

# **CITY OF AMES, IOWA**

## **Capital Improvements Plan 2011-2016**



Donald and Ruth Furman Aquatic Center  
Opened May 29, 2010



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Mayor and Ames City Council Members:

Enclosed is the Capital Improvements Plan (CIP) for fiscal years 2011/12 through 2015/16. The five-year CIP reflects expenditures of \$207,513,013. While the economy continues to wreak havoc at the federal and state levels, this plan anticipates that our local economy will improve over the next five years. Not to plan for this type of economic recovery would result in further deterioration of our infrastructure to a point where it will be even more costly to repair or replace in the future. Therefore, the CIP calls for major improvement projects to address 1) the replacement of infrastructure that has exceeded its useful life; 2) the rehabilitation of infrastructure that was destroyed or proven to be inadequate as a result of our recent harsh winters as well as wind and flood disasters that plagued our community last summer; and 3) the construction of new infrastructure that will be needed to accommodate the anticipated growth in our community in accordance with the City Council's goal to promote economic development. A summary of the proposed expenditures is highlighted below.

PUBLIC SAFETY		UTILITIES		TRANSPORTATION		COMMUNITY ENRICHMENT	
Fire	\$238,113	Resource Recovery	\$1,251,200	Streets Engineering	\$49,056,500	Parks and Recreation	\$3,949,000
Traffic	\$6,565,000	Water Treatment	\$52,820,000	Streets Maintenance	\$2,435,000	Library Services	\$762,550
		Water Distribution	\$4,500,000	Transit	\$12,801,600	City Hall Improvements	\$550,000
		Storm Sewers	\$8,091,000	Airport	\$1,615,000	Neighborhood Improvements	\$250,000
		Sanitary Sewers	\$3,685,000			Downtown Façade Improvements	\$250,000
		WPC Treatment	\$11,447,000			Cool City Initiatives	\$136,050
		Electric	\$46,250,000			City Maintenance Facility Improvements	\$600,000
						Municipal Cemetery Improvements	\$260,000
<b>TOTAL</b>	<b>\$6,803,113</b>		<b>\$128,044,200</b>		<b>\$65,908,100</b>		<b>\$6,757,600</b>

This CIP anticipates the following revenues to support the various projects programmed for completion over the next five years: \$31,480,000 from General Obligation Bond proceeds; \$44,731,500 from Electric Utility customer fees; \$6,752,063 from Local Option Sales Tax receipts; \$1,915,000 from Road Use Tax revenues; \$11,117,000 from Water Utility customer fees; \$11,257,000 from Sanitary Sewer Utility customer fees; \$2,725,000 from Storm Sewer Utility customer fees; \$1,251,200 from Resource Recovery Utility revenues; \$2,055,480 from CyRide revenues; and \$94,228,770 from various other federal, state, county, and private funding sources.

## **PUBLIC SAFETY - \$6,803,113**

### **Fire Suppression - \$238,113**

With the approval of the **Mobile Data Terminals for Fire Apparatus** (page 10), all seven of our front-line vehicles will be equipped to more efficiently obtain records and exchange information among vehicles in the field. The **Fire Station Improvements** (page 11) will ensure that needed renovations are made to Fire Station #1 (driveway, cabinets, flooring, restrooms), Fire Station #2 (fencing, bulkhead), and Fire Station #3 (truck room floor) in a timely manner. New **Inspections and Permitting Software** (page 12) will increase productivity and better manage the operations of the Inspection Division.

### **Traffic - \$6,565,000**

This segment of the CIP addresses safety and usability of our multi-modal transportation systems. Bike paths continue to receive a priority in the CIP with the **Shared Use Path System Expansion** (page 15) where local funding from the Local Option Sales Tax receipts has been increased by \$500,000 over the five year life of the CIP in an effort to complete the new Skunk River Trail segment from the Hunziker Youth Sports Complex to River Valley Park. In addition, the **Shared Use Path Improvements** (page 96) will help us maintain the existing segments along 24<sup>th</sup> Street, Bloomington Road, Lincoln Way, Grand Avenue, and Stuart Smith Park. **Traffic Engineering Studies** (page 17) will aid in our long-range traffic planning by analyzing accidents, origin destinations, and hourly models. Our older signals will be replaced at Lincoln Way/Hayward, Lincoln Way/Hyland, Lincoln Way/Union Drive, and Dayton/East Lincoln Way in the **Traffic Signal Program** (page 16). In accordance with an existing developer agreement, **West Lincoln Way Intersection Improvements** (page 18) will be installed at Dotson/Lincoln Way and Franklin/Lincoln Way when traffic thresholds reach agreed upon levels. Finally, **US 69 Intersection Improvements** (page 19) reflect the revisiting of the controversial improvements at 13<sup>th</sup> Street and Grand Avenue as the result of the recently updated Long-Range Transportation Plan.

## **UTILITIES - \$128,044,200**

### **Resource Recovery - \$1,251,200**

In response to a system evaluation, funds from this utility will be used in the **Resource Recovery System Improvements** (page 24) to perform preventive maintenance on the conveyors, scale, rollers, mill motors, rotors, and compressors, as well as on a fire system

upgrade. A study will be completed in FY 2010/11 to provide guidance on the possibility of converting the refuse derived fuel to some other form (gas or bio-crude) as a more cost-effective by-product to burn in our boilers to produce electricity. The results of this study may lead to additional projects in future CIPs.

#### **Water - \$57,320,000**

The largest capital improvement in recent memory is the **New Water Treatment Plant** (page 26). This \$53,000,000 project will provide for a 15 MGD capacity plant to replace deteriorated systems and will accommodate projected residential and commercial customer growth and provide reserve capacity for new industries. Along with this major project, the CIP calls for the first step in **Water Supply Expansion** (page 28) with the design and easement acquisitions for the new 3 million MGD I-35 west well field, various projects associated with **Water Plant Facility Improvements** (page 27) related to security additions, variable speed drives for the wells, decommissioning of the North Dakota tank, and the beginning of an Automatic Meter Reading Conversion (page 29) to promote more efficient reading of water meters. The water distribution system will benefit from **Water System Improvements** (page 31) as older and smaller 4" lines are replaced throughout the system.

#### **Storm Sewer - \$8,091,000**

A review of the CIP will reveal a significant increase in funding from \$2,475,000 for storm sewer improvements to \$8,091,000 over a five-year period. In an effort to respond to the problem areas identified during the unprecedented flooding we experienced last August, the CIP reflects an influx of Federal Hazard Mitigation Planning Grant funding of \$5,366,000 that hopefully will be leveraged by \$2,725,000 of Storm Sewer Utility fee revenues. As a result of this strategy, funding for the **Storm Sewer Outlet Erosion Control** (page 33), **Storm Sewer Improvement Program** (page 34), and **Low Point Drainage Improvements** (page 35) have been increased substantially over previous years. It should be emphasized that this work will be focused on individual problem areas related to storm water runoff and does not deal with the larger issue of stream or river flooding that impacts our community. This task will be handled by a separate study.

#### **Sanitary Sewer - \$15,132,000**

You will note a major change in this CIP from past documents with the inclusion of \$386,000 for the **Long-Range WPC Facility Plan** (page 43) and the acceleration of the \$2,560,000 **Sanitary Sewer System Evaluation** (page 38). These changes are influenced by the fact that we are experiencing difficulty in obtaining approval from the Iowa Department of Natural Resources for improvements to the WPC Plant until a long-range facility plan is completed. This plan will help identify the most cost-effective projects for meeting our customer demands either through improvements to the collection system or to the treatment plant. Consequently, a number of projects previously scheduled for earlier completion, including **Digester Improvements** (page 47) and **Flow Equalization Expansion** (page 48), have been delayed until these two comprehensive studies have been completed by the end of FY 2012/13.

Other projects such as the **WPC Plant Disinfection** (page 42), **WPC Electric System Maintenance** (page 44), **WPC Plant Residuals Handling Improvements** (page 46), numerous **WPC Plant Facility Improvements** (page 45), the reduced **Clear Water Diversion** project (page 40), and **Sanitary Sewer Rehabilitation Program** (page 39) for the collection system are needed regardless of the findings of the long-range planning studies and, therefore, will move forward in FY 2011/12. It should be emphasized, however, that the results of the studies might necessitate a commitment in excess of the \$1,500,000 currently earmarked in the CIP to improve the distribution system.

#### **Electric - \$46,250,000**

A major emphasis will be on the **Mid-American Energy Company Interconnection** (page 51) where the construction of this \$28,000,000 project will ensure better reliability and access to less expensive energy for our customers at certain times of the year. Equally important during the next five years will be to maintain our aging power plant and to meet the environmental requirements expected from our utility. Towards this end, we will be engaging in the **Unit #8 Boiler Tube Repair** (page 52), **Cooling Tower Repairs** (page 53), **Feedwater Heater Tube Replacement** (page 54), **Unit #8 Turbine Generator Overhaul** (page 58), **Unit #8 Heater Basket Replacement** (page 55), **Gas Turbine #1 Overhaul** (page 60), **Power Plant Fire Protection System** (page 62), **Unit #7 Boiler Tube Repair** (page 72), **Unit #7 Turbine Generator Overhaul** (page 74), **Unit #7 Closed Cooling Water System/Piping** (page 77), **Evaporator Cooler on Combustion Turbine #1** (page 70), and **Units #7 & #8 Oil Gun Upgrade** (page 69) for work dealing with the Power Plant.

Regarding environmental requirements, we hope to complete **Unit #8 Mercury Capital** (page 56), **Unit #8 Nitrogen Oxide Control Capital** (page 57), **Unit #7 Continuous Emissions Monitor** (page 63), **Unit #7 Mercury Capital** (page 65), and **Unit #7 Nitrogen Oxide Control Capital** (page 66) projects.

Not all of our efforts are directed to dealing with increasing energy consumption demands of our customers. Over the five years of the CIP, \$5,400,000 will be earmarked in our **Demand Side Management Programs** (page 61) to provide incentives for our customers to reduce their energy consumption and thereby delay significant costs associated with expanding our capacity to meet these needs.

#### **TRANSPORTATION - \$65,908,100**

##### **Streets - \$51,491,500**

The City Council is aware of the more sophisticated and objective process that we have secured from the Iowa Department of Transportation for determining which of our roads need attention. Staff is recommending that we strive to have all of our road segments fall within a 66.6 to 74.1 rating out of 100 under this new system. Our latest analysis indicates that the **overall ratings** for our arterial and collector roadways equal approximately 69, which falls within our stated goal. However, the overall ratings for our

**residential roads** reflect an average rating of about 61.4 out of 100, which is below our target. These ratings appear reasonable given the fact that previous CIPs focused street improvements on collectors and arterials as well as the fact that we directed the unbudgeted \$2,100,000 we received from federal stimulus funding to these same major street segments. In an effort to make sure all of our roads are within the minimum target ratings, the CIP places a greater emphasis on improving our residential roads.

Residential streets will benefit from the **Asphalt Pavement Improvement Program** (page 86), the **Asphalt Resurfacing & Seal Coat Removal/Asphalt Reconstruction Program** (page 88), and **CyRide Route Pavement Improvements** (page 89). The exact locations of these improvements will be determined each year after the completion of an updated street condition inventory. Many of our commercial areas will receive attention over the life of the CIP with the **Downtown Street Pavement Improvements** (page 87) and **Concrete Pavement Improvement programs** (page 90). Our major roadway segments will not be overlooked in the CIP. The **Arterial Street Pavement Improvements** (page 84) and **Collector Street Pavement Improvements** (page 85) initiatives will make needed repairs to Dayton Avenue, State Avenue, Lincoln Way, Ash Avenue, Woodland Street, and Meadowlane Avenue. The most costly street project in the CIP is the **Grand Avenue Extension** project to South 16<sup>th</sup> Street (page 83) that will require \$14,200,000 from Congressionally directed funds to accomplish the objective of diverting traffic from the Grand Avenue/South Duff corridor.

#### **Transit - \$12,801,600**

The major focus of the CIP for CyRide is to reduce the average age of the fleet. With the replacement of 20 new buses anticipated in **Vehicle Replacement** (page 100), the average age of our bus fleet will be reduced to nine years. The other major project involves the **Building Expansion & Modernization** (page 101) of the CyRide facility to provide additional bus storage space, flood protection for the building, increased ceiling height to accommodate our larger buses, and needed structural repairs.

#### **Airport - \$1,615,000**

The **Airport Improvements** program (page 106) identifies the development needs reflected in the City's Airport Master Plan. It is anticipated that the City will receive 95% funding from the Federal Aviation Administration to reconstruct the parking lot and internal road system as well as to replace the existing terminal building.

### **COMMUNITY ENRICHMENT - \$6,757,600**

#### **Parks and Recreation - \$3,949,000**

The CIP continues our commitment to jointly fund repairs to the indoor pool with the Ames Community School District. The **Municipal Pool Maintenance** program (page 111) will replace the pool's boiler/pumps, lighting, and electrical panels. It must be emphasized that the investment in these repairs is being made to prolong the life of this facility until FY 2015/16. Any further improvements after the life of this five-year plan could be cost prohibitive.

A new joint initiative with the Ames Community School District is being unveiled in the **Playground/Park Equipment Improvements** (page 112) where the City will provide \$135,000 of the total cost of \$225,000 needed to provide a piece of new play equipment at each of the elementary schools. With this new equipment, the school properties can better serve as neighborhood parks for our residents.

While the **Tennis Court Improvements** (page 116) program reflects the reconstruction of the Brookside courts in FY 2012/13, staff is committed to seeking neighborhood input prior to 2012 regarding the importance these courts have on the immediate residents and the community as well as if alternative features might be preferred.

With support from 64% of the respondents in our Citizen Satisfaction Survey, the **Community Gathering Place** project (page 117) remains a priority in our CIP. However, rather than rely on tax revenues to finance a portion of an interactive fountain, pavilion, and open space contemplated east of City Hall, the project now calls for 100% funding from private contributions.

#### **Library Services - \$762,550**

A **Radio Frequency Identification Inventory Management System** (page 119) has been included in the CIP for the first time. This system speeds up check in/out, deters theft, and increases the efficiency of managing the materials inventory. The **Bookmobile Replacement** (page 120) will ensure that the current vehicle that was purchased in 2001 will be replaced at the end of its useful life. While other building improvements are included in the latter years of the CIP, a final decision to proceed with these projects will be delayed until a determination is made regarding a library expansion project.

#### **Other Projects - \$2,046,050**

Our long-range plan continues to improve the appearance of our community with the continuation of the **Neighborhood Improvement** (page 124), **Downtown Façade** (pages 126), and **Cemetery Improvement** (page 128) programs. Equally important, the City Council's efforts to reduce carbon emissions will be enhanced by our **Facility Energy Improvements** (page 131).

#### **WHAT IS NOT IN THE CIP?**

While I have attempted to highlight the major projects that have been included in the CIP, it is equally important to emphasize that the following projects have been discussed on several occasions with the City Council but are not included in the Plan:

- Campustown Renovation Improvements
- Rose Prairie Road, Sanitary Sewer & Water Lines

- Southwest Growth Area Sanitary Sewer
- East Lincoln Way Industrial Park Road, Sanitary Sewer & Water Lines
- East Lincoln Way Sanitary Sewer Line (under I-35)
- 570<sup>th</sup> Street related to Regional Commercial Area

While many of these projects have been discussed by the City Council, no final decisions have been made yet regarding the developments associated with these improvements.

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I would like to thank each and every department head and their key staff who stand ready to assist in making the City of Ames a premier place to live, work, and enjoy life. In addition, Duane Pitcher, Carol Collings, Nancy Masteller, Sharon Hjortshoj, Sheila Lundt, and Bob Kindred should be recognized for their help in preparing this critical planning document.

Respectfully submitted,

*Steve*

Steven L. Schainker  
City Manager



**CITY OF AMES, IOWA**  
**FIVE-YEAR CAPITAL IMPROVEMENT PLAN**  
**2011-2016**

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## HOW TO USE THE C.I.P. DOCUMENT

The 2011-2016 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 and a map location is listed which refers to the sectioned City map on pages 133-142.

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.

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CITY OF AMES, IOWA**

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## PROJECTION OF DEBT CAPACITY

	2009/10 ACTUAL	2010/11 BUDGETED	2011/12 PROJECTED	2012/13 PROJECTED	2013/14 PROJECTED	2014/15 PROJECTED	2015/16 PROJECTED
1. Total Actual Valuation	3,327,852,693	3,431,600,584	3,453,383,950	3,556,985,469	3,663,695,033	3,773,605,884	3,886,814,061
2. State Mandated Debt Limit	166,392,635	171,580,029	172,669,198	177,849,273	183,184,752	188,680,294	194,340,703
3. City Reserve (25% of Limit)	41,598,159	42,895,007	43,167,300	44,462,318	45,796,188	47,170,074	48,585,176
Un-Reserved Debt Capacity	124,794,476	128,685,022	129,501,898	133,386,955	137,388,564	141,510,220	145,755,527
4. Outstanding Debt	46,735,000	46,225,000	39,180,000	32,600,000	26,820,000	22,175,000	17,915,000
5. Proposed Issues	-	-	6,800,000	6,500,000	6,500,000	6,400,000	5,280,000
6. Balance of Proposed Issues	-	-	-	6,334,309	11,907,173	17,002,441	21,510,246
Total Debt Subject to Limit	46,735,000	46,225,000	45,980,000	45,434,309	45,227,173	45,577,441	44,705,246
7. Available Un-Reserved Debt Capacity (\$)	78,059,476	82,460,022	83,521,898	87,952,646	92,161,391	95,932,779	101,050,281
8. Available Un-Reserved Debt Capacity (%)	62.55%	64.08%	64.49%	65.94%	67.08%	67.79%	69.33%
9. Total Debt Capacity (\$)	119,657,635	125,355,029	126,689,198	132,414,964	137,957,579	143,102,853	149,635,457
10. Total Debt Capacity (%)	71.91%	73.06%	73.37%	74.45%	75.31%	75.84%	77.00%

**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
<b>2011/12:</b>				
<b>TRAFFIC</b>		150,000		
West Lincoln Way Intersection Improvements	150,000		100%	
<b>STREETS ENGINEERING</b>		6,350,000		
Grand Avenue Extension	300,000		20%	Congressionally Directed Funds
Arterial Street Pavement Improvements (Dayton Avenue)	60,000		100%	
Collector St Pavement Improvements (various locations)	1,898,500		64%	MPO/STP Funds
Asphalt Pavement Improvement Program (various locations)	2,576,000		100%	
Downtown Street Pavement Improvements (Douglas Ave)	750,000		91%	Electric Utility Fund
Asphalt Resurfacing/Reconstruction Program	765,500		100%	
<b>INTERNAL SERVICES/FACILITIES</b>		300,000		
City Hall Mechanical/Structural Improvements	300,000		86%	Local Option Tax Sales Tax
<b>2011/12 TOTAL</b>		<b>6,800,000</b>		



## SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
<b>2012/13:</b>				
<b>TRAFFIC</b>		492,500		
West Lincoln Way Intersection Improvements	492,500		53%	Developer
<b>STREETS ENGINEERING</b>		6,007,500		
Grand Avenue Extension	930,000		20%	Congressionally Directed Funds
Arterial Street Pavement Improvements (State Avenue)	219,000		15%	Story County/MPO/STP Funds
Collector Street Pavement Improvements (Meadowlane)	1,115,500		100%	
Asphalt Pavement Improvement Program (Pierce Court)	147,200		100%	
Downtown Street Pavement Improvements (Gilchrist St)	750,000		100%	
Asphalt Resurfacing/Reconstruction Program	816,050		100%	
CyRide Rte Pavement Improvements (Todd Dr/Lincoln Way)	1,253,500		100%	
Concrete Pavement Improvements (various locations)	776,250		100%	
<b>2012/13 YEAR TOTAL</b>		<b>6,500,000</b>		

## SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
<b>2013/14:</b>				
<b>STREETS ENGINEERING</b>		5,590,000		
Grand Avenue Extension	1,300,000		20%	Congressionally Directed Funds
Arterial Street Pavement Improvements (Lincoln Way)	550,000		31%	MPO/STP Funds/Electric Utility
Asphalt Pavement Improvement Program (various locations)	1,061,450		93%	Electric Utility Fund
Downtown Street Pavement Improvements (5th Street)	650,000		100%	
Asphalt Resurfacing/Reconstruction Program	327,700		100%	
CyRide Route Pavement Improvements (various locations)	1,275,350		100%	
Concrete Pavement Improvements (Southbend frontage road)	425,500		100%	
 <b>STREETS MAINTENANCE</b>		910,000		
Bridge Rehabilitation Program (East Lincoln Way)	910,000		100%	
 <b>2013/14 YEAR TOTAL</b>		<b>6,500,000</b>		

## SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
<b>2014/15:</b>				
<b>STREETS ENGINEERING</b>		6,400,000		
Grand Avenue Extension	1,020,000		20%	Congressionally Directed Funds
Arterial Street Pavement Improvements (Lincoln Way)	805,000		92%	Electric Utility Fund
Downtown Street Pavement Improvements (Clark Avenue)	750,000		81%	Electric Utility Fund
Asphalt Resurfacing/Reconstruction Program	442,250		100%	
CyRide Route Pavement Improvements (various locations)	893,000		46%	MPO/STP Funds
Concrete Pavement Improvements (Ridgewood; Dawes Dr)	2,489,750		100%	
 <b>2014/15 YEAR TOTAL</b>		<b>6,400,000</b>		

## SUMMARY OF MAJOR BOND ISSUES, continued

GENERAL OBLIGATION BONDS	PROJECT TOTAL	CATEGORY TOTAL	% PROJECT G.O. FUNDED	OTHER SOURCES OF FUNDING
<b>2015/16:</b>				
<b>TRAFFIC</b>		774,000		
West Lincoln Way Intersection Improvements	774,000		43%	IDOT Grant/Developer
<b>STREETS ENGINEERING</b>		4,406,000		
Arterial Street Pavement Improvements (West Lincoln Way)	345,000		100%	
Collector Street Pavement Improvements (various locations)	1,504,500		59%	MPO/STP Funds
Asphalt Pavement Improvement (Delaware Avenue)	833,750		100%	
Downtown St Pavement Improvements (Sherman; Market)	500,000		100%	
Asphalt Resurfacing/Reconstruction Program	452,250		100%	
Concrete Pavement Improvements (various locations)	770,500		100%	
<b>STREETS MAINTENANCE</b>		100,000		
Bridge Rehabilitation Program (6th Street/Squaw Creek)	100,000		100%	
<b>2015/16 YEAR TOTAL</b>		<b>5,280,000</b>		
<b>GRAND TOTAL GENERAL OBLIGATION BONDS</b>		<b>31,480,000</b>		



In July 2007, the voters in Ames passed the \$8.5 million bond referendum for the outdoor aquatic center, with 76% voting in favor of the project. The complex was designed by RDG Planning and Design of Des Moines, Iowa, and Waters Edge of Lenexa, Kansas. It features three separate basins, "The Pond", "The Lake", and "The Lazy River". The general contractor was Sande Construction of Humboldt, Iowa. Iowa State University's Department of Facilities Planning and Management assisted with construction observation.

## CAPITAL IMPROVEMENT PLAN - GRAND TOTALS

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
Public Safety	6,803,113	886,143	1,193,000	1,572,000	302,970	2,849,000	7
Utilities	128,044,200	32,701,300	31,603,750	34,035,800	18,158,550	11,544,800	21
Transportation	65,908,100	14,034,600	14,728,500	14,791,000	14,277,600	8,076,400	79
Community Enrichment	6,757,600	1,428,050	1,392,400	2,124,150	935,000	878,000	107
<b>Total Expenditures</b>	<b>207,513,013</b>	<b>49,050,093</b>	<b>48,917,650</b>	<b>52,522,950</b>	<b>33,674,120</b>	<b>23,348,200</b>	
<b>REVENUES:</b>							
Bonds	31,480,000	6,800,000	6,500,000	6,500,000	6,400,000	5,280,000	
City	82,436,143	24,447,233	15,745,400	15,649,070	13,763,072	12,831,368	
Other	93,596,870	17,802,860	26,672,250	30,373,880	13,511,048	5,236,832	
<b>Total Revenues</b>	<b>207,513,013</b>	<b>49,050,093</b>	<b>48,917,650</b>	<b>52,522,950</b>	<b>33,674,120</b>	<b>23,348,200</b>	

## CAPITAL IMPROVEMENT PLAN - EXPENDITURE SUMMARY BY PROGRAM

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
<b>Public Safety:</b>							
Fire	238,113	25,143	83,000	87,000	42,970		9
Traffic	6,565,000	861,000	1,110,000	1,485,000	260,000	2,849,000	13
<b>Total Public Safety</b>	<b>6,803,113</b>	<b>886,143</b>	<b>1,193,000</b>	<b>1,572,000</b>	<b>302,970</b>	<b>2,849,000</b>	
<b>Utilities:</b>							
Resource Recovery	1,251,200	431,300	120,750	153,800	122,550	422,800	23
Water Treatment	52,820,000	5,038,000	15,276,000	23,776,000	7,491,000	1,239,000	25
Water Distribution	4,500,000	900,000	900,000	900,000	900,000	900,000	30
Storm Sewer	8,091,000	3,233,000	3,333,000	575,000	475,000	475,000	32
Sanitary Sewer	3,685,000	1,385,000	1,325,000	325,000	325,000	325,000	37
WPC Treatment	11,447,000	2,494,000	2,929,000	2,496,000	1,695,000	1,833,000	41
Electric	46,250,000	19,220,000	7,720,000	5,810,000	7,150,000	6,350,000	49
<b>Total Utilities</b>	<b>128,044,200</b>	<b>32,701,300</b>	<b>31,603,750</b>	<b>34,035,800</b>	<b>18,158,550</b>	<b>11,544,800</b>	

## CAPITAL IMPROVEMENT PLAN - EXPENDITURE SUMMARY BY PROGRAM, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES, continued:</b>							
<b>Transportation:</b>							
Streets/Engineering	49,056,500	8,685,000	11,008,500	12,105,000	11,792,000	5,466,000	81
Streets/Maintenance	2,435,000	255,000	565,000	1,125,000	215,000	275,000	91
Transit	12,801,600	4,194,600	2,440,000	1,561,000	2,270,600	2,335,400	99
Airport	1,615,000	900,000	715,000				105
<b>Total Transportation</b>	<b>65,908,100</b>	<b>14,034,600</b>	<b>14,728,500</b>	<b>14,791,000</b>	<b>14,277,600</b>	<b>8,076,400</b>	
<b>Community Enrichment/Internal Services:</b>							
Parks and Recreation	3,949,000	617,000	1,049,000	1,483,000	365,000	435,000	109
Library	762,550	125,000	153,400	256,150	180,000	48,000	118
City Manager	250,000	50,000	50,000	50,000	50,000	50,000	123
Planning and Housing	250,000	50,000	50,000	50,000	50,000	50,000	125
Public Works	260,000	100,000	40,000	40,000	40,000	40,000	127
Internal Services/Facilities	1,286,050	486,050	50,000	245,000	250,000	255,000	129
<b>Total Community Enrichment</b>	<b>6,757,600</b>	<b>1,428,050</b>	<b>1,392,400</b>	<b>2,124,150</b>	<b>935,000</b>	<b>878,000</b>	
<b>GRAND TOTAL EXPENDITURES</b>	<b>207,513,013</b>	<b>49,050,093</b>	<b>48,917,650</b>	<b>52,522,950</b>	<b>33,674,120</b>	<b>23,348,200</b>	



## CAPITAL IMPROVEMENT PLAN - REVENUE SUMMARY BY TYPE

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES:</b>						
<b>Bonds:</b>						
G.O. Bonds	31,480,000	6,800,000	6,500,000	6,500,000	6,400,000	5,280,000
<b>Total Bonds</b>	<b>31,480,000</b>	<b>6,800,000</b>	<b>6,500,000</b>	<b>6,500,000</b>	<b>6,400,000</b>	<b>5,280,000</b>
<b>City:</b>						
Road Use Tax	1,915,000	380,000	340,000	468,750	425,000	301,250
Local Option Sales Tax	6,752,063	1,540,693	1,375,400	1,510,000	852,970	1,473,000
Fleet Replacement Funds	256,150			256,150		
Electric Utility Fund	44,731,500	17,636,500	7,695,000	5,990,000	7,350,000	6,060,000
Resource Recovery Fund	1,251,200	431,300	120,750	153,800	122,550	422,800
Water Utility Fund	11,117,000	1,140,000	3,074,000	3,482,750	2,005,000	1,415,250
Sewer Utility Fund	11,257,000	2,100,000	2,008,000	2,869,750	2,070,000	2,209,250
Storm Sewer Utility Fund	2,725,000	550,000	650,000	575,000	475,000	475,000
Fleet Services Fund	150,000			48,750	50,000	51,250
Transit Fund	2,055,480	603,740	346,500	269,120	412,552	423,568
Airport Construction Fund	80,750	45,000	35,750			
Ice Arena Reserve Funds	145,000	20,000	100,000	25,000		
<b>Total City</b>	<b>82,436,143</b>	<b>24,447,233</b>	<b>15,745,400</b>	<b>15,649,070</b>	<b>13,763,072</b>	<b>12,831,368</b>

## CAPITAL IMPROVEMENT PLAN - REVENUE SUMMARY BY TYPE, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>Other:</b>						
MPO/STP Funds	5,710,000	1,146,000	1,062,000	1,220,000	1,062,000	1,220,000
State Grants	200,000	50,000	150,000			
MPO/Planning Funds	320,000			320,000		
Iowa D.O.T. Safety Grant	500,000					500,000
Developer	982,500		442,500			540,000
Congressionally Directed Funds	14,200,000	1,200,000	3,720,000	5,200,000	4,080,000	
Drinking Water State Revolving Fund	46,353,000	4,798,000	13,102,000	21,242,000	6,436,000	775,000
Private Contributions	1,000,000			1,000,000		
Iowa State University	2,148,500	1,658,500	75,000	75,000	50,000	290,000
Hazard Mitigation Grant Program	5,366,000	2,683,000	2,683,000			
Clean Water State Revolving Fund	4,025,000	1,779,000	2,246,000			
Story County	269,000		269,000			
Ames Community School District	242,500	42,500	150,000	25,000	25,000	
Federal Transit Administration	10,254,920	3,499,660	1,993,500	1,191,880	1,758,048	1,811,832
FTA - Small Transit Incentive Cities	251,200	11,200	60,000	60,000	60,000	60,000
Federal Grants	200,000	40,000	40,000	40,000	40,000	40,000
ISU - Government of the Student Body	40,000	40,000				
FAA Grants	1,534,250	855,000	679,250			
<b>Total Other</b>	<b>93,596,870</b>	<b>17,802,860</b>	<b>26,672,250</b>	<b>30,373,880</b>	<b>13,511,048</b>	<b>5,236,832</b>
<b>GRAND TOTAL REVENUES</b>	<b>207,513,013</b>	<b>49,050,093</b>	<b>48,917,650</b>	<b>52,522,950</b>	<b>33,674,120</b>	<b>23,348,200</b>



The Furman Aquatic Center is named for long-time Ames residents and builders, Donald and Ruth Furman. Their tremendous gift of \$2 million included \$1 million for construction and \$1 million to establish an endowment to ensure that minimal operational tax subsidies will be needed to address future capital improvements. Donald and Ruth are pictured at the ground-breaking ceremony on May 17, 2008.



The site of the future Furman Aquatic Center is shown here with harvested round hay bales. The land on 13<sup>th</sup> Street north of Brookside Park is owned by Iowa State University (ISU). ISU leased the property to the City of Ames for 50 years.....free of charge. The site is approximately 40 acres with the Furman Aquatic Center and parking lot utilizing 12 acres.

## PUBLIC SAFETY - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
Fire	238,113	25,143	83,000	87,000	42,970		9
Traffic	6,565,000	861,000	1,110,000	1,485,000	260,000	2,849,000	13
<b>Total Expenditures</b>	<b>6,803,113</b>	<b>886,143</b>	<b>1,193,000</b>	<b>1,572,000</b>	<b>302,970</b>	<b>2,849,000</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	1,416,500	150,000	492,500			774,000	
<b>City:</b>							
Road Use Tax	1,140,000	225,000	175,000	305,000	260,000	175,000	
Local Option Sales Tax	1,988,113	375,143	83,000	787,000	42,970	700,000	
<b>Sub-Total City Funds</b>	<b>3,128,113</b>	<b>600,143</b>	<b>258,000</b>	<b>1,092,000</b>	<b>302,970</b>	<b>875,000</b>	

## PUBLIC SAFETY - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>Other:</b>						
MPO/STP Funds	406,000	86,000		160,000		160,000
State Grant	50,000	50,000				
MPO/Planning Funds	320,000			320,000		
Iowa D.O.T. Safety Grant	500,000					500,000
Developer	982,500		442,500			540,000
Sub-Total Other Funds	2,258,500	136,000	442,500	480,000		1,200,000
<b>Total Revenues</b>	<b>6,803,113</b>	<b>886,143</b>	<b>1,193,000</b>	<b>1,572,000</b>	<b>302,970</b>	<b>2,849,000</b>

## PUBLIC SAFETY - FIRE

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Fire Apparatus Mobile Data Terminals	25,143	25,143					10
2 Fire Station Maintenance	149,970		83,000	24,000	42,970		11
3 Inspections & Permitting Software	63,000			63,000			12
<b>Total Expenditures</b>	<b>238,113</b>	<b>25,143</b>	<b>83,000</b>	<b>87,000</b>	<b>42,970</b>		
<b>REVENUES:</b>							
<b>City:</b>							
Local Option Sales Tax	238,113	25,143	83,000	87,000	42,970		
<b>Total Revenues</b>	<b>238,113</b>	<b>25,143</b>	<b>83,000</b>	<b>87,000</b>	<b>42,970</b>		

**MOBILE DATA TERMINALS FOR FIRE APPARATUS****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This is phase two of a project that will provide field access to Fire Department records, state GIS databases, and direct connections to computer aided dispatch information for fire vehicles. The project will provide more information to responders in the field regarding building layout, hazards, access, protection systems in place, mapping, and hydrant locations. As emergency call volume grows, it is important to increase the efficiency of information flow to fire units. The system will provide timely and accurate information that can be used to more efficiently obtain records and exchange information among vehicles in the field. Firefighters can obtain more detailed information about emergencies to which they are responding to provide safer, more efficient customer service.

In 2009, the Fire Department received a grant for installation of mobile data terminals in four of the response vehicles. This request is for the final phase of the project. The 2008/09 CIP moved the Police Department into the system first, facilitating the Fire Department in the following year. In 2008/09, the Police Department implemented the infrastructure and installed mobile data terminals in police vehicles.

Phase I in 2009/10 was paid by \$40,800 in federal grant funds and \$10,200 in local option sales tax. The Fire Department will apply for a Phase II grant for the mobile data terminals. If the grant is received, the local option tax use will be reduced to 20%.

The annual ongoing additional operating cost will be \$3,900 (software support - \$240; Verizon air cards - \$123; depreciation - \$2,520; IT support - \$1,017).

**COMMENTS**

Mobile Data Terminals	\$ 15,000
Purchase Verizon Cards	150
FH Mobile Pre-Plan	1,530
Mounting Hardware	5,034
GPS Antennas	150
Contingency	3,279
<b>Total</b>	<b>\$ 25,143</b>

**LOCATION**

Fire Station #1, 1300 Burnett – Map 5, location M-9

Fire Station #2, Corner of Welch and Chamberlain – Map 5, location H-11

Fire Station #3, 2400 South Duff Avenue – Map 8, location M-15

<b>FISCAL YEAR PRIORITY</b>	<b>TOTAL</b>	<b>1</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Mobile Data Terminals, Software, Hardware	25,143	25,143				
<b>TOTAL</b>	<b>25,143</b>	<b>25,143</b>				
<b>FINANCING:</b>						
Local Option Sales Tax	25,143	25,143				
<b>TOTAL</b>	<b>25,143</b>	<b>25,143</b>				

**PROGRAM - ACTIVITY:**

Public Safety – Fire

**DEPARTMENT:**

Fire

**ACCOUNT NO.**

030-2271-429



**FIRE STATION MAINTENANCE****PROJECT STATUS:** Advanced

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Fire Station #1 was constructed in 1979 and is in need of repairs and renovations to high traffic and high use areas. The rear drive was originally constructed with gas tanks underneath. The tanks were removed and the void was filled, but settling has occurred, causing accelerated damage. Kitchen cabinets, flooring, appliances, storage cabinets, bathroom fixtures, and doors also need to be updated.

Fire Station #2 is 43 years old. New fencing is needed along the south side of the building, and copper bulkheads will be replaced with painted sheet metal.

Fire Station #3 was constructed in 2002, but problems were encountered with the apparatus truck room floor during construction. An agreement for a financial settlement was reached with the builder, and the budget for this repair has been carried forward.

**COMMENTS**

2012/13: Fire Station #1 driveway replacement (\$83,000)

2013/14: Fire Station #1 kitchen cabinets, stove, refrigerator, and flooring (\$15,000); Fire Station #1 communications room and lieutenants' office cabinets, countertops, and storage (\$6,000); Fire Station #1 compressor and self-contained breathing apparatus room storage and cabinets (\$3,000)

2014/15: Fire Station #1 restroom fixture replacement (\$3,300); Fire Station #1 door replacement (\$2,400); Fire Station #2 fencing (\$11,000); Fire Station #2 bulkhead replacement (\$11,000); Fire Station #3 truck room floor repainting (\$13,000); Fire Station #3 driveway and sidewalk joint sealing (\$2,270).

**LOCATION**

Fire Station #1, 1300 Burnett Avenue – Map 5, location M-9

Fire Station #2, corner of Welch and Chamberlain – Map 5, location H-11

Fire Station #3, 2400 South Duff Avenue – Map 8, location M-15

FISCAL YEAR PRIORITY			1	2	1	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Fire Station Repairs/Maintenance	149,970		83,000	24,000	42,970	
<b>TOTAL</b>	<b>149,970</b>		<b>83,000</b>	<b>24,000</b>	<b>42,970</b>	
<b>FINANCING:</b>						
Local Option Sales Tax	149,970		83,000	24,000	42,970	
<b>TOTAL</b>	<b>149,970</b>		<b>83,000</b>	<b>24,000</b>	<b>42,970</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Public Safety – Fire		Fire				

**SOFTWARE – INSPECTIONS AND PERMITTING**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

Inspections and permitting software would facilitate the Inspection Division’s efforts to better manage its operations. From permitting and licensing to inspections and work-orders, proper software provides essential tools that increase productivity and better manage administrative operations. The current software is not designed for the operations of the Inspections Division.

The software would be common to the building, rental, plumbing, and mechanical inspections. Currently, the Inspections Division does not have field access to information. Besides administrative efficiency, the customers would be better served if they had Internet access to their permits and other related data.

**LOCATION**

City Hall – Map 5, location L-11

FISCAL YEAR PRIORITY		1				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Inspections Software	63,000			63,000		
<b>TOTAL</b>	<b>63,000</b>			<b>63,000</b>		
<b>FINANCING:</b>						
Local Option Sales Tax	63,000			63,000		
<b>TOTAL</b>	<b>63,000</b>			<b>63,000</b>		
<b>PROGRAM - ACTIVITY:</b>	<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>			
Public Safety – Fire	Fire					

## PUBLIC SAFETY - TRAFFIC

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Shared Use Path System Expansion	2,156,000	436,000		860,000		860,000	15
2 Traffic Signal Program	925,000	225,000	175,000	175,000	175,000	175,000	16
3 Traffic Engineering Studies West Lincoln Way Intersection	500,000	50,000		400,000	50,000		17
4 Improvements	2,934,000	150,000	935,000		35,000	1,814,000	18
5 U.S. 69 Intersection Improvements	50,000			50,000			19
<b>Total Expenditures</b>	<b>6,565,000</b>	<b>861,000</b>	<b>1,110,000</b>	<b>1,485,000</b>	<b>260,000</b>	<b>2,849,000</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	1,416,500	150,000	492,500			774,000	

## PUBLIC SAFETY - TRAFFIC, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>City:</b>						
Road Use Tax	1,140,000	225,000	175,000	305,000	260,000	175,000
Local Option Sales Tax	1,750,000	350,000		700,000		700,000
Sub-Total City Funds	2,890,000	575,000	175,000	1,005,000	260,000	875,000
<b>Other:</b>						
MPO/STP Funds	406,000	86,000		160,000		160,000
State Grant	50,000	50,000				
MPO/Planning Funds	320,000			320,000		
Iowa D.O.T. Safety Grant	500,000					500,000
Developer	982,500		442,500			540,000
Sub-Total Other Funds	2,258,500	136,000	442,500	480,000		1,200,000
<b>Total Revenues</b>	<b>6,565,000</b>	<b>861,000</b>	<b>1,110,000</b>	<b>1,485,000</b>	<b>260,000</b>	<b>2,849,000</b>

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

Delay

City of Ames, Iowa  
Capital Improvements Plan**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. This program supports one of the City Council's priorities for the year, connecting our community.

**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.

Cost change is due to updated estimates. The construction of the Skunk River Trail Extension (Hunziker Youth Sports Complex to Southeast 16<sup>th</sup> Street), originally scheduled for 2009/10, will occur in 2011/12. The delay of this project will keep funding levels balanced and ensure MPO/STP funding. The remainder of the projects have been delayed and scheduled every other year.

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

2011/12	<u>Skunk River Trail Extension (Hunziker Youth Sports Complex to Southeast 16<sup>th</sup> Street)</u> (construction) – Map 9, location O-14
2012/13	No Project
2013/14	<u>Skunk River Trail Extension (East Lincoln Way to South River Valley Park)</u> - Map 6, location O-11
2014/15	No Project
2015/16	<u>Skunk River Trail (Southeast 16<sup>th</sup> Street to East Lincoln Way)</u> (bridge construction and bank stabilization) – Map 6, location O-13

The Skunk River Trail (Southeast 16<sup>th</sup> Street to East Lincoln Way) will be paved in 2016/17.

Cost change is due to updated estimates. The construction of the Skunk River Trail Extension (Hunziker Youth Sports Complex to Southeast 16<sup>th</sup> Street), originally scheduled for 2009/10, will occur in 2011/12. The delay of this project is to keep funding levels balanced. The remainder of the projects have been delayed and scheduled every other year. The projects included in this program are subject to acquiring voluntary easements from property owners. The average per year contribution from local option sales tax has increased from \$250,000 to \$350,000, placing a higher emphasis on this program.

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

FISCAL YEAR PRIORITY		1	3	1		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
COST:						
Engineering	135,000	25,000		55,000		55,000
Construction	2,021,000	411,000		805,000		805,000
TOTAL	2,156,000	436,000		860,000		860,000
FINANCING:						
Local Option Sales Tax	1,750,000	350,000		700,000		700,000
MPO/STP Funds	406,000	86,000		160,000		160,000
TOTAL	2,156,000	436,000		860,000		860,000
PROGRAM – ACTIVITY:		DEPARTMENT:		ACCOUNT NO.		
Public Safety – Traffic		Public Works		030-7508-429		
				320-7508-429		

**TRAFFIC SIGNAL PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**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 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.

**COMMENTS**

Proposed locations:

2011/12	Permanent Traffic Count Stations (various locations)
2012/13	Lincoln Way/Hayward Avenue signal replacement – Map 5, location H-11
2013/14	Lincoln Way/Hyland Avenue signal replacement – Map 5, location H-11
2014/15	Lincoln Way/Union Drive signal replacement – Map 5, location I-11
2015/16	Dayton Avenue/East Lincoln Way signal replacement – Map 6, location Q-11

The 2011/12 project to implement permanent count stations around the City of Ames will provide vital and highly detailed transportation data 24 hours a day, all year round. This data will be used to significantly enhance the City's transportation model, as well as other planning efforts, such as the City's pavement management system and traffic safety planning tool. In addition, 24-hour count data will be used to improve traffic signal progression along all major corridors in Ames.

FISCAL YEAR PRIORITY		2	1	1	1	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	80,000	20,000	15,000	15,000	15,000	15,000
Construction	845,000	205,000	160,000	160,000	160,000	160,000
<b>TOTAL</b>	<b>925,000</b>	<b>225,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>
<b>FINANCING:</b>						
Road Use Tax	875,000	175,000	175,000	175,000	175,000	175,000
State Grant	50,000	50,000				
<b>TOTAL</b>	<b>925,000</b>	<b>225,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>	<b>175,000</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Public Safety – Traffic		Public Works		060-7515-429		
				320-7515-429		

**TRAFFIC ENGINEERING STUDIES****PROJECT STATUS:** No ChangeCity 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 efficiency, effectiveness, and safety of those systems.

**COMMENTS**

Proposed studies:

2011/12	Accident Study
2012/13	No project
2013/14	Origin Destination Study and Long-Range Transportation Plan Update
2014/15	Hourly Model Development
2015/16	No project

The Accident Study (2011/12) will examine high accident locations and propose potential solutions to these accident concerns with future capital improvement projects. The Origin Destination Study and Long-Range Transportation Plan Update (2013/14) will collect data for enhancement of the Travel Demand Model and will update the Long-Range Transportation Plan which is to be adopted in 2015. Through Hourly Model Development in 2014/15, data will be collected and analyzed in order to transition the AAMPO model from a daily (24-hour) to a per-hour model.

FISCAL YEAR PRIORITY		3		2		3	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	
COST:							
Engineering	500,000	50,000		400,000	50,000		
	TOTAL	500,000	50,000	400,000	50,000		
FINANCING:							
Road Use Tax	180,000	50,000		80,000	50,000		
MPO/Planning Funds	320,000			320,000			
	TOTAL	500,000	50,000	400,000	50,000		
PROGRAM – ACTIVITY:		DEPARTMENT:		ACCOUNT NO.			
Public Safety – Traffic		Public Works		060-7532-429			

**WEST LINCOLN WAY INTERSECTION IMPROVEMENTS****PROJECT STATUS:** Cost Change  
Advanced

Revenue Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

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

Increased traffic flow from South Fork Subdivision necessitates left-turn lanes at the Lincoln Way approaches to both the Franklin Avenue and the Dotson Drive intersections to accommodate heavy turning movements. Additional turn lanes are also anticipated for right-turning movements northbound from Franklin Avenue onto Lincoln Way and for left-turning movements northbound from Dotson Avenue onto Lincoln Way. The increased traffic will also warrant replacement of signals at the Franklin Avenue/Lincoln Way intersection and the installation of new traffic signals at the Dotson Drive/Lincoln Way intersection. Turn lanes on Lincoln Way will mitigate left-turning, rear-end, and right-angle traffic accidents at both sites. 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**

2011/12 Dotson Drive/Lincoln Way (planning) – Map 4, location F-11  
 2012/13 Dotson Drive/Lincoln Way (construction) – Map 4, location F-11  
 2014/15 Franklin Avenue/Lincoln Way (planning) – Map 4, location G-11  
 2015/16 Franklin Avenue/Lincoln Way (construction) – Map 4, location G-11

The Dotson Drive/Lincoln Way project, previously scheduled for 2014/15, currently meets the warrants included in the developer's agreement for South Fork Subdivision. Therefore it is being advanced to 2012/13 for construction.

The Franklin Avenue/Lincoln Way intersection improvement project is anticipated to meet the terms of the development agreement in 2015/16. This project, which was previously scheduled for 2013/14 construction, is now being delayed until it meets agreement requirements.

The cost and revenue changes are due to adding Electric participation to these projects. The street widening for turn lanes will increase street maintenance and snow removal activities.

<b>FISCAL YEAR PRIORITY</b>		4	2		4	4
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Land Acquisition	20,000				20,000	
Planning	15,000				15,000	
Engineering	434,000	150,000	50,000			234,000
Construction	2,465,000		885,000			1,580,000
<b>TOTAL</b>	<b>2,934,000</b>	<b>150,000</b>	<b>935,000</b>		<b>35,000</b>	<b>1,814,000</b>
<b>FINANCING:</b>						
G. O. Bonds	1,416,500	150,000	492,500			774,000
Road Use Tax	35,000				35,000	
Iowa D.O.T Safety Grant	500,000					500,000
Developer (50% of Construction) (less 50% Safety Grant)	982,500		442,500			540,000
<b>TOTAL</b>	<b>2,934,000</b>	<b>150,000</b>	<b>935,000</b>		<b>35,000</b>	<b>1,814,000</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Public Safety – Traffic		Public Works		372-7535-429		



**US69 INTERSECTION IMPROVEMENTS****PROJECT STATUS:** Site Change  
Cost Change

Revenue Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Intersection improvement projects along US69 within and just outside the City limits will alleviate congestion and reduce accidents.

**COMMENTS**

Proposed schedule:

2013/14 13<sup>th</sup> Street/Grand Avenue (planning/public participation) – Map 5, location L-9

The Long Range Transportation Plan adopted in September 2010 included this project as a high (short-term) priority.

This project will commence during 2013/14 with a public participation process that will continue through the design of improvements. A design consultant will be selected to apply context-sensitive solutions as they develop intersection improvement plans. Public involvement will continue as design alternatives are developed. Following the planning phase, construction and land acquisition costs will be programmed into the CIP.

Cost change is the result of moving the scope of this project to the 13<sup>th</sup> Street/Grand Avenue intersection from the previously programmed 20<sup>th</sup> Street/Grand Avenue intersection. The site change reflects the priority given to this location by the most recently adopted Long-Range Transportation Plan.

FISCAL YEAR PRIORITY		TOTAL	2011/12	2012/13	2013/14 <sup>4</sup>	2014/15	2015/16
COST:	Planning	50,000			50,000		
	TOTAL	50,000			50,000		
FINANCING:	Road Use Tax	50,000			50,000		
	TOTAL	50,000			50,000		
PROGRAM – ACTIVITY:		DEPARTMENT:		ACCOUNT NO.			
Public Safety – Traffic		Public Works					



The Furman Aquatic Center is built into the hillside of a beautiful parcel of land. The limestone façade blends into the surroundings. The complex utilizes the hillside as a sunbathing and viewing area. The island of the Lazy River handles additional sunbathing and there are also shaded areas available.

The total project cost of the Furman Aquatic Center was \$10.5 million. An \$8.5 million bond issue was approved by voters in July 2007. Donald and Ruth Furman donated \$1 million for construction and another \$1 million for an endowment for future facility enhancements. The City received a \$1 million anonymous gift to construct the facility. Work on the project began in the spring of 2008 and the facility opened on May 29, 2010.



## UTILITIES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
Resource Recovery	1,251,200	431,300	120,750	153,800	122,550	422,800	23
Water Treatment	52,820,000	5,038,000	15,276,000	23,776,000	7,491,000	1,239,000	25
Water Distribution	4,500,000	900,000	900,000	900,000	900,000	900,000	30
Storm Sewer	8,091,000	3,233,000	3,333,000	575,000	475,000	475,000	32
Sanitary Sewer	3,685,000	1,385,000	1,325,000	325,000	325,000	325,000	37
WPC Treatment	11,447,000	2,494,000	2,929,000	2,496,000	1,695,000	1,833,000	41
Electric	46,250,000	19,220,000	7,720,000	5,810,000	7,150,000	6,350,000	49
<b>Total Expenditures</b>	<b>128,044,200</b>	<b>32,701,300</b>	<b>31,603,750</b>	<b>34,035,800</b>	<b>18,158,550</b>	<b>11,544,800</b>	

## UTILITIES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES:</b>						
<b>City:</b>						
Resource Recovery Fund	1,251,200	431,300	120,750	153,800	122,550	422,800
Water Utility Fund	10,967,000	1,140,000	3,074,000	3,434,000	1,955,000	1,364,000
Sewer Utility Fund	11,107,000	2,100,000	2,008,000	2,821,000	2,020,000	2,158,000
Storm Sewer Utility Fund	2,725,000	550,000	650,000	575,000	475,000	475,000
Electric Utility Fund	44,151,500	17,561,500	7,695,000	5,735,000	7,100,000	6,060,000
Sub-Total City Funds	70,201,700	21,782,800	13,547,750	12,718,800	11,672,550	10,479,800
<b>Other:</b>						
Drinking Water State Revolving Fund	46,353,000	4,798,000	13,102,000	21,242,000	6,436,000	775,000
Iowa State University	2,098,500	1,658,500	25,000	75,000	50,000	290,000
Hazard Mitigation Grant Program	5,366,000	2,683,000	2,683,000			
Clean Water State Revolving Fund	4,025,000	1,779,000	2,246,000			
Sub-Total Other Funds	57,842,500	10,918,500	18,056,000	21,317,000	6,486,000	1,065,000
<b>Total Revenues</b>	<b>128,044,200</b>	<b>32,701,300</b>	<b>31,603,750</b>	<b>34,035,800</b>	<b>18,158,550</b>	<b>11,544,800</b>

## UTILITIES - RESOURCE RECOVERY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Resource Recovery System Improvements	1,251,200	431,300	120,750	153,800	122,550	422,800	24
<b>Total Expenditures</b>	<b>1,251,200</b>	<b>431,300</b>	<b>120,750</b>	<b>153,800</b>	<b>122,550</b>	<b>422,800</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Resource Recovery Fund	1,251,200	431,300	120,750	153,800	122,550	422,800	
<b>Total Revenues</b>	<b>1,251,200</b>	<b>431,300</b>	<b>120,750</b>	<b>153,800</b>	<b>122,550</b>	<b>422,800</b>	

**RESOURCE RECOVERY SYSTEM IMPROVEMENTS****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This program is used 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 #2 rotary disc screen rollers (RDS) and chains and rebuilding 20% of the C-1 conveyor). Funding is provided every three years for sideliners for #1 and #2 mills. Resource Recovery personnel perform the work to complete the preventive maintenance projects.

**COMMENTS**

Proposed projects:

- 2011/12 Preventive maintenance materials for replacement of the #2 RDS rollers and chains (\$40,250); purchase 1/3 of pipe for PSI pipe replacement (\$30,000); new scale platform (\$75,000); partial replacement of dust collection system piping (\$15,000); electric compliance upgrade (\$50,000); replace plant air compressor (\$20,000); purchase and install ventilation louvers on tipping floor (\$16,500); and rebuild 20% of the C-1 conveyor (\$19,550); and the fire system upgrade (\$165,000)
- 2012/13 Preventive maintenance materials for replacement of the #2 RDS rollers and chains (\$40,200); replace #1 mill upper housing (\$12,000); #1 mill sideliners (\$37,000); #1 mill breaker plate liners (\$12,000); and rebuild 20% of the C-1 conveyor (\$19,550)
- 2013/14 Preventive maintenance materials for replacement of the #2 RDS rollers and chains (\$40,250); rebuild #2 mill rotor (\$94,000); and rebuild 20% of the C-1 conveyor (\$19,550)
- 2014/15 Preventive maintenance materials for replacement of the #2 RDS rollers and chains (\$46,000); replace #2 mill sideliners (\$41,000); replace glass crusher rotor (\$16,000); and rebuild 20% of the C-1 conveyor (\$19,550)
- 2015/16 Preventive maintenance materials for the replacement of the #2 RDS rollers and chains (\$40,250); replace #1 mill motor (\$213,000); replace ADS vessel (\$150,000); and rebuild 20% of the C-1 conveyor (\$19,550)

Cost change is due to additional projects that have been identified in the annual evaluation of the 5-year maintenance needs of the plant.

**LOCATION**

Arnold O. Chantland Resource Recovery Plant, 110 Center Avenue - Map 5, location N-11

FISCAL YEAR PRIORITY		1	1	1	1	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
System Improvements	1,251,200	431,300	120,750	153,800	122,550	422,800
<b>TOTAL</b>	<b>1,251,200</b>	<b>431,300</b>	<b>120,750</b>	<b>153,800</b>	<b>122,550</b>	<b>422,800</b>
<b>FINANCING:</b>						
Resource Recovery Fund	1,251,200	431,300	120,750	153,800	122,550	422,800
<b>TOTAL</b>	<b>1,251,200</b>	<b>431,300</b>	<b>120,750</b>	<b>153,800</b>	<b>122,550</b>	<b>422,800</b>

**PROGRAM – ACTIVITY:**  
Utilities - Resource Recovery

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
590-8903-489

## UTILITIES - WATER TREATMENT

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 New Water Treatment Plant	50,992,000	4,948,000	14,506,000	23,551,000	7,126,000	861,000	26
2 Water Plant Facility Improvements	480,000	90,000	165,000	225,000			27
3 Water Supply Expansion	605,000		605,000				28
4 Automatic Meter Reading Conversion	743,000				365,000	378,000	29
<b>Total Expenditures</b>	<b>52,820,000</b>	<b>5,038,000</b>	<b>15,276,000</b>	<b>23,776,000</b>	<b>7,491,000</b>	<b>1,239,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Water Utility Fund	6,467,000	240,000	2,174,000	2,534,000	1,055,000	464,000	
<b>Other:</b>							
Drinking Water State Revolving Fund	46,353,000	4,798,000	13,102,000	21,242,000	6,436,000	775,000	
<b>Total Revenues</b>	<b>52,820,000</b>	<b>5,038,000</b>	<b>15,276,000</b>	<b>23,776,000</b>	<b>7,491,000</b>	<b>1,239,000</b>	



**NEW WATER TREATMENT PLANT****PROJECT STATUS:** Delayed  
Revenue Change

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The first step in preparing for a plant replacement began in FY 08/09 with the hiring of a consultant to perform an assessment of the existing plant's condition and to determine the timing and size of future capacity requirements. The results of the assessment, presented to Council in July 2009, recommended construction of a new 15 million gallon per day (MGD) lime softening facility on a new site.

The cost estimates shown below are based on the conceptual plan developed during the plant assessment process and will be updated again at the start of the final design process. The proposed funding source for the majority of the project will be loans from the Iowa Drinking Water State Revolving Fund (DWSRF). These loans are currently offered at 3% and will be repaid over 20 years out of water revenues. This fund also allows for a three-year interest-free planning and design loan that can be rolled into the final construction loan. The design capacity includes a 1.5 MGD reserve capacity for future industrial growth. The DWSRF will not fund "speculative" capacity, so 10% of the construction costs are shown as coming from the Water Fund. The project timeline has been delayed by six months due to delays in the land acquisition process.

**COMMENTS**

The anticipated project schedule and budget are as follows:

FY 2008/09	\$ 244,000	Alternative Analysis and Conceptual Design
FY 2009/10 – 2010/11	1,437,000	Preliminary Design; Land Acquisition
FY 2010/11 – 2011/12	3,990,000	Final Design
FY 2012/13 – 2014/15	45,776,000	Construction Phase
FY 2014/15 – 2015/16	1,776,000	Demolition of Existing Plant
Total	\$ 53,223,000	

**LOCATION**

Water Plant, 300 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		1	1	1	1	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering/Legal/Administrative	4,597,000	3,440,000	464,000	462,000	231,000	
Construction	46,395,000	1,508,000	14,042,000	23,089,000	6,895,000	861,000
<b>TOTAL</b>	<b>50,992,000</b>	<b>4,948,000</b>	<b>14,506,000</b>	<b>23,551,000</b>	<b>7,126,000</b>	<b>861,000</b>
<b>FINANCING:</b>						
Drinking Water State Revolving Fund	46,353,000	4,798,000	13,102,000	21,242,000	6,436,000	775,000
Water Utility Fund	4,639,000	150,000	1,404,000	2,309,000	690,000	86,000
<b>TOTAL</b>	<b>50,992,000</b>	<b>4,948,000</b>	<b>14,506,000</b>	<b>23,551,000</b>	<b>7,126,000</b>	<b>861,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Water Treatment		Water & Pollution Control		512-3933-489		

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

Scope Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project involves annual equipment repairs, major maintenance activities, replacement, and upgrades at the Water Treatment Plant.

**COMMENTS**

The schedule for these improvements is as follows:

11/12	Extend Security System to Remote Sites (Access Control - \$90,000)
12/13	Installation of Variable Speed Drives for Wells (\$165,000)
13/14	Extend Security System to Remote Sites (Distribution System Pressure Sensors - \$125,000)
13/14	Decommissioning of North Dakota Elevated Tank (\$100,000)

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 four years. The projects identified are stand-alone improvements separate from the treatment plant. Additional improvements may be identified for future years. The schedule may change in response to impending failure, regulatory agency requirements, etc.

There are no new projects included this year.

**LOCATION**

Water Plant, 300 East 5<sup>th</sup> Street, Building 1 - Map 5, location N-11

FISCAL YEAR PRIORITY		2	3	2		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Equipment	480,000	90,000	165,000	225,000		
<b>TOTAL</b>	<b>480,000</b>	<b>90,000</b>	<b>165,000</b>	<b>225,000</b>		
<b>FINANCING:</b>						
Water Utility Fund	480,000	90,000	165,000	225,000		
<b>TOTAL</b>	<b>480,000</b>	<b>90,000</b>	<b>165,000</b>	<b>225,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities - Water Treatment		Water & Pollution Control		510-3941-489		

**WATER SUPPLY EXPANSION****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The currently developed water supply is adequate to meet estimated municipal demands until approximately 2020. To allow sufficient reserve capacity, development of the next well field is proposed to begin in 2016. This project will expand the capacity of the source water supply in conjunction with the development of additional treatment plant capacity.

**COMMENTS**

The City currently owns approximately 77 acres of farmland (east of I-35 immediately north of the South Skunk River) that were purchased for use as a future well field. The original intent was to develop approximately 6 MGD of groundwater supply from this well field. Because of expanding withdrawals by others in this portion of the aquifer, staff recommended to Council in 2008 a plan to scale back the anticipated withdrawal in this area and spread the 6 MGD withdrawal between two smaller well fields. This will necessitate acquiring additional land for the second well field. The cost to acquire this additional land will initially be offset by the shorter length of piping needed to reach this intermediate well field. This project involves acquiring approximately 80 acres for a new well field site in FY 2012/13. Engineering, construction of a new pipeline, and construction of the first two of four wells in the new I-35 West Well Field will begin in FY 2016/17. The timing for the additional two wells will be driven by the growth in water demand. At some future time, wells can be constructed on the original I-35 east site. These future wells would be built with lower withdrawal rates than the 6 mgd originally envisioned to minimize the potential for interference with other wells.

FY 12/13	Acquisition of Land/Easements for I-35 West Well Field (\$605,000)
FY 16/17	Design and Construct Pipeline and Design Wells in I-35 West Well Field (\$4,241,000)
FY 17/18	Construct Two Wells in I-35 West Well Field – Adds 1.5 million gallons per day (\$832,000)
FY 20/21 (est.)	Construct Two Wells in I-35 West Well Field – Adds 1.5 million gallons per day (\$923,000)
FY 30/31 (est.)	Develop I-35 East Well Field – Adds 3.0 million gallons per day (\$4,319,000)

**LOCATION**

Future wells will be located west of I-35 and south of Highway 30.

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13 <sup>2</sup>	2013/14	2014/15	2015/16
<b>COST:</b>						
Land/Easements	605,000		605,000			
<b>TOTAL</b>	<b>605,000</b>		<b>605,000</b>			
<b>FINANCING:</b>						
Water Utility Fund	605,000		605,000			
<b>TOTAL</b>	<b>605,000</b>		<b>605,000</b>			

**PROGRAM - ACTIVITY:**  
Utilities - Water Production

**DEPARTMENT:**  
Water & Pollution Control

**ACCOUNT NO.**

**AUTOMATIC METER READING CONVERSION (WTP)****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**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 automatic meter reading (AMR).

**COMMENTS**

The water meter reading system currently in place is a mechanical system that transmits the reading from the water meter (located inside the property) to a remote register on the outside of a property using a low-voltage wire. This technology is rapidly falling out of use across the country, and some meter manufacturers are now cautioning customers that they plan to discontinue providing new equipment or repair parts over the next five years due to a dwindling market. It is important for efficient meter reading that the water and electric utilities continue to use compatible technologies.

The estimated cost to convert the entire inventory of water meters to the new reading technology is estimated at \$3,290,000 (in 2010 dollars) for equipment alone (18,800 meters @ \$175 per meter). One option to implement the new meter reading technology is to complete the entire conversion as one very large project during a single fiscal year. The workload would far surpass the ability of the Water Meter Division and would need to be contracted out at an additional expense. A second option would be to phase in the technology over a period of 10 years at an annual cost of \$329,000 per year (in 2010 dollars). New equipment would be installed in discrete areas each year in coordination with the Electric Services Department and with the Utility Customer Service Division of the Finance Department. As existing equipment is taken out of service, it can be retained as spare parts to maintain the old inventory until the entire system is replaced.

**LOCATION**

Throughout the City of Ames

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13	2013/14	2014/15 <sup>2</sup>	2015/16 <sup>1</sup>
<b>COST:</b>						
Equipment	743,000				365,000	378,000
<b>TOTAL</b>	<b>743,000</b>				<b>365,000</b>	<b>378,000</b>
<b>FINANCING:</b>						
Water Utility Fund	743,000				365,000	378,000
<b>TOTAL</b>	<b>743,000</b>				<b>365,000</b>	<b>378,000</b>

**PROGRAM - ACTIVITY:**

Utilities – Water Meter

**DEPARTMENT:**

Water &amp; Pollution Control

**ACCOUNT NO.**

## UTILITIES - WATER DISTRIBUTION

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Water System Improvements	4,500,000	900,000	900,000	900,000	900,000	900,000	31
<b>Total Expenditures</b>	<b>4,500,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	
<b>REVENUES:</b>							
Water Utility Fund	4,500,000	900,000	900,000	900,000	900,000	900,000	
<b>Total Revenues</b>	<b>4,500,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	

**WATER SYSTEM IMPROVEMENTS****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This program provides for replacing water mains in areas that are experiencing rusty water problems. It also provides for installing larger distribution mains in areas that have a high concentration of 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.

**COMMENTS**

Water system improvements for 2011/12: To be determined

Water service transfer locations for 2011/12: To be determined

Improvements to these water mains will result in reduced maintenance costs.

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Engineering	600,000	120,000	120,000	120,000	120,000	120,000
Construction	3,900,000	780,000	780,000	780,000	780,000	780,000
<b>TOTAL</b>	<b>4,500,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>
<b>FINANCING:</b>						
Water Utility Fund	4,500,000	900,000	900,000	900,000	900,000	900,000
<b>TOTAL</b>	<b>4,500,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>	<b>900,000</b>

**PROGRAM – ACTIVITY:**  
Utilities – Water Distribution**DEPARTMENT:**  
Public Works**ACCOUNT NO.**  
510-8457-489

## UTILITIES - STORM SEWER

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Storm Sewer Outlet Erosion Control	1,620,000	660,000	660,000	100,000	100,000	100,000	33
2 Storm Sewer Improvement Program	4,080,000	1,665,000	1,665,000	250,000	250,000	250,000	34
3 Low Point Drainage Improvements	2,191,000	908,000	908,000	125,000	125,000	125,000	35
4 Storm Water Facility Rehabilitation Program	200,000		100,000	100,000			36
<b>Total Expenditures</b>	<b>8,091,000</b>	<b>3,233,000</b>	<b>3,333,000</b>	<b>575,000</b>	<b>475,000</b>	<b>475,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Storm Sewer Utility Fund	2,725,000	550,000	650,000	575,000	475,000	475,000	
<b>Other:</b>							
Hazard Mitigation Grant Program	5,366,000	2,683,000	2,683,000				
<b>Total Revenues</b>	<b>8,091,000</b>	<b>3,233,000</b>	<b>3,333,000</b>	<b>575,000</b>	<b>475,000</b>	<b>475,000</b>	

**STORM SEWER OUTLET EROSION CONTROL****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This annual program provides for stabilization of areas that have become eroded due to discharges of the storm sewer system into streams, channels, swales, gullies, or drainage ways in residential areas. This program will provide a more permanent control of the erosion and will reduce recurring maintenance costs in these areas.

An inventory of drainage ways within the City has been established based on National Pollution Discharge Elimination System (NPDES) Phase II requirements. As monitoring activities associated with the NPDES permit requirements continue, locations for future improvements will be further identified.

**COMMENTS**

Residents of Stone Brooke Subdivision have approached staff regarding concerns about the creek adjacent to their property. During 2010/11, staff will consider cost effective options to mitigate those concerns for implementation in 2011/12. As part of the operating budget, staff will work to update the Ames Urban Stream Assessment, thereby establishing outlet erosion control priorities in the community to be incorporated into future CIP.

As a result of the August 2010 flooding, several drainage projects have been identified as flood mitigation grant eligible which have been included in this program in 2011/12 and 2012/13.

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Engineering	300,000	120,000	120,000	20,000	20,000	20,000
Construction	1,320,000	540,000	540,000	80,000	80,000	80,000
<b>TOTAL</b>	<b>1,620,000</b>	<b>660,000</b>	<b>660,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>FINANCING:</b>						
Storm Sewer Utility Fund	500,000	100,000	100,000	100,000	100,000	100,000
Hazard Mitigation Grant Program (FEMA)	1,120,000	560,000	560,000			
<b>TOTAL</b>	<b>1,620,000</b>	<b>660,000</b>	<b>660,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities - Storm Sewer		Public Works		560-8630-489		



**STORM SEWER IMPROVEMENT PROGRAM****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**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. This program was called Storm Sewer Intake Rehabilitation Program in previous Capital Improvement Plans.

Many intakes are brick or concrete and have experienced repeated "freeze/thaw" conditions during winters and springs. This repeated "freeze/thaw" action has caused the 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 to 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/pieces of pipe. This program will provide funding to correct these deficiencies.

The cost change is due to updated cost estimates for this expanded program.

As a result of the August 2010 flooding, several drainage projects have been identified as flood mitigation grant eligible which have been included in this program in 2011/12 and 2012/13.

<b>FISCAL YEAR PRIORITY</b>		<sup>2</sup>	<sup>3</sup>	<sup>3</sup>	<sup>2</sup>	<sup>2</sup>
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Engineering	765,000	330,000	330,000	35,000	35,000	35,000
Construction	3,315,000	1,335,000	1,335,000	215,000	215,000	215,000
<b>TOTAL</b>	<b>4,080,000</b>	<b>1,665,000</b>	<b>1,665,000</b>	<b>250,000</b>	<b>250,000</b>	<b>250,000</b>
<b>FINANCING:</b>						
Storm Sewer Utility Fund	1,250,000	250,000	250,000	250,000	250,000	250,000
Hazard Mitigation Grant Program (FEMA)	2,830,000	1,415,000	1,415,000			
<b>TOTAL</b>	<b>4,080,000</b>	<b>1,665,000</b>	<b>1,665,000</b>	<b>250,000</b>	<b>250,000</b>	<b>250,000</b>

**PROGRAM - ACTIVITY:**

Utilities - Storm Sewer

**DEPARTMENT:**

Public Works

**ACCOUNT NO.**

560-8640-489

**LOW POINT DRAINAGE IMPROVEMENTS****PROJECT STATUS:** Site Change

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**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 for increasing the ability to control the runoff so that it can be carried by downstream systems.

**COMMENTS**

2011/12	South 2 <sup>nd</sup> Street/Oak Avenue area (\$75,000) – Map 5, location L-11; various flood mitigation grant projects
2012/13	Oliver Circle – Map 4, location F-10; various flood mitigation grant projects
2013/14	Southdale Subdivision – Map 9, location N-16
2014/15	Little Bluestem Court – Map 5, location I-13
2015/16	Projects to be later identified

As a result of the August 2010 flooding, several additional drainage projects have been identified as flood mitigation grant eligible which have been included in this program in 2011/12 and 2012/13.

Addressing these drainage problems 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.

FISCAL YEAR PRIORITY		3	4	4	3	3
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	495,000	225,000	225,000	15,000	15,000	15,000
Construction	1,696,000	683,000	683,000	110,000	110,000	110,000
<b>TOTAL</b>	<b>2,191,000</b>	<b>908,000</b>	<b>908,000</b>	<b>125,000</b>	<b>125,000</b>	<b>125,000</b>
<b>FINANCING:</b>						
Storm Sewer Utility Fund	775,000	200,000	200,000	125,000	125,000	125,000
Hazard Mitigation Grant Program (FEMA)	1,416,000	708,000	708,000			
<b>TOTAL</b>	<b>2,191,000</b>	<b>908,000</b>	<b>908,000</b>	<b>125,000</b>	<b>125,000</b>	<b>125,000</b>

**PROGRAM - ACTIVITY:**  
Utilities - Storm Sewer

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
560-8650-489

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

Site Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

In accordance with the Municipal Code, new developments within the community have been required to provide storm water management quantity control. This means regulating storm water runoff discharge to pre-developed conditions through 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, vegetation becomes more prevalent, and structures need to be improved. This annual program addresses those concerns.

**COMMENTS**

Proposed locations:    2012/13           Somerset Subdivision – Map 2, location I-7  
                                  2013/14           Pete Cooper's Subdivision – Map 6, location N-11

City staff is considering recommending, as part of a post-construction stormwater management ordinance, a new model agreement which would require an association/owner to maintain the facilities within their property.

In order to prioritize storm sewer projects, funds have been shifted to the Storm Sewer Improvement Program (page 34). Maintenance activities for the storm water facilities at the Ames Municipal Airport (originally scheduled for 2011/12) and in Bloomington Heights West Subdivision (originally scheduled for 2012/13) will be completed by City crews as part of the operating budget. Therefore, the Somerset Subdivision and Pete Cooper's Subdivision locations have each been advanced one year. Staff continues to prioritize facility rehabilitation locations for inclusion in future Capital Improvement Plans.

FISCAL YEAR PRIORITY			2	2		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	40,000		20,000	20,000		
Construction	160,000		80,000	80,000		
<b>TOTAL</b>	<b>200,000</b>		<b>100,000</b>	<b>100,000</b>		
<b>FINANCING:</b>						
Storm Sewer Utility Fund	200,000		100,000	100,000		
<b>TOTAL</b>	<b>200,000</b>		<b>100,000</b>	<b>100,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Storm Sewer		Public Works				

## UTILITIES - SANITARY SEWER

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Sanitary Sewer System Evaluation	2,060,000	1,060,000	1,000,000				38
2 Sanitary Sewer Rehabilitation Program	1,500,000	300,000	300,000	300,000	300,000	300,000	39
3 Clear Water Diversion	125,000	25,000	25,000	25,000	25,000	25,000	40
<b>Total Expenditures</b>	<b>3,685,000</b>	<b>1,385,000</b>	<b>1,325,000</b>	<b>325,000</b>	<b>325,000</b>	<b>325,000</b>	
<b>REVENUES:</b>							
Sewer Utility Fund	3,685,000	1,385,000	1,325,000	325,000	325,000	325,000	
<b>Total Revenues</b>	<b>3,685,000</b>	<b>1,385,000</b>	<b>1,325,000</b>	<b>325,000</b>	<b>325,000</b>	<b>325,000</b>	

**SANITARY SEWER SYSTEM EVALUATION****PROJECT STATUS:** Cost Change

Advanced

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The ability of the sewer system to convey wastewater well into the future is dependent on the removal of the current large amount of infiltration and inflow (I/I) in the system that occurs during rain events. In order to convey flows from new development as the City grows, the City must work to reduce to the overall I/I in the system. It was recommended in the 2008 Sanitary Sewer System Study to develop a full Sanitary Sewer System Evaluation (SSSE).

**COMMENTS**

This evaluation is a comprehensive and systematic program for identifying the defects that could contribute I/I in a sanitary sewer system, prioritizing those defects, and establishing rehabilitation costs so that repairs can then be included in the Capital Improvements Plan. The SSSE program typically consists of the following tasks: data collection, sewer televising, smoke testing, manhole inspection, and sump pump inspection. Not only would the SSSE identify and correct sources of I/I, it will also identify areas of aging infrastructure in need of repair to prevent unexpected failures and emergency repairs. Staff has begun Phase 1 for the highest priority areas revealed during the 2008 and 2010 floods.

Additionally, this evaluation will analyze the benefit/cost of the current Footing Drain Grant Program and make a recommendation of whether this suspended program may be beneficial to the community.

Cost change is due to advancing the flow monitoring and video inspection in order to determine the most cost effective improvements to be made to the system.

This study will run concurrent with the Long-Range Facility Plan for WPC. The results of these two studies will be used to prioritize wet weather flow mitigation activities in the collection system and at the treatment plant. Depending on the outcome of these studies, the funds being programmed for the WPC Equalization Basin Expansion project could be diverted to more cost-effective mitigation activities.

Phase 1: Inflow identification - manhole inspection, smoke testing, and manhole rehabilitation (2010/11) (\$500,000)

Phase 2: Flow monitoring (2011/12) (\$60,000)

Phase 3: Sewer video inspection of areas with greatest measured infiltration (2011/12) (\$1,000,000)

Phase 4: Video inspection of remaining sewers to identify structural defects (2013/14) (\$1,000,000)

FISCAL YEAR PRIORITY		1	1			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	2,060,000	1,060,000	1,000,000			
<b>TOTAL</b>	<b>2,060,000</b>	<b>1,060,000</b>	<b>1,000,000</b>			
<b>FINANCING:</b>						
Sewer Utility Fund	2,060,000	1,060,000	1,000,000			
<b>TOTAL</b>	<b>2,060,000</b>	<b>1,060,000</b>	<b>1,000,000</b>			

**PROGRAM - ACTIVITY:**  
Utilities – Sanitary Sewer

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
520-8514-489

**SANITARY SEWER REHABILITATION PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This is the annual program for rehabilitation/reconstruction of deficient sanitary sewers and deteriorated manholes at various locations throughout the City.

Televising the sewer system has revealed problem areas that could result in future blockages. Most of these problem areas are in sewers that are deeper than 14 feet, and City forces are not equipped to make repairs on sewers of that depth. This program, therefore, provides for those repairs by outside firms.

**COMMENTS**

System improvement locations have been identified in the Sanitary Sewer System Study which was completed in 2007/08. Additional priorities will be identified through the Sanitary Sewer System Evaluation (page 38). Purchased or leased monitoring equipment is also used in determining problem areas. Suggested work activities included rehabilitating manholes, repairing pipe, and similar work. In addition, sewer maintenance crews systematically investigate interceptor and trunk sewers to identify major sources of inflow that could be eliminated as a means of lowering the peak wet weather flow at the treatment plant.

FISCAL YEAR PRIORITY		2	2	1	1	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	225,000	45,000	45,000	45,000	45,000	45,000
Construction	1,275,000	255,000	255,000	255,000	255,000	255,000
<b>TOTAL</b>	<b>1,500,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	1,500,000	300,000	300,000	300,000	300,000	300,000
<b>TOTAL</b>	<b>1,500,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>

**PROGRAM – ACTIVITY:**  
Utilities - Sanitary Sewer

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
520-8539-489

**CLEAR WATER DIVERSION****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**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, 2,312 footing drain grants were issued to property owners under this program through October 2010.

After 2010/11 and continuing until the Sanitary Sewer System Evaluation (SSSE) (page 38) is complete, **the footing drain grant portion of this program has been suspended and construction of collector lines to eliminate icing on streets is reduced.** Through completion of the SSSE, the future need of the footing drain grant program will be determined.

FISCAL YEAR PRIORITY		3	3	2	2	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	125,000	25,000	25,000	25,000	25,000	25,000
<b>TOTAL</b>	<b>125,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	125,000	25,000	25,000	25,000	25,000	25,000
<b>TOTAL</b>	<b>125,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities - Sanitary Sewer		Public Works		520-8581-489		

## UTILITIES - WATER POLLUTION CONTROL

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 WPC Plant Disinfection	2,700,000	1,350,000	1,350,000				42
2 Long-Range WPC Facility Plan	386,000	193,000	193,000				43
3 WPC Plant Electrical System Maintenance	353,000	80,000		83,000		190,000	44
4 WPC Plant Facility Improvements WPC Plant Residuals Handling	3,756,000	442,000	490,000	1,848,000	750,000	226,000	45
5 Improvements	1,325,000	429,000	896,000				46
6 WPC Plant Digester Improvements	1,852,000			565,000	545,000	742,000	47
7 Flow Equalization Expansion	1,075,000				400,000	675,000	48
<b>Total Expenditures</b>	<b>11,447,000</b>	<b>2,494,000</b>	<b>2,929,000</b>	<b>2,496,000</b>	<b>1,695,000</b>	<b>1,833,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Sewer Utility Fund	7,422,000	715,000	683,000	2,496,000	1,695,000	1,833,000	
<b>Other:</b>							
Clean Water State Revolving Fund	4,025,000	1,779,000	2,246,000				
<b>Total Revenues</b>	<b>11,447,000</b>	<b>2,494,000</b>	<b>2,929,000</b>	<b>2,496,000</b>	<b>1,695,000</b>	<b>1,833,000</b>	



**WPC PLANT DISINFECTION****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project will install an ultraviolet (UV) light disinfection system at the Water Pollution Control Plant. Disinfection became a mandatory requirement when the new National Pollutant Discharge Elimination System (NPDES) permit for the plant was issued by the Iowa Department of Natural Resources (IDNR) in September 2010.

**COMMENTS**

The IDNR completed a Use Attainability Analysis of the South Skunk River for recreational uses during the summer of 2007. That analysis determined that the South Skunk River segment, where Ames discharges, can support primary contact recreation, such as swimming and waterskiing. As a result, all NPDES dischargers into this stream segment must meet the bacterial standards outlined in the Iowa Administrative Code.

A new NPDES permit for the Water Pollution Control Facility (WPC) was issued by IDNR in September of 2010. The permit requires the facility to be in compliance with the bacterial standards by October 2013. Funds for design and the start of construction are authorized in the current year CIP. Prolonged discussions with IDNR about the capacity of the disinfection system have slowed the project schedule. Construction is now anticipated to begin in the second half of FY 11/12 and will continue into FY 12/13, meeting the permit compliance schedule. Funding for the project will come from a Clean Water State Revolving Fund (SRF) loan.

The complete project timeline and budget is as follows:

FY 09/10	Conceptual Design	\$ 63,076
FY 10/11	Final Design	250,000
FY 11/12	Construction	1,350,000
FY 12/13	Construction	1,350,000
Total		\$ 3,013,076

**LOCATION**

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

<b>FISCAL YEAR PRIORITY</b>		1	1			
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Engineering	100,000	50,000	50,000			
Construction	2,600,000	1,300,000	1,300,000			
<b>TOTAL</b>	<b>2,700,000</b>	<b>1,350,000</b>	<b>1,350,000</b>			
<b>FINANCING:</b>						
Clean Water State Revolving Fund	2,700,000	1,350,000	1,350,000			
<b>TOTAL</b>	<b>2,700,000</b>	<b>1,350,000</b>	<b>1,350,000</b>			

**PROGRAM - ACTIVITY:**

Utilities – WPC Plant

**DEPARTMENT:**

Water & Pollution Control

**ACCOUNT NO.**

522-3431-489

**LONG-RANGE WPC FACILITY PLAN****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project will consist of a comprehensive evaluation of the current Water Pollution Control (WPC) Facility. It will evaluate the condition of structural and mechanical elements, estimate their remaining useful life, and propose a prioritized schedule of major replacement needs. It will also evaluate the capacity of the existing facility and determine the timing of any necessary capacity expansion needs over a projected 20-year period. Additionally, it will provide a conceptual road map for addressing anticipated regulatory changes.

**COMMENTS**

The last long-range facility plan was performed in the mid-1980s as part of the initial planning for construction of the existing WPC Facility. That plan used 2010 as the design year. It is now appropriate to perform a new long-range facility plan. The results of the evaluation will play a critical role in establishing future capital investment priorities for the WPC Facility and for establishing long-term rate and fund balance needs. It also will allow short-term infrastructure needs to be evaluated with an eye toward the ultimate life of the infrastructure. For example, the Digester Improvements CIP project (\$1,852,000) is proposed to be delayed until after the completion of this long-range facility plan so that the future need for anaerobic digestion can be confirmed before making the sizable re-investment in the digester complex.

Additionally, staff has experienced difficulty in obtaining construction permits for improvements to the treatment plant from the Iowa Department of Natural Resources due to the lack of an up-to-date facility plan. Staff has been preparing piece-meal evaluations for individual portions of the facility to keep projects moving forward, but this approach does not provide a holistic view of the facility and does not allow infrastructure needs to be prioritized. Having an updated plan would allow both staff and the IDNR to have confidence that ongoing work at the facility will result in long-term compliance with discharge requirements.

This study will run concurrent with the Sanitary Sewer Evaluation Study. The results of these two studies will be used to prioritize wet weather flow mitigation activities in the collection system and at the treatment plant.

**LOCATION**

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

FISCAL YEAR PRIORITY		2		2		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	386,000	193,000	193,000			
<b>TOTAL</b>	<b>386,000</b>	<b>193,000</b>	<b>193,000</b>			
<b>FINANCING:</b>						
Sewer Fund	386,000	193,000	193,000			
<b>TOTAL</b>	<b>386,000</b>	<b>193,000</b>	<b>193,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – WPC Plant		Water & Pollution Control		520-3442-489		

**WPC ELECTRICAL SYSTEM MAINTENANCE****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The main switchgear for the Water Pollution Control (WPC) Facility is the point where the rural electric utility's service is connected to the plant's internal power distribution system. It also is the point where the facility's emergency standby generator ties in to power the facility when there is a loss of the electric utility service. The proper operation of this equipment is crucial to the reliable performance of the facility. The switchgear has been in service for over 20 years and now requires maintenance.

In order for the facility's electrical equipment to continue to provide reliable service, a program of regular preventive maintenance is now recommended. Future tasks are summarized below:

FY 11/12	\$ 80,000	Replace the Main Plant Transformer
FY 13/14	83,000	Replace Existing Switchgear Relay Logic Controllers with Programmable Logic Controllers (PLCs)
FY 15/16	190,000	Replace Main Circuit Breakers

**COMMENTS**

The work identified for FY 11/12 was shown last year as a part of the WPC Plant Facility Improvements Project. Last year's CIP showed a replacement of the main plant transformer in FY 10/11 and a major preventive maintenance effort for the main switchgear in FY 11/12. Because of ongoing problems with the switchgear, the sequencing for these two projects has been swapped. The work will begin in the current year with the switchgear overhaul (\$100,000), and the transformer replacement (\$80,000) has been pushed back to FY 11/12. The tasks shown in FY 13/14 and FY 15/16 are additions to the CIP.

**LOCATION**

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

FISCAL YEAR PRIORITY		3		3		4
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	353,000	80,000		83,000		190,000
<b>TOTAL</b>	<b>353,000</b>	<b>80,000</b>		<b>83,000</b>		<b>190,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	353,000	80,000		83,000		190,000
<b>TOTAL</b>	<b>353,000</b>	<b>80,000</b>		<b>83,000</b>		<b>190,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – WPC Plant		Water & Pollution Control		520-3438-489		

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

Scope Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

It is necessary to plan for the orderly repair, replacement, and upgrade of the plant and 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. As the facility ages, this project continues to increase in scope and expense.

**COMMENTS**

Projects scheduled include:

FY 11/12 – 12/13	Vertical Turbine Pump Replacement: Years four and five of a five-year project
FY 11/12 – 12/13	Raw Water Pump Station Pipe Support Replacement and Repainting
FY 13/14	Rebuild South Dayton Avenue Lift Station: Includes pumps, motors, and chemical dosing system
FY 13/14	Replace Orchard Drive Lift Station
FY 13/14	Grease Receiving Station Upgrade
FY 13/14	On-site Street Repairs
FY 13/14	Paint Screw Pumps
FY 14/15	Install Third Bar Screen w/ Screenings Removal
FY 15/16	Replace Screw Pump Mechanical Drive

**LOCATION**

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

**FISCAL YEAR PRIORITY**

		4	3	1	1	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Equipment – S. Dayton Lift Station	693,000			693,000		
Equipment – Pumps	712,000	350,000	362,000			
Construction – Pump Station Painting	220,000	92,000	128,000			
Equipment – Orchard Drive Lift Station	347,000			347,000		
Equipment – Grease Receiving Station	275,000			275,000		
Construction – Street Repairs	450,000			450,000		
Construction – Paint Screw Pumps	83,000			83,000		
Equipment – Bar Screen/Screenings	750,000				750,000	
Equipment –Screw Pump Mech. Drives	226,000					226,000
<b>TOTAL</b>	<b>3,756,000</b>	<b>442,000</b>	<b>490,000</b>	<b>1,848,000</b>	<b>750,000</b>	<b>226,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	3,756,000	442,000	490,000	1,848,000	750,000	226,000
<b>TOTAL</b>	<b>3,756,000</b>	<b>442,000</b>	<b>490,000</b>	<b>1,848,000</b>	<b>750,000</b>	<b>226,000</b>

**PROGRAM - ACTIVITY:**

Utilities - WPC Plant

**DEPARTMENT:**

Water &amp; Pollution Control

**ACCOUNT NO.**

Multiple

**WPC PLANT RESIDUALS HANDLING IMPROVEMENTS****PROJECT STATUS:** Cost Change

Funding Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project provides for improvements to the solids handling component of the WPC Plant operation. This project began with a comprehensive review of the solids handling operations in FY 08/09, with recommended modifications being implemented in subsequent fiscal years.

**COMMENTS**

A number of factors are putting pressure on the solids handling portion of the plant operation. The land application equipment is approaching the end of its expected useful life (estimated at 22 years), and replacement costs are significant (>\$1,000,000). Future regulatory changes will require the facility to achieve a higher level of nutrient removal efficiency from the liquid phase, as well as possible restrictions on land application rates.

A study completed in FY 09/10 identified that contract land application is more cost-effective than continued City application, based primarily on the high capital cost to replace the land application equipment. In August 2010, Council awarded a two-year agreement for contract disposal. If this initial agreement reveals contracted service to not be in the City's best interest, then the existing land application equipment will be replaced and staff will resume the program.

The study documented ways of increasing process efficiencies to remove solids from the existing storage lagoon, as well as a deficiency in the storage capacity of treated biosolids that will only continue to get worse as the community grows. This project will construct an additional 1.6 million gallons of storage capacity, with associated improvements in the biosolids load-out facilities. The decant water return line from the biosolids storage lagoon will also be replaced.

Design work, estimated at \$110,000, will begin in FY 2010/11, using funds that were carried over from the preliminary design phase.

**LOCATION**

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

FISCAL YEAR PRIORITY		5	4			
	TOTAL	2011/12	2012/13	2013/14	2014/54	2015/16
<b>COST:</b>						
Engineering/Inspection	58,000	20,000	38,000			
Construction	1,267,000	409,000	858,000			
<b>TOTAL</b>	<b>1,325,000</b>	<b>429,000</b>	<b>896,000</b>			
<b>FINANCING:</b>						
Clean Water State Revolving Fund	1,325,000	429,000	896,000			
<b>TOTAL</b>	<b>1,325,000</b>	<b>429,000</b>	<b>896,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – WPC Plant		Water & Pollution Control		520-3434-489		

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

Delayed

City of Ames, Iowa  
Capital Improvements Plan**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 is in need of having its protective paint coating addressed. The Residuals Handling Study, completed in 2009, identified improvements to digester mixing as an important element in ensuring solids handling capacity over the next 20 years. The exterior steel lids on the digesters also have protective paint coating systems that are failing and need to be repainted. This project couples the scheduling of these four maintenance activities (cleaning, repaint interior, install mixing, repaint exterior) to allow for both cost and workload efficiencies. By coordinating the scheduling of these activities, the down-time of the digesters can be minimized.

**COMMENTS**

The anticipated project schedule and budget are as follows:

FY 2013/14	\$ 565,000	Clean 1 Primary Digester (\$83,000); Repaint Interior Piping (\$249,000); Design and Replace Mixing System (\$39,000 + \$194,000)
FY 2014/15	545,000	Clean 1 Primary Digester (\$86,000); Repaint Interior Piping (\$258,000); Replace Mixing System (\$201,000)
FY 2015/16	742,000	Clean Secondary Digester (\$89,000); Repaint Interior Piping (\$267,000); Repaint Exterior Lids on All Three Digesters (\$386,000)
Total	\$ 1,852,000	

**LOCATION**

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

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13	2013/14 <sup>2</sup>	2014/15 <sup>3</sup>	2015/16 <sup>3</sup>
<b>COST:</b>						
Digester Cleaning	258,000			83,000	86,000	89,000
Interior Painting	395,000			194,000	201,000	
Mixing System Design	39,000			39,000		
Mixing System Replacement	774,000			249,000	258,000	267,000
Exterior Lid Painting	386,000					386,000
<b>TOTAL</b>	<b>1,852,000</b>			<b>565,000</b>	<b>545,000</b>	<b>742,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	1,852,000			565,000	545,000	742,000
<b>TOTAL</b>	<b>1,852,000</b>			<b>565,000</b>	<b>545,000</b>	<b>742,000</b>

**PROGRAM - ACTIVITY:**

Utilities - WPC Plant

**DEPARTMENT:**

Water &amp; Pollution Control

**ACCOUNT NO.**

**FLOW EQUALIZATION EXPANSION****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**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 basin 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 back 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 back below capacity, the equalization basins begin a controlled overflow. The overflow is blended 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. The proposed project will increase the effective equalization basin storage from 4.4 million gallons to 10.4 million gallons.

**COMMENTS**

With the new interpretation being imposed by IDNR and U.S. EPA on peak wet-weather flows, this project has become even more important for the WPC Facility. This project is anticipated as a likely wet weather flow mitigation activity following the Sanitary Sewer Evaluation Study and the Long-Range Facility Plan for WPC. It is possible that these funds could be diverted to a higher priority mitigation activity, depending on the outcome of the studies.

**LOCATION**

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

<b>FISCAL YEAR PRIORITY</b>						
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b> <sup>2</sup>	<b>2015/16</b> <sup>1</sup>
<b>COST:</b>						
Engineering	90,000				60,000	30,000
Construction	985,000				340,000	645,000
<b>TOTAL</b>	<b>1,075,000</b>				<b>400,000</b>	<b>675,000</b>
<b>FINANCING:</b>						
Sewer Utility Fund	1,075,000				400,000	675,000
<b>TOTAL</b>	<b>1,075,000</b>				<b>400,000</b>	<b>675,000</b>

**PROGRAM - ACTIVITY:**

Utilities - WPC Plant

**DEPARTMENT:**

Water and Pollution Control

**ACCOUNT NO.**

## UTILITIES - ELECTRIC PRODUCTION

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
<b>Electric Services:</b>							
11 Demand Side Management Programs	5,400,000	1,000,000	1,000,000	1,000,000	1,200,000	1,200,000	61
18 Electric Services Storage Building	125,000	125,000					68
<b>Transmission:</b>							
1 Mid-American Energy Interconnection	7,750,000	7,750,000					51
23 69 kV Switchyard Relay/Control Replacement	600,000		150,000	450,000			73
25 Top-O-Hollow Substation Expansion	2,000,000				250,000	1,750,000	75
26 Ontario Substation 69 kV Breaker Addition	1,150,000				150,000	1,000,000	76
<b>Power Plant:</b>							
2 Unit #8 Boiler Tube Repair	2,500,000	2,500,000					52
3 Cooling Tower Repairs	410,000	50,000	360,000				53
4 Feedwater Heater Tube Replacement	1,000,000	1,000,000					54
5 Unit #8 Air Heater Basket Replacement	150,000	150,000					55
6 Unit #8 Mercury Capital	5,100,000	300,000	1,690,000	3,110,000			56
7 Unit #8 Nitrogen Oxide Control Capital	3,300,000	1,300,000	2,000,000				57
8 Unit #8 Turbine Generator 5-Year Overhaul	1,900,000	1,900,000					58
9 Turbine Controls Upgrade	650,000	450,000			200,000		59
10 Gas Turbine #1 Inspection & Overhaul	750,000	250,000			500,000		60



## UTILITIES - ELECTRIC PRODUCTION, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES, continued:</b>							
<b>Power Plant (continued):</b>							
12 Power Plant Fire Protection System	1,250,000	250,000		500,000		500,000	62
13 Unit #7 Continuous Emissions Monitor	320,000	320,000					63
14 Unit #7 Cooling Tower Piping System	500,000	500,000					64
15 Unit #7 Mercury Capital	200,000	200,000					65
16 Unit #7 Nitrogen Oxide Control Capital	2,020,000	200,000	1,820,000				66
17 Ash Pond Storage Area	1,050,000	50,000			1,000,000		67
19 Units #7 & #8 Oil Gun Upgrade	925,000	925,000					69
20 Combustion Cooler #1 Evaporator Cooler	300,000		300,000				70
21 RDF Bin Work	250,000		250,000				71
22 Unit #7 Boiler Tube Repair	4,000,000		150,000		3,850,000		72
24 Unit #7 Turbine Generator 5-Year Overhaul	750,000			750,000			74
27 Unit #7 Closed Cooling Water System/Piping	400,000					400,000	77
28 Well Water Iron Removal System	1,500,000					1,500,000	78
<b>Total Expenditures</b>	<b>46,250,000</b>	<b>19,220,000</b>	<b>7,720,000</b>	<b>5,810,000</b>	<b>7,150,000</b>	<b>6,350,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Electric Utility Fund	44,151,500	17,561,500	7,695,000	5,735,000	7,100,000	6,060,000	
<b>Other:</b>							
Iowa State University	2,098,500	1,658,500	25,000	75,000	50,000	290,000	
<b>Total Revenues</b>	<b>46,250,000</b>	<b>19,220,000</b>	<b>7,720,000</b>	<b>5,810,000</b>	<b>7,150,000</b>	<b>6,350,000</b>	

**MID-AMERICAN ENERGY CO. INTERCONNECTION****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project is to construct a 161kV line from Ames to Mid-American Energy Company's (MEC) 161kV switching station northeast of Ankeny. This will complete a multi-year project started in FY 2003/04. The in-town portion of this project is complete.

In FY 06/07, Ames converted its 69kV line interconnection with Alliant Utilities at Boone from 69kV operation to 161kV operation. During this time, work was completed to create two 161kV terminations at Stange Substation and Ames Plant Substation. MEC has also completed construction of an additional 161kV terminal at its northeast Ankeny Substation to allow for the interconnection of the Ames Plant/Northeast Ankeny 161 kV line.

Ames also has a 69kV line interconnection that is with MEC at Ankeny. This line was built in 1958, and over the years has served the Ames system well. It is no longer adequate to serve Ames and ISU's capacity and reliability requirements, so an additional line is needed from Ames to the south. This 161 kV interconnection is essential to provide Ames with needed transmission capacity and to satisfy the current and future needs of our customers.

The total cost estimate for this project is \$29,600,000 with \$6,334,400 in funding from Iowa State University, and \$23,265,600 from Electric Utility funding.

FY 03/04	Actual	\$ 14,572
FY 04/05	Actual	741,086
FY 05/06	Actual	6,663,462
FY 06/07	Actual	7,064,210
FY 07/08	Actual	(234,726)
FY 08/09	Actual (MEC)	208,245
FY 08/09	Actual (In-Town)	2,334,309
FY 09/10	Actual (MEC)	479,785
FY 09/10	Actual (In-Town)	1,732,388
Sub Total		\$ 19,003,331
FY 10/11	(Estimated)	1,000,000
FY 11/12	(Estimated)	7,750,000
Total		\$ 27,753,331

**LOCATION:**

A route between Ames Plant Substation and MEC 161kV switch station near Ankeny

<b>FISCAL YEAR PRIORITY</b>		1				
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Construction and Professional Services	7,750,000	7,750,000				
<b>TOTAL</b>	<b>7,750,000</b>	<b>7,750,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	6,091,500	6,091,500				
Iowa State University	1,658,500	1,658,500				
<b>TOTAL</b>	<b>7,750,000</b>	<b>7,750,000</b>				

**PROGRAM - ACTIVITY:**

Utilities – Electric Production

**DEPARTMENT:**

Electric

**ACCOUNT NO.**

530-4871-489

**UNIT #8 BOILER TUBE REPAIR****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The Unit #8 Boiler is twenty years old and in need of tube repairs. There is a three-year plan for engineering and re-tubing of the boiler that includes materials and labor to install. The plan includes replacing the lower 50 feet of the boiler early in 2011 and the super-heater in FY 2011/12.

**COMMENTS**

Staff has done preliminary engineering work with Zachary Engineering Company, a utility engineering company. Approximately \$1.8 million was spent in FY 2009/10 to begin acquisition of tube material. Approximately \$3.4 million will be spent in FY 2010/11 to complete tube installation in the lower 50 feet of the boiler, and provide for engineering of superheater repair.

FY 2007/08	Engineering for wall tubes - actual	\$ 31,605
FY 2008/09	Engineering for wall tubes – actual	23,894
FY 2009/10	Materials for wall tube installation - actual	1,768,967
FY 2010/11	Labor for tube installation	3,107,139
FY 2010/11	Engineering for superheater	300,000
FY 2011/12	Materials and labor for superheater installation	2,500,000
Total		<u>\$ 7,731,605</u>

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY		2				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Labor and Materials	2,500,000	2,500,000				
<b>TOTAL</b>	<b>2,500,000</b>	<b>2,500,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	2,500,000	2,500,000				
<b>TOTAL</b>	<b>2,500,000</b>	<b>2,500,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4898-489		

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

Advanced

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The #7 and #8 cooling towers are in need of repair. 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 and fill and drift eliminator replacements.

FY 2010/11	Unit #8 Cooling Tower – Materials and Labor	\$ 1,220,000
FY 2011/12	Unit #7 – Engineering	50,000
FY 2012/13	Unit #7 – Materials and Labor	360,000
		<u>\$ 1,630,000</u>

**COMMENTS**

The #8 louvers have deteriorated and need to be replaced. They are made of pressed asbestos which increases the cost of construction and disposal. Due to operating requirements of the Power Plant, it is difficult to schedule these units for repairs because the plant can't be operated without them. Normally these repairs are made during the scheduled five-year turbine generator overhauls, but the #8 tower needs some repairs before that. The louvers will be replaced and some structural repairs on #8 will be made during the planned outage. 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 Unit #8 project is being advanced to coincide with the longer plant outage needed for waterwall tube installation.

**LOCATION**Power Plant, 200 East 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY		3	3			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering - #7	50,000	50,000				
Material and Labor - #7	360,000		360,000			
<b>TOTAL</b>	<b>410,000</b>	<b>50,000</b>	<b>360,000</b>			
<b>FINANCING:</b>						
Electric Utility Fund	410,000	50,000	360,000			
<b>TOTAL</b>	<b>410,000</b>	<b>50,000</b>	<b>360,000</b>			

**PROGRAM - ACTIVITY:**

Utilities – Electric Production

**DEPARTMENT:**

Electric

**ACCOUNT NO.**

530-4840-489

**FEEDWATER HEATER TUBE REPLACEMENT****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Feedwater heaters are devices that use extraction steam from the turbine to preheat the feedwater prior to returning to the boiler. This increases the efficiency of the entire steam generating system. Two units were installed in 1982 with Unit #8, and two units in 1967 with Unit #7. Due to the copper found in deposit weight density (DWD) testing of boiler tubes, staff has found that these feedwater heaters are deteriorating, and will require replacement. Testing programs will be employed to analyze the copper loss and subsequent thinning of feedwater heater tubes to determine scheduling of replacement.

**COMMENTS**

Due to copper loss on the units, staff recommends re-tubing all four feedwater heaters at an estimated cost of \$250,000 each. There are currently four feedwater heaters that need to be re-tubed.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street- Map 5, location N-11

FISCAL YEAR PRIORITY		4				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Equipment and Labor	1,000,000	1,000,000				
<b>TOTAL</b>	<b>1,000,000</b>	<b>1,000,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	1,000,000	1,000,000				
<b>TOTAL</b>	<b>1,000,000</b>	<b>1,000,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4831-489		

**UNIT #8 AIR HEATER BASKET REPLACEMENT****PROJECT STATUS:** Cost DecreaseCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The air heater is a large rotating set of three stacked metal elements. The flue gas exiting from the boiler passes across the metal elements, heating them. The rotation of the assembly then brings the elements into the cold air forced draft fan side. As the cold air passes through the heated metal elements, the air is heated to 600 degrees Fahrenheit and is used for combustion, drying, and transport of pulverized coal to the boiler. This recovery of the heat from the flue gas increases the efficiency of the boiler. The lower levels of the metal elements have become loose and are falling out, allowing air to pass through without being heated properly.

**COMMENTS**

This is the second set of baskets that has been installed; each set lasted about twelve years.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY		5				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Material/Parts	100,000	100,000				
Installation	50,000	50,000				
<b>TOTAL</b>	<b>150,000</b>	<b>150,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	150,000	150,000				
<b>TOTAL</b>	<b>150,000</b>	<b>150,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4832-489		

**UNIT #8 MERCURY CAPITAL****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Future Environmental Protection Agency (EPA) regulations likely will require reduction of mercury emissions. If mercury reduction equipment is not in place, allowances will need to be purchased.

**COMMENTS**

Staff believes that Unit #8 will require mercury control, based on anticipated regulations. Engineering for the modifications to Unit #8 are planned for FY 2011/12, with the expectation that regulations will be in place by that time.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		6	1	1		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	300,000	300,000				
Equipment and Installation	4,800,000		1,690,000	3,110,000		
<b>TOTAL</b>	<b>5,100,000</b>	<b>300,000</b>	<b>1,690,000</b>	<b>3,110,000</b>		
<b>FINANCING:</b>						
Electric Utility Fund	5,100,000	300,000	1,690,000	3,110,000		
<b>TOTAL</b>	<b>5,100,000</b>	<b>300,000</b>	<b>1,690,000</b>	<b>3,110,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>	<b>ACCOUNT NO.</b>			
Utilities – Electric Production		Electric	530-4841-489			

**UNIT #8 NITROGEN OXIDE CONTROL CAPITAL****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The Environmental Protection Agency (EPA) regulates nitrogen oxide (NO<sub>x</sub>) emissions through means of a “cap and trade” market. The current legislation is in effect until the end of 2011. This current “cap and trade” market may be extended or replaced by other methods of emissions reduction after 2011. NO<sub>x</sub> forms during the combustion process when fuel is burned at high temperatures. NO<sub>x</sub> production can be reduced effectively by lowering the temperature of the combustion process. The NO<sub>x</sub> emissions from unit #8 can be lowered by reducing the combustion temperature by means of Low NO<sub>x</sub> Burner and Over-Fire Air (LNB – SOFA) system.

Detailed equipment cost and specific design engineering work will be completed after regulations are known. Equipment procurement and installation will be done in the second and third years.

**COMMENTS**

FY 2007/08	Engineering – actual	\$ 25,625
FY 2008/09	Engineering – actual	30,306
FY 2009/10	Engineering – actual	16,598
FY 2010/11	Engineering	50,000
FY 2011/12	Materials & labor for installation	1,300,000
FY 2012/13	Labor for installation	2,000,000
Total		\$ 3,422,529

**LOCATION**Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		7	2			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Materials & Installation	3,300,000	1,300,000	2,000,000			
<b>TOTAL</b>	<b>3,300,000</b>	<b>1,300,000</b>	<b>2,000,000</b>			
<b>FINANCING:</b>						
Electric Utility Fund	3,300,000	1,300,000	2,000,000			
<b>TOTAL</b>	<b>3,300,000</b>	<b>1,300,000</b>	<b>2,000,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4895-489		



**UNIT #8 TURBINE GENERATOR FIVE-YEAR OVERHAUL****PROJECT STATUS:** No Change

Cost Increase

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Unit #8 turbine generator will be disassembled and inspected after 20,000 hours of operation. An inspection was done in 2005 and was due again in 2010/2011. Repairs and replacement of worn parts will be completed as the inspection progresses.

**COMMENTS**

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. The budget includes the cost of the inspection and normal repairs anticipated after 20,000 hours of operation. It is unclear the full extent of the work required until after the turbine generator is opened up and inspected. The project will be bid with option tasks that may be necessary once the unit is opened up. If the specific part is in good shape or the subsystem overhaul is not needed, then the work will be removed from the scope while the project is underway.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY		8				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	1,900,000	1,900,000				
<b>TOTAL</b>	<b>1,900,000</b>	<b>1,900,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	1,900,000	1,900,000				
<b>TOTAL</b>	<b>1,900,000</b>	<b>1,900,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4852-489		

**TURBINE CONTROLS UPGRADE****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project converts the supervisory controls on Units #7 and #8 turbine generators from electric-mechanical to electronic.

**COMMENTS**

This conversion will enable more effective scheduling of the units. The electric-mechanical systems are worn and in need of repair. Replacement of these components is more cost-effective than attempting to repair them, and will result in more effective operation of the units.

FY 11/12	Unit #8	\$ 450,000
FY 14/15	Unit #7	200,000
	Total	<u>\$ 650,000</u>

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		9					5
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	
<b>COST:</b>							
Construction	650,000	450,000			200,000		
	<b>TOTAL</b>	<b>650,000</b>	<b>450,000</b>		<b>200,000</b>		
<b>FINANCING:</b>							
Electric Utility Fund	650,000	450,000			200,000		
	<b>TOTAL</b>	<b>650,000</b>	<b>450,000</b>		<b>200,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>			
Utilities – Electric Production		Electric		530-4842-489			

**GAS TURBINE #1 ENGINE/GENERATOR/TURBINE  
INSPECTION AND OVERHAUL**

**PROJECT STATUS:** Delayed

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

Gas Turbine #1 (GT-1) was built in 1972. The unit consists of three separate pieces of equipment: an engine, a free turbine, and a generator. The engine has had one major hot section inspection in the last thirty-five years. The free turbine has had only external work done on it in the last twenty-five years. The generator has had inspections performed on the bearings and diodes, but has never been completely disassembled. The industry standard for inspection of each of these pieces of equipment is an inspection/overhaul every five years.

**COMMENTS**

There are several reasons that these inspections have not been done according to standard schedules. The GT-1 unit runs very little and there are very few hours on the unit. The work involved in disassembling the generator and free turbine is considerable. Staff believes this work should be split into three outage periods; the first for the engine, and the second for the generator, and the third for the free turbine inspection.

FY 2010/11	Engine	\$ 650,000
FY 2011/12	Generator	250,000
FY 2014/15	Turbine	500,000
		<hr/>
		\$ 1,400,000

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		10			2	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Inspection Labor and Parts – Generator	250,000	250,000				
Inspection Labor and Parts – Turbine	500,000				500,000	
<b>TOTAL</b>	<b>750,000</b>	<b>250,000</b>			<b>500,000</b>	
<b>FINANCING:</b>						
Electric Utility Fund	750,000	250,000			500,000	
<b>TOTAL</b>	<b>750,000</b>	<b>250,000</b>			<b>500,000</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4827-489		

**DEMAND SIDE MANAGEMENT (DSM)  
ENERGY CONSERVATION PROGRAMS**

**PROJECT STATUS:** Cost Change

City of Ames, Iowa  
Capital Improvements Plan

**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 efficient appliance rebates
- Commercial custom rebates
- Residential new construction rebates
- Commercial high efficiency lighting rebates
- Commercial audits
- Power Watch education
- Green Choices alternative energy contribution

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
- Commercial/industrial power factor correction rebates

New demand side management (DSM) program changes under consideration are:

- Commercial and residential lighting loans

New Load Management programs under consideration are:

- Upgrade of digital control unit (DCU) circuit boards
- Installation of new DCU switches
- Time-of-day rate design
- Wireless 2-way communication system

**LOCATION**

Electric Administration, 502 Carroll Avenue – Map 5, location M-11

<b>FISCAL YEAR PRIORITY</b>		11	8	3	4	3
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Program Development and Administration	5,400,000	1,000,000	1,000,000	1,000,000	1,200,000	1,200,000
<b>TOTAL</b>	<b>5,400,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,200,000</b>	<b>1,200,000</b>
<b>FINANCING:</b>						
Electric Utility Fund	5,400,000	1,000,000	1,000,000	1,000,000	1,200,000	1,200,000
<b>TOTAL</b>	<b>5,400,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,000,000</b>	<b>1,200,000</b>	<b>1,200,000</b>

**PROGRAM – ACTIVITY:**  
Utilities – Electric Administration

**DEPARTMENT:**  
Electric

**ACCOUNT NO.**  
530-4815-489

**POWER PLANT FIRE PROTECTION SYSTEM****PROJECT STATUS:** Cost Change

Project Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The City's insurance carrier has made several loss prevention recommendations for the Power Plant. These recommendations are for fire suppression systems for the coal conveying equipment, coal pulverizers, and related coal processing and conveyor equipment. The cost and schedule for installation of the recommendations are as follows.

FY 2004/05	Upgrading City Water Service (in plant)	\$ 475,000
FY 2006/07	Coal Handling Sprinkler System (delayed)	-----
FY 2008/09	Coal Handling Sprinkler System phase 1	625,885
FY 2010/11	Coal Handling Sprinkler System phase 2	120,000
FY 2011/12	Coal Handling Sprinkler System / mill inverting	250,000
FY 2013/14	Fire Suppression – Turbine Generator	500,000
FY 2015/16	Fire Suppression – Cooling Tower	500,000
		<hr/>
		\$ 2,470,885

**COMMENTS**

A serious fire in any one of the systems can force the outage of either Unit #7 or #8 or the entire Power Plant. Replacement power during an extended period of time can be very expensive.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		12	5	4		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
COST:						
Construction	1,250,000	250,000		500,000		500,000
	TOTAL	1,250,000	250,000	500,000		500,000
FINANCING:						
Electric Utility Fund	1,250,000	250,000		500,000		500,000
	TOTAL	1,250,000	250,000	500,000		500,000

**PROGRAM - ACTIVITY:**

Utilities – Electric Production

**DEPARTMENT:**

Electric

**ACCOUNT NO.**

530-4876-489

**UNIT #7 MERCURY CONTINUOUS EMISSIONS  
MONITOR**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

In February 2008, the U.S. Court of Appeals for the District of Columbia Circuit vacated the Clean Air Mercury Rule (CAMR) which would have initiated a mercury cap and trade system similar to the current Clean Air Interstate Rule. There is speculation that the U.S. Environmental Protection Agency (EPA) will issue future rules to regulate mercury emissions from power plants.

In early 2009, the Iowa Department of Natural Resources (IDNR) announced its plans to add new mercury monitoring requirements at the state level.

This project, if necessary to comply with future EPA or IDNR rules, will add a mercury continuous emissions monitor to Unit #7. Standardizing the installation with the current system on Unit #8 would be beneficial. Electric Utility staff is currently performing tests to determine if a monitor is required. If tests determine that the monitoring equipment is necessary, it must be installed as soon as possible.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		13				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Materials and Installation	320,000	320,000				
<b>TOTAL</b>	<b>320,000</b>	<b>320,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	320,000	320,000				
<b>TOTAL</b>	<b>320,000</b>	<b>320,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4848-489		

**UNIT #7 COOLING TOWER PIPING SYSTEM****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION:**

The condition of the Unit #7 circ-water piping has deteriorated to the point of failure/leakage on three different occasions. Early in the summer of 2010, staff experienced a major failure underground on the discharge header between the plant and the cooling tower. The majority of this piping is underneath the sub-basement floor and is extremely difficult to access. Staff believes the best option is to coat the lines internally, extending the usefulness of the existing pipe. Replacement of the pipe would cost between \$1.0 and \$1.6 million. Engineering specifications are now being developed for the bidding process.

**COMMENTS**

Failure to impede the deterioration of the piping will put the reliability of Unit #7 at risk.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		14				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Material and Labor	500,000	500,000				
<b>TOTAL</b>	<b>500,000</b>	<b>500,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	500,000	500,000				
<b>TOTAL</b>	<b>500,000</b>	<b>500,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4844-489		

**UNIT #7 MERCURY CAPITAL ENGINEERING****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Future Environmental Protection Agency (EPA) regulations likely will require reduction of mercury emissions. If mercury reduction equipment is not in place, allowances will need to be purchased. This precise date (and need) for this project is uncertain due to the lack of known regulations and the extent to which Unit #7 may require modification.

This project is for "engineering only" of a system to remove mercury. If it is determined that a system needs to be installed to meet the new EPA guidelines, a separate CIP sheet will be presented.

**COMMENTS**

Unit #7 may require a mercury control.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		15				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	200,000	200,000				
<b>TOTAL</b>	<b>200,000</b>	<b>200,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	200,000	200,000				
<b>TOTAL</b>	<b>200,000</b>	<b>200,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4845-489		



**UNIT #7 NITROGEN OXIDE CONTROL CAPITAL****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The Environmental Protection Agency (EPA) regulates nitrogen oxide (NO<sub>x</sub>) emissions through a “cap and trade” market. The current legislation is in effect until the end of 2011. This current “cap and trade” market may be extended or replaced by other methods of emissions reduction after 2011. NO<sub>x</sub> forms during the combustion process when fuel is burned at high temperatures. NO<sub>x</sub> production can be effectively reduced by lowering the temperature of the combustion process. The NO<sub>x</sub> emissions from Unit #7 can be lowered by reducing the combustion temperature with a Low NO<sub>x</sub> Burner and Over-Fire Air (LNB – SOFA) system.

Detailed equipment cost and specific design engineering work will be completed after regulations are known. Equipment procurement and installation will occur in the second and third years of the project.

**COMMENTS**

FY 2007/08 - actual	\$ 51,692
FY 2008/09 - actual	17,599
FY 2009/10 – actual	9,899
FY 2010/11 – Engineering	30,000
FY 2011/12 – Equipment Procurement	200,000
FY 2012/13 – Equipment Procurement and Installation	1,820,000
<b>Total</b>	<b>\$ 2,129,190</b>

**LOCATION**Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

<b>FISCAL YEAR PRIORITY</b>		17	4			
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Materials	200,000	200,000				
Materials and Installation – LNB - SOFA	1,820,000		1,820,000			
<b>TOTAL</b>	<b>2,020,000</b>	<b>200,000</b>	<b>1,820,000</b>			
<b>FINANCING:</b>						
Electric Utility Fund	2,020,000	200,000	1,820,000			
<b>TOTAL</b>	<b>2,020,000</b>	<b>200,000</b>	<b>1,820,000</b>			

**PROGRAM - ACTIVITY:**

Utilities – Electric Production

**DEPARTMENT:**

Electric

**ACCOUNT NO.**

530-4887-489

**ASH POND STORAGE AREA****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project is for the engineering and construction of a new retention pond north of the current main ash pond for storage of ash. It will allow the main ash pond to be cleaned in order to maintain power plant operations.

**COMMENTS**

Engineering to be completed 11/12	\$ 50,000
Construction to be completed 14/15	<u>1,000,000</u>
	\$1,050,000

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		17			3	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	50,000	50,000				
Construction	1,000,000				1,000,000	
	<b>TOTAL</b>	<b>1,050,000</b>			<b>1,000,000</b>	
<b>FINANCING:</b>						
Electric Utility Fund	1,050,000	50,000			1,000,000	
	<b>TOTAL</b>	<b>1,050,000</b>			<b>1,000,000</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4846-489		

**ELECTRIC SERVICES STORAGE BUILDING**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

Spare equipment parts are currently stored within the fenced-in areas at various substations throughout the City. In addition, the City has several trailers and other equipment which remain parked out in the elements. This project will allow for the construction of up to four sheds at the Electric Distribution building and create increased lay-down area on City property located on Edison Avenue. A cellophane wrapping system will be installed at the Electric Distribution warehouse to wrap and protect equipment that will be stored in the sheds.

**COMMENTS**

Moving materials and equipment out of the elements and into a covered enclosure will prolong their life and help to keep them in good working order. In addition, a centralized storage location close to the Electric Distribution center provides better material control and inventory management.

**LOCATION**

City properties in the Edison Street Area – Map 6, location Q-11

FISCAL YEAR PRIORITY		18				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering and Construction	125,000	125,000				
<b>TOTAL</b>	<b>125,000</b>	<b>125,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	125,000	125,000				
<b>TOTAL</b>	<b>125,000</b>	<b>125,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Services / Technical Services		Electric		530-4847-485		

**UNITS #7 AND #8 OIL GUN UPGRADE****PROJECT STATUS:** Cost Change

Delayed

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The oil guns and igniters on Unit #7 are 42 years old. They require constant attention, still proving to be less than reliable. The system needs to be replaced so reliable and better plant operation can be obtained. Over the years, many system changes have been made in an attempt to keep these guns and igniters in operation. This includes tying Unit #7 to Unit #8's fuel oil supply system because the oil tanks for Unit #7 were removed from service. Unit #8's MPO lighters are becoming obsolete and are not compatible with the new systems. Replacement parts for the existing equipment are harder to find. Although both systems have had some minor upgrades, neither is acceptable under the current operating conditions and both require a lot of maintenance. Many problems are experienced during light off and the starting and stopping of the coal mills. It is common to have three additional persons available during light off.

**COMMENTS**

Staff planned to replace the oil guns with the new low-nox burner upgrade, but that has been delayed due to court and environmental issues. The oil guns still must be replaced. The oil gun is the first fire in the boiler during start up. The oil fire takes the boiler up to the temperature and pressure that would allow for the coal mills to be brought on safely and they stabilize the coal flame until there is enough heat in the furnace for the coal mills to operate safely and reliably. After the boiler is up and running, the oil guns are used to safely start and stop mills and to safely allow the Fireworker to stabilize the unit during possible times of unstable conditions such as soot blowing, water lance usage, pulling ash and burning refuse derived fuel. The oil guns are also used to bring the unit down during a controlled shut down.

**LOCATION**Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		19				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Materials and Installation	925,000	925,000				
<b>TOTAL</b>	<b>925,000</b>	<b>925,000</b>				
<b>FINANCING:</b>						
Electric Utility Fund	925,000	925,000				
<b>TOTAL</b>	<b>925,000</b>	<b>925,000</b>				
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric		530-4826-489		

**EVAPORATOR COOLER ON COMBUSTION  
TURBINE #1**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

The evaporator cooler on Combustion Turbine #1 has been patched and repaired many times. It is no longer cost effective to make additional repairs and replacement of the cooler is advised.

**COMMENTS**

Estimated cost for a replacement - \$300,000

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		5				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Equipment and Labor	300,000		300,000			
<b>TOTAL</b>	<b>300,000</b>		<b>300,000</b>			
<b>FINANCING:</b>						
Electric Utility Fund	300,000		300,000			
<b>TOTAL</b>	<b>300,000</b>		<b>300,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric				

**RDF BIN WORK****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project is to repair/replace a number of major components on the refuse derived fuel (RDF) bin (traverse augers, metering bins, out-feed conveyors, structure steel and receiving bin walls). The entire structure of the RDF bin is composed of Cor-ten steel. This steel is used where there is no protective covering to be applied and it rusts to create a corrosion shield for itself. Because the RDF material sticks to the exposed steel and then stays wet due to the weather or humidity created by the condensation in the bin, the Cor-ten simply continues to rust because it never dries out. The bin is twelve years old and requires almost constant attention now. Past experience with the old RDF bin indicates that after fifteen years, the steel of the bin will require repair or replacement. Heavy corrosion on the firewall, the out-feed conveyors, and the traverse auger rails has already been addressed. Some major work is needed to replace the receiving bin walls and the roof steel. Both of these areas are currently being patched.

**COMMENTS**

Staff expects the frequency of these repairs to increase throughout the current year. The price estimate was provided by the original equipment manufacturer in 2006. Since it is difficult to coordinate outages when there isn't conflict with the Resource Recovery Plant, staff plans on having materials on hand and scheduling repairs as the opportunity presents itself.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY		6				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	250,000		250,000			
<b>TOTAL</b>	<b>250,000</b>		<b>250,000</b>			
<b>FINANCING:</b>						
Electric Utility Fund	250,000		250,000			
<b>TOTAL</b>	<b>250,000</b>		<b>250,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities - Electric Production		Electric				

**UNIT #7 BOILER TUBE REPAIR****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

Unit #7 boiler is forty years old and in need of tube repairs. Staff has devised a six-year plan to maintain the operation of the unit through maintenance, engineering, and re-tubing of the boiler. The cost estimates include engineering, 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) burning. Work includes replacing the bottom 50 feet of wall tubes, superheater, and external piping.

**COMMENTS**

FY 2012/13	Engineering	\$ 150,000
FY 2014/15	Material and labor for installation	3,850,000
		<u>\$ 4,000,000</u>

**LOCATION**Power Plant, 200 East 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY			7	1		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
COST:						
Engineering	150,000		150,000			
Materials & Labor	3,850,000				3,850,000	
	TOTAL	4,000,000		150,000	3,850,000	
FINANCING:						
Electric Utility Fund	4,000,000		150,000		3,850,000	
	TOTAL	4,000,000		150,000	3,850,000	
PROGRAM - ACTIVITY:		DEPARTMENT:		ACCOUNT NO.		
Utilities – Electric Production		Electric		530-4837-489		

**AMES PLANT 69KV SWITCHYARD RELAY AND  
CONTROL REPLACEMENT**

**PROJECT STATUS:** Delayed

Cost Change

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

The 69kV switchyard relaying and controls are currently located inside the Power Plant. This requires long runs of aged control cable between the Power Plant and switchyard, running beneath portions of the Water and Pollution Control's newer office expansion. Some of the control cables are no longer operational and some conduits have collapsed and are not accessible for repair. The existing relays are obsolete electro-mechanical devices which are becoming difficult to maintain/repair and will need replacement with modern relays. The relaying and controls for the 69kV switchyard are critical components that play a significant role in overall electric system reliability and mitigation of system damage allowing the fast isolation of faults and continued operation and service of the rest of the system. With the installation of the Ames Plant 161kV / 69kV substation, a relay and control enclosure was installed adjacent to the 69kV switchyard with sufficient room to house the relays and controls needed for the 69kV switchyard. 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 and aged, lengthy control circuits that are no longer accessible for repair.

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY			9	2		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	150,000		150,000			
Construction	450,000			450,000		
<b>TOTAL</b>	<b>600,000</b>		<b>150,000</b>	<b>450,000</b>		
<b>FINANCING:</b>						
Electric Utility Fund	500,000		125,000	375,000		
Iowa State University	100,000		25,000	75,000		
<b>TOTAL</b>	<b>600,000</b>		<b>150,000</b>	<b>450,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Extension/Improvements		Electric				



**UNIT #7 TURBINE GENERATOR FIVE-YEAR OVERHAUL****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The Unit #7 turbine generator will be disassembled and necessary repairs made after 20,000 hours of operation. An inspection was done in 2007 and will be due again in 2012/2013, based on current levels of operation of the unit.

**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 5<sup>th</sup> Street - Map 5, location N-11

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13	2013/14 <sup>4</sup>	2014/15	2015/16
<b>COST:</b>						
Construction	750,000			750,000		
<b>TOTAL</b>	<b>750,000</b>			<b>750,000</b>		
<b>FINANCING:</b>						
Electric Utility Fund	750,000			750,000		
<b>TOTAL</b>	<b>750,000</b>			<b>750,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Utilities – Electric Production		Electric				

**TOP-O-HOLLOW SUBSTATION EXPANSION  
AND BREAKER ADDITION**

**PROJECT STATUS:** Delayed

**Cost Change**

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

This project will convert the existing 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 both line and transformer protection. The scope of this project has been broadened to include the replacement and expansion of the existing 13.8kV metalclad switchgear to provide the addition of a main breaker and upgrade obsolete air-blast breakers and electromechanical relays with vacuum interrupter breakers and microprocessor based relaying. The addition of the dual transmission source, 69kV and 13.8 kV relay protection additions and upgrades will improve reliability of the 69kV transmission system, improve service to the customers served by this substation and lower the arc energy levels for improved worker safety. The land for this project has been previously purchased 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 good engineering practices in the electric utility industry.

**COMMENTS**

FY 2008/09	Land Purchase	\$ 24,883
FY 2014/15	Engineering	250,000
FY 2015/16	Construction	1,750,000
	Total	<u>\$ 2,024,883</u>

**LOCATION**

Top-O-Hollow Road west of Calhoun Avenue - Map 2, location L-5

FISCAL YEAR PRIORITY							6	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16		
<b>COST:</b>								
Engineering	250,000				250,000			
Construction	1,750,000					1,750,000		
<b>TOTAL</b>	<b>2,000,000</b>				<b>250,000</b>	<b>1,750,000</b>		
<b>FINANCING:</b>								
Electric Utility Fund	1,855,000				225,000	1,630,000		
Iowa State University	145,000				25,000	120,000		
<b>TOTAL</b>	<b>2,000,000</b>				<b>250,000</b>	<b>1,750,000</b>		

**PROGRAM – ACTIVITY:**

Utilities – Electric Extension/Improvements

**DEPARTMENT:**

Electric

**ACCOUNT NO.**

**ONTARIO SUBSTATION 69KV BREAKER ADDITION****PROJECT STATUS:** Delayed

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project will add 69kV breakers and related relaying equipment to Ontario Substation.

The addition of 69kV line and transformer breakers and relaying 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 to distribution substations is consistent with good electric utility industry engineering practices.

**LOCATION**

Delaware Avenue and Utah Drive – Map 4, location E-10

<b>FISCAL YEAR PRIORITY</b>		<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15<sup>7</sup></b>	<b>2015/16<sup>2</sup></b>
<b>COST:</b>							
Engineering		150,000				150,000	
Construction		1,000,000					1,000,000
	<b>TOTAL</b>	<b>1,150,000</b>				<b>150,000</b>	<b>1,000,000</b>
<b>FINANCING:</b>							
Electric Utility Fund		955,000				125,000	830,000
Iowa State University		195,000				25,000	170,000
	<b>TOTAL</b>	<b>1,150,000</b>				<b>150,000</b>	<b>1,000,000</b>
<b>PROGRAM – ACTIVITY:</b>							
Utilities – Electric Extension Improvements							
<b>DEPARTMENT:</b>							
Electric							
<b>ACCOUNT NO.</b>							

**UNIT #7 CLOSED COOLING WATER SYSTEM  
AND PIPING**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

This project will change an open cooling water system to a closed cooling system and repair all associated piping. The old system is in need of repair and a new closed system will allow much better control of equipment cooling.

**COMMENTS**

Estimated cost - \$400,000

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY							5
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	
<b>COST:</b>							
Equipment and Labor	400,000					400,000	
	<b>TOTAL</b>	<b>400,000</b>				<b>400,000</b>	
<b>FINANCING:</b>							
Electric Utility Fund	400,000					400,000	
	<b>TOTAL</b>	<b>400,000</b>				<b>400,000</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>			
Utilities – Electric Production		Electric					

**WELL WATER IRON REMOVAL SYSTEM**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

Power Plant wells continue to degrade each year with respect to iron and manganese concentrations. The iron removal system will allow higher cycles in tower operation which will also reduce the chemical costs and result in a lower cost per kWh of energy produced.

**COMMENTS**

Estimated cost - \$1,500,000

**LOCATION**

Power Plant, 200 East 5<sup>th</sup> Street – Map 5, location N-11

FISCAL YEAR PRIORITY							6
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	
<b>COST:</b>							
Equipment and Installation	1,500,000					1,500,000	
<b>TOTAL</b>	<b>1,500,000</b>					<b>1,500,000</b>	
<b>FINANCING:</b>							
Electric Utility Fund	1,500,000					1,500,000	
<b>TOTAL</b>	<b>1,500,000</b>					<b>1,500,000</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>			
Utilities – Electric Production		Electric					

- 159,980 gallons of water approximately 81 degrees
- 555' long, 8' wide, 3'6" deep
- Two entry points
  - West side – walk-in
  - South side – continue after coming off the tube slides
- Waterfall feature
  - Decorative – water is circulated from the Lazy River
- Tube slides – south side of Lazy River
  - Slide lengths – each one is 220'
  - Tower height – 23'
  - One tube is enclosed; the other is a half-pipe.
  - There are 40 steps leading to the top platform.
  - The tube slides use recycled water from the Lazy River basin to achieve the goal of being environmentally sensitive.



**THE LAZY RIVER**

## TRANSPORTATION - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
Streets/Engineering	49,056,500	8,685,000	11,008,500	12,105,000	11,792,000	5,466,000	81
Streets/Maintenance	2,435,000	255,000	565,000	1,125,000	215,000	275,000	91
Transit	12,801,600	4,194,600	2,440,000	1,561,000	2,270,600	2,335,400	99
Airport	1,615,000	900,000	715,000				105
<b>Total Expenditures</b>	<b>65,908,100</b>	<b>14,034,600</b>	<b>14,728,500</b>	<b>14,791,000</b>	<b>14,277,600</b>	<b>8,076,400</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	29,763,500	6,350,000	6,007,500	6,500,000	6,400,000	4,506,000	
<b>City:</b>							
Road Use Tax	625,000	155,000	165,000	115,000	115,000	75,000	
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000	
Electric Utility Fund	580,000	75,000		255,000	250,000		
Transit Fund	2,055,480	603,740	346,500	269,120	412,552	423,568	
Airport Construction Fund	80,750	45,000	35,750				
<b>Sub-Total City Funds</b>	<b>3,841,230</b>	<b>978,740</b>	<b>647,250</b>	<b>739,120</b>	<b>877,552</b>	<b>598,568</b>	

## TRANSPORTATION - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>Other:</b>						
MPO/STP Funds	5,304,000	1,060,000	1,062,000	1,060,000	1,062,000	1,060,000
Congressionally Directed Funds	14,200,000	1,200,000	3,720,000	5,200,000	4,080,000	
State Grant	150,000		150,000			
Iowa State University	50,000		50,000			
Story County	269,000		269,000			
Ames Community School District	50,000		50,000			
Federal Transit Administration	10,254,920	3,499,660	1,993,500	1,191,880	1,758,048	1,811,832
FTA - Small Transit Incentive Cities	251,200	11,200	60,000	60,000	60,000	60,000
Federal Grants	200,000	40,000	40,000	40,000	40,000	40,000
ISU - Government of the Student Body	40,000	40,000				
FAA Grant Funds	1,534,250	855,000	679,250			
Sub-Total Other Funds	32,303,370	6,705,860	8,073,750	7,551,880	7,000,048	2,971,832
<b>Total Revenues</b>	<b>65,908,100</b>	<b>14,034,600</b>	<b>14,728,500</b>	<b>14,791,000</b>	<b>14,277,600</b>	<b>8,076,400</b>



## TRANSPORTATION - STREET ENGINEERING

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Grand Avenue Extension	17,750,000	1,500,000	4,650,000	6,500,000	5,100,000		83
2 Arterial Street Pavement Improvements	4,570,000	60,000	1,500,000	1,785,000	880,000	345,000	84
3 Collector Street Pavement Improvements	6,638,500	2,958,500	1,115,500			2,564,500	85
4 Asphalt Pavement Improvement Program	4,698,400	2,576,000	147,200	1,141,450		833,750	86
5 Downtown Street Pavement Improvements	3,650,000	825,000	750,000	650,000	925,000	500,000	87
6 Asphalt Resurfacing/Seal Coat Removal	2,803,750	765,500	816,050	327,700	442,250	452,250	88
7 CyRide Route Pavement Improvements	4,483,850		1,253,500	1,275,350	1,955,000		89
8 Concrete Pavement Improvements	4,462,000		776,250	425,500	2,489,750	770,500	90
<b>Total Expenditures</b>	<b>49,056,500</b>	<b>8,685,000</b>	<b>11,008,500</b>	<b>12,105,000</b>	<b>11,792,000</b>	<b>5,466,000</b>	

## TRANSPORTATION - STREET ENGINEERING, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES:</b>						
<b>Bonds:</b>						
G.O. Bonds	28,753,500	6,350,000	6,007,500	5,590,000	6,400,000	4,406,000
<b>City:</b>						
Electric Utility Fund	580,000	75,000		255,000	250,000	
<b>Other:</b>						
MPO/STP Funds	5,304,000	1,060,000	1,062,000	1,060,000	1,062,000	1,060,000
Story County	219,000		219,000			
Congressionally Directed Funds	14,200,000	1,200,000	3,720,000	5,200,000	4,080,000	
Sub-Total Other Funds	19,723,000	2,260,000	5,001,000	6,260,000	5,142,000	1,060,000
<b>Total Revenues</b>	<b>49,056,500</b>	<b>8,685,000</b>	<b>11,008,500</b>	<b>12,105,000</b>	<b>11,792,000</b>	<b>5,466,000</b>

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

Revenue Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project is for the extension of Grand Avenue from Lincoln Way to South 16<sup>th</sup> Street. Included is a segment of South 5<sup>th</sup> Street (Grand Avenue to South Duff Avenue) as well as improvement to the South Duff Avenue (US 69) / South 16<sup>th</sup> Street intersection.

Extending Grand Avenue to South 16<sup>th</sup> Street will divert traffic from the US Highway 69 (Grand Avenue to Lincoln Way to South Duff Avenue) corridor to the new extension. It will help to alleviate the existing congestion and allow for easier access to area businesses along that portion of Lincoln Way and South Duff Avenue. In addition, through-traffic on the Grand Avenue extension will also encounter less traffic congestion.

**COMMENTS**

Planning and land acquisition will occur in 2011/12 for the Grand Avenue (Squaw Creek Drive to South 16<sup>th</sup> Street) and the South 5<sup>th</sup> Street (Grand Avenue to South Duff Avenue) segments of the project. Engineering design and construction is projected to commence in 2012/13 and continue through 2014/15. This four-lane roadway will include turn lanes at South 16<sup>th</sup> Street, a bridge over Squaw Creek, a golf cart underpass at Coldwater Creek Golf Course, and a bike path along the west side of the roadway. Street lighting has also been included in the project costs.

A concept and cost allocation study (\$37,500) for this project was completed in 2002/03. Design for the Lincoln Way to South 4<sup>th</sup> Street segment of the project was funded in 2005/06. Construction and land acquisition for that segment was completed in the fall of 2008.

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

**LOCATION**

2011/12	South Grand Avenue (Squaw Creek Drive to South 16 <sup>th</sup> Street) and South 5 <sup>th</sup> Street (Grand Avenue to South Duff Avenue) (planning and land acquisition) – Map 5, location L-12
2012/13	South Grand Avenue (Squaw Creek Drive to South 5 <sup>th</sup> Street) and South 5 <sup>th</sup> Street (Grand Avenue to South Duff Avenue) (engineering and construction) – Map 5, location L-12
2013/14	South Grand Avenue (South 5 <sup>th</sup> Street to South 16 <sup>th</sup> Street) (engineering, NEPA, grading and box culvert/golf cart passage) – Map 5, location L-12
2014/15	Grand Avenue (South 5 <sup>th</sup> Street to South 16 <sup>th</sup> Street) (engineering, bridge, paving) – Map 5, location L-12; and South Duff Avenue (South 16 <sup>th</sup> Street intersection improvements) – Map 5, location L-14

The change is due to updated acquisition and construction costs reflecting market conditions and the additional revenue is a result of the additional Congressionally Directed Funding necessary for those additional costs. At the request of the Federal government, the project was divided into several construction phases for funding purposes. The timing of this program is subject to Congressional funding.

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Planning	600,000	600,000				
Engineering	2,250,000		650,000	1,000,000	600,000	
Land Acquisition	900,000	900,000				
Construction	14,000,000		4,000,000	5,500,000	4,500,000	
<b>TOTAL</b>	<b>17,750,000</b>	<b>1,500,000</b>	<b>4,650,000</b>	<b>6,500,000</b>	<b>5,100,000</b>	
<b>FINANCING:</b>						
G. O. Bonds	3,550,000	300,000	930,000	1,300,000	1,020,000	
Congressionally Directed Funds	14,200,000	1,200,000	3,720,000	5,200,000	4,080,000	
<b>TOTAL</b>	<b>17,750,000</b>	<b>1,500,000</b>	<b>4,650,000</b>	<b>6,500,000</b>	<b>5,100,000</b>	

**PROGRAM – ACTIVITY:**

Transportation – Streets Engineering

**DEPARTMENT:**

Public Works

**ACCOUNT NO.**

372-8175-439

320-8175-439

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

Site 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**

2011/12 Dayton Avenue (E. 13<sup>th</sup> Street to Plymouth Drive) – Map 6, location Q-9  
 2012/13 State Avenue (Oakwood Road to US Highway 30 overpass) – Map 8, location G-15  
 2013/14 East Lincoln Way (South Duff Avenue to Skunk River) – Map 5, location M-11; and Lincoln Way (Squaw Creek to Oak Avenue) – Map 5, location K-11  
 2014/15 Lincoln Way (South Dakota Avenue to Hickory Drive) – Map 4, location E-11  
 2015/16 West Lincoln Way (County Line Road to west corporate limits) – Map 4, location H-11; and West Lincoln Way (Thackeray Avenue to South Dakota Avenue) – Map 4, location J-11

Cost change is due to updated cost estimates. The site change is the result of prioritizing current pavement conditions.

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

FISCAL YEAR PRIORITY		2	3	3	3	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	570,000	10,000	200,000	210,000	105,000	45,000
Construction	3,750,000	50,000	1,300,000	1,400,000	700,000	300,000
Electric (Street Lights)	250,000			175,000	75,000	
<b>TOTAL</b>	<b>4,570,000</b>	<b>60,000</b>	<b>1,500,000</b>	<b>1,785,000</b>	<b>880,000</b>	<b>345,000</b>
<b>FINANCING:</b>						
G. O. Bonds	1,979,000	60,000	219,000	550,000	805,000	345,000
Electric Utility Fund	250,000			175,000	75,000	
Story County	219,000		219,000			
MPO/STP Funds	2,122,000		1,062,000	1,060,000		
<b>TOTAL</b>	<b>4,570,000</b>	<b>60,000</b>	<b>1,500,000</b>	<b>1,785,000</b>	<b>880,000</b>	<b>345,000</b>

**PROGRAM – ACTIVITY:**  
Transportation - Streets Engineering

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
372-8142-439

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

Site Change

City of Ames, Iowa  
Capital Improvements Plan**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**

2011/12 Ash Avenue (Mortensen Parkway to Knapp Street) – Map 5, location I-13; Ridgewood Avenue (13<sup>th</sup> Street to 16<sup>th</sup> Street) – Map 5, location K-9; and Hayes Avenue (20<sup>th</sup> Street to 24<sup>th</sup> Street) – Map 5, location K-8

2012/13 Meadowlane Avenue (E. 13<sup>th</sup> to Carr Drive) – Map 5, location N-9

2015/16 Woodland Street (West Street to Hickory Drive) – Map 4, location G-11; West Street (Woodland Street to Sheldon Avenue) – Map 4, location G-11; Meadowlane Avenue (Carr Drive to E. 20<sup>th</sup> Street) – Map 6, location O-8; and E. 20<sup>th</sup> Street (Duff Avenue to Meadowlane Avenue) – Map 5, location M-8

Cost change is due to updated estimates and prioritizing projects based on current pavement conditions.

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

FISCAL YEAR PRIORITY		3	4		2
	TOTAL	2011/12	2012/13	2013/14	2015/16
<b>COST:</b>					
Engineering	923,500	443,500	145,500		334,500
Construction	5,715,000	2,515,000	970,000		2,230,000
<b>TOTAL</b>	<b>6,638,500</b>	<b>2,958,500</b>	<b>1,115,500</b>		<b>2,564,500</b>
<b>FINANCING:</b>					
G. O. Bonds	4,518,500	1,898,500	1,115,500		1,504,500
MPO/STP Funds	2,120,000	1,060,000			1,060,000
<b>TOTAL</b>	<b>6,638,500</b>	<b>2,958,500</b>	<b>1,115,500</b>		<b>2,564,500</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>	
Transportation – Streets Engineering		Public Works		372-8134-439 320-8134-439	

**ASPHALT PAVEMENT IMPROVEMENT PROGRAM****PROJECT STATUS:** Cost Change

Site Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This is the annual program for reconstruction of full-depth 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. This new program has been created in accordance with City Council's goal of strengthening our neighborhoods.

**COMMENTS**

- 2011/12 South Oak Avenue (South 4<sup>th</sup> Street to Lincoln Way) – Map 5, location L-12; Ironwood Court – Map 8, location I-14; Indian Grass Court – Map 5, location J-13; Abraham Drive – Map 4, location E-12; Todd Circle – Map 4, location E-12; Barr Drive – Map 5, location L-8
- 2012/13 Pierce Court – Map 2, location K-7
- 2013/14 Westbend Drive – Map 4, location D-11; Southbend Drive – Map 4, location D-11; Northbrook Circle – Map 4, location D-11; Parkridge Circle – Map 4, location D-11; Westbend Circle – Map 4, location D-11; Duluth Street – Map 8, location H-17; Teagarden Drive – Map 8, location H-17; Minnetonka Avenue – Map 8, location H-17
- 2015/16 Delaware Avenue (Ontario Street to Reliable Street) – Map 4, location E-9; Lynn Avenue (Knapp Street to Storm Street) – Map 5, location I-12

Cost and site changes are due to prioritization of current pavement conditions.

Reconstructing these streets will reduce maintenance costs.

FISCAL YEAR PRIORITY		4	6	5		4
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	602,400	336,000	19,200	138,450		108,750
Construction	4,016,000	2,240,000	128,000	923,000		725,000
Electric (Street Lights)	30,000			30,000		
Electric (System Relocate)	50,000			50,000		
<b>TOTAL</b>	<b>4,698,400</b>	<b>2,576,000</b>	<b>147,200</b>	<b>1,141,450</b>		<b>833,750</b>
<b>FINANCING:</b>						
G.O. Bonds	4,618,400	2,576,000	147,200	1,061,450		833,750
Electric Utility Fund	80,000			80,000		
<b>TOTAL</b>	<b>4,698,400</b>	<b>2,576,000</b>	<b>147,200</b>	<b>1,141,450</b>		<b>833,750</b>

**PROGRAM - ACTIVITY:**

Transportation – Streets Engineering

**DEPARTMENT:**

Public Works

**ACCOUNT NO.**

392-8132-489

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

Site Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This annual program is for the rehabilitation/reconstruction of streets within the downtown area (Lincoln Way to 7<sup>th</sup> Street and Grand Avenue to Duff Avenue). The Downtown Improvements Study (1996/97) recommended several improvement projects in the downtown area. Since that time, Main Street, 5<sup>th</sup> Street, and 6<sup>th</sup> Street have all benefited from improvement projects recommended by the Downtown Improvements Study. These projects involved pavement reconstruction, rehabilitation of storm and sanitary sewers, and streetscapes.

This project will meet the recommendations of the Downtown Improvements Study for the side streets in the downtown area. These streets have not had any improvements in recent years.

**COMMENTS**

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

**LOCATION**

2011/12	Douglas Avenue (Main Street to 7 <sup>th</sup> Street) – Map 5, location M-11
2012/13	Gilchrist Street (Lincoln Way to Kellogg Avenue) – Map 5, location L-11
2013/14	5 <sup>th</sup> Street (Grand Avenue to Duff Avenue) – Map 5, location L-11
2014/15	Clark Avenue (Lincoln Way to Main Street) – Map 5, location L-11
2015/16	Market Avenue – Map 5, location M-11; and Sherman Avenue – Map 5, location M-11

Cost and site changes are due to prioritizing projects based on current pavement conditions.

Future years of this program will focus on reconstruction of alleys in the downtown area.

<b>FISCAL YEAR PRIORITY</b>		5	7	6	5	5
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Engineering	555,000	120,000	120,000	120,000	120,000	75,000
Construction	2,845,000	630,000	630,000	530,000	630,000	425,000
Electric (Street Lights)	150,000	75,000			75,000	
Electric (System Relocation)	100,000				100,000	
<b>TOTAL</b>	<b>3,650,000</b>	<b>825,000</b>	<b>750,000</b>	<b>650,000</b>	<b>925,000</b>	<b>500,000</b>
<b>FINANCING:</b>						
G. O. Bonds	3,400,000	750,000	750,000	650,000	750,000	500,000
Electric Utility Fund	250,000	75,000			175,000	
<b>TOTAL</b>	<b>3,650,000</b>	<b>825,000</b>	<b>750,000</b>	<b>650,000</b>	<b>925,000</b>	<b>500,000</b>

**PROGRAM - ACTIVITY:**

Transportation – Streets Engineering

**DEPARTMENT:**

Public Works

**ACCOUNT NO.**

372-8155-439

**ASPHALT RESURFACING & SEAL COAT REMOVAL/  
ASPHALT RECONSTRUCTION PROGRAM**

**PROJECT STATUS:** Cost Change

Revenue Change

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

This is the annual program for removal of built-up seal coat from streets with asphalt surface as well as asphalt resurfacing of various streets. It is now combined with the Seal Coat Removal/Asphalt Reconstruction Program that appeared as a separate program in prior years.

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 3" of asphalt surface.

**COMMENTS**

The areas to be resurfaced are chosen each spring based on the current street condition inventory. Cost estimates include funding for concrete curb and gutter repairs that need to be made prior to asphaltting the street. Typically, curb and gutter repairs are between 20- and 25-percent of the total cost.

Evenly distributing funding over the five years resulted in the cost change. Program locations will be based on this funding. G. O. Bonds have replaced Road Use Tax funding in all years due to limited availability of Road Use Tax funds.

This program supports the City Council's goal of strengthening our neighborhoods. Street maintenance operation costs for patching will be reduced for the streets involved in this program.

FISCAL YEAR PRIORITY		6	8	7	6	6
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	420,400	115,000	122,400	49,000	66,000	68,000
Construction	2,383,350	650,500	693,650	278,700	376,250	384,250
<b>TOTAL</b>	<b>2,803,750</b>	<b>765,500</b>	<b>816,050</b>	<b>327,700</b>	<b>442,250</b>	<b>452,250</b>
<b>FINANCING:</b>						
G. O. Bonds	2,803,750	765,500	816,050	327,700	442,250	452,250
<b>TOTAL</b>	<b>2,803,750</b>	<b>765,500</b>	<b>816,050</b>	<b>327,700</b>	<b>442,250</b>	<b>452,250</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation – Streets Engineering		Public Works		372-8109-439		



**CYRIDE ROUTE PAVEMENT IMPROVEMENTS****PROJECT STATUS:** Cost Change

Site 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 projected traffic volumes.

**COMMENTS**

Proposed locations:    2012/13    Todd Drive (South Dakota Avenue to Alcott Avenue) – Map 4, location E-11; Lincoln Way (Franklin Avenue to Hayward Avenue) – Map 4, location F-11

                                 2013/14    Emerald Drive (Ken Maril Road to Jewel Drive) – Map 9, location N-17; Ken Maril Road (Emerald Drive to Viola Mae Avenue) – Map 9, location H-17; Viola Mae Avenue (Ken Maril Road to Garden Road) – Map 9, location H-17; Garnet Drive (Garden Road to Jewel Drive) – Map 9, location H-16; and South 3<sup>rd</sup> Street (Grand Avenue to Duff Avenue – Map 5, location M-12

                                 2014/15    24<sup>th</sup> Street (Union Pacific Railroad (UPRR) tracks to Northwestern Avenue) – Map 2, location J-7; and Bloomington Road (Eisenhower Avenue to west 500 ft.) – Map 2, location J-5

Cost change is due to updated project estimates and additional locations in 2013/14 and 2015/16.

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

FISCAL YEAR PRIORITY			2	2	2	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	584,500		163,500	166,000	255,000	
Electric	3,899,350		1,090,000	1,109,350	1,700,000	
<b>TOTAL</b>	<b>4,483,850</b>		<b>1,253,500</b>	<b>1,275,350</b>	<b>1,955,000</b>	
<b>FINANCING:</b>						
G. O. Bonds	3,421,850		1,253,500	1,275,350	893,000	
MPO/STP Funds	1,062,000				1,062,000	
<b>TOTAL</b>	<b>4,483,850</b>		<b>1,253,500</b>	<b>1,275,350</b>	<b>1,955,000</b>	

**PROGRAM - ACTIVITY:**  
Transportation - Streets Engineering

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**

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

Site Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This annual program is to rehabilitate or reconstruct concrete street sections that have deteriorated. This work will provide enhanced rideability to residents and visitors.

**COMMENTS**2012/13:

Knapp Street (Welch Avenue to Lynn Avenue) – Map 5, location H-12; S. E. 5<sup>th</sup> Street (east of S. Duff Avenue) – Map 5, location H-12; and Wheeler Street (Roy Key Avenue to Grand Avenue) – Map 2, location L-6

2013/14:

Frontage Road at Southbend Drive – Map 4, location D-11

2014/15:

Ridgewood Avenue (9<sup>th</sup> Street – 13<sup>th</sup> Street) – Map 5, location K-10; 9<sup>th</sup> Street (Ridgewood Avenue to Northwestern Avenue) – Map 5, location K-10; and Dawes Drive – Map 2, location L-5

2015/16:

Des Moines Avenue (Lincoln Way to E. 3<sup>rd</sup> Street) – Map 5, location M-11; Center Avenue (Lincoln Way to E. 2<sup>nd</sup> Street) – Map 5, location H-11; E. 3<sup>rd</sup> Street (Duff Avenue to East Avenue) – Map 5, location M-11; E. 2<sup>nd</sup> Street (Duff Avenue to Center Avenue) – Map 5, location M-11; 5<sup>th</sup> Street (Northwestern Avenue to Allan Drive) – Map 5, location L-11

Cost change is due to updated re-prioritizing of locations based on current pavement condition.

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

FISCAL YEAR PRIORITY			5	4	4	3
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	582,000		101,250	55,500	324,750	100,500
Construction	3,880,000		675,000	370,000	2,165,000	670,000
<b>TOTAL</b>	<b>4,462,000</b>		<b>776,250</b>	<b>425,500</b>	<b>2,489,750</b>	<b>770,500</b>
<b>FINANCING:</b>						
G.O. Bonds	4,462,000		776,250	425,500	2,489,750	770,500
<b>TOTAL</b>	<b>4,462,000</b>		<b>776,250</b>	<b>425,500</b>	<b>2,489,750</b>	<b>770,500</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation - Streets Engineering		Public Works				

## TRANSPORTATION - STREET MAINTENANCE

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Neighborhood Curb Replacement Program	375,000	75,000	75,000	75,000	75,000	75,000	93
2 Shared Use Path Pavement Improvements	250,000	50,000	50,000	50,000	50,000	50,000	94
3 Sidewalk Safety Program	250,000	50,000	50,000	50,000	50,000	50,000	95
4 Retaining Wall Reconstruction	200,000	80,000	40,000	40,000	40,000		96
5 Salt Storage Facility	350,000		350,000				97
6 Bridge Rehabilitation Program	1,010,000			910,000		100,000	98
<b>Total Expenditures</b>	<b>2,435,000</b>	<b>255,000</b>	<b>565,000</b>	<b>1,125,000</b>	<b>215,000</b>	<b>275,000</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	1,010,000			910,000		100,000	

## TRANSPORTATION - STREET MAINTENANCE, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>City:</b>						
Road Use Tax	625,000	155,000	165,000	115,000	115,000	75,000
Local Option Sales Tax	500,000	100,000	100,000	100,000	100,000	100,000
Sub-Total City Funds	1,125,000	255,000	265,000	215,000	215,000	175,000
<b>Other:</b>						
State Grant	150,000		150,000			
Iowa State University	50,000		50,000			
Story County	50,000		50,000			
Ames Community School District	50,000		50,000			
Sub-Total Other Funds	300,000		300,000			
<b>Total Revenues</b>	<b>2,435,000</b>	<b>255,000</b>	<b>565,000</b>	<b>1,125,000</b>	<b>215,000</b>	<b>275,000</b>

**NEIGHBORHOOD CURB REPLACEMENT PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This is the annual program for replacement of deteriorated curb and gutter in selected neighborhood areas.

Areas to receive curb and gutter replacement are selected by comparing and prioritizing applications received from neighborhoods using evaluation criteria that have been approved by Council.

**COMMENTS**

Neighborhood Curb Replacement Program decision criteria approved by Council includes extent of curb deterioration, number of residential structures in the block, and longitudinal grade. This project supports Council's goal to strengthen neighborhoods.

Curb and gutter replacement enhances neighborhood aesthetics.

**LOCATION**

2011/12 Curtiss Avenue (10<sup>th</sup> Street to 12<sup>th</sup> Street) – Map 5, location L-10  
 2012/13 Curtiss Avenue (12<sup>th</sup> Street to 13<sup>th</sup> Street) – Map 5, location L-9  
 2013/14 Brookridge Avenue (9<sup>th</sup> Street to Park Way) – Map 5, location K-10  
 2014/15 Brookridge Avenue (Park Way to Ridgewood Avenue) – Map 5, location K-10  
 2015/16 South Maple Avenue (South 3<sup>rd</sup> Street to Lincoln Way) – Map 5, location K-12

FISCAL YEAR PRIORITY		1	2	2	1	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
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
<b>TOTAL</b>	<b>375,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
<b>FINANCING:</b>						
Road Use Tax	375,000	75,000	75,000	75,000	75,000	75,000
<b>TOTAL</b>	<b>375,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>

**PROGRAM – ACTIVITY:**  
 Transportation – Streets Maintenance

**DEPARTMENT:**  
 Public Works

**ACCOUNT NO.**  
 060-7771-439

**SHARED USE PATH PAVEMENT IMPROVEMENTS****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**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 of the 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 will provide information to identify segments of the shared use path system that are in need of repair and will prioritize those segments accordingly. Some of the identified segments are shared use paths located along Bloomington Road, 24<sup>th</sup> Street, Lincoln Way, Grand Avenue and at Stuart Smith Park.

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

Repairs to the shared use path at Daley Park were completed in 2010/11; therefore, that site has been dropped from the list of identified segments for repair.

Improvement to the shared use path pavement will enhance the safety and usability of the transportation/recreational system.

FISCAL YEAR PRIORITY		2	3	3	2	3
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	32,500	6,500	6,500	6,500	6,500	6,500
Construction	217,500	43,500	43,500	43,500	43,500	43,500
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>

**PROGRAM - ACTIVITY:**  
Transportation – Streets Maintenance

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
030-7718-439

**SIDEWALK SAFETY PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This is the annual program to remove and replace sidewalk intersection crosswalk panels and handicap ramps at locations that fail to meet the City Sidewalk Improvement Program requirements or are required by the Americans with Disability Act (ADA) to have truncated dome warning panels installed at crosswalks.

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

**COMMENTS**

Staff is completing an inventory to determine the future need for this program. A plan for city-wide compliance is being developed based on the data collected.

This project has no direct impact on the operating budget.

FISCAL YEAR PRIORITY		3	4	4	3	4
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation - Streets Maintenance		Public Works		030-7740-439		

**RETAINING WALL RECONSTRUCTION****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This annual program is to reconstruct/repair retaining walls located within the rights-of-way that have been identified as structurally failing. These retaining walls have become priorities for reconstruction and/or repair due to safety concerns. Drainage improvements and structural changes to the retaining walls will be included with this program.

**LOCATION**

Proposed locations:

2011/12	13 <sup>th</sup> Street (at Crescent Street) – Map 5, location K-9
2012/13	South Dayton Avenue – Map 6, location Q-12
2013/14	Airport Road – Map 8, location L-15
2014/15	Hyland Avenue – Map 4, location G-10

This program identifies core locations for each year. In addition, miscellaneous locations are repaired as necessary and within budget constraints.

FISCAL YEAR PRIORITY		4	5	5	4	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	31,000	16,000	5,000	5,000	5,000	
Construction	169,000	64,000	35,000	35,000	35,000	
	<b>TOTAL</b>	<b>200,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	
<b>FINANCING:</b>						
Road Use Tax	200,000	80,000	40,000	40,000	40,000	
	<b>TOTAL</b>	<b>200,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	

**PROGRAM - ACTIVITY:**  
Transportation – Streets Maintenance

**DEPARTMENT:**  
Public Works

**ACCOUNT NO.**  
060-7737-439



**SALT STORAGE FACILITY****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The City of Ames has one facility for the storage of salt for winter snow and ice operations. The salt storage dome is located near the intersection of Edison Street and Carnegie Avenue in east Ames. Growth within the City limits and additional snow routes have made it desirable for another storage facility for salt. Future salt spreader storage is also being considered as a portion of this project. The potential for a shared facility with Story County, the Ames Community School District, and Iowa State University in the west part of Ames has been presented to all those agencies. By strategically locating a new salt storage dome and refining snow routes and operational procedures based on two salt storage domes, customer service during winter operations will be improved.

A hoop building at the Water Plant has been retrofitted and is being used for temporary salt storage capacity. This has provided for salt storage only; throughout the winter, the salt is moved to the storage dome for loading onto snow plows.

**COMMENTS**

Delay in determining a location for the salt storage dome has resulted in the delay of this project. Story County, the Ames Community School District, and Iowa State University have all been approached to determine if a shared facility would be a feasible option for all entities. Currently, no entity has declined to be involved but none have committed resources either. It is the intent to continue the dialogue with the other entities and to also pursue grants which may make it more feasible for the other entities.

**LOCATION**

To be determined

FISCAL YEAR PRIORITY		1				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Building	350,000		350,000			
<b>TOTAL</b>	<b>350,000</b>		<b>350,000</b>			
<b>FINANCING:</b>						
Road Use Tax Fund	50,000		50,000			
ISU, ACSD, Story County	150,000		150,000			
State Grant	150,000		150,000			
<b>TOTAL</b>	<b>350,000</b>		<b>350,000</b>			
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation – Streets Maintenance		Public Works				

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

Site Change

City of Ames, Iowa  
Capital Improvements Plan**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**

The 2010 Bridge Inspection and Maintenance Report highlights the recommended maintenance/improvements to the bridges in Ames at this time.

The inspection report conducted on the 6<sup>th</sup> Street bridge over Squaw Creek recommended replacing the bridge in the long-term due to its current condition (as identified in the feasibility study). To accommodate the recommendation, the replacement of the bridge has been added to the Capital Improvements Plan (CIP). The planning phase will be used to identify and apply for applicable grants for the bridge replacement.

The East Lincoln Way bridge repairs were recommended by the 2010 Bridge Inspection & Maintenance Report. These repairs are planned for 2013/14 to coordinate with the road work that will be done on East Lincoln Way.

The introduction of these projects to this program (when none were planned for after 2010/11 in the previous CIP) resulted in cost and revenue changes for this program. The addition of the East Lincoln Way bridge repairs added a new site to the program.

**LOCATION**

2013/14 East Lincoln Way bridge – Map 6, location O-11  
2015/16 6<sup>th</sup> Street bridge over Squaw Creek (planning) – Map 5, location K-10

FISCAL YEAR PRIORITY					1	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Planning	100,000					100,000
Engineering	150,000			150,000		
Construction	760,000			760,000		
<b>TOTAL</b>	<b>1,010,000</b>			<b>910,000</b>		<b>100,000</b>
<b>FINANCING:</b>						
G.O. Bonds	1,010,000			910,000		100,000
<b>TOTAL</b>	<b>1,010,000</b>			<b>910,000</b>		<b>100,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation – Streets Maintenance		Public Works				

## TRANSPORTATION - TRANSIT

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Vehicle Replacement	10,302,600	3,815,600	2,215,000	1,436,000	1,385,600	1,450,400	100
2 Building Expansion and Modernization	1,595,000	75,000			760,000	760,000	101
3 CyRide Shop/Office Equipment	514,000	214,000	75,000	75,000	75,000	75,000	102
4 Bus Stop Improvements	250,000	50,000	50,000	50,000	50,000	50,000	103
5 Automatic Vehicle Location Technology	140,000	40,000	100,000				104
<b>Total Expenditures</b>	<b>12,801,600</b>	<b>4,194,600</b>	<b>2,440,000</b>	<b>1,561,000</b>	<b>2,270,600</b>	<b>2,335,400</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Transit Fund	2,055,480	603,740	346,500	269,120	412,552	423,568	
<b>Other:</b>							
Federal Transit Administration	10,254,920	3,499,660	1,993,500	1,191,880	1,758,048	1,811,832	
FTA - Small Transit Incentive Cities	251,200	11,200	60,000	60,000	60,000	60,000	
Federal Grants	200,000	40,000	40,000	40,000	40,000	40,000	
ISU - Government of the Student Body	40,000	40,000					
Sub-Total Other Funds	10,746,120	3,590,860	2,093,500	1,291,880	1,858,048	1,911,832	
<b>Total Revenues</b>	<b>12,801,600</b>	<b>4,194,600</b>	<b>2,440,000</b>	<b>1,561,000</b>	<b>2,270,600</b>	<b>2,335,400</b>	

**VEHICLE REPLACEMENT****PROJECT STATUS:** Cost Change

Revenue Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

CyRide's average large bus fleet age is currently 15 years after delivery of 15 buses in the summer of 2010. CyRide has had to increase the number of large buses to 68 due to an increase of more than one million riders in the last four years. This increase has been accomplished through the retention of buses replaced with new buses, which has kept CyRide's average fleet age high. In the fall of 2010, CyRide was awarded two national grants for replacement of CyRide's older buses. In total, eleven 40' buses will be replaced, plus three 40' buses will be replaced with two 60' buses in the next two budget years through these grants. At the end of FY 2012-2013, CyRide's fleet age will be reduced to nine years by cycling out its oldest buses and purchasing new buses under these grants. The national transit fleet age is seven years. After these purchases are completed, CyRide has scheduled three bus replacements each year for the following three years.

The CIP also includes \$50,000 per year for used buses to replace buses beyond their useful life, but for which federal funding has not been secured. This will allow CyRide to maintain a modern, reliable fleet until funding is available to purchase new vehicles.

A majority of CyRide's small bus fleet was replaced in 2008/09 and 2009/10 with federal dollars; the last two vehicles are scheduled for replacement in 2013-14.

CyRide currently operates three vehicles for driver reliefs and for administrative purposes. With the additional buses and drivers, CyRide will need to expand this fleet of small vehicles by one vehicle to meet its needs beginning in 2011-12. Each of the current vehicles will need to be replaced in this five-year plan.

CyRide's maintenance truck is scheduled for replacement in 2013-14.

CyRide will purchase five video-recording cameras each year of the CIP to replace existing equipment on the buses more than five years old. The system will include exterior and interior cameras at a total cost for the five systems of \$45,000 per year.

2011-12 – Replace 6 large buses, replace 3 large buses with 2 articulated buses, expand 1 administrative vehicle

2012-13 – Replace 5 large buses, replace minibuses 978, 979

2013-14 – Replace 3 large buses, replace administrative vehicles 905, 906, and maintenance truck 999

2014-15 – Replace 3 large buses, replace administrative 969 replacement vehicle

2015-16 – Replace 3 large buses, replace maintenance truck 007

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Large Buses – New	9,474,600	3,740,600	1,960,000	1,221,000	1,257,600	1,295,400
Large Buses – Used	200,000		50,000	50,000	50,000	50,000
Minibuses	160,000		160,000			
Cameras	225,000	45,000	45,000	45,000	45,000	45,000
Administrative Vehicles	243,000	30,000		120,000	33,000	60,000
<b>TOTAL</b>	<b>10,302,600</b>	<b>3,815,600</b>	<b>2,215,000</b>	<b>1,436,000</b>	<b>1,385,600</b>	<b>1,450,400</b>
<b>FINANCING:</b>						
Transit Fund	1,423,680	475,940	221,500	244,120	235,552	246,568
Federal Transit Administration	8,878,920	3,339,660	1,993,500	1,191,880	1,150,048	1,203,832
<b>TOTAL</b>	<b>10,302,600</b>	<b>3,815,600</b>	<b>2,215,000</b>	<b>1,436,000</b>	<b>1,385,600</b>	<b>1,450,400</b>

**PROGRAM - ACTIVITY:**

Transportation – Transit

**DEPARTMENT:**

CyRide

**ACCOUNT NO.**

552-1159-439

**BUILDING EXPANSION & MODERNIZATION****PROJECT STATUS:** Cost Change  
Advanced

Site Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

CyRide has identified four needs for expansion/modernization of CyRide's facility in the next five year period: additional bus storage, flood protection, increased ceiling height and structural repairs. Due to the immediate need for these modifications and their funding in approved state and federal grants totaling \$4,851,000, CyRide will be proceeding with these projects in the 2010-2011 budget year and has reflected this in the CIP. An explanation of the activities is as follows:

Expansion - CyRide's current building was constructed in 1983 and was originally designed to accommodate 25 vehicles. The building was expanded in 1990, 2002, 2004 and 2008 and can now accommodate 60 large buses, seven minibuses and three support vehicles, leaving six large buses and two service vehicles without indoor storage space. With CyRide's expansion to 72 large buses in 2010/11 and an estimated fleet size in ten years of 85 large buses, CyRide will need to construct additional bus storage and maintenance facilities. A three-phased project, with a portion of the first phase funded in FY 2011-12, has been identified as the best option by the Transit Board of Trustees. This phase would increase the bus storage portion of the facility by approximately 25,000 square feet, accommodating eleven additional large buses and two service vehicles.

Flood Protection - CyRide will work with the insurance company to identify construction solutions to reduce/eliminate flood risks for the current facility and its expansion. Suggestions have included additional flood barriers to keep the interior of the facility dry. A flood control expert will be hired to direct CyRide on the efforts that must be taken to reduce this risk.

Ceiling Height - The original portion of CyRide's facility has doors and ductwork at a ceiling height of 10'3" and the new hybrid buses are 10'5" in height; therefore, the new buses can be stored in only a portion of the facility. This project would raise the ductwork and replace doors above the height of the hybrid buses so that all buses can travel throughout the facility, thereby reducing the possibility of accidents within the building.

Structural Repairs - In FY 2010-11, CyRide will begin repairing structural damage in several bus lanes and the wash bay area. Several locations are experiencing corrosion and concrete deterioration and need to be rebuilt.

Structural repairs in 2011-12 through 2014-15 would include repairs to meet safety, modernization and regular maintenance repairs. Major projects would include electric distribution rehabilitation, fire sprinkler system upgrade, replacement of the storage area air handling system, reconfiguration of the in-ground lift supply pipes, relocation of the flammable liquids room, and re-roofing the maintenance facility. Federal or State grants will be sought to fund 80% of these repairs. This expenditure in 2011-12 would replace a boiler at \$75,000.

**LOCATION**

CyRide - Map 5, location J-10

<b>FISCAL YEAR PRIORITY</b>		2	2	2	2	2
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Architect/Engineering	20,000				10,000	10,000
Repairs/Modifications	1,575,000	75,000			750,000	750,000
<b>TOTAL</b>	<b>1,595,000</b>	<b>75,000</b>			<b>760,000</b>	<b>760,000</b>
<b>FINANCING:</b>						
Transit Fund	379,000	75,000			152,000	152,000
Federal Transit Administration	1,216,000				608,000	608,000
<b>TOTAL</b>	<b>1,595,000</b>	<b>75,000</b>			<b>760,000</b>	<b>760,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation - Transit		CyRide		552-1167-439		

**CYRIDE SHOP AND OFFICE EQUIPMENT****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

CyRide receives approximately \$500,000 per year in Small Transit Intensive Cities (STIC) funds from the Federal Transit Administration (FTA). Most of the grant is spent on large items such as buses, Automatic Vehicle Location (AVL), and shelters, but some is used every year to pay for smaller capital items for the shop and office. These items are either too minor or too far down the eligibility list to be funded under the Iowa Department of Transportation (IDOT) grant process. The purchases scheduled for 2011-2016 are as follows.

Four to seven replacement computers will be funded each year, and approximately \$50,000 per year will fund other shop and office items such as floor scrubbers, refrigerant recovery machines, sign post installers/removers, forklift, etc. Because these are smaller items where replacement need is less predictable, they have been generally described in this document and specific needs will be identified annually to efficiently operate CyRide, address OSHA, Department of Natural Resources and other federal requirements. Specifically, the FY 2011-12 expenditure in the shop and office area will fund the replacement of the CyRide's facility boilers that are 23 years old and in poor condition.

CyRide received a national transit grant in the fall of 2010 to purchase transit-specific scheduling software at an 80% federal share of \$160,000, total cost of \$200,000. This software will schedule and track the 850 daily trips, 120 drivers and 72 buses. CyRide has grown to the point where an Excel spreadsheet (CyRide's current scheduling database) has become unreliable and inefficient. This transit software package will improve the efficiency of these tasks and supply a database for CyRide to provide its customers better service in the future as the transit system continues to grow. It will be purchased in FY 2011-12. The previous 2010-15 CIP had identified this project at 100% local funding in FY 2011-12.

**LOCATION**

CyRide – Map 5, location J-10

<b>FISCAL YEAR PRIORITY</b>		3	3	3	3	3
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Computers	54,000	14,000	10,000	10,000	10,000	10,000
Other Shop Equipment	260,000		65,000	65,000	65,000	65,000
Other Office Equipment	200,000	200,000				
<b>TOTAL</b>	<b>514,000</b>	<b>214,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
<b>FINANCING:</b>						
Transit Fund	102,800	42,800	15,000	15,000	15,000	15,000
FTA - Small Transit Intensive Cities	251,200	11,200	60,000	60,000	60,000	60,000
Federal Transit Administration	160,000	160,000				
<b>TOTAL</b>	<b>514,000</b>	<b>214,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation – Transit		CyRide		552-1159-439		

**BUS STOP IMPROVEMENTS****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

One of the most numerous customer suggestions CyRide receives is regarding the condition, or lack, of amenities at its more than 400 bus stop locations throughout the city. In FY 2007/08, CyRide began to systematically identify needs at each stop, with improvements scheduled each year thereafter. It is anticipated that five to ten bus stop locations will receive improvements each year for a total cost investment of \$50,000 per year.

<b>FISCAL YEAR PRIORITY</b>		4	4	4	4	4
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Pads, Benches, Shelters	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
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
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>	<b>ACCOUNT NO.</b>			
Transportation – Transit		CyRide	552-1174-439			

**AUTOMATIC VEHICLE LOCATION TECHNOLOGY****PROJECT STATUS:** Advanced

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

A previous state-funded study identified Automatic Vehicle Location (AVL) equipment for CyRide to cost approximately \$2,000,000. Since completion of this study in early 2006, the cost of this technology has become significantly less expensive. Additionally, Iowa State University students have shown an interest in funding a portion of the overall AVL package with student fee dollars contributed to CyRide. Therefore, FY 2010-11 includes the purchase of a basic vehicle location system (\$200,000) funded by the Government of the Student Body (GSB). The last portion of this system, Automatic Passenger Counting (APC) technology, is scheduled for FY 2012-13 at \$100,000. The purchase of the FY 2010-11 basic vehicle location system is subject to approval by GSB and the Transit Board of Trustees. The previous 2010-2015 CIP included the entire package at \$2,000,000 in FY 2012-13.

FISCAL YEAR PRIORITY		5	5			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Global Positioning/Design Installation	140,000	40,000	100,000			
<b>TOTAL</b>	<b>140,000</b>	<b>40,000</b>	<b>100,000</b>			
<b>FINANCING:</b>						
Transit Fund	100,000		100,000			
GSB	40,000	40,000				
<b>TOTAL</b>	<b>140,000</b>	<b>40,000</b>	<b>100,000</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>	<b>ACCOUNT NO.</b>			
Transportation – Transit		CyRide	552-1159-439			



## TRANSPORTATION - AIRPORT

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Airport Improvements	1,615,000	900,000	715,000				106
<b>Total Expenditures</b>	<b>1,615,000</b>	<b>900,000</b>	<b>715,000</b>				
<b>REVENUES:</b>							
<b>City:</b>							
Airport Construction Fund	80,750	45,000	35,750				
<b>Other:</b>							
FAA Grant Funds	1,534,250	855,000	679,250				
<b>Total Revenues</b>	<b>1,615,000</b>	<b>900,000</b>	<b>715,000</b>				

**AIRPORT IMPROVEMENTS****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**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. (FAA funding provides for 95% of the cost of identified projects.) These projects have been prioritized and included in this 2011 – 2016 Capital Improvements Plan:

2011/12	Reconstruct internal vehicle circulation and parking lot
2012/13	Replace terminal building

In accordance with the Airport Master Plan, the next improvement program is anticipated in 2016/17.

**LOCATION**

Ames Municipal Airport - Map 8, location L-16

FISCAL YEAR PRIORITY		1	1			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering	269,045	149,795	119,250			
Construction	1,345,955	750,205	595,750			
<b>TOTAL</b>	<b>1,615,000</b>	<b>900,000</b>	<b>715,000</b>			
<b>FINANCING:</b>						
Airport Construction Fund	80,750	45,000	35,750			
FAA Grant (AIP) Funds	1,534,250	855,000	679,250			
<b>TOTAL</b>	<b>1,615,000</b>	<b>900,000</b>	<b>715,000</b>			
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Transportation – Airport		Public Works		330-7075-439		



**THE LAKE**

- 471,220 gallons of water approximately 81 degrees
- North/South – 50 meters long; 8 lanes wide
- East/West – approximately 21 yards long; 20 lanes wide
- Three meter platform
- One meter springboard
- Two basketball hoops
- Handicap accessible ramp
- Area for lap swimmers
- Drop slide
  - 60 steps to the top
  - Tower height – 35'
  - Length – 150'
  - Riders drop out of the tube approximately 6' above the water.
  - Deep end of the pool is 13 feet deep.

## COMMUNITY ENRICHMENT/INTERNAL SERVICES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
Parks and Recreation	3,949,000	617,000	1,049,000	1,483,000	365,000	435,000	109
Library	762,550	125,000	153,400	256,150	180,000	48,000	118
City Manager	250,000	50,000	50,000	50,000	50,000	50,000	123
Planning and Housing	250,000	50,000	50,000	50,000	50,000	50,000	125
Public Works	260,000	100,000	40,000	40,000	40,000	40,000	127
Internal Services/Facilities	1,286,050	486,050	50,000	245,000	250,000	255,000	129
<b>Total Expenditures</b>	<b>6,757,600</b>	<b>1,428,050</b>	<b>1,392,400</b>	<b>2,124,150</b>	<b>935,000</b>	<b>878,000</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	300,000	300,000					
<b>City:</b>							
Local Option Sales Tax	4,263,950	1,065,550	1,192,400	623,000	710,000	673,000	
Ice Arena Capital Reserve Funds	145,000	20,000	100,000	25,000			
Fleet Replacement Funds	256,150			256,150			
Road Use Tax	150,000			48,750	50,000	51,250	
Water Utility Fund	150,000			48,750	50,000	51,250	
Sewer Utility Fund	150,000			48,750	50,000	51,250	
Fleet Services Fund	150,000			48,750	50,000	51,250	
<b>Sub-Total City Funds</b>	<b>5,265,100</b>	<b>1,085,550</b>	<b>1,292,400</b>	<b>1,099,150</b>	<b>910,000</b>	<b>878,000</b>	

## COMMUNITY ENRICHMENT/INTERNAL SERVICES - SUMMARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES, continued:</b>						
<b>Other:</b>						
Ames Community School District	192,500	42,500	100,000	25,000	25,000	
Private Contributions	1,000,000			1,000,000		
Sub-Total Other Funds	1,192,500	42,500	100,000	1,025,000	25,000	
<b>Total Revenues</b>	<b>6,757,600</b>	<b>1,428,050</b>	<b>1,392,400</b>	<b>2,124,150</b>	<b>935,000</b>	<b>878,000</b>

## COMMUNITY ENRICHMENT - PARKS AND RECREATION

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Municipal Pool Maintenance	385,000	85,000	200,000	50,000	50,000		111
2 Playground/Park Equipment Improvements	265,000	135,000	30,000	40,000	30,000	30,000	112
3 Parks and Recreation Facility Improvements	1,200,000	332,000	290,000	368,000	85,000	125,000	113
4 Ada Hayden Heritage Park	574,000	45,000	129,000		200,000	200,000	114
5 Ames/ISU Ice Arena	145,000	20,000	100,000	25,000			115
6 Tennis Court Improvements	380,000		300,000			80,000	116
7 Community Gathering Venue	1,000,000			1,000,000			117
<b>Total Expenditures</b>	<b>3,949,000</b>	<b>617,000</b>	<b>1,049,000</b>	<b>1,483,000</b>	<b>365,000</b>	<b>435,000</b>	

## COMMUNITY ENRICHMENT - PARKS AND RECREATION, continued

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>REVENUES:</b>						
<b>City:</b>						
Local Option Sales Tax	2,611,500	554,500	849,000	433,000	340,000	435,000
Ice Arena Capital Reserve Funds	145,000	20,000	100,000	25,000		
Sub-Total City Funds	2,756,500	574,500	949,000	458,000	340,000	435,000
<b>Other:</b>						
Ames Community School District	192,500	42,500	100,000	25,000	25,000	
Private Contributions	1,000,000			1,000,000		
Sub-Total Other Funds	1,192,500	42,500	100,000	1,025,000	25,000	
<b>Total Revenues</b>	<b>3,949,000</b>	<b>617,000</b>	<b>1,049,000</b>	<b>1,483,000</b>	<b>365,000</b>	<b>435,000</b>

**MUNICIPAL POOL MAINTENANCE****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

In 2006, consultants were retained to provide recommendations regarding mechanical, electrical, structural, and any other needed improvements for the Municipal Pool. With the goal of keeping this 42-year old facility operational a minimum of 8 to 10 additional years, the 2006 study indicated that substantial improvements, totaling \$815,000, were needed between 2007/08 and 2011/12. All costs are shared equally by the City and Ames Community School District.

The projects included in 2012/13 will require the pool to be **closed for approximately 8 weeks during the summer of 2012.**

The consultants have warned that following approximately 2015, the cost of further repairs to this facility could be cost prohibitive. It should be noted that the City and Ames Community School District's joint use agreement for the pool expires on **April 30, 2015. Therefore, the City and School District must address the need for a new indoor aquatics facility prior to 2015/16.**

**COMMENTS****2010/11: Total \$15,000**

Replace electrical panels, roof patching allowance (\$10,000), replace plywood veneer and flashing at arch bases, and other miscellaneous and unknown projects (\$5,000)

**2011/12: Total \$85,000**

Replace lighting in pool, temperature controls integration with District NOVAR system, roof patching allowance (\$10,000), and other miscellaneous and unknown projects (\$75,000)

**2012/13: Total \$200,000**

Replace boiler / pumps (\$150,000) (**closed summer of 2012 for this project**), other projects to be determined (\$50,000)

**2013/14: Total \$50,000**

To be determined

**2014/15: Total \$50,000**

To be determined

Over a 19-year period (FY95/96 and continuing through FY14/15), the City and School District will have invested approximately \$2,172,589 (\$114,000 per year average) in capital improvements at this facility.

**LOCATION**

Ames High School – Map 5, location J-8

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Construction	346,500	76,500	180,000	45,000	45,000	
Architects/Engineering	38,500	8,500	20,000	5,000	5,000	
<b>TOTAL</b>	<b>385,000</b>	<b>85,000</b>	<b>200,000</b>	<b>50,000</b>	<b>50,000</b>	
<b>FINANCING:</b>						
Local Option Sales Tax	192,500	42,500	100,000	25,000	25,000	
Ames School District	192,500	42,500	100,000	25,000	25,000	
<b>TOTAL</b>	<b>385,000</b>	<b>85,000</b>	<b>200,000</b>	<b>50,000</b>	<b>50,000</b>	

**PROGRAM – ACTIVITY:**

Community Enrichment

**DEPARTMENT:**

Parks and Recreation

**ACCOUNT NO.**

030-4916-459



**PLAYGROUND/PARK EQUIPMENT IMPROVEMENTS****PROJECT STATUS:** Site ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

During the past 20 years, the City replaced its old and unsafe play equipment throughout the park system. Based on this program, the play equipment in the park system is in good condition. The City's 09/10 to 11/12 Capital Improvements Plan reflected proposed expenditures of \$135,000 to install three independent and unique pieces (rope climber - \$30,000 in 2009/10; dual tube slide - \$75,000 in 2010/11; rock climber - \$30,000 in 2011/12) at three parks.

In the summer of 2010, staff became aware that the School District has a need to replace play equipment at six elementary schools. The District is facing extremely difficult financial challenges and cannot fund the total cost to replace equipment at all six locations. Funding for this project (\$135,000) will be redirected to assist the School District with purchasing new play equipment at six grade schools. The estimated cost for an adequate piece of equipment for each site is \$37,500. In order to accomplish adequate funding, the District will contribute \$90,000 over this time period to share the cost of the equipment at these six sites. After installation, the equipment will become assets of the District; the City will have no responsibility to maintain the equipment or assume any liability for its use. However, the public will be allowed to use the equipment and the site will serve as a "neighborhood park".

**COMMENTS**

**2011/12:** Ames School District – elementary schools (\$135,000) – various locations  
(An upgrade to District facilities would facilitate City Council's goal to strengthen our neighborhoods.)

**2012/13:** Brookside Park (\$30,000) replace tot piece – Map 5, location K-10

**2013/14:** Christopher Gartner Park (\$25,000) - Map 4, location E-12; Teagarden Park (\$15,000) - Map 9, location N-17

**2014/15:** Duff Avenue Park (\$15,000) – Map 5, location M-9; Hutchinson Park (\$15,000) – Map 4, location D-9

**2015/16:** Daley Park (\$30,000) – Map 4, location C-11

FISCAL YEAR PRIORITY		2	3	2	2	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Contribution to School District	135,000	135,000				
Construction	130,000		30,000	40,000	30,000	30,000
<b>TOTAL</b>	<b>265,000</b>	<b>135,000</b>	<b>30,000</b>	<b>40,000</b>	<b>30,000</b>	<b>30,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	265,000	135,000	30,000	40,000	30,000	30,000
<b>TOTAL</b>	<b>265,000</b>	<b>135,000</b>	<b>30,000</b>	<b>40,000</b>	<b>30,000</b>	<b>30,000</b>

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

**PARKS AND RECREATION FACILITY IMPROVEMENTS****PROJECT STATUS:** New  
Advanced**Cost Change**  
DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

To maintain City facilities in a safe and quality manner, the FY 2011 to 2016 projects listed below address maintenance issues at various facilities within the Parks and Recreation Department.

**COMMENTS****2011/12: Total = \$332,000**

Auditorium: Replace stage flooring (\$40,000) and replace stage curtains (\$47,000) – Map 5, location L-11

Carr Pool: Demolition of the pool basin and pool mechanical system during the summer of 2011 (\$50,000) – Map 5, location N-8

South River Valley Softball Fields: Demolition of existing concession stand (\$15,000) and construction of small shelter (\$25,000) – Map 6, location O-9

North River Valley Softball Complex: Replace two scoreboards (\$30,000 total) – Map 6, location O-9

Homewood Golf Course: Stabilize bank adjacent the river on #4 (\$100,000) – Map 5, location M-8

Administrative Office: Replace windows (\$25,000) – Map 4, location H-13

**2012/13: Total = \$290,000**

Homewood Golf Course: Install asphalt cart paths (\$30,000) – Map 5, location M-8

South River Valley Softball Fields: Replace fencing on two diamonds (\$60,000 total) and install new lights on both diamonds (\$200,000 total) – Map 6, location O-9

**2013/14: Total = \$368,000**

Bandshell: Replace stage lighting (\$50,000) – Map 5, location M-11

Franklin Park: Asphalt overlay on existing crushed rock pathway through the park (\$20,000) – Map 4, location F-12

Community Center: Replace metal coin-operated lockers with plastic coin-operated lockers (\$25,000) – Map 5, location L-11

Brookside: Renovate the restroom (\$48,000) – Map 5, location K-10

Skate Park: Replace metal coping (\$75,000) – Map 5, location K-10

Inis Grove: Sanitary sewer installation (\$60,000) and renovation of restroom adjacent Shagbark shelter (\$30,000) – Map 2, location M-7

North River Valley Softball Complex: Renovate the concession stand (\$25,000) – Map 6, location O-9

North River Valley: Renovate the restroom (\$35,000) – Map 6, location O-9

**2014/15: Total = \$85,000**

Inis Grove: Renovate restroom adjacent Duff Avenue (\$30,000) – Map 2, location M-7

Bandshell: Weatherproof the domed roof (\$55,000) – Map 5, location M-11

**2015/16: Total = \$125,000**

13 Shelters: Replace shingles \$125,000 – various locations

FISCAL YEAR PRIORITY		3	2	3	3	2
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	1,093,500	306,000	264,000	336,500	77,000	110,000
Engineering	106,500	26,000	26,000	31,500	8,000	15,000
<b>TOTAL</b>	<b>1,200,000</b>	<b>332,000</b>	<b>290,000</b>	<b>368,000</b>	<b>85,000</b>	<b>125,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	1,200,000	332,000	290,000	368,000	85,000	125,000
<b>TOTAL</b>	<b>1,200,000</b>	<b>332,000</b>	<b>290,000</b>	<b>368,000</b>	<b>85,000</b>	<b>125,000</b>

**PROGRAM – ACTIVITY:**

Community Enrichment

**DEPARTMENT:**

Parks and Recreation

**ACCOUNT NO:**

030-4902-459

**ADA HAYDEN HERITAGE PARK****PROJECT STATUS:** Cost ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The edges of the wetlands are becoming inundated with volunteer trees. These trees will create a negative visual impact on the entire park and if not removed will impact the long-term function of the wetland cells. Once removed, annual maintenance will be performed to restrict the re-growth of undesirable tree species.

The park master plan, developed when Ada Hayden Heritage Park opened in 2004, includes constructing a hard surface parking lot at the northwest part of the overall site after Grant Road is improved. This improvement would coincide with City Council action to support the development of Rose Prairie. Park visitors that want to use the northwest part of this park currently have to walk over a mile to enjoy the overlook features that have been installed by three civic organizations. A parking lot in the northwest area will provide residents with mobility issues the opportunity to access one of the best vistas of this 437-acre parcel.

**COMMENTS****2011/12:** \$45,000 – Removal of volunteer trees adjacent to wetland cells**2012/13:** \$45,000 – Removal of volunteer trees adjacent to wetland cells**2012/13:** \$84,000 – Construct a small parking lot in the northwest corner of this park**2014/15:** \$200,000 – Resurface the north loop trail adjacent to the lake (1.6 miles)**2015/16:** \$200,000 – Resurface the south loop trail adjacent to the lake (1.6 miles)**LOCATION**

Ada Hayden Heritage Park – Map 2, location K-3

FISCAL YEAR PRIORITY		4	4	4	4	
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
COST:						
Engineering	48,400		8,400		20,000	20,000
Contracted Work	90,000	45,000	45,000			
Construction	435,600		75,600		180,000	180,000
	TOTAL	574,000	45,000	129,000	200,000	200,000
FINANCING:						
Local Option Sales Tax	574,000	45,000	129,000		200,000	200,000
	TOTAL	574,000	45,000	129,000	200,000	200,000

**PROGRAM - ACTIVITY:**

Community Enrichment

**DEPARTMENT:**

Parks and Recreation

**ACCOUNT NO.**

030-4925-459

**AMES/ISU ICE ARENA****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The Ames/ISU Ice Arena is ten years old (opened in April 2001) and with the goal of maintaining a quality facility, numerous items need to be replaced as listed below. Funding for these projects is provided through the Ice Arena Capital Reserve. Each year, the City and ISU contribute \$20,000 each to ensure the facility is well maintained. As of June 30, 2010, this joint fund totaled \$394,643.

**COMMENTS**

**2011/12:** Replace rubber flooring in player boxes (\$10,000); plastic coating on the sidewalls of player boxes (\$5,000); and dasher board kick plate (\$5,000)

**2012/13:** Replace rubber flooring in the lobby (\$100,000)

**2013/14:** Replace water heaters (\$25,000)

**LOCATION**

Ames/ISU Ice Arena, 1505 Gateway Hills Park Drive – Map 4, location H-13

FISCAL YEAR PRIORITY		5	6	5		
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	145,000	20,000	100,000	25,000		
<b>TOTAL</b>	<b>145,000</b>	<b>20,000</b>	<b>100,000</b>	<b>25,000</b>		
<b>FINANCING:</b>						
Ice Arena Capital Reserve	145,000	20,000	100,000	25,000		
<b>TOTAL</b>	<b>145,000</b>	<b>20,000</b>	<b>100,000</b>	<b>25,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Parks and Recreation		571-4928-459		
				572-4928-459		

**TENNIS COURT IMPROVEMENTS****PROJECT STATUS:** Delayed

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION:**

In 1997, the decision was made to shift \$100,000 in funding that would have been used to renovate the tennis courts at Brookside Park to partnering with the Ames Community School District and Friends of Ames Tennis to construct a new 8-court facility at Ames High. In addition, the School District agreed to pay the City \$2,500 annually for a period of ten years (through FY 07/08) to help pay for the ongoing maintenance costs of the tennis courts at Brookside. At that time, the City Council decided that the four courts at Brookside would be maintained at a "recreational level" until the City made a final decision regarding the future existence of these courts. The Brookside courts have been maintained during the past thirteen years (1997 – 2010). Staff anticipates that they will continue to serve the public a minimum of three more years (2012/13) at a "recreational level". During 2011/12, staff will host a public input session to gain insight on the role that these courts play within the neighborhood and the overall community. Staff will also seek resident input to the redevelopment of this area with the construction of play equipment, a small shelter, basketball court, or other appropriate facilities which would replace the existing tennis courts. Additionally, staff will analyze the condition of these courts and determine if reconstruction is needed or if the project can be delayed.

**COMMENTS**

**2012/13:** If an analysis conducted in 2011 indicates the project is warranted, the Brookside courts will be totally reconstructed (\$300,000).

**2015/16:** Resurface the courts at Emma McCarthy Lee and Inis Grove Parks (\$80,000 total)

**LOCATION**

Ames High – Map 5, location J-8; Brookside Park – Map 5, location K-10; Inis Grove Park – Map 2, location M-7; and Emma McCarthy Lee Park – Map 4, location G-10

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Engineering / Design	35,000		30,000			5,000
Resurfacing / Reconstruction	345,000		270,000			75,000
<b>TOTAL</b>	<b>380,000</b>		<b>300,000</b>			<b>80,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	380,000		300,000			80,000
<b>TOTAL</b>	<b>380,000</b>		<b>300,000</b>			<b>80,000</b>

**PROGRAM - ACTIVITY:**

Community Enrichment

**DEPARTMENT:**

Parks and Recreation

**ACCOUNT NO.**

**COMMUNITY GATHERING VENUE**

**PROJECT STATUS:** Revenue Change

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

During the past few years, conversations have been held between City staff and members of the Ames Foundation and Main Street Cultural District. The Ames Foundation is supportive of raising significant funds with the goal of constructing a community gathering place to host special events in the Downtown area. The conceptual plan for this space includes a large pavilion where special events could be held and a major water feature that includes an interactive fountain.

**COMMENTS**

**2013/14:** Interactive fountain, pavilion and open space (\$1,000,000)

The 2009 Citizen Satisfaction Survey showed that 64% of the respondents view this project as “somewhat” or “very important.”

**LOCATION**

To be determined

FISCAL YEAR PRIORITY						
	TOTAL	2011/12	2012/13	2013/14 <sup>4</sup>	2014/15	2015/16
<b>COST:</b>						
Construction	900,000			900,000		
Engineering / Design	100,000			100,000		
<b>TOTAL</b>	<b>1,000,000</b>			<b>1,000,000</b>		
<b>FINANCING:</b>						
Private Contributions	1,000,000			1,000,000		
<b>TOTAL</b>	<b>1,000,000</b>			<b>1,000,000</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Parks and Recreation				

## COMMUNITY ENRICHMENT - LIBRARY

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Radio Frequency Identification System	278,400	125,000	153,400				119
2 Bookmobile Replacement	256,150			256,150			120
3 Floor Covering Replacement	180,000				180,000		121
4 Skylight Replacement	48,000					48,000	122
<b>Total Expenditures</b>	<b>762,550</b>	<b>125,000</b>	<b>153,400</b>	<b>256,150</b>	<b>180,000</b>	<b>48,000</b>	
<b>REVENUES:</b>							
<b>CITY:</b>							
Local Option Sales Tax	506,400	125,000	153,400		180,000	48,000	
Fleet Replacement Funds	256,150			256,150			
<b>Total Revenues</b>	<b>762,550</b>	<b>125,000</b>	<b>153,400</b>	<b>256,150</b>	<b>180,000</b>	<b>48,000</b>	

**RADIO FREQUENCY IDENTIFICATION (RFID)  
INVENTORY MANAGEMENT SYSTEM – TWO PHASES**

**PROJECT STATUS:** New

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

The RFID (radio frequency identification) project provides an efficient method for management of library inventory, speeds up check-out and check-in, and will prepare the library for the use of automated sorting equipment to handle return of library materials. The RFID system offers a more secure system to help deter theft, which has been an increasing problem over the past years. The project is divided into two parts. The first phase is the tagging of the collection with RFID targets and the second is the acquisition of the equipment for circulation, security, and inventory management.

The circulation of library materials in Ames continues to be very strong. In order to maintain the current level of service and prepare the library to adequately serve projected increases in the future, a more efficient materials management system should be implemented.

Phase I Cost: \$125,000 (collection tagging - \$95,000; staff equipment - \$15,000; software set-up - \$15,000)

Phase II Cost: \$153,400 (six staff circulation workstations; four patron self-check-out stations; eight staff reader units; security gate; software and licensing)

**COMMENTS**

An RFID system replaces barcode technology for inventory management. RFID holds several advantages over barcoding. RFID-tagged books may be checked out by simply passing them over a field that senses the imbedded unique radio frequency identifier of each item, and an entire pile of books may be scanned at once, instead of one at a time. At the point of check in, batches of materials can be processed back into the collection faster. RFID systems are essential for automated return and sorting, a process that is planned in library expansion. Inventorying a library collection, currently prohibitive under the bar code system, is facilitated by hand held devices that can scan the shelves for items that are in and those that may be missing or misplaced. The RFID supplemental security system is also more reliable than the magnetic field method of the current system and will aid staff in identifying possible theft. The price of RFID tagging, once too high for practical application, has now reached a price point that justifies its use in the library environment.

**LOCATION**

Ames Public Library, 515 Douglas – Map 5, location M-11

FISCAL YEAR PRIORITY		1	1			
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Software, Equipment, Tagging	125,000	125,000				
Equipment Acquisition & Implementation	153,400		153,400			
<b>TOTAL</b>	<b>278,400</b>	<b>125,000</b>	<b>153,400</b>			
<b>FINANCING:</b>						
Local Option Sales Tax	278,400	125,000	153,400			
<b>TOTAL</b>	<b>278,400</b>	<b>125,000</b>	<b>153,400</b>			
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Library		030-2662-459		



**BOOKMOBILE REPLACEMENT****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project provides for the replacement of the existing bookmobile, which was purchased in 2001. The bookmobile has withstood heavy general use, including city and rural driving conditions with numerous stops and starts. The bookmobile functions as a library branch and provides outreach service for the library throughout the year, during daytime and evening hours. It presently makes eight scheduled stops each week. Visits to Ames and Gilbert kindergarten classes and many daycare facilities are made in conjunction with Project Smyles.

**COMMENTS**

The Library is seeking another walk-in, bus-type vehicle equipped with interior and exterior lighting, display areas for patron browsing, computer workstations for staff and customers, standardized material shelving systems, and storage space for use by library personnel only. A lift for wheelchairs will be included among the bidders' options.

Along with design features for ease of browsing, safety, and handicap accessibility, the Library will seek durability, strength, water-tight construction, ease of operation and maintenance, and maximum energy efficiency in this vehicle. Improvements in fuel efficiency and alternate fuel vehicles over the next few years will provide information on possible savings on the cost of fuel, and reduction of the carbon footprint may be realized with a vehicle having developing technology.

The Library had \$186,921 in bookmobile depreciation funds at the end of FY 2009/10. The Library's operating budget also includes payments of \$1,923 per month (\$23,076/year) into that fund. The account will have a balance of \$256,149 by the end of FY 2012/13 if continued contributions are made this year and next.

**LOCATION**

Ames Public Library, 515 Douglas – Map 5, location M-11

<b>FISCAL YEAR PRIORITY</b>						
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Vehicle	256,150			256,150		
<b>TOTAL</b>	<b>256,150</b>			<b>256,150</b>		
<b>FINANCING:</b>						
Bookmobile Depreciation Fund	256,150			256,150		
<b>TOTAL</b>	<b>256,150</b>			<b>256,150</b>		
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Library				

**FLOOR COVERING REPLACEMENT****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

The current carpeting in the Library is 12-14 years old and is showing wear in high-traffic areas. Because 400,000 to 500,000 visitors come to the Library annually, the carpeting will continue to deteriorate in the next few years.

**COMMENTS**

Carpet throughout most of the building was replaced in 1994. Annual foot traffic has consistently increased since that time, and the materials are showing normal wear and tear. Carpet tile was installed in a small area at the main entrance in 2007. Inexpensive carpet for the Farwell T. Brown Auditorium is now being considered (apart from the Capital Improvements Plan) as a short-term remedial step. A comprehensive replacement of floor coverings is being delayed while the Library Board of Trustees works on a long-term solution to the Library's facility needs.

After a decision is reached on the nature of an expansion and/or renovation plan to the existing building, the floor covering replacement project may be carried out, modified, or eliminated.

**LOCATION**

Ames Public Library, 515 Douglas – Map 5, location M-11

FISCAL YEAR PRIORITY		TOTAL	2011/12	2012/13	2013/14	2014/15 <sup>1</sup>	2015/16
<b>COST:</b>							
Carpeting		180,000				180,000	
	<b>TOTAL</b>	<b>180,000</b>				<b>180,000</b>	
<b>FINANCING:</b>							
Local Option Sales Tax		180,000				180,000	
	<b>TOTAL</b>	<b>180,000</b>				<b>180,000</b>	
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>			
Community Enrichment		Library					

**SKYLIGHT REPLACEMENT**

**PROJECT STATUS:** Delayed

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

This project is to replace six pyramid-shaped skylights on the roof of the library. The fiberglass composition has deteriorated and the glazing is drying out, creating a risk of leakage into the building.

**COMMENTS**

Replacement of six, eight-foot-square skylights: \$48,000

This project is being delayed while the Library Board of Trustees continues to work on a long-term solution to the Library's facility needs. After a decision is reached on the nature of an expansion and/or renovation plan for the existing building, the skylight replacement project may be carried out, modified, or eliminated.

**LOCATION**

Ames Public Library, 515 Douglas – Map 5, location M-11

FISCAL YEAR PRIORITY		TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16 <sup>1</sup>
COST:	Construction	48,000					48,000
	TOTAL	48,000					48,000
FINANCING:	Local Option Sales Tax	48,000					48,000
	TOTAL	48,000					48,000
PROGRAM - ACTIVITY:		DEPARTMENT:		ACCOUNT NO.			
Community Enrichment		Library					

## COMMUNITY ENRICHMENT - CITY MANAGER

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Neighborhood Improvement Program	250,000	50,000	50,000	50,000	50,000	50,000	124
<b>Total Expenditures</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	
<b>REVENUES:</b>							
<b>CITY:</b>							
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000	
<b>Total Revenues</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	

**NEIGHBORHOOD IMPROVEMENT PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**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, 109 neighborhood projects have been funded by the City, totaling \$319,103. 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; 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.

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Construction	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>PROGRAM – ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		City Manager's Office		030-0420-459		

## COMMUNITY ENRICHMENT - PLANNING & HOUSING

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Downtown Facade Program	250,000	50,000	50,000	50,000	50,000	50,000	126
<b>Total Expenditures</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000	
<b>Total Revenues</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	

**DOWNTOWN FAÇADE IMPROVEMENT PROGRAM****PROJECT STATUS:** No ChangeCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project was introduced in 2001/02 to facilitate private improvements to the façades of the buildings in the Downtown area. For three years, the City did not receive any requests for these funds. However, with the establishment of the Downtown Cultural District, excitement in this commercial area has increased along with requests for façade improvement funds.

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.

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. To date (August 2010), the program has awarded sixteen (16) grants for a total amount of \$163,503.

**COMMENTS**

This program continues to support the City Council's previous goals for the commercial revitalization of the Downtown. If interest continues in this program, funding can be expanded.

**LOCATION**

Downtown Ames – Map 5, location M-11

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Incentives (Loans or Grants)	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>250,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Planning & Housing		040-1030-459		

## COMMUNITY ENRICHMENT - PUBLIC WORKS

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 Municipal Cemetery Improvements	260,000	100,000	40,000	40,000	40,000	40,000	128
<b>Total Expenditures</b>	<b>260,000</b>	<b>100,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	
<b>REVENUES:</b>							
<b>City:</b>							
Local Option Sales Tax	260,000	100,000	40,000	40,000	40,000	40,000	
<b>Total Revenues</b>	<b>260,000</b>	<b>100,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	



**AMES MUNICIPAL CEMETERY IMPROVEMENTS****PROJECT STATUS:** NewCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This project is to provide funding for a black ornamental fence along the 13<sup>th</sup> Street, Maxwell Avenue, and Crawford Avenue borders of the Ames Municipal Cemetery. In addition, a double drive gate will also be installed at the 9<sup>th</sup> Street entrance to the Cemetery. The project will also provide funds for a five-year program to restore and improve lanes at the Cemetery. This restoration and improvement maintenance is anticipated to enhance the rideability and appearance of all paved lanes within the cemetery for at least ten years.

**COMMENTS**

The existing chain link fence has bordered the cemetery for at least 40 years. Five years ago, in an effort to improve the appearance of this unsightly fence, City crews painted it. This measure proved successful for only a few years; however, the fence is once again rusting and unsightly. The labor-intensive effort of painting the fence was not cost-effective. The powder-coated fence that is proposed for bordering the Cemetery is expected to last many years with minimal maintenance. In addition, a decorative fence will enhance the appearance of this City-owned property and be visually appealing as visitors enter the City along 13<sup>th</sup> Street.

There are nearly two miles of paved lanes north of 9<sup>th</sup> 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. Endowed care funds were being used for surface maintenance of the cemetery lanes until 2008/09 when new state regulations 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 has now 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.

The importance of this valuable community asset cannot be overlooked; and financial support from community organizations for this worthwhile fencing is being explored.

**LOCATION**Ames Municipal Cemetery, 9<sup>th</sup> Street and Maxwell Avenue – Map 5, location H-10

<b>FISCAL YEAR PRIORITY</b>		1	1	1	1	1
	<b>TOTAL</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>COST:</b>						
Purchase and Installation of Fencing	60,000	60,000				
Lane Construction/Maintenance	200,000	40,000	40,000	40,000	40,000	40,000
<b>TOTAL</b>	<b>260,000</b>	<b>100,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>
<b>FINANCING:</b>						
Local Option Sales Tax	260,000	100,000	40,000	40,000	40,000	40,000
<b>TOTAL</b>	<b>260,000</b>	<b>100,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>
<b>PROGRAM - ACTIVITY:</b>		<b>DEPARTMENT:</b>		<b>ACCOUNT NO.</b>		
Community Enrichment		Public Works		030-9523-469		
				030-9524-469		

## INTERNAL SERVICES - FACILITIES/FLEET SERVICES

PROJECT/REVENUE DESCRIPTION	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16	PAGE
<b>EXPENDITURES:</b>							
1 City Hall Mechanical/Structural Improvements	550,000	350,000	50,000	50,000	50,000	50,000	130
2 Cool Cities: Facility Energy Improvements	136,050	136,050					131
3 City Maintenance Facility Improvements	600,000			195,000	200,000	205,000	132
<b>Total Expenditures</b>	<b>1,286,050</b>	<b>486,050</b>	<b>50,000</b>	<b>245,000</b>	<b>250,000</b>	<b>255,000</b>	
<b>REVENUES:</b>							
<b>Bonds:</b>							
G.O. Bonds	300,000	300,000					
<b>City:</b>							
Local Option Sales Tax	386,050	186,050	50,000	50,000	50,000	50,000	
Road Use Tax	150,000			48,750	50,000	51,250	
Water Utility Fund	150,000			48,750	50,000	51,250	
Sewer Utility Fund	150,000			48,750	50,000	51,250	
Fleet Services Fund	150,000			48,750	50,000	51,250	
Sub-Total City Funds	986,050	186,050	50,000	245,000	250,000	255,000	
<b>Total Revenues</b>	<b>1,286,050</b>	<b>486,050</b>	<b>50,000</b>	<b>245,000</b>	<b>250,000</b>	<b>255,000</b>	

**CITY HALL MECHANICAL AND STRUCTURAL IMPROVEMENTS**

**PROJECT STATUS:** No Change

City of Ames, Iowa  
Capital Improvements Plan

**DESCRIPTION/JUSTIFICATION**

This City Hall improvements program is focused on major maintenance items for the building.

The City Hall's mechanical and electrical systems were installed in 1990. Heat pumps have a 12-15 year life expectancy. This system is now 20 years old. The project listed below will replace the 176 existing heat pumps and upgrade them to be reliable, more efficient, and environmentally friendly.

**COMMENTS**

Previous Year's Expense:

2009/10	Heat pump design – Phase I	\$ 6,000
2010/11	Heat pump design – Phase II	47,000
	Heat pump replacement – Phase I	527,000

Proposed Schedule:

2011/12	Heat pump replacement – Phase II	300,000
	Major maintenance as needed	50,000
2012/13	Major maintenance as needed	50,000
2013/14	Major maintenance as needed	50,000
2014/15	Major maintenance as needed	50,000
2015/16	Major maintenance as needed	50,000

**LOCATION**

City Hall (515 Clark Ave) – Map 5, location L-11

**FISCAL YEAR PRIORITY**

		1	1	1	1	1
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Construction	300,000	300,000				
Maintenance	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>550,000</b>	<b>350,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>FINANCING:</b>						
G.O. Bonds	300,000	300,000				
Local Option Sales Tax	250,000	50,000	50,000	50,000	50,000	50,000
<b>TOTAL</b>	<b>550,000</b>	<b>350,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>

**PROGRAM - ACTIVITY:**

Internal Services

**DEPARTMENT:**

Facilities

**ACCOUNT NO.**

030-2930-419  
333-2942-419  
372-2930-419

**COOL CITIES: FACILITY ENERGY IMPROVEMENTS****PROJECT STATUS:** DelayedCity of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

In response to the City Council's environmental sustainability goal to reduce the carbon emissions generated from non-utility City operations by 15%, energy reduction projects involving lighting, heating and electronic controls have been identified in various City buildings. These improvements and upgrades will be installed over a two-year period, and will be funded from this program.

**COMMENTS**

Rather than each department being responsible for supervising these projects, a project manager will be assigned to supervise the installation of these improvements at each location, or contract for the design and installation.

There was \$200,000 included in the 2009/10 budget and in the 2010/11 budget for a total of \$400,000 for this program. In FY 10/11, \$23,950 was used for level two energy audits and approximately \$240,000 will be used to install lighting, thermostats, and devices requiring no design assistance. The remaining \$136,000 will be used to hire design firms and contractors to install the devices or systems requiring design and bid assistance.

Although the Power Plant, Water Plant, WPC Plant, and Resource Recovery Plant will not be included in this program, energy reduction projects will be included in those budgets over the next five years.

**Proposed Schedule**

FY 10/11	Energy audits	\$ 23,950
	Equipment installation by City staff	240,000
FY 11/12	Design	25,000
	Equipment installation by contract	111,050

**LOCATION**

Non-utility City buildings – to be determined

FISCAL YEAR PRIORITY		2				
	TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>						
Design	25,000	25,000				
Construction	111,050	111,050				
<b>TOTAL</b>	<b>136,050</b>	<b>136,050</b>				
<b>FINANCING:</b>						
Local Option Sales Tax	136,050	136,050				
<b>TOTAL</b>	<b>136,050</b>	<b>136,050</b>				

**PROGRAM - ACTIVITY:**

Internal Services

**DEPARTMENT:**

Facilities

**ACCOUNT NO.**

030-2950-419

**PROJECT NO.**

**EDISON MAINTENANCE FACILITY IMPROVEMENTS****PROJECT STATUS:** Delayed

Cost Change

City of Ames, Iowa  
Capital Improvements Plan**DESCRIPTION/JUSTIFICATION**

This building (built in four phases from 1967 to 1997) provides shop and office space for Fleet Services and Public Works' divisions of Street Maintenance, Traffic Sign & Signal, Parking Meter, Utility Maintenance, and Engineering Construction Inspection.

2013/14	Roof replacement – Phase I (\$195,000)
2014/15	Roof replacement – Phase II (\$200,000)
2015/16	Roof replacement – Phase III (\$205,000)

**COMMENTS**

The cost of flat roof systems has increased significantly. This project has been delayed due to lack of funding.

**LOCATION**

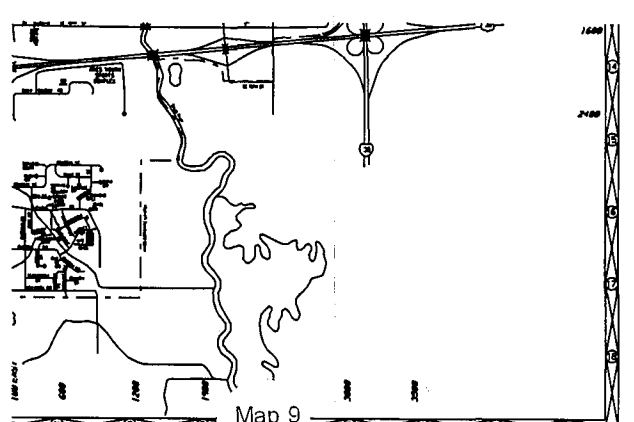
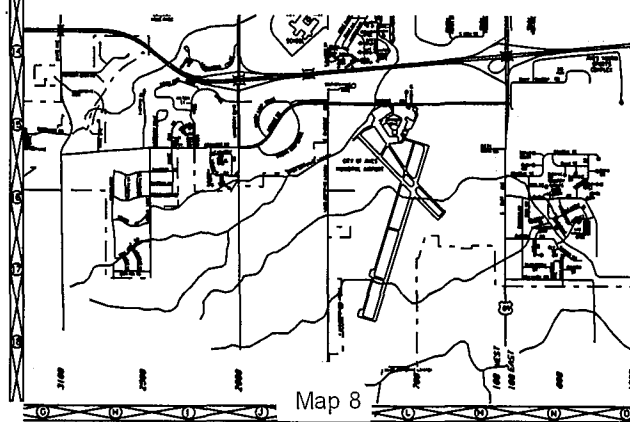
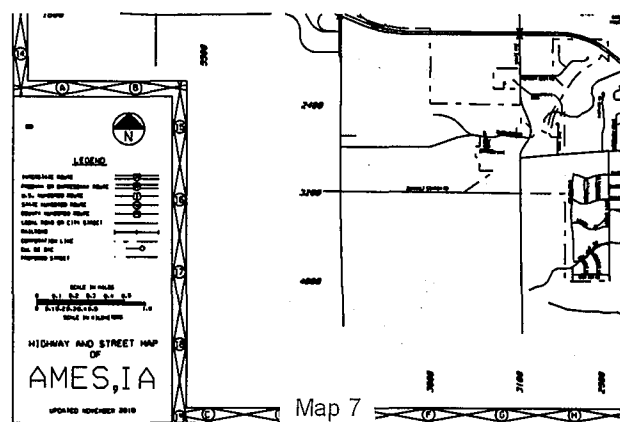
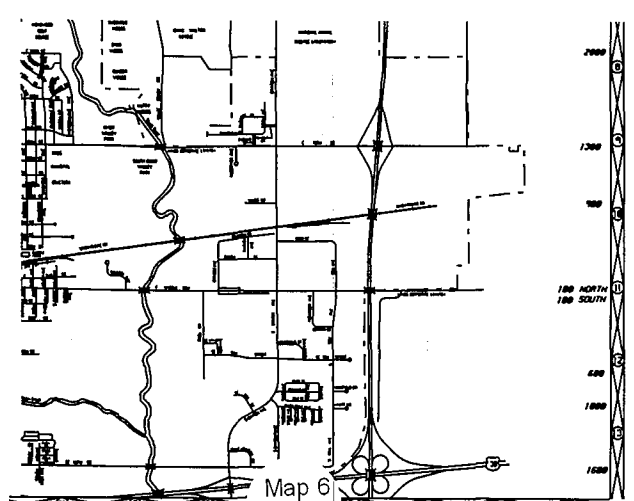
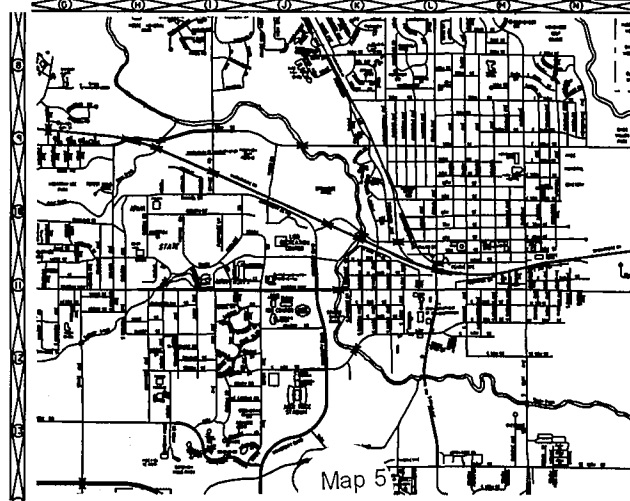
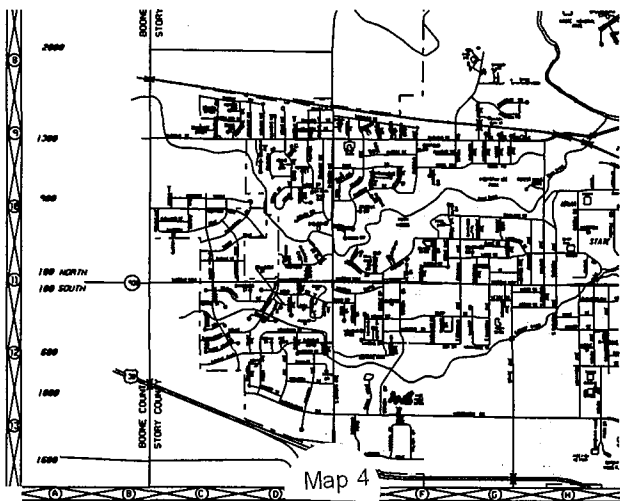
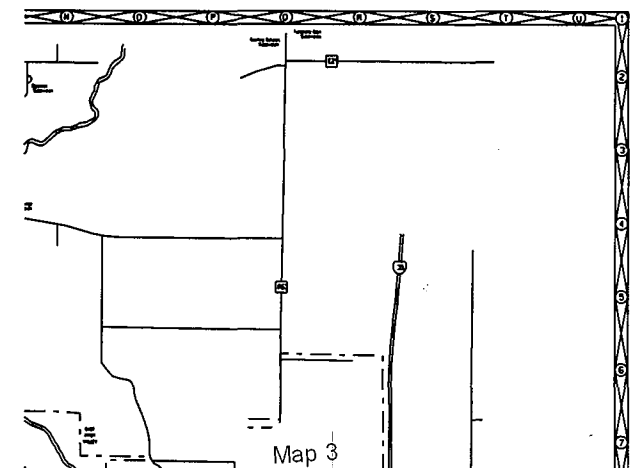
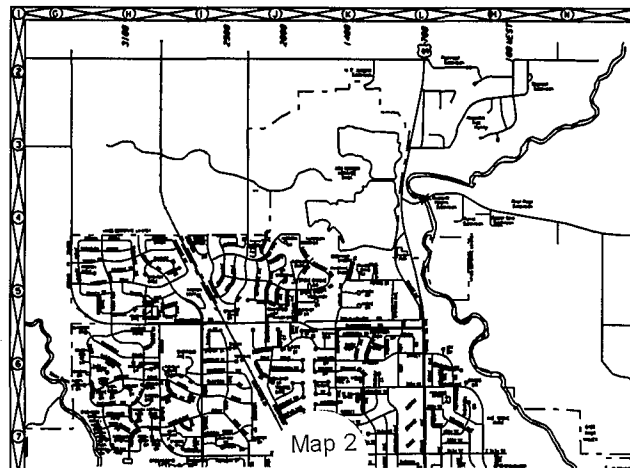
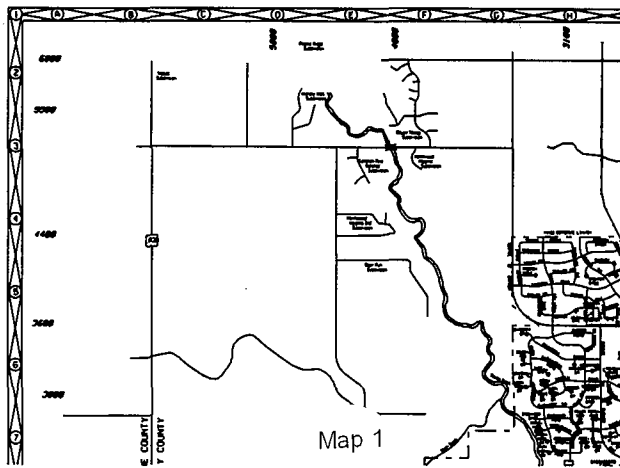
City Maintenance Facility, 2207 Edison Street - East Ames, north of Lincoln Way, just west of Dayton Ave – Map 6, location P-11

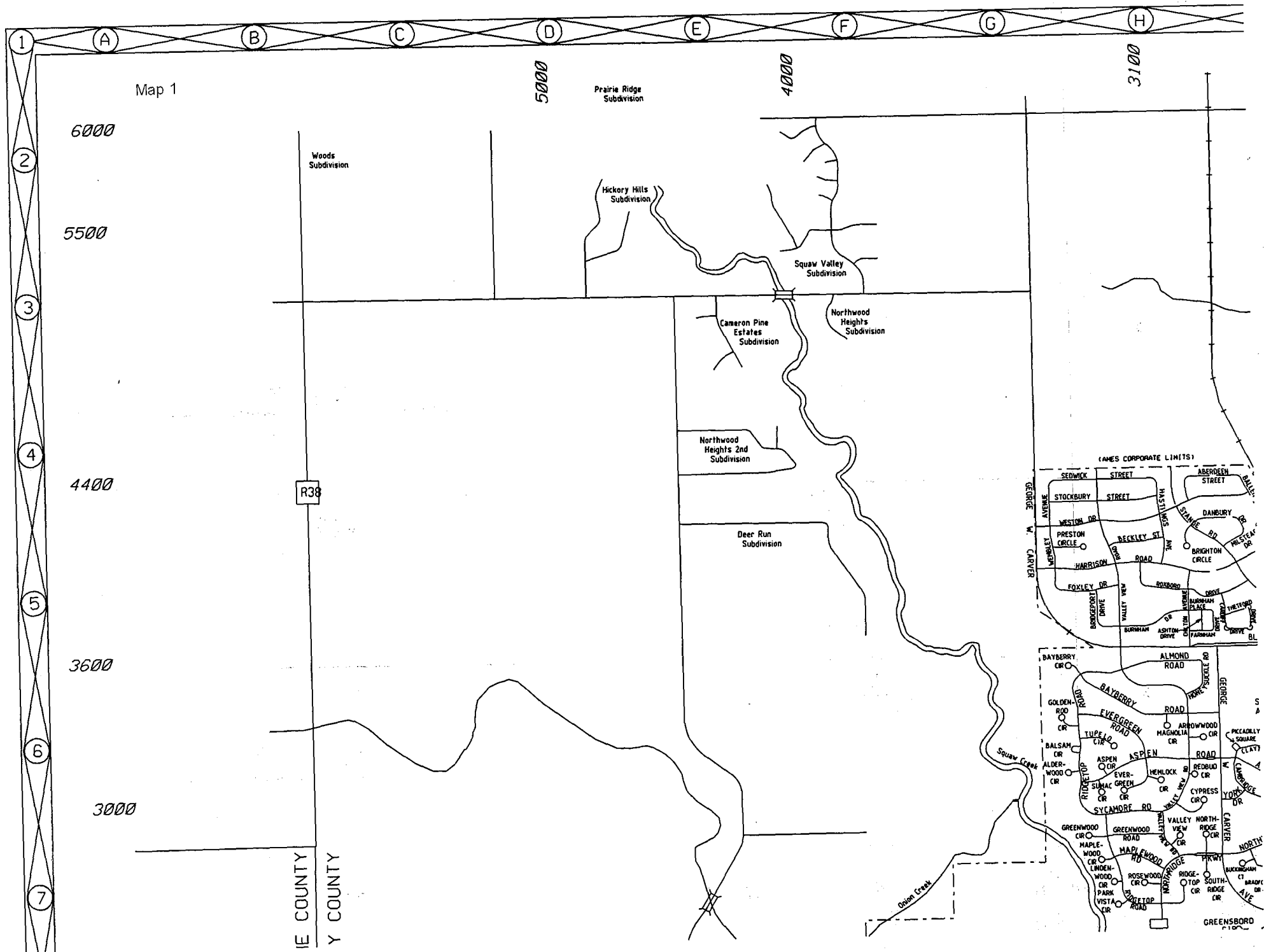
FISCAL YEAR PRIORITY					2	2	2
		TOTAL	2011/12	2012/13	2013/14	2014/15	2015/16
<b>COST:</b>							
Design		30,000			10,000	10,000	10,000
Construction		570,000			185,000	190,000	195,000
	<b>TOTAL</b>	<b>600,000</b>			<b>195,000</b>	<b>200,000</b>	<b>205,000</b>
<b>FINANCING:</b>							
Road Use Tax		150,000			48,750	50,000	51,250
Water Utility Fund		150,000			48,750	50,000	51,250
Sewer Utility Fund		150,000			48,750	50,000	51,250
Fleet Services Fund		150,000			48,750	50,000	51,250
	<b>TOTAL</b>	<b>600,000</b>			<b>195,000</b>	<b>200,000</b>	<b>205,000</b>
<b>PROGRAM - ACTIVITY:</b>			<b>DEPARTMENT:</b>	<b>ACCOUNT NO.</b>			
Internal Services			Fleet Services				



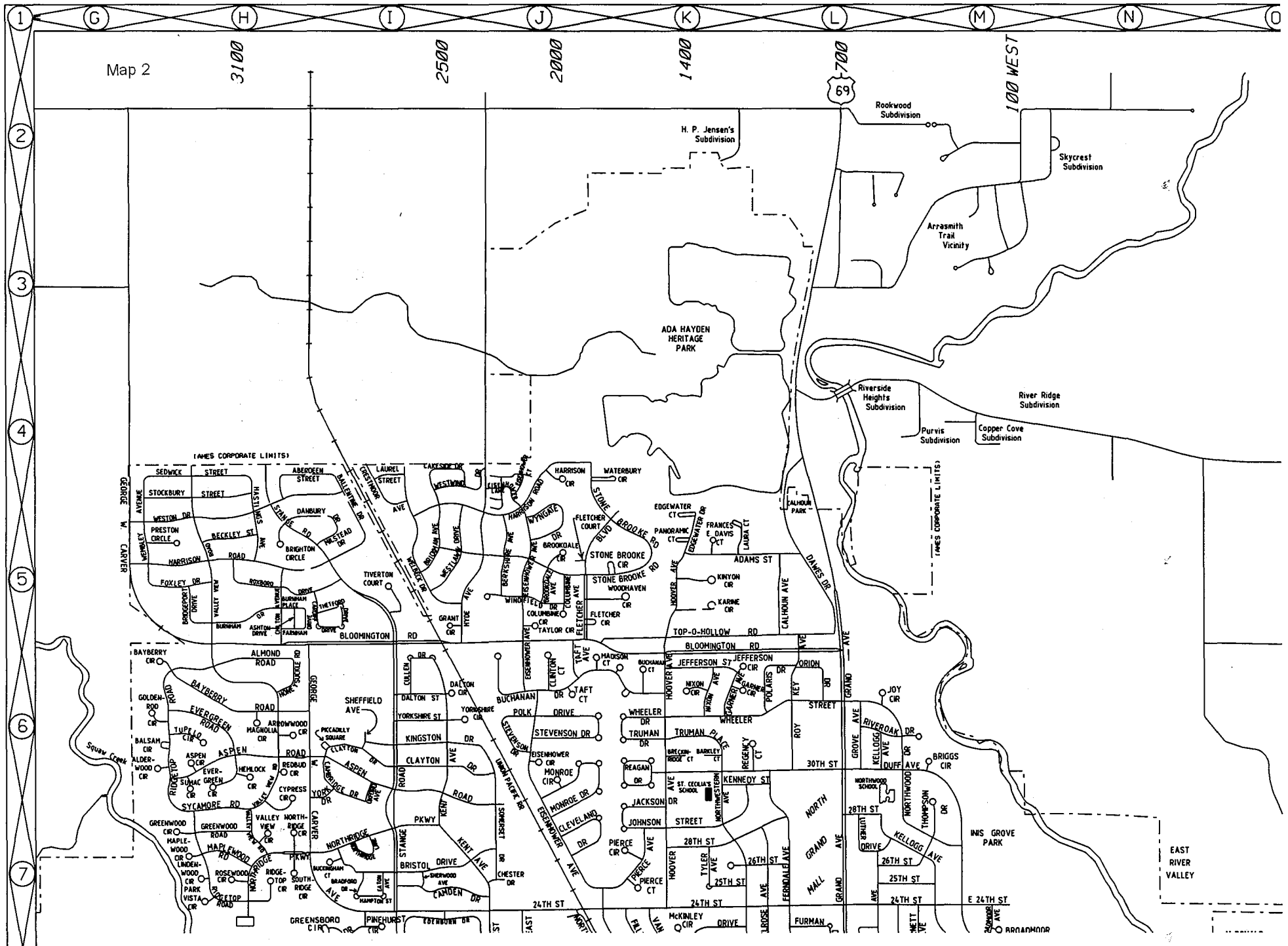
**THE POND**  
**(7-year-olds and younger)**

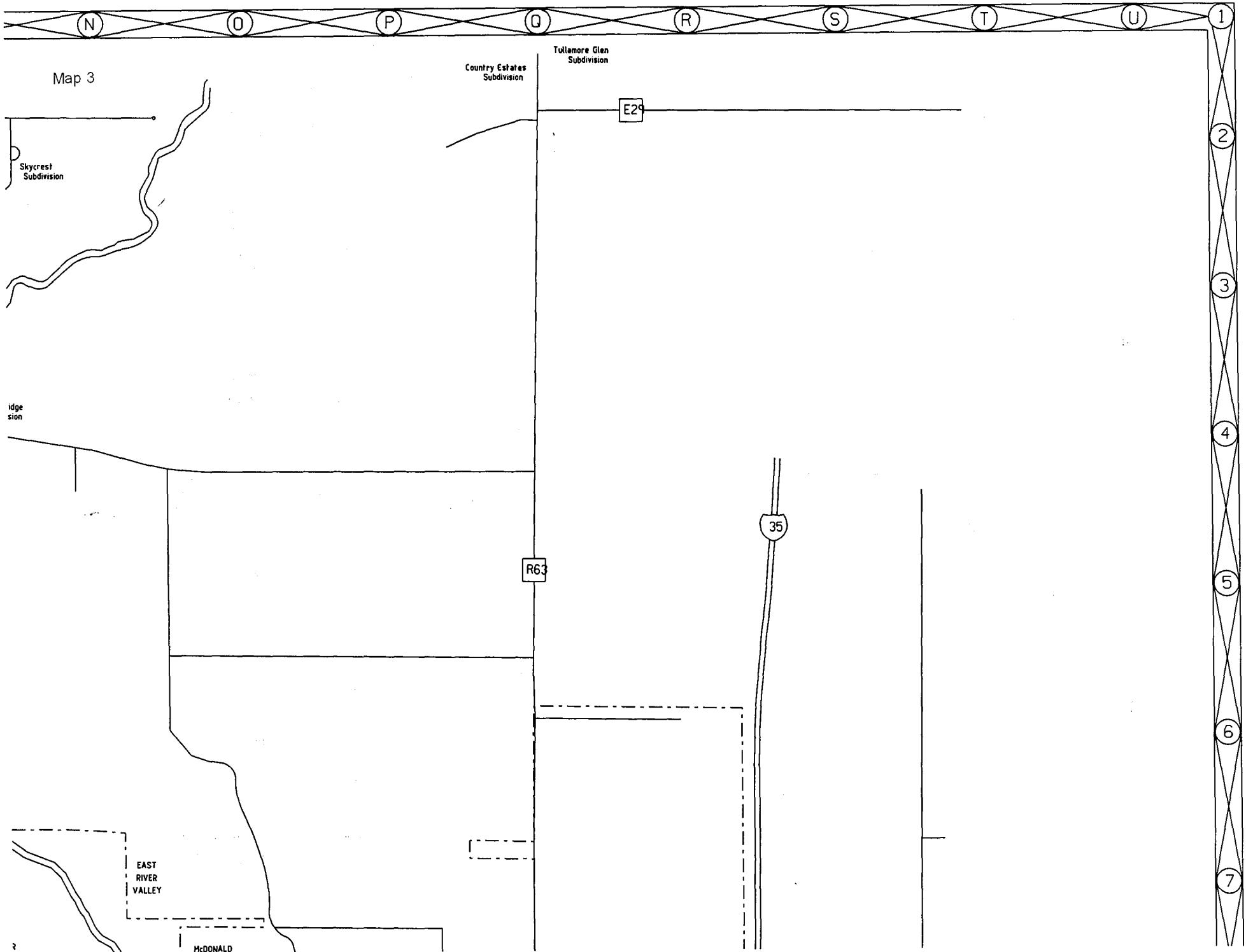
- 87,440 gallons of water approximately 81 degrees
- 5,500 square feet
- Zero depth entry (west end) that increases to 3'6" (east end)
- Play structure in the middle includes slides, water shooting cannons, and a several hundred gallon bucket that dumps every eight minutes.
- Toddler slide, "Billy Beaver", stands 6' tall and is 10' in length.
- Floatables
- Family slide is 12' tall, 8' wide and accommodates two children at a time.
- Bubbler field is comprised of 24 computerized geysers that can be programmed to run multiple patterns.
- Each feature within "The Pond" uses recycled water from the pool's basin to achieve the goal of being environmentally sensitive.





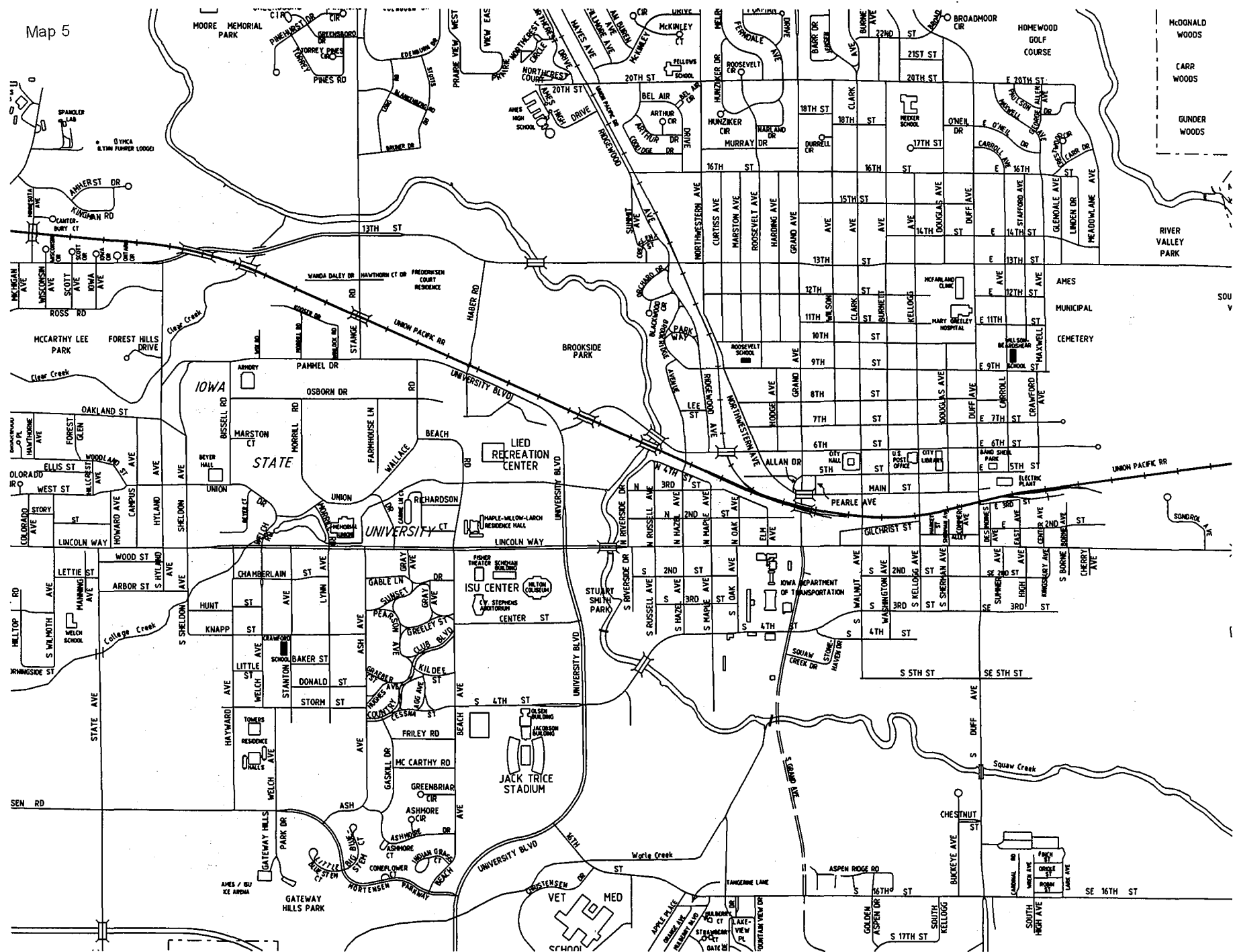


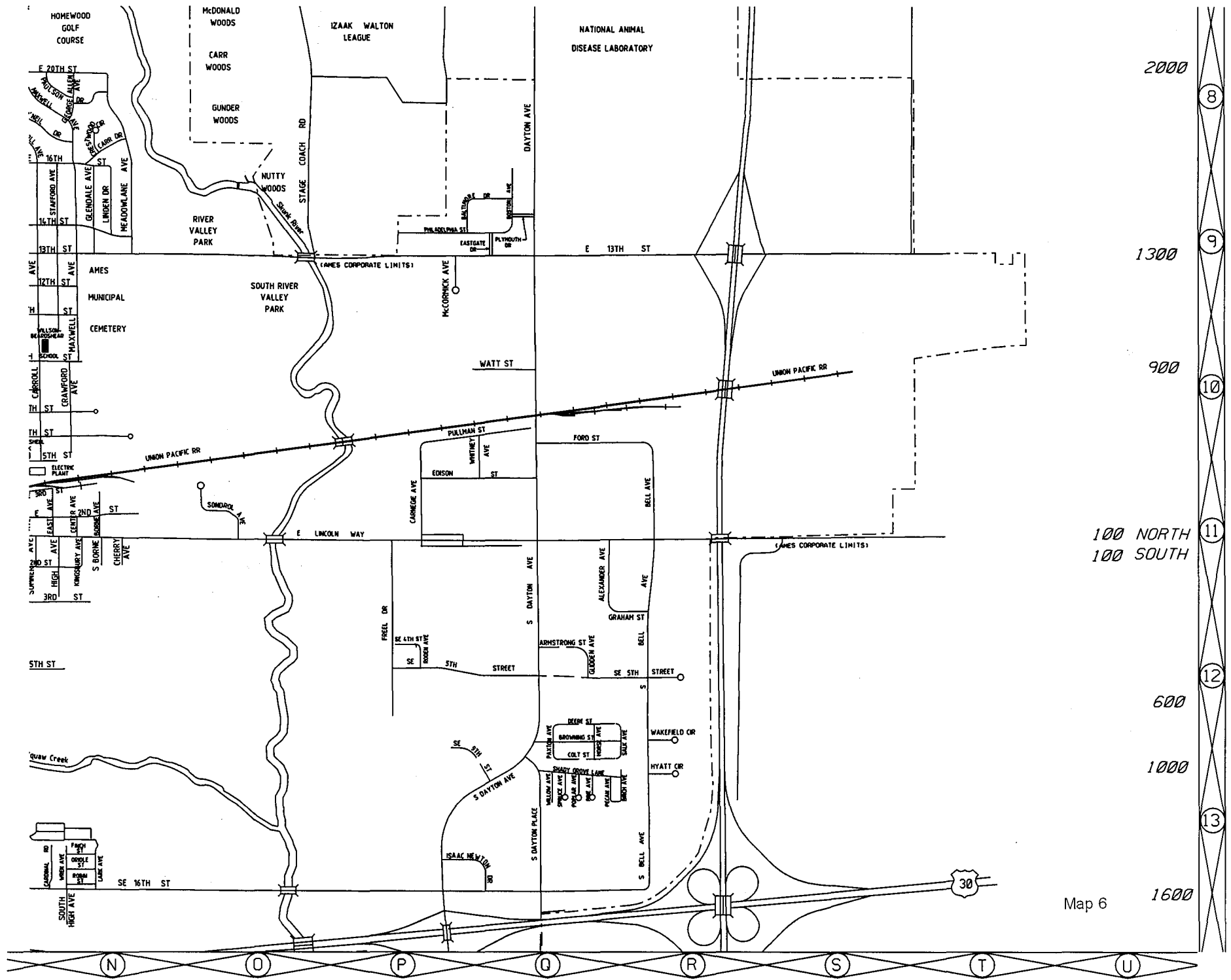




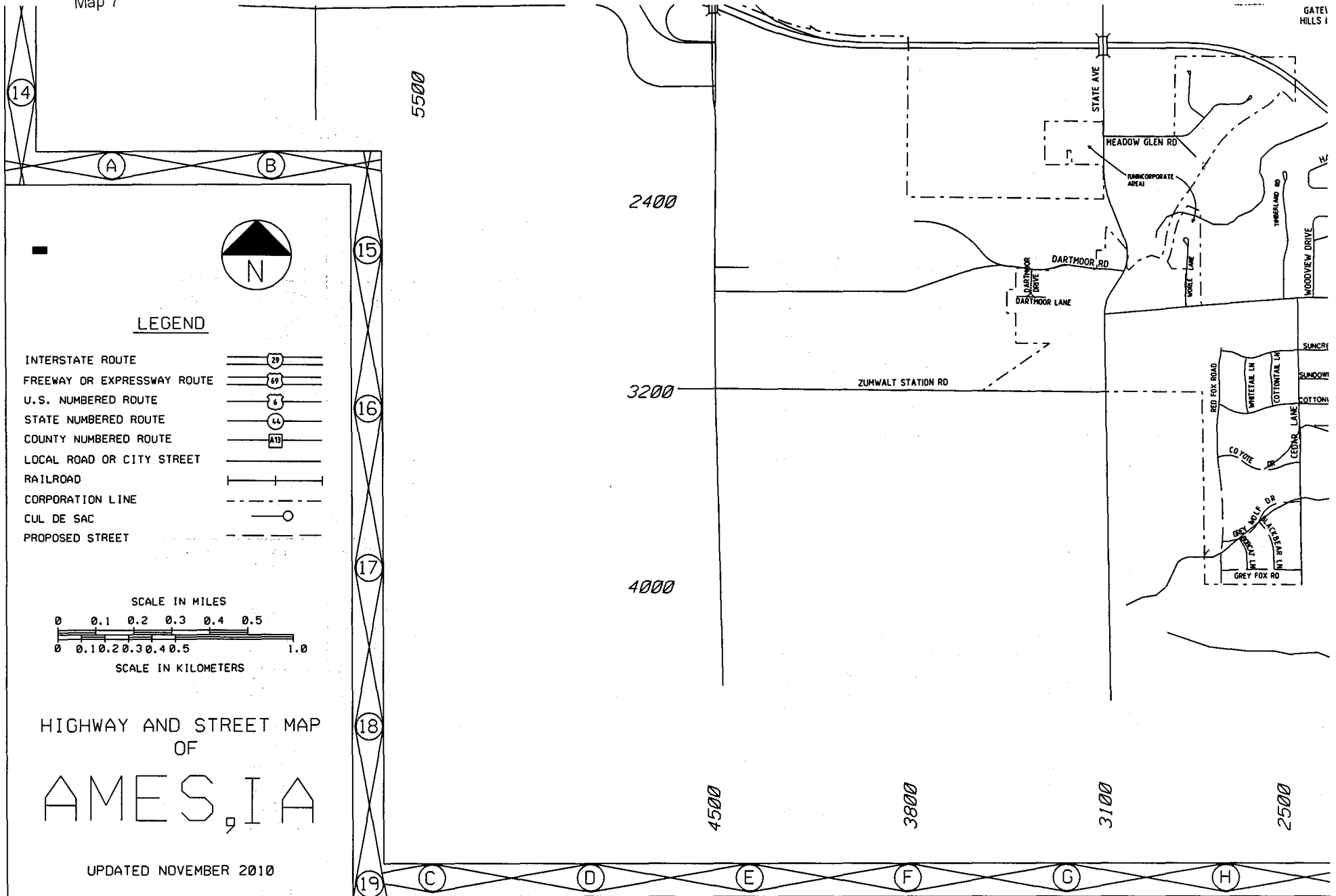


Map 5





Map 7



Map 8

