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## **EXECUTIVE SUMMARY**

A central strategy for meeting the City of Minneapolis climate action goals is to drive high building performance in the commercial market through energy and water benchmarking and disclosure. This fourth annual report summarizes the data collection activities, benchmarking results, and analysis for the city's largest public and private commercial buildings based on building data submissions through August 31, 2016.

Commercial and industrial building energy use was responsible for 46% of greenhouse gas emissions in Minneapolis in 2014. Energy use is a significant source of greenhouse gas emissions and is also the largest controllable operational cost in buildings. The crucial first step in addressing and managing energy use is understanding building energy performance. In 2013, Minneapolis adopted the commercial building benchmarking and disclosure policy (ordinance 47.190) requiring public buildings 25,000 square feet (ft<sup>2</sup>) and greater and private commercial buildings 50,000 ft<sup>2</sup> and above to report energy and water performance data to the City annually via the Environmental Protection Agency's ENERGY STAR Portfolio Manager. This policy was among a set of strategies laid out in the Minneapolis Climate Action Plan for improving energy efficiency and reducing greenhouse gas emissions.

Building energy disclosure shows businesses and consumers how buildings are using – and wasting – energy. Disclosure information helps businesses and consumers make informed decisions that account for actual energy costs when buying, operating, and renting property. Benchmarking is the first step for buildings in controlling operating costs, maintaining market competitiveness, and improving energy efficiency. Greater energy efficiency provides tremendous benefits for Minneapolis building owners, occupants, and the community, including lowered energy costs, increased property values, enhanced building comfort, and reduced air pollution.

Solid Waste — Wastewater
Air Travel — 2% — 1%

On-road
Transportation
21%

Residential
21%

Figure 1. Community-wide greenhouse gas emission inventory, 2014

#### **Key Findings**

Benchmarking Policy Phase-in is Complete. 2016 brought the phase-in process of the benchmarking policy to completion with the data disclosure for the final tier of buildings (those 50,000 and 99,999ft²) on August 31, 2016. This marked the start of full building performance transparency for large commercial buildings – an important piece of market information necessary to drive energy efficiency in Minneapolis. This report includes 417 properties with 107 million square feet that benchmarked calendar year 2015.

Data Quantity and Quality Improved. Training and outreach strategies were effective as the private building response rate reached 94% (up 4% from 2014) by the disclosure deadline of August 31, 2016, for 2015 data. Responses are distinguished from compliance in that an initial data submission counts as a response whereas compliance entails submissions meet a basic level of data quality. Data review was more comprehensive in 2015, which explains the slight dip in compliance from 91% in 2014 to 85% in 2015.

**Benchmarked Buildings' Carbon Footprint Identified.** In total, approximately 15% of citywide greenhouse gas emissions in 2015 are represented by the 417 properties analyzed

Total Properties
Analyzed

417

% of City's Total Commercial Area

70%

Median ENERGY STAR Score

**71** 

**Response Rate** 

94%

in this report. Efficiency improvements in this small number of buildings could substantially reduce city-wide emissions.

Average Energy Performance Remains High. In general, Minneapolis' large commercial building stock performs better than the national average. The median ENERGY STAR score of 71 shows that nearly half of the scores are above the ENERGY STAR certification-qualifying threshold of 75.

Overall energy use is coursing downward.

Trends in public buildings show a slight increase in total weather-normalized energy use intensity of 3% compared to 2014, though public buildings maintained a nearly 4% reduction overall since 2012, the first benchmarked year. Performance in private commercial buildings remained fairly steady between 2014 and 2015 with the median ENERGY STAR scores charging from 79 to 78 and total weather-normalized energy use intensity dipping a slight 0.8%.

**Greatest Savings Opportunities Identified in** Offices, Medical Buildings, Hotels, and Worship **Facilities.** Offices have the greatest aggregate potential for total energy and greenhouse gas emissions savings. Representing nearly 37% of benchmarked square footage and 34% of total energy consumed, even small improvements in each office building could have a significant collective impact. Median ENERGY STAR scores for hospitals, medical offices, specialty hospitals, and worship facilities fall below the national median of 50, indicating the largest opportunity for individual improvement. In particular, as the seven properties classified as hospitals consume the second highest percentage (15%) of total energy by property type, efficiency improvements in these buildings could contribute substantially to city-wide emissions reductions.

#### **Looking Ahead**

Motivating Efficiency Improvements through Recognition. Minneapolis competes on a global scale to attract business and workforce talent, and increasingly companies are adding sustainable spaces with high energy efficiency and correspondingly low operating costs to their criteria. To make high-performing buildings more visible and motivate others to improve performance, the City is using funding from the Minnesota Pollution Control Agency to provide grants for buildings that receive nationally recognized ENERGY STAR certification.

Advancing the Minneapolis Building Energy Challenge. The Minneapolis Building Energy Challenge provides a platform for buildings to compete on a city level to reduce their greenhouse gas emissions 15% by 2020. By accepting the challenge to reduce emissions through energy efficiency measures, a median 120,000 ft² building would cut nearly 1,000 metric tons of greenhouse gas emissions measured in carbon dioxide equivalence (CO₂e) and \$31,000 in energy costs. If all benchmarked buildings joined the Challenge, the city would see reductions of almost 120,000 metric tons of CO₂e and save more than \$27 million in energy costs annually. Fifteen buildings participated in the Challenge in 2015.

Leveraging the Clean Energy Partnership. The partnership between the City and its two utilities, Xcel Energy and CenterPoint Energy, provides a unique approach to help the City reach its Climate Action Plan and Energy Vision for 2040 goals, which include reducing energy costs and greenhouse gas emissions. Through their collaborative relationship, Xcel Energy developed the Xcel Benchmarking Tool to facilitate automatic electric data transfers, and CenterPoint Energy recently agreed to develop a similar tool for natural gas customers. In addition to exchanging data on participation in conservation programs and building stock information, the Partnership provides unique opportunities to leverage the utilities' expertise in utilizing existing and piloting new conservation programs, with buildings identified from the benchmarking data.

Facilitating Greater Market Uptake of Transparent Building Performance Data. Benchmarking and disclosure makes previously unknown building performance transparent, thereby allowing owners and managers to compare their building to peers and compete in the marketplace using new metrics. A new online, publicly-available mapping tool as well as an annual building performance scorecard that can be customized and sent to each building makes benchmarking information more accessible and usable to businesses and consumers.



Figure 2. Potential savings from a median building achieving the Building Energy Challenge

## BACKGROUND ON THE MINNEAPOLIS BUILDING BENCHMARKING POLICY

The City of Minneapolis climate action goals and policies comprise a comprehensive set of strategies to reduce city-wide greenhouse gas emissions 30% by 2025 and 80% by 2050 from a 2006 baseline. Seeing that commercial and industrial buildings represent nearly half of city-wide emissions, policymakers recognized that lowering emissions within this sector is a vital part of achieving long term climate goals.

#### **Benefits of Benchmarking**

Encourages Energy Efficiency Actions. The Energy Efficiency Indicator survey from the Institute for Building Efficiency showed that buildings conducting energy management methods such as benchmarking took approximately three times as many energy efficiency actions as those that had not applied energy management practices.<sup>1</sup>

**Promotes Energy Savings in Existing Buildings.** Results from New York City's benchmarking program show 5.7% energy savings from 2010 to 2013, and San Francisco's program revealed a 7.9% reduction in energy use between 2010 and 2014. As the Minneapolis program matures, similar results are anticipated.<sup>2</sup>

Improves Building Value. Buildings that are benchmarked have the information necessary for well-known high performance building certifications such as ENERGY STAR, a market recognized sign of high efficiency. Studies show buildings with ENERGY STAR certification can achieve higher rental premiums of 2% to 13%.<sup>3</sup>

**Supports Local Jobs.** Energy management and retrofit industries cannot be outsourced. As benchmarking provides efficiency transparenc, and the market recognizes and rewards high performance there is potential for local job creation.<sup>4</sup>



The Minneapolis Climate Action Plan, adopted in 2013, includes a goal to reduce the energy use of commercial and industrial buildings 20% by 2025. Mandatory commercial building energy benchmarking is a foundational strategy to achieve those energy efficiency targets. The Minneapolis commercial building benchmarking policy is covered by ordinance 47.190, which was adopted unanimously by the Minneapolis City Council in 2013. Private and public commercial buildings must annually benchmark their energy and water use and report this information to the City. Minneapolis was the first city in the Midwest to adopt a benchmarking and disclosure policy and was the 7th nationally, placing Minneapolis squarely in the vanguard among cities and states nationally.

The purpose of the ordinance is to use market forces – not performance or design mandates – to motivate building owners and managers to invest in energy and water efficiency improvements. Importantly, Minneapolis' policy includes public disclosure of annual benchmarking results. This is intended to increase building owner, tenant, and public awareness of building energy and water use; allow building managers to see how they compare across the population; and drive targeted utility and energy service provider outreach to buildings with the largest opportunity for energy and water savings.

## U.S. City Policies: Building Benchmarking, Transparency, and Beyond



Figure 3. U.S. cities with building benchmarking and transparency policies.

#### **Policy Overview**

Ordinance 47.190 requires private commercial buildings 50,000 ft<sup>2</sup> and larger and public buildings 25,000 ft<sup>2</sup> and larger to be benchmarked and the information reported to the City. The ordinance applies only to commercial buildings that are more than 50% occupied during a reporting year. New construction with certificate of occupancy issued less than two years prior are exempt, as are multifamily buildings, industrial buildings, and buildings experiencing qualifying financial distress. Although not required, the City of Minneapolis created partnerships with Hennepin County, the Minneapolis Park & Recreation Board, and the Minneapolis Public Schools, and all voluntarily submitted benchmarking results for many of their buildings.

The ordinance phased in benchmarking and disclosure over a four-year period, starting in 2013 with public buildings. After public buildings, the largest commercial buildings in the city (100,000 ft² and above) made their initial submissions in 2014 for calendar year 2013 performance. Medium-sized commercial buildings (50,000-99,999 ft²) followed suit in 2015 for calendar year 2014 performance. Data are not publicly disclosed until the second

year of reporting for each of the two private building groups. As of 2016, the policy phase-in for public and private buildings was complete. Benchmarking and disclosure will continue for all building categories each year thereafter.

Benchmarked data is reported to the City via the Environmental Protection Agency's ENERGY STAR Portfolio Manager software platform. This software analyzes whole property performance using simple metrics such as energy use intensity, a measure of energy use normalized over the building area, and the ENERGY STAR score, a 1 to 100 performance rating from low to high efficiency.

<b>Building Category</b>	2013	2014	2015	2016						
Public over 25,000 ft <sup>2</sup>	<b>V</b>	<b>✓</b>	<b>V</b>	<b>V</b>						
Private over 100,000 ft <sup>2</sup>			<b>V</b>	<b>V</b>						
Private 50,000-99,999 ft <sup>2</sup>				<b>V</b>						
indicates years in which buildings are required to benchmark and repor										
indicates years in which benc	hmarking o	lata is publi	cly disclose	d						

Figure 4. Benchmarking and disclosure phase-in schedule

#### What is Compliance?

Buildings comply with the benchmarking ordinance by submitting either a data submission or an approved exemption. Data submissions must be high quality in order to be effective in motivating energy actions among building managers. Though an audit is an effective method used by other benchmarking cities for data verification, this requirement is not part of the Minneapolis policy. Instead, buildings must pass basic data quality standards by including the following:

- Electricity > 0
- EUI > 25 kBtu/ft2 and < 400 ft2
- Heating fuel > 0
- Area < +/- 25% of tax assessor value
- *Water* > 0
- Building and Property IDs

Buildings that pass basic data checks are deemed compliant. Submissions that fail these checks are deemed non-compliant and are not included in report analysis. Beginning in 2016 for buildings reporting on 2015 performance, buildings not in compliance receive citations and fines.

## **BUILDING CHARACTERISTICS**

The 417 properties analyzed in this report include 177 private properties greater than 100,000 ft² in size, 87 private properties 50,000 to 99,999 ft², and 153 public properties that are owned by the City of Minneapolis, Hennepin County, Minneapolis Public Schools, and Minneapolis Park and Recreation Board.

Among all properties, offices make up the greatest percentage (25%) of buildings in the report and also represent the largest building type by area (37%) of the benchmarked buildings by property type. The second most common property type is K-12 schools, while parking ramps represent the second largest property type by total area.

Only 57% of buildings could receive an ENERGY STAR score, since scores are available for 21 out of the more than 80 property types on record in Portfolio Manager.

**Building Age.** Benchmarked buildings were built between the years 1881 and 2012. The median build year is 1972, indicating that the majority were built in the later part of the 20th century.

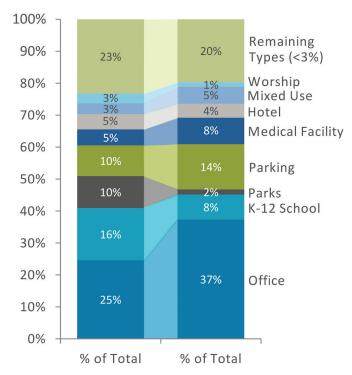


Figure 5. Property type composition of benchmarked properties by count and building area.

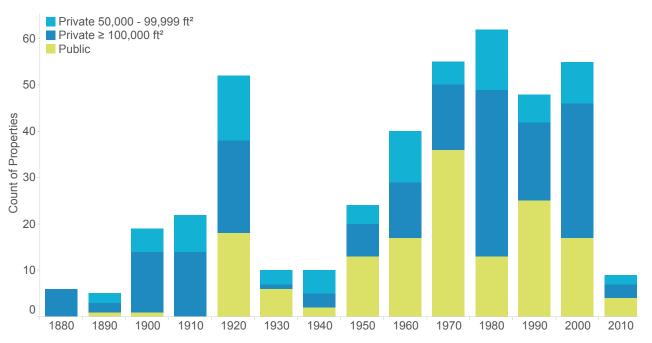


Figure 6. Count of properties by decade built.

**Building Location.** Geographically, the majority of benchmarked buildings are concentrated downtown in the City's commercial core. The bulk of those are private buildings greater than 100,000 ft². Medium-sized private buildings (50,000-99,999 ft²) are common in neighborhoods in and close to downtown. Since many neighborhoods contain a park, a school, or both, public buildings are more evenly dispersed throughout the city.

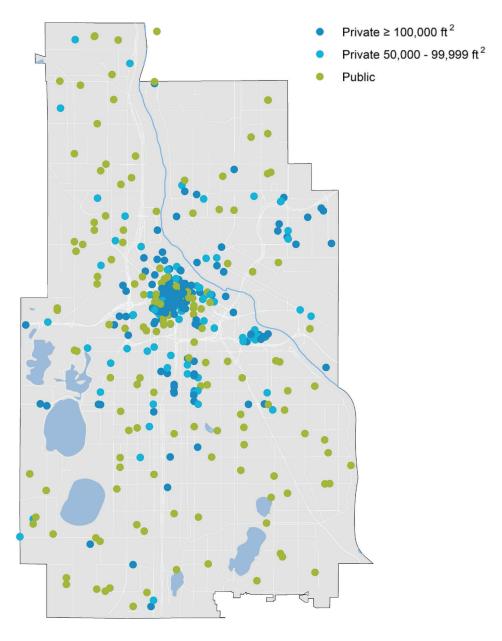


Figure 7. Map of benchmarked buildings by category.

#### **Compliance and Data Quality**

High compliance and data accuracy are critical for understanding building energy performance in Minneapolis and for driving energy and water efficiency actions. Reliable data was the focus of outreach in the early years of policy rollout.

In this fourth round of benchmarking, the benchmarking team's enhanced outreach led to an improved private building response rate of over 94% — a 4% increase over the previous round. Building responses were comprised of compliant submissions, compliant exemptions, and noncompliant submissions due to poor data quality (see Background on Minneapolis Benchmarking Policy section for an explanation on compliance). Of all private building submissions, 90% had good

data quality and were deemed compliant — an improvement from 89% in calendar year 2014.

Twenty-seven submissions were deemed noncompliant due to violations of data quality standards. Common violations included:

- unrealistic EUI
- missing electric meter data
- missing heating meter data

Though not used in energy analysis, 97% of private buildings reported water data for 2015, 90% of which were deemed reasonable.

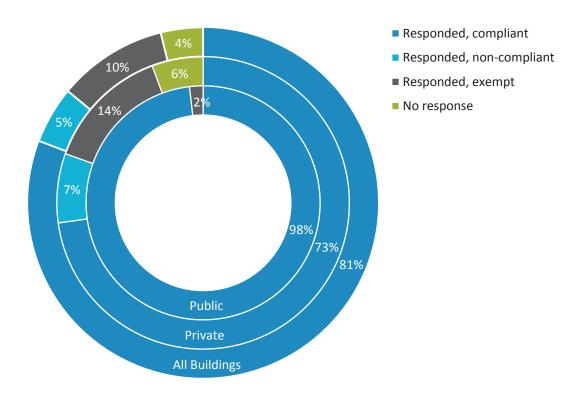


Figure 8. Percent of percent of response types by category by category.

## MINNEAPOLIS BENCHMARKING RESULTS

#### **Energy Performance**

#### **Public Buildings**

Buildings from the City of Minneapolis, Hennepin County, Minneapolis Public School Board, and Minneapolis Park and Recreation were analyzed using two whole building performance metrics: ENERGY STAR scores and site energy use intensity. Because ENERGY STAR scores are designed to accommodate the most common commercial building types (offices, hotels, schools, etc.), scores are often unavailable for the unique property types of public buildings such as convention centers, libraries, public safety facilities, and parking ramps.

In Minneapolis, 47% of public buildings consist of property types eligible for a score (though, not all of these buildings provided sufficient data to earn scores). 71 out of the 153 public buildings earned ENERGY STAR scores, and 29 scored 75 or higher, putting them in the top quarter of buildings nationally. Having a score of 75 or greater also qualifies a building for ENERGY STAR certification.

As a whole, Hennepin County had the highest median score (88) and the largest amount of square footage in top-performing buildings. The City's highest performing building was City Hall with a score of 95, while Minneapolis Public Schools' highest score was 99 for Green Central Park Elementary. The 59 Minneapolis Public School properties exhibit a great range in scores, from Jordan Park School with a score of 5 to Pratt Community Center, Davis Center, and Green Central Park Elementary with scores 95 or greater. The median score for Minneapolis Public Schools is 68. No Minneapolis Park and Recreation Board buildings were eligible to receive scores.

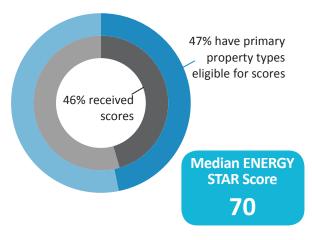


Figure 9. Percentage of public buildings eligible for and receiving ENERGY STAR scores along with the median score for those with scores.

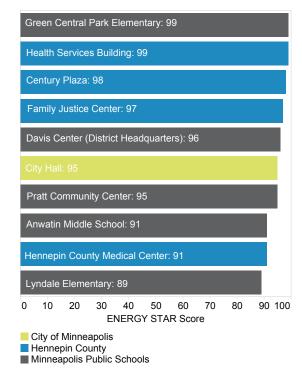


Figure 10. Top 10 performing public buildings.





#### **Motivated Team Drives Energy Efficiency at Century-old Butler Square**

Butler Square was built in 1906, but that does not mean that the large office building is outdated when it comes to energy efficiency. On the contrary, due to a motivated owner and smart staff, the building is among the lowest energy users in the city on a square footage basis (53 kBtu/ft²).

Having benchmarked for nearly a decade, building owner Jane Mauer has watched Butler Square make steady strides in efficiency. Jane identified that saving energy was in her business interest and was also environmentally responsible. By 2009, Butler Square had earned an ENERGY STAR score of 87 and became the world's first century-old commercial building to earn LEED-Certified status for operations and maintenance (LEED-EB O&M).

Building upon early success, Jane engaged and hired talented staff. For senior engineer John Hintze, improving the building's energy efficiency is as captivating as a toy is to a child. Property manager Angela Samargia brought her talents to Butler Square in part due to Jane's focus on LEED. In addition, John Yates, Jim Kreitz, and Barb Lene with McGough Facility Management manage the historic integrity of the building while driving a range of energy and water saving improvements including upgrading to efficient and digitized equipment, pragmatically cycling equipment off when it's not needed, and actively engaging tenants on energy during construction projects.

All along, staff have monitored energy and water results of efficiency investments. Most recently, results show an ENERGY STAR score of 94. John says, "It's good to track. Otherwise, how do you know what you're saving?" This diligence paid off in 2015 when the building sought LEED recertification and earned a higher distinction of LEED Silver, due to the strong focus on energy performance. Going forward, John and Angela continue to look for energy and, increasingly, water savings. On the water side, the team is making progress replacing 3.5+gal/flush toilets with those using 1.6 gal/flush. On energy, staff are looking to replace current track lighting and exterior lightings with LEDs.

The focus on energy and water use has helped keep Butler Square competitive by controlling operating costs and providing the 'green' amenity sought after by many potential tenants. Tools like benchmarking and LEED have given guidance for making successful efficiency investments. However, tools themselves don't accomplish much. For the century-old Warehouse District building, it took an owner with a vision and staff who take pride in working to make Butler Square one of the most efficient buildings in Minneapolis.

Results for public building site EUI, shown below, include all 153 public buildings. Public building site EUIs range widely from 6 kBtu/ft<sup>2</sup> to 313 kBtu/ ft<sup>2</sup>. As expected, the lowest energy users on a square foot basis are parking garages and ramps, as they are typically not heated or cooled. Low users with conditioned spaces include Anwatin Elementary (44 kBtu/ft²), Central Library (48 kBtu/ ft<sup>2</sup>), and Emergency Operations Training Center (56 kBtu/ft<sup>2</sup>). On the other end, the highest energy users per square foot are the City's water treatment and distribution campus (313 kBtu/ ft2), the County's Forensic Sciences Building (218 kBtu/ft²), Hennepin County Medical Center (185 kBtu/ft<sup>2</sup>), the Minneapolis Park and Recreation Board's Parade Ice - North and South (235 and 192 kBtu/ft² respectively), and Minneapolis Public Schools' Hiawatha Elementary (191 kBtu/ft²).

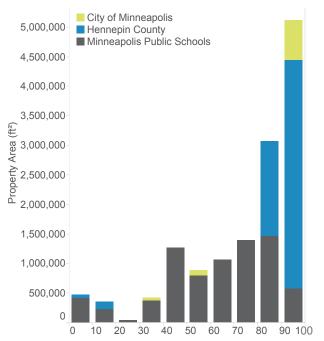


Figure 11. Cumulative public building property type area by ENERGY STAR score of 71 public buildings.

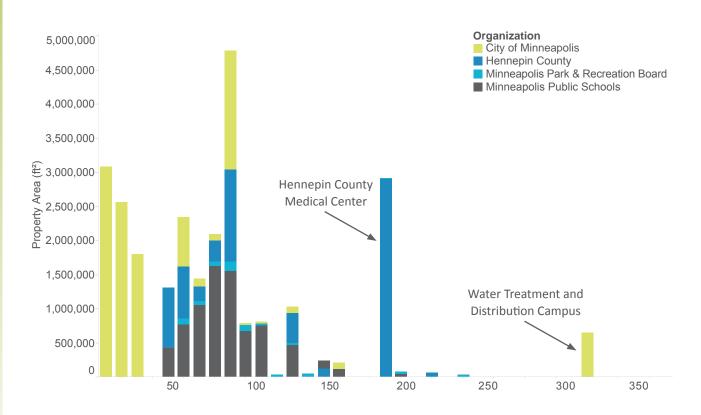


Figure 12. Cumulative public building property type area by energy use intensity ( $kBtu/ft^2$ ) of 153 public properties.

#### **Energy Use Trends in the First Three Years of Public Building Benchmarking**

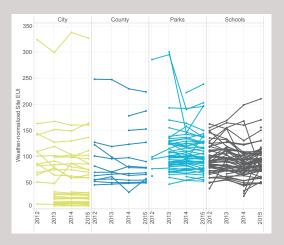


Figure 13. Weather-normalized site energy use intensity (kBtu/ft2) of individual properties by public entity from 2012 to 2015.

Figure 14. Average weather-normalized energy use intensity from 2015 by public entity.

#### **Two-year Comparison**

Relative to 2014, one of the four public entities showed a reduction in energy use. The City achieved its 1.5% annual reduction goal from 2014 to 2015 for consistently benchmarked buildings by decreasing total weather-normalized EUI 1.8%. Meanwhile, the County, Parks, and Schools experienced slight increases in total weather-normalized EUI of 2%, 8%, and 4% accordingly from 2014 to 2015 (though these modest rises were not enough to negate longer term reductions).

#### Four-year Trend

Year-over-year comparisons of the 81 public buildings consistently benchmarked from 2012 to 2015 show varying trajectories for individual buildings, whereas combined results by public entity, though statistically unchanged, are generally trending down. Average weather-normalized EUI by public entity declined a modest 2 to 10 kBtu/ft² in the four year period, representing a reduction of 2% to 8% from the first year of data. Across all consistently benchmarked public buildings, median weather-normalized site EUI decreased from 91 kBtu/ft² in 2012 to 86 in 2015, while the average dropped from 100 to 96. In addition, total public building weather-normalized site EUI dropped nearly 4% in the same four-year time span.

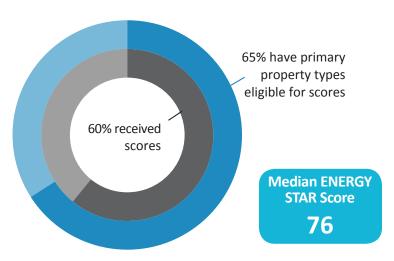


Figure 15. Percentage of private properties eligible for and receiving ENERGY STAR scores along with the median value of private buildings that received scores

#### **Private Buildings**

A total of 264 private commercial properties submitted benchmarking results with data quality that was considered compliant. Individual building results can be found in Appendix B.

Among private buildings, 60% received ENERGY STAR scores, an increase from 59% in 2014 due to improved data quality. The median score of 76 is two points less than 2014. Offices showed the highest performance as financial offices and office property types earned median scores of 91 and 84 respectively. Meanwhile, hospital, worship, and medical office property types were on the lower end of the spectrum scoring 38, 43, and 39 correspondingly (which is down from 44, 45, and 46 in 2014). The largest opportunities for energy savings are generally found among properties with the largest area and lowest scores. A sizable building area of roughly 10 million ft2, 20% of private building square footage with ENERGY STAR ratings, scored below 50, indicating great potential for energy savings.

There is a wide range of site EUIs, from 3 to 400 kBtu/ft², that are strongly associated with a building's property type. On the low end of the spectrum, parking properties use very little energy, typically less than 25 kBtu/ft², as they are often unconditioned spaces. Following parking facilities, nearly a quarter of Minneapolis office space boasts EUIs in the 40-60 range, below the national office median EUI of 67.3 and notable due to the Minneapolis' cold climate. On the opposite end, healthcare property types continue to consume the highest energy per square foot.

Four buildings within the top six EUIs include one specialty hospital, one hospital office, and two general hospitals and are significantly above the national median of 197 kBtu/ft² for hospitals. Three supermarket and grocery properties were also on the high end with EUIs above the national median of 186 kBtu/ft² for this property type. Another notable high user is a museum that showed a jump of nearly 150 kBtu/ft² since 2014.

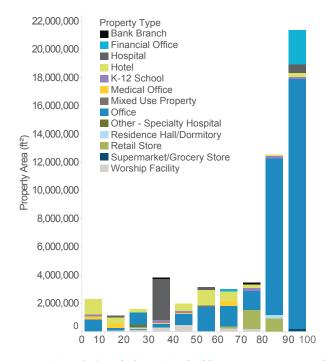


Figure 16. Cumulative private building property type area by ENERGY STAR score of 159 private buildings.

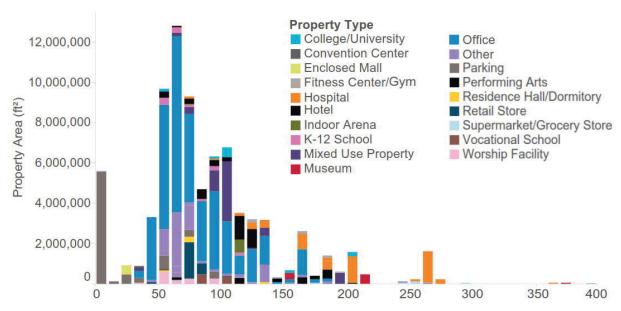


Figure 17. Cumulative private building property type area ( $ft^2$ ) by energy use intensity ( $kBtu/ft^2$ ) of 264 private buildings.

#### **Energy Use Trends in Two Years of Private Building Benchmarking**

Private commercial buildings 50,000 ft<sup>2</sup> and greater have now reported for two years, thereby providing an opportunity to explore the performance trends of all private buildings covered in the Minneapolis ordinance. Median ENERGY STAR scores dipped slightly from 79 to 76, while the median site EUI and weather-normalized site EUI dropped from 92 to 82 and 87 to 85 kBtu/ft<sup>2</sup> respectively. The greater reduction in site EUI is likely due to a milder winter in 2015. The weather-normalized EUI tells a more complete story and, along with the ENERGY STAR score results, the metrics indicate steady performance from 2014 to 2015.

Since the reporting date lags the performance year, building owners and managers had little opportunity to react to the benchmarking results and improve performance in calendar year 2015. In addition, since disclosure did not begin until August 2015 for the largest buildings and September 2016 for buildings 50,000 and 99,999 ft², building owners had not yet experienced the full roll-out of the benchmarking policy. Though some buildings are reacting to the benchmarking results, the full market cycle of understanding benchmarking results and then planning, making decisions, and investing in efficiency projects requires time.

	2014	2015
Median ENERGY STAR Score	79	76
Median Site EUI (kBtu/ft²)	92	82
Median Weather-normalized Site EUI (kBtu/ft²)	87	85

<sup>\*</sup> Values calculated for each metric from properties consistently benchmarked in 2014 and 2015 .

#### **Other Findings**

#### **Year Built**

The 2015 data show no clear relationship between a building's age and how well it performs. As expected, median site EUI by decade in which a building was constructed varies considerably, especially as it does not take property type into account. The median ENERGY STAR score, which accounts for the important building use variable, also indicates no trend. In fact, figure 18 shows that a median building built in the 1890s, 1930s, or 1990s earn similarly high scores over 75, while a median building built in the 1900s and 1970s earns similarly lower scores around 66. The finding is consistent across all buildings as well as within specific property types such as offices (figure 19). This is comparable with analysis from 2013 and 2014 and in other benchmarking cities. Asset quality and condition are often associated with age, but the relationship is not entirely causal. These factors, along with an asset's current operation, may influence energy performance more heavily than age alone.

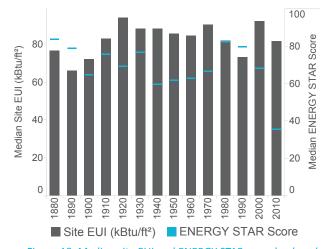


Figure 18. Median site EUI and ENERGY STAR score by decade built in all buildings.

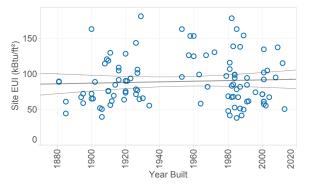


Figure 19. Energy performance by year built in office buildings.

#### **Fuel Types Serving Minneapolis Buildings**

Minneapolis buildings are served by electricity, natural gas, and a district energy system in downtown, which supplies steam and chilled water to many buildings. In addition, some institutional campuses run their own steam systems. The proportion of a given property's energy use provided by these fuels, called the fuel mix, affects the energy costs and associated greenhouse gas emissions. As building managers look for energy savings opportunities, the fuel mix can inform which projects may be most effective at lowering utility spending and energy consumption.

#### Water Use

For buildings with usable data, median water use varied significantly by property type, where buildings with bathing and showering facilities have the highest water use per square foot. Minneapolis water use intensity medians are below the national value for medical facilities, hotels, and offices and are higher than national medians in K-12 schools, retail stores, and worship facilities.

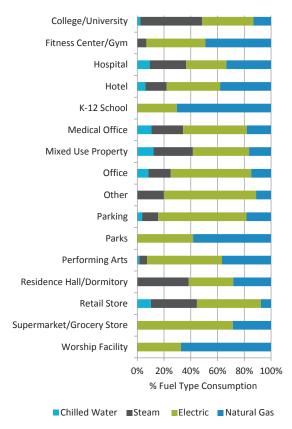


Figure 20. Average fuel type mix consumed of total site energy by the common property types.

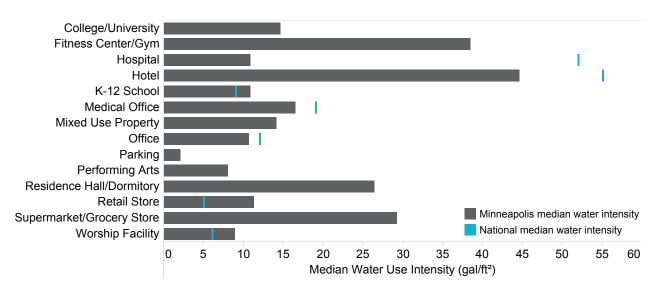


Figure 21. Median water consumption normalized by area for most common property types (types with more than five buildings) and compared to national median values where available<sup>5</sup>.

## **NATIONAL BENCHMARKING RESULTS COMPARISON**

Measured against seven cities with benchmarking ordinances, Minneapolis has by far the greatest number of heating degree days, which often demands higher energy consumption. However, energy metrics show that Minneapolis offices, hotels, and K-12 schools are relatively efficient in their climate with median site EUIs and ENERGY STAR scores similar to, and in some cases better than, those in other benchmarking cities.

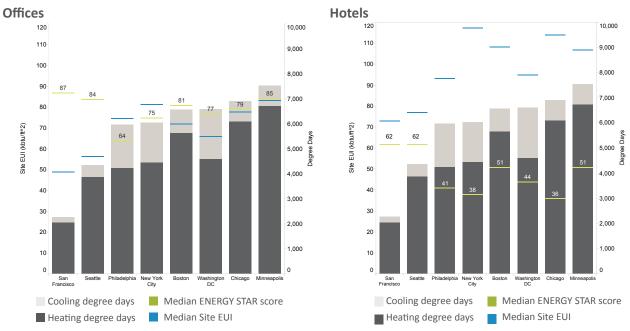


Figure 22. Eight city comparisons of energy performance and climate metrics of office buildings<sup>6,7</sup>.

Figure 23. Eight city comparisons of energy performance and climate metrics of hotels<sup>8</sup>.

#### K-12 Schools

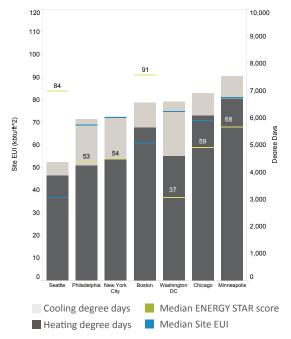


Figure 24. Six city comparisons of energy performance and climate metrics of K-12 schools<sup>8</sup>.

## DRIVING ENERGY EFFICIENCY ACTIONS WITH BENCHMARKING DATA

The Minneapolis energy benchmarking program is focused on greater market visibility of building energy performance and, to that end, it is striving to make the information more available and easier to digest for building owners, managers, tenants, and the general public.

**Scorecards.** In 2016, the program revamped Benchmarking Results report cards in an effort to leave the confusing realm of benchmarking data spreadsheets and call attention to valuable metrics such as EUI. The scorecard also provided directions for energy efficiency project resources and funding.

Energy Efficiency Workshops. While having whole building benchmarking data is useful, combining this with energy action tips and ideas is even more impactful. The program is targeting buildings with high potential for improvements with building-type specific workshops. The first workshop focused on unique energy opportunities in hospitals and future plans include workshops for hotels and offices.

**ENERGY STAR Certification Grants.** Benchmarking results are crucially important for recognizing buildings with high performance and driving higher efficiency in the market. Using the annual results, the City, with support from the Minnesota Pollution Control Agency, is offering grants towards ENERGY STAR Certification. This nationallyrecognized brand provides a stamp of highperformance validation of building practices and signals to tenants that the building is operated and maintained in an energy-efficient manner. In 2015, 110 buildings received an ENERGY STAR score over 75, making them eligible for certification and recognition as an ENERGY STAR building. If a building has not been certified in the past five years, owners can receive assistance through the Minneapolis ENERGY STAR Certification Grant Program. Two buildings successfully completed certification through the grant program in 2015.



Figure 25. Case study of Colwell Building achieving ENERGY STAR Certification.



## 2015 Benchmarking Results 801 Nicollet Mall

Thank you for providing 2015 building energy and water use data to the City of Minneapolis. Your building's performance for calender year 2015, based on the data submitted in 2016 is provided:



\* With an ENERGY STAR Score greater than 75, your building is eligible for ENERGY STAR Certification.

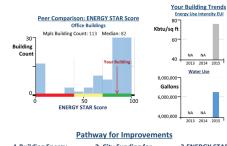




Figure 26. Example of scorecard sent to all buildings.

#### Minneapolis Building Energy Challenge.

Beyond communicating results, the program seeks to motivate buildings to improve energy efficiency. Launched in October 2015, the Minneapolis Building Energy Challenge asks individual buildings to reduce greenhouse gas emissions 15% by 2020 – numbers that support the City's Climate Action Plan. Fifteen private and public commercial buildings from schools to malls and office buildings have signed up to accept the challenge and their success stories are celebrated in City communications. On November 2, 2016, the City celebrated energyefficient buildings along with one most valuable building operator. The benchmarking team sought to show that high building energy efficiency is possible across any building type and wanted to recognize challenge leaders for their success in reaching goals. All of the award winners had undergone significant energy efficiency work and serve as great examples to inspire others.

Recognition is impossible without public disclosure. Going forward, the Minneapolis energy benchmarking program will continue developing methods to increase building performance transparency so that building managers may make informed decisions about the best energy, water, and cost saving opportunities in their buildings.

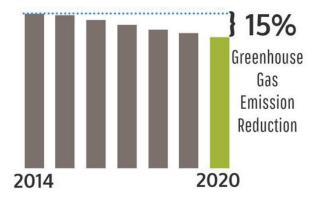


Figure 27. Building Energy Challenge 15% greenhouse gas reduction goal from 2014 through 2020.

#### **High Performing Building Award Winners:**

- Shriners Hospital for Children
- Calhoun Square
- Days Hotel
- Royalston Maintenance Facility
- Lake Harriet Community School Lower Campus
- Most Valuable Operator Marquette Plaza -Todd Snyder



Figure 28. On behalf of Calhoun Square, Nicole LaVere with the Ackerberg Group accepts a Building Energy Performance Award from Mayor Betsy Hodges (left) and Council Member Elizabeth Glidden (right) for achieving the 15% reduction.



Figure 29. Shriners Hospital for Children, won a Building Energy Performance Award for significant energy efficiency improvements as seen by a 19% drop in weather-normalized EUI.

## **END NOTES**

- <sup>1</sup> Institute for Building Efficiency. (2012, June). 2012 Energy Efficiency Indicator: Global Results. Retrieved Jan. 2016, from Institute for Building Efficiency: http://www.institutebe.com/InstituteBE/media/Library/Resources/Energy%20Efficiency%20Indicator/2012-EEI-Global-Results-Executive-Summary.pdf
- <sup>2</sup> US DOE. "New York City Benchmarking and Transparency Policy Impact Evaluation Report." US Department of Energy. May 2015. http://energy.gov/sites/prod/files/2015/05/f22/DOE%20New%20York%20City%20 Benchmarking%20snd%20Transparency%20Policy%20Impact%20Evaluation....pdf (accessed Jan 2016)
- <sup>3</sup> SF Environment, ULI Greenprint Center. "San Francisco Existing Commercial Buildings Performance Report." ULI.org. 2015. http://uli.org/wp-content/uploads/ULI-Documents/SFenergybenchmarkingreport.pdf (accessed Jan. 2016).
- <sup>4</sup> IMT, Appraisal Institute, DC Dept of Energy & Environment. "High Performance Buildings and Property Value." Institute for Market Transformation. Sept. 2015. http://www.imt.org/uploads/resources/files/LenderGuide\_FINAL.pdf (accessed Nov. 2015).
- <sup>5</sup> US EPA. (2012, June). Data Trends: Water Use Tracking. Retrieved January 1016, from ENERGY STAR Portfolio Manager: http://www.energystar.gov/ia/business/downloads/datatrends/DataTrends\_Water\_20121002.pdf?2003-40fb
- <sup>6</sup> City of Boston Energy Reporting and Disclosure Ordinance: http://berdo.greenovateboston.org/#Analysis2016

Chicago Energy Benchmarking Report: https://www.cityofchicago.org/content/dam/city/progs/env/EnergyBenchmark/2016\_Chicago\_Energy\_Benchmarking\_Report.pdf

New York City 2015 LL84 Energy and Water Data Disclosure (Data for Calendar Year 2014): http://www.nyc.gov/html/gbee/downloads/excel/2015\_nyc\_cy2014\_\_ll84\_disclosure\_data.xlsx

Philadelphia Energy Benchmarking Report 2014: http://50.87.248.194/~phillbui/ wpcontent/uploads/2015/09/MOS\_BnchMrkRprt\_R5fin\_FINAL.pdf

San Francisco Existing Commercial Buildings Performance Report 2010-2014: http://sfenvironment.org/download/san-francisco-existing-commercial-buildings-performance-report-20102014

Seattle Building Energy Benchmarking Dashboard 2015: https://public.tableau.com/profile/seattle.benchmarking#!/vizhome/EnergyBenchmarkingDashboard2015/EnergyBenchmarkingDashboard2015Washington DC 2015 Energy and Water Performance Benchmarking Results: https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/DC Disclosure 2015 cleaned0 093016.xlsx

- <sup>7</sup> All data is from reporting year 2015 except for New York City, San Francisco, and Philadelphia, which is from reporting year 2014.
- <sup>8</sup> New York City K-12 school data includes private sector data only.

## **APPENDIX A: GLOSSARY OF TERMS**

#### **Building**

In this report, the terms 'property' and 'building' are used interchangeably to indicate a site or premises with one Portfolio Manger submission. Although a rare occurrence, a single submission may include multiple physical structures, which are combined and termed 'property' and 'building' for the purposes of this report.

#### **ENERGY STAR Score**

The 1-100 ENERGY STAR score was developed by the Environmental Protection Agency (EPA) and provides a metric for comparison with other similar buildings across the country. The score accounts for differences in climate, occupancy, and operating hours. A score of 50 represents median energy performance, while a score of 75 or better indicates a building is a top performer. The higher the score, the more efficient the building.

#### **Energy Benchmarking**

Energy benchmarking is the process of comparing a building's energy performance against a standard, to itself over time, and to similar properties. ENERGY STAR Portfolio Manager was the software used to benchmark buildings in this report.

#### **Energy Use Intensity (EUI)**

EUI is the metric used for comparing buildings in Energy Star. It expresses a building's energy use relative to its size. In this report it is expressed as kBtu/ft<sup>2</sup> and is calculated by taking the total energy consumed in a year (in kBtu) and dividing it by the floor area of the building (in ft<sup>2</sup>). The lower the kBtu/ft<sup>2</sup>, the lower the energy consumption.

#### **Property**

In this report, the terms 'property' and 'building' are used interchangeably to indicate a site or premises with one Portfolio Manger submission. Although a rare occurrence, a single submission may include multiple physical structures, which are combined and termed 'property' and 'building' for the purposes of this report.

#### Site EUI

Site EUI represents the amount of heat and electricity consumed by a building as reflected in utility bills. This is a relevant metric for facility managers to understand how a building's energy use has changed over time. However, site EUI does not account for the environmental impacts of transmission and delivery of energy. Site energy sources for public buildings in this report include electricity, natural gas, chilled water, and steam.

#### **Source EUI**

Source EUI represents the total amount of raw fuel that is required to operate the building. Because it incorporates all transmission, delivery, and production losses, source EUI values are always greater than site EUI values.

#### Total GHG Emissions (MtCO<sub>2</sub>e)

The metric used in this report for greenhouse gas emissions represents a million metric tons of carbon dioxide equivalents. Equivalent  $\mathrm{CO_2}$  ( $\mathrm{CO_2}$ e) is a universal standard measurement for greenhouse gasses such as carbon dioxide, methane, nitrous oxide, and chloroflouro-carbons and their ability to trap heat in the atmosphere. Greenhouse gas emissions for buildings are calculated using the ENERGY STAR Portfolio Manager Methodology for Greenhouse Gas Inventory and Tracking Calculations.

# APPENDIX B: RESULTS FOR INDIVIDUAL PRIVATE BUILDINGS $\geq$ 50,000 FT<sup>2</sup>

Address	Postal Code	ENERGY STAR Score	Primary Property Type	Floor Area (Building) (ft²)	Floor Area (Parking) (ft²)	Year Built	Total GHG Emissions (Metric Tons CO2e)	Site EUI (kBtu/ft²)	Weather Normalized Site EUI (kBtu/ft²)	Source EUI (kBtu/ft²)	Weather Normalized Source EUI (kBtu/ft²)	Water Use (kgal)
10 2nd St NE	55413	51	Office	99317	0	1984	1507	99	104	240	245	1945
10 5th St S	55401		Office	242681	0	1885	2817	61	61	179	179	5638
10 Lake St W	55408	86	Retail Store	91805	0	1978	714	46	48	122	122	601
100 1St Ave N	55401		Social/ Meeting Hall	51685	0	1895	381	66	72	122	128	271
100 2nd Ave N	55401	77	Office	75203	0	1930	784	66	70	164	168	3662
100 5th St S	55402	91	Office	1170000	250153	1984	10546	53	55	141	143	8598
100 6th St N	55403	94	Office	457678	0	1906	3746	51	53	129	130	4351
100 Washington Ave S	55401	97	Office	632935	137959	1980	4368	48	51	110	113	4745
1000 Nicollet Mall	55403	94	Office	1900988	141797	2001	17821	57	59	147	148	13454
1001 Marquette Ave	55403	3	Hotel	781000	0	1992	10618	118	121	224	227	46160
101 4th St SE	55414		Vocational School	70080	29164	1924	1028	105	108	235	239	2938
1010 Currie Ave	55403	23	Residence Hall/ Dormitory	96530	0	1922	1650	137	141	279	282	9147
1011 Nicollet Mall	55403	68	Office	59479	0	1920	986	90	93	256	266	882
1012 Lasalle Ave #B	55403		College/ University	165516	0	1992	2261	104	105	219	220	2746
109 7th St S - Roanoke Bldg	55402	92	Office	195308	0	1927	1556	77	80	132	135	2288

110 5th St N	55401	66	Office	205435	0	1916	2978	109	110	233	233	3732
1101 Lasalle Ave	55403	97	Hotel	200390	70000	1987	1363	59	62	112	115	6664
1101 River Pkwy W	55415	96	Office	83456	120516	2002	668	56	58	128	130	697
1107 Harmon Pl Mpls	55403		College/ University	158000	0	2003	2189	100	102	221	222	3011
111 Washington S	55401		Office	432830	0	1987	11942	138	139	423	424	5659
112 19th Ave NE	55418		K-12 School	53450	25000	1975	293	52	57	92	97	494
1130 Nicollet Mall	55403		Other	55237	7500	1976	1695	242	247	495	497	1629
119 4th St N	55401	81	Office	104843	0	1894	1064	67	71	161	164	1561
120 6th St S	55402	87	Office	525997	70225	1960	7756	125	129	240	244	3402
1200 Marquette Ave	55403	43	Worship Facility	120000	12000	1897	793	58	62	109	113	1189
1201 Broadway W	55411	18	Worship Facility	54861	30000	1978	439	54	57	127	131	702
121 8th St S	55402	72	Office	511622	73000	1981	7241	116	119	229	233	4140
122 Franklin Ave W	55404	76	Office	71756	0	1963	691	99	0	163	0	929
1220 Marshall St - brew House	55402	67	Office	100834	89648	1908	1291	115	121	213	218	632
123 3Rd St N	55401	92	Office	182374	16696	1911	1629	56	58	141	140	2155
1300 Godward St	55413	97	Office	173180	150000	1988	1364	41	42	121	122	2249
1313 Nicollet Mall	55403	67	Hotel	275000	12000	1962	2888	86	89	172	174	9079
1330 Nicollet Mall	55403		Parking	30000	300998	1983	327	92	99	177	185	83
1450 Lake St W	55408	97	Supermarket/ Grocery Store	53070	0	1939	1455	176	181	433	438	1725
1455 Lake St W	55408	61	Financial Office	65000	76704	1965	763	107	114	195	203	605

15 5th St S	55402	84	Office	178008	0	1916	1782	92	98	167	174	2823
15 9th St S	55402		College/ University	80275	7950	1920	0	155	159	296	300	1
1500 6Th St NE	55413	60	Mixed Use Property	51864	0	1965	362	69	75	118	123	1263
1500 Washington Ave S	55454	68	Hotel	195000	0	1984	2037	90	94	172	177	6678
1520 New Brighton Blvd -home Depot	55413	71	Retail Store	129711	0	1997	1467	74	78	179	182	1368
1540 New Brighton Blvd	55413	27	Supermarket/ Grocery Store	64130	0	2013	2709	254	254	661	661	2110
16 9th St S #1	55402		Fitness Center/ Gym	120000	0	1990	2178	165	169	302	306	4001
1600 Buchanan St	55413	38	K-12 School	82664	0	1966	653	81	88	134	142	1274
1601 Hennepin Ave	55403	24	Worship Facility	56400	0	1908	375	65	69	112	117	1618
1615 River Rd W	55411	45	Office	117805	0	2009	1684	138	144	240	245	1444
1630 4Th St Ne	55413	87	K-12 School	68337	40000	1950	307	55	61	79	86	637
1635 Hennepin Ave	55403		Office	90260	0	1910	1015	119	126	193	200	3176
1650 New Brighton Blvd	55413	81	Retail Store	134918	265417	1997	1831	83	85	213	213	1623
17 7th St S	55402		Parking	2870	892673	1963	542	920	920	2887	2887	419
17 Washington Ave N	55401	38	Bank Branch	56935	0	1969	768	87	91	213	217	252
1700 2Nd St Ne	55413	54	Office	54586	50000	2001	688	135	142	216	223	1172
1750 Hennepin Ave	55403		Museum	230000	50000	1970	4403	160	162	314	316	4616
1900 Nicollet Ave	55403	48	Worship Facility	90000	0	1948	573	66	71	108	114	587
1917 Logan Ave S	55403	76	Worship Facility	53048	2000	1916	205	57	63	71	77	124
1936 Lyndale Ave S	55403		Other	85700	10000	1906	522	61	65	103	107	330

20 Washington Ave S	55401	94	Office	212724	0	1964	1845	59	62	137	141	4073
200 3rd Ave N - colonial Warehouse	55401	98	Office	251465	0	1885	1496	44	47	96	98	1355
200 5th St S	55401		Other	812848	0	1920	19444	136	139	371	373	10763
200 6th St S	55402	96	Office	1467832	316454	1981	12006	42	43	126	126	13097
201 2Nd Ave SE	55414		Parking	240000	240000	1981	186	4	4	12	12	0
201 Chicago Ave S	55415	36	Office	62400	0	2012	971	115	118	251	252	708
2016 8th St	55454	82	Residence Hall/ Dormitory	89720	0	1993	670	78	81	126	131	2372
2021 Hennepin Ave E	55413	78	Office	115000	0	1923	1224	94	99	176	181	1188
2025 East River Pkwy	55414		Other - Specialty Hospital	103570	0	1990	2928	250	253	468	472	5
2101 Kennedy St NE	55413		Office	159980	0	1919	0	64	66	98	100	5003
2101 Summer St	55413		Parking	190675	190675	2002	116	3	3	9	10	0
212 9th Ave S	55415		Performing Arts	272630	88000	2006	4863	166	171	298	303	8082
2121 Lake St E - ymca	55403		Fitness Center/ Gym	135000	45000	2000	2418	128	132	287	291	6249
2123 Clinton Ave S	55404	97	K-12 School	50100	28000	1914	219	53	57	77	81	969
2215 Park Ave	55407		Parking	174126	174126	1987	164	5	5	14	15	17
222 9th St S	55402	90	Office	907692	128000	1985	8336	79	81	150	153	3248
2220 Riverside Ave	55454		Urgent Care/Clinic/ Outpatient	110330	0	1970	1168	79	82	169	174	1874
225 6th St S	55402	94	Office	1636050	235981	1992	17054	62	63	162	165	14755
2300 Chicago Ave	55404		Mixed Use Property	231555	3000	1951	2159	79	84	153	157	3015
2323 Riverside Ave S	55454		Indoor Arena	56000	0	1974	841	80	80	232	232	3

2324 Emerson Ave S	55405	64	Worship Facility	79392	0	1928	425	52	57	90	96	378
2329 Central Ave NE	55418	73	Bank Branch	48755	73430	1971	471	72	76	156	160	111
233 Park Ave	55415	55	Office	52069	0	1909	943	121	126	287	295	1660
2400 Park Ave	55404	80	Office	58000	31000	2008	741	95	97	206	206	949
2407 University Ave SE	55414		Hotel	52866	0	1984	597	55	57	173	179	3840
2410 Irving Ave N	55411	93	K-12 School	47000	10000	1969	307	60	65	109	114	94
2414 7th St S	55454		Rehab/ Physical	294230	0	1975	4374	130	129	243	242	11120
2430 3rd Ave S	55404		Museum	466675	0	1915	7944	215	218	303	303	7337
2430 3rd Ave S	55404		Museum	85840	0	2005	3335	377	379	654	653	4550
2450 Riverside Ave	55454	22	Other - Specialty Hospital	238780	0	2011	7074	271	271	488	488	17120
25 1st St N	55401		Parking	479718	479718	1982	272	3	3	9	9	0
25 Grove St	55401	78	K-12 School	156000	61000	1922	998	66	72	109	116	4558
250 Marquette Ave	55401	95	Office	549348	116922	1972	9817	130	133	285	288	5722
2500 3rd Ave S	55404		Parking	128760	128760	1974	155	9	9	28	28	16
2500 6th St S	55402		College/ University	150639	0	1924	1791	100	105	194	199	1026
2500 Lake St E	55406	82	Retail Store	127233	291369	1976	1700	77	79	208	210	5772
2501 Stevens Ave S	55404		College/ University	137463	37062	1973	2730	203	209	334	340	1839
2512 7th St S	55454		Rehab/ Physical	173722	0	1945	3637	190	193	344	347	6923
2525 Chicago Ave	55404	38	Hospital	800000	525000	2013	21039	210	212	426	426	35627
2530 Chicago Ave	55404	11	Medical Office	165000	160000	2009	3828	186	189	378	381	6601

2540 Park Ave	55404		Convention Center	83721	0	1980	273	37	39	57	60	386
255 2nd Ave S	55401	6	Office	528599	0	1900	16762	163	164	487	488	9107
2701 Elliot Ave	55407		Parking	1630889	1630889	1980	1625	5	5	15	15	4141
2701 University SE	55414	64	Office	58968	10000	1981	926	107	110	250	253	1027
2701 Wells Fargo Way	55408	88	Office	228894	0	2004	2564	67	68	175	175	5973
2730 31St St E	55406		Worship Facility	52920	0	1923	161	35	39	53	56	216
2751 Elliot Ave	55407	39	Medical Office	75798	0	1986	1290	116	118	269	271	1255
277 12th Ave N	55401	32	K-12 School	89000	0	1968	906	75	81	164	169	1370
2800 Chicago Ave	55407	65	Medical Office	53750	0	1986	648	96	100	196	199	553
2800 Wayzata Blvd	55405		Other	99922	0	1956	1370	113	121	224	232	1387
2801 4th Ave S - south Building #5	55408	89	Office	241753	0	1983	2569	68	70	168	170	4693
2808 Hennepin Ave	55408		Fitness Center/ Gym	55000	0	1986	1282	193	197	382	385	2297
2828 Chicago Ave	55407	1	Medical Office	56239	50000	2008	2096	182	182	570	570	1034
2840 4th Ave S	55408		Parking	655000	655000	2001	407	4	4	11	12	1198
2850 26Th Ave S	55406		Supermarket/ Grocery Store	65130	0	1989	2711	256	262	653	658	1665
2929 Chicago Ave	55407	89	Office	444541	0	1927	5182	106	112	194	199	4762
30 5th St S	55401		Parking	20500	183136	1966	223	53	56	167	176	17
30 7th St S - marriott Hotel	55402	51	Hotel	555000	0	1990	0	122	123	213	215	28557
300 1st Ave N	55401		College/ University	100608	0	1886	1168	95	101	190	196	1060
300 Industrial Blvd	55413		Mixed Use Property	65400	91850	1971	303	37	41	76	79	1

300 Washington Ave s	55401	47	Hotel	165010	270000	2001	3186	182	194	324	335	7363
3001 Broadway St Ne	55413	84	Office	192600	346481	2000	2585	71	72	207	208	4325
301 4th Ave S	55415	82	Office	150293	0	1881	1265	89	96	144	151	2337
3027 Hennepin Ave	55408		Mixed Use Property	176701	182400	1983	4219	192	196	389	391	9539
3033 Excelsior Blvd	55416		Office	155000	149646	1953	2653	163	166	287	290	42
310 4th Ave S	55403	92	Office	129636	0	1900	869	72	76	115	120	500
3100 Lake St W	55416		Office	54000	2200	1953	623	98	103	190	195	5
3106 Nicollet Ave	55408		Transport Terminal/ Station	210000	0	1990	1396	68	75	113	121	7471
312 3rd St S	55415	88	Office	71010	0	1906	442	39	41	98	100	316
3200 Lake St W	55416		Strip Mall	89054	44440	1988	2157	183	188	391	396	5
323 Stinson Blvd	55413	1	Office	50826	0	1969	3856	400	403	1170	1171	1121
33 S 6th St	55402	99	Office	1375717	0	1982	13288	67	69	153	155	8519
330 2nd Ave	55401	81	Office	233522	28700	1980	2363	69	72	160	162	2169
330 University Ave SE	55414		Mixed Use Property	366600	44064	1968	5855	131	133	261	262	4820
331 2nd Ave S	55401	100	Office	137823	0	1982	1812	83	87	207	211	1763
333 S 12th St	55403	39	Worship Facility	108000	96000	1928	764	79	85	122	129	717
333 Washington Ave N	55401	77	Office	68043	0	1895	768	72	75	178	182	907
3335 Blaisdell Ave	55408		Fitness Center/ Gym	61000	32000	1960	1231	183	189	336	341	3210
3433 Broadway St NE	55413	99	Office	126066	162200	1985	742	38	39	93	94	1576
353 5th St N	55403		Other - Entertainmen t/ Assembly	1127632	184160	2010	12870	70	71	179	180	13233

3660 Technology Dr	55418	22	Office	169300	300000	1985	4949	163	167	454	458	138
3701 Wayzata Blvd	55416	85	Office	425036	388460	1953	6187	96	99	231	233	7234
3737 3rd Ave S	55409		Social/ Meeting Hall	216300	30000	1918	1295	59	63	101	105	1768
3800 Pleasant Ave	55409	82	K-12 School	63260	10433	1935	303	58	64	84	91	894
400 1st Ave N	55401	86	Office	224808	0	1910	2200	76	79	157	161	1936
400 2nd Ave S	55401	61	Office	135009	0	1979	1797	97	103	214	219	761
400 4th St S	55415	84	Office	243853	0	1881	2053	89	96	144	151	3817
401 2nd Ave S	55401	16	Hotel	173857	0	2008	3381	143	149	311	317	5626
401 3rd St N	55401		Office	107839	70584	1901	1004	65	69	149	151	1032
4021 Thomas Ave N	55412		Other - Education	56963	0	1950	340	79	88	107	117	446
404 8Th St S	55415	68	Office	73722	9500	1927	791	101	105	178	182	255
405 8th St S	55404	51	Hotel	136699	45000	1924	1798	130	135	222	228	7252
409 Marquette Ave	55402		Parking	146080	0	1953	164	6	6	17	18	44
412 3rd St S	55415		Parking	545975	545975	1983	648	6	6	18	19	190
414 Nicollet Mall	55401	23	Office	373735	0	1967	9725	127	130	398	410	7570
416 10th St S	55404	80	Hotel	85608	0	1926	584	98	105	125	133	9959
416 1st Ave N	55401		Office	151817	0	1900	1625	65	68	168	171	3105
420 5Th St N	55401	91	Office	304150	35145	1913	3102	70	73	162	164	1285
4225 3rd Ave S	55409		Pre- school/Dayca re	108000	0	1963	468	46	49	74	78	1971
425 7th St S	55415	56	Hotel	183559	0	1983	0	111	113	195	198	5280

425 S 2nd St	55415	86	Hotel	91600	0	2001	768	64	66	136	140	2677
45 5th St S	55402	88	Office	324984	0	1921	2947	90	94	151	156	2
45 7Th St S Suite 200	55402		Mixed Use Property	717654	137974	1987	8260	96	98	187	191	6396
45 8th St S #F	55402	80	Hotel	115600	37440	1998	1211	73	0	166	0	3820
46 S 11th St	55403		College/ University	75019	0	2005	1324	157	162	290	294	960
4652 Lyndale Ave N	55412		Other - Services	53970	0	1986	49	5	5	14	14	85
4701 Beard Ave S	55410		Other	59172	0	1914	1622	157	160	427	428	163
4999 France Ave S	55410		Mixed Use Property	42147	45681	2000	1046	125	128	381	390	828
50 6th St S	55402	85	Office	811250	274098	2001	9854	61	62	186	190	10572
500 Washington Ave S -depot Office Center	55415	67	Office	143197	0	2001	2146	102	105	239	241	11
5000 Oliver Ave N	55430	33	K-12 School	53446	0	1955	453	98	109	148	159	345
501 2Nd St S	55401		Other - Education	55562	0	2008	716	123	132	216	225	508
501 4th Ave S	55415		Parking	87120	304920	1974	399	23	23	70	71	167
501 Nicollet Mall #D	55402		Mixed Use Property	113000	0	1991	0	68	70	151	154	832
501 Nicollet Mall #j	55402	87	Office	683103	0	1991	6892	85	87	164	166	3635
5025 Knox Ave S	55419	43	Worship Facility	95345	180000	1930	911	93	99	161	167	1349
507 23rd Ave S	55454		Parking	75000	75000	1945	220	14	14	45	45	0
507 23Rd Ave S	55454		Parking	45500	45500	1945	208	22	22	70	70	0
510 1st Ave Nbutler North Building	55403		Office	138474	0	1910	1697	77	80	193	196	4742
511 Groveland Ave	55403	64	Worship Facility	106412	30000	1916	638	56	61	100	105	868

511 Kenwood Pkwy	55403	46	K-12 School	151904	0	1902	1480	91	95	163	167	1219
517 Marquette Ave	55402		Parking	63583	189200	1999	322	34	36	81	83	16
524 23Rd Ave S	55454		Hospital	82807	0	1990	2981	368	368	604	604	5954
525 2nd St N	55401	42	Hotel	81300	19300	2000	864	74	77	170	176	2714
525 West 54th St	55419	4	K-12 School	85345	60000	1922	781	114	124	162	173	747
527 Marquette Ave	55402	34	Office	142136	0	1929	0	181	191	292	304	18
528 Hennepin Ave	55403		Performing Arts	119970	0	1888	1170	64	67	154	158	2773
560 6Th Ave N	55411	33	Office	56000	0	1984	1088	95	94	297	295	0
570 6th Ave N	55411		Other - Public Services	285160	0	1984	1877	68	75	112	120	6955
5937 Nicollet Ave	55419	99	Supermarket/ Grocery Store	66903	0	2008	3185	292	297	747	750	2297
600 1st Ave N	55403		Indoor Arena	678396	0	1990	10219	118	119	233	235	195
600 Hennepin Ave	55403		Mixed Use Property	306273	206365	2002	0	106	0	261	0	3149
601 1st Ave N	55403	61	Hotel	208721	0	2003	2788	103	105	216	219	6907
601 Stinson Blvd	55413		Parking	67000	67000	1920	161	15	15	46	47	284
606 24th Ave S - Fairview St Marys Bldg	55454	94	Hospital	596511	0	1945	11564	170	171	317	318	19436
608 2nd Ave S	55402	58	Office	1075164	443810	1916	16975	105	107	249	252	26473
610 22nd Ave S	55454		Mixed Use Property	112100	20400	2007	1006	79	83	148	153	1518
615 1st Ave NE - River Station	55413	78	Office	157227	60340	1928	1788	65	66	177	177	949
615 2nd Ave S	55402	7	Hotel	200503	0	2001	3526	171	179	294	303	15820

616 24th Ave S	55454	10	Medical Office	79000	0	1945	2113	132	132	409	409	4919
625 22nd Ave S	55454		Mixed Use Property	65000	0	1988	644	94	98	164	169	966
625 2nd Ave S	55402		Other	56201	0	1914	1002	131	137	285	293	961
630 22Nd Ave S	55454		Library	70000	0	1997	1005	118	123	233	239	3287
651 Nicollet Mall	55402	10	Office	199323	0	1989	4728	154	158	368	372	2662
700 10Th Ave S	55415	89	Office	60528	0	1920	504	74	77	136	140	414
700 3Rd St S	55415	63	Office	68047	11000	1902	602	89	96	150	157	236
700 Dunwoody Blvd/Wayzata Blvd	55403		Vocational School	73050	180000	1949	676	103	111	160	168	436
700 Humboldt Ave N	55411		Pre- school/Dayca re	58000	0	1991	515	81	89	148	156	2089
700 Nicollet Mall	55402	78	Retail Store	1235912	0	1902	9877	74	77	132	135	15205
701 Broadway W	55411	100	Supermarket/ Grocery Store	80135	0	2008	3100	243	246	609	608	1322
701 Washington Ave N	55401	41	Office	135500	40000	1911	2043	130	137	249	255	4
702 1st St N	55401	83	Office	127484	0	1905	106	52	54	130	131	4552
704 4th Ave S	55402	92	Office	671610	246077	1987	1801	82	85	166	170	4655
706 2nd Ave S - baker Building	55402	9	Office	112356	0	1926	2715	144	149	377	384	771
707 2nd Ave S - american Express Headquarter	55403	91	Financial Office	972407	184590	1999	10649	77	81	175	179	13156
708 2Nd St S	55401	78	Office	119155	0	2003	1190	105	111	171	174	1865
710 24th St E	55404	54	Hospital	165169	0	1987	3164	165	168	316	315	4601
711 Hennepin Ave	55403		Mixed Use Property	93000	8000	1972	1064	90	96	186	189	1555
715 20th Ave S	55454	90	Residence Hall/ Dormitory	66000	21780	1999	399	52	55	100	103	3010

715 23rs Ave S	55454		Fitness Center/ Gym	61800	0	1960	1202	150	155	313	319	2181
717 25th Ave S	55454		Parking	40000	40000	1945	201	25	25	77	77	0
717 Marquette Ave - Investors Bldg	55402	96	Office	424583	0	1926	3356	72	74	130	133	4888
720 13Th Ave S	55415	29	Worship Facility	73986	0	2003	532	60	63	118	121	973
720 22nd Ave S	Minnea polis, MN		Social/ Meeting Hall	62500	0	1966	974	122	125	251	253	3274
729 2nd Ave	55402		Mixed Use Property	111232	97000	1905	0	194	199	335	342	7971
730 2nd Ave S	55402	94	Office	329505	80000	1968	2489	82	84	128	130	3897
8 60Th St W	55419	76	Worship Facility	60640	62000	1959	268	50	54	77	81	674
80 8th St S	55402		Mixed Use Property	2266906	196500	1973	26558	103	105	192	195	63065
800 Lasalle Ave Ste # 1040	55402	85	Office	782575	151710	1991	9364	95	97	193	196	13300
800 Nicollet Mall	55402	86	Office	1047458	136013	2000	12019	71	73	180	182	15903
801 21st Ave S	55454		Residence Hall/ Dormitory	78800	0	1966	596	77	80	127	130	1965
801 21st Ave S	55454	82	Residence Hall/ Dormitory	100764	0	1973	764	77	80	127	130	2778
801 Lasalle Ave	55402		Parking	250000	250000	1968	320	6	6	20	20	0
805 2Nd Ave S	55402	31	Worship Facility	70000	18800	1953	575	77	84	138	144	419
810 Glenwood Ave N	55405		Other	565336	510175	1909	4693	53	55	131	133	9060
811 Lasalle Ave	55403		Other - Mall	60000	16000	1998	1086	164	172	298	308	291
814 9th St S	55404		Parking	24731	328349	1981	344	74	75	215	219	115
818 2nd St S - guthrie Theatre	55415		Performing Arts	231642	0	2006	5350	119	119	355	354	11923
818 Dunwoody Blvd	55403		Vocational School	225776	250000	1914	2086	81	86	153	158	7404

821 Marquette Ave	55402	18	Hotel	202536	40343	1929	2603	98	99	208	209	11901
825 8th St S	55404	16	Office	176529	0	1982	3617	179	185	339	346	5296
825 Nicollet Mall - Medical Arts Bldg	55402	69	Medical Office	299253	0	1923	4227	136	141	223	229	5274
84 10th St S	55402	65	Office	63360	0	1914	752	85	86	189	190	3503
88 6th St S	55402	54	Hotel	208442	0	2007	2761	112	115	218	219	7755
90 11th St S	55403		Office	100000	0	1983	2296	139	140	359	359	1969
90 7th St S	55402	92	Office	1340572	157358	1987	12544	52	53	145	145	11375
900 2nd Ave S - international Center	55402	47	Office	365574	96546	1984	6796	99	100	287	288	5414
900 4th St N	55401		Other - Lodging/ Residential	130000	0	1860	1024	98	108	140	150	2437
900 Nicollet Mall #c	55402	85	Office	522088	0	2001	5874	92	94	182	184	7407
900 Nicollet Mall #h	55403	67	Retail Store	158193	1000	2001	2776	89	89	269	269	0
901 3rd Ave S	55402	94	Financial Office	979787	286221	2002	10223	62	63	163	163	11437
901 Hennepin Ave	55402	2	Hotel	73439	0	1912	1570	206	209	357	361	5190
901 Nicollet Mallyoung Quinlan Bldg	55402	87	Office	260206	69334	1926	0	78	80	169	172	1609
910 26Th St E	55407	44	Medical Office	61609	0	1986	985	112	114	254	255	842
910 Elliot Ave	55404		College/ University	117144	0	1900	750	57	61	106	110	2026
910 Lasalle Ave	55402		Parking	210700	0	1954	210	5	6	15	16	42
911 Marquette Ave	55402	93	Office	685144	66439	1991	7356	61	62	167	169	4328
913 26Th St E	55407	35	Hospital	1560501	0	1926	42443	260	268	459	465	71463
920 2nd Ave S	55402	84	Office	293978	63906	1986	3481	67	69	184	186	4544

920 Lake St E	55407		Restaurant	70000	0	1929	2345	263	267	544	547	3967
921 Marquette Ave	55402		Parking	76114	385200	1961	397	58	62	90	94	294
921 Washington Ave S	55415	82	Office	52516	0	1920	643	76	77	193	194	1454

## APPENDIX B: RESULTS FOR INDIVIDUAL PUBLIC BUILDINGS ≥ 25,000 FT<sup>2</sup>

	Property Name	Address	Postal Code	ENERGY STAR Score	Primary Property Type	Floor Area (Buildings) (ft²)	Floor Area (Parking) (ft²)	Year Built	Total GHG Emissions (Metric Tons CO2e)	Site EUI (kBtu/f t²)	Weather Normalized Site EUI (kBtu/ft²)	Source EUI (kBtu/ft²)	Weather Normalized Source EUI (kBtu/ft²)	Water Use (kgal)
City	10th and Hennepin Ramp	935 Hennepin Avenue	55403		Parking	552000	552000	1998	686	8	8	20	20	2141
City	10th and LaSalle Ramp	915 LaSalle Avenue	55403		Parking	360000	360000	2001	484	10	10	21	22	463
City	City Hall	350 South 5th Street	55415	95	Office	680000	0	1895	4973	59	60	118	120	11443
City	City of Lakes	309 2nd Avenue South	55401	37	Office	47833	0	1958	842	153	164	291	302	496
City	Currie Maintenance Facility	1200 Currie Ave North	55403		Other - Services	171200	0	1980	1401	81	87	136	142	2729
City	Emergency Operations Training Center	25 37th Avenue NE	55421		Other	42581	0	2010	320	56	60	121	125	549
City	Courthouse	333 3rd Avenue South	55415		Parking	105000	105000	1997	358	24	26	54	58	0
City	Fire Station # 06	121 E 15TH ST	55403		Fire Station	27160	0	1980	211	72	76	130	134	274
City		415 south 3rd Street	55401		Parking	350000	350000	1974	538	12	13	25	26	184
City	Haaf Ramp	424 4th Street South	55415		Parking	260000	260000	1993	1051	30	32	63	65	397
City	School (Police	4131 Dupont Avenue North	55412		Office	41326	0	1960	639	154	161	262	265	340
City	Harmon Ramp	25 South 11th Street	55403		Parking	175000	175000	2003	424	14	14	38	39	620
City	Maintenance	6036 Harriet Avenue South	55419		Repair Services (Vehicle, etc.)	53364	0	1959	339	65	70	108	114	922

City	Hawthorne Ramp	31 North 9th Street	55403		Parking	630000	630000	1999	1600	21	22	42	42	416
City	Hiawatha Maintenance Facility	1901 East 26th Street	55404		Repair Services (Vehicle, etc.)	62192	0	2010	789	72	75	197	202	87
City	Hilton Ramp	1030 2nd Avenue South	55403		Parking	400000	400000	1992	852	10	11	33	33	0
City	Leamington Ramp	1001 2nd Avenue South	55403		Parking	700000	700000	1991	855	12	12	20	21	569
City	Mill Quarter Ramp	711 South 2nd Street	55403		Parking	120000	120000	2005	159	7	7	20	21	41
City	Minneapolis Convention Center	1301 second Avenue South	55403		Conventio n Center	1500000	0	1989	15339	84	86	162	164	29898
City	Orchestra Hall Ramp #1	1111 Marquette Avenue South	55403		Parking	239000	239000	1976	560	21	23	39	41	97
City	Orchestra Hall Ramp #2	1111 Marquette Avenue South	55403		Parking	148000	148000	1989	175	6	6	18	19	48
City	Plaza Ramp	117 South 12th Street	55403		Parking	319000	319000	1989	827	19	20	42	43	912
City	Police Precinct #3	3000 Minnehaha Avenue	55406		Police Station	33761	0	2005	472	100	103	224	226	497
City	Police Precinct 4	1925 Plymouth Avenue North	55411		Police Station	25319	0	1988	349	106	112	223	227	462
City	Public Service Center	250 South 4th Street	55401	55	Office	93010	0	1957	1316	127	137	233	243	1457
City	Riverfront (Guthrie) Ramp	212 9th Avenue South	55403		Parking	250000	250000	2005	503	10	10	31	32	0
City	Royalston Maintenance Facility	661 5th Avenue North	55405		Repair Services (Vehicle, etc.)	71029	0	1998	509	86	97	130	142	857
City	TAD 4 Ramp	318 2nd Avenue North	55403		Parking	450000	450000	1993	1836	30	31	66	67	508
City	TAD 5 Ramp	516 2nd Avenue North	55403		Parking	618000	618000	1989	1576	18	19	41	42	434
City	TAD 7 Ramp	101 North 9th Street	55403		Parking	1650000	1650000	1991	2836	10	10	27	27	582

City	Traffic Maintenance Facility (300 Border)	300 Border Avenue	55405		Other - Public Services	61416	0	1962	424	61	66	114	120	588
City	Vineland (Walker) Ramp	727 Vineland	55403		Parking	115000	115000	2004	488	27	28	67	68	4446
City	Water Treatment and Distribution Campus	4500 Marshall Street NE	55421		Drinking Water Treat- ment	650000	0	1930	30269	313	327	740	750	0
County	1800 Chicago	1800 Chicago S.	55404	88	Office	102815	0	1996	847	74	79	137	141	2574
County	Central Library	300 Nicolet Mall	55401		Other	406354	266266	2004	2971	48	50	115	118	7203
County	Century Plaza	330 south 12th st	55404	98	Office	297650	194471	1934	2375	56	58	127	130	2876
County	Family Justice Center	110 S. 4th St.	55415	97	Courthous e	227422	49804	1956	1516	53	56	109	111	1087
County	Forensic Sciences Building	530 Chicago Avenue South	55415	3	Medical Office	62602	0	1974	1219	218	224	331	339	401
County	Government Center	300 S. Sixth	55487	83	Courthous e	1182041	168895	1974	11815	88	91	164	168	10135
County	Health Services Building	525 Portland Ave South	55415	99	Office	198739	0	1989	1159	50	52	95	98	1209
County	Hennepin County Medical Center	701 Park Avenue	55415	91	Hospital	2404995	500174	1976	39491	185	188	280	283	26143
County	Juvenile Justice Center/Detenti on Center	626 S. Sixth	55415		Prison/ Incarcerati on	199219	0	1983	1753	78	80	144	147	1936
County	North Point Health and Wellness	1313 Penn Ave N	55411	81	Medical Office	67205	76221	1995	643	64	66	152	153	887
County	North Regional Library	1315 Lowry Avenue North	55411		Other	38993	19255	1971	300	64	69	126	131	188
County	Public Safety Facility	401 4 Ave South	55415		Prison/ Incarcerati on	381568	51208	2001	4972	125	128	216	219	8434
County	Whittier Clinic	2810 Nicollet Ave. South	55415	17	Medical Office	63808	60600	2008	1249	150	153	317	321	1143
Parks	Armatage Park [Mn012156]	2500 57th St W	55410		Fitness Center/ Gym	7097	0	1978	63	93	100	152	159	0

Parks	Audubon Park [Mn012157]	1320 29th Ave NE	55418	Other - Entertainme nt/ Public Assembly	6177	0	1978	57	90	99	156	165	0
Parks	Bottineau Park [Mn012158]	2000 2nd St NE	55418	Fitness Center/ Gym	13760	0	2001	117	87	97	144	155	0
Parks	Brackett Park [Mn012159]	2728 39th Ave S	55406	Other - Entertainme nt/ Public Assembly	5314	0	1999	37	50	53	111	116	0
Parks	Bryant Square Park [Mn012160]	3101 Bryant Ave S	55408	Other - Entertainme nt/ Public Assembly	6300	0	1970	53	65	68	137	141	0
Parks	Corcoran Park [Mn012161]	3332 20th Ave S	55407	Other - Entertainme nt/ Public Assembly	5855	0	1977	64	109	118	186	196	0
Parks	Creekview Park [Mn012162]	5001 Irving Ave N	55430	Other - Entertainme nt/ Public Assembly	6068	0	1976	42	70	77	117	126	0
Parks	East Phillips Park [Mn012163]	2307 17th Ave S	55404	Other - Entertainme nt/ Public Assembly	14564	9000	2010	126	81	87	145	149	0
Parks	Elliot Park [Mn012164]	1000 14th St E	55404	Other - Entertainme nt/ Public Assembly	7215	0	1961	65	83	89	150	155	0
Parks	Farview Park [Mn012165]	621 29th Ave N	55411	Other - Entertainme nt/ Public Assembly	18688	0	1976	207	87	95	180	188	0
Parks	Folwell Park [Mn012166]	1615 Dowling Ave N	55412	Other - Entertainme nt/ Public Assembly	13370	0	2001	151	69	72	177	180	0
Parks	Fuller Park [Mn012167]	4800 Grand Ave S	55419	Other - Entertainme nt/ Public Assembly	6357	0	1976	51	78	83	135	140	0
Parks	Hiawatha School Park [Mn012168]	4305 42nd St E	55406	Other - Entertainme nt/ Public Assembly	6613	0	1978	72	100	107	182	190	0
Parks	Keewaydin Park [Mn012169]	3030 53rd St E	55417	Other - Entertainme nt/ Public Assembly	6314	0	1972	79	127	137	213	224	0
Parks	Kenny Park [Mn012170]	1328 58th St W	55419	Other - Entertainme nt/ Public Assembly	2456	0	1962	50	184	196	336	350	0
Parks	Kenwood Park [Mn012171]	2101 Franklin Ave W	55405	Other - Entertainme nt/ Public Assembly	5956	0	1983	46	72	79	128	135	0
Parks	Lake Hiawatha [Mn012172]	2701 44th St E	55406	Other - Entertainme nt/ Public Assembly	3970	0	1977	66	122	129	266	278	0
Parks	Lake Nokomis Park [Mn012173]	2401 E Minnehaha Pkwy	55417	Other - Entertainme nt/ Public Assembly	13769	0	1975	81	66	72	102	108	0

Parks	Linden Hills Park [Mn012174]	3100 43rd St W	55410	Entert nt/ P	ner - tainme Public embly	7930	0	1972	94	116	125	199	209	0
Parks	Logan Park [Mn012175]	690 13th Ave NE	55413	Entert nt/ P	ner - tainme Public embly	14294	0	1971	144	90	99	167	178	0
Parks	Longfellow Park [Mn012176]	3435 36th Ave S	55406	Entert nt/ P	ner - tainme Public embly	16396	0	1962	127	61	65	126	132	0
Parks	Loring Park [Mn012177]	1382 Willow St	55403	Entert nt/ P	ner - tainme Public embly	5164	0	1906	96	138	144	300	307	0
Parks	Luxton Park [Mn012178]	112 Williams Ave SE	55414	Entert nt/ P	ner - tainme Public embly	15400	0	1969	205	122	130	221	230	0
Parks	Lyndale Farmstead Park [Mn012179]	3900 Bryant Ave S	55409	Entert nt/ P	ner - tainme Public embly	2785	0	1977	42	139	150	250	263	0
Parks	Lynnhurst Park [Mn012180]	1345 West Minnehaha Pkwy	55419	Entert nt/ P	ner - tainme Public embly	15446	0	1971	117	68	73	125	132	0
Parks	Matthews Park [Mn012181]	2318 29th Ave S	55406	Entert nt/ P	ner - tainme Public embly	7846	0	1968	121	118	127	250	264	0
Parks	McRae Park [Mn012182]	906 47th St E	55407	Entert nt/ P	ner - tainme Public embly	7839	0	1955	84	107	116	181	192	0
Parks	Morris Park [Mn012183]	5531 39th Ave S	55417	Entert nt/ P	ner - tainme Public embly	4593	0	1956	37	73	77	133	136	0
Parks	Mprb Headquarters [Mn012184]	2117 W River Rd	55411	Off	fice	75327	0	2001	688	54	56	143	145	0
Parks	North Commons Park [Mn012185]	1801 James Ave N	55411	Entert nt/ P	ner - tainme Public embly	13810	0	1972	165	98	105	196	204	0
Parks	Northeast Ice Arena [Mn012186]	1306 Central Ave N	55411	Cur	e/ ling nk	32772	0	1996	461	132	140	235	244	0
Parks	Northeast Park - Demolished [Mn012187]	1616 Buchanon St NE	55413	Entert nt/ P	ner - tainme Public embly	0	0	1970	0	0	0	0	0	0
Parks	Painter Park [Mn012188]	620 34th St W	55408	Entert nt/ P	ner - tainme Public embly	5787	0	1976	55	103	111	164	172	0
Parks	Parade Park Ice - North [Mn012227]	610 Kenwood Parkway	55403	Cur	e/ ling nk	40195	0	1988	1365	235	239	542	546	0
Parks	Parade Park Ice - South [Mn012189]	600 Kenwood Pkwy	55403	Cur	e/ ling nk	34351	0	1988	449	192	203	241	255	0

Parks	Pearl Park [Mn012190]	414 Diamond Lake Rd E	55419		Other - Entertainme nt/ Public Assembly	11934	0	1967	129	83	89	175	181	0
Parks	Peavey Park [Mn012191]	730 22nd St E	55404		Other - Entertainme nt/ Public Assembly	1865	0	1992	57	191	197	481	488	0
Parks	Pershing Field Park [Mn012192]	3523 48th St W	55410		Other - Entertainme nt/ Public Assembly	7287	0	1975	60	71	75	135	139	0
Parks	Phillips Pool & Gym Park [Mn012193]	2323 11th Ave S	55404		Other - Entertainme nt/ Public Assembly	41395	0	1978	423	73	77	164	168	0
Parks	Powderhorn Park [Mn012194]	3400 15th Ave S	55407		Other - Entertainme nt/ Public Assembly	20363	0	1972	242	91	97	192	198	0
Parks	Rev. Dr. Martin Luther King [Mn012195]	4055 Nicollet Ave S	55409		Other - Entertainme nt/ Public Assembly	20261	0	1969	180	90	97	151	160	0
Parks	Sibley Park [Mn012196]	1900 40th St E	55407		Other - Entertainme nt/ Public Assembly	7732	0	1973	89	117	127	195	206	0
Parks	Southside Operations Center [Mn012197]	3800 Bryant Ave S	55409		Repair Services (Vehicle, etc.)	58683	0	1986	584	89	95	165	174	0
Parks	Stewart Park [Mn012198]	2700 12th Ave S	55407		Other - Entertainme nt/ Public Assembly	6081	0	1976	71	107	117	195	205	0
Parks	Van Cleve Park [Mn012199]	901 15th Ave SE	55414		Other - Entertainme nt/ Public Assembly	13266	0	1970	161	119	128	205	217	0
Parks	Waite Park [Mn012200]	1810 34th Ave NE	55418		Other - Entertainme nt/ Public Assembly	6212	0	1979	47	58	61	123	127	0
Parks	Webber Park [Mn012201]	4400 Dupont Ave N	55412		Other - Entertainme nt/ Public Assembly	7016	0	1977	69	83	92	162	175	0
Parks	Whittier Park [Mn012202]	2600 Grand Ave S	55408		Fitness Center/ Gym	7549	0	1974	120	130	139	259	269	0
Parks	Windom Ne Park [Mn012203]	2251 Hayes St NE	55418		Other - Entertainme nt/ Public Assembly	3880	0	1991	52	124	138	223	236	0
Schools	701 Building	701 4th Ave S	55415	87	Office	286640	0	1983	2976	86	89	168	173	1971

Schools	Andersen Elementary	2727 10th Ave S	55407	41	K-12 School	233557	0	1976	538	79	83	156	161	3381
Schools	Anthony Middle School	5757 Irving Ave S	55419	64	K-12 School	139806	0	1957	1032	84	91	128	136	1602
Schools	Anwatin Middle School	256 Upton Ave S	55405	91	K-12 School	173507	0	1960	748	44	49	73	80	2153
Schools	Armatage Elementary	2501 West 56th Street	55410	77	K-12 School	91500	0	1952	614	78	85	117	124	1113
Schools	Bancroft Elementary	1315 East 38th Street	55407	31	K-12 School	79267	0	1925	617	100	110	139	149	1480
Schools	Barton Elementary	4237 Colfax Ave S	55409	70	K-12 School	83752	0	1925	655	77	82	132	138	1168
Schools	Bethune	919 Emerson Ave	55411	63	K-12 School	75430	0	1968	651	88	96	147	155	295
Schools	Bryn Mawr Elementary	252 Upton Avenue South	55405	75	K-12 School	102658	0	1962	748	70	77	122	130	821
Schools	Burroughs Elementary	1601 West 50th Street	55419	85	K-12 School	162320	0	2002	1001	56	59	102	105	1129
Schools	City View Elementary	3350 4th Street North	55412	70	K-12 School	132372	0	1999	940	58	62	116	121	964
Schools	Davis Center (District Headquarters)	1250 West Braodway	55411	96	Office	237742	0	2013	1864	51	52	124	125	1650
Schools	Dowling Elementary	3900 West River Parkway	55406	70	K-12 School	90776	0	2007	892	102	111	168	176	1092
Schools	Edison Senior High	700 22nd Ave NE	55418	79	K-12 School	279550	0	1925	1767	67	74	108	116	3594
Schools	Emerson Elementary	1421 Spruce Place	55403	71	K-12 School	61733	0	1925	534	99	107	150	158	1477
Schools	Field Elementary	4645 4th Ave South	55409	37	K-12 School	81171	0	1925	904	100	107	185	192	541

Schools	Folwell Elementary	3611 20th Ave S.	55411	60	K-12 School	140629	0	1945	1089	73	79	130	136	970
Schools	Green Central Park Elementary	3416 4th Ave S	55408	99	K-12 School	120735	0	1993	423	47	50	63	66	1444
Schools	Hale Elementary	1220 East 54th Street	55417	67	K-12 School	81807	0	1930	293	89	96	137	145	96
Schools	Hall Elementary	1601 Aldrich Ave N	55411	48	K-12 School	81030	0	1960	800	105	116	169	181	686
Schools	Harrison -Other	501 Irving Ave N	55405	88	K-12 School	54793	0	1998	432	67	73	130	136	167
Schools	Henry Senior High	4320 Newton Ave N	55412	45	K-12 School	240121	0	1926	2327	88	97	161	172	564
Schools	Hiawatha Elementary	4201 42nd Ave S	55406	35	K-12 School	40888	0	1925	484	191	211	224	245	748
Schools	Howe Elementary	3733 43rd Ave S.	55411	66	K-12 School	36161	0	1941	366	109	118	174	183	752
Schools	Jefferson Elementary	1200 West 26th Street	55405	81	K-12 School	156450	0	1925	935	73	81	105	114	3712
Schools	Jenny Lind	5025 Bryant Avenue North	55413	73	K-12 School	96693	0	1995	669	59	61	114	116	759
Schools	Jordan Park	1501 30th Ave N	55430	5	K-12 School	123293	0	1999	1982	147	151	268	272	970
Schools	Keewaydin Elementary	5209 30th Ave S	55417	48	K-12 School	87000	0	1934	833	88	93	160	165	704
Schools	Kenny Elementary	5720 Emerson Ave S	55419	74	K-12 School	61776	0	1954	469	97	105	135	144	750
Schools	Kenwood Elementary	2013 Penn Ave S	55405	85	K-12 School	67300	0	1925	448	68	74	113	120	507
e	Lake Harriet Lower Campus (Audubon)	4030 Chowen Ave S	55410	86	K-12 School	85874	0	1925	522	67	73	105	111	571 17

Schools	Lake Harriet Upper Campus (Fulton)	4912 Vincent Ave S	55410	69	K-12 School	77238	0	1925	689	100	108	155	163	818
Schools	Lincoln Elementary	2131 12th Ave N	55411	13	K-12 School	155831	0	1952	1323	87	95	145	153	1237
Schools	Longfellow Elementary	3017 E 31st Street	55406	25	K-12 School	42733	0	1925	498	156	171	210	225	812
Schools	Loring Elementary	2600 44th Ave N	55412	83	K-12 School	60096	0	1928	434	87	97	127	138	1664
Schools	Lucy Laney Elementary	3333 Penn Ave N	55412	55	K-12 School	111726	0	2000	1082	84	91	160	167	1077
Schools	Lyndale Elementary	3333 Grand Ave S	55408	89	K-12 School	97506	0	1966	594	48	51	99	102	1426
Schools	Marcy Elementary	415 4th Ave SE	55414	76	K-12 School	78957	0	1992	670	73	77	140	144	1109
Schools	Nellie Stone Johnson Elementary	807 27th Ave N	55411	60	K-12 School	125150	0	2001	1046	71	76	138	142	2549
Schools	North Senior High	1500 James Ave N	55411	8	K-12 School	290000	0	1972	3888	125	131	224	231	5118
Schools	Northeast Middle	2955 Hayes Street NE	55418	31	K-12 School	176336	0	1956	1852	122	131	184	192	2888
Schools	Northrop at Ericsson	4315 31st Ave S	55406	71	K-12 School	57874	0	2007	464	90	98	139	147	524
Schools	Nutrition Center	812 Plymouth Ave.	55411	12	Refrigerat ed Ware- house	73143	0	1974	1510	150	156	332	338	1776
Schools	Olson Middle School	1607 51st Ave N	55430	47	K-12 School	134959	0	1962	1317	104	114	167	178	1255
Schools	Orpheum Theatre	910 Hennepin Ave	55402		Performin g Arts	75036	0	1921	1039	113	116	224	229	578
Schools	Pantages Theatre	710 Hennepin Ave	55402		Performin g Arts	25000	0	1916	279	108	115	185	195	267
Schools	Pillsbury Elementary	2250 Garfield Street NE	55418	80	K-12 School	87705	0	1991	665	67	73	126	132	1454
Schools	Pratt Community Center	66 Malcom Street SE	55414	95	K-12 School	42437	0	1925	198	46	50	79	82	981

Schools	Ramsey Elem / Washburn Senior	201 West 49th Street	55409	86	K-12 School	403234	0	1925	2492	80	84	110	115	3128
Schools	Roosevelt Senior High	4029 28th Ave S	55406	79	K-12 School	324718	0	1925	2200	81	88	119	127	2223
Schools	Sanford Middle School	3524 42nd Ave S	55406	68	K-12 School	132893	0	1926	1001	94	103	134	143	1400
Schools	Seward Elementary	2309 28th Ave S	55406	82	K-12 School	79692	0	1965	637	69	73	132	136	1983
Schools	Sheridan Elementary	1201 University Ave NE	55413	43	K-12 School	148005	0	1932	1171	102	115	141	155	1240
Schools	South Senior High	3131 19th Ave S	55407	45	K-12 School	283094	0	1968	2932	91	94	171	175	5234
Schools	Southwest Senior High	3414 West 47th street	55410	86	K-12 School	300845	0	1939	2113	68	73	118	123	1880
Schools	State Theatre	805 Hennepin Ave	55402		Performin g Arts	43000	0	1921	423	58	60	153	156	345
Schools	Sullivan Elementary	3100 E 28th Street	55406	58	K-12 School	214421	0	1991	1729	76	81	135	140	1756
9	W. Harry Davis Academy Elementary	1510 Glenwood Ave	55405	68	K-12 School	94282	0	1995	706	69	75	125	131	383
Schools	Waite Park Elementary	1800 34th Ave S	55418	50	K-12 School	60083	0	1950	626	100	110	175	186	753
Schools	Wenonah Elementary	5625 23rd Ave S	55417	62	K-12 School	44827	0	1952	414	106	115	161	170	438
Schools	Whittier Elementary	315 West 26th Street	55404	80	K-12 School	142460	0	1997	959	57	59	111	113	1609
Schools	Wilder / Transition Plus	3345 Chicago Ave	55407	51	K-12 School	205536	0	1975	1707	89	94	142	148	2872
Schools	Windom Elementary	5821 Wentworth Ave S	55419	61	K-12 School	73618	0	1925	642	89	96	148	156	1007