

**City of Ann Arbor, Michigan  
FY2008-2013 Capital Improvements Plan**

**Municipal Facilities – Solid Waste**

# Solid Waste

*Development and improvement of solid waste and recycling facilities, programs and equipment*

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## **CAPITAL PROGRAM SUMMARY**

The Public Services Area is responsible for the various aspects of collection, handling, and the ultimate disposition of solid waste and recyclable materials by the City. This system includes a fleet of vehicles and carts for solid waste collection and several facilities at the city landfill site at Ellsworth Road, including several buildings, such as the Materials Recovery Facility and the Drop-Off Center, as well as a compost center for yard waste and the former city landfill itself.

The CIP projects in this category will provide improved customer service, reduce operating and maintenance costs, improve working conditions for employees, and provide for necessary environmental operations.

## **NEEDS ASSESSMENT AND EVALUATION**

The selection of capital projects for this program is based on the prioritized needs of Public Services service units; age and utilization of facilities; space needs studies; and, environmental and legal requirements.

## **PROJECT SELECTION CRITERIA**

- Improvement of health and safety conditions
- Reduction of operating and maintenance costs
- Condition of existing facilities
- Space requirements as outlined by individual service units

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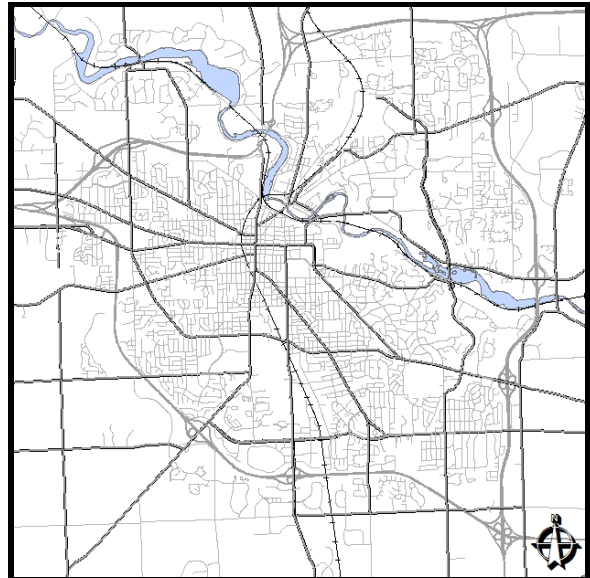
**PROJECT NAME: Commercial Recycling Containers**

**PROJECT ID:** MF-SW-10-05  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** Citywide  
**PRIORITY:** Urgent  
**TOTAL COST:** \$516,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Expand commercial recycling program

**LOCATION MAP:****SCOPE ITEMS:**

Plan going to Council 12/08; Critical to entire strategy

**PROJECT JUSTIFICATION:**

Value indicates the degree to which the project will impact the below items:

-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;  
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- 2 Protects health, safety, lives of citizens
- 3 Meets new, or maintains existing, regulatory compliance
- 3 Provides a net savings in operations and/or maintenance costs
- 3 Enhances social, cultural, recreational or aesthetic opportunities
- 4 Improves customer service, convenience for citizens
- 0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 4 Reduces energy consumption, impacts on the environment

 **0 TOTAL SCORE****BENEFICIAL IMPACTS:**

Reduces solid waste costs. Positive impact to the environment. Enhanced customer service.

**MASTER PLAN REFERENCE:** Ann arbor Solid Waste Plan

**STUDY REFERENCE:****POLICY/OTHER REFERENCE:****SCHEDULE:****Start****End****SCHEDULE JUSTIFICATION:**

Study:		
Design/Acquisition:		
Construction:	7/1/2009	6/30/2013

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6998	PRIOR YEAR FUND BALANCE	\$0	\$204	\$182	\$88	\$42	\$0	\$0	\$0	\$516	
		\$0	\$204	\$182	\$88	\$42	\$0	\$0	\$0	\$516	

**PROJECT NAME: Compost Operations Expansion**

**PROJECT ID:** MF-SW-09-01  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** South  
**PRIORITY:** Important  
**TOTAL COST:** \$837,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Existing Compost Site nearing capacity with current operations

**SCOPE ITEMS:**

Located in Pittsfield Twp, site planning will be required; Site needs engineered as all-weather site, drainage, internal access roads, etc.; No state licensing required; No new buildings anticipated

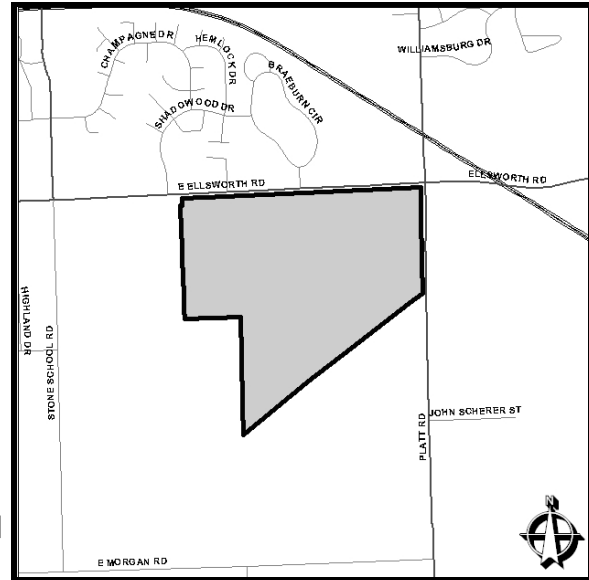
**PROJECT JUSTIFICATION:**

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  - 0 Provides a net savings in operations and/or maintenance costs
  - 0 Enhances social, cultural, recreational or aesthetic opportunities
  - 2 Improves customer service, convenience for citizens
  - 0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
  - 0 Reduces energy consumption, impacts on the environment
- 0 TOTAL SCORE**

**LOCATION MAP:**



**BENEFICIAL IMPACTS:**

Existing site is running close to capacity in current configuration. Evaluation will need to be done to determine whether there might be a way to squeeze more capacity out of existing site before expanding.

**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:  
 POLICY/OTHER REFERENCE:**

**SCHEDULE:**

	Start	End
Study:	7/1/2009	12/30/2009
Design/Acquisition:	1/1/2008	6/30/2010
Construction:	7/1/2011	9/30/2011

**SCHEDULE JUSTIFICATION:**

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6998	PRIOR YEAR FUND BALANCE	\$350	\$5	\$20	\$462	\$0	\$0	\$0	\$0	\$837	
		\$350	\$5	\$20	\$462	\$0	\$0	\$0	\$0	\$837	

**PROJECT NAME: Drop-off Station**

**PROJECT ID:** MF-SW-06-03  
**PROJECT TYPE:** Replacement  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** Pittsfield Twp.  
**PRIORITY:** Important  
**TOTAL COST:** \$4,869,870  
**YEARS IN CIP:** 2

**IDENTIFIED NEED:**

Existing Drop-Off Station is reaching end of useful life

**SCOPE ITEMS:**

Include interior on-site access roads; Include demo of existing bldg; Need to negotiate/secure funding from user agencies; Include Platt Rd decel/accel lane - WCRC approval req'd; Needs Pittsfield Twp. site plan approval; May need MDEQ approval

**PROJECT JUSTIFICATION:**

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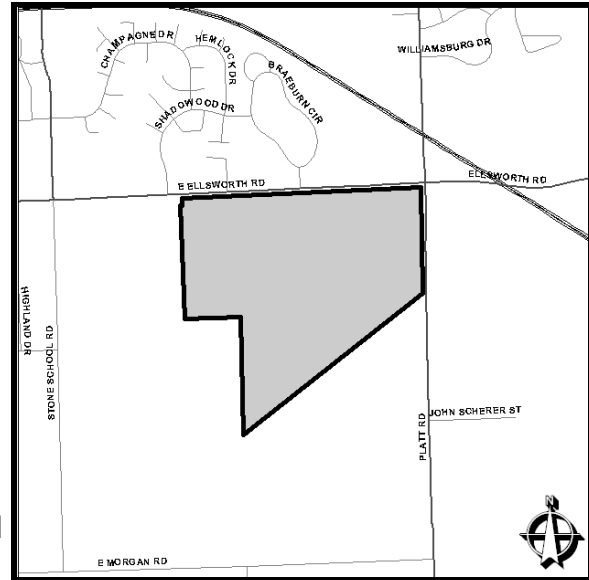
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- 0 Provides a net savings in operations and/or maintenance costs
- 1 Enhances social, cultural, recreational or aesthetic opportunities
- 4 Improves customer service, convenience for citizens
- 4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 1 Reduces energy consumption, impacts on the environment

**13 TOTAL SCORE**

**BENEFICIAL IMPACTS:**

Expands capacity of facility, removes aging, existing site from Ellsworth Road corridor.

**LOCATION MAP:**



**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:  
 POLICY/OTHER REFERENCE:**

**SCHEDULE:**

	Start	End
Study:		
Design/Acquisition:	10/1/2008	2/1/2009
Construction:	7/1/2012	6/30/2013

**SCHEDULE JUSTIFICATION:**

Land: \$344,870. Design: \$30,000

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6640	CONTRIBUTED CAPITAL-OTHER FUN	\$0	\$0	\$0	\$0	\$2,108	\$0	\$0	\$0	\$2,108	
6998	PRIOR YEAR FUND BALANCE	\$375	\$30	\$0	\$0	\$2,108	\$250	\$0	\$0	\$2,762	
		\$375	\$30	\$0	\$0	\$4,215	\$250	\$0	\$0	\$4,870	

**PROJECT NAME: Equipment and Container Storage Building**

**PROJECT ID:** MF-SW-10-04  
**PROJECT TYPE:** Replacement  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** South  
**PRIORITY:** Desirable  
**TOTAL COST:** \$200,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Storage building for refuse, recycling, and compost carts

**SCOPE ITEMS:**

Cart storage issue (currently at 721 which will be demo'd in future); Current equipment storage building was supposed to be demolished and is far from operations;

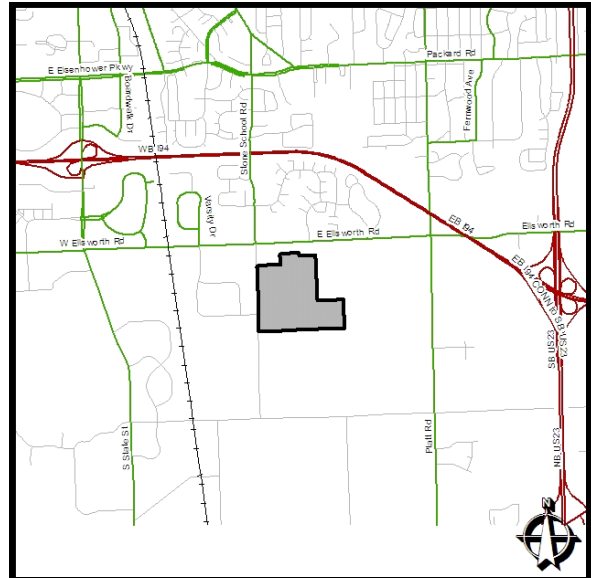
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- 1 Enhances social, cultural, recreational or aesthetic opportunities
- 2 Improves customer service, convenience for citizens
- 2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 0 Reduces energy consumption, impacts on the environment
- 0 **TOTAL SCORE**

**LOCATION MAP:**



**BENEFICIAL IMPACTS:**

Existing storage building (721 N. Main) will be demolished. Carts need to be stored in covered location.

**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:  
 POLICY/OTHER REFERENCE:**

**SCHEDULE:**

	Start	End
Study:		
Design/Acquisition:		
Construction:	7/1/2011	6/30/2012

**SCHEDULE JUSTIFICATION:**

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6998	PRIOR YEAR FUND BALANCE	\$0	\$0	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$200
		\$0	\$0	\$0	\$200	\$0	\$0	\$0	\$0	\$0	\$200

**PROJECT NAME: Landfill Groundwater Management**

**PROJECT ID:** MF-SW-06-04  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** Pittsfield Twp.  
**PRIORITY:** Urgent  
**TOTAL COST:** \$1,181,000  
**YEARS IN CIP:** 2

**IDENTIFIED NEED:**

Current landfill groundwater being discharged to sanitary for treatment - - costly and takes system capacity

**SCOPE ITEMS:**

Groundwater model results are key; Landfill Groundwater Pretreatment; If Swift Run discharge is examined MDEQ and WCDC involvement will be required

**PROJECT JUSTIFICATION:**

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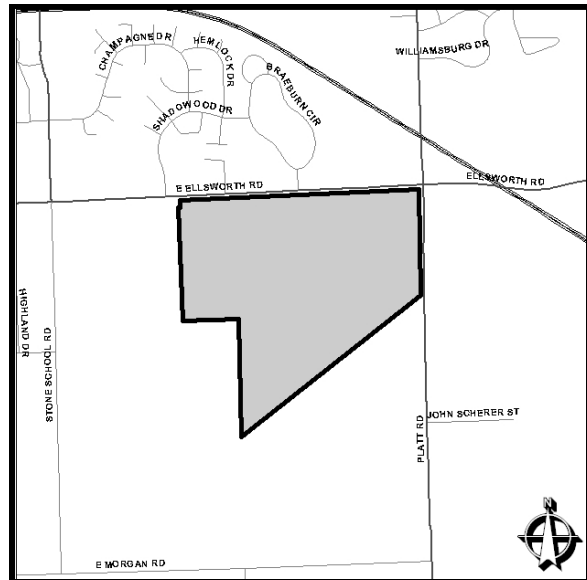
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- 2 Reduces energy consumption, impacts on the environment

**4 TOTAL SCORE**

**BENEFICIAL IMPACTS:**

Eliminate sanitary sewer discharge from landfill groundwater.

**LOCATION MAP:**



**MASTER PLAN REFERENCE:** Solid Waste Plan

**STUDY REFERENCE:**

**POLICY/OTHER REFERENCE:** Staff recommendation, based on emerging technology

**SCHEDULE:**

	Start	End	<b>SCHEDULE JUSTIFICATION:</b>							
Study:	7/1/2005	12/1/2005								
Design/Acquisition:	11/1/2005	4/1/2007								
Construction:	1/1/2009	6/30/2010								

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6998	PRIOR YEAR FUND BALANCE	\$181	\$730	\$270	\$0	\$0	\$0	\$0	\$0	\$0	\$1,181
		\$181	\$730	\$270	\$0	\$0	\$0	\$0	\$0	\$0	\$1,181

**PROJECT NAME: Methane Gas Recovery Project**

**PROJECT ID:** MF-SW-10-03  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** South  
**PRIORITY:** Desirable  
**TOTAL COST:** \$150,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Make productive use of landfill methane after existing operator (LES) pulls out

**SCOPE ITEMS:**

Current operator still interested in maintaining operation; Will be a declining resource; May have some private utility impacts

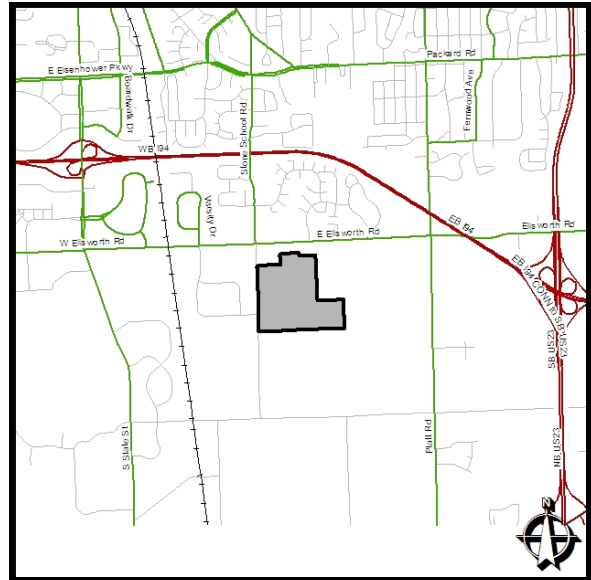
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- 4 Reduces energy consumption, impacts on the environment
- 0 **TOTAL SCORE**

**LOCATION MAP:**



**BENEFICIAL IMPACTS:**

Helps meet alternative energy goals. Reduces energy costs. Reduces global warming.

**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:  
 POLICY/OTHER REFERENCE:**

**SCHEDULE:**

	Start	End
Study:		
Design/Acquisition:		
Construction:	7/1/2010	6/30/2011

**SCHEDULE JUSTIFICATION:**

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
27X2	OPERATING TRANSFER FROM 0002	\$0	\$0	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$150
		\$0	\$0	\$150	\$0	\$0	\$0	\$0	\$0	\$0	\$150

**PROJECT NAME: Single Stream Recycling**

**PROJECT ID:** MF-SW-10-01  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** Citywide  
**PRIORITY:** Important  
**TOTAL COST:** \$5,530,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Need to increase recycling

**SCOPE ITEMS:**

Need feasibility study, hire consultant; MRF upgrades will be needed; New carts will be needed for homes to convert from totes; Potential \$ partnering with MRF operator; If MRF facility expands, Public Project and County (and perhaps State) review req'd;

**PROJECT JUSTIFICATION:**

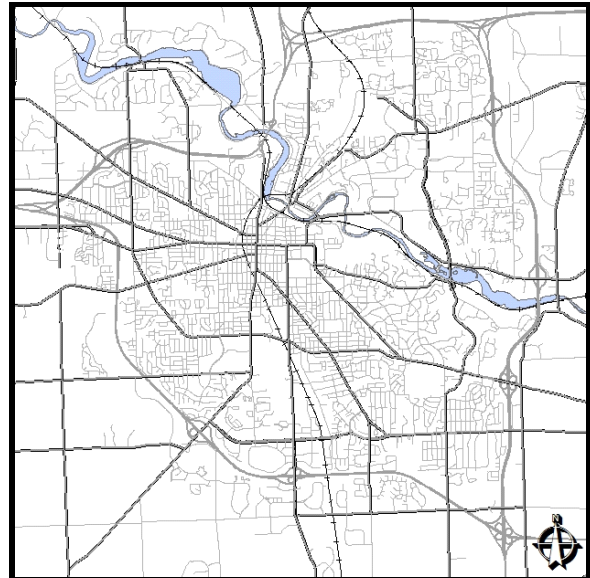
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- Improves customer service, convenience for citizens
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- Reduces energy consumption, impacts on the environment

 **TOTAL SCORE****BENEFICIAL IMPACTS:**

Increases collection efficiencies and increase public convenience

**LOCATION MAP:****MASTER PLAN REFERENCE:****STUDY REFERENCE:****POLICY/OTHER REFERENCE:****SCHEDULE:**

	Start	End
Study:	7/1/2009	12/31/2009
Design/Acquisition:		
Construction:	1/1/2010	6/30/2011

**SCHEDULE JUSTIFICATION:**

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
6998	PRIOR YEAR FUND BALANCE	\$0	\$2,030	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$5,530
		\$0	\$2,030	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$5,530

**PROJECT NAME: Wind Energy Installation (New Drop-off Station)**

**PROJECT ID:** MF-SW-10-02  
**PROJECT TYPE:** New Construction  
**SUBMITTED BY:** PUBLIC SERVICES  
 SYSTEM PLANNING

**PLANNING AREA:** South  
**PRIORITY:** Desirable  
**TOTAL COST:** \$260,000  
**YEARS IN CIP:**

**IDENTIFIED NEED:**

Energy Challenge Goal of 30% Renewable Energy for Municipal Operations

**SCOPE ITEMS:**

Coordinate with Airport, FAA review; Private utility impacts (interconnection and net metering w/DTE); Possible use for recharging hybrid fleet; Pittsfield Twp. site plan approval likely required; Working towards 2010 Energy Goal; 3rd party capital?

**PROJECT JUSTIFICATION:**

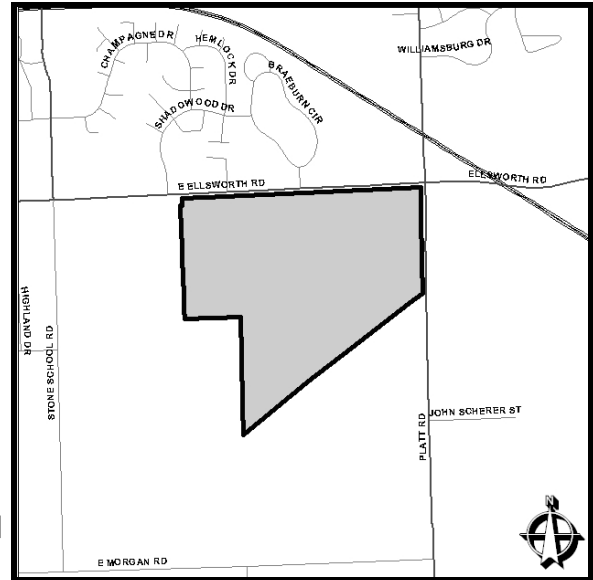
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- 0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 4 Reduces energy consumption, impacts on the environment

0 **TOTAL SCORE**

**LOCATION MAP:**



**BENEFICIAL IMPACTS:**

Reduce greenhouse gas emissions, reduce electricity costs at city facility, and demonstrate leadership on renewable energy

**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:**

**POLICY/OTHER REFERENCE:**

**SCHEDULE:**

	Start	End
Study:		
Design/Acquisition:		
Construction:		

**SCHEDULE JUSTIFICATION:**

Schedule depends on Drop-off Station planning, design, and construction schedule.

Rev	Revenue Source Name	Prior Years	Funding (in thousands) *							Beyond FY15	Total
			FY10	FY11	FY12	FY13	FY14	FY15			
27X2	OPERATING TRANSFER FROM 0002	\$0	\$0	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$260
		\$0	\$0	\$260	\$0	\$0	\$0	\$0	\$0	\$0	\$260