	**135,000**			

PROGRAM - ACTIVITY:	**DEPARTMENT:**	**ACCOUNT NO.**
Internal Services	Fleet Services	810-2970-529