

BEMIDJI CITY COUNCIL

Work Session Agenda

Monday, April 14, 2014

**City Hall
CHAMBERS
5:30 P.M.**



1. CALL TO ORDER / ROLL CALL

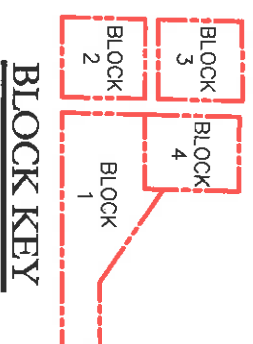
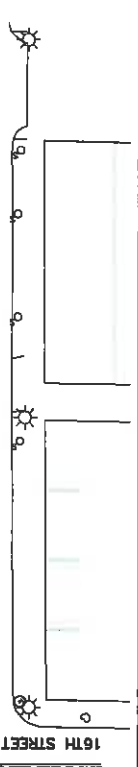
2. OLD HIGH SCHOOL DEVELOPMENT PROPOSAL

3. REVIEW ENERGY AUDIT - HONEYWELL

4. OTHER ITEMS FOR DISCUSSION ONLY – CITY MANAGER

5. ADJOURNMENT

NOTE: All cellular telephones, pagers and BlackBerry devices to be switched to a non-audible function during Council and Committee meetings.



819 Paul Bunyan Dr S • Bemidji, MN 56601
 Tel (218) 751-0109 • Fax (218) 751-0742

UNIVERSITY HEIGHTS

PETERSON DEVELOPERS, LLC
 BEMIDJI, MN
PRELIMINARY MASTER PLANNING

BLOCK	TOTAL AREA (SF)	GREEN SPACE (SF)	PERCENT
1	218,300	39,400	18%
2	94,250	44,100	47%
3	94,850	39,900	34%
4	100,600	30,200	30%
	508,000	153,600	30.2%

PHASE	COMM. SPACE (SF)	STUDENT HOUSING (BEDS)
1	27,200	138
2	21,000	144
3	13,200	224
		36
		542

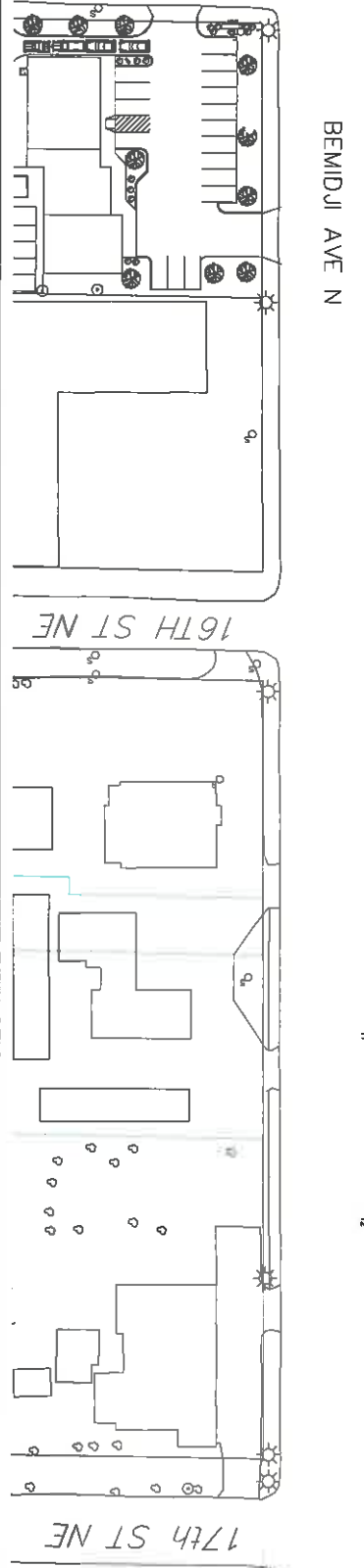
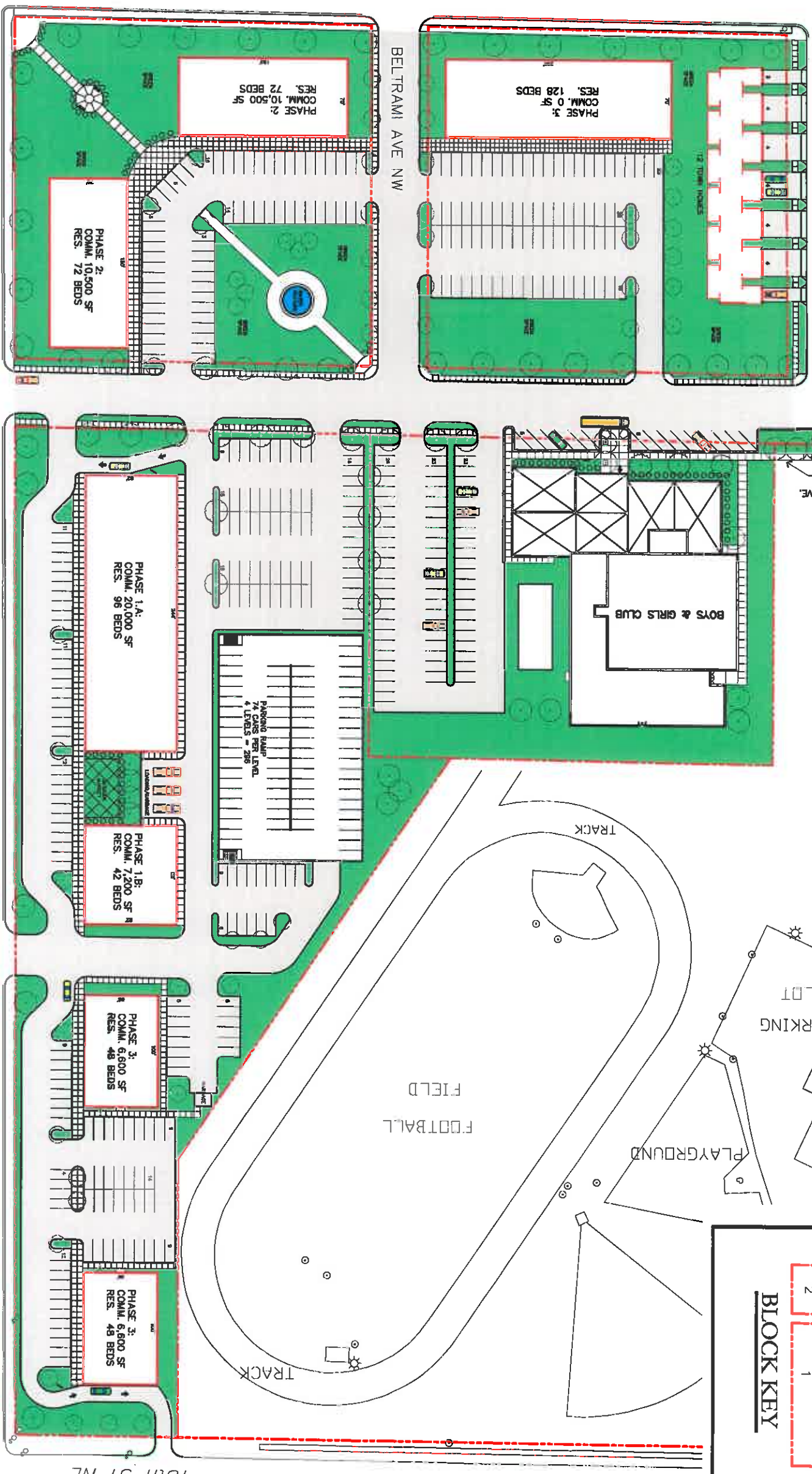
PARKING REQUIREMENTS:
 RETAIL SPACE: 1 SP./250 SF
 61,400/250=246 SPACES
 STUDENT HOUSING: 75% OF BEDS
 542 BEDS x 0.75 = 407 SPACES
 TOTAL PARKING NEEDED: 653
 TOTAL PARKING PROVIDED: 623*
 * DOES NOT INCLUDE BOYS & GIRLS CLUB 85 SPACES.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Architect under the laws of the State of Minnesota.

Michael J. Johnston
 40053
 Reg. No.

©2014 MJ ARCHITECTURAL STUDIOS, INC.
 Project: 2014-14 Date: 4-9-14
 Drawn By: MMJ Rev.
 Check By: MMJ

MASTER PLAN
 SCALE: 1" = 100'
 SHEET: 1 OF 1
L1.1





**Council Work Session
City of Bemidji**

Honeywell

By: Madonna Rykken
Gavin Benson
April 14, 2014



Honeywell

Honeywell.com

Today's Discussion

- Background
- Project Overviews
- Financial Summary
- Timeline
- Recommendation



2

Honeywell Proprietary

Honeywell

Honeywell.com

Life Cycle of Facility Infrastructure



3

Honeywell Proprietary

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Honeywell.com

Your Challenges- what we heard

- Economic Pressures
- High energy costs
- Street lighting costs
- Limited funds and time
- Funding existing infrastructure
- Utilizing technology more effectively
- Building upgrades
- Operational costs
- Providing funds when needed
- Staffing needs
- Training of employees
- Unfunded mandates
- Space constraints



Trying to do more with less...

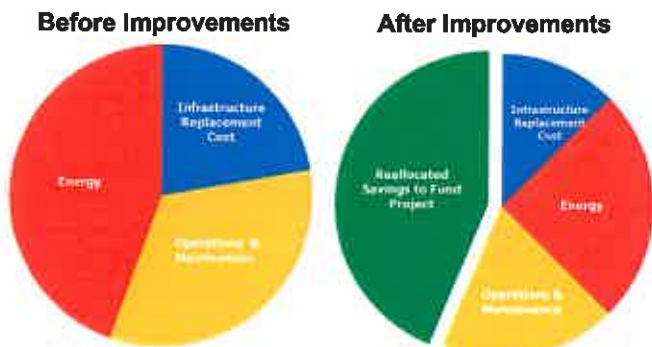
4

Honeywell Proprietary

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Savings Fund The Project



5

Turning Expenditures into Working Capital

Honeywell Proprietary

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Comprehensive Benefits

- Reduce energy usage
- Extend equipment life
- Reduce maintenance costs and time
- Maximize system performance
- Address deferred maintenance issues
- Reduce replacement costs
- Provide better comfort
- Proactive and Planned Approach
- Create local jobs
- Standardize inventory
- Redirect capital costs for mission critical projects
- Guaranteed results



6

Honeywell Proprietary

City of Bemidji



Option 1

- Cash flow positive
- No add'l capital cost avoidance
- Shorter payback projects
 - Lighting
 - Controls
 - Building Envelope
 - Library Boiler
 - Training
 - Measurement & Verification



Controls/ Energy Management Systems

- Install vending machine controls
- Optimize existing digital set points
- Evaluate existing computer strategies for control & efficiency
- Apply day/night strategies
- Allow remote control and monitoring



- Interface new & existing equipment with building management system, if applicable
- Re-commission existing controls and train personnel

Lighting Systems

- Retrofit or Replace remaining old technology and outdated ballasts
- Upgrade exterior lights
- City-wide street light upgrade to LED
- Replace old fixtures and/or lens where applicable
- Install to proper lighting levels
- Install occupancy sensors



Building Systems

- Install new Boilers at Library
 - Dual boilers for redundancy & efficiency
 - Replace leaky perimeter piping
- Building Envelope
 - Seal areas of infiltration
 - Insulate & weather-strip
 - Seal doors, windows & roofs



Option 2- Add Priority Projects



- City Hall
 - Complete building envelope projects
 - Roof Access Hatch
- Library – Upgrade AHU's 1 & 2
 - Higher efficiency units
 - New VAV boxes and variable speed drives
 - Replace AC units
 - New controls system
- Public Works- Address AHU 1
 - Humidity issues in summer and winter
 - Copier issues
 - Building windows frosting over
 - Adding hot gas bypass

Option 3: Add Ice Arena projects

- Replace Ice Plant
 - Obsolete refrigerant
 - Increase efficiency
 - Reduce maintenance
- Replace the existing Arena dehumidification unit
- Install controls
- Address building envelope issues



Financial Summary: Option 1

Annual Savings

• Energy Savings	\$102,100
• Operational Savings	\$ <u>17,300</u>
Total Annual Savings	\$119,400
CIP*	\$175,000

*Current budget includes dollars for WWTP lighting & Library Boiler. These items will be addressed within this program.

Project

• 15 year term	\$1,971,802
• Estimated Rebates	\$123,838
• Estimated Interest	3%

Almost \$1.8M paid for with energy & operational savings!!

Financial Summary: Option 2

Annual Savings

• Energy Savings	\$105,282
• Operational Savings	\$ 21,000
• Capital Cost Avoidance	\$ <u>30,000</u>
Total Annual Savings	\$156,282
CIP*	\$230,000

*Current budget includes dollars for WWTP lighting, Library Boiler and Library AHU. These items will be addressed within this program.

Project

• 15 year term	\$2,445,750
• Estimated Rebates	\$124,998
• Estimated Interest	3%

Financial Summary: Option 3

Annual Savings

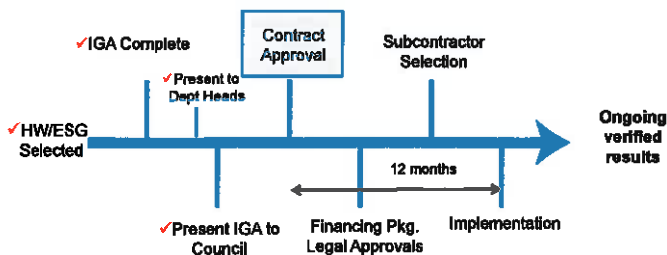
• Energy Savings	\$107,717
• Operational Savings	\$ 58,000
• Capital Cost Avoidance	\$ <u>79,525</u>
Total Annual Savings	\$245,242
CIP*	\$300,000

*Current budget includes dollars for WWTP lighting, Library Boiler & AHU, and Ice Arena Dehumidification. These items will be addressed within this program.

Project

• 15 year term	\$3,749,363
• Estimated Rebates	\$125,158
• Estimated Interest	3%

The Path To Move Forward



Recommendation

Thank You!

Madonna Rykken | Honeywell Building Solutions

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Honeywell

www.honeywell.com



**City of Bemidji
Energy Conservation Measures
By Option**

Option 1:

- **City-wide Lighting – interior & exterior**
 - Street lights
 - Chamber of Commerce
 - City Hall
 - Library
 - Liquor Stores
 - Public Works
 - Sanford Center
 - WWTP
- **City-wide Controls – Energy management & DDC**
 - Vending machines
 - City Hall
 - History Center
 - Library
 - Public Works
 - Sanford Center
- **Library Boiler**
- **Building Envelope**
 - Public Works
 - Sanford Center
- **Measurement & Verification**
- **Training**

Option 2:

- **Option 1 projects**
- **City Hall**
 - Building Envelope
 - Roof Access Hatch
- **Library Air Handling Units 1 & 2**
- **Public Works – Air Handling Unit 1**

Option 3:

- **Option 2 Projects**
- **Ice Arena Projects**

City of Bemidji
Energy Conservation Measures
Options 1-3

Facility	Option 3	Option 2	Option 1	FIM Code	Facility Improvement Measures	Avg Service Life (Yr)	Annual Savings			Net Cost	Simple Payback	
							Utility	O&M	Total Savings			
City Wide	X	X	X	C	Energy Management System and Controls	15	\$653	\$0	\$653	\$7,632	11.7	
				C.0	- Vending Machine Controls							
				L	Lighting System Improvements							
	X	X	X	L.0	- Street Lighting Retrofit	20	\$5,190	\$11,960	\$65,150	\$70,538	\$1,164,522	17.9
				TRS	Technical Resource Services							
	X	X	X	TRS.1	-M&V Baseline Development	NA	\$0	\$0	\$0	\$0	\$9,916	
	X	X	X	TRS.2	- Annual M&V Services	NA	\$0	\$0	\$0	\$0	\$7,488	
				L	Lighting System Improvements							
	X	X	X	L.1	- Lighting Retrofit	15	\$491	\$0	\$491	\$327	\$7,305	14.9
				C	Energy Management System and Controls							
Chamber of Commerce	X	X	X	C.1	- Energy Management and DDC	15	\$2,370	\$270	\$2,640	\$0	\$20,618	7.8
				L	Lighting System Improvements							
	X	X	X	L.1	- Lighting Retrofit	15	\$1,867	\$70	\$1,937	\$1,624	\$24,135	12.5
				S	Structural Improvements							
	X	X	X	S.1	- Building Envelope/Air Leakage	15	\$209	\$0	\$209	\$0	\$79,934	381.7
	X	X	X	S.2	- Roof Access Hatch Improvements	15	\$0	\$0	\$0	\$0	\$3,816	
				C	Energy Management System and Controls							
	X	X	X	C.1	- Energy Management and DDC	15	\$1,514	\$0	\$1,514	\$0	\$21,913	14.5
				C	Energy Management System and Controls							
	X			C.1	- Energy Management and DDC	15	\$258	\$0	\$258	\$0	\$2,044	7.9
Ice Arena				M	Mechanical System Improvements							
	X			M.1	- Dehumidifier Replacement	20	-\$2,172	\$0	-\$2,172	\$160	\$123,132	
	X			M.2	- Ice Plant Replacement	20	\$738	\$37,000	\$37,738	\$0	\$1,136,659	30.1
				S	Structural Improvements							
	X			S.1	- Building Envelope/Air Leakage	15	\$1,280	\$0	\$1,280	\$0	\$41,568	32.5
				C	Energy Management System and Controls							
	X	X	X	C.1	- Energy Management and DDC	15	\$1,518	\$0	\$1,518	\$0	\$21,398	14.1
				L	Lighting System Improvements							
	X	X	X	L.1	- Lighting Retrofit	15	\$1,704	\$500	\$2,204	\$1,462	\$19,118	8.7
				M	Mechanical System Improvements							
Library	X	X	X	M.1	- Boiler Replacement	20	\$1,139	\$2,300	\$3,639	\$3,750	\$158,435	43.5
	X	X	X	M.2	- AHU-1,2 Replacement	20	\$2,498	\$3,650	\$6,148	\$1,160	\$327,299	53.2
				S	Structural Improvements							
	X	X	X	S.1	- Building Envelope/Air Leakage	15	\$447	\$0	\$447	\$0	\$10,222	22.9

City of Bemidji
Energy Conservation Measures
Options 1-3

Facility	Option 3	Option 2	Option 1	FIM Code	Facility Improvement Measures	Avg Service Life (Yr)	Annual Savings			Net Cost	Simple Payback	
							Utility	O&M	Total Savings			
Liquor Store (Take Key)				L	Lighting System Improvements	15	\$564	\$180	\$744	\$8,071	10.8	
	X	X	X	L.1	- Lighting Retrofit				\$515			
Liquor Store (Discount)				L	Lighting System Improvements	15	\$1,144	\$80	\$1,224	\$7,706	6.3	
	X	X	X	L.1	- Lighting Retrofit				\$199			
Public Works Facility				C	Energy Management System and Controls	15	\$3,382	\$100	\$3,982	\$20,444	5.1	
	X	X	X	C.1	- Energy Management and DDC				\$0			
				L	Lighting System Improvements	15	\$3,491	\$670	\$4,161	\$37,054	8.9	
	X	X	X	L.1	- Lighting Retrofit				\$10,648			
	X	X	X	M	Mechanical System Improvements	15	\$123	\$50	\$273	\$0	\$61,719	225.9
Sanford Center				M.1	- AHU-1 Cooling Improvements	15	\$123	\$50	\$273	\$0	\$61,719	225.9
	X	X	X	S	Structural Improvements	15	\$194	\$0	\$294	\$0	\$4,225	14.4
	X	X	X	S.1	- Building Envelope/Air Leakage	15	\$194	\$0	\$294	\$0	\$4,225	14.4
				C	Energy Management System and Controls	15	\$12,412	\$0	\$12,412	\$0	\$28,621	2.3
	X	X	X	C.1	- Energy Management and DDC	15	\$12,412	\$0	\$12,412	\$0	\$28,621	2.3
Waste Water Treatment Plant				L	Lighting System Improvements	15	\$5,470	\$0	\$5,470	\$25,947	15.2	
	X	X	X	L.1	- Lighting Retrofit				\$25,947			
				S	Structural Improvements	15	\$303	\$0	\$303	\$0	\$4,089	13.5
	X	X	X	S.1	- Building Envelope/Air Leakage	15	\$303	\$0	\$303	\$0	\$4,089	13.5
	X	X	X	L	Lighting System Improvements	15	\$3,294	\$1,010	\$4,304	\$5,446	\$129,481	30.1
Project Development				PD	Project Development					\$55,808		
	X			PD	Project Development					\$55,808		
	X	X		PD	Project Development					\$55,808		
	X	X	X	PD	Project Development					\$55,808		
Financial Impact					Project Summary							
	X				Option 3		\$101,153	\$58,000	\$159,153	\$125,158	\$3,624,205	22.8
	X	X			Option 2		\$98,877	\$21,000	\$119,877	\$124,998	\$2,320,752	19.4
		X			Option 1		\$95,947	\$17,300	\$113,247	\$123,838	\$1,847,964	16.3
					Total Project Investment							
											\$3,749,363	
											\$2,445,750	
											\$1,971,802	

City of Bemidji

Option 1- Self funded 15 Year Term

Preliminary Cashflow Analysis

CAPITAL INVESTMENT	\$ 1,971,862
Rebates	(123,838)
Cap Buy-Down (CIP 2013 & 2014)	(100,000)
NET INVESTMENT FINANCED	1,747,964

	2015	2016	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	TOTALS	
PROJECT FUNDING																			
Utility Savings - MRV	\$ -	\$ 95,947	\$ 98,835	\$ 101,810	\$ 104,874	\$ 108,031	\$ 111,283	\$ 114,632	\$ 118,083	\$ 121,637	\$ 125,298	\$ 129,070	\$ 132,955	\$ 136,957	\$ 141,079	\$ 145,326	\$ 149,704	\$ 1,785,817	
Utility Savings - Engineering Cost	\$ -	\$ 6,153	\$ 6,339	\$ 6,529	\$ 6,726	\$ 6,928	\$ 7,137	\$ 7,352	\$ 7,573	\$ 7,801	\$ 8,036	\$ 8,278	\$ 8,527	\$ 8,783	\$ 9,048	\$ 9,320	\$ 9,601	\$ 114,529	
Operational Savings	\$ -	\$ 17,300	\$ 17,819	\$ 18,355	\$ 18,908	\$ 19,477	\$ 20,063	\$ 20,667	\$ 21,289	\$ 21,930	\$ 22,590	\$ 23,270	\$ 23,971	\$ 24,692	\$ 25,435	\$ 26,201	\$ 27,000	\$ 321,968	
Planned Capital (CIP)	\$ -	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOTAL PROJECT FUNDING	\$ -	\$ 119,400	\$ 197,992	\$ 126,695	\$ 130,508	\$ 134,436	\$ 138,483	\$ 142,651	\$ 146,945	\$ 151,368	\$ 155,924	\$ 160,618	\$ 165,452	\$ 170,432	\$ 175,562	\$ 180,847	\$ 186,280	\$ 2,297,313	

	2015	2016	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	TOTALS	
EXPENSES																			
Third Party Financing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Technical Resource Services	\$ -	\$ (7,488)	\$ (7,713)	\$ (7,946)	\$ (8,185)	\$ (8,431)	\$ (8,685)	\$ (8,946)	\$ (9,216)	\$ (9,493)	\$ (9,779)	\$ (10,073)	\$ (10,376)	\$ (10,689)	\$ (11,010)	\$ (11,342)	\$ (11,684)	\$ (139,371)	
TOTAL EXPENSES	\$ -	\$ (7,488)	\$ (7,713)	\$ (7,946)	\$ (8,185)	\$ (8,431)	\$ (8,685)	\$ (8,946)	\$ (9,216)	\$ (9,493)	\$ (9,779)	\$ (10,073)	\$ (10,376)	\$ (10,689)	\$ (11,010)	\$ (11,342)	\$ (11,684)	\$ (139,371)	

ANNUAL CASH FLOW	\$ -	\$ 111,912	\$ 46,869	\$ 118,641	\$ 142,693	\$ 173,067	\$ 202,068	\$ 238,799	\$ 283,736	\$ 338,003	\$ 392,946	\$ 448,576	\$ 505,003	\$ 562,335	\$ 620,467	\$ 679,504	\$ 739,546	\$ 800,593	\$ 862,646
CUMULATIVE CASH FLOW	\$ -	\$ 111,912	\$ 158,781	\$ 277,422	\$ 420,115	\$ 583,182	\$ 765,250	\$ 967,049	\$ 1,188,785	\$ 1,430,521	\$ 1,693,467	\$ 1,977,043	\$ 2,281,546	\$ 2,606,551	\$ 2,953,018	\$ 3,321,522	\$ 3,711,068	\$ 4,120,661	\$ 4,550,307

Escalation	Utility	O & M
	3.01%	3.00%
Estimated Construction Period (months)	12	
Sources of Financing	Rate	Years
Third Party Financing	3.0%	15
		Amount
		1,747,964

CIP PLAN 2013-2018		
Year	Item	Budget
2013	WWTP Lighting	\$ 40,000
2014	WWTP Lighting	\$ 60,000
2016	Library Boiler	\$ 75,000
	TOTAL	\$ 175,000

CIP for year 2016: \$75,000. Added \$75,000 in year 2016. Annual lease payment can be adjusted during financing to ensure yearly positive cash flow.

City of Bemidji

Option 2: Option 1 Projects + City's Priorities

15 Year Term

Preliminary Cashflow Analysis

CAPITAL INVESTMENT	\$ 2,445,750
Rebates	(124,998)
Cap. Buy-down (CIP 2013 & 2014)	(100,000)
NET INVESTMENT FINANCED	\$ 2,220,752

	2015																
	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	TOTALS
PROJECT FUNDING																	
Utility Savings - M&V	\$ -	\$ 98,877	\$ 101,854	\$ 104,919	\$ 108,078	\$ 111,331	\$ 114,682	\$ 118,134	\$ 121,689	\$ 125,352	\$ 129,125	\$ 133,012	\$ 137,016	\$ 141,140	\$ 145,388	\$ 149,764	\$ 1,840,362
Utility Savings - Engineering Cost	\$ -	\$ 6,405	\$ 6,598	\$ 6,796	\$ 7,001	\$ 7,212	\$ 7,429	\$ 7,652	\$ 7,883	\$ 8,120	\$ 8,364	\$ 8,616	\$ 8,876	\$ 9,143	\$ 9,418	\$ 9,701	\$ 119,215
Operational Savings	\$ 21,000	\$ 21,650	\$ 22,279	\$ 22,947	\$ 23,636	\$ 24,345	\$ 25,075	\$ 25,827	\$ 26,602	\$ 27,400	\$ 28,222	\$ 29,069	\$ 29,941	\$ 30,839	\$ 31,764	\$ 32,717	\$ 423,295
Capital Cost Avoidance	\$ -	\$ 85,000	\$ 105,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 380,000
TOTAL PROJECT FUNDING	\$ 21,000	\$ 211,913	\$ 235,730	\$ 164,663	\$ 168,714	\$ 172,887	\$ 177,186	\$ 181,613	\$ 186,174	\$ 190,873	\$ 195,712	\$ 200,697	\$ 205,832	\$ 211,122	\$ 216,571	\$ 222,183	\$ 2,962,872

	2015																
	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	TOTALS
EXPENSES																	
Third Party Financing	\$ (66,623)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (182,207)	\$ (2,799,735)
Technical Resource Services	\$ -	\$ (7,488)	\$ (17,713)	\$ (7,946)	\$ (8,185)	\$ (8,431)	\$ (8,685)	\$ (8,946)	\$ (9,216)	\$ (9,493)	\$ (9,779)	\$ (10,073)	\$ (10,376)	\$ (10,689)	\$ (11,010)	\$ (11,342)	\$ (139,371)
TOTAL EXPENSES	\$ (66,623)	\$ (189,695)	\$ (199,921)	\$ (190,153)	\$ (190,392)	\$ (190,639)	\$ (190,892)	\$ (191,154)	\$ (191,423)	\$ (191,700)	\$ (191,986)	\$ (192,280)	\$ (192,584)	\$ (192,896)	\$ (193,218)	\$ (193,549)	\$ (2,939,103)

ANNUAL CASH FLOW	\$ (45,623)	\$ 22,217	\$ 45,810	\$ 25,480	\$ 31,701	\$ 38,111	\$ 44,522	\$ 51,033	\$ 57,644	\$ 64,355	\$ 71,166	\$ 78,077	\$ 85,088	\$ 92,199	\$ 99,410	\$ 106,721	\$ 1,340,666
CUMULATIVE CASH FLOW	\$ (45,623)	\$ (23,406)	\$ 22,404	\$ (3,686)	\$ 28,718	\$ 64,130	\$ 102,652	\$ 144,385	\$ 189,319	\$ 237,453	\$ 288,887	\$ 343,610	\$ 401,622	\$ 462,914	\$ 527,485	\$ 595,327	\$ 666,458

Evolution	Utility	O & M
Estimated Construction Period (months)	3.0%	3.00%
	12	

Sources of Financing	Rate	Years	Amount
Third Party Financing	3.0%	15	\$ 2,220,752

CIP PLAN 2013-2018		
Year	Item	Budget
2013	WWTP Lighting	\$ 40,000
2014	WWTP Lighting	\$ 60,000
2015	Library AHU	\$ 55,000
2016	Library Boiler	\$ 75,000
	TOTAL	\$ 230,000

CIP for years 2015-2016: \$130,000.
 Added \$55,000 in year 2015 & \$75,000 in year 2016. Capital cost avoidance, year 0 savings and lease payment can be adjusted during financing to ensure yearly positive cash flow.

City of Bemidji

Option 3: Option 2 Projects + Ice Arena Projects

15 year term

Preliminary Cashflow Analysis

CAPITAL INVESTMENT	\$ 3,749,363
Rabates	\$ (125,158)
Cap. Buy-down/CIP 2013 & 2014	(170,000)
NET INVESTMENT FINANCED	\$ 3,454,205

PROJECT FUNDING	2015															TOTALS	
	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14		YEAR 15
Utility Savings - M&V	\$ -	\$ 101,153	\$ 104,198	\$ 107,334	\$ 110,565	\$ 113,893	\$ 117,321	\$ 120,833	\$ 124,490	\$ 128,238	\$ 132,097	\$ 136,074	\$ 140,169	\$ 144,388	\$ 148,735	\$ 153,212	\$ 1,882,721
Utility Savings - Engineering Cal	\$ -	\$ 6,564	\$ 6,762	\$ 6,965	\$ 7,175	\$ 7,391	\$ 7,613	\$ 7,842	\$ 8,078	\$ 8,322	\$ 8,572	\$ 8,830	\$ 9,096	\$ 9,370	\$ 9,652	\$ 9,942	\$ 122,174
Operational Savings	\$ 58,000	\$ 59,740	\$ 61,532	\$ 63,378	\$ 65,280	\$ 67,238	\$ 69,255	\$ 71,333	\$ 73,473	\$ 75,677	\$ 77,947	\$ 80,286	\$ 82,694	\$ 85,175	\$ 87,730	\$ 90,362	\$ 1,169,099
Capital Cost Avoidance	\$ -	\$ 134,525	\$ 154,525	\$ 179,525	\$ 199,525	\$ 224,525	\$ 249,525	\$ 274,525	\$ 299,525	\$ 324,525	\$ 349,525	\$ 374,525	\$ 399,525	\$ 424,525	\$ 449,525	\$ 474,525	\$ 5,925,000
TOTAL PROJECT FUNDING	\$ 58,000	\$ 301,982	\$ 327,017	\$ 257,203	\$ 262,544	\$ 268,047	\$ 273,715	\$ 279,553	\$ 285,566	\$ 291,761	\$ 298,142	\$ 304,714	\$ 311,484	\$ 318,458	\$ 325,641	\$ 333,041	\$ 4,496,869
EXPENSES																	
Third Party Financing	\$ (103,626)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (283,409)	\$ (4,354,767)
Technical Resources Services	\$ -	\$ (7,488)	\$ (7,713)	\$ (7,946)	\$ (8,185)	\$ (8,431)	\$ (8,685)	\$ (8,946)	\$ (9,216)	\$ (9,493)	\$ (9,779)	\$ (10,073)	\$ (10,376)	\$ (10,689)	\$ (11,010)	\$ (11,342)	\$ (139,371)
TOTAL EXPENSES	\$ (103,626)	\$ (290,897)	\$ (291,123)	\$ (291,355)	\$ (291,594)	\$ (291,840)	\$ (292,094)	\$ (292,356)	\$ (292,625)	\$ (292,902)	\$ (293,188)	\$ (293,482)	\$ (293,786)	\$ (294,099)	\$ (294,420)	\$ (294,751)	\$ (4,494,138)
ANNUAL CASH FLOW	\$ (45,626)	\$ 111,085	\$ 135,894	\$ 65,848	\$ 70,950	\$ 76,207	\$ 81,626	\$ 87,197	\$ 92,941	\$ 98,852	\$ 104,923	\$ 111,141	\$ 117,608	\$ 124,369	\$ 131,421	\$ 138,869	\$ 4,142,731
CUMULATIVE CASH FLOW	\$ (45,626)	\$ 65,459	\$ 201,353	\$ 267,201	\$ 337,151	\$ 411,358	\$ 489,984	\$ 572,181	\$ 657,972	\$ 747,465	\$ 840,667	\$ 937,581	\$ 1,038,206	\$ 1,142,535	\$ 1,250,656	\$ 1,362,585	\$ 4,142,731

Escalation	Utility	O&M
3.01%	3.01%	3.00%
Estimated Construction Period (months)	12	

Source of Financing	Rate	Years	Amount
Third Party Financing	3.0%	15	\$ 3,454,205

CIP PLAN 2013-2018		
Year	Item	Budget
2013	WWTP Lighting	\$ 40,000
2014	WWTP Lighting	\$ 60,000
2014	Ice Arena Dehumidification	\$ 70,000
2015	Library AHU	\$ 55,000
2016	Library Boiler	\$ 75,000
	TOTAL	\$ 300,000

CIP for years 2015-2016: \$130,000.
 Added \$55,000 in year 2015 & \$75,000 in year 2016. Capital cost avoidance, year 0 savings and lease payment can be adjusted during financing to ensure yearly positive cash flow.