City of Pleasanton Energy Benchmarking Report

Go Green Initiative Interns

June 2019 - August 2019

Abstract

During the summer of 2019, The Go Green Initiative hired 32 high school and college interns to energy benchmark 24 City of Pleasanton facilities. Using the PG&E Building Benchmarking Portal (BBP) and the EPA's Energy Star Portfolio Manager (ESPM), the interns determined six findings, specifically that the OSC Admin Building was the most energy efficient and Aquatic Center/Cultural Arts Center was the least energy efficient of the city facilities. With these findings in mind, we recommend installing an Energy Management System for each facility and recommend that the City prioritize and allocate resources through the City's budget process to implement and monitor these recommendations. This could include, but not limited to, funding for additional staffing, consulting support, external partnerships with outside agencies, education and outreach efforts, and an effective monitoring system to define outcomes and measure progress annually.

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Acknowledgements

We would like to thank the City of Pleasanton for giving us the opportunity to research energy efficiency in our city.

Special thanks to the following for presenting their expertise on energy benchmarking and solar panel projects:

- Susan Rittel, PUSD's Project Manager for the AVHS Solar Project
- Olivia Miele, Project Manager at TerraVerde Consultants
- Scott Therien, Project Development Manager at REC Solar
- Rich Rockwood, Chief Engineer at Oracle Pleasanton, and his associates

And thank you to City Manager Nelson Fiahlo for his ongoing support for the Go Green Initiative and projects.



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About the Authors

Go Green Initiative (GGI)

The Go Green Initiative (GGI) is a Pleasanton-based nonprofit organization dedicated to conserving natural resources for future generations and protecting human health through environmental stewardship. Jill Buck founded the Go Green Initiative in July of 2002, in hopes of cultivating a comprehensive environmental action program that would help school communities operate in an environmentally responsible manner. Go Green Initiative, a grassroots program, has since expanded its reach around the globe and mobilized citizens of all generations to create a culture of conservation within their communities.

The Summer 2019 Internship

The Go Green Initiative Internship is composed of a group of Pleasanton high school and college students interested in issues of sustainability and environmental conservation. Over the course of the summer of 2019, the intern cohort of thirty-two students worked on a project to benchmark energy use in buildings owned by the City of Pleasanton and Pleasanton Unified School District. The project addresses multiple goals in the Pleasanton Climate Action Plan, helping propel the city towards a more sustainable future.

The summer 2019 Interns represent a wide array of students with high school and university graduation classes ranging from 2013 to 2023. The 2019 interns are Pleasanton-educated students, ambitious leaders, and lifelong learners, all working together to advance Pleasanton's environmental stewardship in hopes of securing a healthier, more sustainable future for all.

Importance of Benchmarking

What is Energy Benchmarking?

Energy benchmarking² is a practice used to measure a building's energy performance by comparing it to similar buildings¹. Energy benchmarking allows building owners to better manage energy consumption and costs, as well as help owners comply with energy related regulations.

Why is it Important?

From August 1, 2018 through July 31, 2019, the City of Pleasanton spent around \$906,560.44 on energy for its facilities. Through energy benchmarking, decision makers will not only be able to see how much energy a building consumes, but also make more informed decisions on how Pleasanton can become more energy efficient. Furthermore, California Energy Commission states that benchmarking can lead to savings of up to 3% in annual energy expenditures³.

Energy benchmarking also creates positive environmental impacts. Due to the decrease in energy consumption, there will simultaneously be a reduction in both **greenhouse gas (GHG) emissions** and overall **carbon footprint**. Knowing this, the City must develop a vision of a more energy-efficient future by substituting renewable energy for fossil fuels.

As the saying goes, "you can't manage what you don't measure." This makes it important for the City to use benchmarking to measure components of their energy use that can affect health, finances, greenhouse gas emissions, fossil fuel composition, and more.

² Bolded terms are defined in the Glossary

Process

In order to energy benchmark all City facilities, the interns used PG&E's **Building Benchmarking Portal (BBP)** and EPA's **Energy Star Portfolio Manager (ESPM)**. These interactive online energy management tools are free and user-friendly, enabling a building's authorized users to easily track energy use at no cost. The interns followed the steps detailed in PG&E's Building Benchmarking Portal PDF²⁷. For a summary of this document, view the <u>Appendix</u>.

In this section, we will outline problems, solutions, and takeaways specific to the process of energy benchmarking City facilities.

Problems We Encountered

Incomplete Information

When inputting information into ESPM, some of the information we received regarding building meters was incomplete causing the need for additional data collection. For example, the interns were not able to map Sports Park Field House & RR1's premises, nor differentiate between the electric meters of Fire Station #2 and a nearby traffic light. As a result, the interns were unable to authorize the meters of certain buildings on time.

Parking Lot Area and Irrigated Land Area

Because the interns did not receive measures of the total area of parking lot space and irrigated land of each facility, the interns had to use the Google Maps Area Calculator to measure square footage. As a result, the interns estimated the total area only using aerial view, which could lead to some inconsistencies.

Solutions and Takeaways

Cross-Checking Data

After entering information in Energy Star Portfolio Manager, the interns noticed inconsistencies in the building information when generating a summary of the different metrics used. To ensure all details were consistent for every building, we began cross-checking all inputted data.

The interns found the most conflicting data in the "Current As Of" dates associated with each property detail. When entering property details, "Current As Of" dates are automatically populated by ESPM with the building's founding year. However, only one full year of energy usage data is available through PG&E's BBP. To fix the "Current As Of" year discrepancy, the interns had to manually update all dates with the January 1, 2018, the earliest bill provided by BBP. If not corrected, ESPM will flag this as an error.

Information Needed for Future Benchmarking Projects

As previously mentioned, the interns encountered numerous obstacles as a result of inaccurate or insufficient information. The following is a list of information that would be useful to have for future energy benchmarking projects:

- Irrigation Area
- Parking Lot Area
- Accurate Meter Count and Meter IDs
- Accurate Addresses for All Meters
 - Differentiated meter IDs for sites that have the same addresses (e.g Fire Station #2) and the traffic signal at the intersection nearby

Analysis

Overview

All of the data that we are presenting comes from Energy Star Portfolio Manager¹⁶. The interns analyzed the information by compiling the data, finding trends, and making comparisons. We have organized our conclusions into a list of 6 findings. These findings specifically highlight the highest and lowest performing city facilities. Detailed ESPM reports for each facility can be found in the Raw Data section of the <u>Appendix</u>.

It is important to mention that these findings will use **Energy Use Intensity (EUI)** as a measure of energy efficiency in relation to the building's size²⁸. EUI is calculated by dividing energy usage by the square footage of the building¹³. EUI for city buildings ranges from around 5 **kBtu/ft²** to more than 600 kBtu/ft², with a lower measure indicating a more efficient building²¹.

Finding #1: Correlation Between Solar and Site EUI

Our data shows a correlation between city buildings with installed solar panels and lower **site energy use intensity (EUI)**. The average EUI of city buildings with solar panels is 26.3 kBtu/ft² compared to an average EUI of 53.7 kBtu/ft² for city buildings without solar panels. (Note: Because they are outliers, 157 Main Street, the Golf Course Clubhouse, and the Aquatic Center/Cultural Arts Center were excluded in the averages) These averages indicate a favorable relationship between solar panels and a lower EUI.

Property Name	Site EUI (kBtu/ft ²)	Solar Panels Y/N
City Meeting Building	5.4	N
Senior Center	11.3	Ν
OSC Admin Bldg	10.2	Y
Sports Park Field House & RR1	11.2	N
Fire Station #4	39.2	Y
Amador Theater	22.4	N
Alviso Adobe Community Park	24.8	N
Golf Course Maint. Building	33.1	N
Firehouse Arts Center	29.6	Y
Veterans Memorial Building	54.8	N
Fire Station #2	50.2	N
Fire Station #5	53.8	N
Historical Building (Museum on Main)	56	N
Fire Station #1	43.5	N
Civic Center	43.2	N
Gingerbread Preschool	60.40	N
Fire Station #3	67.8	N
Pleasanton Public Library	69.7	N
Nature House	52.6	N
Police Station	70.4	N
Civic Center Annex	117.4	N
Tennis Park	124	N
Golf Course Club House	336.5	N
Aquatic Center/Cultural Arts Center	623.5	N

Table 1: This table shows which city facilities have solar panels their respective site EUI data.

Finding #2: No Correlation Between Year Founded and Site EUI

The interns performed a linear regression analysis to determine that there is no significant correlation between the year a facility was founded and site EUI. Founding dates of facilities in the data set range from 1914 to 2010.



Figure 1: Scatter chart of the year founded compared to the site EUI of each facility. Trendline indicates general direction of data only.

The equation of the trendline indicates a slight decrease in EUI per year, approximately 0.72 points. However, the R² value calculated explains that only about 1.5% of variation in the data set can be explained by the linear model. This makes it clear that there is no significant correlation.

Finding #3: Least Efficient Buildings By Site EUI

The Aquatic Center and the Golf Course Clubhouse have the highest site EUI of all city facilities. This means that they are the most inefficient buildings and therefore the most expensive to power.

Site EUI (kBtu/ft2)



Figure 2: The Site EUI (in kBtu/ft²) of various Pleasanton facilities

The Aquatic Center/Cultural Arts Center has a site EUI of 623.5 kBtu per square foot. The Golf Course Clubhouse has a site EUI of 336.5 kBtu per square foot. Different factors could explain these abnormally high site EUI, such as the energy-intensive water pump in the golf course or meters being linked to adjacent facilities. We do not have enough information to formally conclude the causes of these EUIs, but we strongly encourage the City to further explore and investigate by energy auditing the facilities in question.

Although the Golf Course and the Aquatic Center are both property types with typically higher site EUIs, there is a large discrepancy between these properties' EUIs and the median of their respective property type. The Aquatic Center is 657.2% more energy-intensive than the national median for pools. This means that it is not just energy intensive because it is a pool; it is inefficient compared to other pools. (ESPM calculates a pool's data under the assumption that the pool is heated, so the fact that the Aquatic Center has heated swimming pools does not skew its statistics⁹.) Similarly, the Golf Course Clubhouse is 517.1% more energy-intensive than the national median for social halls.

Finding #4: Energy Star Certification

Most of the City of Pleasanton's municipal buildings are not able to apply for **Energy Star** Certification because ESPM is not yet equipped to calculate **Energy Star Scores (ESS)** for their property types¹¹.123 Main St. is the only facility whose property type qualifies for certification; however, due to its low ESS of 34, it is currently ineligible. Only buildings with a score of 75 and above are eligible to apply for Energy Star Certification¹⁴.

Finding #5: Cost Per Square Foot

From August 1, 2018 through July 31, 2019, the City of Pleasanton spent a total of approximately \$906,560.44 on energy across all of its facilities. If all municipal facilities operated at or below the median cost per square foot (\$2.06/ft²), then the City would spend an estimated total of at least \$632,154.49 annually. This translates to a savings of \$274,405.95.



Current Cost vs. City Median Scenario

Figure 3: Comparison between current yearly cost of energy at each city facility vs. yearly cost of energy if all city facilities operate at the city median cost per ft².

Finding #6: Greenhouse Gas Emissions Intensity

Energy Star reports that over the last twelve months (June 1, 2018 - May 31, 2019), City of Pleasanton's 24 facilities emitted a total of 1,299 metric tons of **carbon dioxide equivalents (MT CO₂e)**. In order to project how greatly the City could reduce its GHG emissions, the interns calculated what the City's emissions would be if all buildings decreased their emissions intensity to the current median. Veterans Memorial and Fire Station #2 both share the median, emitting roughly 3.1 $kgCO2e/ft^2$.

The interns concluded that this scenario would reduce the City's emissions intensity by roughly 619 MT CO₂e. This is about a 47.7% reduction from the last twelve months.



Figure 4: Comparison between current emissions vs. projected yearly emissions should every facility meet GHG emission intensity rate of median facility.

Impact of Benchmarking

In order to secure a healthy future for Pleasanton residents, the City of Pleasanton must take a vested interest in maintaining a healthy environment for all—an action that begins through improving the energy efficiency of City of Pleasanton facilities. Energy benchmarking helps identify the degree to which fossil fuels are embedded in Pleasanton's energy use and allows us to determine the city facilities with the greatest potential to increase energy efficiency and implement renewable energy projects². Reducing energy usage will help the City of Pleasanton meet the mandates of CA's Global Warming Solutions Act of 2006 (AB 32), which aims to "reduce the state's greenhouse gas emissions to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050¹."

In addition to the environmental benefits of benchmarking, promoting energy efficiency in City facilities will support Pleasanton's <u>Vision Statement</u> of being a city "committed to...meet[ing] the needs of the current generation without compromising the ability of future generations to meet their needs⁶." Sustainability is a key factor in this vision statement and exemplifies the city's dedication to becoming a "Community of Character⁶."

The <u>Values Statement</u> of The City of Pleasanton highlights leadership and integrity⁴.

"Leadership" illustrates the importance of "setting [an] example" for other cities and communities. Benchmarking Pleasanton's energy use and increasing efficiency, will allow the city to set an example environmentally. These efforts will not only contribute to the energy savings of the community but will also allow Pleasanton to participate in the global effort to combat climate change.

"Integrity" is another driving force of the City's Values Statement. Pleasanton's efforts to become a greener city will encourage residents to participate in energy conservation and sustainability efforts. By "doing what is right" and demonstrating the "trust and transparency" that inspires residents to get involved, the City will instill a sense of pride and unity between residents.

Furthermore, improving the energy efficiency of the City of Pleasanton buildings will have a direct financial impact on the city. As stated in Finding #5, by improving Pleasanton's energy efficiency, the City could reduce its energy spending by \$302,317.26. This is an opportunity to save hundreds of thousands of dollars that could be reallocated towards other programs and projects that could help Pleasanton shine as an example of the positive impacts of energy efficiency.

Recommendations

Based on our findings, we have created a timeline of short and long-term goals that will help the city save money, increase energy efficiency, and promote the objectives outlined in the City's 2018-2019 Priorities Work Plan.

Short-Term Recommendations

These recommendations can be implemented immediately, but will still have long-term positive effects, as well as demonstrate the City's commitment to preserving our community's environmental sensitivities.

Conduct Energy Audits

Our first recommendation is to conduct energy audits at the lowest-performing city facilities. This will help the city identify a baseline for energy use and pinpoint specific areas for improvement. Energy audits will provide insight into a building's EUI by breaking down how energy is used throughout a building. For example, 123 Main St. has a high EUI, yet it has had many renovations. A possible explanation for this is poorly insulated connected modular buildings. An energy audit would confirm if these are the main sources for a high EUI.

The next step after completing an audit would be to install submeters at the each of the necessary sites. Submetering "can provide robust information for setting baselines, benchmarking, and evaluating performances" and help the City "[identify] areas for improvement⁷".

Create Site-Specific Goals

After performing energy audits, we recommend developing site-specific goals for each property. Attempting simply to implement a single overarching city-wide strategy would overlook the unique efficiency opportunities of individual city facilities. A broader potential goal could be to strive to reach the national median; however, each property

would require specialized strategies developed from its own energy audit in order to achieve this. Creating site-specific goals will allow the city to target specific areas to reduce energy usage and save money.

Implement Energy Management System

We also recommend implementing an **Energy Management Systems (EMS)** to increase the City's control over energy use through a centralized system ^{8, 23}. An EMS automates and allows remote access to energy-related utilities such as thermostats, lighting, and HVAC. It supplies energy data analytics that provides valuable insight into energy usage patterns and opportunities for saving energy²⁵. According to the Department of Energy, a properly programed EMS can save 5 to 15% on heating and cooling energy^{25, 26}. There are a wide variety of systems available, and many are specifically designed to work with existing buildings²⁴. In fact, an EMS is especially useful in existing buildings because it can detect energy drifts (decreases in energy efficiency that result from wear and tear), which can be common in older buildings as components begin to wear down²⁴.

We have determined that an EMS is a better option than an **energy behavior modifications programs**, which pays consultants and energy educators to monitor energy use. EMS's eliminate the labor cost of consultants included in behavior modification programs, making them a more cost-effective option. Additionally, dashboards present in most EMS's keep employees engaged with innovative green technology by allowing them to observe their energy savings in real-time²⁴. This ties into the City's Fiscal Sustainability work plan to adopt a 10-year infrastructure and facilities replacement plan by fiscal year 19/20.

Revise the Pleasanton Climate Action Plan

Updating the Climate Action Plan (CAP) with new energy usage and benchmarking data will allow Pleasanton to create more specific energy reduction strategies. Even though only a small portion of Pleasanton's GHG emissions stem from municipal operations,

the city can still lead by example by committing to reduce these emissions. We will discuss the CAP later on in this report.

Long-Term Recommendations

As we move forward with these short-term goals, it is also important to establish longterm goals that will move us towards a more energy-efficient future.

Public Reporting

We strongly encourage the City to publicly report its energy usage each year. Transparency regarding the City's efforts towards energy efficiency could help encourage community participation. Increasing citizen engagement will help residents become well-informed, productive, and socially responsible citizens. Consider using the following strategies to encourage community members to become more conscious of their energy usage:

- Workshops/training²³
- Poster campaigns ²³
- Released statistics ²³
- Motivation through competition, recognition, and financial incentives²³
- Social media campaigns²³
- Energy efficiency fairs/summits ²³
- Brochures/flyers
- Webinars
- Farmer's Market Booths
- News articles

Additionally, implementing a new coordinated communications strategy will help engage Pleasanton residents in the City's efforts to become more sustainable, as well as demonstrate that taxpayer dollars are used effectively.

Resource Allocation

We recommend that the City prioritize and allocate resources through the City's budget

process to implement and monitor these recommendations. This could include, but not limited to, funding for additional staffing, consulting support, external partnerships with outside agencies, education and outreach efforts, and an effective monitoring system to define outcomes and measure progress annually.

100% Renewable

Our final long-term recommendation is 100% dependency on renewable energy sources, which will drastically reduce Pleasanton's carbon footprint. We recognize that this is an ambitious goal; however, taking steps to achieve it will exemplify the city's dedication to leading the sustainability effort in Pleasanton.

Alignment with Pleasanton Climate Action Plan

Background

The Pleasanton Climate Action Plan

Pleasanton first published its Climate Action Plan in 2012. The plan is "structured to ensure that the City does its part to meet the mandates of California's Global Warming Solutions Act of 2006 (AB 32) while taking into account the City's General Plan vision and its goal to become the 'greenest' city in California⁵".

GHG Emissions Projections and Reduction Target

A key part of Pleasanton's CAP is the City GHG emissions inventory, which helps the City develop strategies to reduce emissions. Pleasanton conducted its first inventory in 2008, measuring emissions from 2005 to establish a baseline⁵. Later revisions of the inventory separated the emissions into categories and created an emissions reduction target. The CAP emissions forecast projects that if Pleasanton were to operate in a **business-as-usual** scenario, community-wide GHG emissions would increase by 24.7% by the year 2020, and by 34.0% by 2025, when compared to 2005 emissions levels⁵. In response to this, the CAP establishes a reduction goal of 15% below the 2005 baseline by 2020. This goal is consistent with the AB 32 target of reducing GHG emissions to a level equivalent with 1990 emissions to approximately 655,000 metric tons of carbon dioxide equivalent (MT CO₂e) per year by 2020⁵. Figure 5 contrasts the projected increase in GHG emissions if the City were to operate in a business-as-usual scenario with the projected decrease in emissions required to meet the AB 32 target⁵.



Figure 5: This graph shows projected emissions in a business-as-usual scenario versus the 2020 AB 32 reduction target⁵.

Energy Use Reduction Strategies

The CAP outlines strategies for reducing GHG emissions resulting from energy use in the form of 3 goals. The plan notes that a substantial percentage of Pleasanton's GHG emissions results from electricity and natural gas usage and concludes that the best path to follow is a plan of conservation—essentially reducing energy demand—followed by a transition to more renewable energy sources⁵. As evidenced by Table 2, following the CAP's reduction strategies will significantly reduce Pleasanton's annual GHG emissions.

	Goal / Supporting Strategy	Annual GHG Reduction Potential (MT CO2e)	Percent of Category
EC	Reduce Community Energy Use		
EC1	Use city codes, ordinances, and permitting to enhance green building, energy efficiency, and energy conservation.	3,807	7%
EC2	Leverage state and local programs to increase energy efficiency and conservation.	19,449	36%
EC3	Establish and promote financing and financial incentive programs to support energy efficiency and conservation.	7,416	14%
EC4	Develop programs to increase energy efficiency and conservation.	9,342	17%
EG	Reduce Energy Used by Municipal Operations		
EG1	Promote green building and energy efficient development for government operations and city infrastructure.	1,194	2%
ER	Increase Renewable Energy Generation		
ER1	Implement local ordinances and permitting processes to support renewable energy.	2,389	5%
ER2	Develop programs to promote on-site renewable energy to the community.	10,518	19%
ER3	Promote use of renewable energy for municipal operations.	NA	0%
	Total for Category	54,116	100%

Table 2: The projected annual GHG reductions that will result from following the CAP's reduction strategies.

- Goal 1: Reduce Community Energy Usage
 - In order to encourage energy conservation, the City must make an effort to create more public awareness programs to educate students, families, and staff. With the data available via energy benchmarking, the City can provide the Pleasanton community with more detailed information regarding energy use in municipal buildings as well as the City's efforts to become more energy efficient⁵.
- Goal 2: Reduce Energy Used by Municipal Operations
 - The CAP states that "municipal actions to reduce energy usage will help save money and demonstrate important leadership to the community⁵". By implementing energy conservation efforts, the City will exemplify the

positive impacts of sustainable energy use in buildings to the greater Pleasanton community.

- Goal 3: Increase Renewable Energy Generation
 - Through the implementation of local and on-site renewable energy sources such as solar, Pleasanton will be able to move towards selfsufficiency and save money by eliminating the cost of energy transportation⁵.

Strategies for Sustainability

Pleasanton's CAP cites six strategies for managing sustainability, taken from *A Guide for Local Government Executives on Energy Efficiency and Sustainability*²². Go Green Initiative's energy benchmarking work provides concrete data that will allow the City to tailor their mitigation efforts based on the shortcomings of specific properties.

Strategy #1

Local government executives should formulate specific targets and performance measures as benchmarks in local climate action plans⁵.

Energy benchmarking provides concrete data that the City can use to create targets for emissions reduction based on site energy usage per square foot. The City should also audit energy use in its buildings more frequently to gauge progress. Furthermore, the City can allocate more funds to create more sustainable policies through the Committee on Energy and the Environment.

Strategy #2

Promote citizen and stakeholder participation in administrative design decisions for energy efficiency and sustainability⁵.

GGI interns hope that this report will reach many members of the Pleasanton community, so that the process of increasing the energy efficiency of municipal sites gains support. The interns also created video presentations detailing what we have learned over the course of the internship, which the city can encourage Pleasanton residents to explore. These resources will also be available to other cities and school districts that may want to replicate the benchmarking work done by the GGI.

Strategy #3

Engage interested parties and share knowledge through sustainability networks and regional collaboration initiatives⁵.

The City of Pleasanton can use the new data provided by energy benchmarking to educate city staff members, as well as the greater Pleasanton community.

Strategy #4

Establish a dedicated sustainability office with appropriate funding⁵.

Through the energy benchmarking done by the GGI interns, the City can identify sites that are not energy efficient and target these sites for efficiency improvements. During a field trip to Oracle's Pleasanton campus, which is equipped with sustainability measures such as solar panels and Bloom Fuel Cell technology, the interns saw statistics that proved the positive economic impact that results from investing in sustainability. The City can then reallocate the funds drawn from energy savings to create a designated sustainability office that focuses exclusively on the conservation of resources in Pleasanton. The City can also dedicate funds to expand the scope of the existing Committee on Energy and the Environment.

Strategy #5

Coordinate sustainability and energy programs with traditional services and economic development functions⁵.

With the data gathered through energy benchmarking, the City can better gauge energy use and loss at city sites and operations and seek to improve municipal energy efficiency. Although Pleasanton already has an existing Committee on Energy and Environment, the City can create a greater impact by allocating more staff and resources to focus on improving Pleasanton's energy efficiency.

Strategy #6

Lead by example – increase sustainability initiatives by first practicing sustainability within local government operations and activities⁵.

The City of Pleasanton has long planned to demonstrate leadership in sustainability efforts of municipal operations. With the newly available energy benchmarking data, the City can now target the least efficient municipal sites and operations. For example, Pleasanton's Aquatic Center/Cultural Arts Center has a very large percent difference from National Median Source EUI, which means that it is very inefficient compared to similar sites across the nation. As such, this municipal site provides an opportunity for the City to exemplify energy conservation efforts. Improving energy efficiency at municipal sites like the Aquatic Center will serve as an example of the positive impact of sustainability initiatives for the rest of the Pleasanton community.

Conclusion

As Pleasanton residents, we would like to see our city become a leader in environmental sustainability. The recommendations outlined in this report can help improve our city by promoting energy efficiency in all its municipal buildings.

This report has identified six findings, each of which has the potential to help Pleasanton become a more sustainable city. We hope that Pleasanton will take into consideration the environmental, economic, and social impacts of benchmarking, as well as our short- and long-term sustainability recommendations.

As interns from the Go Green Initiative, we are excited to continue collaborating with the City of Pleasanton!

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Appendix

Glossary

Aggregate meters: Combined monthly value for each energy type, regardless of the number of tenants, accounts, or meters.

Business-as-Usual: Implication if no changes that are made to operations.

Carbon Dioxide Equivalents (CO₂e): A universal unit of measure that combines the quantity and global warming potential of each GHG.

Energy Behavior Modification Program: A paid program that uses consultants to reminds users about the importance of reducing energy usage.

Energy Management System (EMS): a computer-aided tool used by power system operators to monitor, control, and carry out optimal energy management.

Energy Star: A United States Environmental Protection Agency program that promotes energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions.

Energy Star Portfolio Manager (ESPM): An online tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions.

ENERGY STAR Score (ESS): An Energy Star Portfolio Manager screening tool that helps assess how your property is performing compared to similar building types nationwide. It also can help the user see areas for improvements. A property with a score of 75 or greater can apply for Energy Star Certified.

Energy Use Intensity (EUI): Expresses a building's energy use as a function of its size or other characteristics.

Greenhouse gas (GHG): Gases that trap heat in the atmosphere. These gases raise the temperature of the earth through the "greenhouse effect".

Kilo British Thermal Units per Square Foot (kBtu/ft²): A unit to measure a facilities site Energy Use Intensity.

PG&E Building Benchmarking Portal (BBP): A guide for using Pacific Gas & Electric Company's (PG&E) Building Benchmarking Portal and how to connect your building with ENERGY STAR® Portfolio Manager to receive energy usage data.

Site Energy Use Intensity (site EUI): The amount of heat and electricity consumed by an individual building over time. This will be reflected in your utility bills.

Process (Continued)

Steps Taken for Benchmarking

Here is a more detailed summary of the steps that the interns took to energy benchmark city facilities.

Using the PG&E Building Benchmarking Portal (Section 1)

The first step that the interns took was registering each building in the PG&E Building Benchmarking Portal (BBP) using the Letter of Authorization, provided by the city of Pleasanton²⁹. Interns worked in small groups and frequently reviewed each other's work to ensure accuracy. After PG&E approved meter authorization, the interns used building addresses and 10-digit gas/electric meter numbers to define, map, and select each gas and electric meter for their respective property.

Energy Star Portfolio Manager (Section 2)

Next, each intern made an individual ESPM account to create building profiles¹⁶. We then used the Sharing Properties tool on ESPM to give all the interns viewing and editing access to every building.

After sharing the properties, the interns entered all the necessary information for every building *(Step 2.1),* including¹⁹:

- Number of Buildings
- Total Irrigated Land Area (Sq. Ft.)
- Total Parking Lot Area (Sq. Ft.)
- Weekend Use (Yes/No)
- Total Gross Floor Area of Property (Sq. Ft.)
- Occupancy (%)
- Number of Workers on Main Shift
- Cooking Facilities (Yes/No)
- Percent that can be Heated
- Percent that can be Cooled
- Percent of energy consumption includes parking areas (Yes/No)
- Property has a heated swimming pool (Yes/No) Sq. Ft. of pool

The interns did not receive information regarding both the irrigated land area and parking lot area, so we used the Google Maps' Area Calculator to calculate the square footage of the parking spaces, lawns, trees, and garden areas.



Figure 6: The Google Maps measuring area tool for the Police Station

Throughout the project, the interns tracked progress on a spreadsheet to ensure the completion of each step for each building.

Name	Street No.	Street Name	Zip Code	Sign-up	One-Pers on sign-up	Property added to ESPM?	Done up to 2.2?	Done with 2.3?	Parking Lot Square Footage	Irrigated Area Square Footage	Parking lot ESPM?	Irrigated Area ESPM?	Changed Units?	Updated FTE Counts? (staff)	Section 4? Completed?
Alviso Adobe	3465	Old Foothill	94588	deepak, ethan, varsha, vik	varsha	Y	Ÿ	Y	11 006 71 ff ²	155 815 12 ft²	Y	Y	Y		Yes
Aquatic Center	4455	Black	94566	Luana, Elyse, Meraf	Meraf	Y	Y	Y	85527.4 ft²	117,738.01 ft^2	Y	Y			Yes
City Meeting Building	157	Main	94566	Sujana, Afreen, Claire, Cassy	Anisha	Y	Y	Y	21,355.71 ft ²	7,516.89 ft²	Y	Y			Yes
Firehouse Arts Center	4444	Railroad	94566	trinity, mikayla, owen	Mikayla	Y	Y	Y	31,019.94 ft ²	23,655.4 ft ²	Y	Y	Y		Yes
Gingerbread Preschool	4333	Black	94566	deepak, ethan, varsha, vik	Ethan	Y	Y	Y	22,459.41 ft ²	2347.28	Y	Y			Yes
Golf Course Club House	8500	Club House	94566	trinity, mikayla, owen	Owen	Y	Y	Y	73,525.62 ft ² (6,830.75 m ²)	2,536.06 ft ²	Y	Y	Y		Yes
Golf Course Maint. Buildin	8520	Club House	94566	trinity, mikayla, owen	Kush	Y	Y	Y	Oft ²	3,938.77	Y	Y	Y		Yes
Amador Theater	1155	Santa Rita	94566	Apoorva, Nora, Kaitlin	Kaitlin	Y	Y	Y	0	0	Y	Y			Yes
City Library	400	Old Bernal	94566	deepak, ethan, varsha, vik	Vikrant	Y	Y	Y	53266 55 ft²	43386.44 ft ²	Y	Y			Yes
Civic Center Annex	123	Main	94566	Sujana, Afreen, Claire, Cassy	Claire	Y	Y	Y	20,044.10 ft^2	18,305.26 ft^2	Y	Y	Y		Yes
Civic Center	200	Old Bernal	94566	Bryan, Zoe, Susan	Deepak	Y	Y	Y	24,570.76 ft ²	12542.82 ft^2	Y	Y	Y		Yes
Fire Station #1	3560	Nevada	94566	kelly, quincy, meg, maddie	Lauren	Y	Ŷ	Y	22182.64 tf^2	13300.22 ft^2	Y	Y	Y		Yes
Fire Station #2	6300	Stoneridge Mal	94588	Sujana, Afreen, Claire, Cassy	Cassiedy	Y	Ŷ	Y	16, 236.97 sq ft	13,166.14 sq ft	Y	Y			Yes
Fire Station #3	3200	Santa Rita	94566	Luana, Elyse, Meraf	Elyse	Y	Y	Y	6,337.14 ft ²	865.14	Y	Y			Yes
Fire Station #4	1600	Oak Vista	94566	Bryan, Zoe, Susan	Zoe	Y	Y	Y	16,732.01 ft^2	85,123.3 ft^2	Y	Y	Y		Yes
Fire Station #5	1200	Vineyard	94566	Bryan, Zoe, Susan	Mikayla	Y	Y	Y	6558.78 ft ²	1305.49 ft ²	Y	Y	Y		Yes
Historical Building (Museu	603	Main	94566	kelly, quincy, meg, Lauren	maddie	Y	Y	Y	4451.14	2113.13	Y	Y	Y		Yes

Table 3: The spreadsheet that the interns used to streamline the process and ensure accountability.

Then, the interns set up 2 **aggregate meters** on ESPM, one for each electric and natural gas meters for each building *(Step 2.2)*¹⁶. This ensured that the compilation of data from all meters on a given campus displayed as one meter in the ESPM. If the meters are not properly aggregated, PG&E will not release data into Energy Star, which slows down the benchmarking process.

Linking the PG&E Benchmarking Tool to ESPM (Section 2)

The next step was to link the previously mapped building meters on the PG&E BBP to the building profiles in the ESPM. However, before creating the link, interns had to request a connection between Pacific Gas and Electric Whole Building (pge_agg_benchmark) and the ESPM account holder¹⁸. This gave PG&E BBP permission to share and exchange building data with ESPM. Approval for this request may take up to 24 hours. *(Step 2.3)*

Once the interns acquired Pacific Gas and Electric Whole Building (pge_agg_benchmark) as a contact and finished inputting the necessary building information, we were able to successfully link the meter and energy usage data in the BBP to the building profile on the ESPM. *(Step 2.4)*

Meter Authorization (Section 3)

To ensure that ESPM updates monthly with new energy bill data, the data from the meters needed authorization and release by PG&E. Prerequisites also include:

- Account Number
- Meter Number
- Service Agreement ID
- PG&E building ID
- Building Address

After the release, monthly data automatically uploads, allowing the tool to continue tracking energy usage without manual data entry. This allows the city of Pleasanton to easily continue benchmarking energy without adding any new PG&E bills.

Resharing Building Data (Section 4)

In order to kickstart the data upload process, each interns unshared and reshared their connection request with Pacific Gas and Electric Whole Building (pg_agg_benchmark)¹⁷. If we had not done this, the data would have taken 10-14 business days to upload rather than 24 hours. This ensured that the data populated in a timely manner.

Checklist (Section 6)

Lastly, the interns reviewed all the information in the PG&E BBP and ESPM to make sure that all the data entered was complete and correct, and to look for any anomalies or errors. The interns cross-checked properties other than their own and referred back to the spreadsheet to ensure successful completion.

During this process of cross-checking, the interns noticed that the ESPM had generated duplicate entries for the month of May. This was due to incomplete energy bill data for that month. When the interns entered all the data into ESPM at the end of June, the month of May had incomplete energy bill data. This data was automatically updated in July and was added a duplicate entry, instead of replacing the existing entry, as shown in Table 4.

					T .		
۵	2/1/2019	2/28/2019	1.410.43	314.30	8		7/18/2019 Pacific Gas Electric Wh Building
0	3/1/2019	3/31/2019	1,562.59	353.36			7/16/2019 Pacific Gas Electric Wh Building
	4/1/2019	4/30/2019	1,731.33	401.40			7/16/2019 Pacific Gas Electric Wh Building
	5/1/2019	5/31/2019	2,149.74	522.23	0	0	7/16/2019 Pacific Gas Electric Wh Building
							Building
da	, Aggregate - Electr tes per your meter e	ic Grid Meter has an ove antries and saving your o	erlap of 31 days between 00 changes. For more help, se	5/01/2019 and 05/31/20 e <u>this FAQ.</u>	19. Please co	nfirm this is correct or re	move the overlap by adjusting th
Ada	Aggregate - Electr tes per your meter e	ic Grid Meter has an ove entries and saving your o	erlap of 31 days between 0 changes. For more help, se	5/01/2019 and 05/31/20 e <u>this FAQ.</u>	19. Please cor	nfirm this is correct or re	move the overlap by adjusting th
da	Aggregate - Electr tes per your meter e 5/1/2019	ic Grid Meter has an ove antries and saving your o 5/31/2019	erlap of 31 days between 0 changes. For more help, se 2,149.74	5/01/2019 and 05/31/20 e <u>this FAQ.</u> 522.23	19. Please cor	nfirm this is correct or re	move the overlap by adjusting th 7/19/2019 Pacific Gas Electric Wh Building

Table 4: The duplicate data entry for the month of May for Fire station #5.

The interns checked each city facility and deleted the data from the earlier date to ensure that only the updated information is kept in ESPM.

Other Notes

It is important to note that section 5 in the PG&E Benchmarking Instructions was purposely omitted from the process because it was not relevant to the project. Section 5 explains how to edit a property from individual to aggregate meter data, which was not applicable since the interns created the property profiles from scratch.

Methodology

In order to make predictions for potential reductions in GHG emissions, a conversion from units of $kgC02e/ft^2$ to units of MtC02e/yr. This conversion is completed through the following process:



Considering data is presented in yearly intervals on Energy Star, a conversion to MtCO2e/yr was not needed.

Values obtained from this conversion did not align with the MtCO2e/yr values gained from ESPM. To account for this, a proportionality constant was applied to each city facility analyzed. This constant, *K* is obtained as follows:

$$K = \frac{GGE \text{ in } MtCO2e/yr}{(Intensity \text{ in } kgCO2e/ft^{-2}) \times (10^{-3})}$$

Once the constant is calculated for each individual data point, the new value is calculated using the following formula:

Predicted Emissions = Ideal Intensity $\times 10^{-3} \times Area \text{ of } School \times K$

Raw Data

Property Name	ESS (Calculated)	Site EUI (kBtu/ft²)	National Median Site EUI (kBtu/ft²)	Percent Difference from National Media Site EUI (%)	Source EUI (kBtu/ft²)
Nature House	14.5	52.6	39.1	34	147.30
Alviso Adobe Community Park	88.7	24.8	40	-38	69.50
City Meeting Building	100	5.4	47.4	-88.6	15.10
Golf Course Maint. Building	86.7	33.1	51.3	-35.5	62.50
Sports Park Field House & RR1	99.9	11.2	31.9	-65	31.20
Fire Station #5	74	53.8	68.5	-21.5	98
Historical Building (Museum on Main)	71.6	56	69.3	-19.2	90.50
Senior Center	100	11.3	77.3	-85	31.3
Amador Theater	92.7	22.4	40	-44	62.80
Fire Station #4	94.6	39.2	74.4	-47.3	65.80
Gingerbread Preschool	54.1	60.40	62.6	-3.5	126.9
Fire Station #3	48.4	67.8	66.8	1.4	126.60
Veterans Memorial Building	80.3	54.8	75.7	-28	79.30
Fire Station #2	74.5	50.2	64.1	-22	97.70
Firehouse Arts Center	85.2	29.6	44.5	-33.6	74.40
Tennis Park	<4	124	41.6	198.1	333.80
Civic Center	34	43.2	50	18.9	121.00
OSC Admin Bldg	100	10.2	42.1	-75.7	28.20
Fire Station #1	68.4	43.5	51.9	-16.2	104.60
Golf Course Clubhouse	<4	336.5	54.5	517.1	676.30
Civic Center Annex	<4	117.4	50.7	131.7	253.90
Police Station	4.2	70.4	47	49.8	187.00
Pleasanton Public Library	40.8	69.7	64.5	8	155.2
Aquatic Center/Cultural Arts Center	<4	623.5	82.3	657.2	848.10

Property Name	National Median Source EUI (kBtu/ft²)	Property GFA	Energy Cost (\$)	\$/ft²
Nature House	109.6	860	\$3,383.53	\$3.93
Alviso Adobe Community Park	112	2,500	\$4,367.66	\$1.75
City Meeting Building	132.7	14,000	\$17,993.34	\$1.29
Golf Course Maint. Building	96.9	4,000	\$6,417.30	\$1.60
Sports Park Field House & RR1	89.3	9,845	\$7,276.77	\$0.74
Fire Station #5	124.9	3,050	\$5,918.02	\$1.94
Historical Building (Museum on Main)	112	4,716	\$7,641.05	\$1.62
Senior Center	213.2	22,000	\$55,305.50	\$2.51
Amador Theater	112	12,530	\$20,126.39	\$1.61
Fire Station #4	124.9	9,845	\$12,490.21	\$1.27
Gingerbread Preschool	131.5	6,000	\$16,398.26	\$2.73
Fire Station #3	124.9	6,603	\$16,283.62	\$2.47
Veterans Memorial Building	109.6	9,800	\$12,171.55	\$1.24
Fire Station #2	124.9	12,800	\$22,967.98	\$1.79
Firehouse Arts Center	112	20,000	\$38,219.23	\$1.91
Tennis Park	112	4,600	\$44,147.85	\$9.60
Civic Center	139.9	16,353	\$50,493.67	\$3.09
OSC Admin Bldg	116.4	81,801	\$162,658.07	\$1.99
Fire Station #1	124.9	21,000	\$44,832.82	\$2.13
Golf Course Clubhouse	109.6	2,914	\$37,231.38	\$12.78
Civic Center Annex	109.6	9,528	\$44,466.38	\$4.67
Police Station	124.9	16,897	\$61,988.21	\$3.67
Pleasanton Public Library	143.6	32,802	\$100,825.80	\$3.07
Aquatic Center/Cultural Arts Center	112	12,825	\$112,955.85	\$8.81
		Total GFA:	Total Cost:	

337,269 \$906,560.44

Property Name	Occupancy (%)	Year Built	Solar Panels Y/N?	# of buildings
Nature House	100	1996	N	1
Alviso Adobe Community Park	100	2007	N	3
City Meeting Building	50	1998	N	1
Golf Course Maint. Building	100	2005	N	2
Sports Park Field House & RR1	100	1990	N	1
Fire Station #5	100	1996	N	1
Historical Building (Museum on Main)	100	1914	N	1
Senior Center	100	1992	N	2
Amador Theater	100	1998	N	1
Fire Station #4	100	2005	Y	1
Gingerbread Preschool	100	1989	N	1
Fire Station #3	100	1970	N	1
Veterans Memorial Building	100	1932	N	1
Fire Station #2	100	1984	N	1
Firehouse Arts Center	100	2010	Y	1
Tennis Park	100	1995	N	2
Civic Center	100	1997	N	1
OSC Admin Bldg	100	1991	Y	14
Fire Station #1	100	2000	N	1
Golf Course Clubhouse	100	2005	N	2
Civic Center Annex	100	1998	N	1
Police Station	100	1982	N	1
Pleasanton Public Library	100	1987	N	1
Aquatic Center/Cultural Arts Center	100	1969	N	4

Property Name	BASE YR: Total GHG Emissions Intensity (kgCO2e/ft²)	CURRENT YR: Total GHG Emissions Intensity (kgCO2e/ft ²)	Current GHG Emissions (MT)	Prop Consts (K) Best	Median Match GHG Emissions (MT)	Median Match Cost per Square Foot (\$/ft²)
Nature House	4.2	3.7	3	0.94280	3	\$1,771.60
Alviso Adobe Community Park	2.1	1.7	4	0.94118	4	\$4,367.66
City Meeting Building	0.4	0.4	5	0.89286	5	\$17,993.34
Golf Course Maint. Building	2.2	2	8	1.00000	8	\$6,417.30
Sports Park Field House & RR1	0.8	0.8	8	1.01574	8	\$7,276.77
Fire Station #5	3	3.3	10	0.99354	9	\$5,918.02
Historical Building (Museum on Main)	3.5	3.3	16	1.02809	15	\$7,641.05
Senior Center	2.3	2.2	18	0.37190	18	\$45,320.00
Amador Theater	1.9	1.6	20	0.99761	20	\$20,126.39
Fire Station #4	2.5	2.3	23	1.01574	23	\$12,490.21
Gingerbread Preschool	3.5	3.8	23	1.00877	19	\$12,360.00
Fire Station #3	4.2	4.1	27	0.99733	20	\$13,602.18
Veterans Memorial Building	3.2	3.1	31	1.02041	31	\$12,171.55
Fire Station #2	3.1	3.1	40	1.00806	40	\$22,967.98
Firehouse Arts Center	2.4	2	40	1.00000	40	\$38,219.23
Tennis Park	9.3	8.6	42	1.06168	15	\$9,476.00
Civic Center	3.1	3	50	1.01918	50	\$33,687.18
OSC Admin Bldg	1.8	1.8	58	0.39391	58	\$162,658.07
Fire Station #1	2.9	2.9	61	1.00164	61	\$43,260.00
Golf Course Clubhouse	29.3	21.1	61	0.99211	9	\$6,002.84
Civic Center Annex	9.6	7.5	72	1.00756	30	\$19,627.68
Police Station	5.4	4.9	82	0.99039	52	\$34,807.82
Pleasanton Public Library	4.8	4.5	148	1.00265	102	\$67,572.12
Aquatic Center/Cultural Arts Center	40.1	35	449	1.00028	40	\$26,419.50

Total Emissions: 1299 Total Emmisions: Total Cost:

680 \$632,154.49

Diff from Current: Savings: 619 \$274,405.95

% Difference:

48





Alviso Adobe Community Park

Primary Property Type: Museum Gross Floor Area (ft²): 2,500 Built: 2007 Property Address: Alviso Adobe Community Park 3465 Old Foothill Rd Plesaanton, California 94588

ENERGY STAR® Score¹ For Year Ending: June 30, 2019 Date Generated: July 30, 2019 Property ID: 7079794

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	rison					
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 6/30/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy Site EUI (kBtu/ft²)	30.1	24.8	-17 7	N/A	40	N/A
Source ELII (kBtu/ft²)	84.4	69.5	-17.7	N/A	112	N/A
Energy Cost (\$)	5 172 75	4 367 66	-15 56	N/A	7 042 02	N/A
Energy Cost Intensity (\$/ft ²)	2.07	1.75	-15.56	N/A	2.82	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	5.3	4.4	-16.98	N/A	7	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	2.1	1.7	-16.98	N/A	2.8	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Alviso Adobe Community Park

Primary Property Type: Museum Gross Floor Area (ft²): 2,500 Built: 2007

ENERGY STAR® Score¹

For Year Ending: June 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information							
Property Address Alviso Adobe Community Park 3465 Old Foothill Rd Plesaanton, California 94588	Property Owner , , ()	Primary Contact 					
Property ID: 7079794							
Energy Consumption and Energy Use Intensity (EUI)							
Site EUI Annual Energy by Fu 24.8 kBtu/ft2 Electric - Grid (kBtu) Source EUI 69.5 kBtu/ft2	el Nat 62,027 (100%) Na Na % An Gr CC	ional Median Comparisontional Median Site EUI (kBtu/ft²)40tional Median Source EUI (kBtu/ft²)112Diff from National Median Source EUI-38%nual Emissions-38%eenhouse Gas Emissions (Metric Tons4O2e/year)-38%					

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge. _____

Signature: _____Date: _____Date: _____

Licensed Professional







ENERGY STAR® Score¹

Performance Comparison

Total Water Cost (\$)

Amador Theater

Primary Property Type: Performing Arts Gross Floor Area (ft²): 12,530 Built: 1998

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Amador Theater 1155 Santa Rita Pleasanton, California 94566

Property ID: 7079822

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

r enermance compa						
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	26.4	22.4	-15.2	N/A	40	N/A
Source EUI (kBtu/ft2)	74	62.8	-15.2	N/A	112	N/A
Energy Cost (\$)	24,032.74	20,126.39	-16.25	N/A	35,911.66	N/A
Energy Cost Intensity (\$/ft ²)	1.92	1.61	-16.25	N/A	2.87	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	23.3	19.8	-15.02	N/A	35.3	N/A
Total GHG Emissions Intensity (kgCO2e/ft²)	1.9	1.6	-15.02	N/A	2.8	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity	N/A	N/A	N/A	*	*	*

N/A

*Setting and managing water targets is not yet available in Portfolio Manager.

N/A

N/A



Performance



Amador Theater

Primary Property Type: Performing Arts Gross Floor Area (ft²): 12,530 Built: 1998

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information							
Property Address Amador Theater 1155 Santa Rita Pleasanton, Califo	s ornia 94566	Property Owner , , ()	Primar , ()	y Contact			
Property ID: 7079	Property ID: 7079822						
Energy Consun	Energy Consumption and Energy Use Intensity (EUI)						
Site EUI	Annual Energy by Fu	el	National Median Comparis	son			
22 / kDtu/ft2	Electric - Grid (kBtu)	280,912 (100%)	National Median Site EUI (I	(Btu/ft²)	40		
22.4 KDIU/II-			National Median Source EL	JI (kBtu/ft²)	112		
			% Diff from National Media	n Source EUI	-44%		
Source EUI			Annual Emissions				
62.8 kBtu/ft ²			Greenhouse Gas Emission CO2e/year)	s (Metric Tons	20		

Signature & Stamp of Verifying Professional

I ______ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____

_____Date: _____

Licensed Professional

, (____)___-







Aquatic Center/Cultural Arts Center

Primary Property Type: Other - Entertainment/ Public Assembly Gross Floor Area (ft²): 12,825 Built: 1969 Property Address: Aquatic Center/Cultural Arts Center 4455 Black Pleasanton, California 94566

Property ID: 7079801

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy Site EUI (kBtu/ft²)	719	623.5	-13.3	N/A	82.3	N/A
Source EUI (kBtu/ft ²)	951.5	848.1	-10.9	N/A	112	N/A
Energy Cost (\$)	118,639.54	112,955.85	-4.79	N/A	14,917.62	N/A
Energy Cost Intensity (\$/ft ²)	9.25	8.81	-4.79	N/A	1.16	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	514.7	449.3	-12.71	N/A	59.3	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	40.1	35	-12.71	N/A	4.6	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



ENERGY STAR[®] Statement of Energy Performance



Aquatic Center/Cultural Arts Center

Primary Property Type: Other - Entertainment/Public Assembly Gross Floor Area (ft²): 12,825 Built: 1969

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information			
Property Address Aquatic Center/Cultural Arts Center 4455 Black Pleasanton, California 94566	Property Owner , , ()	Primary Contact , 	
Property ID: 7079801			_
Energy Consumption and Energy Us	se Intensity (EUI)		
Site EUIAnnual Energy by Fue623.5 kBtu/ft²Natural Gas (kBtu) Electric - Grid (kBtu)	el Nati 6,579,726 (82%) Nat 1,417,282 (18%) Nat % [ional Median Comparison ional Median Site EUI (kBtu/ft²) ional Median Source EUI (kBtu/ft²) Diff from National Median Source EUI	82.3 112 657%
Source EUI 848.1 kBtu/ft²	Anr Gre	enhouse Gas Emissions (Metric Tons	449

CO2e/year)

Signature & Stamp of Verifying Professional

____ (Name) verify that the above information is true and correct to the best of my knowledge. I ____

Signature:	
------------	--

_Date: ____

Licensed Professional

_)___-







City Meeting Building

Primary Property Type: Office Gross Floor Area (ft²): 14,000 Built: 1998

For Year Ending: June 30, 2019 Date Generated: July 30, 2019 Property Address: City Meeting Building 157 Main Street Pleasanton, California 94566

Property ID: 7079786

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison Performance Progress Goals Baseline (Ending Date National **ENERGY STAR** % Change Property's (Ending Date 6/30/2019) Target Median Score of 75 12/31/2018) **ENERGY STAR Score** 100 0 N/A 50 75 100 Energy Site EUI (kBtu/ft²) N/A 5.5 5.4 -2 35.5 25.4 -2 99.5 Source EUI (kBtu/ft2) 15.5 15.1 N/A 71.2 84,540.54 Energy Cost (\$) 18,392.73 17.993.34 -2.17N/A 118,157.51 Energy Cost Intensity (\$/ft2) 1.31 -2.17 N/A 8.44 6.04 1.29 **Greenhouse Gas** Emissions **Total GHG Emissions** 5.4 5.3 -1.85 N/A 35 25.1 (Metric Tons CO2e) 2.5 1.8 **Total GHG Emissions** 0.4 0.4 -1.85 N/A Intensity (kgCO2e/ft²) Water N/A N/A All Water Use (kgal) N/A Indoor Water Use (kgal) N/A N/A N/A N/A N/A Indoor Water Use Intensity N/A (gal/ft²) Total Water Cost (\$) N/A N/A N/A



Performance



City Meeting Building

Primary Property Type: Office Gross Floor Area (ft²): 14,000 Built: 1998

ENERGY STAR® Score¹

For Year Ending: June 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Info	ormation					
Property Address City Meeting Building 157 Main Street Pleasanton, California 9450	Property Owner 	Primary Contact , , ()				
Property ID: 7079786	Property ID: 7079786					
Energy Consumption a	and Energy Use Intensity (EUI)					
Site EUI 5.4 kBtu/ft2Annual ElectricSource EUI 15.1 kBtu/ft2	Energy by Fuel : - Grid (kBtu) 75,738 (100%)	National Median Comparison National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²) % Diff from National Median Source EUI Annual Emissions Greenhouse Gas Emissions (Metric Tons CO2e/year)	35.5 99.5 -85% 5			

Signature & Stamp of Verifying Professional

I ______ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____

Licensed Professional





ENERGY STAR[®] Scorecard



Score

City Meeting Building

Primary Function: Office Gross Floor Area (ft²): 14,000 Built: 1998

For Year Ending: June 30, 2019 Date Generated: July 30, 2019 Property Address: City Meeting Building 157 Main Street Pleasanton, California 94566

For the year ending in June 2019, this building used 15.1 (kBtu/ft²) on a source energy basis. The Environmental Protection Agency's (EPA's) ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.



Signature of Verifying Professional

I ______ (Name) verify that the information regarding energy use and property use details is true and correct to the best of my knowledge.

Signature: _____Date: _____





Civic Center

Primary Property Type: Office Gross Floor Area (ft²): 16,353 Built: 1997

ENERGY STAR® Score¹ For Year Ending: June 30, 2019 Date Generated: July 23, 2019 Property Address: Civic Center 200 Old Bernal Pleasanton, California 94566

Property ID: 7079832

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	arison					
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 6/30/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	63	65	-3	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	44.7	43.2	-3.3	N/A	52.6	37.9
Source EUI (kBtu/ft ²)	125.2	121	-3.3	N/A	147.4	106.2
Energy Cost (\$)	52,441.74	50,493.67	-3.71	N/A	61,511.59	44,329.01
Energy Cost Intensity (\$/ft ²)	3.21	3.09	-3.71	N/A	3.76	2.71
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	51.5	49.8	-3.3	N/A	60.6	43.7
Total GHG Emissions Intensity (kgCO2e/ft ²)	3.1	3	-3.3	N/A	3.7	2.7
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Civic Center

Primary Property Type: Office Gross Floor Area (ft²): 16,353 Built: 1997

ENERGY STAR® Score¹

For Year Ending: June 30, 2019 Date Generated: July 23, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Inform	nation					
Property Address Civic Center 200 Old Bernal Pleasanton, California 94566	Property Owner , ()	Primary Contact , 				
Property ID: 7079832						
Energy Consumption and	Energy Consumption and Energy Use Intensity (EUI)					
Site EUI 43.2 kBtu/ft²Annual En Electric - GSource EUI 121 kBtu/ft²	ergy by Fuel Grid (kBtu) 706,667 (100%)	National Median ComparisonNational Median Site EUI (kBtu/ft²)National Median Source EUI (kBtu/ft²)% Diff from National Median Source EUIAnnual EmissionsGreenhouse Gas Emissions (Metric TonsCO2e/year)	52.6 147.4 -18% 50			
Signature & Stamp of	Verifying Professional					

_____ (Name) verify that the above information is true and correct to the best of my knowledge. I ____

Signature: _____Date: _____

Licensed Professional

__)___--





ENERGY STAR[®] Scorecard



ENERGY STAR® Score

Civic Center

Primary Function: Office Gross Floor Area (ft²): 16,353 Built: 1997

For Year Ending: June 30, 2019 Date Generated: July 23, 2019

Property Address: Civic Center 200 Old Bernal Pleasanton, California 94566

For the year ending in June 2019, this building used 121.0 (kBtu/ft²) on a source energy basis. The Environmental Protection Agency's (EPA's) ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.



Signature of Verifying Professional

I ______ (Name) verify that the information regarding energy use and property use details is true and correct to the best of my knowledge.

Signature: _____Date: _____





ENERGY STAR® Score¹

Civic Center Annex

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 9,528 Built: 1998 Property Address: Civic Center Annex 123 Main Street Pleasanton, California 94566

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

Property ID: 7079800

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	151.1	117.4	-22.3	N/A	50.7	N/A
Source EUI (kBtu/ft ²)	320.1	253.9	-20.7	N/A	109.6	N/A
Energy Cost (\$)	55,845.02	44,466.38	-20.38	N/A	19,190.82	N/A
Energy Cost Intensity (\$/ft ²)	5.86	4.67	-20.38	N/A	2.01	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	91.7	71.7	-21.81	N/A	31	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	9.6	7.5	-21.81	N/A	3.2	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



ENERGY STAR[®] Statement of Energy Performance



Civic Center Annex

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 9,528 Built: 1998

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Con	tact Information			
Property Address Civic Center Anne 123 Main Street Pleasanton, Califo	s x rnia 94566	Property Owner , , ()	Primary Contact 	
Property ID: 7079	800			
Energy Consum	nption and Energy U	se Intensity (EUI)		
Site EUI 117.4 kBtu/ft ²	Annual Energy by Fu Natural Gas (kBtu) Electric - Grid (kBtu)	el 407,107 (36%) 711,451 (64%)	National Median Comparison National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²)	50.7 109.6

Source EUI

253.9 kBtu/ft²

National Median Comparison	
National Median Site EUI (kBtu/ft ²)	50.7
National Median Source EUI (kBtu/ft ²)	109.6
% Diff from National Median Source EUI	132%
Annual Emissions	
Greenhouse Gas Emissions (Metric Tons	72
CO2e/year)	

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

I ____

Licensed Professional

_)___-







ENERGY STAR® Score¹

Fire Station #1

Primary Property Type: Fire Station Gross Floor Area (ft²): 21,000 Built: 2000

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Fire Station #1 3560 Nevada Pleasanton, California 94566

Property ID: 7079824

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	arison					
		Progress			Performanc Goals	e
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAF Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	43.6	43.5	-0.4	N/A	51.9	N/A
Source EUI (kBtu/ft ²)	104.3	104.6	0.3	N/A	124.9	N/A
Energy Cost (\$)	45,723.18	44,832.82	-1.95	N/A	53,505.77	N/A
Energy Cost Intensity (\$/ft ²)	2.18	2.13	-1.95	N/A	2.55	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	60.8	60.7	-0.16	N/A	72.5	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	2.9	2.9	-0.16	N/A	3.5	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Fire Station #1

Primary Property Type: Fire Station Gross Floor Area (ft²): 21,000 Built: 2000

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information			
Property Address Fire Station #1 3560 Nevada Pleasanton, California 94566	Property Owner , , ()	Primary Contact 	
Property ID: 7079824			
Energy Consumption and Energy Us	se Intensity (EUI)		
Site EUI Annual Energy by Fue	el Natio	nal Median Comparison	54.0
43.5 kBtu/ft ² Electric - Grid (kBtu)	707,940 (78%) Natio	nal Median Site EUI (kBtu/ft²)	51.9

Source EUI

104.6 kBtu/ft²

National Median Comparison	
National Median Site EUI (kBtu/ft ²)	51.9
National Median Source EUI (kBtu/ft ²)	124.9
% Diff from National Median Source EUI	-16%
Annual Emissions	
Greenhouse Gas Emissions (Metric Tons	61
CO2e/year)	

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

Ι___

Licensed Professional

__)___--







ENERGY STAR® Score¹

Fire Station #2

Primary Property Type: Fire Station Gross Floor Area (ft²): 12,800 Built: 1984

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Fire Station #2 6300 Stoneridge Mall Road Pleasanton, California 94588

Property ID: 7079792

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	irison					
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAI Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	49.1	50.2	2.1	N/A	64.1	N/A
Source EUI (kBtu/ft ²)	97.9	97.7	-0.1	N/A	124.9	N/A
Energy Cost (\$)	23,552.78	22,967.98	-2.48	N/A	29,344.33	N/A
Energy Cost Intensity (\$/ft2)	1.84	1.79	-2.48	N/A	2.29	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	39.3	39.8	1.27	N/A	50.9	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	3.1	3.1	1.27	N/A	4	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*

N/A

*Setting and managing water targets is not yet available in Portfolio Manager.

N/A

N/A

Total Water Cost (\$)



Performance



Fire Station #2

Primary Property Type: Fire Station Gross Floor Area (ft²): 12,800 Built: 1984

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	tact Information			
Property Addres Fire Station #2 6300 Stoneridge I Pleasanton, Califo	s Mall Road ornia 94588	Property Owner , ()	Primary Contact 	
Property ID: 7079	9792			
Energy Consur	nption and Energy U	se Intensity (EUI)		
Site EUI	Annual Energy by Fu		National Median Comparison	
50 2 kBtu/ft ²	Electric - Grid (kBtu)	329,342 (51%)	National Median Site EUI (kBtu/ft ²)	64.1
	Natural Gas (kBtu)	313,186 (49%)	National Median Source EUI (kBtu/ft ²)	124.9
			% Diff from National Median Source EUI	-22%
Source EUI			Annual Emissions	
97.7 kBtu/ft ²			Greenhouse Gas Emissions (Metric Tons	40

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

I ____

Licensed Professional

__)___--







ENERGY STAR® Score¹

Fire Station #3

Primary Property Type: Fire Station Gross Floor Area (ft²): 6,603 Built: 1970

For Year Ending: June 30, 2019 Date Generated: July 30, 2019 Property Address: Fire Station #3 3200 Santa Rita Pleasanton, California 94566

Property ID: 7079821

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison						
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 6/30/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy	00.4	07.0	1.0	N1/A	00.0	N1/A
Site EUI (KBtu/ft²)	69.1	67.8	-1.9	N/A	66.8	N/A
Source EUI (KBtu/ft²)	130.2	126.6	-2.7	N/A	124.9	N/A
Energy Cost (\$)	16,515.58	16,283.62	-1.4	N/A	16,054.65	N/A
Greenhouse Gas Emissions	2.0	2.71	-1.4		2.43	
Total GHG Emissions (Metric Tons CO2e)	28	27.4	-2.14	N/A	27	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	4.2	4.1	-2.14	N/A	4.1	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Fire Station #3

Primary Property Type: Fire Station Gross Floor Area (ft²): 6,603 Built: 1970

ENERGY STAR® Score¹

For Year Ending: June 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information					
Property Address Fire Station #3 3200 Santa Rita Pleasanton, California 94566	Property Owner , , ()	Primary Contact 			
Property ID: 7079821					
Energy Consumption and Energy Use Intensity (EUI)					

Site EUI	Annual Energy by Fuel		National Median Comparison		
67.0 kDtu/ft2	Natural Gas (kBtu)	238,219 (53%)	National Median Site EUI (kBtu/ft ²)	66.8	
07.0 KDIU/II-	Electric - Grid (kBtu)	209,332 (47%)	National Median Source EUI (kBtu/ft ²)	124.9	
			% Diff from National Median Source EUI	1%	
Source EUI			Annual Emissions		
106 6 kDtu/ft2			Greenhouse Gas Emissions (Metric Tons	27	
120.0 KDIU/IL-			CO2e/year)		

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

Ι___

Licensed Professional







ENERGY STAR® Score¹

Fire Station #4

Primary Property Type: Fire Station Gross Floor Area (ft²): 9,845 Built: 2005

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Fire Station #4 1600 Oak Vista Pleasanton, California 94566

Property ID: 7079787

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison Performance Progress Goals Baseline (Ending Date National **ENERGY STAR** % Change Property's (Ending Date 7/31/2019) Median Target Score of 75 12/31/2018) N/A N/A N/A 50 75 **ENERGY STAR Score** N/A Energy 41.9 Site EUI (kBtu/ft²) 39.2 -6.5 N/A 74.4 N/A 124.9 Source EUI (kBtu/ft²) 72 65.8 -8.6 N/A N/A Energy Cost (\$) 13,966.13 12.490.21 -10.57 N/A 23,710.86 N/A Energy Cost Intensity (\$/ft2) 1.42 -10.57 N/A 2.41 N/A 1.27 **Greenhouse Gas** Emissions **Total GHG Emissions** 24.6 22.9 -6.91 N/A 43.4 N/A (Metric Tons CO2e) **Total GHG Emissions** 2.5 N/A 2.3 -6.91 N/A 4.4 Intensity (kgCO2e/ft²) Water N/A N/A All Water Use (kgal) N/A Indoor Water Use (kgal) N/A N/A N/A N/A N/A Indoor Water Use Intensity N/A (gal/ft²) Total Water Cost (\$) N/A N/A N/A



Performance



Fire Station #4

Primary Property Type: Fire Station Gross Floor Area (ft²): 9,845 Built: 2005

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	tact Information			
Property Address Fire Station #4 1600 Oak Vista Pleasanton, California 94566		Property Owner , , ()	Primary Contact 	
Property ID: 7079	9787			
Energy Consur	nption and Energy U	se Intensity (EUI)		
Site EUI	Annual Energy by Fu	el	National Median Comparison	
39.2 kBtu/ft ²	Electric - Grid (kBtu)	138,646 (36%)	National Median Site EUI (kBtu/ft ²) 74.4	
	Natural Gas (kBtu)	247.011 (64%)	National Median Source FUI (kBtu/ft ²) 124.9	

Source EUI 65.8 kBtu/ft²

% Diff from National Median Source EUI -47% **Annual Emissions** Greenhouse Gas Emissions (Metric Tons 23 CO2e/year)

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: ____Date: _____Date: _____Date: _____Date: _____Date: _____Date: ______Date: _____Date: _____Date:

I ____

Licensed Professional







ENERGY STAR® Score¹

Fire Station #5

Primary Property Type: Fire Station Gross Floor Area (ft²): 3,050 Built: 1996

For Year Ending: April 30, 2019 Date Generated: July 30, 2019 Property Address: Fire Station #5 1200 Vineyard Pleasanton, California 94566

Property ID: 7079584

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison						
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 4/30/2019)	% Change	Property's Target	National Median	ENERGY STAF Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	48.3	54.1	12.1	N/A	68	N/A
Source EUI (kBtu/ft ²)	91	99.4	9.2	N/A	124.9	N/A
Energy Cost (\$)	5,464.12	5,918.02	8.31	N/A	7,437.19	N/A
Energy Cost Intensity (\$/ft ²)	1.79	1.94	8.31	N/A	2.44	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	9	10.1	12.22	N/A	12.6	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	3	3.3	12.22	N/A	4.1	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*


Performance



Fire Station #5

Primary Property Type: Fire Station Gross Floor Area (ft²): 3,050 Built: 1996

ENERGY STAR® Score¹

For Year Ending: April 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	tact Information						
Property Address Fire Station #5 1200 Vineyard Pleasanton, California 94566		Property Owner , , ()	Primary Contact 				
Property ID: 7079	9584						
Energy Consur	Energy Consumption and Energy Use Intensity (EUI)						
Site EUI 54.1 kBtu/ft ²	Annual Energy by Fu Electric - Grid (kBtu) Natural Gas (kBtu)	el 74,089 (45%) 91,050 (55%)	National Median Comparison National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²) % Diff from National Median Source EUI	68 124.9 -20%			
Source EUI			Annual Emissions				

CO2e/year)

Source EUI

99.4 kBtu/ft²

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

I ____

Licensed Professional

__)___--



10

Professional Engineer Stamp (if applicable)

Greenhouse Gas Emissions (Metric Tons





ENERGY STAR® Score¹

Firehouse Arts Center

Primary Property Type: Performing Arts Gross Floor Area (ft²): 20,000 Built: 2010

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Firehouse Arts Center 4444 Railroad Pleasanton, California 94566

Property ID: 7079791

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	34.6	29.6	-14.4	N/A	44.5	N/A
Source EUI (kBtu/ft ²)	89.1	74.4	-16.5	N/A	112	N/A
Energy Cost (\$)	39,829.28	38,219.23	-4.04	N/A	57,518.45	N/A
Energy Cost Intensity (\$/ft ²) Greenhouse Gas	1.99	1.91	-4.04	N/A	2.88	N/A
Emissions						
Total GHG Emissions (Metric Tons CO2e)	47.2	40	-15.25	N/A	60.2	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	2.4	2	-15.25	N/A	3	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Firehouse Arts Center

Primary Property Type: Performing Arts Gross Floor Area (ft²): 20,000 Built: 2010

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information						
Property Addres Firehouse Arts Ce 4444 Railroad Pleasanton, Califo	s enter ornia 94566	Property Owner , ()	Primary Contact			
Property ID: 7079	9791					
Energy Consumption and Energy Use Intensity (EUI)						
Site EUI	Annual Energy by Fu	el	National Median Comparison			
29.6 kBtu/ft ²	Natural Gas (kBtu)	95,987 (16%)	National Median Site EUI (kBtu/ft ²)	44.5		
2010 1.010/10	Electric - Grid (kBtu)	495,615 (84%)	National Median Source EUI (kBtu/ft ²)	112		

Source EUI 74.4 kBtu/ft²

 % Diff from National Median Source EUI
Annual Emissions
Greenhouse Gas Emissions (Metric Tons
CO2e/year)

Signature & Stamp of Verifying Professional

(Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____

I ___

_____Date: _____

Licensed Professional

, (____)___-



-34%

40





ENERGY STAR® Score¹

Gingerbread Preschool

Primary Property Type: Pre-school/Daycare Gross Floor Area (ft²): 6,000 Built: 1989 Property Address: Gingerbread Preschool 4333 Black Ave Pleasanton, California 94566

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

Property ID: 7079760

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy	52.2	60.4	10.0	N/A	62.6	N/A
Sile EUI (KBlu/It²)	125 A	126.0	13.3	N/A N/A	121 5	N/A
Energy Cost (\$)	17 106 68	16.398.26	-4 14	N/A	16 998 34	N/A
Energy Cost Intensity (\$/ft ²)	2.85	2.73	-4.14	N/A	2.83	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	21.1	23	9	N/A	23.9	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	3.5	3.8	9	N/A	4	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Gingerbread Preschool

Primary Property Type: Pre-school/Daycare Gross Floor Area (ft²): 6,000 Built: 1989

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information		
Property Address Gingerbread Preschool 4333 Black Ave Pleasanton, California 94566	Property Owner , , ()	Primary Contact
Property ID: 7079760		
Energy Consumption and Energy	Use Intensity (EUI)	
Sito ELII Annual Energy by	Fuel	National Median Comparison

60.4 kBtu/ft ²	Natural Gas (kBtu) Electric - Grid (kBtu)	144,500 (40%) 217,709 (60%)	National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²)	62.6 131.5
_	· · ·		% Diff from National Median Source EUI	-4%
Source EUI			Annual Emissions	
106 0 kD+1/f+2			Greenhouse Gas Emissions (Metric Tons	23
120.9 KBlu/IL			CO2e/year)	

Signature & Stamp of Verifying Professional

_ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature:

Ι__

Date: ____

Licensed Professional

_)___-







ENERGY STAR® Score¹

Golf Course Club House

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 2,914 Built: 2005 Property Address: Golf Course Club House 8500 Clubhouse Pleasanton, California 94566

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

Property ID: 7079810

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	485.2	336.5	-30.6	N/A	54.5	N/A
Source EUI (kBtu/ft ²)	863.2	676.3	-21.7	N/A	109.6	N/A
Energy Cost (\$)	44,744.41	37,231.38	-16.79	N/A	6,033.47	N/A
Energy Cost Intensity (\$/ft ²)	15.35	12.78	-16.79	N/A	2.07	N/A
Emissions						
Total GHG Emissions (Metric Tons CO2e)	85.3	61.4	-28.02	N/A	10	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	29.3	21.1	-28.02	N/A	3.4	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Golf Course Club House

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 2,914 Built: 2005

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information	ion	
Property Address Golf Course Club House 8500 Clubhouse Pleasanton, California 94566	Property Owner ()	Primary Contact
Property ID: 7079810		
Energy Consumption and Er	nergy Use Intensity (EUI)	
Site EUI Annual Energy	yy by Fuel Na	tional Median Comparison
336.5 kBtu/ft ² Electric - Grid	(kBtu) 537,751 (55%) Na	ational Median Site EUI (kBtu/ft ²) 54.5
Natural Gas (kBtu) 442,859 (45%) Na	ational Median Source EUI (kBtu/ft ²) 109.6
	%	Diff from National Median Source EUI 517%

Annual Emissions

CO2e/year)

Greenhouse Gas Emissions (Metric Tons

Source EUI

676.3 kBtu/ft²

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

I ____

Licensed Professional

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61





Golf Course Maint. Building

Primary Property Type: Other - Services Gross Floor Area (ft²): 4,000 Built: 2005 Property Address: Golf Course Maint. Building 8520 Clubhouse Pleasanton, California 94566

Property ID: 7079820

ENERGY STAR® Score¹ For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	Performance Comparison							
		Progress			Performance Goals			
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75		
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75		
Energy								
Site EUI (kBtu/ft ²)	36	33.1	-8	N/A	51.3	N/A		
Source EUI (kBtu/ft ²)	68.2	62.5	-8.4	N/A	96.9	N/A		
Energy Cost (\$)	6,924.92	6,417.3	-7.33	N/A	9,949.56	N/A		
Energy Cost Intensity (\$/ft2)	1.73	1.6	-7.33	N/A	2.49	N/A		
Greenhouse Gas Emissions								
Total GHG Emissions (Metric Tons CO2e)	8.9	8.1	-8.99	N/A	12.6	N/A		
Total GHG Emissions Intensity (kgCO2e/ft ²)	2.2	2	-8.99	N/A	3.2	N/A		
Water								
All Water Use (kgal)	N/A	N/A	N/A	*	*	*		
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*		
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*		
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*		



Performance



Golf Course Maint. Building

Primary Property Type: Other - Services Gross Floor Area (ft²): 4,000 Built: 2005

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information						
Property Address Golf Course Maint. Building 8520 Clubhouse Pleasanton, California 94566		Property Owner , ()	Primary Contact 			
Property ID: 7079	Property ID: 7079820					
Energy Consur	Energy Consumption and Energy Use Intensity (EUI)					
Site EUI	Annual Energy by Fu	el	National Median Comparison			
33.1 kBtu/ft ²	Natural Gas (kBtu)	68,999 (52%)	National Median Site EUI (kBtu/ft ²)	51.3		
	Electric - Grid (kBtu)	63,400 (48%)	National Median Source EUI (kBtu/ft ²)	96.9		
_			% Diff from National Median Source EUI	-36%		
Source EUI			Annual Emissions			
62.5 kBtu/ft ²			Greenhouse Gas Emissions (Metric Tons	8		
			CO2e/year)			

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____

Ι___

_____Date: _____

Licensed Professional

, (____)___-







Historical Building (Museum on Main)

Primary Property Type: Museum Gross Floor Area (ft²): 4,716 Built: 1914

ENERGY STAR® Score¹ For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Historical Building (Museum on Main) 603 Main Pleasanton, California 94566

Property ID: 7079611

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	Performance Comparison							
		Progress			Performance Goals			
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75		
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75		
Energy								
Site EUI (kBtu/ft ²)	58.4	56	-4.2	N/A	69.3	N/A		
Source EUI (kBtu/ft ²)	97.4	90.5	-7.1	N/A	112	N/A		
Energy Cost (\$)	8,397.93	7,641.05	-9.01	N/A	9,457.28	N/A		
Energy Cost Intensity (\$/ft ²)	1.78	1.62	-9.01	N/A	2.01	N/A		
Greenhouse Gas Emissions								
Total GHG Emissions (Metric Tons CO2e)	16.3	15.5	-4.91	N/A	19.2	N/A		
Total GHG Emissions Intensity (kgCO2e/ft ²)	3.5	3.3	-4.91	N/A	4.1	N/A		
Water								
All Water Use (kgal)	N/A	N/A	N/A	*	*	*		
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*		
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*		
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*		



ENERGY STAR[®] Statement of Energy Performance



Historical Building (Museum on Main)

Primary Property Type: Museum Gross Floor Area (ft²): 4,716 Built: 1914

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information									
Property Address Historical Building (Museum on Main) 603 Main		Property Owner	Primary Contact						
Pleasanton, Califo	ornia 94566	()	()						
Property ID: 7079	9611								
Energy Consur	Energy Consumption and Energy Use Intensity (EUI)								
Site EUI	Annual Energy by Fu	el	National Median Comparison						
56 kBtu/ft2	Natural Gas (kBtu)	178,596 (68%)	National Median Site EUI (kBtu/ft ²)	69.3					
50 KDIU/II-	Electric - Grid (kBtu)	85,449 (32%)	National Median Source EUI (kBtu/ft ²)	112					
			% Diff from National Median Source EUI	-19%					
Source FUI			Annual Emissions						
90.5 kBtu/ft ²			Greenhouse Gas Emissions (Metric Tons CO2e/year)	16					

Signature & Stamp of Verifying Professional

I ______ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____

Date:

Licensed Professional

, (____)___-







ENERGY STAR® Score¹

Nature House

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 860 Built: 1996 Property Address: Nature House 501 Kottinger Pleasanton, California 94566

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

Property ID: 7163668

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	59.4	52.6	-11.5	N/A	39.1	N/A
Source EUI (kBtu/ft ²)	166.4	147.3	-11.5	N/A	109.6	N/A
Energy Cost (\$)	3,792.4	3,383.53	-10.78	N/A	2,517.26	N/A
Greenhouse Gas Emissions	4.41	3.93	-10.78	N/A	2.93	N/A
Total GHG Emissions (Metric Tons CO2e)	3.6	3.2	-11.11	N/A	2.4	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	4.2	3.7	-11.11	N/A	2.8	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



ENERGY STAR[®] Statement of Energy Performance



Nature House

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 860 Built: 1996

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	tact Information								
Property Addres Nature House 501 Kottinger Pleasanton, Califo Property ID: 716	s prnia 94566 3668	Property Owner , ()	Primary Contact 						
	0000								
Energy Consur	Energy Consumption and Energy Use Intensity (EUI)								
Site EUI 52.6 kBtu/ft ²	Annual Energy by Fu Electric - Grid (kBtu)	el 45,245 (100%)	National Median ComparisonNational Median Site EUI (kBtu/ft²)39.1National Median Source EUI (kBtu/ft²)109.6% Diff from National Median Source EUI34%						
Source FUI			Annual Emissions						

CO2e/year)

147.3 kBtu/ft²

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge. I ____

Signature: _____ Date: _____

Licensed Professional



3

Professional Engineer Stamp (if applicable)

Greenhouse Gas Emissions (Metric Tons





ENERGY STAR® Score¹

OSC Admin Bldg

Primary Property Type: Office Gross Floor Area (ft²): 81,801 Built: 1991

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: OSC Admin Bldg 3333 Busch Pleasanton, California 94566

Property ID: 7079788

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison							
		Progress			Performance Goals		
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAF Score of 75	
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75	
Energy							
Site EUI (kBtu/ft ²)	10.5	10.2	-3	N/A	42.1	N/A	
Source EUI (kBtu/ft ²)	29.1	28.2	-3.1	N/A	116.4	N/A	
Energy Cost (\$)	155,551.18	162,658.07	4.57	N/A	670,665.91	N/A	
Energy Cost Intensity (\$/ft ²)	1.9	1.99	4.57	N/A	8.2	N/A	
Greenhouse Gas Emissions							
Total GHG Emissions (Metric Tons CO2e)	60.4	58.5	-3.15	N/A	241.4	N/A	
Total GHG Emissions Intensity (kgCO2e/ft ²)	0.7	0.7	-3.15	N/A	3	N/A	
Water							
All Water Use (kgal)	N/A	N/A	N/A	*	*	*	
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*	
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*	
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*	



Performance



OSC Admin Bldg

Primary Property Type: Office Gross Floor Area (ft²): 81,801 Built: 1991

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information								
Property Address OSC Admin Bldg 3333 Busch Pleasanton, California 94566		Property Owner , , ()	Primary Contact 					
Property ID: 7079	9788							
Energy Consur	nption and Energy U	se Intensity (EUI)						
Site EUI	Annual Energy by Fu	el	National Median Comparison	40.4				
10.2 kBtu/ft ²	Natural Gas (kBtu)	818,018 (98%) 17,394 (2%)	National Median Site EUI (kBtu/ft²)	42.1 116.4				
		,	% Diff from National Median Source EUI	-76%				
Source EUI			Annual Emissions					
28.2 kBtu/ft ²			Greenhouse Gas Emissions (Metric Tons CO2e/year)	58				

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

I ____

Licensed Professional

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ENERGY STAR®

Score¹

Pleasanton Public Library

Primary Property Type: Library Gross Floor Area (ft²): 32,802 Built: 1987

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Pleasanton Public Library 400 Old Bernal Pleasanton, California 94566

Property ID: 7079811

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	rison				Performance Comparison							
		Progress			Performance Goals							
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75						
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75						
Energy												
Site EUI (kBtu/ft ²)	72.9	69.7	-4.4	N/A	64.5	N/A						
Source EUI (kBtu/ft ²)	166.6	155.2	-6.9	N/A	143.6	N/A						
Energy Cost (\$)	109,480.71	100,825.8	-7.91	N/A	93,329.23	N/A						
Energy Cost Intensity (\$/ft ²) Greenhouse Gas Emissions	3.34	3.07	-7.91	N/A	2.85	N/A						
Total GHG Emissions (Metric Tons CO2e)	156.3	148.1	-5.25	N/A	137.1	N/A						
Total GHG Emissions Intensity (kgCO2e/ft ²)	4.8	4.5	-5.25	N/A	4.2	N/A						
Water												
All Water Use (kgal)	N/A	N/A	N/A	*	*	*						
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*						
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*						
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*						



ENERGY STAR[®] Statement of Energy Performance



Pleasanton Public Library

Primary Property Type: Library Gross Floor Area (ft²): 32,802 Built: 1987

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	ntact Information			
Property Address Pleasanton Public Library 400 Old Bernal Pleasanton, California 94566		Property Owner , ()	Primary Contact 	
Property ID: 707	9811			
Energy Consur	mption and Energy U	lse Intensity (EUI)		
Site EUI	Annual Energy by Fu	el	National Median Comparison	
60 7 kBtu/ft2	Natural Gas (kBtu)	750,661 (33%)	National Median Site EUI (kBtu/ft ²)	64.5
09.7 KDIU/II-	Electric - Grid (kBtu)	1,536,308 (67%)	National Median Source EUI (kBtu/ft ²)	143.6
			% Diff from National Median Source EUI	8%
Source EUI			Annual Emissions	
155 0 kDtu/ft2)		Greenhouse Gas Emissions (Metric Tons	148

CO2e/year)

155.2 kBtu/ft²

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: ____Date: _____Date: _____Date: _____Date: _____Date: _____Date: ______Date: _____Date: _____Date:

I ____

Licensed Professional







ENERGY STAR® Score¹

Police Station

Primary Property Type: Police Station Gross Floor Area (ft²): 16,897 Built: 1982

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 Property Address: Police Station 4833 Bernal Pleasanton, California 94566

Property ID: 7164912

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	77.5	70.4	-9.2	N/A	47	N/A
Source EUI (kBtu/ft ²)	205.9	187	-9.2	N/A	124.9	N/A
Energy Cost (\$)	64,422.82	61,988.21	-3.78	N/A	41,390.31	N/A
Energy Cost Intensity (\$/ft ²)	3.81	3.67	-3.78	N/A	2.45	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	90.4	82.1	-9.18	N/A	54.8	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	5.4	4.9	-9.18	N/A	3.2	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Police Station

Primary Property Type: Police Station Gross Floor Area (ft²): 16,897 Built: 1982

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	ntact Information				
Property Address Police Station 4833 Bernal Pleasanton, California 94566 Property ID: 7164912		Property Owner , , ()	Primary Contact 	Primary Contact	
				_	
Energy Consur	nption and Energy U	se Intensity (EUI)			
Site EUI 70.4 kBtu/ft ²	Annual Energy by Fu Electric - Grid (kBtu) Natural Gas (kBtu)	el 1,091,662 (92%) 98,301 (8%)	National Median Comparison National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²) % Diff from National Median Source EUI	47 124.9 50%	
Source EUI			Annual Emissions		

CO2e/year)

187 kBtu/ft²

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____

I ____

Licensed Professional

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82

Professional Engineer Stamp (if applicable)

Greenhouse Gas Emissions (Metric Tons





Senior Center

Primary Property Type: Senior Care Community Property Address: Gross Floor Area (ft²): 22,000 Senior Center Built: 1992 5353 Sunol

Pleasanton, California 94566

Property ID: 7079799

For Year Ending: July 31, 2019 Date Generated: July 30, 2019 **ENERGY STAR®**

Score¹

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison

		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	100	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	12.9	11.3	-11.9	N/A	77.3	N/A
Source EUI (kBtu/ft ²)	35.6	31.3	-12.1	N/A	213.2	N/A
Energy Cost (\$)	62,130.87	55,303.5	-10.99	N/A	376,830.78	N/A
Energy Cost Intensity (\$/ft²)	2.82	2.51	-10.99	N/A	17.13	N/A
Emissions						
Total GHG Emissions (Metric Tons CO2e)	19.9	17.5	-12.06	N/A	119.1	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	0.9	0.8	-12.06	N/A	5.4	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



ENERGY STAR[®] Statement of Energy Performance



Senior Center

Primary Property Type: Senior Care Community Gross Floor Area (ft²): 22,000 Built: 1992

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Cor	tact Information			
Property Addres Senior Center 5353 Sunol Pleasanton, Califo	s prnia 94566	Property Owner , ()	Primary Contact , 	
Property ID: 707	9799			
Energy Consur	nption and Energy U	se Intensity (EUI)		
Site EUI 11.3 kBtu/ft ²	Annual Energy by Fu Electric - Grid (kBtu) Natural Gas (kBtu)	el 243,568 (98%) 6,067 (2%)	National Median Comparison National Median Site EUI (kBtu/ft ²) National Median Source EUI (kBtu/ft ²) % Diff from National Median Source EUI	77.3 213.2 -85%
Source EUI			Annual Emissions	

CO2e/year)

Source EUI

31.3 kBtu/ft²

Signature & Stamp of Verifying Professional

I _____ _____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____Date: _____Date: _____

Licensed Professional

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18

Professional Engineer Stamp (if applicable)

Greenhouse Gas Emissions (Metric Tons





Sports Park Field House & RR1

Primary Property Type: Other Gross Floor Area (ft²): 9,845 Built: 1990 Property Address: Sports Park Field House & RR1 5800 Parkside Dr. Pleasanton, California 94588

ENERGY STAR® Score¹ For Year Ending: June 30, 2019 Date Generated: July 30, 2019 Property ID: 7079789

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	rison					
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 6/30/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy		11.0		N1/A	24.0	N1/A
Site EUI (KBtu/ft²)	11.4	11.2	-2.5	N/A	31.9	N/A
Source EUI (kBtu/ft ²)	32	31.2	-2.5	N/A	89.3	N/A
Energy Cost (\$)	7,332.82	1,276.77	-0.76	N/A	20,793.25	N/A
Greenhouse Gas Emissions	0.74	0.74	-0.76	N/A	2.11	N/A
Total GHG Emissions (Metric Tons CO2e)	7.9	7.7	-2.53	N/A	22.1	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	0.8	0.8	-2.53	N/A	2.2	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Sports Park Field House & RR1

Primary Property Type: Other Gross Floor Area (ft²): 9,845 Built: 1990

ENERGY STAR® Score¹

For Year Ending: June 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information							
Property Addres Sports Park Field 5800 Parkside Dr. Pleasanton, Califo	s House & RR1 ornia 94588	Property Owner , , ()	-	Primary Contact 			
Property ID: 7079	9789						
Energy Consumption and Energy Use Intensity (EUI)							
Site EUI	Annual Energy by Fu	el	National Median C	omparison			
11.2 kBtu/ft2	Electric - Grid (kBtu)	109,848 (100%)	National Median Si	te EUI (kBtu/ft²)	31.9		
			National Median So	ource EUI (kBtu/ft²)	89.3		
			% Diff from Nationa	al Median Source EUI	-65%		
Source EUI			Annual Emissions				
31.2 kBtu/ft ²			Greenhouse Gas E CO2e/year)	missions (Metric Tons	8		

Signature & Stamp of Verifying Professional

_____ (Name) verify that the above information is true and correct to the best of my knowledge. I _____

Signature: _____Date: _____

Licensed Professional

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Tennis Park

Primary Property Type: Other - Recreation Gross Floor Area (ft²): 4,600 Built: 1995

Property Address: Tennis Park 5801 Valley Pleasanton, California 94566

 For Year Ending: April 30, 2019
 Property ID: 7079607

ENERGY STAR® Score¹

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Compa	irison					
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 4/30/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	134.1	132.5	-1.2	N/A	41.5	N/A
Source EUI (kBtu/ft ²)	360.7	357.6	-0.8	N/A	112	N/A
Energy Cost (\$)	44,208.58	44,147.85	-0.14	N/A	13,827.01	N/A
Energy Cost Intensity (\$/ft ²)	9.61	9.6	-0.14	N/A	3.01	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	42.8	42.3	-1.17	N/A	13.3	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	9.3	9.2	-1.17	N/A	2.9	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



Performance



Tennis Park

Primary Property Type: Other - Recreation Gross Floor Area (ft²): 4,600 Built: 1995

ENERGY STAR® Score¹

For Year Ending: April 30, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information						
Property Address	Property Owner	Primary Contact				
Tennis Park						
Pleasanton, California 94566	, ()) -	, () -				
	()					
Property ID: 7079607						
Energy Consumption and Energy Us	se Intensity (EUI)					
Site EUI Annual Energy by Fu		National Median Comparison				
132.5 kBtu/ft ² Electric - Grid (kBtu)	574,247 (94%)	National Median Site EUI (kBtu/ft²)	41.5			
Natural Gas (kBtu)	35,412 (6%)	National Median Source EUI (kBtu/ft ²)	112			
		% Diff from National Median Source EUI	219%			
Source EUI		Annual Emissions				
357.6 kBtu/ft ²		Greenhouse Gas Emissions (Metric Tons	42			

CO2e/year)

Signature & Stamp of Verifying Professional

I ____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature:	
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Date: ____

Licensed Professional

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Veterans Memorial Building

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 9,800 Built: 1932 Property Address: Veterans Memorial Building 301 Main Street Pleasanton, California 94566

Property ID: 7163667

ENERGY STAR® Score¹ For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Performance Comparison						
		Progress			Performance Goals	
	Baseline (Ending Date 12/31/2018)	(Ending Date 7/31/2019)	% Change	Property's Target	National Median	ENERGY STAR Score of 75
ENERGY STAR Score	N/A	N/A	N/A	N/A	50	75
Energy						
Site EUI (kBtu/ft ²)	55.6	54.8	-1.5	N/A	75.7	N/A
Source EUI (kBtu/ft ²)	83.5	79.3	-5.1	N/A	109.6	N/A
Energy Cost (\$)	13,055.57	12,171.55	-6.77	N/A	16,825.94	N/A
Energy Cost Intensity (\$/ft ²)	1.33	1.24	-6.77	N/A	1.72	N/A
Greenhouse Gas Emissions						
Total GHG Emissions (Metric Tons CO2e)	31.4	30.6	-2.55	N/A	42.3	N/A
Total GHG Emissions Intensity (kgCO2e/ft ²)	3.2	3.1	-2.55	N/A	4.3	N/A
Water						
All Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use (kgal)	N/A	N/A	N/A	*	*	*
Indoor Water Use Intensity (gal/ft ²)	N/A	N/A	N/A	*	*	*
Total Water Cost (\$)	N/A	N/A	N/A	*	*	*



ENERGY STAR[®] Statement of Energy Performance



Veterans Memorial Building

Primary Property Type: Social/Meeting Hall Gross Floor Area (ft²): 9,800 Built: 1932

ENERGY STAR® Score¹

For Year Ending: July 31, 2019 Date Generated: July 30, 2019

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information						
Property Addres Veterans Memoria 301 Main Street Pleasanton, Califo	s al Building prnia 94566	Property Owner , ()	Primary Contact 			
Property ID: 7163667						
Energy Consumption and Energy Use Intensity (EUI)						
Site EUI	Annual Energy by Fu	el	National Median Comparison			
54.8 kBtu/ft ²	Electric - Grid (kBtu)	121,788 (23%)	National Median Site EUI (kBtu/ft ²)	75.7		
	Natural Gas (kBtu)	415,167 (77%)	National Median Source EUI (kBtu/ft ²)	109.6		
			% Diff from National Median Source EUI	-28%		
Source EUI			Annual Emissions	<i></i>		
79.3 kBtu/ft ²			Greenhouse Gas Emissions (Metric Tons CO2e/year)	31		

Signature & Stamp of Verifying Professional

____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature:	
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I ____

Date: ____

Licensed Professional

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