Wauwatosa City Hall & Civic Center

Wauwatosa, Wisconsin

Master Plan Study

July 27, 2010

Engberg Anderson Project Number 101998

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Wauwatosa City Hall & Civic Center Master Plan Executive Summary

Engberg Anderson and Harwood Engineering Consultants are retained to recommend improvements to citizen access, staff productivity and security while reducing energy consumption.

Findings:

While the building area within City Hall and Civic Center facility is adequate to contain programmed space requirements for daily City Hall activities and services, the current layout is not efficient or user friendly. Departmental organization is counter intuitive, and the public often wandering the hallways looking for assistance. Layout and use patterns of City Hall create potential security threats to staff and users such as theft, incidental assault, or other malicious intent.

Mechanical, electrical and control systems are dated and inefficient, with lack of distribution zoning and control, and consume more energy per square foot than building of similar use.

The facility is nearing an end of its useful lifecycle of materials, finishes and equipment, thus maintenance costs will tend to escalate progressively over time with unanticipated charges for replacement of failed critical equipment. Maintenance and replacement programs in an 'ad-hoc' approach do not recover efficiencies realized in a whole system design and integration with efficient building layouts, and do not address increases in utility cost and usage charges.

Conclusion:

The facility layout is not efficient or user friendly and mechanical & lighting systems have outlived their useful and efficient expectancy.

The "maintain status-quo" option will propagate system-wide inefficiencies and maintenance costs will escalate progressively over time, with unanticipated charges for replacement of failed critical equipment.

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Utility charges are destined to increase proportionally over time, with anticipated peak charges becoming more of an element of service.

The recommendation of the project team is to reorganize the departmental layouts into an efficient and compact configuration which will integrate the key objectives and will serve to reduce yearly energy consumption, harvest lighting from diffuse natural daylight and continue to return value, convenience and productivity during an extended life of the public facility for another quarter century.

Recommendations:

Our recommendations for improved citizen convenience, building and employee security and long term energy savings are as follows:

- Reorganize departmental layouts into an efficient and compact configuration which integrate key objectives listed in the report. Streamline visits to City Hall for payments with strategically located and identified self pay kiosks, which reduce need for unintentional interaction with employees.

- Relocation of the Municipal Court function to main level will allow Court attendees will have direct access to the Courtroom from the parking level and will have little necessity to wander the building. The City Hall function may be secured after business hours which allow the mechanical and electrical systems to fallback into an unoccupied mode to conserve energy. An additional ventilation zone consideration should be made for areas such as Common Council Chambers and Committee Rooms.

- Modernization of mechanical and electrical equipment and controls, including use of controlled daylighting, will reduce electrical and mechanical energy consumption, and with proper maintenance will serve the building function over the next quarter century. Alternate energy such as photovoltaic, solar hot water systems or off peak ice generation and storage systems is not studied for this report.

Approximate Construction Value of Renovation, Incentives and Return on Investment:

A 2011 renovation will likely range from $75- $125 per square foot depending on levels of finish and expected durability, and includes a budget of $12-$20 per square foot to renovate mechanical systems

and controls and $10-$13 per square foot to renovate electrical systems and controls. Expected values to renovate existing building are in the range of $3.3 to $5.5 million exclusive of existing scheduled maintenance projects such as glazing replacement and roofing. Phasing of the project may increase costs by approximately 15%.

Energy rebates and incentive may be available through public utility programs such as Focus on Energy, Energy Center of Wisconsin, as well as incentives available through American Reinvestment and Recovery Act of 2009. Precedents for recent incentives may fund approximately $1 per square foot with utility rebates and $4 per square foot with formula based Energy Efficiency and Conservation Block Grants.

The combination of reorganization of departments and the modernization of systems realizes a potential yearly energy reduction savings of approximately $100,000 at current utility rates.

Design and construction of a new building of appropriate size, scale and use, to a LEED rating of 'Silver' and an Energy Star rated building of 75 would be estimated at approximately $7.9 to $9.9 million.

Thank you.

Engberg Anderson and Harwood Engineering Consultants thank you for the opportunity to provide this review and recommendation in regards to Wauwatosa's City Hall and Civic Center. Please feel free to contact us if any questions or clarifications are desired.

Wauwatosa City Hall & Civic Center Master Plan Executive Report

This project is funded by the American Reinvestment and Recovery Act of 2009 and in part by a Feasibility Study Grant secured through Wisconsin Focus on Energy. This grant offsets the cost of studying the effect of implementing the proposed mechanical modifications and space utilization changes.

Engberg Anderson and Harwood Engineering Consultants jointly researched and produced the Feasibility Study Grant materials on behalf of the City of Wauwatosa.

Engberg Anderson and Harwood Engineering Consultants were retained to work in cooperation with the Executive Staff, Building Manager, City Engineering Staff and Departmental Heads to create a document that improves citizen access, staff productivity and security while reducing energy consumption at the City Hall and Civic Center.

Our discovery process included the following:

Programming existing use consisted of:

- Project kickoff with central team representing the City.
- A detailed worksheet process to gather data for each department, service and program in the City Hall.
- Structured interviews with Department Heads regarding use and efficiencies, and visual evaluation of the quantity and quality of workspace.
- Development of a draft building program for review.
- Development of a Space Requirements Program Document for the facility.

Evaluating the existing building consisted of:

- Site visits by Engberg Anderson and Harwood Engineering Consultants.

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- Field observation and documentation of visible building and site conditions.
- Building Assessment Report summarizing existing building systems.

Energy model evaluation:

- Research utility usage records for current energy baselines.
- Provide energy assessments to identify energy-saving opportunities at the facility.
- Provide technical recommendations to select and implement cost-effective projects and practices.
- Project future return on investment values for system modifications.
- Review options for Energy Star Certification and incorporate into cost models.

Indentifying opportunities:

- Determine logical City Hall entry and circulation patterns.
- Identify the main reasons for the public to interact with City Hall.
- Reorganize departments based on adjacency requirements and spatial needs.
- Identify existing building components that might be reused or repurposed with the intents of the document.
- Create Municipal Courtroom in a space that is underutilized and closer to public access.
- Objective evaluation of preferred options against each other (new vs. expansion).
- Presentation with recommendations to the Common Council.

Findings:

The area within City Hall and Civic Center facility is adequate to contain the programmatic space requirements for the daily City Hall activities and services. However, the existing layout is not efficient or user friendly and departmental organization is counter-intuitive with the public often wandering the hallway looking for assistance.

Navigating the facility per the signage is overwhelming with 'official signage', random directional signage and small slips of paper taped to a wall. There are too many 'directions' to process to make an initial visit to City Hall effective and efficient for the Citizen user. The unique concept of entry and place is overrun by hidden entry points, long hallways and signage, and only after a number of visits does the user understand the layout of City Hall. Signage is intended to enhance organization or design, not

replace.

Payments to the City were cited as the main reason (>75%) for visits by the public to City Hall. The majority of those visits are to the treasurer to pay Property Tax invoices at the end of the year or to pay quarterly water utility invoices.

After hours public access is a security concern, and in particular conducting Municipal Court in the City Hall complex brings users of the judicial system into the function of City Hall. While this may have been a useful adjacency in the past, the current reality is that the process is often disruptive and distracting to other building users, and presents a security issue to both the staff and the public.

Comments regarding employee comfort and the heating, ventilation and air conditioning system, often at the extremes within the same space during the same day were consistent during interviews. This directly affects morale and efficiency of City employees.

Sound transmission through walls and ceilings is a common defect of the existing configuration. This is key in regards to planning, HIPAA, and employment discussions.

Energy costs for this particular building type are higher than the national average.

Lighting power density in the existing building averages 1.18 watts per square foot of gross building area, and 1.9 watts per square foot of leasable area, and generally utilizes outdated T12 fluorescent technologies.

Simple "on-off" lighting control in daylit areas promotes over-lit spaces and unnecessary energy use.

Approximate Construction Value of Renovation, Incentives and Return on Investment:

A 2011 renovation will likely range from $75- $125 per square foot depending on levels of finish and durability, and includes a budget of $12-$20 per square foot to renovate mechanical systems and controls and $10-$13 per square foot to renovate electrical systems and controls. Expected values to renovate the existing building are likely in the range of $3.3 to $5.5 million exclusive of existing scheduled maintenance projects such as glazing replacement and roofing. Phasing of the project may increase costs

by approximately 15%.

Energy rebates and incentives may be available through public utility programs such as Focus on Energy, Energy Center of Wisconsin, as well as incentives available through American Reinvestment and Recovery Act of 2009. Precedents for recent incentives may fund approximately $1 per square foot with utility rebates and $4 per square foot with formula based Energy Efficiency and Conservation Block Grants. Focus on Energy offers prescriptive incentives of set dollar amounts for specific energy savings measures, as well as customized grants estimated from first year energy savings on qualifying projects, up to 30% of equipment costs.

The combination of reorganization of departments and the modernization of systems realizes a potential yearly energy reduction savings of approximately $100,000 at current utility rates.

Design and construction of a new building of appropriate size, scale and use, to a LEED rating of 'Silver' and an Energy Star rated office building of 75 would be estimated at approximately $7.9 to $9.9 million.

Key objectives:

Our recommendations to remedy existing shortcomings include the following:

Objective: Relocate Municipal Court including a Judge's private chambers and a conference area to the existing Civic Center Activity room at the Parking level. Create a multi-purpose space which may be used by the Municipal Courts as overflow space on especially busy nights.

Objective: Create an "Entry" to City Hall and a logical visual connection between the parking and City Hall Entrances. Use of relevant and possibly changeable art will engage the user and identify the connection between levels. Identity on the exterior will initiate recognition earlier in the sequence.

- This area may be secured for after hours for safety and privacy.

Objective: Use concept of Entry and Place to visually organize and guide the user to the services offered by the City. The way-finding strategy should be place-based and as intuitive as possible, referring to

notable "landmarks" as well as clearly defined and identified places. This will eliminate confusing signage, and distill the user visit into an effective and direct interaction with City Hall.

Objective: Locate the City Treasurer as the first visually identified counter upon entering City Hall. This simple transaction area will satisfy the majority of users needs upon entrance and identification.

Objective: Streamline visits for payments by distributing Self-Pay Kiosks at parking level and main City Hall level for self service and after hours payments. Promote the safety and accuracy of the transaction, and relay confidence to the payer that the transaction is considered on a timely basis. Continue to develop and promote efficiency and security of on-line transactions.

Objective: Reinforce confidentiality and privacy within City Hall transactions with partitions designed to reduce sound travel by a minimum of 55 decibels. (Partition STC rating of 55 or higher.)

Objective: Energy costs for this particular building type are higher than the national average. Develop an energy saving strategy within the building to align with Energy Star guidelines for an office building.

In order for a building to earn the Energy Star, at least 50% of the building must meet the description of an eligible commercial space type. The Wauwatosa City Hall/Civic Center/Library is not an eligible space type because the office portion of the building is less than 50% of the building's gross square footage.

Energy Star does not label areas of buildings, even if independently metered.

A preliminary Energy Star evaluation was done as if the City Hall portion was a stand alone building, and determined as is operating currently, would have an Energy Star rating of 23, which is far below a rating of 50 for an average office building. The Energy Star label is awarded to buildings with a yearly rating of 75 or higher. In order for City Hall and the Civic Center to achieve a rating of 75, the following energy conservation measures must be incorporated.

- Install new minimum 85% efficient boilers.
- Provide chiller capacity limit controls.
- Convert air handling units to Variable Air Volume (VAV) and provide direct digital controls.
- Reduce operating hours of air handling units to only times when the building and areas of that are occupied.
- Incorporate lighting upgrades indicated in spreadsheet and documentation.

Additional energy conservation measures, such as cool daylighting and use of Energy Star office equipment would further increase the Energy Star rating.

Objective: Zone mechanical distribution systems which allows users and systems to interact with a building environment to reduce energy consumption.

- Control units AHU-10, 11, 12 and 16 to shutdown when unoccupied. Modify unit AHU-9 to reduce airflow with the installation of dampers, controls and a Variable Frequency Drive with a new 3 HP motor. These modifications would result in an estimated annual energy savings of $14,000.
- The equipment and control modifications required to have the units controlled in this manner would require an estimated $30,000.

Objective: Reduce outside air intake volumes and air flow while maintaining an environment that provides user comfort and productivity.

- Rebalance nine air handling and roof top units, 21 exhaust fans, grilles diffusers and registers and provide new drives or exhaust fans as needed would require an estimated $50,000 and provide an estimated $20,000 annual savings.

Objective: Modify existing constant air volume air handling units to variable air volume units.

The current system, a pressurized ceiling plenum air distribution system, was modified per the Beske Report to change over to Variable Air Volume distribution system. In the Beske design, bypass dampers were installed between the supply air duct and the return air duct. Typically this type of system will improve comfort to the space, but does not reduce fan energy or chiller and boiler requirements.

Proper Variable Air Volume to these areas would require extending the duct and installation of ceiling diffusers. Fan motors would be modified and variable frequency drives installed on the motors to reduce air flow, reduce motor amperage draw, and reduce chilled water and hot water requirements. The current temperature control system in many of these areas is pneumatic and would require changing over to Direct Digital Control to receive the full benefit of controlling the new Variable Air Volume.

- Modification and installation of distribution system, fan motors and variable frequency drives and Digital Temperature Controls would require an estimated $400,000 investment, and provide an estimated $32,000 annual savings.

Objective: Analyze the facility to provide energy savings.

- Re-zoning of Mechanical Systems to provide shut off feature: Savings $14,000.
- Re-air balance building units to reduce the total amount of air and the total outside air to be treated. Savings $20,000.
- Net Savings $34,000.

Objective: Analyze major pieces of mechanical equipment to determine if replacement with higher efficiency equipment is practical and will provide a cost savings to the City.

- The main water chiller is operating at a very efficient level and we do not anticipate any modifications to this equipment for some time. However, Variable Speed Controls and other modifications listed for the HVAC Systems will allow for the chiller capacity to be reduced. Capacity reduction would be controlled through the new direct digital controls or a chiller

control to limit the peak KW demand of the chiller. We estimate a reduction of 25 KW demand each month for the summer peak cooling months for an estimated annual savings of $4000 that would require an investment of $5,000.

- The existing boilers are also operating at an efficient level and have several years of quality operation left. The highest efficiency boiler replacement packages would require an investment of $70,000 with an estimated $5,000 annual savings.

Objective: Distribute glare-free daylight to employees, and locate work rooms and conference rooms to interior locations. A growing number of references suggest a strong correlation between day-lighting work areas and increased office productivity and reduced absenteeism.

- Retrofitting a 'cool daylighting' detailing concept of shading the exterior building face will reduce unnecessary summer solar heat gains, particularly on the south facing windows. Shading of the glazing and building envelope reduces summer solar gains which translate into a reduction of peak cooling demand to mechanical system by approximately 10 tons, and result in an estimated $4,000 annual savings.

- Use of designed light shelves, light reflecting surfaces and ceilings, and interior transom and borrowed lights will allow daylighting to penetrate further into the facility core, and reduce the need for general overhead lighting.

- Skylights will introduce daylight into areas but can be a source of glare if not treated properly.

- Reduced Operating Costs: Electric lighting accounts for 35 to 50 percent of the total electrical energy consumption in commercial buildings. By generating waste heat, lighting also adds to the loads imposed on a building's mechanical cooling equipment. The energy savings from reduced electric lighting through the use of daylighting strategies can directly reduce building cooling energy usage an additional 10 to 20 percent. Consequently, for many institutional and commercial buildings, total energy costs can be reduced by as much as one third through the optimal integration of daylighting strategies.

Objective: Update lighting fixtures to high-efficiency T8 technology, and update layouts more suited to recommended light levels in modern office environments.

- Reduce lighting power density to approximately 0.75 – 0.8 watts per square foot average.
- Provide dual-level lighting controls for greater individual control of fixtures and overall visual comfort, and separate controls in day lit areas for further efficiency measures.
- Balance general background diffuse lighting and daylighting (30 foot candles at table height is reasonable) with individual task lighting (50 foot candles total at work surface is reasonable) at each workstation.
- Digital ballast controls will provide fixture by fixture level of control unique to the environment more efficient lighting layouts, possibly extending lamp life and the ability to diagnose conditions from a remote computer location.
- Indirect lighting utilizing T5 and T5HO lamping allow for fewer fixtures distributed over a specific area. Direct lighting conditions create brightness ratio issues, however a reflected or indirect light source provides even lighting. Cost per fixture increase is offset by fewer fixtures.

Objective: Common-sense renovation of City Hall. Although analysis of renewable energy sources are not included in the scope of this study, a structured site analysis will provide information to evaluate and integrate solar hot water or photovoltaic energy sources. Readily available modular extensive green roof products slow and reduce stormwater runoff, insulate and protect and extend the life of a roofing membrane while reducing solar heat gains in summer.

Conclusion:

The facility layout and mechanical & lighting systems have outlived their useful and efficient programmed expectancy.

The "maintain status-quo" option will propagate system-wide inefficiencies and maintenance costs will escalate progressively over time, with unanticipated charges for replacement of failed critical equipment.

Utility charges are destined to increase proportionally over time, with anticipated peak charges becoming more of an element of service.

The recommendation of the project team is to reorganize the departmental layouts into an efficient and compact configuration which will integrate the key objectives and serve to reduce yearly energy consumption, harvest lighting from diffuse natural daylight and continue to return value, convenience and productivity during an extended life of the facility for another quarter century.

Wauwatosa City Hall & Civic Center Master Plan
Building Program

Guide to the Building Program

The building program document is a description in words and numbers of the service and operational requirements for the proposed reorganization. The program serves as the City Hall written instructions to the designer in beginning the design process.

The program is focused on how the building is to function rather than how it will look.

The selected designer will want to review this program to insure a complete understanding of project requirements. Revisions may arise from that review. It is also possible that the program will change and that it will be necessary to revise the requirements during the course of schematic design based on additional information, budget considerations, and/or new understandings resulting from the graphical representation of spaces.

Preparation of schematic plans including furnishing layouts should be the final arbiter of space requirements for the building.

The building program includes sections grouped in three broad divisions:

Program Divisions

Program Overview- Specific design considerations for execution of Planning Document.

Space Allocation Summary - Matrix summary of recommended space allocations.

Functional Area Descriptions- Detailed description and requirements for each functional area of the building.

Wauwatosa City Hall & Civic Center Master Plan
Program Overview

Specific Design Considerations

While researching the program document a group of issues that affect the project across programmatic lines was identified.

Flexibility- Wauwatosa's City Hall and Civic Center provides an array of services to a varied constituency. The service paradigm and methods can be expected to change with some frequency, and the building design must respond to these needs to allow effective, efficient operation of the complex.

Aesthetics- Quality public buildings convey a sense of pride and accessibility to public services, and a significant and permanent representation of a Community's values.

Even though aesthetics are very important, the actual function of the facility must be the overriding consideration. Programmatic needs and operational costs must be a constant concern. Clean lines, durable materials and ease of maintenance justify a higher initial investment to reduce ongoing operational costs.

A warm atmosphere invites the public to enter and feel at ease using the services and resources provided.

Signage & Wayfinding- A clear signage and information program with concise applications assists citizens in navigating the building and access to departmental assistance. Too many signs and arrows simply confuse users and disrupt efficient workflow. Restrict ad hoc signage that only serves to confuse and convey negativity in the public realm.

ADA and Barrier Free Accessibility – Public buildings have a number of specific requirements detailed in the Americans with Disabilities Act. The building should meet both the letter and the spirit of Barrier Free Accessibility and provide access and accommodation to all citizens.

Ergonomics – Well thought out design responds to ergonomic, people friendly solutions in selecting furnishings, fixtures, and finishes. Furnishings and millwork should allow for comfortably situated keyboards, monitors, and accessories; floor treatments at public service desks should reflect the hour's staff spends on their feet. Light and daylight source controls should be considered to reduce monitor glare.

Furnishings - Moveable furniture is preferred in every instance over fixed counters and cabinets. Exceptions are major public service transaction counters and counters with sinks. Staff workstations or stands should be adjustable by to provide various work surface heights. These workstations should be able to be modified with minimum effort.

Security – Security cameras are desired particularly where financial transactions take place, Municipal Court & Court Clerks and in areas where direct supervision is not feasible. A secure digital recorder should be located in the information systems area.

Call/ Security Buttons – Provide call/security buttons at all service desks to alert security for assistance.

Transaction Counters – Transaction Counters should have a means of closing off the area after hours without creating an atmosphere of detention or high security.

Self Service Kiosks – Secure kiosks allow citizens to pay bills, taxes or fines should be made available for convenient transactions and recording during or after operating hours of City Hall.

Recycling – Provide both trash and recycling receptacles throughout public and support areas of facility.

Wauwatosa City Hall & Civic Center Master Plan
Space Allocation Summary

Executive Suite:	Program Area	Primary Relationship	Secondary Relationship
City Attorney Office	1,800	Executive, Human Resources	Assessor
Human Resources	1,800	Administration, City Attorney	
Administration/ Mayor	1,500	City Attorney, Human Resources	Council Chambers, Committee Rooms
Shared Reception Area	200		
Shared Conference Area	400		
Sub- Total	5,700		
Efficiency (10%)	570		
Total	**6,270**		

City Clerk & Elections:	Program Area	Primary Relationship	Secondary Relationship
City Clerk Office	2,250	Administration, City Attorney, Planning & Community Development, Treasurer & Comptroller, Electoral Workers.	Municipal Court, Municipal Clerks (Supervisory role)
Electoral Process Work Area	1,750	City Clerk, Absentee Voting Location	Ward Locations
Sub- Total	4,000		
Efficiency (10%)	400		
Total	**4,400**		

Municipal Court	Program Area	Primary Relationship	Secondary Relationship
Courtroom	500	Public access, Judge's Chambers, Attorney Conf Room	
Judge's Chambers	250	Courtroom	
Attorney Conference Room	200	Courtroom	
Waiting/ Public Seating	560	Courtroom	
Sub-total	1,510		
Efficiency (10%)	151		
Total	**1,661**		

Cable TV	Program Area	Primary Relationship	Secondary Relationship
	400	Committee Room, Council Chambers	
Sub-total	400		
Total	**400**		

Health Department	Program Area	Primary Relationship	Secondary Relationship
	5,500	Public Access	City Clerk (Licensing), Building Department (Inspections)
Sub-total	5,500		
Efficiency (10%)	550		
Total	**6,050**		

Information Systems	Program Area	Primary Relationship	Secondary Relationship
	2,000		
Sub-total	2,000		
Total	**2,000**		

Departmental Offices	Program Area	Primary Relationship	Secondary Relationship
Finance / Comptroller	3,410	Water Department	Assessor's Office, Administration
Property Assessor	3,500	City Attorney, Building Department	Inspection, City Clerk, Information Systems, Public
Purchasing Department	1,000	Finance/ Comptroller, Engineering, Receiving Dock	
Water Department	1,250	Finance/ Comptroller, Engineering	
Sub-total	9,160		
Efficiency (10%)	916		
Total	**10,076**		

Large Shared Spaces	Program Area
	11,294
Sub-total	11,294
Efficiency (20%)	2,259
Total	**13,553**

City Hall/ Civic Center Program Total	**44,410**

City Attorney's Office

Program Area: **1,800 square feet**
Full Time Equivalent (current/10yr) **:** **3.5 FTE / 5 FTE**

Function and Design Issues:

This area functions as the City Attorney and administrative staff in relation to the legal parameters of the City's business. Direct access to the public is not necessary. Cross staffing administrative positions is an option in this department.

Sound-proofed Offices should support up to six seated at a conference style table, with larger meetings occurring in Committee rooms. Video teleconferencing capability is desired.

Work Spaces:

City Attorney Office

Assistant Attorney Office

Reception: Administration, Human Resources and Attorney suggest sharing a single reception point.

Attorney Work Area: General administration office work; Part-time attorney work station.

File Storage / Legal Library (now typically accessed electronically, with Law Books 'for show').

Open Record review area, semi private including desk, table and visual oversight from staff.

Future Considerations: Collections, Prosecution, Litigation Support

Signage: Door Signage with name and/or position.

Adjacencies:

Primary:
Administration
Human Resources

Secondary:
Assessor

Human Resources

Program Area: **1800 square feet**
Full Time Equivalent (current/10yr) **:** **4.5 FTE / 5.0 FTE**

Function and Design Issues:

This area functions as the main interaction between the City and its employees for benefits, wellness programs, and hiring practices. The department foresees opportunities in automated information collection and applications. Confidentiality and the Health Insurance Portability and Accountability Act, (HIPAA) are important in one-on-one sessions. This area has a high interaction with the public during periods of recruitment and direct access would increase efficiencies within the department and building.

Work Spaces

Human Resources Director Office (current role is Part Time Attorney and HR Director).

Two private offices.

Human Resource Work Area.

File Storage.

Conference Room to seat 6. Soundproofed design preferred. Share this space across Administrative Suite.

Public Transaction Counter, secure and lockable.

Application for Employment Kiosk, terminal or seated area to manually fill out applications.

Secure Storage for Personnel Records.

Signage: Door signage with name and/or position.

Adjacencies: **Primary:**
Public
Administration
City Attorney

Secondary:

Administration / Mayor

Program Area: **1,500 sf**
Full Time Equivalent (Current/10yr)**:** **3 FTE / 3 FTE**

Function and Design Issues:

This area provides offices and reception for the Mayor, City Administrator and executive staff, with room for work areas and meeting within individual offices. Existing offices are large enough to share with Interns and Assistants.

Existing space allotment is adequate, but reorganization will increase efficiency.

For meetings greater than six attendees, a Committee Room is utilized.

Convenient access to the public would be beneficial.

Work Spaces:

Executive Reception Area.

Mayor's Office.

City Administrator Office.

Shared Conference Room. (Room for 6)

Shared Reception.

Signage: Identification of Mayor and City Administrator

Adjacencies:

Primary:
City Attorney
Human Resources

Secondary:
Council Chamber and Committee rooms.

City Clerk

Program Area: **2,250 square feet**
Full Time Equivalent (current/10yr) **:** **5.0 FTE / 5.5 FTE**

Function and Design Issues:

The City Clerk is the legal custodian of official city records, issues various city licenses, conducts local elections, and is the filing agency for numerous reports and documents.

Pending federal legislation may require additional measures regarding conducting Absentee electoral process, including increased storage requirements. Absentee voters often need "surge space" for waiting during elections. Security of electoral process is a concern.

Staff often conduct training sessions which are attended by 40 to 90 participants, where shared meeting spaces is sufficient.

Although the current location is a "first see - first question" location, there is limited need for public interaction outside of licensing and electoral process. Current location creates a disruptive working environment, and a security risk.

Municipal Clerk is isolated from staff, and located within the working context of City Hall.

Work Spaces

City Clerk Office

Municipal Court Clerk

Clerks Work Area

Copy and Assembly Area

Record Storage

Signage: Departmental Signage
Room and Occupant Signage

Adjacencies:

Primary:
Electoral Component
Common Council Chambers
Administration
Attorney
Planning and Community Development
Treasurer/ Comptroller.

Secondary:
Municipal Court
Municipal Clerks

Municipal Clerk

Program Area: **313 square feet**
Full Time Equivalent (current/10yr) **:** **Accounted for in Clerks**

Function and Design Issues:

This area processes collections for Municipal Clerk and keeps Municipal Court records for five years.

Municipal Clerk interacts with Public on daily basis during transactions.

Transaction "windows' for security, also designed for barrier-free accessibility.

Work Spaces

Collection, processing and secure storage of receipts.

File Storage for five year recent Court Records. (currently sized for two years)

Dead Storage for seven year Court Records.

Signage: Departmental Signage
Collection Area Signage

Adjacencies: **Primary:**
Public
Clerk (Supervisory Role)
Municipal Court

Secondary:

Electoral Process Requirements

Program Area: **1,750 square feet**
Full Time Equivalent (current/10yr) **:** **Accounted for in City Clerk**

Function and Design Issues:

The City Clerk is charged with ensuring that the electoral process is fair, accurate, and impartial.

Secure areas for election supplies, election equipment, storage and assembly work required for the electoral process.

Pending Legislation will likely increase absentee voting.

This area is a secured non-public area, available for audits, but not for general access.

Work Spaces

Secured Ballot Storage.

Secured Supply Storage.

Work, assembly and audit area.

Dead Storage – 22 months for Federal Elections.

Voting Equipment Storage.

Signage: Not Required.

Adjacencies:

Primary:
City Clerk
Absentee voting location

Secondary:
Voting ward location.

Municipal Court

Program Area: **1,661 square feet**
Full Time Equivalent (current/10yr) **:** **3.0 FTE / 3.5 FTE**

Function and Design Issues:

This area functions as the Public Court for municipal violations. Court is held two nights a week.

The Municipal Clerk (covered as a separate function in 'Municipal Clerk') performs an administrative function, attorney to negotiate, and Judge convenes to hear evidence presented and decide case.

Currently the setup in undesirable as Court is held in Council Chambers and without a separate Judges Chambers. Public negotiation with Attorney takes place in the Council Chambers on a first come-first served basis.

Accessible Public access with waiting area is necessary.

Courtroom Security is a concern.

Work Spaces

Clerk of Courts; with processing desk with access to secure receipt storage.

Municipal Judge's Chambers; with adequate storage for appropriate clothing and room for Counsel and Judge to convene. Refer to State Senate Bill 383.

Municipal Courtroom.

Attorney Conference Room.

Waiting Area (for 60-80 participants/ defendants)

Signage: Departmental Signage

Adjacencies: **Primary:**
Public
Judge's Chambers
Clerk of Courts area/ Collections.

Secondary:

Cable TV Processing and Distribution

Program Area: **400 square feet**
Full Time Equivalent (current/10yr) **:** **2 FTE / 2 FTE**

Function and Design Issues:

Time Warner provides the community with three channels to use for school, government, and public information purposes.

Remotely operate cameras and audio for Council proceedings. Post production work for presentation over Cable TV.

Work Spaces

Work Room; Two computer stations for editing and upload

Storage; Equipment used in recording and preparation of video.

Signage: Departmental

Adjacencies: **Primary:**
Information Systems
Committee Room
Council Chambers

Secondary:

Health Department

Program Area: **5,500 square feet**
Full Time Equivalent (current/10yr) **:** **12.5 FTE / 16.5 FTE & 2 or 3 volunteer**

Function and Design Issues:

This area functions as the Public Heath Department for the community at large. The health department assists residents with Adult Health Services, Environmental Health, Infants and Children, Referral Nurse Line, Seasonal Immunization, Senior Commission, Board of Health, Tobacco Prevention and Cessation and Drug Intervention and Education.

Existing space allotment is adequate, but reorganization will increase efficiency.

Convenient barrier free public access is a necessity, and the Main Level location is ideal.

The Health Insurance Portability and Accountability Act (HIPAA) enforce privacy of resident's health information.

Separation from other Municipal functions is convenient as most visitors are unique to the Department.

Work Spaces

Reception Area/ Service Counter *(currently too large.)*

Need Space for stroller and wheel chair accommodations.

Electronic Kiosk for access to medical information.

Waiting Area.

Exam Rooms (4).

Designated clean and dirty rooms.

Classroom (including chair & table storage).

Health Officer.

Nurse Supervisor.

Nurse's Work Area *(currently too small)*

Private Offices (3).

Work Room/ Printing/ Copy Area.

Meeting Room.

Break Room.

Storage (Health Records, Exam Equipment, Supplies).

Cold Storage.

Medical Storage.

Separate IT Area for Electronic Public Health Records

Mass Immunizations and Clinics can be held in larger shared spaces.

Signage: Public Identification of Department
Waiting Room
Exam Room
Classroom
Supervisor Office
Private Offices (Environmental Health Offices)

Adjacencies: **Primary:**
Public Access

Secondary:
City Clerk (Licensing)
Building Department (Inspections)

Information Systems

Program Area: **2000 square feet**
Full Time Equivalent (current/10yr) **:** **5.5 FTE / 5.5 FTE**

Function and Design Issues:

This area functions central computer server areas, networking equipment and telephone system and provides offices and work space for IS support staff.

Secure Area is mandatory. Public access is neither warranted nor desired.

Work Spaces

Offices (4)

Processing and Work Area.

Conference Room.

Server and Networking room with proper Cooling and ventilation.

Signage: Room Signage.

Adjacencies: **Primary:**
Telephone Room.

Secondary:

Finance/ Comptroller

Program Area: **3,410 square feet**
Full Time Equivalent (current/10yr) **:** **10 FTE / 10 FTE**

Function and Design Issues:

The Treasurer's Office ensures the proper collection, deposit, and safekeeping of all funds while maintaining the safety and liquidity of City funds and investing excess City funds prudently in accordance with adopted investment policies and State Statutes. Additionally, the Comptroller's Office provides fiscally sound financial documents, including Monthly Financial Reports, Annual Operational Budget and related documents, and the Annual Financial Report.

Comptroller's Office supervises the preparation of the City's annual budget.

A preference is listed for Main Level location and convenient public access over a transaction countertop is preferred to conduct financial business.

Work Spaces

Comptroller Office

Accountant Office (2)

City Treasurer Office

Vault (currently 2, confirm need)

Comptroller Staff Work Area

Treasurer Staff Work Area

Signage: Departmental Signage
Room and Occupant Signage

Adjacencies: **Primary:**
Water Department

Secondary:
Assessor's Office; Administration

Property Assessor's Office

Program Area: **3,500 square feet**
Full Time Equivalent (current/10yr) **:** **5.0 FTE / 7.0 FTE**

Function and Design Issues:

Assessed values determine the amount of general property tax charged to each property owner, while the information gathered provides a historical record and reference base for municipal operations. Assessment information is also used by real estate professionals, insurance companies, and prospective buyers of Wauwatosa properties.

Department work programs and services are subject to review by the Department of Revenue, and must comply with the Wisconsin Property Assessment Manual, and Chapter 70, Wisconsin Statutes.

Functionality of this area would benefit from and efficiency reorganization and increased area, and a shared transaction area with other departments are an opportunity for efficiency.

Public interaction is limited to reassessment periods and realtor verifying property values.

Work Spaces

City Assessor Office.

Deputy Assessor Office.

Assessor General Office and Work Area, including transaction counter, Public Computer Access Area and Departmental Library.

Conference Room ("Interview Rooms") with access to Department resources.

Secure file storage. Many files are going to digital, which will increase Technology infrastructure.

Signage: Room and Occupant Signage.
Department Signage.

Adjacencies: **Primary:**
Attorney

Secondary:
Inspection, Clerks, IS,
Public (during re-assessment periods.)

Purchasing Department

Program Area: **1000 square feet**
Full Time Equivalent (current/10yr) **:** **2.5 FTE / 2.5 FTE**

Function and Design Issues:

The function of the Purchasing Department is to solicit competitive prices from responsible vendors in order to purchase materials, equipment, and services in a timely manner to meet requirements for all City Departments.

Purchasing provides competitive informal and sealed bid documentation for departmental and/or Council approval; authorizes use of other source selection methods such as small purchase procedures, sole source procurement, emergency purchases, and selection process for designated types of services.

Secondary services include auditing of invoices, distribution of petty cash fund, and processing of all outgoing mail.

There is limited public interaction with this department.

Work Spaces

Purchasing Offices (2)

Purchasing Work Area

Small Conference Area (or shared)

Mail Assembly and Distribution

Signage: Room and Occupant
Departmental

Adjacencies: **Primary:**
Loading Dock
Comptroller
Engineering

Secondary:

Water Department

Program Area: **1,250 square feet**
Full Time Equivalent (current/10yr) **:** **5.5 FTE /5.5 FTE**

Function and Design Issues:

The Water Utility is responsible for safe and efficient distribution of water service to all residential and commercial properties in the City.

Work Spaces

Water Department Superintendent Office
Accounting Department
Water Department Work Area (unique division of labor and union relations)
Filing and Storage Area, including Plan Archive.

There is limited public interaction with this Department.
Consider consolidation at Field Office location. Water billings are paid at treasurer's office.

Signage: Departmental
Room and Occupant

Adjacencies: **Primary:**
Comptroller
Treasurer Office

Secondary:

Large Shared Spaces

Program Area: **11,294 square feet**
Full Time Equivalent (current/10yr) **:** **none**

Function and Design Issues:

These multi-use spaces function as gathering and meeting area for various Legislative, Judicial, Executive, administrative, citizen and historic memorial spaces. These are functions are typically open to the public after hours, and require scheduling and reservations for use.

Locating these spaces adjacent on the lower level, the balance of the building may be secured after hours.

Employee Break Lounge may be relocated to a central location and reallocated to Large Shared Spaces.

There are efficiencies to dedicating and combining large meeting spaces, as well as creating a public realm and meeting space, without wandering City Hall.

Shared Public Spaces

Auditorium, Stage, Lobby and Coat Room; 4,843 square feet.

Council Chambers; 2,295 square feet.

Committee Rooms I & II; 1,215 square feet.

Meeting Rooms I & II; 1,195 square feet.

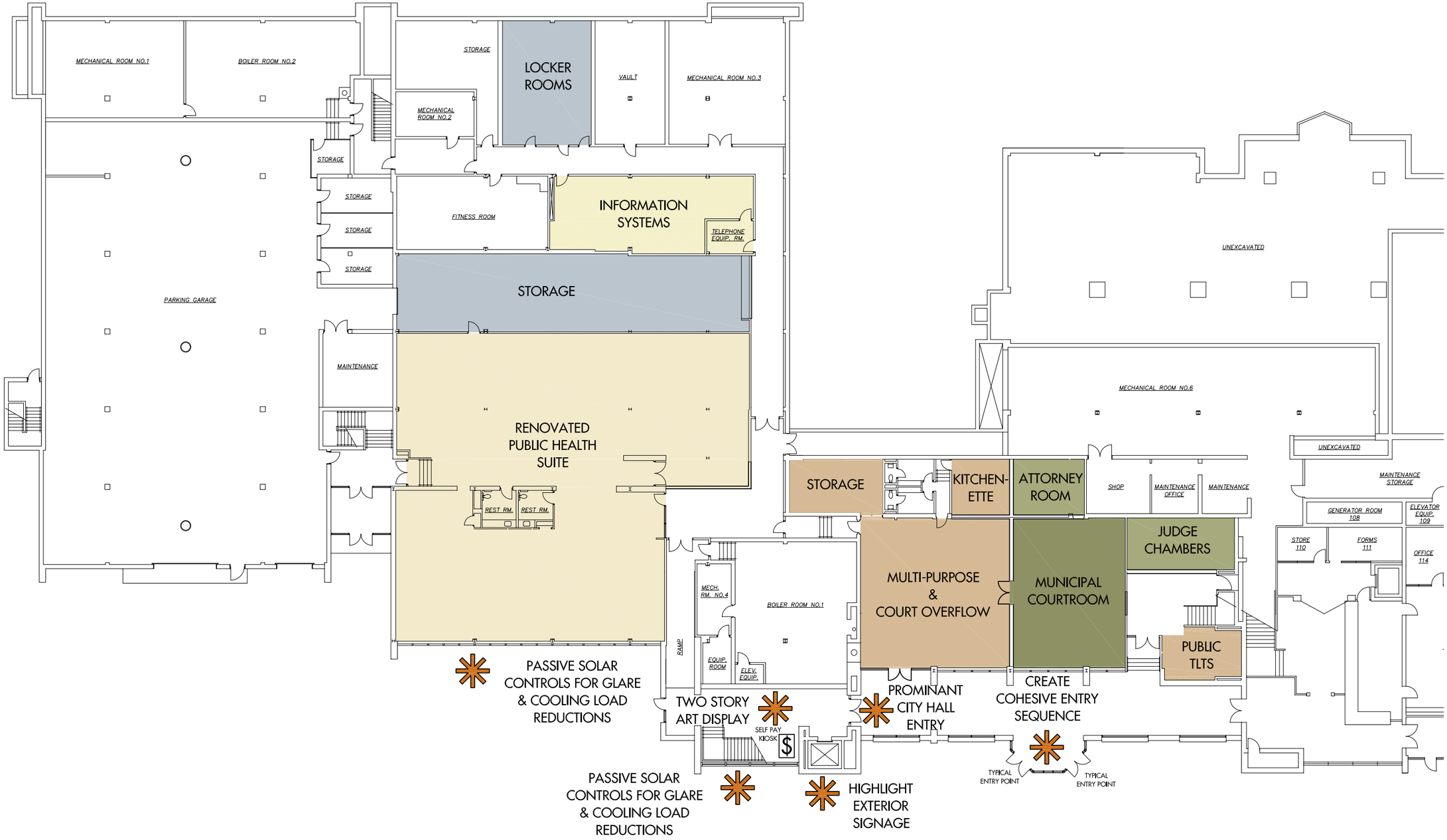
War Memorial Room; 460 square feet.

Shared Non-Public Spaces

Employee Break Lounge, Kitchen and Vending; 1,286 square feet.

Signage: Room Signage and Scheduled Activity.

Adjacencies: **Primary:** **Secondary:**
Public.



Wauwatosa City Hall & Civic Center

LOWER LEVEL SPACE PLANNING DIAGRAM

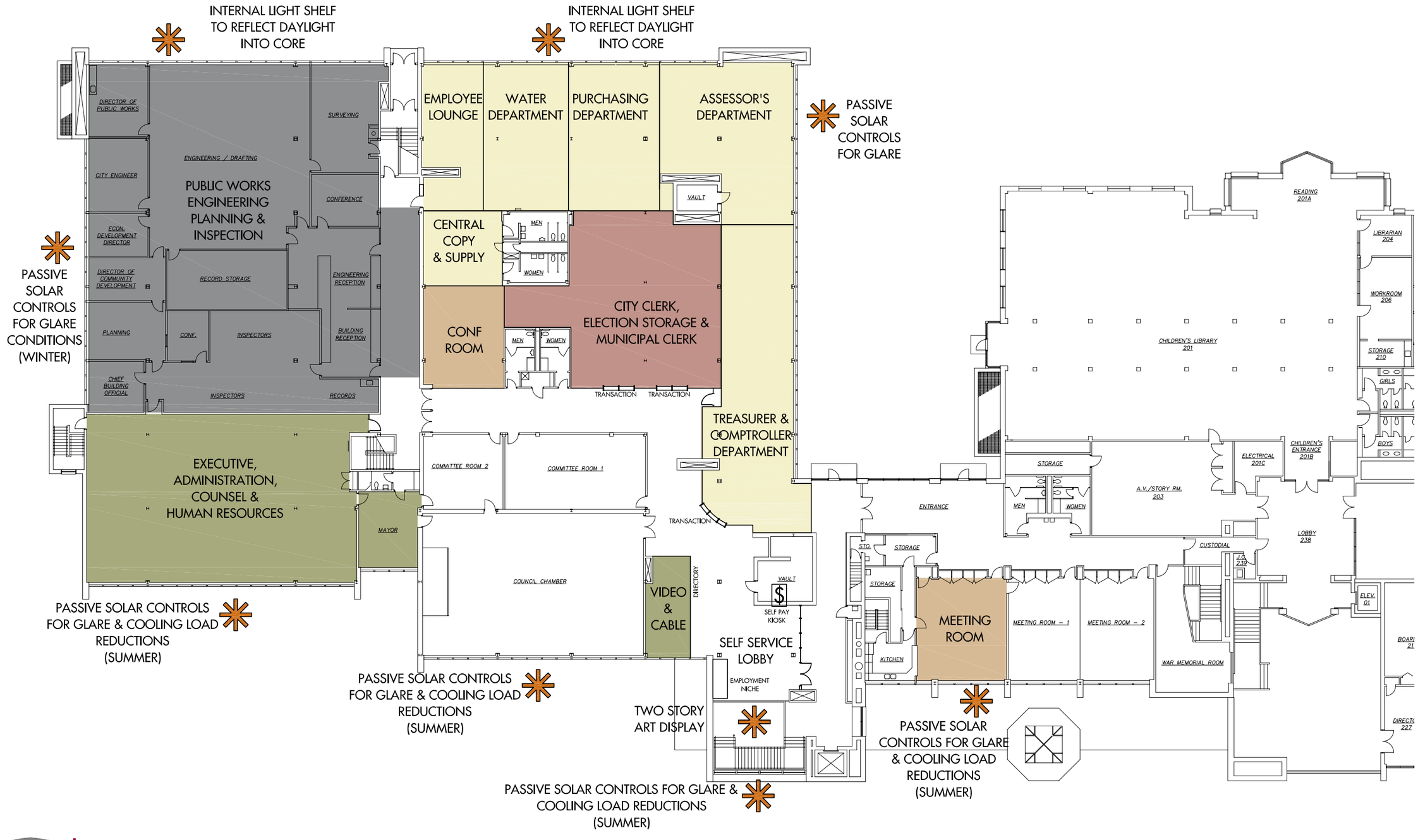
Not to Scale.

July 06, 2010

Engberg Anderson Project No. 101998

Engberg Anderson

MILWAUKEE • MADISON • TUCSON



Wauwatosa City Hall & Civic Center

UPPER LEVEL SPACE PLANNING DIAGRAM

Not to Scale.

July 06, 2010

Engberg Anderson Project No. 101998

Engberg Anderson

MILWAUKEE • MADISON • TUCSON

4

Energy Cost Budget / PRM Summary

By Harwood Engineering Consultants, Ltd.

Project Name:	Date: July 16, 2010
City:	Weather Data: Milwaukee, Wisconsin

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-1 BASE BUILDING			Alt-2 85% Efficient Boilers			Alt-3 Convert to VAV			Alt-4 Reduce Operating Hours		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	854.0	6	325	854.0	100	325	854.0	100	325	805.2	94	325
Space Heating	Electricity	263.2	2	35	263.2	100	35	263.2	100	35	260.6	99	35
	Gas	9,025.4	63	3,708	8,506.8	94	3,502	7,623.4	84	2,974	8,877.4	98	3,860
Space Cooling	Electricity	790.1	5	482	790.1	100	482	918.0	116	553	697.8	88	482
Pumps	Electricity	558.4	4	122	558.4	100	122	556.5	100	118	559.7	100	122
Heat Rejection	Electricity	278.4	2	89	278.4	100	89	283.5	102	86	282.2	101	89
Fans - Conditioned	Electricity	2,487.6	17	735	2,487.6	100	735	1,706.6	69	595	2,040.3	82	735
Receptacles - Conditioned	Electricity	111.1	1	43	111.1	100	43	111.1	100	43	102.6	92	43
Total Building Consumption		**14,368.2**			**13,849.5**			**12,316.4**			**13,625.7**		

		* Alt-1 BASE BUILDING	Alt-2 85% Efficient Boilers	Alt-3 Convert to VAV	Alt-4 Reduce Operating Hours
Total	**Number of hours heating load not met**	0	0	0	0
	Number of hours cooling load not met	19	19	19	19

	* Alt-1 BASE BUILDING		Alt-2 85% Efficient Boilers		Alt-3 Convert to VAV		Alt-4 Reduce Operating Hours	
	Energy 10^6 Btu/yr	Cost/yr $/yr	Energy 10^6 Btu/yr	Cost/yr $/yr	Energy 10^6 Btu/yr	Cost/yr $/yr	Energy 10^6 Btu/yr	Cost/yr $/yr
Electricity	5,342.8	176,888	5,342.8	176,888	4,692.9	156,286	4,748.3	163,865
Gas	9,025.4	71,932	8,506.8	67,799	7,623.4	60,759	8,877.4	70,753
Total	**14,368**	**248,821**	**13,850**	**244,687**	**12,316**	**217,045**	**13,626**	**234,618**

Energy Cost Budget / PRM Summary

By Harwood Engineering Consultants, Ltd.

Project Name:	Date: July 16, 2010
City:	Weather Data: Milwaukee, Wisconsin

Note: The percentage displayed for the "Proposed/ Base %" column of the base case is actually the percentage of the total energy consumption.

* Denotes the base alternative for the ECB study.

		* Alt-1 BASE BUILDING			Alt-2 Reduce Airflows		
		Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh	Energy 10^6 Btu/yr	Proposed / Base %	Peak kBtuh
Lighting - Conditioned	Electricity	854.0	6	325	854.0	100	325
Space Heating	Electricity	263.2	2	35	263.2	100	35
	Gas	9,025.4	63	3,708	8,144.0	90	3,478
Space Cooling	Electricity	790.1	5	482	729.1	92	468
Pumps	Electricity	558.4	4	122	524.5	94	114
Heat Rejection	Electricity	278.4	2	89	260.6	94	84
Fans - Conditioned	Electricity	2,487.6	17	735	2,186.8	88	660
Receptacles - Conditioned	Electricity	111.1	1	43	111.1	100	43
Total Building Consumption		**14,368.2**			**13,073.3**		

		* Alt-1 BASE BUILDING	Alt-2 Reduce Airflows
Total	**Number of hours heating load not met**	0	0
	Number of hours cooling load not met	19	19

	* Alt-1 BASE BUILDING		Alt-2 Reduce Airflows	
	Energy 10^6 Btu/yr	Cost/yr $/yr	Energy 10^6 Btu/yr	Cost/yr $/yr
Electricity	5,342.8	176,888	4,929.3	163,772
Gas	9,025.4	71,932	8,144.0	64,908
Total	**14,368**	**248,821**	**13,073**	**228,680**

ENERGY CONSUMPTION SUMMARY

By Harwood Engineering Consultants, Ltd.

	Elect Cons. (kWh)	Gas Cons. (kBtu)	Water Cons. (1000 gals)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 1						
Primary heating						
Primary heating		9,025,399		62.8 %	9,025,399	9,500,420
Other Htg Accessories	77,106			1.8 %	263,161	789,563
Heating Subtotal	**77,106**	**9,025,399**		**64.7 %**	**9,288,560**	**10,289,984**
Primary cooling						
Cooling Compressor	226,428			5.4 %	772,798	2,318,625
Tower/Cond Fans	81,570		1,364	1.9 %	278,397	835,276
Condenser Pump	81,339			1.9 %	277,610	832,914
Other Clg Accessories	5,068			0.1 %	17,297	51,896
Cooling Subtotal....	**394,404**		**1,364**	**9.4 %**	**1,346,102**	**4,038,711**
Auxiliary						
Supply Fans	728,855			17.3 %	2,487,581	7,463,488
Pumps	82,262			2.0 %	280,759	842,362
Stand-alone Base Utilities				0.0 %	0	0
Aux Subtotal....	811,116			19.3 %	2,768,340	8,305,850
Lighting						
Lighting	250,224			5.9 %	854,015	2,562,301
Receptacle						
Receptacles	32,563			0.8 %	111,137	333,444
Cogeneration						
Cogeneration				0.0 %	0	0
Totals						
Totals**	**1,565,413**	**9,025,399**	**1,364**	**100.0 %**	**14,368,154**	**25,530,288**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Harwood Engineering Consultants, Ltd.

	Elect Cons. (kWh)	Gas Cons. (kBtu)	Water Cons. (1000 gals)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 2						
Primary heating						
Primary heating		8,506,777		61.4 %	8,506,777	8,954,502
Other Htg Accessories	77,106			1.9 %	263,161	789,563
Heating Subtotal	**77,106**	**8,506,777**		**63.3 %**	**8,769,938**	**9,744,066**
Primary cooling						
Cooling Compressor	226,428			5.6 %	772,798	2,318,625
Tower/Cond Fans	81,570		1,364	2.0 %	278,397	835,276
Condenser Pump	81,339			2.0 %	277,610	832,914
Other Clg Accessories	5,068			0.1 %	17,297	51,896
Cooling Subtotal....	**394,404**		**1,364**	**9.7 %**	**1,346,102**	**4,038,711**
Auxiliary						
Supply Fans	728,855			18.0 %	2,487,581	7,463,488
Pumps	82,262			2.0 %	280,759	842,362
Stand-alone Base Utilities				0.0 %	0	0
Aux Subtotal....	811,116			20.0 %	2,768,340	8,305,850
Lighting						
Lighting	250,224			6.2 %	854,015	2,562,301
Receptacle						
Receptacles	32,563			0.8 %	111,137	333,444
Cogeneration						
Cogeneration				0.0 %	0	0
Totals						
Totals**	**1,565,413**	**8,506,777**	**1,364**	**100.0 %**	**13,849,532**	**24,984,370**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Harwood Engineering Consultants, Ltd.

	Elect Cons. (kWh)	Gas Cons. (kBtu)	Water Cons. (1000 gals)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 3						
Primary heating						
Primary heating		7,623,448		61.9 %	7,623,448	8,024,682
Other Htg Accessories	77,106			2.1 %	263,161	789,563
Heating Subtotal	**77,106**	**7,623,448**		**64.0 %**	**7,886,609**	**8,814,246**
Primary cooling						
Cooling Compressor	263,761			7.3 %	900,217	2,700,922
Tower/Cond Fans	83,066		1,690	2.3 %	283,503	850,593
Condenser Pump	81,062			2.3 %	276,665	830,079
Other Clg Accessories	5,197			0.1 %	17,737	53,217
Cooling Subtotal....	**433,086**		**1,690**	**12.0 %**	**1,478,123**	**4,434,811**
Auxiliary						
Supply Fans	500,032			13.9 %	1,706,610	5,120,341
Pumps	81,999			2.3 %	279,863	839,673
Stand-alone Base Utilities				0.0 %	0	0
Aux Subtotal....	582,031			16.1 %	1,986,473	5,960,014
Lighting						
Lighting	250,224			6.9 %	854,015	2,562,301
Receptacle						
Receptacles	32,563			0.9 %	111,137	333,444
Cogeneration						
Cogeneration				0.0 %	0	0
Totals						
Totals**	**1,375,010**	**7,623,448**	**1,690**	**100.0 %**	**12,316,356**	**22,104,814**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Harwood Engineering Consultants, Ltd.

	Elect Cons. (kWh)	Gas Cons. (kBtu)	Water Cons. (1000 gals)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative 4						
Primary heating						
Primary heating		8,877,425		65.2 %	8,877,425	9,344,658
Other Htg Accessories	76,346			1.9 %	260,570	781,789
Heating Subtotal	**76,346**	**8,877,425**		**67.1 %**	**9,137,995**	**10,126,447**
Primary cooling						
Cooling Compressor	199,371			5.0 %	680,455	2,041,568
Tower/Cond Fans	82,681		1,177	2.1 %	282,191	846,657
Condenser Pump	81,572			2.0 %	278,406	835,301
Other Clg Accessories	5,081			0.1 %	17,341	52,030
Cooling Subtotal....	**368,706**		**1,177**	**9.2 %**	**1,258,393**	**3,775,556**
Auxiliary						
Supply Fans	597,795			15.0 %	2,040,274	6,121,434
Pumps	82,432			2.1 %	281,342	844,110
Stand-alone Base Utilities				0.0 %	0	0
Aux Subtotal....	680,227			17.0 %	2,321,616	6,965,544
Lighting						
Lighting	235,911			5.9 %	805,166	2,415,738
Receptacle						
Receptacles	30,052			0.8 %	102,568	307,736
Cogeneration						
Cogeneration				0.0 %	0	0
Totals						
Totals**	**1,391,243**	**8,877,425**	**1,177**	**100.0 %**	**13,625,738**	**23,591,022**

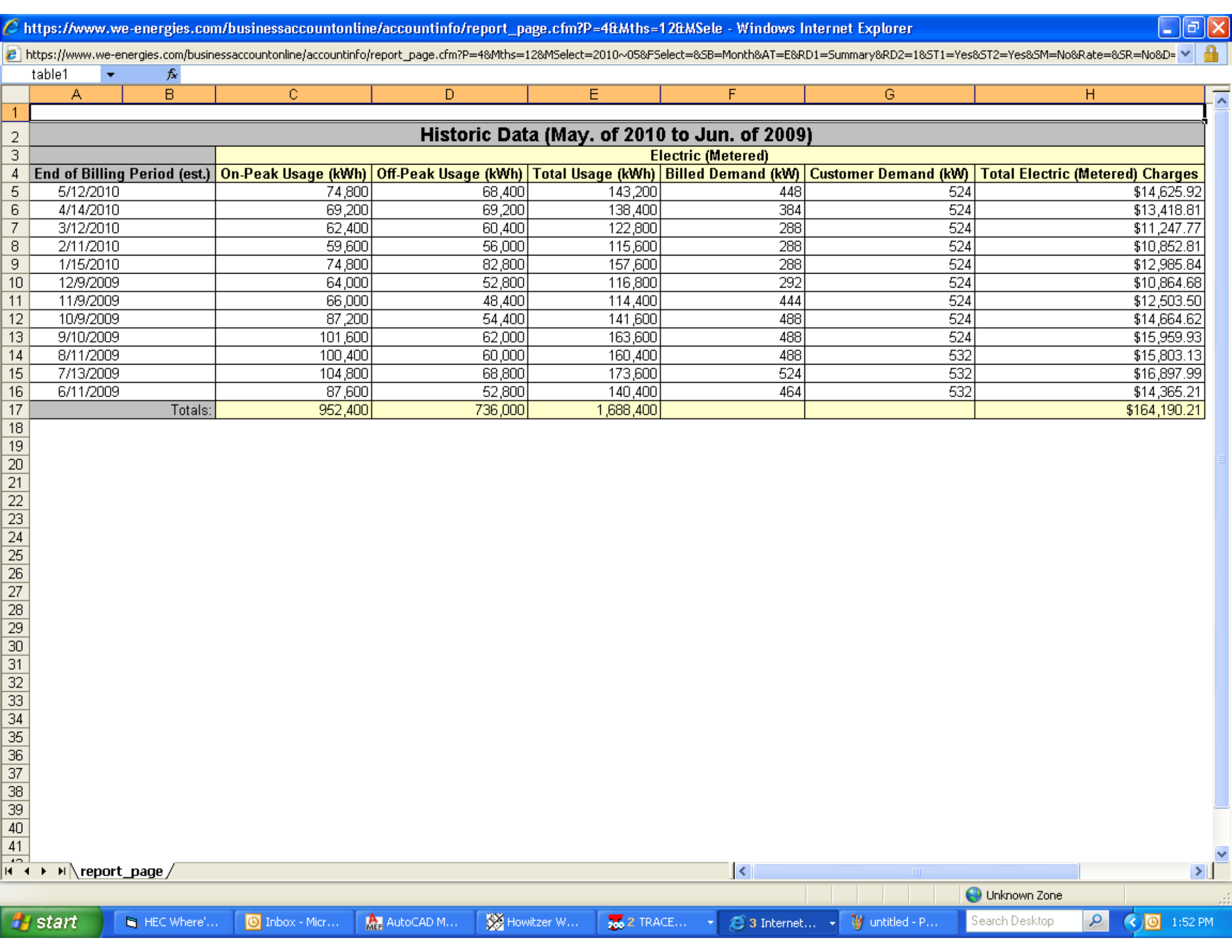
* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.

ENERGY CONSUMPTION SUMMARY

By Harwood Engineering Consultants, Ltd.

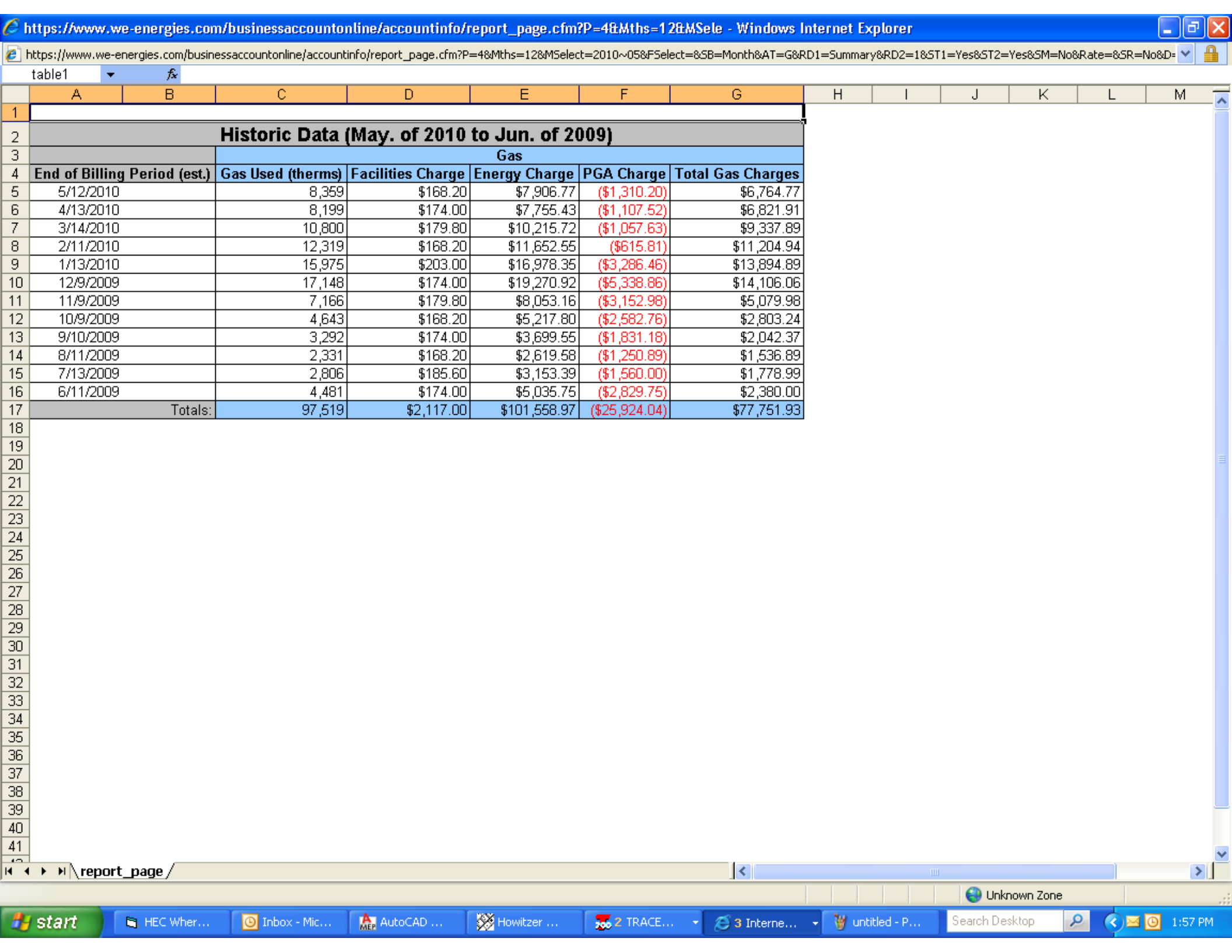
	Elect Cons. (kWh)	Gas Cons. (kBtu)	Water Cons. (1000 gals)	% of Total Building Energy	Total Building Energy (kBtu/yr)	Total Source Energy* (kBtu/yr)
Alternative #5						
Primary heating						
Primary heating		8,143,983		62.3 %	8,143,983	8,572,613
Other Htg Accessories	77,106			2.0 %	263,161	789,563
Heating Subtotal	**77,106**	**8,143,983**		**64.3 %**	**8,407,144**	**9,362,177**
Primary cooling						
Cooling Compressor	208,560			5.4 %	711,815	2,135,658
Tower/Cond Fans	76,361		1,251	2.0 %	260,621	781,942
Condenser Pump	76,242			2.0 %	260,214	780,720
Other Clg Accessories	5,068			0.1 %	17,297	51,896
Cooling Subtotal....	**366,231**		**1,251**	**9.6 %**	**1,249,947**	**3,750,217**
Auxiliary						
Supply Fans	640,728			16.7 %	2,186,806	6,561,073
Pumps	77,428			2.0 %	264,260	792,860
Stand-alone Base Utilities				0.0 %	0	0
Aux Subtotal....	718,156			18.8 %	2,451,066	7,353,932
Lighting						
Lighting	250,224			6.5 %	854,015	2,562,301
Receptacle						
Receptacles	32,563			0.9 %	111,137	333,444
Cogeneration						
Cogeneration				0.0 %	0	0
Totals						
Totals**	**1,444,280**	**8,143,983**	**1,251**	**100.0 %**	**13,073,309**	**23,362,070**

* Note: Resource Utilization factors are included in the Total Source Energy value.
** Note: This report can display a maximum of 7 utilities. If additional utilities are used, they will be included in the total.



Historic Data (May. of 2010 to Jun. of 2009)

	Electric (Metered)					
End of Billing Period (est.)	On-Peak Usage (kWh)	Off-Peak Usage (kWh)	Total Usage (kWh)	Billed Demand (kW)	Customer Demand (kW)	Total Electric (Metered) Charges
5/12/2010	74,800	68,400	143,200	448	524	$14,625.92
4/14/2010	69,200	69,200	138,400	384	524	$13,418.81
3/12/2010	62,400	60,400	122,800	288	524	$11,247.77
2/11/2010	59,600	56,000	115,600	288	524	$10,852.81
1/15/2010	74,800	82,800	157,600	288	524	$12,985.84
12/9/2009	64,000	52,800	116,800	292	524	$10,864.68
11/9/2009	66,000	48,400	114,400	444	524	$12,503.50
10/9/2009	87,200	54,400	141,600	488	524	$14,664.62
9/10/2009	101,600	62,000	163,600	488	524	$15,959.93
8/11/2009	100,400	60,000	160,400	488	532	$15,803.13
7/13/2009	104,800	68,800	173,600	524	532	$16,897.99
6/11/2009	87,600	52,800	140,400	464	532	$14,365.21
Totals:	952,400	736,000	1,688,400			$164,190.21



Historic Data (May. of 2010 to Jun. of 2009)

	Gas				
End of Billing Period (est.)	Gas Used (therms)	Facilities Charge	Energy Charge	PGA Charge	Total Gas Charges
5/12/2010	8,359	$168.20	$7,906.77	($1,310.20)	$6,764.77
4/13/2010	8,199	$174.00	$7,755.43	($1,107.52)	$6,821.91
3/14/2010	10,800	$179.80	$10,215.72	($1,057.63)	$9,337.89
2/11/2010	12,319	$168.20	$11,652.55	($615.81)	$11,204.94
1/13/2010	15,975	$203.00	$16,978.35	($3,286.46)	$13,894.89
12/9/2009	17,148	$174.00	$19,270.92	($5,338.86)	$14,106.06
11/9/2009	7,166	$179.80	$8,053.16	($3,152.98)	$5,079.98
10/9/2009	4,643	$168.20	$5,217.80	($2,582.76)	$2,803.24
9/10/2009	3,292	$174.00	$3,699.55	($1,831.18)	$2,042.37
8/11/2009	2,331	$168.20	$2,619.58	($1,250.89)	$1,536.89
7/13/2009	2,806	$185.60	$3,153.39	($1,560.00)	$1,778.99
6/11/2009	4,481	$174.00	$5,035.75	($2,829.75)	$2,380.00
Totals:	97,519	$2,117.00	$101,558.97	($25,924.04)	$77,751.93

Numbering system here may not match city-wide numbering.

NOTE: SHADED AREAS NOT IN PROJECT SCOPE.

City of Wauwatosa
Physical Plant Operations
Mechanical Equipment Inventory

COPY

MUNICIPAL COMPLEX									
Equipment	Manufacturer	Motor HP	RPM	Fan RPM	Size	Static Press.	Location	Serves	Notes
AHU 1 AHU-9	Trane	3			5010 CFM	1.5	Mech. Rm. 2	Assessor, Court Clerk Comm. Rms. 1-2	EF5,6,7,8
AHU 2 AHU-10	Trane	6		996	5324 CFM	1.75	Mech. Rm. 3	Health-North, I.S., Training, Storage, Cemetary.	EF20
AHU 3 AHU-11	Trane	10			11255 CFM	1.75	Mech. Rm. 3	Personnel, Water, Treasurer, Comptroller.	EF13, EF14
AHU 4 AHU-12	Trane	2			5100 CFM	1.5	Mech. Rm. 4	Health-South	EF15,16,17
AHU 5 AHU-13	Trane	5			10300 CFM	1.75	Mech. Rm 5	Council Chamber, City Clerk, Lobby.	EF18
AHU 6 AHU-14	McQuay	20			12572 CFM		Mech. Rm. 6	Upper and Lower Civic Center.	EF-9,10, 11, 21, 22, 23
AHU 7 AHU-15	McQuay	15			24791 CFM		Mech. Rm. 6	Adult Library - North	
AC 1 AHU-16	Carrier	15		583	19150 CFM	2	Mech. Rm. 1	City Hall West Upper - 1969 Addition Engineering	EF 1,2,3, 4
AC 2 AHU-17	McQuay	40			12239 CFM		Mech. Rm. 6	Children's Library Adult Library - South, Offices,	EF24
AC 3 AHU-18	McQuay	20			18128 CFM		Mech. Rm. 7	Firefly, Tech. Serv., Lunchroom	EF25,26,27
Boiler 1	Bryan				2400 MBH		Boiler Rm. 1	City Hall East, Civic Center, Library	
Boiler 2	Bryan				2400 MBH		Boiler Rm. 1	City Hall East, Civic Center, Library	
Boiler 3	Bryan				1200 MBH		Boiler Rm. 1	City Hall East, Civic Center, Library	
Boiler 4	Cleaver Brooks				1255 MBH		Boiler Rm. 2	City Hall West 1969 Addition	
Boiler 5	Cleaver Brooks				1674 MBH		Boiler Rm. 2	City Hall West 1969 Addition	
ACCU 2	Trane				293 TON		Boiler Rm. 1	City Hall East, Civic Center, Library	
ACCU 1	Carrier				70 TON		Boiler Rm. 2	City Hall West 1969 Addition	
Cooling Tower 1	Baltimore Air Coil				250 TON		Roof	City Hall East, Civic Center, Library	
Cooling Tower 2	Baltimore Air Coil				70 TON		Roof	City Hall West 1969 Addition	
HVAC 1 AHU-19	Liebert						Info. Syst.	Computer Room	
								* Toilet exhaust tied to AHU for Occ mode.	

City of Wauwatosa
Physical Plant Operations
Mechanical Equipment Inventory

Equipment	Manufacturer	Motor HP		Fan RPM	CFM -Ton	Static Press.	Location	Serves	
MAU 1 MAU-4	Carrier	5		803	8900 CFM	0.29	Mech. Rm. 1	Garage (Interconnected with ILF 1)	
MAU 2 MAU-5	Carrier						Boiler Rm. 2	Boilers 5 - 6	
MAU 3 MAU-6	Trane						Boiler Rm. 1	Boilers 1-2-3	
MAU 4 MAU-7							Gen. Rm.	Generator	
RTU 1 RTU-2	Snyder General				4238 CFM		Roof	Main Entrance Lobby	
RTU 2 RTU-3	Snyder General				4005 CFM		Roof	Lobby - West	
RTU 3 RTU-4	Snyder General				4100 CFM		Roof	Library Atrium	
In-line Fan 1	Barry Blower Co.	7 1/2			16650CFM	0.35	Mech. Rm. 1	Return on AC 1	
In-line Fan 2	Dayton	1					Gagarge	Garage Exh. (Interconnected with MAU 1)	
In-line Fan 3	Dayton	10					Mech. Rm. 7	Return on AC 3	
Draft Fan							Boiler Rm. 1	Boilers 1,2,3	3rd Boiler
Purge Fan							Roof	R-134a Evacuation System	Bolier Rm. 1
EF 1					730 CFM		Roof	Mayor's Toilet Room	On/Off
EF 2					2400 CFM		Roof	Economizer Relief, UL City Hall - W	AC 1
~~EF 3~~				~~400~~	~~1360 CFM~~		~~Roof~~	~~Engineering Conf. Room Planning Division~~	~~Wall Switch~~
~~EF 4~~				~~400~~	~~400 CFM~~		~~Roof~~	~~Printer Exhaust~~	~~Wall Switch~~
EF 5					400 CFM		Roof	Toilets C57/49 - Across from Comm. Rms.	AHU 1
EF 6					730 CFM		Roof	Committee Room 2	Wall Switch
EF 7					540 CFM		Roof	Committee Room 1	Wall Switch
EF 8					854 CFM		Roof	Court Clerks Office	Wall Switch
EF 9					500 CFM		Roof	Toilets - LL Civic Auditorium	AHU 6
EF 10					2700 CFM		Roof	Economizer Relief, LL Civic	AHU 6
EF 11					6400 CFM		Roof	Economizer Relief, UL Civic	AHU 6
EF 12					1600CFM		Roof	Kitchens - Civic Center	On/Off
EF 13					5480 CFM		Roof	Economizer Relief, LL City Hall - East Hall	AHU 3
EF 14					660 CFM		Roof	Toilet C28,29,30,31,32 - Upper/Lower CH	AHU 3
EF 15					4810 CFM		Roof	Economizer Relief, LL City Hall - South	AHU 4
EF 16					190 CFM		Roof	Health Lab - Laurie's office	AHU 4
EF 17					100 CFM		Roof	Toilet c-21	AHU 4
EF 18					10290 CFM		Roof	Economizer Relief, UL City Hall - South	AHU 5
EF 19					6410 CFM		Roof	Economizer Relief, UL City Hall - NW	AHU 1
EF 20					16860 CFM		Roof	Economizer Relief, UL City Hall - NE	AHU 2
EF 21							Roof	Upper Civic Center Toilets	AHU 6
EF 22							Roof	Toilets - LL Civic	AHU 6
EF 23							Roof		AHU 6
EF 24							Roof	Toilets - Child and Adult Library	AC 2
EF 25							Roof	Toilets - Firefly and Admin Toilets	AC 3

City of Wauwatosa
Physical Plant Operations
Mechanical Equipment Inventory

EF 26							Roof	Firefly Meeting Room Kitchenette AC 3
EF 27							Roof	Economizer Relief, Adult Library AC 4
EF 28							Elect. Rm.	Excess heat exhaust from elect. Switchgear
Equipment	**Manufacturer**	**Motor HP**		**Fan RPM**	**CFM -Ton**	**Static Press.**	**Location**	**Serves**
P 1	Bell & Gossett	10					Boiler Rm. 2	Cooling Tower 2
P 2	Bell & Gossett	10					Boiler Rm. 2	Cooling Tower 2
P 3	Bell & Gossett	3					Boiler Rm. 2	Boilers 4 - 5
P 4	Bell & Gossett	3					Boiler Rm. 2	Boilers 4 - 5
P 5	Bell & Gossett	1 1/2					Boiler Rm. 2	Perimeter Hot Water Circulating Pump
P 6	Bell & Gossett	1					Boiler Rm. 1	Boiler 1
P 7	Bell & Gossett	1					Boiler Rm. 1	Boiler 2
P 8	Bell & Gossett	1/3					Boiler Rm. 1	Boiler 3
P 9	Bell & Gossett	3					Boiler Rm. 1	Hot Water Circulating Pump
P 10	Bell & Gossett	3					Boiler Rm. 1	Hot Water Circulating Pump
P 11	Bell & Gossett	3/4					Mech. Rm. 4	Children's Library
P 12	Bell & Gossett	1/3					Mech. Rm. 4	Upper/Lower Civic Center
P 13	Bell & Gossett	1/3					Tunnel	Lower Library - Tech Services
P 14	Bell & Gossett	3/4					Tunnel	Adult Library - South
P 15	Bell & Gossett	2					Tunnel	Adult Library - North
P 16	Bell & Gossett	10					Boiler Rm. 1	Cooling Tower 1 - Return
P 17	Bell & Gossett	10					Boiler Rm. 1	Cooling Tower 1 - Return
P 18	Bell & Gossett	20					Boiler Rm. 1	Cooling Tower 1 - Supply
P 19	Bell & Gossett	20					Boiler Rm. 1	Cooling Tower 1 - Supply
P 20	Bell & Gossett	1/2					Boiler Rm. 1	Perimeter Hot Water Circulating Pump
Sump Pump 1	Dayton	1					Boiler Rm. 1	City Hall
Sump Pump 2	Dayton	1					Boiler Rm. 1	City Hall
Sump Pump 3	Dayton	1					Mech. Rm. 6	Library and Civic Center
Sump Pump 4	Dayton	1					Mech. Rm. 6	Library and Civic Center
Sump Pump 5							Tunnel	Elevators
Chem. Pump 1	Precision	120V					Boiler Rm. 2	Cooling Tower 2
Chem. Pump 2	Advantage						Boiler Rm. 1	Cooling Tower 1
Chem. Pump 3	Advantage						Boiler Rm. 1	Cooling Tower 1
Air Comp. 1	Speed Air	3					Mech. Rm. 4	Air Supply for Pneumatics
Air Comp. 2	DeVilbiss	3					Mech. Rm. 4	Back-up Air Supply for Pneumatics
Air Comp. 3	Gardner/Denver	1 1/2					Mech. Rm. 3	Air supply for mainenance.
Air Dryer							Mech. Rm. 4	

City Hall - Lower Level

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1954	C002	LOBBY	23W CFL MED.	DB	30	20	600	3-WAY	F32T8	AB	90	6	540	60	EXISTING	6
	C003	CORRIDOR	F40T12	AA	80	8	640	SINGLE	F32T8	AB	90	4	360	280	DUAL LEVEL	1
	C005	HEALTH OFFICER	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1
	C006	NURSE SUPER.	F40T12	AA	80	6	480	SINGLE	F32T8	AB	90	2	180	300	DUAL LEVEL	1
	C007	HEALTH OFFICE	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1
	C008	HEALTH OFFICE	F40T12	AA	80	2	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1
	C009	HEALTH OFFICE	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1
	C010	HEALTH OFFICE	F40T12	AA	80	2	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1
	C011	HEALTH STORAGE	F40T12		160	1	160	SINGLE	F32T8	AA	61	1	61	99	OCC. SENSOR	2
	C012	HEALTH RECEPTION	F40T12	AB	120	2	240	SINGLE	F32T8	AB	90	1	90	150	OCC. SENSOR	2
	C013	HEALTH RECEPTION	F40T12	AA	80	8	640	SINGLE	F32T8	AB	90	4	360	280	DUAL LEVEL	1
	C014-C015	CORRIDOR	F40T12	AA	80	4	320	SINGLE	F32T8	AC	61	4	244	76	EXISTING	
	C016 A-B	STORAGE	23W CFL MED.	HA	60	2	120	SINGLE	F32T8	FA	61	2	122	-2	OCC. SENSOR	2
	C017		F40T12		80	1	80	SINGLE	F32T8	FA	61	1	61	19	OCC. SENSOR	2
	C018		F40T12	AB	120	3	360	3-WAY	F32T8	AB	90	2	180	180	EXISTING	1
	C020-C022	TOILET ROOM	F40T12	AB	120	2	240	SINGLE	F32T8	AB	90	2	180	60	DUAL LEVEL	1
	C021		23W CFL MED.	GF	30	1	30	SINGLE	F32T8	FA	61	1	61	-31	OCC. SENSOR	2
	C024	NURSING	F40T12	AA	80	18	1440	DUAL LEVEL	F32T8	AB	90	9	810	630	DUAL LEVEL	1
	C026	FITNESS CENTER	F40T12	AE	80	2	160	3-WAY	F32T8	FB	61	2	122	38	EXISTING	6
	C027	MECH. ROOM	F32T8		61	1	61	SINGLE	EXISTING TO REMAIN		61	1	61	0	EXISTING	1
	C028	STORAGE	23W CFL MED.	HB-HC	60	11	660	SINGLE	F32T8	FA	61	4	244	416	EXISTING	1
	C029	WOMEN'S TOILET	23W CFL MED.	DD	60	1	60	SINGLE	F32T8	FB	61	2	122	-62	EXISTING	1
	C029	WOMEN'S TOILET	F40T12	BG	40	1	40	SINGLE	REMOVE FIXTURES				0	40		3
	C030	WOMEN'S TOILET	F40T12		80	2	160	SINGLE	F32T8	FB	61	2	122	38	EXISTING	1
	C031	JANITOR	23W CFL MED.	HA	60	1	60	SINGLE	F32T8	FA	61	1	61	-1	OCC. SENSOR	2
	C032	MEN'S TOILET	F40T12		80	3	240	SINGLE	F32T8	FB	61	3	183	57	EXISTING	1
	C033	COMPTROLLER	23W CFL MED.	HC	60	6	360	SINGLE	F32T8	FA	61	3	183	177	EXISTING	1
	C035	MECH. ROOM	F32T8		61	3	183	SINGLE	EXISTING TO REMAIN		61	3	183	0	EXISTING	
	C035	MECH. ROOM	23W CFL MED.	KC	30	4	120	SINGLE	F32T8	FA	61	2	122	-2	EXISTING	1
	C036	CORRIDOR	F40T12	AA	80	15	1200	3-WAY	F32T8	AC	61	10	610	590	EXISTING	
	C038	IT DATA PROCESSING	F40T12	AA	80	24	1920	SINGLE	F32T8	AB	90	10	900	1020	DUAL LEVEL	1,4
	C039	IT OFFICE	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1,4
	C043	STORAGE	F40T12	AA	80	4	320	SINGLE	F32T8	AA	61	2	122	198	OCC. SENSOR	2
	C047	BOILER ROOM 1	F32T8	FA	61	7	427	SINGLE	EXISTING TO REMAIN		61	7	427	0	EXISTING	
	C047-A	ELEVATOR EQUIP.	F40T12	CC	80	1	80	SINGLE	F32T8	FA	61	1	61	19	EXISTING	1
	C048	MECH. ROOM 4	23W CFL MED.	LA	30	2	60	SINGLE	F32T8	FA	61	1	61	-1	EXISTING	
	C049	EQUIPMENT ROOM	F40T12	CC	80	2	160	SINGLE	F32T8	FA	61	2	122	38	EXISTING	1

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1969	C051	HEALTH WAITING	F20T12	AC	80	18	1440	3-WAY	F32T8	AB	90	8	720	720	EXISTING	1
	C060	VESTIBULE	F20T12	AE	80	3	240	SINGLE	F32T8	AB	90	2	180	60	EXISTING	1
	C065	CORRIDOR	F20T12	AE	80	2	160	SINGLE	F32T8	AB	90	1	90	70	EXISTING	1
	C058	MECHANICAL 1	F40T12	CC	80	2	160	SINGLE	F32T8	FA	61	2	122	38	EXISTING	
	C058	MECHANICAL 1	F32T8	FA	61	2	122	SINGLE	EXISTING TO REMAIN		61	2	122	0	EXISTING	
	C058	MECHANICAL 1	23W CFL MED.	T	30	3	90	SINGLE	REMOVE FIXTURES				0	90		
	C059	MECHANICAL 2	F32T8	FA	61	8	488	SINGLE	EXISTING TO REMAIN				0	488	EXISTING	
	C062	PARKING GARAGE	23W CFL MED.	M	30	18	540	3-WAY	F32T8	FA	61	10	610	-70	EXISTING	1
	C062	PARKING GARAGE	F32T8	FA	61	13	793	3-WAY	EXISTING TO REMAIN		61	13	793	0	EXISTING	1
	C063	STAIRWELL	F20T12	B	80	1	80	3-WAY	F32T8	FB	61	1	61	19	EXISTING	
1990	C128	CORRIDOR	F40T12	AA	80	4	320	3-WAY	F32T8	AA	61	4	244	76	EXISTING	1
	C128	CORRIDOR	CF13DTT	C	30	2	60	3-WAY	EXISTING TO REMAIN		30	2	60	0	EXISTING	6
	C127	CORRIDOR S/W	CF13DTT	C	30	3	90	3-WAY	EXISTING TO REMAIN		30	3	90	0	EXISTING	6
	C127	CORRIDOR S/W	F40T12	F	80	2	160	3-WAY	F32T8	FA	61	2	122	38	EXISTING	6
	C127	CORRIDOR S/W	MH175	GF	200	3	600	SINGLE	EXISTING TO REMAIN		200	3	600	0	EXISTING	6
	C127	CORRIDOR S/W	MH175	Y	200	4	800	SINGLE	EXISTING TO REMAIN		200	4	800	0	EXISTING	6
UPDATED DRAWINGS		TRAINING	F32T8	AB	90	6	540	SINGLE	EXISTING TO REMAIN		90	6	540	0	EXISTING	
		CEM. OFFICE	F40T12	AD	80	6	480	SINGLE	F32T8	FB	61	4	244	236	EXISTING	1
		IT STORAGE	F40T12	AD	80	2	160	SINGLE	F32T8	FB	61	1	61	99	EXISTING	1
		IT STORAGE	F40T12	CB	40	3	120	SINGLE	F32T8	FB	61	1	61	59	EXISTING	1
		IT STORAGE	F40T12	CC	80	2	160	SINGLE	F32T8	FB	61	2	122	38	EXISTING	1
		TELEPHONE	F40T12	AB	160	2	320	SINGLE	F32T8	AA	61	2	122	198	EXISTING	1
		IT OFFICE	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1,4
		IT OFFICE	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL LEVEL	1,4
		HLTH. EXAM	F40T12	AA	80	2	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1,4
		HLTH. STOR.	F40T12	AD	80	2	160	SINGLE	F32T8	FB	61	2	122	38	OCC. SENSOR	2
		HLTH. EXAM	F40T12	AB	160	1	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1,4
		HLTH. EXAM	F40T12	AB	160	1	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1,4
		HLTH. EXAM	F40T12	AB	160	1	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1,4
		HLTH. EXAM	F40T12	AB	160	1	160	SINGLE	F32T8	AB	90	1	90	70	DUAL LEVEL	1,4
		HLTH. CORR.	F40T12	AB	160	1	160	SINGLE	F32T8	AB	90	1	90	70	EXISTING	6
		HLTH. CLASS.	F40T12	AB	160	6	960	SINGLE	F32T8	AB	90	4	360	600	DUAL LEVEL	1,4
		HLTH. CLASS.	F40T12	AB	160	4	640	DUAL LEVEL	F32T8	AB	90	2	180	460	EXISTING	1
		HLTH. TLT.	F40T12	AB	160	2	320	SINGLE	F32T8	AA	61	1	61	259	OCC. SENSOR	2
		HLTH. TLT.	F40T12	AB	160	2	320	SINGLE	F32T8	AA	61	1	61	259	OCC. SENSOR	2
		GARAGE STORAGE	F40T12	CC	80	2	160	SINGLE	F32T8	FA	61	2	122	38	OCC. SENSOR	2
		GARAGE STORAGE	F40T12	CC	80	2	160	SINGLE	F32T8	FA	61	2	122	38	OCC. SENSOR	2
		GARAGE STORAGE	F40T12	CC	80	2	160	SINGLE	F32T8	FA	61	2	122	38	OCC. SENSOR	2
		MAINTENANCE	F32T8	FA	61	4	244	SINGLE	EXISTING TO REMAIN		61	4	244	0	OCC. SENSOR	2

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE

Civic Center - Lower Level

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1954	M007	LOBBY	23W CFL MED.	EA	30	4	120	SINGLE	F32T8	AA	61	2	122	-2	EXISTING	6
	M003	WOMEN'S TOILET	F40T12	AB	160	1	160	SINGLE	F32T8	AA	61	1	61	99	OCC. SENSOR	2
	M004	WOMEN'S TOILET	F40T12	AB	160	2	320	SINGLE	F32T8	AA	61	2	122	198	OCC. SENSOR	2
	M005	JANITOR	23W CFL MED.	HA	30	1	30	SINGLE	F32T8	FA	61	1	61	-31	OCC. SENSOR	2
	M010	MEN'S TOILET	F40T12	AB	160	3	480	SINGLE	F32T8	AA	61	3	183	297	EXISTING	1
UPDATED DRAWINGS		STORAGE	F34T12	AB	140	1	140	SINGLE	F32T8	FA	61	2	122	18	OCC. SENSOR	2
		DRESSING RM.	F15T12	B	15	9	135	SINGLE	EXISTING TO REMAIN		15	9	135	0	EXISTING	
		DRESSING RM.	F15T12	B	15	9	135	SINGLE	EXISTING TO REMAIN		15	9	135	0	EXISTING	
		STG. CORR.	23W CFL MED.	ED	30	2	60	SINGLE	EXISTING TO REMAIN		30	2	60	0	EXISTING	
		STAGE	150W PAR	R	150	27	4050	SPEC.	EXISTING TO REMAIN		150	27	4050	0	EXISTING	
		CORRIDOR	F40T12	AB	160	1	160	SINGLE	F32T8	AA	61	1	61	99	EXISTING	6
		KITCHEN	F40T12		40	6	240	SINGLE	F32T8	LAMP ONLY	31	6	186	54	EXISTING	1
		KITCHEN	23W CFL MED.	BE	30	1	30	SINGLE	REMOVE FIXTURES				0	30		
		KITCHEN	F20T12	ED	30	2	60	VERIFY	F17T8	UA	20	2	40	20	INTEGRAL	
		KIT. STAIRS	23W CFL MED.	EG	30	3	90	3-WAY	F32T8	FB	61	2	122	-32	OCC. SENSOR	2
		AUDITORIUM	F40T12	DA	80	24	1920	DUAL LEVEL	F32T8	LAMP ONLY	61	24	1464	456	EXISTING	6
		AUDITORIUM	150W PAR	R-S-T	150	5	750	SPEC.	EXISTING TO REMAIN		150	5	750	0	EXISTING	
		PIANO ROOM	F40T12	AB	160	1	160	SINGLE	F32T8	AA	61	1	61	99	OCC. SENSOR	2
		MAINT. OFFICE	F32T8	FA	61	4	244	SINGLE	EXISTING TO REMAIN		61	4	244	0	OCC. SENSOR	2
		MAINTENANCE	F40T12	AB	120	3	360	SINGLE	F32T8	AB	90	2	180	180	OCC. SENSOR	2
		MAINTANANCE 5	F40T12	CC	80	25	2000	3-WAY	F32F	FA	61	25	1525	475	EXISTING	

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE

City Hall - First Floor

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP QTY/TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1954	C02	LOBBY	23W CFL MED.	EA	30	14	420	3-WAY	F32T8	AC	61	6	366	54	EXISTING	6
	C03	LOBBY	23W CFL MED.	EA	30	2	60	SINGLE	F32T8	AC	61	1	61	-1	EXISTING	6
	C04	CLERKS	F40T12	AA	80	31	2480	VERIFY	F32T8	AB	90	12	1080	1400	DUAL-LEVEL	1,4
	C06	COUNCIL CHAMBER	F40T12	AH	120	24	2880	3-WAY	F32T8	AB	90	24	2160	720	EXISTING	1
	C06	COUNCIL CHAMBER	23W CFL MED.	EB	30	9	270	SINGLE	REMOVE FIXTURES		0		0	270		3
	C26	VAULT	23W CFL MED.	HB	30	6	180	SINGLE	F32T8	FB	61	3	183	-3	OCC. SENSOR	2
	C28	MEN'S TOILET	F40T12		80	2	160	SINGLE	F32T8	AC	61	2	122	38	EXISTING	1
	C31	WOMEN'S TOILET	F40T12		80	2	160	SINGLE	F32T8	AC	61	2	122	38	EXISTING	1
	C34	VAULT	F40T12		80	2	160	SINGLE	F32T8	FB	61	2	122	38	OCC. SENSOR	2
	C40	TREASURY	F40T12	AA	80	80	6400	SINGLE	F32T8	AB	90	35	3150	3250	DUAL-LEVEL	1,4
	C42	VAULT	F40T12		80	1	80	SINGLE	F32T8	FB	61	1	61	19	OCC. SENSOR	2
	C43	STAIRWELL	F40T12	AA	80	1	80	3-WAY	F32T8	AC	61	1	61	19	EXISTING	

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1969	C09	COMMITTEE RM. 1	F40T12	AB	160	10	1600	DUAL-LEVEL	F32T8	AB	90	10	900	700	EXISTING	1
	C09	COMMITTEE RM. 1	F20T12	AC	80	5	400	SINGLE	REMOVE FIXTURES		0		0	400		3
	C10	COMMITTEE RM. 2	F40T12	AB	160	6	960	DUAL-LEVEL	F32T8	AB	90	6	540	420	EXISTING	1
	C10	COMMITTEE RM. 2	F40T12	AC	80	3	240	SINGLE	REMOVE FIXTURES		0		0	240		3
	C11	ASSESSOR	F40T12	A	80	28	2240	DUAL-LEVEL	F32T8	AB	90	14	1260	980	EXISTING	1
	C11	ASSESSOR	23W CFL MED.	E	30	3	90	SINGLE	REMOVE FIXTURES		0		0	90		
	C12	CITY ASSESSOR	F40T12	AB	160	4	640	SINGLE	F32T8	AB	90	4	360	280	DUAL-LEVEL	1,4
	C16	COURT CLERK	F40T12	AB	160	6	960	DUAL-LEVEL	F32T8	AB	90	4	360	600	EXISTING	1
	C24	DEPUTY ASSESSOR	F40T12	AA	80	6	480	SINGLE	F32T8	AB	90	2	180	300	DUAL-LEVEL	1,4
	C25	STORAGE	F40T12	AA	80	3	240	SINGLE	F32T8	AC	61	2	122	118	OCC. SENSOR	2
	C29	CORRIDOR	F40T12	AA	80	10	800	VERIFY	F32T8	AA	61	5	305	495	EXISTING	6
	C47	CORRIDOR	F40T12	AA	80	14	1120	3-WAY	F32T8	AB	90	6	540	580	EXISTING	6
	C49	WOMEN'S TOILET	23W CFL MED.	E	30	1	30	SINGLE	F32T8	FA	61	1	61	-31	OCC. SENSOR	2
	C49	WOMEN'S TOILET	F40T12	BA	80	1	80	SINGLE	F32T8	FA	61	1	61	19	OCC. SENSOR	2
	C50	JANITOR	23W CFL MED.	J	30	1	30	SINGLE	F32T8	FA	61	1	61	-31	OCC. SENSOR	2
	C52	MEN'S TOILET	23W CFL MED.	E	30	1	30	SINGLE	F32T8	FA	61	1	61	-31	OCC. SENSOR	2
	C52	MEN'S TOILET	F40T12	BA	80	1	80	SINGLE	F32T8	FA	61	1	61	19	OCC. SENSOR	2
	C55	CORRIDOR	F20T12	AC	80	8	640	3-WAY	F32T8	AC	61	5	305	335	EXISTING	6
	C56	STAIRWELL	F40T12	AB	160	1	160	UNSWITCHED	F32T8	AB	90	1	90	70	EXISTING	6
	C56	STAIRWELL	F20T12	AC	80	1	80	SINGLE	F32T8	AB	90	1	90	-10	EXISTING	6
	C57	MAYOR LAVATORY	23W CFL MED.	E-H	30	2	60	SINGLE	F32T8	FB	61	1	61	-1	OCC. SENSOR	2
	C60	MAYOR	F40T12	AB	160	4	640	DUAL-LEVEL	F32T8	AB	90	6	540	100	EXISTING	1
	C60	MAYOR	F40T12	AD	240	2	480	DUAL-LEVEL	REMOVE FIXTURES		0		0	480		3
	C61	RECEPTION	F40T12	AB	160	10	1600	SINGLE	F32T8	AB	90	8	720	880	DUAL-LEVEL	1,4
	C63	ATTORNEY	F40T12	AB	160	4	640	SINGLE	F32T8	AB	90	2	180	460	DUAL-LEVEL	1,4
	C64	ADMINISTRATOR	F40T12	AB	160	8	1280	SINGLE	F32T8	AB	90	6	540	740	DUAL-LEVEL	1,4
	C67	STAIRWELL	F40T12	AB	160	1	160	UNSWITCHED	F32T8	AC	61	1	61	99	EXISTING	
	C67	STAIRWELL	F20T12	AC	80	1	80	SINGLE	F32T8	AC	61	1	61	19	EXISTING	
	C76	RECORD STORAGE	F40T12	BA	80	6	480	SINGLE	F32T8	FA	61	4	244	236	EXISTING	1
	C78 SUITE	ENG. RECEPTION	F40T12	AB	160	26	4160	VERIFY	F32T8	AB	90	16	1440	2720	EXISTING	1
	C87	STAIRWELL	F40T12	AB	160	2	320	SINGLE	F32T8	AA	61	2	122	198	EXISTING	6
	C88	VESTIBULE	F20T12	AC	80	1	80	UNSWITCHED	F32T8	AA	61	1	61	19	EXISTING	

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1990	C245	CORRIDOR	CF13DTT	P	30	11	330	3-WAY	EXISTING TO REMAIN		30	11	330	0	EXISTING	6
	C246	LOBBY	CF13DTT	P	30	3	90	SINGLE	EXISTING TO REMAIN		30	3	90	0	EXISTING	6
UPDATED DRAWINGS		CLERKS VAULT	F40T12		80	5	400	SINGLE	F32T8	FB	61	3	183	217	EXISTING	1
		CLERKS COPY	F40T12	AA	80	2	160	SINGLE	F32T8	AA	61	1	61	99	OCC. SENSOR	2
		CLERKS STORAGE	F40T12	AD	80	4	320	SINGLE	F32T8	AA	61	2	122	198	OCC. SENSOR	2
		CITY CLERK	F40T12		120	4	480	DUAL-LEVEL	F32T8	AB	90	2	180	300	OCC. SENSOR	2
		CITY TREASURER	F40T12	AA	80	3	240	SINGLE	F32T8	AB	90	2	180	60	OCC. SENSOR	2
		ACCOUNTANT	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL-LEVEL	1,4
		ACCOUNTANT	F40T12	AA	80	6	480	SINGLE	F32T8	AB	90	2	180	300	DUAL-LEVEL	1,4
		CITY COMPTROLLER	F40T12	AA	80	10	800	SINGLE	F32T8	AB	90	4	360	440	DUAL-LEVEL	1,4
		ATTY. RECEPTION	F40T12	AB	160	7	1120	SINGLE	F32T8	AB	90	5	450	670	EXISTING	1
		PERSONNEL	F40T12	AB	160	2	320	SINGLE	F32T8	AB	90	2	180	140	OCC. SENSOR	2
		PERSONNEL	F40T12	AB	160	10	1600	SINGLE	F32T8	AB	90	8	720	880	DUAL-LEVEL	1,4
		ATTORNEY	F40T12	AB	160	2	320	SINGLE	F32T8	AB	90	2	180	140	DUAL-LEVEL	1,4
		PERSONNEL	F40T12	AB	160	4	640	SINGLE	F32T8	AB	90	3	270	370	DUAL-LEVEL	1,4
		ENG. CONFERENCE	F32T8	AB	90	3	270	DUAL-LEVEL	EXISTING TO REMAIN		90	3	270	0	EXISTING	1
		SURVEYING	F32T8	AB	90	3	270	DUAL-LEVEL	EXISTING TO REMAIN		90	3	270	0	EXISTING	1
		ENG./DRAFTING	F32T8	AB	90	18	1620	DUAL-LEVEL	EXISTING TO REMAIN		90	18	1620	0	EXISTING	1
		DIRCTOR OF P.W.	F32T8	AB	90	2	180	DUAL-LEVEL	EXISTING TO REMAIN		90	2	180	0	EXISTING	1
		CITY ENGINEER	F32T8	AB	90	2	180	DUAL-LEVEL	EXISTING TO REMAIN		90	2	180	0	EXISTING	1
		ECON. DEV. DIR.	F32T8	AB	90	2	180	DUAL-LEVEL	EXISTING TO REMAIN		90	2	180	0	EXISTING	1
		DIR. OF COMM. DEV.	F32T8	AB	90	3	270	DUAL-LEVEL	EXISTING TO REMAIN		90	3	270	0	EXISTING	1
		PLANNING	F32T8	AB	90	3	270	DUAL-LEVEL	EXISTING TO REMAIN		90	3	270	0	EXISTING	1
		CHIEF BLDG. OFFICE	F32T8	AB	90	2	180	DUAL-LEVEL	EXISTING TO REMAIN		90	2	180	0	EXISTING	1
		INSPECTORS CONF.	F32T8	AB	90	2	180	DUAL-LEVEL	EXISTING TO REMAIN		90	2	180	0	EXISTING	1
		INSPECTORS	F32T8	AB	90	12	1080	DUAL-LEVEL	EXISTING TO REMAIN		90	12	1080	0	EXISTING	1
		WATER DEPT.	F40T12	AA	80	27	2160	DUAL-LEVEL	F32T8	AB	90	12	1080	1080	EXISTING	1
		WATER CONF.	F40T12	AA	80	4	320	SINGLE	F32T8	AB	90	2	180	140	DUAL-LEVEL	1
		WATER SUPER.	F40T12	AA	80	7	560	SINGLE	F32T8	AB	90	3	270	290	DUAL-LEVEL	1
		WATER PURCHASING	F40T12	AA	80	8	640	SINGLE	F32T8	AB	90	4	360	280	DUAL-LEVEL	1
		WATER PURCHASING	F40T12	AA	80	8	640	SINGLE	F32T8	AB	90	3	270	370	DUAL-LEVEL	1
		WATER PURCHASING	F40T12	AA	80	8	640	SINGLE	F32T8	AB	90	3	270	370	DUAL-LEVEL	1

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE

City Hall - First Floor

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP QTY/TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE
1954	M10	CORRIDOR	23W CFL MED.	EE	30	2	60	SINGLE	F32T8	AA	61	1	61	-1	EXISTING	1
	M11	STORAGE	23W CFL MED.	HB	60	2	120	SINGLE	F32T8	FA	61	2	122	-2	EXISTING	1
	M12	STAIRWELL	23W CFL MED.	EC	30	2	60	SINGLE	F32T8	FB	61	2	122	-62	EXISTING	
	M03	STAIRWELL	23W CFL MED.	EB	30	1	30	3-WAY	EXISTING TO REMAIN		30	1	30	0	EXISTING	6
	M04	CORRIDOR	23W CFL MED.	EA	30	1	30	3-WAY	F32T8	AC	61	1	61	-31	EXISTING	6
	M05	MEETING ROOM 2	23W CFL MED.	DC	30	8	240	DUAL-LEVEL	F32T8	AB	90	6	540	-300	EXISTING	1,4
	M05	MEETING ROOM 2	F40T12	AB	160	2	320	DUAL-LEVEL	REMOVE FIXTURES		0		0	320		
	M06	MEETING ROOM 1	23W CFL MED.	DC	30	8	240	DUAL-LEVEL	F32T8	AB	61	4	244	-4	EXISTING	1,4
	M06	MEETING ROOM 1	F40T12	AB	160	2	320	DUAL-LEVEL	REMOVE FIXTURES		0		0	320		
	M07	BREAK ROOM	23W CFL MED.	DC	30	11	330	DUAL-LEVEL	F32T8	AB	61	6	366	-36	EXISTING	1,4
	M07	BREAK ROOM	F40T12	AB	160	2	320	DUAL-LEVEL	REMOVE FIXTURES		0		0	320		
	M08	CORRIDOR	23W CFL MED.	EA-FB	30	12	360	3-WAY	F32T8	AC	61	5	305	55	EXISTING	6
	M09	KITCHEN	23W CFL MED.	EF	30	2	60	SINGLE	F32T8	AA	61	1	61	-1	EXISTING	1
1990	C241	TOILET VESTIBULE	F30T12	Q	30	3	90	SINGLE	F32T8	AA	61	1	61	29	EXISTING	6
	C242	MEN'S TOILET	F30T12	Q	60	8	480	SINGLE	F32T8	AA	61	2	122	358	EXISTING	1
	C243	WOMEN'S TOILET	F30T12	Q	60	8	480	SINGLE	F32T8	AA	61	2	122	358	EXISTING	1
	C244	CORRIDOR	CF13DTT	P	30	10	300	3-WAY	EXISTING TO REMAIN		30	10	300	0	EXISTING	6
UPDATED DWGS		WAR MEMORIAL	150W PAR		150	6	900	DIMMING	EXISTING TO REMAIN		150	6	900	0	EXISTING	1
		WAR MEMORIAL	F40T12		80	10	800	DIMMING	EXISTING TO REMAIN		80	10	800	0	EXISTING	1
		PENTHOUSE	F32T8	FA	61	2	122	SINGLE	EXISTING TO REMAIN		61	2	122	0	EXISTING	1

NOTES
1. PROVIDE CEILING MOUNTED OCCUPANCY SENSOR(S) FOR CONTROL. SEE SPECIFICATION.
2. PROVIDE WALL MOUNTED OCCUPANCY SENSOR SWITCH. SEE SPECIFICATION.
3. REMOVE FIXTURE(S). DO NOT REPLACE.
4. ADD SWITCHING AND ADDITIONAL WIRING AS REQUIRED TO ACHIEVE CODE REQUIRED LIGHTING REDUCTION. SEE SPECIFICATION AND DETAIL FOR DUAL-LEVEL SWITCHING.
5. LIGHTING SHALL NOT BE REPLACED IN THIS ROOM.
6. OCCUPANCY SENSOR NOT RECOMMENDED, HOWEVER AUTOMATIC SHUTOFF IS REQUIRED FOR CONTROL.

DWG SET	ROOM #	DESCRIPTION	EXISTING						PROPOSED							
			LAMP TYPE	FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	SWITCHING	LAMP TYPE	NEW FIXT. TYPE	FIXT. WATTAGE	FIXT. QTY.	TOTAL WATTAGE	WATTAGE CHANGE	SWITCHING	SEE NOTE

EXISTING	
CITY HALL TOTAL WATTAGE	77338
CIVIC CENTER TOTAL WATTAGE	17306
LIBRARY TOTAL WATTAGE	98133
CITY HALL AREA (FT^2)	63278
CIVIC CENTER AREA (FT^2)	16421
LIBRARY WATTS AREA (FT^2)	50445
CITY HALL WATTS PER SQUARE FOOT	1.22
CIVIC CENTER WATTS PER SQUARE FOOT	1.05
LIBRARY WATTS PER SQUARE FOOT	1.95

PROPOSED	
CITY HALL TOTAL WATTAGE	43564
CIVIC CENTER TOTAL WATTAGE	14023
LIBRARY TOTAL WATTAGE	98133
CITY HALL WATTAGE REDUCTION	33774
CIVIC CENTER WATTAGE REDUCTION	3283
LIBRARY WATTAGE REDUCTION	0
CITY HALL WATTS PER SQUARE FOOT	0.69
CIVIC CENTER WATTS PER SQUARE FOOT	0.85
LIBRARY WATTS PER SQUARE FOOT	1.95

From: ENERGY STAR Support [mailto:energystar@mailca.custhelp.com]
Sent: Friday, July 09, 2010 3:32 PM
To: Olson, Staci
Subject: Separately metered mixed use building [Incident: 100708-000063]

Recently you requested personal assistance from our on-line support center. Below is a summary of your request and our response.

If this issue is not resolved to your satisfaction, you may reopen it within the next 7 days.

Thank you for allowing us to be of service to you.

Subject

Separately metered mixed use building

Discussion Thread

Response (Adam) 07/09/2010 04:32 PM

Hello,

In order for a building to earn the ENERGY STAR, at least 50% of the building must meet the description of an eligible commercial space type (www.energystar.gov/index.cfm?c=business.bus_bldgs). ENERGY STAR does not label portions of buildings, even if independently metered. You can still use Portfolio Manager to track building energy consumption to quantify savings achieved from improvements made over time, however the building would not be able to earn the ENERGY STAR.

Thank you for your interest in ENERGY STAR.

Sincerely,
Adam A

Customer 07/08/2010 12:00 PM

We are an engineering company and we are investigating the feasibility of energy upgrades for a mixed use building that is a City Hall, Civic Center and Library. The Library is more than 50% of the entire building square footage. The city is very interested in Energy Star for the City Hall/Civic Center portions of the building. My question is, if this portion of the building (which is more than 50% office space) is metered separate from the Library, would they be eligable to apply for Energy Star as an office?

Question Reference #100708-000063

Date Created: 07/08/2010 12:00 PM
Last Updated: 07/09/2010 04:32 PM
Status: Resolved
Category: Buildings and Plants

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