

Date: May, 2009

City of Duluth
B3 Benchmarking Project

Completed by
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Project Summary

Minnesota Resource Conservation Inc. (MRC) was contracted by the City of Duluth to complete the State of Minnesota B3 energy benchmarking requirement that requires all municipalities in the State of Minnesota to input historical energy usage for all buildings >5000 Square Feet in size in an online database named the B3 Benchmarking Database. This database uses total historical energy usage, building use type and total square feet to create a virtual reference building that is used to compare the existing buildings with the virtual building to determine its target energy use. The metric for comparison on the B3 Benchmarking website is expressed in Total KBtu/Sq Ft and is expressed as a percentage below or above the virtual reference buildings energy usage. The premise behind this effort is to identify and prioritize buildings that have higher than predicted total energy usage and can be targeted for energy conservation measures that will most likely produce cost effective energy savings.

After discussion with the City of Duluth about the scope of the project it was determined that the data collection and energy analysis should be expanded to include all city of Duluth buildings over 500 square feet. The total number of buildings that was included in the B3 benchmarking analysis is 95.

Methodology

To complete this project, MRC obtained a list of all city facilities. This list was forwarded onto the utility companies that provide energy services to these buildings to acquire one year of historical billing and consumption data. This data was used for the B3 website inputs and was also inputted into a spreadsheet that was used to calculate total energy usage expressed in KBtu/Sq. Ft. as well as total KBtu/Sq. Ft. by each utility type (Electric, Natural Gas, and Steam). This report breaks down each building by individual utility type usage expressed in KBtu/Sq. Ft. as well as by total building energy consumption. By looking at each building by specific utility type as opposed to total energy usage, this provides an opportunity to identify specific utility fuel conservation targets that may not appear evident if expressed only in total KBtu/Sq Ft terms. An example of this would be if a building has low natural gas usage and high electrical energy usage the Total KBtu/Sq. Ft. metric might place this building in the middle or towards the bottom of the priority list. By sorting the buildings by individual energy usage as well, this will help target buildings for utility specific conservation efforts. Site visits were also conducted to each site to gather any utility meter information, to confirm the size of the building and in some cases determine if the building still exists. Appendix B, the Individual Site Profile and Summary,

gives a general overview of each separate building, pictures of the site, as well as data about its energy usage.

This project did not include gathering data for each building's HVAC system or thermal envelope details. The B3 Benchmarking report provides an idea of what buildings may be consuming more energy than they could be. The next step could be to conduct a more extensive energy analysis on buildings that are near the top of the priority list to determine what energy efficiency improvements could be made to that building as well as their identify associated improvement costs and energy savings paybacks.

For the purpose of this analysis, the Btu value used for a unit of electricity was 3413 Btu/ kWh. The Btu value used for a unit of natural gas was 100,000 Btu/therm, and the Btu value used for a unit of steam was 1195.6 Btu/pound of steam. Because specific HVAC information was not required to be gathered for this project, efficiency losses were not factored into the specific fuel consumption of the buildings.

The KBtu/Sq Ft totals displayed in aggregate as well as by individual utility type were derived from the Btu amounts listed above. Because access to the core algorithms within the B3 website was not available, the Total KBtu/SqFt values in the tables below may differ slightly from the Total KBtu/SqFt values within Appendix A B3 summary page (attached as separate PDF File).

B3 Benchmarking Website Database Summary for Buildings $\geq$ 5000 SqFt

Attached at the end of this report as Appendix A is the summary page from the B3 Benchmarking website. This summary page provides each buildings actual energy usage, the benchmark energy usage and a percentage above or below 100%. Ideally, if the buildings actual energy usage is below 100%, then it is using less than the reference or benchmark building and would not be a candidate for energy efficiency measures. As stated in the project summary section above, because the B3 Benchmarking website uses *Total* KBtu/Sq. Ft. as it's metric and not KBtu/Sq. Ft. for each energy type, opportunities to address a buildings individual energy usage could be missed which is why this report includes the billing data in both formats.

Clarifications

Appendix A is the summary page from the B3 database website. The B3 summary page lists multiple columns of information for each building. The columns listed “needs action” and “completed” refer to the information inputted into the individual site summary page for each buildings. To trigger an “ok” in the “Needs Action” column, we found that the billing data needs to be inputted in a calendar year format. Most of the billing histories we received were in a 365 day format based on the day the billing history request was submitted. After manipulating the dates to reflect a calendar year, it was discovered that the lack of the “ok” in the “Needs Action” column does not affect the KBtu/SqFt number. As a result, the actual billing date cycles were left in place in most cases.

Individual Site Summary

Also included in this summary is a site visit report that provides the basic information on each building. The information included on this separate report is physical address, a picture of the building, total energy usage, energy usage by utility type, and any physical exterior features of the buildings. Also included are any general notes about the building.

Reporting Summary

Because the B3 Benchmarking website only considers buildings 5000 square feet and larger, this report groups all the city buildings into either >5000 Sq. Ft. or > 5000 Sq. Ft. Within each of these size classifications the building are then sorted by four types of billing history energy usage analyses. The four types are:

1. Total KBtu/Sq. Ft.
2. Total Electrical KBtu/Sq. Ft.
3. Total Natural Gas KBtu/Sq. Ft.
4. Total Steam KBtu/Sq. Ft. (if applicable)

Please note that two buildings use Fuel Oil as the primary heating fuel and those buildings were included within the Natural Gas sections.

Billing History Analysis by Building Size and Utility Type for Buildings > 5000 SqFt

Buildings >5000 Square Feet Total Energy Usage in KBtu/Sq Ft

Building Name	Square Feet	Total KBtu/SqFt
Zoo- Polar Complex	6380	1007.85
Zoo - Administrative Building	10942	291.62
Parks Toolhouse	6894	196.33
Zoo- Children's (Primate Center)	7010	191.93

Firehall #7	5475	165.34
Duluth Art Institute	5463	164.25
Firehall #4	5475	156.73
Firehall #2	7365	129.81
Enger Golf - Club House	6414	127.41
City Center West	22487	119.36
Firehall #10	11160	117.61
Goodfellowship Community Club	8820	114.75
Zoo- Animal Care Center	7533	114.29
Toolhouse - Lund	10200	111.47
Fleet Services Building	22000	88.67
Portman Community Club	5680	85.97
Wheeler Fieldhouse (Comm. Club)	10680	85.78
Woodland Community Club	9328	83.88
Central Hillside Comm. Center	16630	80.39
Woodland - Fryberger Arena	24990	74.05
Washington Center	34000	67.74
Firehall #1	32800	66.99
Memorial Community Club	7454	62.36
Facilities Maintenance Bldg	39765	60.73
Duluth Heights Community Club	10560	59.35
Wade Stadium- Concessions	12000	51.50
City Hall	127964	47.91
Police Garage	8728	43.00
Main Library	69228	38.48
Water & Gas - Distribution	82272	36.60
Toolhouse - West Duluth	18868	33.91
Chester Bowl - Chalet	11840	33.80
Water Plant- Pump Building	12350	31.74
Toolhouse - Lakeside	6014	24.77
Toolhouse - West Duluth - New Garage	5355	10.93
Park Point - Beach House	5890	10.66
Casino Parking Ramp	120316	4.82
Coney Parking Ramp	21444	3.54
Depot Parking Ramp	95682	2.30
Water Plant- Treatment Building	65382	0.00
Merrit Community Club	5088	0.00

Buildings >5000 Square Feet Total Natural Gas Usage in KBtu/Sq. Ft

Building Name	Square Feet	Total KBtu/SqFt
Zoo- Polar Complex	6380	762.46
Zoo - Administrative Building	10942	201.98
Parks Toolhouse	6894	176.89
Zoo- Children's (Primate Center)	7010	151.31
Duluth Art Institute	5463	142.14
Firehall #7	5475	135.16
Firehall #4	5475	125.50
Firehall #2	7365	115.61
Goodfellowship Community Club	8820	114.75
Firehall #10	11160	112.48
Toolhouse - Lund	10200	100.70
Enger Golf - Club House	6414	91.67
Portman Community Club	5680	85.76
Wheeler Fieldhouse (Comm. Club)	10680	76.09
Woodland Community Club	9328	74.34
City Center West	22487	74.29
Zoo- Animal Care Center	7533	69.35

Central Hillside Comm. Center	16630	66.30
Fleet Services Building	22000	63.05
Memorial Community Club	7454	62.36
Woodland - Fryberger Arena	24990	61.77
Facilities Maintenance Bldg	39765	53.66
Duluth Heights Community Club	10560	47.77
Toolhouse - Lakeside	6014	22.38
Chester Bowl - Chalet	11840	20.41
Toolhouse - West Duluth	18868	19.26
Water & Gas - Distribution	82272	9.18
Firehall #1	32800	7.91
City Hall	127964	0.02
Casino Parking Ramp	120316	0.00
Depot Parking Ramp	95682	0.00
Main Library	69228	0.00
Water Plant- Treatment Building	65382	0.00
Washington Center	34000	0.00
Coney Parking Ramp	21444	0.00
Water Plant- Pump Building	12350	31.74 (Fuel Oil)
Wade Stadium- Concessions	12000	0.00
Police Garage	8728	0.00
Park Point - Beach House	5890	0.00
Toolhouse - West Duluth - New Garage	5355	0.00
Merrit Community Club	5088	0.00

Buildings >5000 Square Feet Total Electrical Usage in KBtu/Sq. Ft.

Building Name	Square Feet	Total KBtu/SqFt
Zoo- Polar Complex	6380	245.39
Zoo - Administrative Building	10942	89.63
Wade Stadium- Concessions	12000	51.50
City Center West	22487	45.07
Zoo- Animal Care Center	7533	44.94
Zoo- Children's (Primate Center)	7010	40.62
Enger Golf - Club House	6414	35.73
Main Library	69228	31.66
Firehall #4	5475	31.24
Firehall #7	5475	30.18
Washington Center	34000	27.74
Water & Gas - Distribution	82272	27.42
Fleet Services Building	22000	25.62
Duluth Art Institute	5463	22.11
Parks Toolhouse	6894	19.44
Toolhouse - West Duluth	18868	14.64
Firehall #2	7365	14.20
Central Hillside Comm. Center	16630	14.09
Chester Bowl - Chalet	11840	13.40
Firehall #1	32800	13.09
City Hall	127964	12.31
Woodland - Fryberger Arena	24990	12.28
Duluth Heights Community Club	10560	11.58
Toolhouse - West Duluth - New Garage	5355	10.93
Toolhouse - Lund	10200	10.77
Park Point - Beach House	5890	10.66
Wheeler Fieldhouse (Comm. Club)	10680	9.69
Woodland Community Club	9328	9.54
Facilities Maintenance Bldg	39765	7.07
Firehall #10	11160	5.13

Casino Parking Ramp	120316	4.82
Coney Parking Ramp	21444	3.54
Toolhouse - Lakeside	6014	2.39
Depot Parking Ramp	95682	2.30
Portman Community Club	5680	0.21
Water Plant- Treatment Building	65382	0.00
Water Plant- Pump Building	12350	0.00
Goodfellowship Community Club	8820	0.00
Police Garage	8728	0.00
Memorial Community Club	7454	0.00
Merrit Community Club	5088	0.00

Buildings >5000 Square Feet Total Steam Usage in KBtu/Sq. Ft.

Building Name	Square Feet	Total KBtu/SqFt
Firehall #1	32800	46.00
Police Garage	8728	43.00
Washington Center	34000	40.00
City Hall	127964	35.57
Main Library	69228	6.82

Billing History Analysis by Building Size and Utility Type for Buildings < 5000 SqFt

Buildings <5000 Square Feet Total Energy Usage in KBtu/Sq Ft

Building Name	Square Feet	Total KBtu/SqFt
Arlington Pump Station	572	5220.39
West Duluth Booster Station	680	3165.38
New Proctor Station	646	1355.90
Bayview Station	646	1198.67
Lakeside Pump Station	540	587.93
Orphanage Pump Station	950	379.95
Sewer Lift Station #8	610	326.57
Endion Depot	2544	286.64
Firehall #6	2184	243.19
Water & Gas - Office Building	3825	230.77
Aerial Bridge	898	210.05
Wheeler- Concessions	900	206.05
Animal Shelter	3360	191.10
Glen Avon - Hockey Building	1061	160.46
Firehall #5	2818	159.61
Grant Community Club	2425	157.78
Firehall #11	2800	154.91
Lower Chester Community Club	2016	153.88
Irving Community Club	4352	144.12
Riverside Community Club	1750	141.84
Aerial Bridge	898	135.44
Lester Golf - Clubhouse	4720	132.49
Observation Community Club	1560	131.67
Bayfront Park Building	1728	125.32
Zoo- Australian Building	4410	121.27
Gary Recreation Center	2400	121.25
Sewer Lift Station #15	1226	109.79
Norton Park Community Club	2236	104.43
Water & Gas - East Pump Building	1672	91.99
Lincoln Park - Pavilion	2250	89.55
Lincoln Park Community Club	950	89.18

Lester Park Library	3560	88.68
Hillside Sport Court	930	79.46
Lafayette Square	4840	75.81
Middle System Station	2160	69.31
Harrison Community Club	4800	66.08
Piedmont Community Club	4160	46.25
Fairmont Park Pavilion	2240	44.44
Lester Golf - Toolhouse	2960	29.87
Lester Park - Comfort Station	500	28.02
Sewer Lift Station #14	522	24.25
Lakeview Chalet	3280	16.58
Wheeler - Garage	576	7.61
Fon-du-lac Community Club	1736	5.91
Longview Tennis Club	2160	3.13
Cobb Warming Shack	960	3.04
Water Treatment Building	4464	2.91
Enger Tower	745	2.01
Toolhouse - West Duluth - Large Garage	3000	0.00
Chester Bowl - Quonset Hut	1008	0.00
Chester Bowl - Garage North	576	0.00
Lester Golf - Garage & Range Bldg	576	0.00
Highland Pump Station	513	0.00

Buildings <5000 Square Feet Total Natural Gas Usage in KBtu/Sq. Ft.

Building Name	Square Feet	Total KBtu/SqFt
Endion Depot	2544	286.64
Firehall #6	2184	183.52
Animal Shelter	3360	181.88
West Duluth Booster Station	680	152.94
Aerial Bridge	898	151.67
Firehall #5	2818	149.01
Grant Community Club	2425	142.80
Firehall #11	2800	138.32
Riverside Community Club	1750	136.91
Lower Chester Community Club	2016	126.44
Irving Community Club	4352	123.71
Lakeside Pump Station	540	105.56
Norton Park Community Club	2236	104.43
Gary Recreation Center	2400	95.08
Sewer Lift Station #15	1226	93.23
Water & Gas - East Pump Building	1672	91.99
Bayfront Park Building	1728	88.66
Lester Park Library	3560	80.90
Lincoln Park - Pavilion	2250	80.18
Hillside Sport Court	930	79.46
Zoo- Australian Building	4410	77.23
Aerial Bridge	898	77.06
Observation Community Club	1560	77.05
Middle System Station	2160	69.31
Lafayette Square	4840	68.99
Glen Avon - Hockey Building	1061	67.86
Orphanage Pump Station	950	58.95
Harrison Community Club	4800	53.90
Piedmont Community Club	4160	46.25
Arlington Pump Station	572	0.17
Lester Golf - Clubhouse	4720	73.97 (Fuel Oil)
Water Treatment Building	4464	0.00

Water & Gas - Office Building	3825	0.00
Lakeview Chalet	3280	0.00
Toolhouse - West Duluth - Large Garage	3000	0.00
Lester Golf - Toolhouse	2960	0.00
Fairmont Park Pavilion	2240	0.00
Longview Tennis Club	2160	0.00
Fon-du-lac Community Club	1736	0.00
Chester Bowl - Quonset Hut	1008	0.00
Cobb Warming Shack	960	0.00
Lincoln Park Community Club	950	0.00
Wheeler- Concessions	900	0.00
Enger Tower	745	0.00
Bayview Station	646	0.00
New Proctor Station	646	0.00
Sewer Lift Station #8	610	0.00
Chester Bowl - Garage North	576	0.00
Lester Golf - Garage & Range Bldg	576	0.00
Wheeler - Garage	576	0.00
Sewer Lift Station #14	522	0.00
Highland Pump Station	513	0.00
Lester Park - Comfort Station	500	0.00

Buildings <5000 Square Feet Total Electrical Usage in KBtu/Sq. Ft.

Building Name	Square Feet	Total KBtu/SqFt
Arlington Pump Station	572	5220.22
West Duluth Booster Station	680	3012.43
New Proctor Station	646	1355.90
Bayview Station	646	1198.67
Lakeside Pump Station	540	482.37
Sewer Lift Station #8	610	326.57
Orphanage Pump Station	950	321.00
Water & Gas - Office Building	3825	230.77
Wheeler- Concessions	900	206.05
Glen Avon - Hockey Building	1061	92.59
Lincoln Park Community Club	950	89.18
Firehall #6	2184	59.67
Lester Golf - Clubhouse	4720	58.51
Aerial Bridge	898	58.38
Aerial Bridge	898	58.38
Observation Community Club	1560	54.62
Fairmont Park Pavilion	2240	44.44
Zoo- Australian Building	4410	44.04
Bayfront Park Building	1728	36.66
Lester Golf - Toolhouse	2960	29.87
Lester Park - Comfort Station	500	28.02
Lower Chester Community Club	2016	27.44
Gary Recreation Center	2400	26.17
Sewer Lift Station #14	522	24.25
Irving Community Club	4352	20.41
Firehall #11	2800	16.59
Lakeview Chalet	3280	16.58
Sewer Lift Station #15	1226	16.56
Grant Community Club	2425	14.97
Harrison Community Club	4800	12.18
Firehall #5	2818	10.60
Lincoln Park - Pavilion	2250	9.37
Animal Shelter	3360	9.23

Lester Park Library	3560	7.78
Wheeler - Garage	576	7.61
Lafayette Square	4840	6.82
Fon-du-lac Community Club	1736	5.91
Riverside Community Club	1750	4.92
Longview Tennis Club	2160	3.13
Cobb Warming Shack	960	3.04
Water Treatment Building	4464	2.91
Enger Tower	745	2.01
Piedmont Community Club	4160	0.00
Toolhouse - West Duluth - Large Garage	3000	0.00
Endion Depot	2544	0.00
Norton Park Community Club	2236	0.00
Middle System Station	2160	0.00
Water & Gas - East Pump Building	1672	0.00
Chester Bowl - Quonset Hut	1008	0.00
Hillside Sport Court	930	0.00
Chester Bowl - Garage North	576	0.00
Lester Golf - Garage & Range Bldg	576	0.00
Highland Pump Station	513	0.00

Notes on Specific Buildings

After numerous attempts to gather the necessary data to provide complete information on all 95 buildings within this report, the following buildings as they are listed with the tables above or on Appendix A may appear lower on the energy consumption range due to the various factors listed:

- Water Plant- Treatment Building (65382sqft)
 - Unable to locate gas account
 - Shares electric service with Water Plant-Pump Building
- Water Plant- Pump Building (12350sqft)
 - Shares electric service with Water Plant- Treatment Building
- Wade Stadium (12000sqft)
 - no heating fuel located
- Goodfellowship Community Center (8820sqft)
 - No electric account found for meter# 213103
- Police Garage (8728sqft)
 - No electric meter or account found
 - Steam use seems incorrect
- Memorial Community Center (7454sqft)
 - No electric account found
- Toolhouse- West Duluth new garage (5355 SqFt)
 - No heat used in building

- Merrit Community Center (5088sqft)
 - o No gas or electric consumption data found

Follow up

Should any user wish to access the data on the B3 website, the login and password are as follows:

Login – Danderson@mnresource.com
Password – 1234567890
NOT FOR PUBLIC RELEASE

Appendix A

PDF File of B3 Database Website Summary Page (See attached, next page)



My Sites - Doug Anderson

[Logout](#)
[Home](#) [My Sites](#) [FAQ](#) [Documents](#) [About B3](#) [Contact Us](#)

Items Per Page: 50 Total Sites: 35 Total Buildings: 35 Total Square Feet: 747,598 Needs Action: 29

Filter sites by Organization: (All)

Sites 1-35 of 35.

Needs Action!	Completed?	Organization	Name	Bldg Qty	Floor Area	Primary Space Use	Mejer Total kBtu/SF	Benchmark Total kBtu/SF	% Ratio Mejer/Benchmark
	Yes	City, Duluth	Zoo -- Administrative Bldg 076A	1	10,942	Administration	297	83	358 %
	Yes	City, Duluth	Parks Toolhouse 057A	1	6,894	Maintenance Repair	202	75	269 %
	Yes	City, Duluth	Zoo -- Polar Complex 076H	1	6,380	Animal Shelter	1,027	389	264 %
	Yes	City, Duluth	Goodfellowship Comm Cntr 029A	1	8,820	Community Center	118	49	243 %
	Yes	City, Duluth	Enger Golf -- Club House 020A	1	6,414	Park / Recreation	124	65	191 %
	Yes	City, Duluth	Toolhouse Lund 046A	1	10,200	Maintenance Repair	113	74	154 %
OK	Yes	City, Duluth	Firehall #7 082A	1	5,475	Fire Station	169	117	145 %
	Yes	City, Duluth	Firehall #4 079A	1	5,475	Fire Station	163	116	140 %
OK	Yes	City, Duluth	Fleet Service Center 220A	1	22,000	Maintenance Repair	96	73	132 %
OK	Yes	City, Duluth	Memorial Comm Cntr 047A	1	7,454	Community Center	64	49	132 %
	Yes	City, Duluth	Portman Comm Cntr 062A	1	5,680	Community Center	88	77	115 %
	Yes	City, Duluth	Woodland Comm Cntr 075A	1	9,328	Community Center	86	76	113 %
	Yes	City, Duluth	Firehall #2 078A	1	7,365	Fire Station	133	118	113 %
	Yes	City, Duluth	Wheeler Comm Cntr 074A	1	10,680	Community Center	85	76	112 %
	Yes	City, Duluth	Central Hillside Comm Cntr 012A	1	16,630	Community Center	82	75	109 %
OK	Yes	City, Duluth	City Center West 214A	1	22,487	Fire Station	121	119	102 %
	Yes	City, Duluth	Firehall #10 084A	1	11,160	Fire Station	121	118	102 %
	Yes	City, Duluth	Main Library 130A	1	69,228	Library	93	108	86 %
	Yes	City, Duluth	Police Garage 138A	1	8,728	Maintenance Repair	43	50	86 %
	Yes	City, Duluth	Wade Stadium 069A	1	12,000	Park / Recreation	51	63	82 %
	Yes	City, Duluth	Duluth Hots Comm Cntr 017A	1	10,560	Community Center	61	75	81 %
OK	Yes	City, Duluth	Building Maintenance Washington	1	39,765	Maintenance Repair	56	73	76 %

Appendix B

Individual Site Profile and Summary (attached separately)

B3 Benchmark Site Profile

Building Name:
City Hall

Building Address:
411/ 415 W 1st St

Building Size:
127964ft²



Gas Data

Meter#: 8341903	Account #: 142729	Annual therms (2008): 28
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Electric Data

Meter #: 204200, 94174	Premise ID: 191148169	Annual kWh (2008): 461600
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2008 Energy Use Summary

Total Energy Usage: 47.91(including steam)kBtu/ft²	Total Electric Usage: 12.312kBtu/ft ²	Total Gas Usage: .022kBtu/ft ²
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General Building Notes:

- Stone Exterior
- Older double pane windows
- Uses steam heat- 627000 units used in 2008

B3 Benchmark Site Profile

Building Name:
Casino Parking Ramp

Building Address:
1st Ave E & Superior St/ 129 E Superior St

Building Size:
120316ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 304896	Premise ID: 191128051	Annual kWh (2008): 170080
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2008 Energy Use Summary

Total Energy Usage: 4.82kBtu/ft²	Total Electric Usage: 4.82kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Brick and concreat exterior
- Small attendee shack within
- Casino manages ramp for city

B3 Benchmark Site Profile

Building Name:
Depot Parking Ramp

Building Address:
6th Ave W & Michigan St

Building Size:
95682ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 216316	Premise ID: 171140196	Annual kWh (2008): 64398
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2008 Energy Use Summary

Total Energy Usage: 2.30kBtu/ft²	Total Electric Usage: 2.30kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Enclosed stairwell with high intensity lamp on during the day
- No building on site

B3 Benchmark Site Profile

Building Name:
Water and Gas- Distribution

Building Address:
600 Garfield Ave/ 520 Garfield Ave

Building Size:
82272ft²



Gas Data

Meter#: 4627226	Account #: 146998	Annual therms (2008): 7556
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Electric Data

Meter #: 211565	Premise ID: 17558	Annual kWh (2008): 660864
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2008 Energy Use Summery

Total Energy Usage: 36.6 kBtu/ft ²	Total Electric Usage: 27.416kBtu/ft ²	Total Gas Usage: 9.184kBtu/ft ²
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General Building Notes:

- CMU construction
- New double pane windows
- Mostly flat roof

B3 Benchmark Site Profile

Building Name:
Main Library

Building Address:
520 W Superior St

Building Size:
69228ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 369576	Premise ID: 171140112	Annual kWh (2008): 642080
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2008 Energy Use Summary

Total Energy Usage: 38.48(including steam)kBtu/ft²	Total Electric Usage: 31.66kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Metal siding
- Flat roof
- Large PV array on roof
- Uses steam heat- 395100 units used in 2008

B3 Benchmark Site Profile

Building Name:
Water Plant-Treatment Building

Building Address:
8130 Congdon Blvd

Building Size:
65382ft²



Gas Data

Meter#: 4209123	Account #:	Annual therms (2008):
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Electric Data

Meter #: 335219	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summary

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Brick exterior
- Flat roof
- New 2 pane windows
- Shares electric meter with pump building

B3 Benchmark Site Profile

Building Name:
Facilities Management Building

Building Address:
1532 W Michigan St

Building Size:
39765ft²



Gas Data

Meter#: 1603653	Account #: 49350	Annual therms (2008): 21339
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Electric Data

Meter #: 332813, 329510	Premise ID: 151157250	Annual kWh (2008): 82380
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2008 Energy Use Summary

Total Energy Usage: 60.734kBtu/ft²	Total Electric Usage: 7.071kBtu/ft ²	Total Gas Usage: 53.663kBtu/ft ²
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General Building Notes:

- Brick and Stucco exterior
- Single pane and glass block windows

B3 Benchmark Site Profile

Building Name:
Washington Center

Building Address:
301 Lake St

Building Size:
34000ft²



Gas Data

Meter#: tc1502410	Account #:	Annual therms (2008):
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Electric Data

Meter #: 204135city, 204130apartments	Premise ID: 15102city, 5103apt	Annual kWh (2008): 185280city, 91040apt
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2008 Energy Use Summary

Total Energy Usage: 67.7(including steam heat) kBtu/ft ²	Total Electric Usage: 27.74kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- 4 story building
- Brick/stone exterior
- Flat roof
- Newer 2 pane windows
- Lower floor is dedicated to apartments
- Uses steam heat- 135900 units used in 2008

B3 Benchmark Site Profile

Building Name:
Fire Hall #1

Building Address:
602 W 2nd St

Building Size:
32800ft²



Gas Data

Meter#: 485710	Account #: 62782	Annual therms (2008): 2594
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Electric Data

Meter #: 304898	Premise ID: 191147340	Annual kWh (2008): 125760
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2008 Energy Use Summary

Total Energy Usage: 67(including steam) kBtu/ft ²	Total Electric Usage: 13.086kBtu/ft ²	Total Gas Usage: 7.909kBtu/ft ²
--	---	---

General Building Notes:

- Brick and CMU exterior
- Older double pane windows
- Uses steam heat- 174000 units used in 2008

B3 Benchmark Site Profile

Building Name:
Woodland- Fryberger Arena

Building Address:
3211 Allendale Ave

Building Size:
24990ft²



Gas Data

Meter#: 5128086	Account #: 138194	Annual therms (2008): 15437
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Electric Data

Meter #: 214229	Premise ID: 41125551	Annual kWh (2008): 89920
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2008 Energy Use Summery

Total Energy Usage: 74.054kBtu/ft²	Total Electric Usage: 12.281kBtu/ft ²	Total Gas Usage: 61.773kBtu/ft ²
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General Building Notes:

- Metal roof and siding
- No windows

B3 Benchmark Site Profile

Building Name:
City Center West

Building Address:
5830 Grand Ave

Building Size:
22487ft²



Gas Data

Meter#: 5509066	Account #: 64941	Annual therms (2008): 16706
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Electric Data

Meter #: 303677	Premise ID: 121148968	Annual kWh (2008): 296960
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2008 Energy Use Summary

Total Energy Usage: 119.364 kBtu/ft ²	Total Electric Usage: 45.072kBtu/ft ²	Total Gas Usage: 74.292kBtu/ft ²
--	---	--

General Building Notes:

- Newer brick multi use building
- Double pane windows

B3 Benchmark Site Profile

Building Name:
Fleet Services Building

Building Address:
4801 Mike Colalillo Dr

Building Size:
22000ft²



Gas Data

Meter#: tc4900507	Account #: 79054	Annual therms (2008): 13872
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Electric Data

Meter #: 211418	Premise ID: 121148974	Annual kWh (2008): 165120
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2008 Energy Use Summery

Total Energy Usage: 88.67 kBtu/ft ²	Total Electric Usage: 25.62kBtu/ft ²	Total Gas Usage: 63.05kBtu/ft ²
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General Building Notes:

- Metal roof and siding
- Older double pane windows

B3 Benchmark Site Profile

Building Name:
Coney Parking Ramp

Building Address:
110 W 1st St

Building Size:
21444ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 139450	Premise ID: 191148136	Annual kWh (2008): 22254
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2008 Energy Use Summary

Total Energy Usage: 3.54kBtu/ft ²	Total Electric Usage: 3.54kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

-Small attendee building on site

B3 Benchmark Site Profile

Building Name:
Toolhouse- West Duluth

Building Address:
105 N 40th Ave W

Building Size:
18868ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
	53185	18815

Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
329513	111117510	80961

2008 Energy Use Summery

Total Energy Usage: 33.9kBtu/ft²	Total Electric Usage: 14.645kBtu/ft ²	Total Gas Usage: 19.26kBtu/ft ²
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General Building Notes:

- Brick exterior around office with flat roof
- CMU exterior around attached garage with metal roof

B3 Benchmark Site Profile

Building Name:
Central Hillside Community Center

Building Address:
12 E 4th St

Building Size:
16630ft²



Gas Data

Meter#: t2168179	Account #: 48938	Annual therms (2008): 11026
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Electric Data

Meter #: 216328	Premise ID: 171106410	Annual kWh (2008): 68640
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2008 Energy Use Summary

Total Energy Usage: 80.389kBtu/ft²	Total Electric Usage: 14.087kBtu/ft ²	Total Gas Usage: 66.302kBtu/ft ²
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General Building Notes:

- Brick exterior
- Double pane windows

B3 Benchmark Site Profile

Building Name:
Water Plant- Pump Building

Building Address:
8131 Congdon Blvd

Building Size:
12350ft²



Gas Data

Meter#: was fuel oil	Account #:	Annual therms (2008):
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Electric Data

Meter #: 335219 (shares with treatment building)	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summery

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Brick/ Stone exterior
- Glass block/ Single pane windows
- New gas meter to be installed/ was using fuel oil- used 2800gal (31.7kBtu) in 2008
- Shares electric meter with treatment building

B3 Benchmark Site Profile

Building Name:
Wade Stadium

Building Address:
34th Ave and 1st St

Building Size:
12000ft²



Gas Data

Meter#: fuel oil?	Account #:	Annual therms (2008):
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Electric Data

Meter #:	Premise ID: 101147210	Annual kWh (2008): 181056
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2008 Energy Use Summery

Total Energy Usage: 51.50kBtu/ft²	Total Electric Usage: 51.50kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Stone baseball stadium
- Large HID lights on during day
- Could be using fuel oil

B3 Benchmark Site Profile

Building Name:
Chester Bowl- Chalet

Building Address:
1800 Skyline Parkway

Building Size:
11840ft²



Gas Data

Meter#: 54519293	Account #: 48047	Annual therms (2008): 2416
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Electric Data

Meter #: 211660	Premise ID: 11193126	Annual kWh (2008): 46480
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2008 Energy Use Summary

Total Energy Usage: 33.803 kBtu/ft ²	Total Electric Usage: 13.398kBtu/ft ²	Total Gas Usage: 20.405kBtu/ft ²
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General Building Notes:

- Wood exterior
- Poored foundation
- Poor double pane windows

B3 Benchmark Site Profile

Building Name:
Fire Hall #10

Building Address:
1102 Commonwealth Ave

Building Size:
11160ft²



Gas Data

Meter#: tc2904598	Account #: 36244	Annual therms (2008): 12553
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Electric Data

Meter #:	Premise ID: 141136550	Annual kWh (2008): 16780
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2008 Energy Use Summery

Total Energy Usage: 117.614 kBtu/ft ²	Total Electric Usage: 5.132kBtu/ft ²	Total Gas Usage: 112.482kBtu/ft ²
--	--	---

General Building Notes:

- Brick exterior
- Flat roof
- Poored foundation
- Older double pane windows

B3 Benchmark Site Profile

Building Name:
Zoo- Administration Building

Building Address:
72nd Ave W & Grand Ave

Building Size:
10942ft²



Gas Data

Meter#: tc4900537	Account #: 49463	Annual therms (2008): 22101
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Electric Data

Meter #: 216311	Premise ID: 131129146	Annual kWh (2008): 287360
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2008 Energy Use Summary

Total Energy Usage: 291.16kBtu/ft²	Total Electric Usage: 89.633kBtu/ft ²	Total Gas Usage: 201.983kBtu/ft ²
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General Building Notes:

- Brick exterior
- White rubber roof
- T12 lighting fixtures

B3 Benchmark Site Profile

Building Name:
Weeler- Fieldhouse (Community Center)

Building Address:
3501/ 3415 Grand Ave

Building Size:
10680ft²



Gas Data

Meter#: 2308375	Account #: 29620	Annual therms (2008): 8126
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Electric Data

Meter #: 125912	Premise ID: 101147960	Annual kWh (2008): 30327
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2008 Energy Use Summary

Total Energy Usage: 85.778kBtu/ft²	Total Electric Usage: 9.692kBtu/ft ²	Total Gas Usage: 76.086kBtu/ft ²
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General Building Notes:

- Brick exterior
- Metal roof
- Single pane windows with storms

B3 Benchmark Site Profile

Building Name:
Duluth Hights Community Club

Building Address:
33 W Mulberry St

Building Size:
10560ft²



Gas Data

Meter#: 54555639	Account #: 127014	Annual therms (2008): 5045
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Electric Data

Meter #: 304854, 372683, 372701	Premise ID: 151126040, 151129282, 151126050	Annual kWh (2008): 9607, 21480, 4735
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2008 Energy Use Summery

Total Energy Usage: 59.353kBtu/ft ²	Total Electric Usage: 11.578kBtu/ft ²	Total Gas Usage: 47.775kBtu/ft ²
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General Building Notes:

- Brick exterior
- CMU foundation
- Glass block and single pane windows with storms
- Exterior lights on during day
- Addition CMU construction
- Full time caretaker on site

B3 Benchmark Site Profile

Building Name:
Toolhouse- Lund

Building Address:
2407 Commonwealth Ave

Building Size:
10200ft²



Gas Data

Meter#: s0482637	Account #: 48888	Annual therms (2008): 10271
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Electric Data

Meter #: 302855	Premise ID: 151188046	Annual kWh (2008): 32197
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2008 Energy Use Summery

Total Energy Usage: 111.469 kBtu/ft ²	Total Electric Usage: 10.773kBtu/ft ²	Total Gas Usage: 100.696kBtu/ft ²
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General Building Notes:

- Metal roof and siding
- Old single pane windows with storms

B3 Benchmark Site Profile

Building Name:
Woodland Community Club

Building Address:
3211 Allendale Ave

Building Size:
9328ft²



Gas Data

Meter#: 4105733	Account #: 129846	Annual therms (2008): 6934
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Electric Data

Meter #: 343828, 343755	Premise ID: 41125553, 41125554	Annual kWh (2008): 10705, 15374
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2008 Energy Use Summery

Total Energy Usage: 83.89kBtu/ft²	Total Electric Usage: 9.542kBtu/ft ²	Total Gas Usage: 74.335kBtu/ft ²
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General Building Notes:

- CMU construction with wood sided addition
- Single and double pane windows
- Detached garage with electric meter serving 2 rinks

B3 Benchmark Site Profile

Building Name:
Goodfellowship Community Club

Building Address:
1242 88th Ave W

Building Size:
8820ft²



Gas Data

Meter#: 6702521	Account #: 35439	Annual therms (2008): 10121
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Electric Data

Meter #: 213103	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summary

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: 144.75kBtu/ft ²
---	---	--

General Building Notes:

- Concreat exterior
- Double pane windows
- Sky lights
- Year round occupancy

B3 Benchmark Site Profile

Building Name:
Police Garage

Building Address:
Government Services Building (off alley
between 1st and 2nd St W

Building Size:
8728ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summary

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Concreat constuction
- Half of garage is contract parking
- Uses steam heat- used 203,400 units (43 kBtu) in 2008

B3 Benchmark Site Profile

Building Name:
Zoo- Animal Care Center

Building Address:
7325 Grand Ave

Building Size:
7533ft²



Gas Data

Meter#: tc5010688	Account #: 128221	Annual therms (2008): 5224
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Electric Data

Meter #: 302773	Premise ID: 13819	Annual kWh (2008): 99200
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2008 Energy Use Summary

Total Energy Usage: 114.293kBtu/ft²	Total Electric Usage: 44.945kBtu/ft ²	Total Gas Usage: 69.348kBtu/ft ²
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General Building Notes:

- Wood/ CMU exterior
- Newer 2 pane windows

B3 Benchmark Site Profile

Building Name:
Memorial Community Club

Building Address:
602 N Central Ave/ 5315, 5325 Grand Ave

Building Size:
7454ft²



Gas Data

Meter#: 54574960	Account #: 308083	Annual therms (2008): 4648
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Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summery

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: 62.36kBtu/ft ²
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General Building Notes:

- CMU construction connected to old brick police station
- Flat roof
- Single pane windows

B3 Benchmark Site Profile

Building Name:
Firehall #2

Building Address:
2627 W Superior St

Building Size:
7365ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
	48615	8515

Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
302778	91159295	30640

2008 Energy Use Summary

Total Energy Usage: 129.813kBtu/ft²	Total Electric Usage: 14.199kBtu/ft ²	Total Gas Usage: 115.614kBtu/ft ²
--	---	---

General Building Notes:

- Brick exterior
- Newer double pane windows

B3 Benchmark Site Profile

Building Name:
Zoo- Childrens (Primate Center)

Building Address:
72nd Ave & Grand

Building Size:
7010ft²



Gas Data

Meter#: t2336429, t1869049	Account #: 48684, 48686	Annual therms (2008): 7682, 2925
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Electric Data

Meter #: 215698	Premise ID: 131129147	Annual kWh (2008): 83424
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2008 Energy Use Summery

Total Energy Usage: 191.94kBtu/ft²	Total Electric Usage: 40.62kBtu/ft ²	Total Gas Usage: 151.32kBtu/ft ²
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General Building Notes:

- CMU construction
- Older double pane windows
- Flat roof

B3 Benchmark Site Profile

Building Name:
Parks Toolhouse

Building Address:
110 N 42nd Ave W

Building Size:
6894ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
	48584	12195

Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
326824	111117730	39262

2008 Energy Use Summary

Total Energy Usage:	Total Electric Usage:	Total Gas Usage:
196.330 kBtu/ft ²	19.437kBtu/ft ²	176.893kBtu/ft ²

General Building Notes:

- CMU construction
- Single pane windows

B3 Benchmark Site Profile

Building Name:
Enger Golf- Club House

Building Address:
1801/ 1800 W Skyline Blvd

Building Size:
6414ft²



Gas Data

Meter#: 54524587	Account #: 48544	Annual therms (2008): 5880
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Electric Data

Meter #: 313363	Premise ID: 91177531, 91176046maint.	Annual kWh (2008): 67154, 36061maint.
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2008 Energy Use Summery

Total Energy Usage: 127.408kBtu/ft²	Total Electric Usage: 35.734kBtu/ft ²	Total Gas Usage: 91.674kBtu/ft ²
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General Building Notes:

- Aluminium Siding
- Poored foundation
- Single pane windows with storms, some newer double pane
- Year round occupancy
- Old fireplace
- Compact flourecent bulbs being used

B3 Benchmark Site Profile

Building Name:
Zoo- Polar Complex

Building Address:
72nd Ave W & Grand Ave

Building Size:
6380ft²



Gas Data

Meter#: tc450989	Account #: 57577	Annual therms (2008): 32564
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Electric Data

Meter #: 206326	Premise ID: 131128823	Annual kWh (2008): 458720
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2008 Energy Use Summery

Total Energy Usage: 1007.85kBtu/ft²	Total Electric Usage: 245.39kBtu/ft ²	Total Gas Usage: 762.46kBtu/ft ²
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General Building Notes:

- Includes bumps and heaters for polar pools
- Stone exterior
- Flat Roof
- Glass Block Windows

B3 Benchmark Site Profile

Building Name:
Toolhouse- Lakeside

Building Address:
5102 Dodge St

Building Size:
6014ft²



Gas Data

Meter#: t4171036, 54507850	Account #: 158556	Annual therms (2008): 1346
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Electric Data

Meter #: 884332	Premise ID: 71138074	Annual kWh (2008): 4214
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2008 Energy Use Summery

Total Energy Usage: 24.772kBtu/ft²	Total Electric Usage: 2.391kBtu/ft ²	Total Gas Usage: 22.381kBtu/ft ²
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General Building Notes:

- Metal siding
- Flat roof
- Poored foundation
- New windows

B3 Benchmark Site Profile

Building Name:
Park Point- Beach House

Building Address:
5000 Minnesota Ave

Building Size:
5890ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 175447	Premise ID: 191110082	Annual kWh (2008): 18400
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2008 Energy Use Summery

Total Energy Usage: 10.662kBtu/ft²	Total Electric Usage: 10.662kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Seasonal use only. Not used in winter.
- Wood exterior
- Older double pane windows

B3 Benchmark Site Profile

Building Name:
Portman Community Club

Building Address:
4601/4611 McCulloch St

Building Size:
5680ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
	18624	4871

Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
84150	71127263	350

2008 Energy Use Summary

Total Energy Usage: 85.967kBtu/ft²	Total Electric Usage: .210kBtu/ft ²	Total Gas Usage: 85.757kBtu/ft ²
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General Building Notes:

- Brick and stucco exterior
- Sky lights
- Single pane windows

B3 Benchmark Site Profile

Building Name:
Firehall #4

Building Address:
425 W College St

Building Size:
5475ft²



Gas Data

Meter#: t0284684	Account #: 15194	Annual therms (2008): 6871
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Electric Data

Meter #: 328450	Premise ID: 31135262	Annual kWh (2008): 50106
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2008 Energy Use Summery

Total Energy Usage: 156.733 kBtu/ft ²	Total Electric Usage: 31.235kBtu/ft ²	Total Gas Usage: 125.498kBtu/ft ²
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General Building Notes:

- Brick exterior
- Flat roof
- New double pane windows

B3 Benchmark Site Profile

Building Name:
Firehall #7

Building Address:
1419 W Maple Grove Rd

Building Size:
5475ft²



Gas Data

Meter#: t2217278	Account #: 40329	Annual therms (2008): 7400
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Electric Data

Meter #: 341078	Premise ID: 161197860	Annual kWh (2008): 48411
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2008 Energy Use Summery

Total Energy Usage: 165.338kBtu/ft²	Total Electric Usage: 30.178kBtu/ft ²	Total Gas Usage: 135.160kBtu/ft ²
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General Building Notes:

- Brick exterior
- New double pane windows

B3 Benchmark Site Profile

Building Name:
Duluth Art Institute

Building Address:
2229 W 2nd St

Building Size:
5463ft²



Gas Data

Meter#: tc5017989	Account #: 073570	Annual therms (2008): 7765
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Electric Data

Meter #: 369459	Premise ID: 91109126	Annual kWh (2008): 35394
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2008 Energy Use Summary

Total Energy Usage: 164.250kBtu/ft²	Total Electric Usage: 22.112kBtu/ft ²	Total Gas Usage: 142.138kBtu/ft ²
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General Building Notes:

- Brick siding
- Old single pane windows with storms
- Outside high intensity bulbs on during day

B3 Benchmark Site Profile

Building Name:
Toolhouse- West Duluth- New Garage

Building Address:
105/103 N 40th Ave W

Building Size:
5355ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #: 326858	Premise ID: 111118812	Annual kWh (2008): 17153
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2008 Energy Use Summery

Total Energy Usage: 10.93 kBtu/ft ²	Total Electric Usage: 10.932kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

-Metal siding and roof

B3 Benchmark Site Profile

Building Name:
Merri Community Club

Building Address:
4017 W 7th St

Building Size:
5088ft²



Gas Data

Meter#:	Account #:	Annual therms (2008):
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Electric Data

Meter #:	Premise ID:	Annual kWh (2008):
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2008 Energy Use Summary

Total Energy Usage: kBtu/ft ²	Total Electric Usage: kBtu/ft ²	Total Gas Usage: kBtu/ft ²
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General Building Notes:

- Brick and stucco exterior
- Single pane windows
- Seasonal occupancy

Building	Address	New Address/ Notes	Sq Footage	AGE	
City Hall	411 W 1st St	415 W 1st St	127964	1927	
Casino Parking Ramp	1st Ave E & Superior St	129 E Superior	120316	1985	
Depot Parking Ramp	6th Ave W & Michigan St		95682	1977	
Water & Gas - Distribution	600 Garfield Ave	520 Garfield Ave (could also be small gara	82272	2003	
Main Library	520 W Superior St	6 W Ave & Superior St	69228	1977	
Water Plant- Treatment Building	8130 Congdon Blvd	shares e meter with pump building	65382	1975	1897 Pump House
Facilities Maintenance Bldg	1532 W Michigan St		39765	1938	
Washington Center	301 N Lake		34000	1962	
Firehall #1	602 W 2nd St		32800	1965	
Woodland - Fryberger Arena	3211 Allendale Ave		24990	1971	
City Center West	5830 Grand Ave		5850/ 22487	1988	
Fleet Services Building	4801 Mike Colalillo Dr		21708	1992	1997 City Acquired
Coney Parking Ramp	110 W 1st St		21444	1991	
Toolhouse - West Duluth	105 N 40th Ave W		18868	1967	
Central Hillside Comm Center/ Washinton	12 E 4th St		16630	1975	
Water Plant- Pump Building	8131 Congdon Blvd	Shares e meter with treatment building	12350	1897	1975 Water Treatment
Wade Stadium- Concessions	35th Ave & 1st St		12000	1946	
Chester Bowl - Chalet	1800 Skyline Parkway		11840	1962	
Firehall #10	1102 Commonwealth Ave		11160	1927	
Zoo - Administrative Building	72nd Ave W & Grand Ave		10942		
Wheeler Fieldhouse (Comm. Club)	3501 Grand Ave	3415 Grand Ave	10680	1938	
Duluth Heights Community Club	33 W Mulberry St		10560	1929	
Toolhouse - Lund	2407 Commonwealth Ave		10200	1970	
Woodland Community Club	3211 Allendale Ave		9328	1972	
Goodfellowship Community Club	1242 88th Ave W		8820	1976	
Police Garage	Government Services Bldg	Off alley between 1st and 2nd St	8728	CNTY	
Zoo- Animal Care Center	72nd Ave W & Grand Ave	past Zoo entrance on Grand	7533	2000	
Memorial Community Club	602 N Central Ave	5315/5325 Grand Ave	7454	1936 est	
Firehall #2	2627 W Superior St		7365	1983	
Zoo- Childrens (Primate Center)	72nd Ave W & Grand Ave		7010		
Parks Toolhouse	110 N 42nd Ave W		6894	1975 est	
Enger Golf - Club House	1801 W Skyline Blvd		6414	1942 est	
Zoo- Polar Complex	72nd Ave W & Grand Ave		6380		
Toolhouse - Lakeside	5102 Dodge St		6014	NA	
Park Point - Beach House	5000 Minnesota Ave		5890	1930	
Portman Community Club	4601 McCulloch St	4611 McCulloch St	5680	1951 est	
Firehall #4	425 W College St		5475	1976	
Firehall #7	1419 W Maple Grove Rd		5475	1976	
Duluth Art Institute	2229 W 2nd St		5463	NA	
Toolhouse - West Duluth - New Garage	105 N 40th Ave W		5355	1975	
Merrit Community Club	4017 W 7th St		5088	1939	
Water & Gas - Distribution	600 Garfield Ave	520 Garfield Ave (could also be small gara	4900	2003	
Lafayette Square	3026 Minnesota Ave		4840	1942	
Harrison Community Club	3002 W 3rd St		4800	1936	
Lester Golf - Clubhouse	1860 Lester River Rd	1860 Lester Park	4720	1952	
Water Treatment Building	2025 Water St	not in use	4464	NA	
Zoo- Aulstrailian Building	72nd Ave W & Grand Ave		4410		
Irving Community Club	20 S 57th Ave W		4352	1938	
Piedmont Community Club	23 W 23rd St		4160	1976	City Acquired
Water & Gas - Office Building	414 W 1st St		3825	NA	
Lester Park Library	5403 Tioga	106 N 54 Ave E	3560	NA	
Animal Shelter	2627 Courtland St	27th W Ave & Courtland	3360	1975	
Lakeview Chalet	2940 Seven Bridges Rd		3280	1978 est	
Toolhouse - West Duluth - Large Garage	105 N 40th Ave W		3000	1975	
Lester Golf - Toolhouse	1860 Lester River Rd		2960	1980	
Firehall #5	2138 Minnesota Ave		2818	1931	
Firehall #11	3501 Woodland Ave		2800	1922	
Endion Depot	100 Lake Place Drive	Utilities payed by renter	2544	1891	
Grant Community Club	901 E 11th St		2425	1981	Acquired
Gary Recreation Center	801 101st Ave W		2400	1927	
Lincoln Park - Pavillion	25th Ave W & 4th St	Lincoln Park Dr & 4th St	2250	1932 est	
Fairmont Park Pavillion	6715 Redruth St	(behind zoo parking lot)	2240	1948 est	
Norton Park Community Club	431 N 81st Ave W		2236	1976	
Firehall #6	5031 E Superior St/103 N 51st A 103 N 51st Ave E		2184	1911	Remodeled 1998
Longview Tennis Club	325 N 25th Ave E	326 N 25th Ave E/ 2504 E 4th St	2160	1932	
Middle System Station	1517 E 6th St		2160	NA	
Lower Chester Community Club	1417 E 5th St		2016	1978 est	
Riverside Community Club	Manitow & Cato	Manitou St & Cato Ave (55 on building)	1750	1977	
Fon-du-lac Community Club	131 Ave W & 5th St	13102 W 5th St	1736	1976	
Bayfront Park Building	500 W Railroad		1728	2001	
Water & Gas - East Pump Building	34th Ave E & 4th St	3401 E 4th st	1672	NA	
Observation Community Club	914 W 3rd St		1560	1971	
Endion Addition	1602 E 2nd St	no longer city owned	1300	NA	
Sewer Lift Station #15	2132 Michigan St.		1226	NA	
Glen Avon - Hockey Building	2401 Woodland Ave	2405 Woodland Ave	1061	1988	
Chester Bowl - Quonset Hut	1800 Skyline Parkway		1008	1970	
Cobb Warming Shack	Woodland Ave & Fairbault		960		
Lincoln Park Community Club	25th Ave W & 4th St	25th Ave W & 5th St	950	1976	Acquired/Renovated
Orphanage Pump Station	Minneapolis Ave	801 Minneapolis Ave/ 815	950	1964 est	
Hillside Sport Court	408 E 8th St		930	NA	
Wheeler- Concessions	3501 Grand Ave		900	NA	
Aerial Bridge	South Lake Bay		898	NA	
Enger Tower	14th Ave W & Skyline Blvd		745	NA	
West Duluth Booster Station	4424 Grand Ave		680	NA	
Bayview Station	63rd Ave W & Olney	6301 Olney (off road access RR)	646	NA	
New Proctor Station	Earl St & 73rd Ave W	7328 Earl St	646	NA	
Sewer Lift Station #8	729 Lake Ave S		610	NA	
Chester Bowl - Garage North	1800 Skyline Parkway		576	NA	
Lester Golf - Garage & Range Bldg	1860 Lester River Rd		576	NA	
Wheeler - Garage	3501 Grand Ave		576	NA	
Arlington Pump Station	2nd Ave E & 13th St	Central Ent. And 13th St	572	NA	
Lakeside Pump Station	5031 Juanita St	Juniata & 51st Ave E	540	NA	
Sewer Lift Station #14	735 Garfield Ave.	across from Seaway building and Goodwill	522	NA	
Highland Pump Station	Arlington Ave WS		513	NA	
Lester Park - Comfort Station	61st Ave E & Superior St		500	NA	