



CITY OF  
**MENASHA**

FACILITIES ASSESSMENT

FINAL REPORT

MAY 22, 2002

PRESENTED BY:

BrayAssociates  
ARCHITECTS, INC.

PROJECT No: 2550

# BrayAssociates ARCHITECTS, INC.

SHEBOYGAN, WI A MIDDLETON, WI A LA CROSSE, WI A MILWAUKEE, WI

May 22, 2002

City of Menasha  
Capital Facilities Committee  
140 Main Street  
Menasha, WI 54952-3190

RE: CITY OF MENASHA  
facilities ASSESSMENT  
PROJECT No. 2550

Dear Committee Members:

Bray Associates Architects, [Inc.is](#) pleased to submit this Final Report for the City of Menasha - Facilities Assessment. The purpose of this process was to provide a general assessment of the cities existing facilities, determine the future needs, and to develop alternatives to meet these projected needs.

We would like to acknowledge the generous support, assistance and input that we have received from Capital Facilities Committee Members, the Department Directors and their staff, the Police Chief, and the Fire Chief. We greatly appreciated their valuable participation.

Thank you for the opportunity to provide our architectural services for this study. We would look forward to being of service to the City of the Menasha in the future.

Sincerely,

BRAY ASSOCIATES ARCHITECTS, INC.

James R. Willmas A.I.A.

JW/mP  
P:/Proj./2550/Owner/Le51 jw03

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550

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CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

## CITY HALL

### ARCHITECTURAL

1. The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.
2. Building Use
  - a. The Menasha City Hall is a three-story building with a basement and a mechanical penthouse on a fourth level. The City Hall contains various city administrative functions. These include:
    - 1.) First Floor: Finance, Assessor, Clerk
    - 2.) Second Floor: Parks & Recreation, Community Development, Building Inspection, Public Works
    - 3.) Third Floor: Mayor, Human Resources, Public Health, Council Chambers
    - 4.) Basement: Maintenance, Employee facilities
  - b. The building was constructed in 1966 as a bank and office building.
3. Site Description
  - a. The site is located in downtown Menasha and has an area of 11,000 SF. The building footprint is approximately 4,000 SF and is located on Main Street. The building is located on or near the property lines on the west, south, and east sides.

There is a parking area on the north side for public and staff. A public parking lot is located approximately 110' to the west of the parking lot. There are not parking stalls designated for ADA accessibility in the north parking lot. This is due to the lack of an accessible building entrance on the north side. There is a designated ADA parking space in the front of the building on Main Street at the curb, however, this space is not compliant with ADA requirements.
  - c. The parking to the north, the public parking lot and on-street parking on the south side seem to be generally adequate to serve the needs of the staff and for public access.
4. Evaluation of Structure and Systems
  - a. Acoustics, sound transfer appears to be an issue in the office areas. This is typical with the use of demountable partition systems.
  - b. There are no toilet facilities in the building that are ADA compliant.
  - c. By current standards, it would be desirable to provide an elevator with a larger capacity. It is recommended that elevators are large enough to accommodate an ambulance size stretcher.
  - d. The west stairway should be enclosed by a fire rated enclosure to an outside exit door.
  - e. The toilet fixture count, particularly for women, would need to be assessed if any remodeling were to take place.

- f. The exterior of the building is generally in good repair. There is no evidence of any structural issues.
- g. The existing exterior ceramic tile is loose and falling off particularly at window heads and along the concrete fins. The exterior windows should be replaced with energy-efficient window units with insulating glass.
- h. The interior walls and finishes are in good serviceable condition. The carpeting does show signs of age and wear.
- i. The roofing was replaced in 1994 with a ballasted 60-mil EPDM (rubber) roof system.

5. Recommendations / Improvements

- a. Provide ADA compliant toilet facilities.
- b. Provide a fire rated enclosure at the west stairway to an outside exit door.
- c. Remove the existing exterior ceramic tile and replace with a new material.
- d. Remove existing single glazed windows and replace with new energy-efficient window units and 1" insulating glass.

PLUMBING

1. Barrier Free Requirements

- a. None of the plumbing fixtures in the toilet rooms are accessible to the handicapped.
- b. The electric water cooler in the basement or the drinking fountains on floors 1,2 and 3 are not accessible to the handicapped.

2. General Maintenance Condition

- a. The condition of the plumbing fixtures was good. However, there were indications of faucets dripping and leaks. The fixtures are over 30 years old and will require constant maintenance and replacement.
- b. The present water distribution piping did not show signs of leaks and external corrosion. However, the piping is more than 30 years old and it can be anticipated that there would be internal corrosion in the piping system, which would reduce flow and pressure to the fixtures.
- c. The electric water cooler in the basement is not barrier free and needs repair.
- d. The domestic hot water heater was in good condition. There did not appear to be corrosion and leaks. There were no insulating unions that separated piping of dissimilar metals.
- e. The clear water sump pumps appear to have been replaced. The duplex sewage ejector appeared to be in good condition.

3. Recommendations and Conclusions

a. Utilities

- 1.) The present sanitary building sewer has capacity for expansion and any additions would not require a new sanitary building sewer. Any lower level additions would require a new sewage ejector.
- 2.) The present water supply is large enough for expansion. Any major additions would not require a new water service. However if the building is to have fire protection, a new water system would be required.
- 3.) Any major additions would require new storm building sewers.

The plumbing fixtures do not comply with current Water Conservation Standards and should be replaced in areas of major renovation.

- c. The existing toilet rooms can not be renovated for barrier-free plumbing fixtures. We would recommend barrier free toilet rooms be considered in any addition or renovation project.
- d. The present hot water system is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.

## HVAC SYSTEM

### 1. Summary

- a. The present HVAC system is beyond its useful life, and several operational problems exist. For the short term, the system can be upgraded somewhat to help solve some of the existing problems. However, if major remodeling resulting in wholesale partition changes occurs, we would not recommend trying to reuse and modify the old HVAC equipment. If the City of Menasha will continue to use this facility long term, we recommend replacing the existing 35-year-old equipment.

### 2. Condition of Existing Systems

- a. The boiler, air handler and air-cooled condensing unit were all installed in 1966 and are now 35 years old. Everything is well beyond its ASHRAE listed life expectancy of 25 years (30 years for the boiler). The equipment is still functional, but should be considered for replacement rather than investing in any potential future repairs.
- b. Pneumatic control is old technology. Components must frequently be recalibrated. The ASHRAE life expectancy of pneumatic components is 25 years.

### 3. Code and Operational Issues

- a. From a review of the existing HVAC drawings, it is evident that the building was originally designed to provide air exchange and outdoor air ventilation rates that will meet today's code requirements.
- b. Remodeling that has occurred over the years has required re-routing of ducts and air diffusers. To assure that all areas are presently up to code requirements, a qualified Testing and Balancing Contractor should be hired to measure and adjust the air handling system to assure that required air exchange rates and outdoor air quantities are being maintained.
- c. Building occupants cite uneven temperature control, high summer humidity and building over-pressurization as the main problems with the HVAC system.

### 4. Recommendations

- a. If this facility will be remodeled and continue to be used by the City of Menasha for the long term, we recommend replacing the existing mechanical systems with new energy efficient equipment. This would include converting the present air distribution system from a constant volume booster coil reheat system to a variable volume reheat system for increased comfort and lower energy consumption.
- b. New system components would include:
  - 1.) Two high efficiency hot water boilers. Two boilers will provide "standby" capability should one boiler fail. Also, a small boiler could be run in the summer to provide humidity controls.
  - 2.) Circulating pumps with variable frequency drives for reduced energy consumption at light loads. Two pumps for standby capability.

- 3.) **New variable volume air distribution system. Reduces airflow to rooms by half before consuming energy to "reheat".**
  - 4.) **New digital control system for self-calibration and precise temperature control.**
  - ) **New high EER air conditioning unit.**
- c. **In the event that the City of Menasha elects to not replace the existing HVAC equipment, several measures can be taken to improve the performance of the existing system.**
- 1.) **Hire a Testing and Balancing agency to measure and adjust all airflows through the main air handler as well as to each room.**
  - 2.) **Clean and calibrate existing pneumatic controls.**
  - 3.) **Install a pressure relief fan on the roof, connected to the central return air shaft. The fan can be controlled to operate when the air handling unit is in economizer mode to prevent over-pressurizing the building.**
  - 4.) **Allow the boiler to operate during the summer, concurrently with the air conditioner. Implement a dehumidification control strategy whereby the air conditioning can run continuously at full capacity during periods of high humidity. This will remove moisture from the space. Allowing the boiler and reheat coils to operate will prevent the building from overcooling. It will also provide better occupant comfort in the summer.**

## **ELECTRICAL**

### **1. Special Conditions**

#### **a. Recommendations:**

- 1.) **Elevator: If this facility is to be brought up to the latest code, it is recommended that fire fighter recall be added to the existing elevator. This would mean that smoke detectors would be placed in the lobby area on each floor and in the machine room and tie into the main fire alarm system. If this is done, then the elevator controls would also have to be upgraded to accommodate the fire fighter recall. The elevator should be equipped with an ADA approved telephone and must have a designated telephone line for this phone.**
- 2.) **Council Chambers Sound System: Since the mixer can only accept eight inputs, some of the microphones installed are connected together. Our recommendation would be to replace the existing system with a new button controlled system. In lieu of providing wall speakers, provide ceiling speakers so the sound can be evenly distributed throughout the area.**

### **2. Service Entrance**

#### **a. Recommendations:**

**If additions are added to this facility and/or central air-conditioning is added, a new 1200 amp electric service would be recommended. If the building is to be expanded, this new service should be installed in a storage area of the new building. Since the existing electric service gear was installed in 1966, it may be *difficult* to obtain spare parts and changing this panel to a more modern type and back feeding it to the new electric service would also be recommended.**

### 3. Panelboards

#### a. Recommendations:

- 1.) Since the majority of the existing panels are the original equipment and spare parts may be difficult to obtain due to the age of the equipment, it is recommended that they be replaced with new. Also due to the increase in electrical and electronic equipment used in an office environment it would be recommended to add one 225 amp double tub (84-circuit panel) to each floor. If additional panels are to be added, the existing electric service would have to be replaced.

### 4. Interior Lighting Fixtures

#### a. Recommendations:

- 1.) The existing light switches are mounted at 53" to the top. The current ADA code states that the side reach of a wheelchair maximum height is 54" to the top and forward reach of a wheelchair is a maximum height of 48". In most instances, I believe the existing mounting height of 53" is acceptable, but where new switches are to be mounted, they should be mounted no higher than 44" to the top.
- 2.) The lighting throughout this facility is outdated and should be replaced with more energy efficient T8 fluorescent type lighting. Provide dual level lighting and motion detectors in all areas to comply with the State energy code.
- 3.) The exit lights should be changed to be energy efficient LED type. The LED type fixture utilizes as low as 3 watts per fixture, whereas the incandescent type uses as high as 15 watts and a PL uses 15 - 35 watts. Many manufacturers indicate that the LED type will last 10 - 20 years before they burn out.

### 5. Generator System

#### a. Recommendations:

- 1.) Replace the existing emergency generator with a new unit. This facility would be required to have two transfer switches; one for the life safety, which is the emergency egress lighting, exit lights and fire alarm system, and a non-life safety switch for optional devices such as powering the mainframe data racks, telephone system, etc. It appears that a new generator could fit into the existing generator room.

### 6. Security System

#### a. Recommendations:

- 1.) It appears that the existing security alarm is compliant, therefore, the security system could be expanded.

7. Fire Alarm System

a. Recommendations:

- 1.) It is recommended that the existing 120-volt system be replaced with a new 24 volt DC (Class B) type system. It is also recommended that ADA compliant strobes be installed throughout the facility. Pull stations should be mounted at 42" to the center of the handle, which would comply with the latest State and National codes. The present mounting height of a pull station is 56", which does not comply with the current ADA code.

8. Data Distribution System

a. Recommendations:

- 1.) All data outlets should be mounted in a flush or surface mounted box in lieu of having jacks hanging free in the air. Also, the new cabling being installed is typically Cat 5e and Cat 6 variety. These cables can be routed back to the existing data rack.

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

DEPARTMENT INTERVIEWS - FINANCE DEPARTMENT

Purpose: Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

Representatives: Tom Stoffel, Controller  
Drew Heiden, Assessor  
Jennifer Sassman, Accountant

Discussion / Notes:

- The Finance Department is located on the first floor of City Hall. This is a desirable location as it directly serves the public and is very accessible.
- Staff -
  - I Controller
  - 1 Accountant
  - 1 Assessor
  - 3 Clerical
  - 1 Deputy Assessor
  - 1 Assessment TechnicianPossible future staff would be one (1) clerical position.
- Finance collects money for the building inspection department. They are located on the third floor.
- The lobby area is larger than it would need to be. There is an issue with public information and building signage. Anyone not knowing where to go in City Hall usually enters the Finance Department.
- Assessor:
  - Need for a conference room for (4) people to meet with taxpayers. Also for open book sessions now held in the public lobby.
  - Need record storage closer to the department.
  - Residential files are maintained in the office.
  - Closer to building inspection would be preferred.
  - Improve access to public use of the computer.
- Finance:
  - Shared conference room is desirable.
  - Prefer elevated clerical area to serve the public. Need (3) work/service stations. All (3) should be on an equal basis and directly available to the public.
  - Need to improve security issues.
  - The outside drop box is frequently used. The former drive-up teller window is not used.
  - Need to keep (2) years of records available. Some are now stored remotely in the basement.
- The City Clerk's office is also adjacent to the public lobby. The clerk works directly under the City Attorney who is on the third floor.
- The Mayor's office is on the third floor. The Mayor has a part-time clerical person.
- Department equipment includes a copy machine, fax, printers, postal meter, coin sorter.
- There are some parking issues.
- A garage for city owned vehicles would be desirable.

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

DEPARTMENT INTERVIEWS - COMMUNITY DEVELOPMENT / PARKS &  
RECREATION

Purpose: Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

Representatives: Greg Keil, Director of Community Development  
Brian Tungate, Director of Parks & Recreation  
Kristi  
Jessica

Discussion / Notes:

- These departments generate a substantial amount of public traffic and need to be accessible. The building inspection function also is part of their area. The building inspector is an outside contract person, not a city employee.
- Consideration for a possible future automated building permit system.
- Zoning reviews are done by Community Development.
- The location of the department is good.
- Staff- Community Development
  - | Director
  - | Associate Planner
  - | Clerk
  - | 1 InternPeople that are outside contracts - up to three (3) people  
Future - Add (1) full-time
- Staff - Parks & Recreation
  - | Director
  - | Supervisor (summer only)Possible (2) full-time in the future  
Other staff is at various locations.
- Community Development, Parks & Recreation and Engineering work together.
- The Army Reserve building may be available for use.
- Memorial Building:
  - Kitchen facilities would be desirable.
  - Daycare - Tiny Tots is limited use Monday through Thursday.
  - Used for club meetings, dance programs, exercise.
  - ADA accessibility to the second floor and ADA compliant toilet facilities are needed.
  - It would be good to have a year-round daily presence by some means.
  - Windows were replaced 10 - 15 years ago.
  - Toilets accessible from the outside would be preferred.
  - Public Works maintains the building.
  - Parks & Recreation manages the facility.

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

DEPARTMENT INTERVIEWS - CITY ATTORNEY

Purpose: Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

Representatives: Jeff Brandt, City Attorney

Discussion / Notes:

- Location and room size are generally acceptable.
- City Attorney is also responsible for the City Clerk, Personnel, Payroll and Human Resources.
- City Clerk could increase to two staff in the future.
- Human Resources could increase by one-half staff.
- Have occasions for small meetings-need confidentiality.
- The City Clerk needs counter space with public access. Clerk is responsible for access to public information pamphlets.
- Storage space is not adequate. Old records are kept in Fire Station #2. This area is not very secure. Space is also needed for files.
- There are issues with the HVAC system and the elevator.
- The council chambers need design improvements and should have a larger capacity. Department heads sit at a table with their backs to the public; aldermen do not have adequate space. Update the technologies.
- City hall needs additional conference rooms.

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

## CITY HALL - Square Footage Assessment

Area	Existing SF	Proposed SF	Comments
<b><i>Basement</i></b>			
Phone / Data Equipment 23	80	80	
Elevator Equipment	70	70	
Storage / Mechanical 24A	315	315	
Maintenance Storage / Office 24	390	390	Provide new office
Maintenance Office	0	150	
Conference / Mail 21	285	285	
Lounge 25	360	360	
Kitchenette 26	80	80	
Storage 25A	900	1,000	
Toilets	<u>110</u>	<u>185</u>	
Subtotal	2,590	2,915	

Area	Existing SF	Proposed SF	Comments
<b><i>First Floor</i></b>			
Vestibule / Lobby	665	300	Relocate
Assessor 103	170	300	Two stations / public counter
Assessor Office 104	170	170	
Clerk 105	215	215	
Clerk Work / Storage	0	100	
Voting Alcove	0	25	
Copy / Files 107	205	250	
Finance 106	700	500	Includes three elevated stations
Controller 101	190	190	
Accountant 102	180	180	
Conference	0	200	
Toilets	<u>160</u>	<u>250</u>	
Subtotal	2,655	2,680	

Facilities Assessment for City of Menasha  
 City Hall - Square Footage Assessment (Page 2)  
 March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<i>Second Floor</i>			
Conference 201	145	200	
Park & Recreation Director 202	145	150	
Clerical 203	150	150	
Associate Planner	0	150	
Reception / Waiting	0	80	
Building Inspection 204	325	145	
Community Development Director 205	145	150	
Clerical 206	105	105	
Copy / Work 207	90	90	
Public Works Director 208	140	150	
Traffic Engineer 209	120	130	
City Engineer 210	125	130	
G.I.S. Office	130	130	
Computer Technician	75	100	
Field Services Engineer 211	205	250	
Computer 213	140	140	
Work 214	130	130	
Computer Office 215	145	145	Now Sanitarian
Toilets	160	250	
Subtotal	2,565	2,865	

Area	Existing SF	Proposed SF	Comments
<i>Third Floor</i>			
Council Chambers 301	1,000	1,500	
Clerical 302	180	180	
Mayor 303	240	250	
Human Resources 304	210	250	
Personnel Director 305	195	195	
Personnel / Payroll	180	180	
Human Resources Work / Storage	0	180	
Health Director 306	180	250	
Health Department 307	600	1,200	
Sanitarian 308	120	150	Moved to second floor
Nurses 309	225	225	
Conference	0	200	
Toilets	<del>160</del>	<del>250</del>	
Subtotal	3,290	5,010	

Facilities Assessment for City of Menasha  
 City Hall - Square Footage Assessment (Page 3)  
 March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<b><i>Penthouse</i></b>			
Boiler	290	290	
Emergency Generator	130	130	
Mechanical Equipment	450	450	
Storage	95	95	
Subtotal	965	965	

Total Net Square Feet      12,065      14,435

Existing Gross Square Feet      18,115

Grossing Factor for Proposed (1.5)      21,653

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

## **DEPARTMENT INTERVIEWS - PUBLIC HEALTH**

**Purpose:** Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

**Representatives:** Sue Nett, Director

**Discussion / Notes:**

- **Public Health is presently located on the third floor of the city hall. This area is not easily accessible to the public using the services. Public accessibility should be improved.**
- **This department conducts public programs. There are usually many children present; noise is a factor.**
- **Staff.**
  - 1 Director
  - 1 Supervisor
  - 2 Nurses, full-time
  - 1 Sanitarian
  - 1 Secretary, full-time
  - 3 Clerical, part-time
  - 1 Casual
- **The sanitarian works with the Building Inspection Department. The sanitarian will be relocated to the former computer office on the second floor.**
- **The larger open space is presently used for the following:**
  - Hygienist
  - Immunizations
  - Blood pressure checks
  - Head lice checks
  - General work area
  - Office space for five employees
  - Storage

**This space has no provisions for privacy. Additional space is needed for cabinets and storage. Present storage is in the basement and any small space available.**
- **Need private space for interviewing parents. This is now done in the council chambers. People who are waiting line up in the chambers.**
- **Workroom for copy machine, fax and printers is needed.**
- **A department conference room is needed; now use chambers.**
- **Need room to store infectious waste.**
- **A storage room for equipment is needed-equipment for weights and measures, vision equipment, audiometer, etc.**

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

## HEALTH DEPARTMENT - Alternate Square Footage

Area	Existing SF	Proposed SF	Comments
Waiting		90	
Reception / Clerical		190	
Conference		170	
Staff Toilet		70	
Office		150	
Offices (4 @ 100 SF)		400	
Sanitarian		150	
Director		230	
Clinic		300	
Storage		300	
Waste		50	
Total Net Square Feet		2,100	

Grossing Factor for Proposed (1.45) 3,045

Area Program at City Hall has 1,970 Net SF  
 Grossing Factor X 1.45 for Gross SF 2,855

## PUBLIC WORKS FACILITY

### ARCHITECTURAL

1. The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.
2. Building Type/Use
  - a. The City of Menasha Public Works Facility provides for various functions of the Public Works Department and services to the residents of Menasha:
    - Main Building: Includes facilities for Public Works and Parks & Recreation Staff, repair shops, vehicle/equipment garage, storage, vehicle service and repair shop.
    - Sign Shop: Includes the sign shop, wood shop, electrical/traffic signal shop, equipment garage, storage
    - Recycling shed
    - Small Garage: Storage for concrete forms, lawn mowers, Christmas decorations
  - b. The main building was constructed in 1963.
  - c. The Sign Shop was constructed in 1984.
3. Site Description
  - a. The site is located in the south central area of Menasha on Baldwin Street. The site has an area of 9.0 acres. Additional land may be available in the future. The building footprints are as follows:

Main Building	31,780	SF
Sign Shop	11,250	SF
  - b. Staff parking is located along the south side of the main building and along the west fence line. Additional designated staff parking is needed.
  - c. Other functions that are accommodated on this site include:
    - Recycling area
    - Fueling station
    - Police impound (fenced area)
    - Mulch storage
    - Salt shed and related tanks
    - Stone chip storage
    - Metals and brush drop-off area
    - Cell tower (60'x 70' fenced area)
    - Electrical substation

#### 4. **Evaluation of Structure and Systems**

##### **Main Building**

- a. **There are ADA accessible toilet rooms in the recently remodeled area when the office addition was constructed. The original staff locker, toilet and shower areas are not ADA compliant. There are no ramps at the curbs in the main garage area.**
- b. **A number of exterior exit doors do not function due to deterioration.**
- c. **There is evidence of wall movement at the east wall of the vehicle repair shop. Many of the exterior wall expansion joints need repair.**
- d. **There is a minor area of the roof fascia in need of repair on the north side of the garage.**
- e. **Condition of the garage area floor slabs is poor.**
- f. **The front two-thirds of the garage and the repair area have a relatively new ballasted EPDM roof with tapered insulation. The back one-third of the garage has a Siplast roof installed in 1988 and is in fair condition.**
- g. **Sign Shop floor is frequently flooded by storm water.**

#### 5. **Recommendations / Improvements**

- a. **Provide ADA compliant locker/shower/toilet facilities.**
- b. **Perform exterior wall tuck pointing and expansion joint repair.**
- c. **Repair/replace exit doors.**
- d. **Replace overhead doors.**

### **PLUMBING**

#### 1. **Barrier Free Requirements**

- a. **None of the plumbing fixtures in the men's locker room are accessible to the handicapped. However, there are ADA fixtures in the office public toilet rooms.**
- b. **There is not a barrier free electric water cooler.**

#### 2. **General Maintenance Condition**

- a. **The condition of the plumbing fixtures in the men's locker room was good. However, there were indications of dripping and leaks on the wash fountain. The fixtures in the men's locker room are over 30 years old and will require constant maintenance and replacement.**
- b. **The present water distribution piping in the Municipal Garage did not show signs of leaks and external corrosion. However, the piping is more than 30 years old and it can be anticipated that there would be internal corrosion in the piping system, which would reduce flow and pressure to the fixtures.**
- c. **The electric water cooler at the lunch room is not barrier free and needs repair.**
- d. **The domestic hot water system in the Municipal Garage was in poor condition. However, there did not appear to be corrosion and leaks. There were no insulating unions that separated piping of dissimilar metals.**
- e. **The plumbing fixtures in the office were new and in good condition.**

#### 3. **Recommendations and Conclusions**

- a. **Utilities**
  - 1.) **The present sanitary building sewer for the Municipal Garage has capacity for expansion and any additions would not require a new sanitary building sewer.**

- 2.) The present water supply is large enough for expansion. Any major additions would not require a new water service.
- 3.) Any major additions would require new storm building sewers. The storm sewer system will have to be re-worked through retention basins to avoid direct discharge to the site.
- b. The plumbing fixtures in the men's locker room do not comply with current Water Conservation Standards and should be replaced.
- c. We would recommend barrier-free plumbing fixtures be considered in any addition or renovation of the locker rooms.
- d. The present hot water systems is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.
- e. The Sign Shop Toilet Room is supplied by a <sup>3/4"</sup> water service and has a 4" sanitary building sewer. Hot water is supplied by an elevated 6-gallon electric water heater. The plumbing system meets current codes for the intended use. However, any expansion or renovation of this building would require new toilet rooms with ADA Standards.

## HVAC SYSTEM

### 1. Summary

- a. Although the present garage and repair areas have code complying ventilating systems, the City has indicated that the ventilation is lacking. We recommend doubling the present ventilation rates to meet the requirements of most National Building Codes.
- b. The addition of carbon monoxide sensing systems will allow the exhaust systems to be cycled rather than operating continuously, thus reducing operating costs.

### 2. Condition of Existing Systems

- a. ASHRAE lists the life expectancy of gas fired duct furnaces as being 15 years. It appears that several units have been replaced over the years.
- b. The office area rooftop unit appears to be relatively new. ASHRAE lists a life expectancy of 15 years for rooftop equipment.

### 3. Code and Operational Issues

- a. From a review of the existing HVAC plans, it appears that the systems as designed in 1963 will meet Wisconsin's code requirements for air exchange rates and outdoor air ventilation rates. The garage and repair areas are exhausted at  $\frac{3}{4}$  CFM per square foot, which is still the requirement. However, the City has indicated that the ventilation is inadequate. All of the major model codes require 1.5 CFM per square foot as the exhaust rate from garages, which is double Wisconsin's requirement. Increasing the rate of exhaust will improve conditions.
- b. There do not appear to be any fire dampers in the ducts that penetrate the garage wall into the office area.

### 4. Recommendations

- a. Provide fire dampers in the ducts penetrating the garage wall into the office.
- b. Replace the gas-fired furnace presently serving the office area with a new high efficiency furnace with DX cooling.
- c. If existing equipment is to remain, a qualified Testing and Balancing Contractor should be hired to measure and adjust the air flows of the garage exhaust and make-up air units to assure that they are maintaining code required air quantities.

- d. Increase ventilation/exhaust rate from 3/4 CFM per square foot to 1 %CFM. Provide new exhaust fans and make-up air units.
- e. Install carbon monoxide detection systems in the garage and in the repair areas. This will allow the exhaust fans and make-up air units to be cycled intermittently based on CO build-up rather than having to run continuously.

## **HVAC SYSTEMS - SIGN SHOP**

### **1. Summary**

- a. Ventilation needs to be improved in the Office and Workshop to comply with code requirements.

### **2. Code and Operational Issues**

- a. The office area, if remodeled, will require a mechanical ventilating system. Openable windows are no longer a code complying means of providing outdoor air for ventilation.
- b. The workshop should be provided with exhaust capture hoods where spray painting is done. A tempered make-up air system is required as well.

## **ELECTRICAL**

### **1. Wiring Devices**

#### **a. Recommendations:**

- 1.) Change the standard receptacles in the City Garage area to be GFI type. Change truck heater receptacles to be GFI type. Since these receptacles are not mounted more than 6" above the ground they should also be provided with raised covers which covers the outlet when a plug is inserted into the receptacle. These covers are manufactured by TayMac
- 2.) Truck bay: Provide twenty additional receptacles with GFI protection and ten additional 20 amp circuits. Additional power panels must be provided. See section 16470.

### **2. Electrical Service**

#### **a. Recommendations:**

- 1.) City garage: Replace the existing switchgear with more modern equipment and also refeed the existing panels throughout the facility so that the conduits do not protrude into the Class I Division II area. Also the service entrance conduit should not enter the building more than 8' before it lands on a disconnect.
- 2.) In lieu of changing the existing electric service, provide a 4-hour concrete enclosure around the existing electrical equipment on the wall and provide separate ventilation so that this room is a separate room and does not have the classification. Encase the service entrance conduits entering into the building in a minimum of 2" of concrete. This will have the conduits defined as being "outside the building".

3. **Panelboards**

a. **Recommendations:**

- 1.) **Provide a concrete room around these panels so that these panels do not lie in a Class I Division II area. See section 16425.**
- 2.) **Truck repair: Replace existing panel with new and refeed.**

4. **Interior Lighting Fixtures**

a. **Recommendations:**

- 1.) **Locker rooms - the light levels are low for this area. Replace existing light fixtures with energy efficient T8 type fluorescent lighting with bug shield.**
- 2.) **Cafeteria and Restrooms: The fixtures should be upgraded to be energy efficient T8 type fixtures.**
- 3.) **Receptionist/waiting area and meeting room (1999 area): Replace existing lamps and ballast with new energy efficient T8 type.**
- 4.) **Truck bay: The light levels in this area are extremely low and should be twice what they presently are. Low level lighting may be desirable since work is being done on a vehicle and trouble lights are utilized to increase the lighting in that particular area. Therefore it is suggested to replace the existing lamps in this area with new.**
- 5.) **Tool crib: Remove the existing strip lighting and provide new industrial type light fixtures with wire guards which utilize fluorescent T8 lamps.**
- 6.) **Exit lights: The exit fixtures in the offices can remain. In the truck bays, replace the existing incandescent/fluorescent exit lights to more energy efficient LED type with battery backup.**
- 7.) **Main truck bay: Leave existing fixtures and clean and replace lamps.**

**ELECTRICAL - SIGN SHOP**

1. **Wiring Devices**

a. **Recommendations:**

- 1.) **Provide four additional receptacles in the garage area for maintenance. These receptacles shall be GFI type. Change existing receptacles to GFI type.**
- 2.) **Sign room area: If additional receptacles are to be added, the main electrical panel will have to be increased.**

2. **Panelboards**

a. **Recommendations:**

**Provide a 30-circuit subpanel fed from the existing electric service panel to provide more space for additional circuits.**

3. **Interior Lighting Fixtures**

a. **Recommendations: Garage:**

- 1.) **The fluorescent strip lighting in this area should be replaced with more energy efficient T8 lamps, and provide a fixture with wire guard to reduce lamp breakage.**

- 2.) Sign/Workshop area: Replace lamps with more energy efficient T8 type lamps with wire guards.
- 3.) Change the existing fluorescent exit lights to more energy efficient LED type. If desired, battery backup can be implemented. The batteries should be changed every 5-6 years.

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

**DEPARTMENT INTERVIEWS - PUBLIC WORKS**

**Purpose:** Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

**Representatives:** Mark Radtke, Director  
Jim Spaay  
Tim Jacobson, Superintendent  
Bob Huss, Assistant Superintendent

**Discussion / Notes:**

- The location of the municipal facility on Baldwin Street is a good location when considering the overall city plan and future growth. The city also owns the former Blue Jay Bowl site. This is a five-acre site adjacent to the northeast corner of the municipal facility site. Two acres of the site have been designated for Public Works use. The city is also considering the purchase of the Roman Rappert property at the north central area of the present site.
- Staff-
  - 1 Director
  - 22 Staff, full-time
  - Future Staff - 2 street, 1 sanitation
  - Future Parks Staff - 2 plus 1 part-time seasonal
- The Public Works staff and Parks & Recreation staff share this facility. They also share an administrative assistant.
- Staff goals include adequate room for the equipment and elimination of physical barriers.
- Need to resolve the floor drain problems in the main vehicle garage.
- The vehicle repair shop needs improvements. Need to update the service bays and increase parts storage.
- Resolve inefficiencies with the building layout. There are two lunchrooms. The lunchrooms should be combined and near one locker area and one toilet area. The locker area needs to expand and have 36 - 24-inch x 24-inch x 72-inch mesh front lockers.
- There are five lockers in the women's toilet. Consideration should be given to expanding this area.
- The facility must comply with all safety issues and standards.
- The garage area should expand in the range of 40,000 to 48,000 square feet. It would be desirable to have vehicle access between the garage and vehicle repair areas.
- Repair area should have five service bays; three of the bays should have vehicle lifts. The lifts should have a capacity of 50,000 pounds and should accommodate the fire engines.
- Overhead doors should be 16 feet wide x 16 feet high.
- Additional inventory space is needed, especially for tires.
- The roofs on the building are fairly new and should be in good serviceable condition.
- The vehicle exhaust system was updated two years ago; however, there are still some issues with the system.
- Parking on the site is limited and needs to be expanded. There are 42 staff spaces plus a few for public, or approximately 50 spaces.

- **Main gate access system needs to be replaced.**
- **Security is needed for some areas-use of card access. The camera system should be expanded to improve the security in more areas.**
- **There are no fire hydrants around the facility.**
- **This site also includes the following:**
  - **Sign shop**
  - **Small garage for concrete forms, lawn mowers, decorations**
  - **Fenced-in police impound**
  - **Salt shed with two 5,000-gallon chemical tanks (1,200 tons capacity)**
  - **Stone chip storage**
  - **Recycling building**
  - **Brush/metals drop-off area**
  - **Fuel station - 5,000-gallon gas tank, 10,000-gallon diesel tank, natural gas tank and compressor**
  - **Storage - Ag bags for mulch**
  - **Cell tower - 60 foot x 70 foot fenced area**
  - **Electric substation**
- **Storm water drainage is a concern at the sign shop.**
- **Shipping/receiving for other city departments is also a function at this site.**
- **It would be desirable to have a dual fuel boiler for the main facility. This would be natural gas/drain oil.**
- **Provide vision slats in the fencing facing residential areas.**
- **There are no zoning issues at this site.**
- **There may be an issue with the present size of the sanitary sewer that serves the site.**
- **Provide truck wash near maintenance bays.**
- **An emergency generator system should be provided in order to operate during emergencies.**
- **Nced for bunkers for storage of soil and cold-mix asphalt.**
- **Add a foaming protection system.**
- **Fence-in the total site area.**
- **Update the electrical service system.**
- **Provide compressed air throughout the facility.**
- **Provide an exercise room near employee facilities.**
- **City hall:**
  - **Maintenance supervisor presently has an office area in the city hall basement. This space is also used for storage and is located down a dead-end corridor, which is in violation of exiting codes.**
  - **The directors' offices for Public Works, Community Development and Parks & Recreation should be located in the same area. Additional office staff will not be required.**

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / March 14, 2002

## PUBLIC WORKS FACILITY - Square Footage Assessment

Area	Existing SF	Proposed SF	Comments
<b>Main Building</b>			
Vestibule	50	50	
Storage	25	25	Phone / data
Women's Toilet	70	80	
Men's Toilet	45	80	
Waiting	100	100	
Open Office	460	460	Records
Conference	215	215	
Storage	50	50	
Office - Parks Superintendent	110	110	
Janitor	20	80	Supplies
Lunch / Training	445	445	Combine with Lunch - Parks
Lockers	340	800	Combined for 40 Staff
Shower	40		
Wash	90		
Toilet	90		
Weight Room	0	150	
Tool Room	380	570	
Mezzanine	400	400	Move to first floor
Parks Maintenance	600	900	
Work Shop - Parks	800	1,200	
Lunch - Parks	320	320	Combine with Lunch / Training
Mezzanine - Parks Storage	320	320	Move to first floor
Garage	24,000	48,000	Increase width
Repair Shop	3,025	4,200	
Office	105	320	
Toilet / Locker	45	150	
Storage - Tires / Oil	360	1,100	
Parts Storage (now Mezzanine)	600	600	
Emergency Generator	0	150	

Subtotal 33,105 60,875

Total Net Square Feet 33,105 60,875

Existing Gross Square Feet 34,015

Grossing Factor for Proposed (1.1) 66,960

Facilities Assessment for City of Menasha  
 Public Works Facility - Square Footage Assessment (Page 2)  
 March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<i>Sign Shop</i>			
Sign Shop	990	1,500	
Wood Shop	990	990	
Toilet	30	80	
Electric Shop	990	990	
Equipment Storage Garage	8,100	15,000	Portable dock
General Storage	800	1,600	Now Mezzanines
Total New Square Feet	11,900	20,160	

Area	Existing SF	Proposed SF	Comments
<i>Salt Shed</i>			
Salt Storage	1,050	3,200	Verify
<u>Chips Storage</u>	0	<u>3,200</u>	<u>Verify</u>
Total New Square Feet	1,050	6,400	

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

## **PUBLIC PROTECTION**

### **ARCHITECTURAL**

1. **The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.**
2. **Building Type/Use**
  - a. **The City of Menasha Public Protection building is a single-story building with a partial basement. This building contains the Police Department and the main Fire Station.**
  - b. **The Police Department occupies the west area of the first floor and the basement area. The Fire Department occupies the east area of the first floor. Both departments share the main entrance and lobby on the south side.**
  - c. **The building was constructed in 1978.**
3. **Site Description**
  - a. **The Public Protection site is located in First Street between Milwaukee Street and Racine Street and has an area of 62,400 SF. The building footprint is approximately 11,000 SF. The front of the building is set back 70' from the curb line on First Street.**
  - b. **There are seven (7) visitor-parking stalls on the south side including one (1) ADA stall. On the north side, there are four (4) stalls for police vehicles and twenty-six (26) stalls for staff parking. Any overflow parking is on the street. The adjacent library parking area may also be utilized.**
  - c. **Fire engines exit through the south overhead doors onto First Street and return through the north doors from Second Street.**
  - d. **A radio tower is located adjacent to the building in the northwest area of the site.**
  - e. **The site is well utilized and therefore there is little opportunity for expansion.**
4. **Evaluation of Structure and Systems**
  - a. **Public toilets and staff toilets, showers and locker areas are not ADA compliant.**
  - b. **The holding cells in the booking area do not comply with present codes and are therefore not allowed to be occupied.**
  - c. **By current standards, it would be desirable to provide an elevator of a larger size. It is recommended that elevators be sized to accommodate an ambulance size stretcher.**
  - d. **The general appearance of the building interior and the finishes are satisfactory. The south stairway has had evidence of water or moisture problems.**
  - e. **On the exterior, there is evidence of movement near the top of the wall to the west of the stairway. Some of the lintels over wall openings have deteriorated caulking at the bearing ends.**
  - f. **The building was re-roofed in 1994 with tapered insulation and a ballasted 60-mil EPDM roofing membrane.**

**5. Recommendations / Improvements**

- a. Provide ADA compliant toilet, shower, and locker facilities.
- b. Perform minor exterior wall tuck-pointing.
- c. Improve security in the public lobby area. Provide attack and bullet resistant glass and wall panels.
- d. Improve and enlarge the women's staff locker, shower, and toilet area.
- e. Revise and enlarge the evidence area. Provide an adequate evidence processing area and provide a ventilated evidence storage area.

**PLUMBING**

**1. Barrier Free Requirements**

- a. The plumbing fixtures in the public toilet rooms are accessible to the handicapped. The plumbing fixtures in the Fire Department locker rooms are ADA accessible. However, in the Police Department locker rooms, they are not ADA accessible.
- b. The electric water coolers in the lobby are barrier free. However, the semi-recessed electric water coolers in the Police Department are not accessible.
- c. There are no handicapped accessible showers in either the Fire Department or Police Department locker rooms.
- d. There were no facilities for the handicapped in the cell area.

**2. General Maintenance Condition**

- a. The condition of the plumbing fixtures was good. There were no indications of faucets dripping and leaks. The fixtures are only 20 years old and should not require much maintenance or replacement.
- b. The present water distribution piping did not show signs of leaks and external corrosion. The piping is only 20 years old and there should be no internal corrosion in the piping system, which would reduce flow and pressure to the fixtures.
- c. The domestic hot water system was in good condition. There did not appear to be corrosion and leaks. There were no insulating unions that separated piping of dissimilar metals.
- d. The sewage pumps were in good condition.
- e. There was not any emergency eyewash in the boiler room.

**3. Recommendations and Conclusions**

- a. Utilities
  - 1.) The present sanitary building sewers has capacity for expansion and any additions would not require a new sanitary building sewer.
  - 2.) The present water supply is large enough for expansion. Any major additions would not require a new water service.
  - 3.) Any major additions would require new storm building sewers. The storm sewer system will have to be re-worked through retention basins to avoid direct discharge to the site.
- b. Although the plumbing fixtures in the locker rooms do not comply with current Water Conservation Standards, they need not be replaced in areas of major renovation.
- c. We would recommend barrier-free plumbing fixtures be considered in any addition or renovation project as the present fixtures do not comply with ADA ordinances.
- d. The present hot water system is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.

- e. We would recommend an emergency eyewash in the boiler room.
- f. We would recommend additional lavatories, water closets and hand held showers in the women's locker room of the Police Department.

## HVAC SYSTEM

### 1. Summary

- a. The present air distribution systems in the office and basement areas were installed in an era when indoor air quality and good ventilation took a back seat to energy conservation. The "shut-off" VAV system that currently serves the offices and basement areas does not meet today's ventilation codes. Any remodeled areas will need to be brought up to current codes. We recommend that the entire system be upgraded with new VAV reheat boxes and controls. This will improve comfort and indoor air quality. It will also help alleviate the present summer humidity problem.

### 2. Condition of Existing Systems

- a. The boilers, air handlers and air-cooled condensing units were all installed in 1978 and are about 23 years old. ASHRAE lists the average life expectancy of cast iron hot water boilers as being 30 years, and the remaining equipment as being 25 years.
- b. The equipment is nearing the end of its life expectancy, but appears to be in satisfactory condition. However, replacement rather than repair should be considered if this equipment fails.

### 3. Code and Operational Issues

- a. The present "shut-off" VAV air distribution system does not meet today's codes for ventilation and indoor air quality. Present codes allow VAV boxes to go 60% to 70% closed. To prevent the remaining 30% to 40% airflow from overcooling the spaces, hot water reheat coils are incorporated. Any remodeling of the present office spaces will require bringing the affected areas up to current ventilation codes, which will require resetting the minimums on the VAV boxes and adding reheat coils.
- b. Complaints of inadequate temperature control and high summer humidity levels prevail in this facility. Both problems stem from the fact that the VAV boxes have no ability to reheat the air they are delivering. If each room were able to be control the temperature as well as the volume of air delivered, comfort and indoor air quality would be improved. Also, a "dehumidification cycle" could be employed that would allow the air conditioners to run continuously at full capacity during humid weather. This would remove moisture from the building. To prevent overcooling, one of the boilers would operate to provide reheat control.
- c. The Apparatus Room requires a system to remove diesel exhaust fumes. These fumes rise and fill the room. The present exhaust is near the floor and was originally designed to remove carbon monoxide from gas engines. The City of Menasha is currently taking bids to install a vehicle exhaust system similar to "Plymovent", which would attach exhaust hoses to the fire engine exhaust pipes and exhaust fumes directly to the outdoors.

### 4. Recommendations

- a. Regardless of potential remodeling or expansion plans, we recommend that the present VAV shut-off boxes be replaced with new VAV boxes having integral hot water heating coils. This will not only upgrade the ventilation system to current codes, but improve temperature control, indoor air quality and humidity control.

- b. **Install the proposed vehicle exhaust system in the Apparatus room.**
- c. **A qualified Testing and Balancing Contractor should be hired to measure and adjust all supply and exhaust systems to assure that code required air exchange rates and outdoor air quantities are being maintained.**

## **ELECTRICAL**

### **1. ' Special Systems**

- a. **Recommendations - Police Department:**
  - 1.) **The elevator should be equipped with an ADA approved telephone and must have a designated telephone line for this phone. Provide fire fighter recall, which will require smoke detection in the lobby and on every floor. This will also require that the elevator controls would have to be upgraded.**

### **2. Wiring Devices**

- a. **Recommendations:**
  - 1.) **Provide weatherproof GFI receptacle within 25' of the rooftop unit.**
  - 2.) **Police interrogation room: Provide G4000 wire mold and additional receptacles and circuits for the Police Department.**
  - 3.) **Sally port: Since there are existing receptacles in the area from 18" to the floor, which is labeled as a Class I Division II area, and this code was in effect when this building was constructed, it would be recommended to abandon the existing receptacles and provide new surface mounted receptacles. These receptacles should be GFI type.**
  - 4.) **Police garage: It is recommended that the GFI outlets be replaced with a new GFI outlet. Leave cord reel for the Crime Scene Unit as is.**
  - 5.) **Fire Department:**
    - a.) **Kitchen: Due to the increased use of electrical devices in the kitchen area, it may be desired to provide additional receptacles. Change standard receptacle to be GFI type to comply with NEC and provide two additional GFI receptacles and connect each to a separate 20-amp circuit.**
    - b.) **Apparatus bay: Change the receptacles in the apparatus bay from standard receptacles to GFI type.**
    - c.) **Workshop area: Remove 24-volt telephone cabling from 120-volt raceway as this is a code violation.**

### **3. Switchgear**

- a. **Recommendations:**
  - 1.) **Leave the existing switchgear as it, since it is currently loaded at 45% of its capacity. There is room for additional breakers in the panels of the facility if desired.**

### **4. Panelboards**

- a. **Recommendations:**
  - 1.) **Provide two additional 42-circuit, 150 amp electrical panels for each office area (Police & Fire Department).**

5. Interior Lighting Fixtures

- a. Recommendations - Police Department
  - 1.) Change all existing T12 fluorescent type lighting to energy efficient T8 type. Provide dual level lighting and motion sensors.
  - 2.) Replace existing fluorescent exit lighting with new energy efficient, LED type. The lamps in these types of fixtures are built to last 10-20 years.
- b. Recommendations Fire Department:
  - 1.) Change all existing T12 fluorescent lighting to T8 type.
  - 2.) Exercise/sleeping rooms: Many times the sleeping areas of a fire station prefer to have nightlights. This is a light that is mounted approximated 12" off of the floor that provides light in case the fire fighters receive a call during nighttime hours. By providing this type of light fixture will not require overhead lights to be turned on.
  - 3.) Change the incandescent lighting in the restroom areas to be T8, fluorescent, wall mounted type fixtures.
  - 4.) Change the incandescent lighting in the apparatus bay/penthouse mezzanine area to 4' T8 fluorescent type industrial fixtures with wire guards.
  - 5.) Hose hoist: Provide wire guards on the fixtures to protect against a hose falling into the glass lamps.

6. Emergency Generator

- a. Recommendations:
  - 1.) It is recommended that this system stay as is. If the existing generator is replaced, this building would have to be brought up to code as previously mentioned. This would include the three transfer switches, and the rewiring of the existing circuits to accommodate the existing circuits throughout the building so they are tied into the appropriate transfer switch.

7. Fire Alarm System

- a. Recommendations:
  - 1.) If it is desired to upgrade the fire alarm system to be a newer Class B, 24 volt system which contains ADA compliant horns and strobes, and proper mounting heights of devices should be installed to comply with the ADA code. The existing 120-volt system can remain, but if an upgrade is desired, this ;system should be replaced as stated.

8. Data Distribution System

- a. Recommendations:
  - 1.) Replace the existing data cabling throughout the facility with plenum rated, category 5e or category 6 cable.

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

## **DEPARTMENT INTERVIEWS - FIRE DEPARTMENT**

**Purpose:** Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

**Representatives:** Patrick O'Brien, Fire Chief  
Steve DeLeeuw, Deputy Chief

**Discussion / Notes:**

- **Main fire station is located in the Public Protection building on First Street. Fire Station #2 is located on Airport Road. It may be desirable to relocate one of the fire stations to an area where the city is planned to grow.**
- **Separate staff is assigned to each of the two stations:**  
Staff-
  - 1 Fire Chief**
  - 1 Deputy Chief**
  - 27 Members**

**There are three (3) shifts with nine (9) members per shift. There are six (6) at the main station, and three (3) at station #2.**

**Cadet Program: This adds two (2) people per shift for 8 months of the year. One (1) cadet is assigned to each of the stations.**
- **Possible new equipment would be a Quint unit. This would be added at the main station and would add one (1) staff member.**
- **Issues at the main station:**
  - **Parking is a critical issue due to a tight site.**
  - **Pedestrian safety is an issue when fire trucks are exiting. The public library is directly adjacent.**
  - **There are some plan issues with the layout of the kitchen, dining and dayroom areas.**
- **Issues at station #2:**
  - **Additional space is needed in the kitchen and dining/recreation areas.**
  - **The dormitory is larger than needed.**
  - **A conference room would be desirable; the office area is small.**
  - **The apparatus room should be expanded to the west.**
- **A new vehicle exhaust system is planned to be installed at each station.**
- **The department is responsible for their own building maintenance.**
- **It was suggested that property for a future station should be acquired as early as possible.**
- **The department does provide First Responders. The department does not provide EMS (Emergency Medical Service). This is provided by Gold Cross.**

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

## DEPARTMENT INTERVIEWS - POLICE DEPARTMENT

Purpose: Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

Representatives: Robert Stanke, Police Chief  
Michael Brunn, Operations

Discussion / Notes:

- A more central location for the Police Department is desired. The site should be located further north and east for improved response time. The size of the present site is an issue. The present site has no room for future expansion.
- Parking for the staff is inadequate. Visitor parking is adequate.
- Staff:
  - 33 Officers at present; 40 officers future
  - 5 Community Service, part-time
  - 12 Auxiliary
  - 6 Clerical, full-time
  - 2 Clerical, part-time
- Evidence processing and storage is very inadequate. Various functions for evidence are not located in the same area and are not secure. Need area for processing vehicles. Need evidence storage for large items and bicycles. Need garage area for crime scene unit.
- Larger lockers for clothes, uniforms and toiletry items.
- Storage units for training information and binders.
- The women's locker/toilet/shower area is very inadequate.
- Need for separate offices and additional work area in investigation services. Need for a conference room, interview rooms and storage rooms.
- Storage space is needed throughout the facility.
- The intake, processing, holding cell area needs to be code compliant.
- It would be desirable to utilize a flexible wall system in order to adapt for future needs.
- The police auxiliary presently uses a basement storage room.
- The patrol division office area is inadequate for the number of users.

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

**PUBLIC PROTECTION FACILITY-FIRE / POLICE - Square  
 Footage Assessment**

Area	Existing SF	Proposed SF	Comments
<b>Main Fire Station</b>			
Chief	250	250	
Conference	225	225	
Deputy Chief	165	165	
Copy / Computer	150	150	
Storage	100	100	
Janitor	20	20	
Men's Toilet	30	80	ADA
Women's Toilet	30	80	ADA
Captain	160	160	
Shower / Toilet	170	170	
Ante	90	90	
Locker	220	220	
Women's Locker / Shower / Toilet	115	115	
Dormitory	715	800	
Dining	305	305	} Reconfigure
Kitchen	255	255	
Dayroom	410	410	
Exercise	155	200	
Tool Room	190	190	
Shower	45	45	
Janitor	20	20	
Turnout Gear	180	180	
Hose / Stair	215	215	
Mezzanine / Mechanical	970	970	
Apparatus	4,460	4,460	
Storage	150	150	
Subtotal	9,795	10,025	

Facilities Assessment for City of Menasha

Public Protection Facility-Fire / Police - Square Footage Assessment (Page 2)

March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<b><i>Police Department</i></b>			
Vestibule	75	75	Shared with Fire Department
Lobby	520	520	Shared with Fire Department
Men's Toilet	60	80	Shared with Fire Department
Women's Toilet	60	80	Shared with Fire Department
Complaint Clerk	220	220	
Complaint Clerk / Records	380	380	
Copy / Work	110	110	
Patrol Lieutenant	185	185	
Chief	275	275	
Operations	175	175	
Storage	45	45	
Conference	75	75	
Waiting	45	45	
Men's Toilet	50	80	ADA
Women's Toilet	50	80	ADA
Interview	55	55	Support services
Interview	55	55	Support services
Conference	120	120	Support services
Traffic	245	245	Support services
Crime Prevention	135	135	Support services
Investigation Lieutenant	120	120	Investigations
Interview	55	55	Investigations
Interview	55	55	Investigations
Open Offices (3)	570	650	Investigations
Patrol	295	295	
Interview	50	50	
Toilet	35	80	ADA
Janitor	20	20	
Garage	1,485	1,485	Change Evidence to Auto Impound
Evidence	380	800	Relocate emergency generator
Sally Port	390	390	
Identification	100	100	
Female Hold (1)	130	130	
Booking	235	235	
Shower	25	25	
Toilet	35	80	
Male Hold (5)	<u>360</u>	<u>360</u>	Reconfigure to code
Subtotal	7,275	7,965	

Facilities Assessment for City of Menasha  
 Public Protection Facility-Fire / Police - Square Footage Assessment (Page 3)  
 March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<b>Basement</b>			
Range	1,475	1,475	
Control	50	50	
Storage	25	25	
Gun Room	40	40	
Elevator Equipment	70	70	
Briefing	210	210	
Kitchen / Lounge	175	175	
Men's Toilet / Shower	145	600	Combined (Assume 60% men)
Men's Locker	430		
Women's Toilet / Shower	70	400	Combined (Assume 40% women)
Women's Locker	105		
Auxiliary Police	200	200	10-12 people
Mechanical	310	310	
Exercise	250	250	
Training	505	505	Emergency Gov't / Fire Dept. use
Storage	30	30	
Telephone Equipment	90	90	
Library	110	110	
CRT	285	285	
Radio Equipment	75	75	
Storage	0	300	
Subtotal	4,650	5,200	
Total Net Square Feet	21,720	23,190	
Existing Gross Square Feet	30,260		
Grossing Factor for Proposed (1.35)		31,310	

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

## FIRE STATION NO. 2

### ARCHITECTURAL

1. The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.
2. Building Type/Use
  - a. The Menasha Fire Station No. 2 is a single-story building with a basement, except under the apparatus room. The fire station has three (3) apparatus bays, an office area, eating and sleeping quarters, and toilet facilities on the first floor. The basement has an exercise area, recreation area, storage, and the mechanical room.
  - b. The building was constructed in 1963.
3. Site Description
  - a. The site is located on the corner of Appleton Road (State Highway 47) and Airport Road. The size of the site is 16,000 SF and the building footprint is 4,950 SF. The front of the building faces Airport Road with a setback of 45'.
  - b. There are five (5) paved parking stalls at the front of the building and a concrete drive to the apparatus bays.
4. Evaluation of Structure and Systems
  - a. There are no ADA compliant toilet facilities in the building.
  - b. There is evidence of exterior wall movement in the apparatus room at the northwest corner and at the west exit door.
  - c. There are two (2) stairways serving the basement. The stairway at the southeast corner is an open exterior stairway with no roof. It was noted that there are water leak issues at this location.
  - d. The interior walls and finishes are generally in good serviceable condition. There are areas in the apparatus room that are soiled from diesel exhaust.
5. Recommendations / Improvements
  - a. Provide ADA compliant toilet facilities.
  - b. Repair the areas of wall movement in the apparatus room.
  - c. Identify the water leak source at the southeast stairway and correct the condition.
  - d. Improve the energy efficiency of the exterior walls.
  - e. It was noted that the roof needs to be replaced.

## **PLUMBING**

### **1. Barrier Free Requirements**

- a. **None of the plumbing fixtures in the toilet rooms or locker rooms are accessible to the handicapped.**
- b. **The electric water cooler in the lounge is not barrier free.**
- c. **There are no handicapped accessible showers.**

### **2. General Maintenance Condition**

- a. **The condition of the plumbing fixtures was good. There were no indications of faucets dripping and leaks. The fixtures will require constant maintenance and replacement.**
- b. **The present water distribution piping did not show signs of leaks and external corrosion. The piping was in good condition and was insulated.**
- c. **The domestic hot water system was in good condition. However, there did appear to be corrosion. There were no insulating unions that separated piping of dissimilar metals.**

### **3. Recommendations and Conclusions**

- a. **Utilities**
  - 1.) **The present sanitary building sewer has capacity for expansion and a new sanitary building sewer would not be required.**
  - 2.) **The present water supply is not large enough for expansion. Any major additions would require a new water service.**
  - 3.) **Any major additions would require new storm building sewers. The storm sewer system will have to be re-worked through retention basins to avoid direct discharge to the site.**
- b. **The plumbing fixtures do not comply with current Water Conservation Standards, but would be acceptable unless major renovations are planned.**
- c. **We would recommend a uni-sex barrier free toilet room and a handicapped accessible shower in each locker room.**
- d. **The present hot water systems is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.**
- e. **Any renovation to the present kitchen would require a grease separator.**

## **HVAC SYSTEMS**

### **1. Summary**

- a. **If this facility is to continue to be used, improvements to the Apparatus Room ventilation system should be made.**
- b. **Although the cast iron furnace itself will last indefinitely, the multizone system has some comfort issues (high summer humidity levels) that are inherent to this type of system. Rather than replacing major components, if they fail in the future, we would recommend replacing the system with individual furnaces.**

### **2. Condition of Existing Systems**

- a. **ASHRAE lists the life expectancy of air cooled condensing units and gas fired duct furnaces as being 15 years. This equipment is 37 years old and beyond its useful life expectancy.**

- b. **Little can go wrong with a cast iron furnace. Refractory tiles need to be replaced periodically and the cast iron heating sections need to have their joints caulked to prevent air leakage. The gas burner, a standard component, has an expected life of 15 years.**
  
- 3. **Code and Operational Issues**
  - a. **A review of the original HVAC plans indicates that the systems were originally designed to provide airflow and outdoor air ventilation rates that will meet today's codes. A qualified Testing and Balancing Contractor should be hired to measure and adjust all systems to assure that code required outdoor air and exhaust ventilation rates are in fact being maintained.**
  
- 4. **Recommendations**
  - a. **The present gravity ventilators that exhaust the Apparatus room should be converted to power exhaust.**
  - b. **The gas fired make-up air units in the Apparatus room air presently being cycled from room thermostats. When the units are off, no make-up air is being brought in, regardless of CO levels. A carbon monoxide sensing system should be installed that will allow the system to function whenever CO levels rise.**
  - c. **A vehicle exhaust system, similar to Plymovent, should be installed to directly exhaust diesel fumes from the apparatus tailpipes.**
  - d. **Summer humidity is difficult to control with a multizone system. During the summer, the "hot deck" becomes a mixture of return air and humid outdoor air that bypasses the cooling coil. If the present condensing unit or gas burner were to fail, we would recommend investigating replacing the present system with four single zone high efficiency gas fired furnaces with air cooled condensing units.**

## **ELECTRICAL**

- 1. **Wiring Devices**
  - a. **Recommendations**
    - 1.) **Change standard receptacles in the apparatus area to be GFI type.**
    - 2.) **Provide GFI receptacles in the bathroom areas for cleaning purposes.**
    - 3.) **Provide six additional receptacles in the dayroom area to eliminate the use of power strips. Circuit these six receptacles among two 20 amp circuits.**
    - 4.) **Kitchen: Replace existing outlets with GFI protected outlets and also provide two additional receptacles connected to a 20 amp circuits due to the limited number of receptacles in the kitchen area.**
    - 5.) **Locker room receptacle: Change receptacle to be GFI protected.**
    - 6.) **Change standard receptacles in basement area to GFI type.**
  
- 2. **Panelboards**
  - a. **Recommendations**
    - 1.) **The minimum of 3' of clearance in front of the panels is not obtained, since you have to stand on the cover of the sump pump to work on the electrical gear. This existing electrical gear should be relocated to accommodate the clearance as indicated in the NEC section 110-26.**

3. Interior Lighting-Fixtures

a. Recommendations:

- 1.) Replace the existing T12 fluorescent lighting with newer energy efficient T8 type.
- 2.) Provide wire guards on light fixtures in the apparatus bay.
- 3.) Map light: Provide a fluorescent light over this map to provide for brighter light quality.
- 4.) Replace the existing light fixtures in the sleeping area with new.
- 5.) The exit lights should be changed from incandescent and fluorescent type to more energy efficient LED type. Manufacturers indicate that the LED of this type of fixture will last 10-20 years.
- 6.) Exercise area: Change the incandescent lighting to fluorescent lighting.

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

**DEPARTMENT INTERVIEWS - FIRE DEPARTMENT**

**Purpose:**                    **Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.**

**Representatives:**    **Patrick O'Brien, Fire Chief  
Steve DeLeeuw, Deputy Chief**

**Discussion / Notes:**

- **Issues at station #2:**
  - **Additional space is needed in the kitchen and dining/recreation areas.**
  - **The dormitory is larger than needed.  
A conference room would be desirable; the office area is small.**
  - **The apparatus room should be expanded to the west.**
- **A new vehicle exhaust system is planned to be installed at each station.**
- **The department is responsible for their own building maintenance.**
- **It was suggested that property for a future station should be acquired as early as possible.**
- **The department does provide First Responders. The department does not provide EMS (Emergency Medical Service). This is provided by Gold Cross.**

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

## FIRE STATION #2 - Square Footage Assessment

Area	Existing SF	Proposed SF	Comments
<i>First Floor</i>			
Vestibule	65	65	
Office	160	160	
Toilet	20	80	
Kitchen	80	120	
Dining / Day Room	385	400	
Dormitory	715	600	
Lockers	390	390	
Toilet	100	100	
Shower	60	60	
Mud Shower	25	25	
Apparatus	2,385	2,385	
Subtotal	4,385	4,385	

Area	Existing SF	Proposed SF	Comments
<i>Basement</i>			
Storage / Exercise	570	570	
Boiler	390	390	
Recreation / Storage	805	805	
City Files	390	390	
Subtotal	2,155	2,155	

Total Net Square Feet      6,540      6,540

Existing Gross Square Feet      7,425      7,425

Grossing Factor for Proposed (1.15)

Note: Interior insulation was added in living areas.

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

## SENIOR CENTER

### ARCHITECTURAL

1. The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.
2. Building Type/Use
  - a. The City of Menasha Senior Center is a single-story building with a partial basement. The first floor functions include administrative offices, a serving kitchen, multi-purpose room and activity rooms. The basement is primarily used for storage and also includes a mechanical room.
  - b. The building was constructed in 1981.
3. Site Description
  - a. The Senior Center is located in the downtown area on Main Street. The lot size is approximately 32,000 SF with a building footprint of 4,100 SF.
  - b. The main entrance to the building is on the west side. This is also the drop-off area. There is no parking immediately adjacent to the drop-off area.
  - c. There are three (3) ADA designated parking stalls at the rear of the building. General parking is available in the public parking lot just to the north of the building. Parking is also available on Main Street.
  - d. Building expansion potential would be towards the south or front side if zoning ordinances permit this.
4. Evaluation of Structure and Systems
  - a. The toilet rooms are not ADA compliant.
  - b. It would be desirable to have parking directly adjacent to the drop-off area and main building entrance.
  - c. There are a number of water stained acoustic ceiling tile in the Multi-Purpose Room.
  - d. The exterior of the building is generally in good condition. There is no evidence of any structural issues.
  - e. The interior walls and finishes are in good serviceable condition.
5. Recommendations / Improvements
  - a. Provide ADA compliant toilet facilities.
  - b. It would be desirable to provide parking closer to the main building entrance. Site constraints on this side would not allow for any reasonable parking.

## PLUMBING

1. Barrier Free Requirements
  - a. None of the plumbing fixtures in the toilet rooms are accessible to the handicapped.
  - b. The electric water cooler in the Commons is barrier free.
  
2. General Maintenance Condition
  - a. The condition of the plumbing fixtures was good. The fixtures are not high quality and will require constant maintenance and replacement.
  - b. The present water distribution piping in the Senior Center did not show signs of leaks and external corrosion. The piping is more than 20 years old and it can be anticipated that there would not be internal corrosion in the piping system.
  - c. The electric water cooler in the Commons is barrier free.
  - d. The domestic hot water system in the Senior Center was in good condition. There did not appear to be corrosion and leaks. There were no insulating unions that separated piping of dissimilar metals.
  - e. The kitchen is for minimum food preparation and clean up.
  
3. Recommendations and Conclusions
  - a. Utilities

The present sanitary building sewer for the Senior Center has capacity for expansion and any additions would not require a new sanitary building sewer. The present water supply for the Senior Center is not large enough for expansion. Any major additions would require a new water service.
  - b. The plumbing fixtures in the Senior Center do not comply with current Water Conservation Standards and should be replaced in areas of major renovation.
  - c. We would recommend the toilet rooms be remodeled to allow for barrier-free plumbing fixtures.
  - d. The present hot water systems for the Senior Center is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.
  - e. Any renovation to the present kitchen would require a new four-compartment sink and grease separator.

## HVAC SYSTEM

1. Summary
  - a. The present furnace systems and air conditioning units are old and inefficient. It is recommended that they be replaced with modern, high efficiency units.
  
2. Condition of Existing Svstems
  - a. The furnace serving the main hall is 20 years old and beyond its ASHRAE life expectancy of 15 years.
  - b. The office furnace was replaced several years ago.
  - c. Both furnaces are low efficiency units with chimney venting and requiring combustion air to be ducted to the furnace room.
  - d. Both air conditioning condensing units are 20 years old and beyond their theoretical useful lives.

3. Code and Operational Issues

- a. Present codes no longer allow toilet exhaust fans to be interlocked with room light switches if air is being supplied to the toilets by the furnaces. If the fan exhaust is off, odors will be driven into adjoining rooms by the furnace supply.
- b. The range hood should be ducted to the outdoors to exhaust cooking odors. No "grease" cooking can be done in the kitchen without providing a commercial kitchen exhaust hood.

4. Recommendations

- a. Replace both furnaces with new high efficiency sealed combustion units. Operating efficiency will increase from 65% or 70% to over 90%.
- b. Replace both condensing units with new high EER units. Present units are probably about 8 EER. New units would be about 11 EER.
- c. Disconnect supply air to toilet rooms. Provide electric heaters.
- d. Provide a new range hood with duct to the exterior.
- e. A qualified Testing and Balancing Contractor should be hired to measure and adjust the furnace and exhaust systems to assure that code required airflow rates and outdoor air quantities are being maintained.

## ELECTRICAL

1. Wiring Devices

- a. Recommendations:
  - 1.) We would recommend changing the existing standard receptacles in the kitchen area to be GFI type to comply with latest NEC code. Provide lexan or nylon device plates. These plates offer more durability than standard plastic plates.
  - 2.) Due to the lack of receptacles throughout this facility and to omit the use of power strips, it is suggested to provide four additional receptacles per room connected to a separate 20 amp circuit and eight additional receptacles in the large meeting room connected to two additional 20 amp circuits.
  - 3.) Provide additional exterior weatherproof GFI receptacle near the condensing units.
  - 4.) Change out the exterior outlets to be GFI protected as stated per code and provide die-cast covers for durability.
  - 5.) Change the existing receptacles in the bathroom areas to GFI type.

2. Panelboards

- a. Recommendations:
  - 1.) It appears that this service is adequately sized for this facility and does have sufficient space in the existing panelboard to provide the additional circuits that have been indicated. Leave the existing panel as is and provide additional circuits.

3. Interior Lightiniz Fixtures

a. Recommendations:

- 1.) The lighting level in many of the areas, such as the meeting room and the large gathering area are extremely low. Since the elderly are participating in these areas, it may be difficult for them to see crafts that they are working on. Therefore it may be desired to increase the lighting level and increasing the fixtures from T12 fluourescent lighting to more energy efficient T8 fluourescent type.
- 2.) Change the existing inefficient incandescent exit lights to new LED type exit lighting and provide battery backup on the exit lights. The lamp life of the LED type fixture is much longer; i.e. the incandescent type will require several lamp changes per year, whereas the LED type fixture has a life span of 10-20 years.
- 3.) Dual level lighting and motion detectors should be incorporated to comply with the latest State energy code.
- 4.) Emergency battery backed lights: The existing battery pak lights can remain; however in several areas either the lamps or the batteries are inoperative. These fixtures should be replaced with new lamps and batteries.

4. Data Distribution System

a. Recommendations:

- 1.) Leave the existing file server as is. Provide additional flush mounted data outlets throughout the facility as required.

CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION

## DEPARTMENT INTERVIEWS - SENIOR CENTER

Purpose: Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

Representatives: Sue Nett, Director  
Sylvia Bull, Coordinator

### Discussion / Notes:

- The Senior Center is located on Main Street in the downtown area. This is considered to be an appropriate location as it is easily accessible to the users.
- Staff -
  - I Director
  - 1 Coordinator
  - 2 Activity Coordinators (share full-time position)
  - VolunteersStaff needs would increase in proportion to the number of users.
- The reception window is in the wrong location. It is in the vestibule between the doors. Need an appropriate space to meet and greet guests and families.
- The lobby seating area is now in front of the coat racks. The communication board or tackboard is behind the coats and not easily accessible.
- A work room at the office area is needed for a work table, copy machine, fax, office supplies.
- The size of the coordinator office should be increased to accommodate side chairs and room for families to consult. The office presently has a counter with a sink, which is not needed.
- The Multi-Purpose room is used for eating, parties, bingo, card playing, guest speakers, dancing, various social functions, voting pole, etc. They have accommodated up to 77 people.
- It would be desirable to have a folding wall in the Multi-Purpose room, which would more easily serve for separate functions at one time.
- A gift/craft case and a six (6) station computer area is also located in the Multi-Purpose room. A separate space is needed for these functions.
- The kitchen is primarily a serving kitchen. The food is prepared as Park View Health Center and delivered in bulk. Minor food preparation is done here for parties.
  - The dishwasher is a portable unit and is generally in the way for working in the kitchen.
  - Food preparation classes are held in the kitchen. This is usually for eight (8) people at a time.
  - Disposable plates and utensils are used. These are stored in the basement. It is desirable to have at least a week supply in the kitchen.
  - Noon meals are typically served to twenty-five (25) people. This number could increase. Food is plated by staff. The serving line should be longer to be more efficient.
- There is a minimum of storage on the first floor. The Janitor/Storage room is used mostly for janitor equipment and supplies. The floor buffer is now stored in the men's toilet room.
- Storage space on the first floor is needed. Items such as the popcorn machine and bingo equipment is now stored in the Multi-Purpose room.
- The use of the pool table has dropped. This room is now also used for the writing club and other meetings.

The activities room is used for the sewing class, playing cards, speaker presentations for 25 - 30 people, health screening, income tax consulting, TV room. Supplies, tables and chairs are also stored in this room.

Storage space for supplies, tables, chairs and other equipment is needed.

Mail is delivered to the center from City Hall.

Basement storage area is used for the ADVOCAP group for storing seasonal items, supplies and records.

Due to the location of parking, the back exit door would serve better as the main entrance.

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

## SENIOR CENTER - Square Footage Assessment

Area	Existing SF	Proposed SF	Comments
<i>First Floor</i>			
Vestibule	35	60	
Lobby / Coats	180	180	
Waiting	0	100	
Reception	95	120	
Coordinator	110	200	
Multipurpose	1,910	1,910	Folding partition
Storage	0	120	
Computers	0	100	
Crafts	0	80	
Kitchen	135	200	
Women	150	190	
Men	145	185	
Janitor / Storage	90	150	
Pool	225	300	
Activities	345	500	
(Activities Storage	0	120	
Subtotal	3,420	4,515	

Area	Existing SF	Proposed SF	Comments
<i>Basement</i>			
Mechanical Equipment	260	260	
Storage	730	730	
Subtotal	990	990	

Total Net Square Feet      4,410      5,505

Existing Gross Square Feet      5,390

Grossing Factor for Proposed (1.25)      6,880

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

## **MEMORIAL BUILDING**

### **ARCHITECTURAL**

1. **The purpose of this report is to document the building condition and give a general assessment of the structure and building components both interior and exterior and to identify building code and ADA accessibility issues.**
2. **Building Type/Use**
  - a. **The Menasha Memorial Building is a two-story building with a partial basement. The first floor is presently used for "Tiny Tots" a child recreation program in the west area and the Historical Society occupies the area east of the main lobby. The second floor is used for banquets, private and community meetings and dances. The basement is used for storage and also contains a mechanical room.**
  - b. **The Memorial Building was constructed in 1928 and is on the Historical Register.**
3. **Site Description**
  - a. **The Memorial Building site is located in Keyes Street and is a park-like site. The Fox River borders the site on the north. Across Keyes Street to the south is a city park named Smith Park. There is a boat landing to the east, and a residential area to the west. The area to the east of the boat landing is also residential.**
  - b. **The site contains 23.34 acres and the building footprint is 3,455 SF.**
  - c. **The site is enhanced with pedestrian walkways and footbridges to Picnic Island on the Fox River.**
  - d. **There is a minimum amount of on-site parking in the turn-around drive in front of the building.**
  - e. **There is no designated ADA parking; however, there are curb cut ramps to the main entrance.**
4. **Evaluation of Structure and Systems**
  - a. **There are not ADA compliant toilet facilities. The toilet fixture count may not be adequate for the people capacity of the building.**
  - b. **There are not fire rated enclosed stairways from the second floor to serve as legal exits.**
  - c. **There is no elevator to provide ADA accessibility to the second floor.**
  - d. **The exterior of the building is generally in good condition. Some tuck pointing of the face brick is needed.**
  - e. **It would be desirable to improve the cosmetics of the interior walls and finish.**
  - f. **The building was re-roofed in 1999 with asphalt fiberglass shingles on the pitched roof areas. The flat roof areas were re-roofed in 1994 with an adhered EPDM roofing system.**

5. Recommendations / Improvements

- a. Provide ADA compliant toilet facilities and verify the toilet fixture count based on the use of the building.
- b. Provide fire rated stairway enclosures.
- c. Provide elevator access to the second floor.
- d. Update the interior finishes.
- e. Perform the necessary exterior tuck pointing.
- f. Provide on-site ADA parking stalls.

PLUMBING

1. Barrier Free Requirements

- a. None of the plumbing fixtures in the toilet rooms are accessible to the handicapped.

2. General Maintenance Condition

- a. The condition of the plumbing fixtures was poor. There were indications of faucets dripping and leaks. The fixtures are over 30 years old and will require constant maintenance and replacement.
- b. The present water distribution piping did show signs of leaks and external corrosion. The piping is more than 30 years old and it can be anticipated that there would be internal corrosion in the piping system, which would reduce flow and pressure to the fixtures.
- c. The domestic hot water heater was in poor condition. There appeared to be corrosion and leaks. There were no insulating unions that separated piping of dissimilar metals.
- d. Any drains in the basement appeared to drain to the gravel below the floor.

3. Recommendations and Conclusions

- a. Utilities:
  - 1.) The present sanitary building sewer for the Memorial Building has capacity for expansion and any additions would not require a new sanitary building sewer. However, any below grade levels would require a sewage ejector.
  - 2.) The present water supply is not large enough for expansion. Any major additions would require a new water service.
- b. The plumbing fixtures do not comply with current Water Conservation Standards and should be replaced.
- c. The toilet rooms can not be converted to handicapped facilities and we would recommend barrier-free plumbing fixtures be considered in any addition or renovation project.
- d. The present hot water system is not energy efficient and does not have capacity for expansion. A new energy efficient hot water system would be required.

HVAC

1. Summary

- a. Extensive mechanical modifications may be necessary if this building is remodeled or otherwise used as an occupancy other than a "place of worship, entertainment or recreation which accommodate less than 100 occupants". It would be extremely difficult to install air handling equipment, ductwork, [etc. in](#) this building while maintaining its present appearance.

2. **Condition of Existing Systems**

- a. The exact age of the present boiler is not known, although it has obviously been in service for a long time.
- b. Piping connecting to the boiler is leaking. Both the piping and boiler show signs of deterioration.

3. **Code and Operational Issues**

- a. Present codes allow the use of openable windows as a means of satisfying ventilation requirements only in "places of worship, entertainment or recreation, which accommodate less than 100 occupants". Technically, the present use of the building does not allow for the use of openable windows as the means of ventilation. A mechanical ventilating system is required. The building, as is, may be "grandfathered", but any remodeling or change of use of the building will require that a mechanical ventilation system be installed that will bring in code required fresh air for ventilation.
- b. Gravity toilet exhaust is no longer acceptable.

4. **Recommendations**

- a. The installation of a mechanical ventilating system or systems will allow code required fresh air to be delivered to the building. It Will also allow air conditioning to be added. The fact that the building is on the historical register complicates and limits the options, as the appearance of the building cannot be altered (exposed equipment, louvers, etc.).
- b. The boiler should be replaced, regardless of remodeling or expansion plans.

**ELECTRICAL**

1. **Wiring Devices**

- a. **Recommendations:**
  - 1.) The existing facility is lacking in receptacles. Many of the existing receptacles should be removed since they are in poor shape after wear and tear over the years.
  - 2.) Since many of the walls in this facility are solid concrete, a majority of the newer outlets are surface mounted utilizing wiremold. Additional outlets should be provided throughout the facility. Since additional outlets are being added, additional panelboards may also need to be incorporated.

2. **Panelboards**

- a. **Recommendations:**
  - 1.) If air-conditioning is to be added to this facility, it is recommended to change the existing 225-amp service to a 400 or 600 amp, 3-phase, 4-wire service. The service should be routed underground from the power pole to the facility. The existing electric gear should be replaced with new, and two additional 84-circuit panelboards should be installed throughout the facility. We also recommend replacing the existing fusible panel that is located on the second floor with more modern equipment.

3. Interior Lighting Fixtures

a. Recommendations:

- 1.) Since this facility is on the historical preservation list, the fixtures should match the decor of the facility, therefore more elaborate type light fixtures should be utilized, or more flush mounted fixtures used so the fixtures will not be so revealing. If a modern, strip-type light fixture is to be used, provide a flush mounted type fixture so that it can be more concealed.
- 2.) Exit lights: Replace existing incandescent exit lights with new LED type.
- 3.) Basement lighting: Change existing porcelain socket lighting to industrial type fluorescent with wire guards.
- 4.) Provide emergency egress battery pak lighting.

4. Fire Alarm System

a. Recommendations:

- 1.) If this facility is to continue to be used as it presently is, it must include a fire alarm system; including smoke detection devices in all corridor areas, and pull stations at all exits. Since this is also used as a gathering space, this facility will also be required to contain a fire alarm or sprinkler system.
- 2.) Today, the fire alarm system would not need to be installed in conduit, but it is suggested, to protect the fire alarm cabling, that it be installed in metal wire mold or EMT conduit.

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550  
EXISTING BUILDING EVALUATION**

**DEPARTMENT INTERVIEWS - COMMUNITY DEVELOPMENT  
PARKS & RECREATION**

**Purpose:** Develop a space needs program of square feet required for each department and each space within the department. Obtain general staff input and comments.

**Representatives:** Greg Keil, Director of Community Development  
Brian Tungate, Director of Parks & Recreation  
Kristi  
Jessica

**Memorial Building:**

- Kitchen facilities would be desirable.
- Tiny Tots is limited use Monday through Thursday.
- Used for club meetings, dance programs, exercise.
- ADA accessibility to the second floor and ADA compliant toilet facilities are needed.
- It would be good to have a year-round daily presence by some means.
- Windows were replaced 10 - 15 years ago.
- Toilets accessible from the outside would be preferred.
- Public Works maintains the building.
- Parks & Recreation manages the facility.

FACILITIES ASSESSMENT FOR  
 CITY OF MENASHA  
 MENASHA, WISCONSIN  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

March 7, 2002 / Revised March 14, 2002

**MEMORIAL BUILDING - Square Footage Assessment**

Area	Existing SF	Proposed SF	Comments
<b><i>First Floor</i></b>			
Day Care			
Vestibule	40	40	
Girls' Toilet	85	85	
Girls' Lounge	50	50	
Boys' Toilet	90	90	
Lobby	305	305	
Lunch Area	290	290	
Storage	80	80	
Office / Work	170	170	
Vestibule	105	105	
Storage	140	140	
Activity	265	265	
Coats	70	70	
Storage	65	65	
Historical Society	1,170	1,170	
Elevator / Stair / Toilets	0	780	
Subtotal	2,925	3,705	

Area	Existing SF	Proposed SF	Comments
<b><i>Second Floor</i></b>			
Community Room	2,000	2,000	
Elevator / Stair / Toilets	0	780	
Subtotal	2,000	2,780	

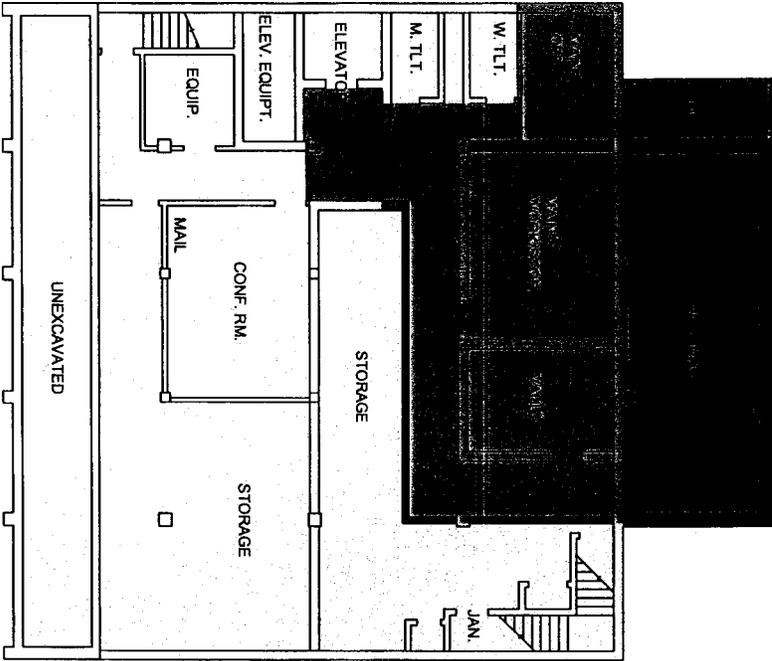
Facilities Assessment for City of Menasha  
 Memorial Building - Square Footage Assessment (Page 2)  
 March 7, 2002 / Revised March 14, 2002

Area	Existing SF	Proposed SF	Comments
<b><i>Basement</i></b>			
Storage	290	290	
Boiler	140	140	
Storage	<u>360</u>	<u>360</u>	
Subtotal	790	790	

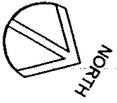
Total Net Square Feet 5,715

Existing Gross Square Feet 6,875

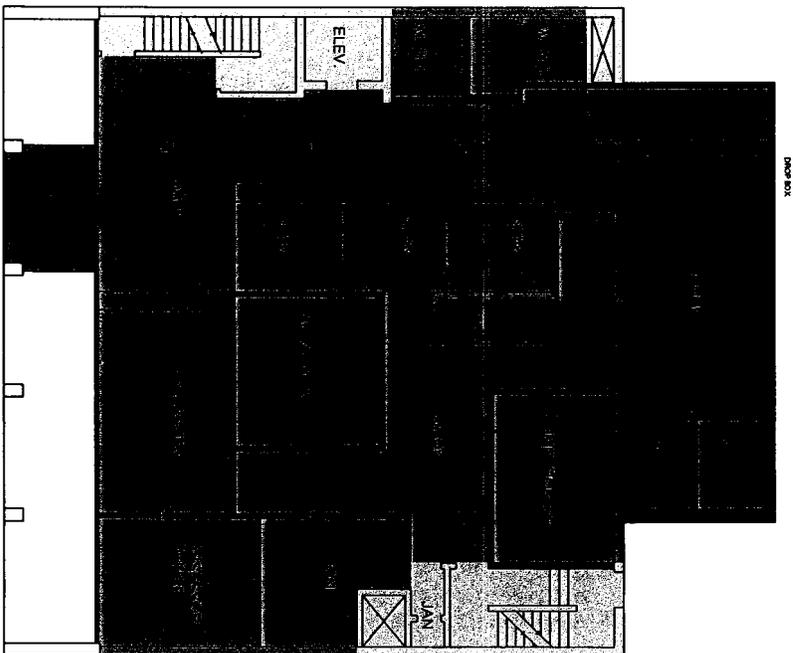
Proposed Gross Square Feet 8,435



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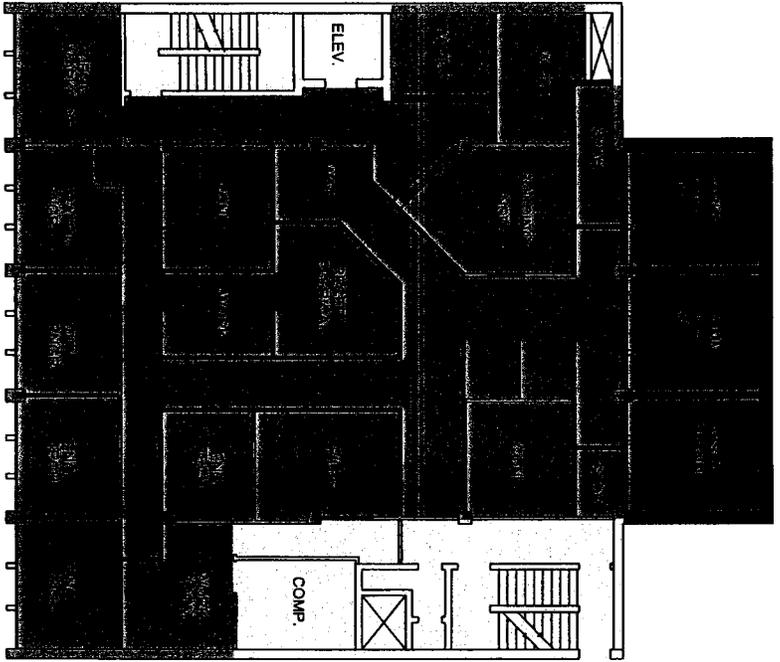
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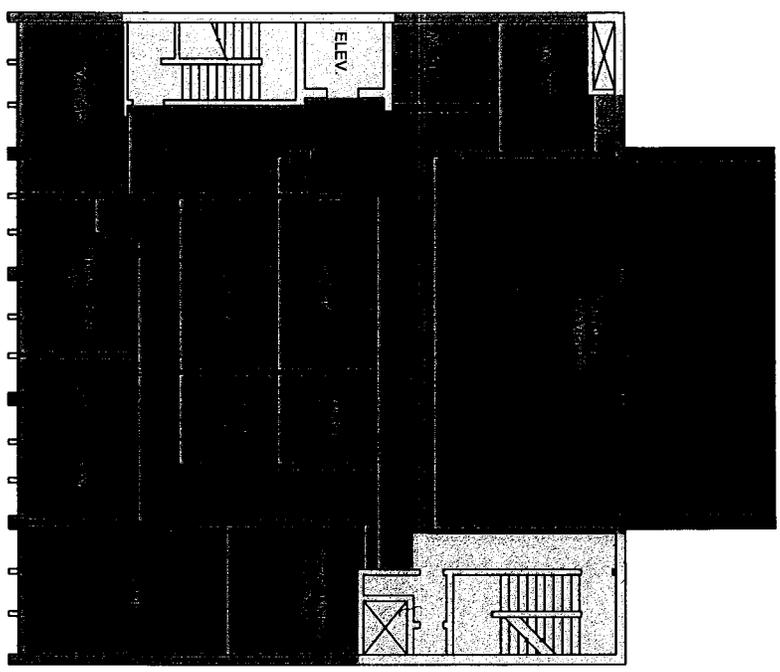
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SCHEMATIC SECOND FLOOR PLAN

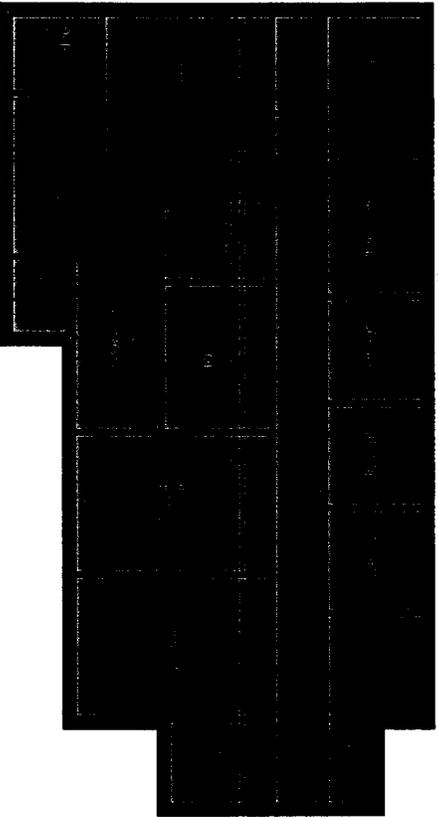


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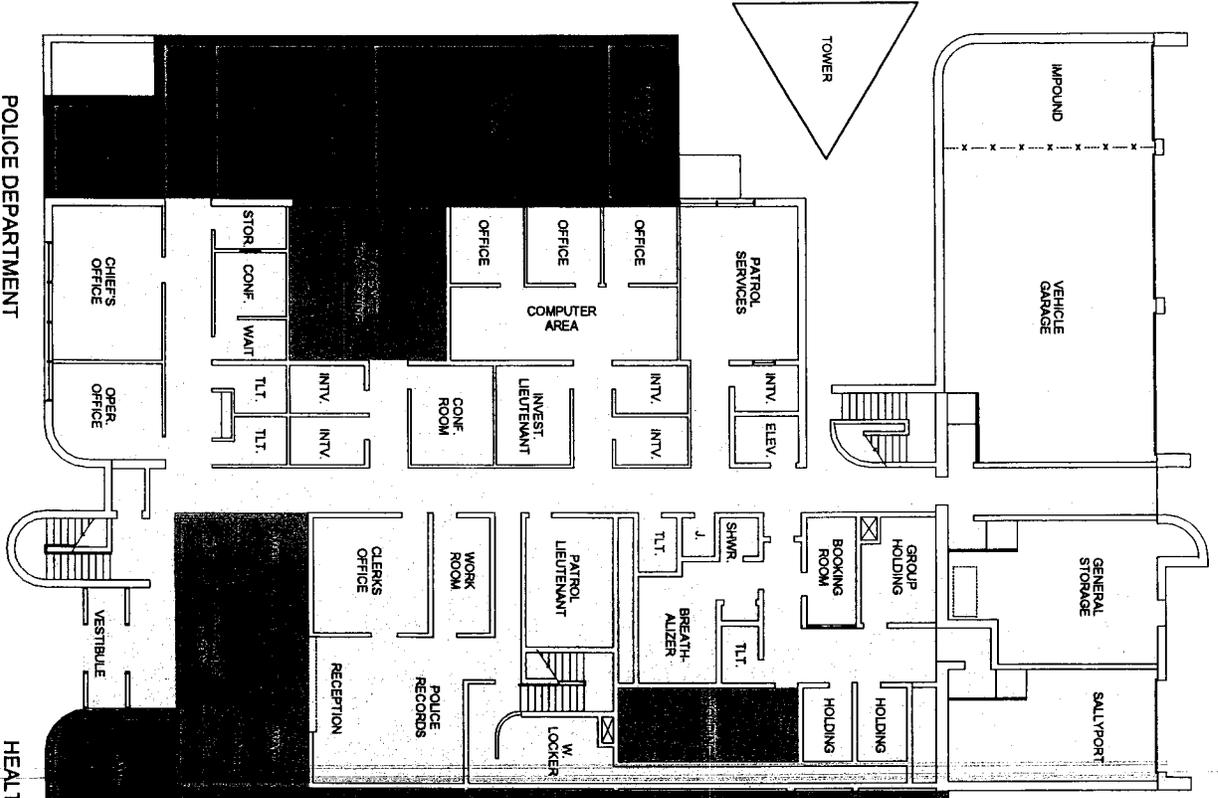
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POLICE DEPARTMENT

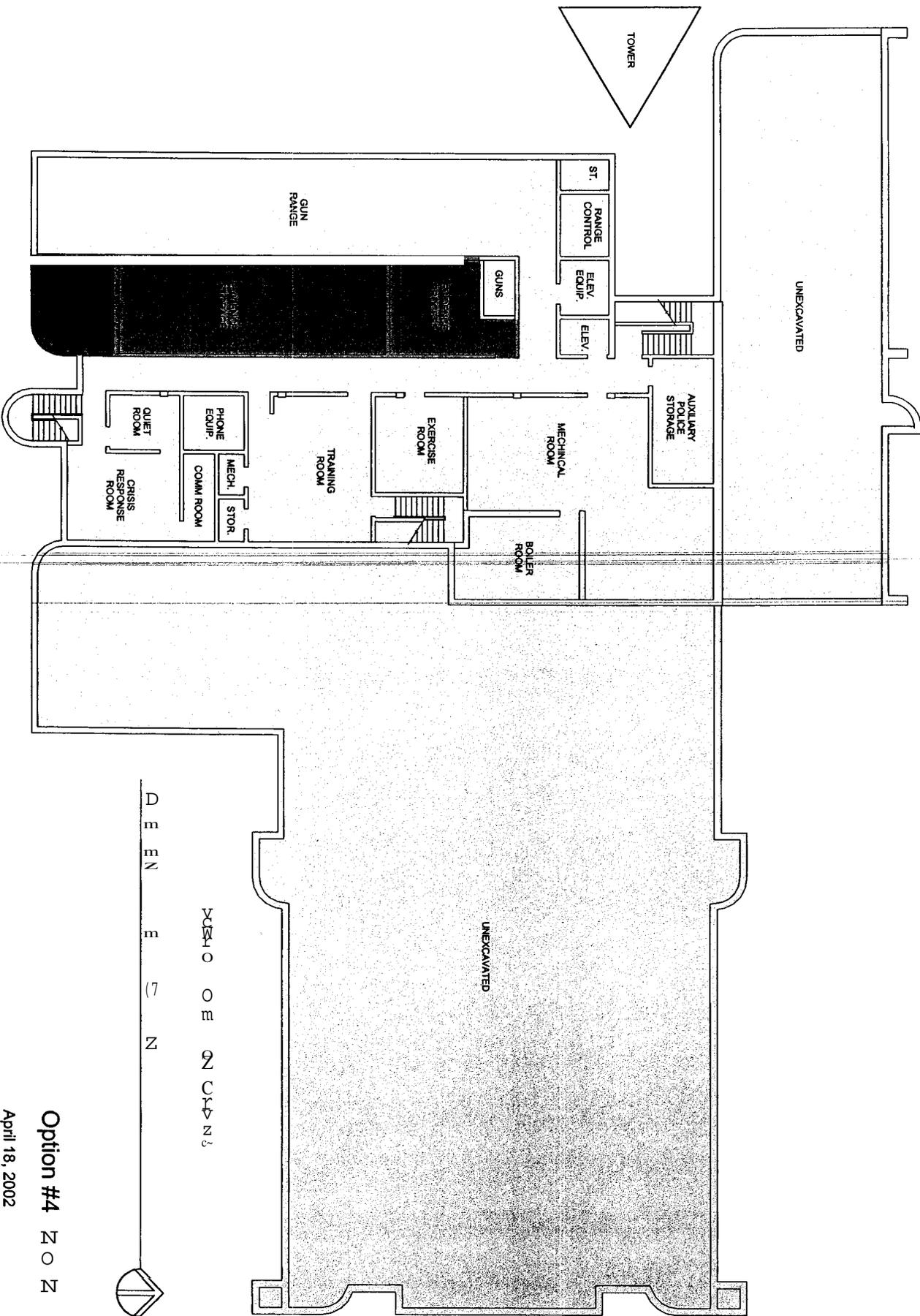
HEALTH DEPARTMENT

-  Existing To Remain
-  Existing Remodeled
-  Construction
-  Existing Remodeled

ON BUILDING  
 CHEMATIC PLAN





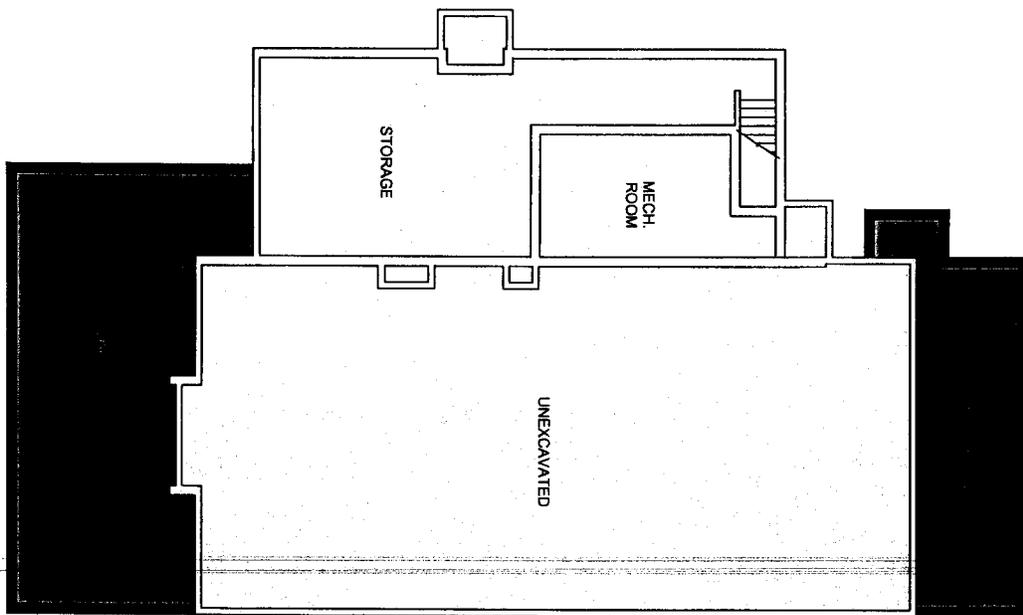


Option #4 N O N

April 18, 2002

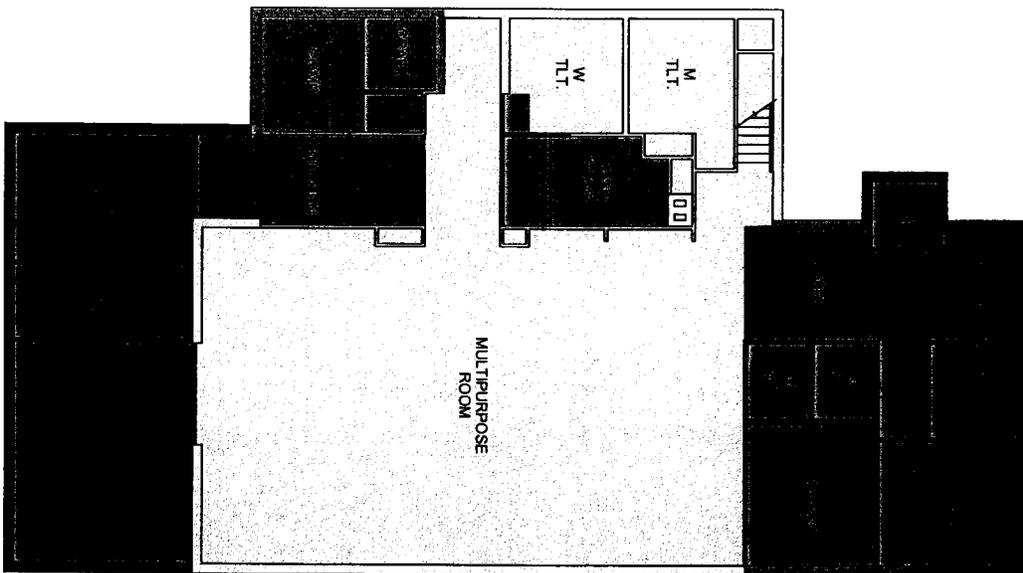
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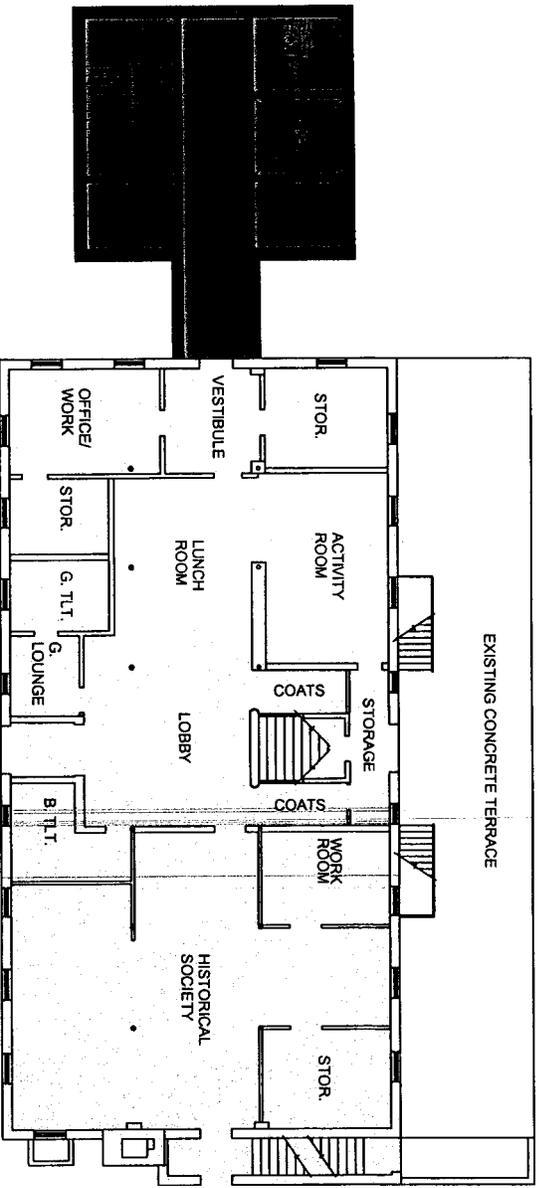
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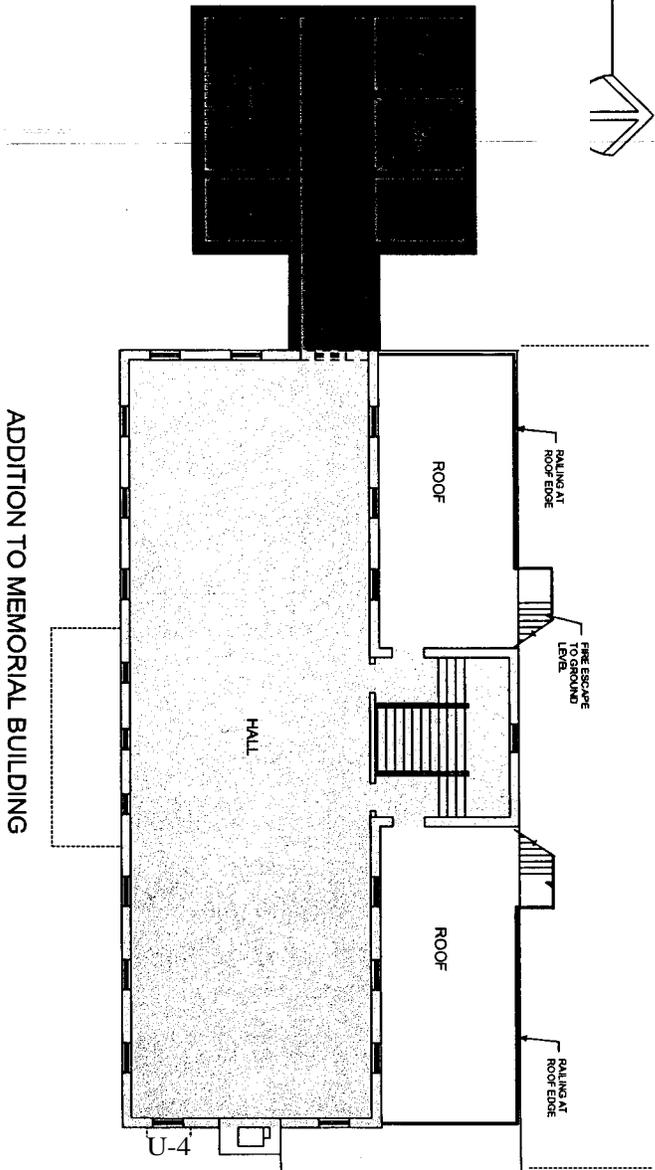
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SCHEMATIC FIRST FLOOR PLAN

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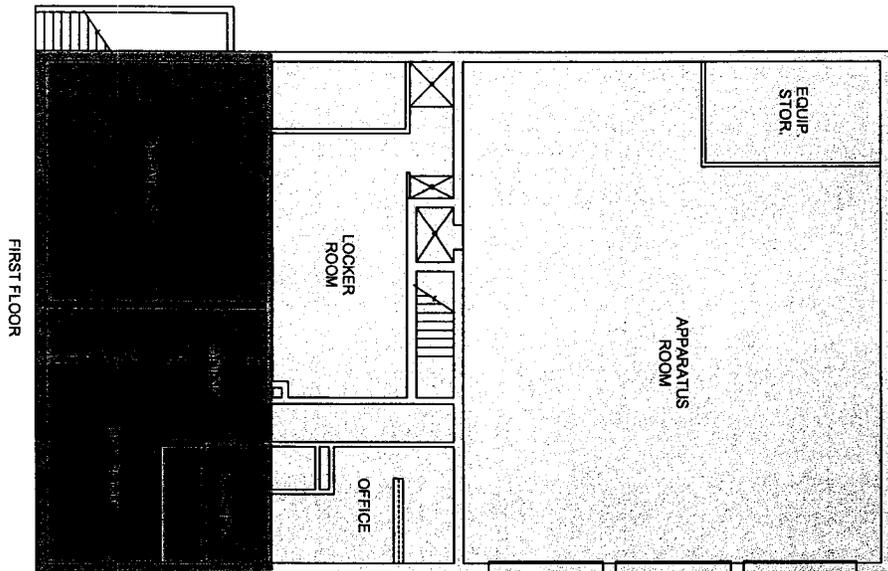
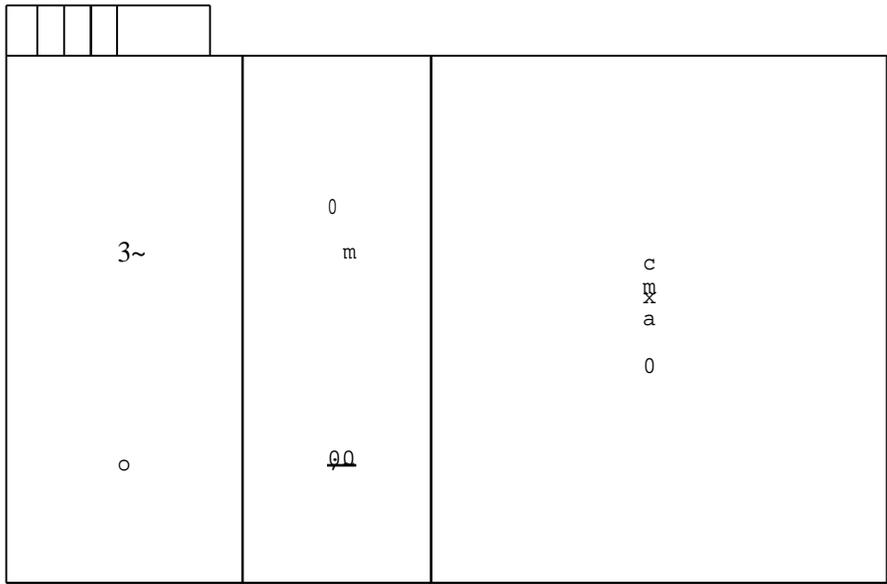


SCHEMATIC SECOND FLOOR PLAN

ADDITION TO MEMORIAL BUILDING

Op #6

April 18, 2002





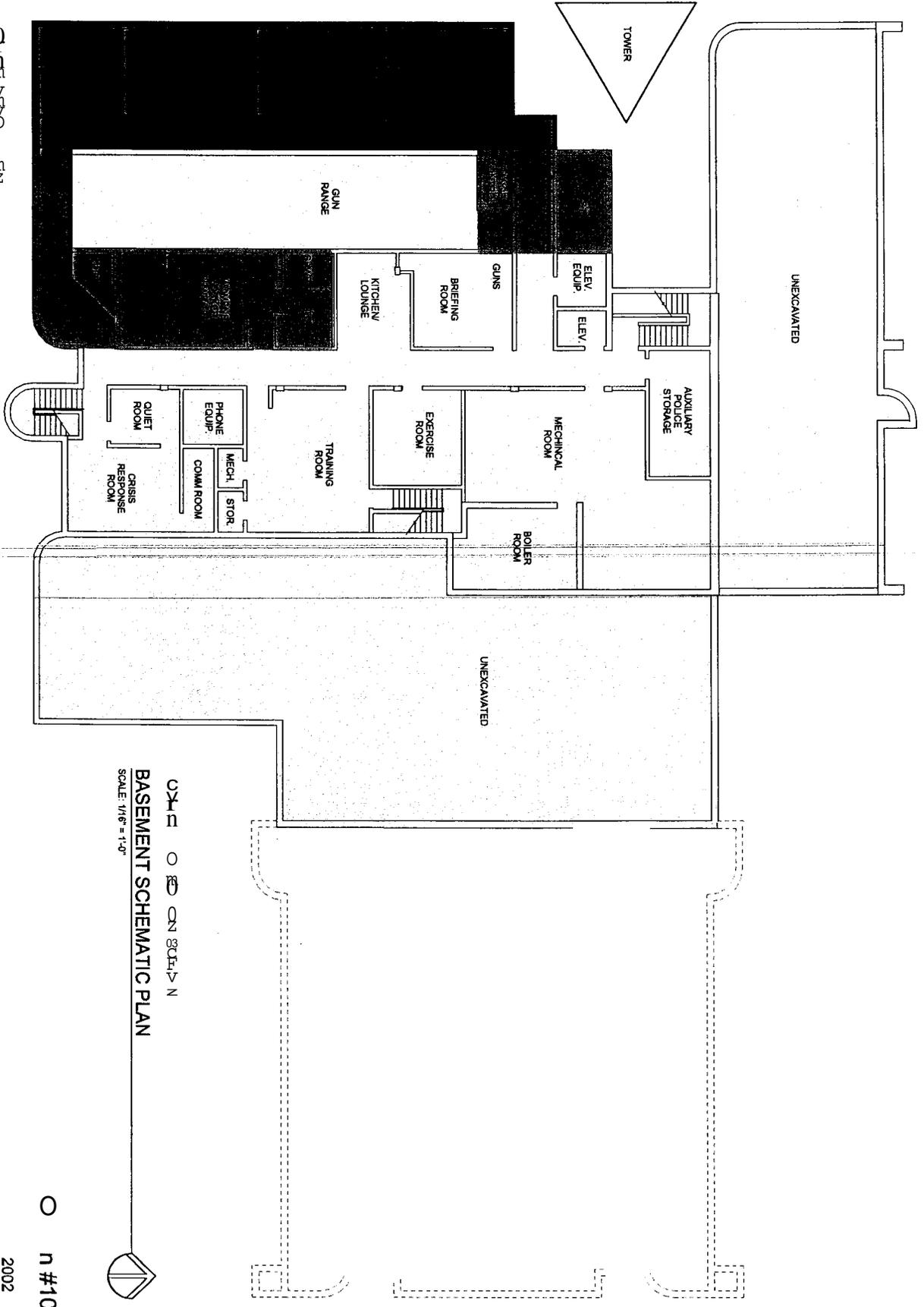








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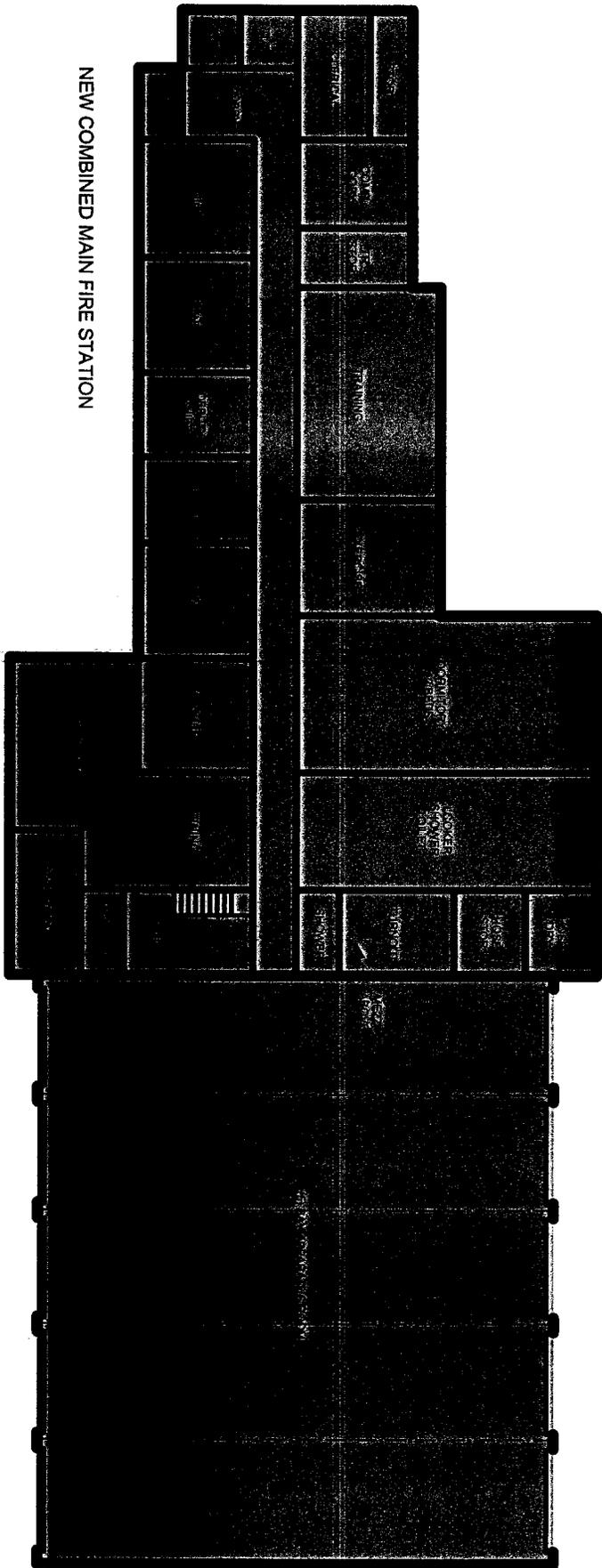


  
 BASEMENT SCHEMATIC PLAN  
 SCALE: 1/8" = 1'-0"


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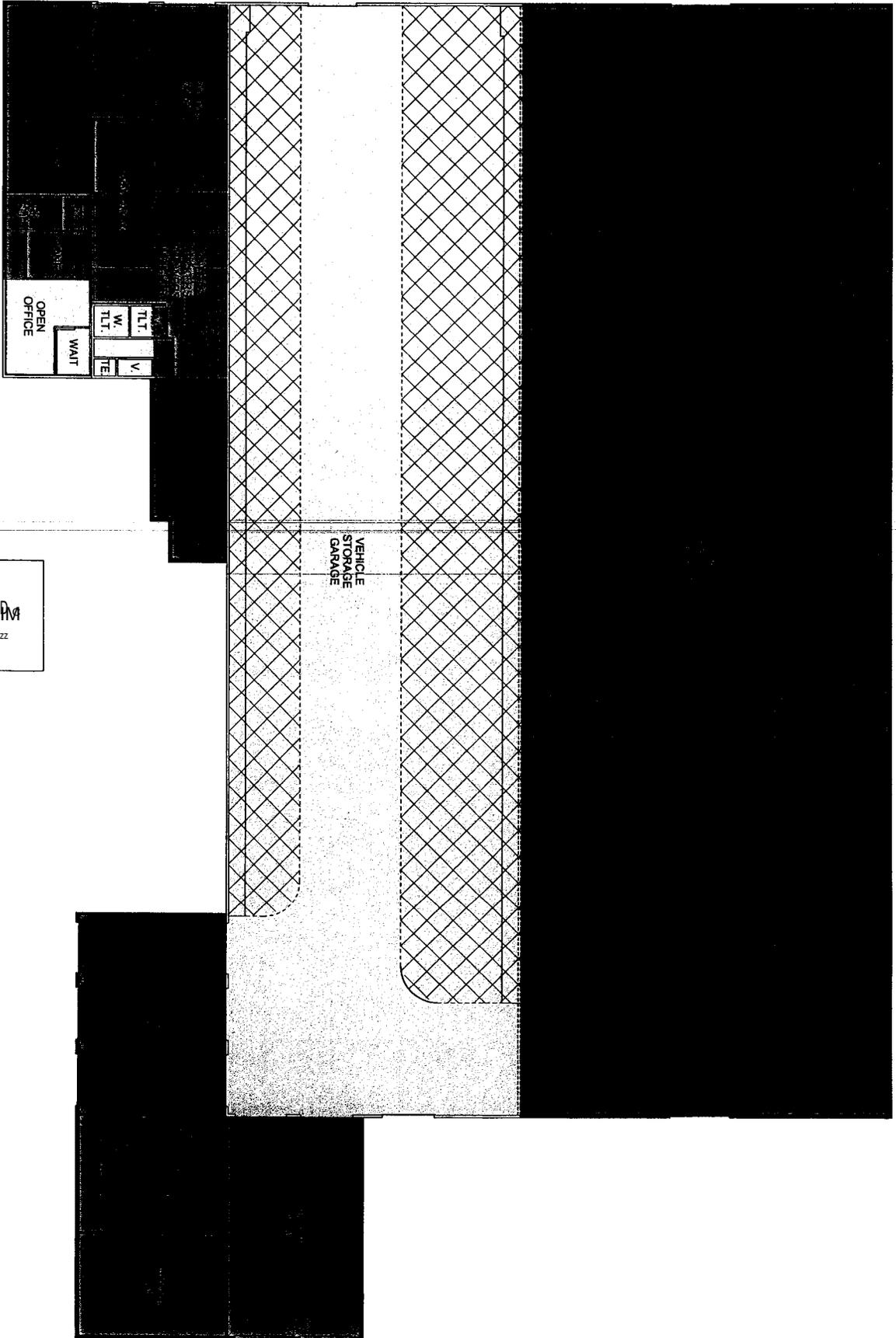
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NEW COMBINED MAIN FIRE STATION



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REMODELING AND ADDITION TO PUBLIC WORKS BUILDING

SCHEMATIC PLAN

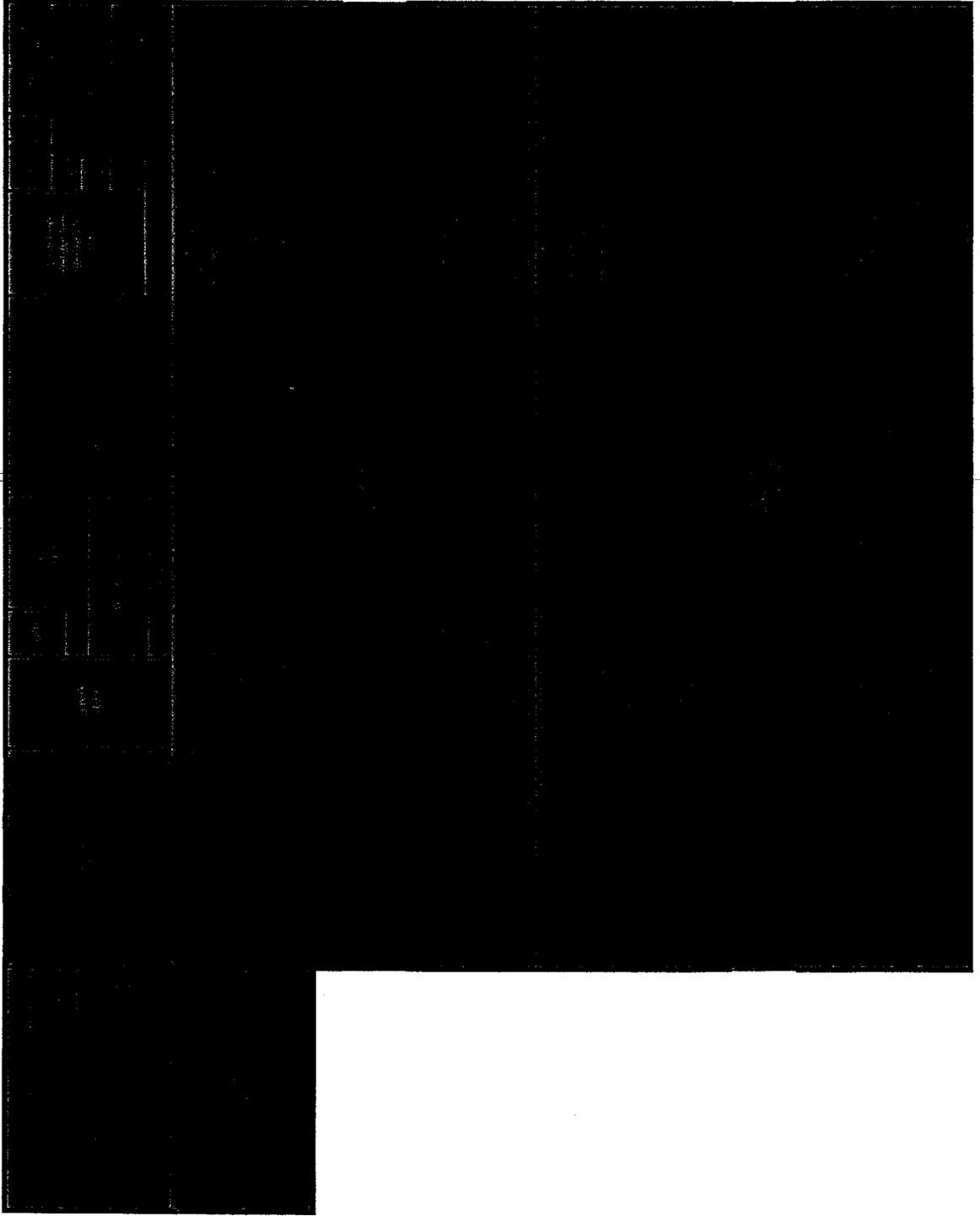


Option #12  
April 18, 2002

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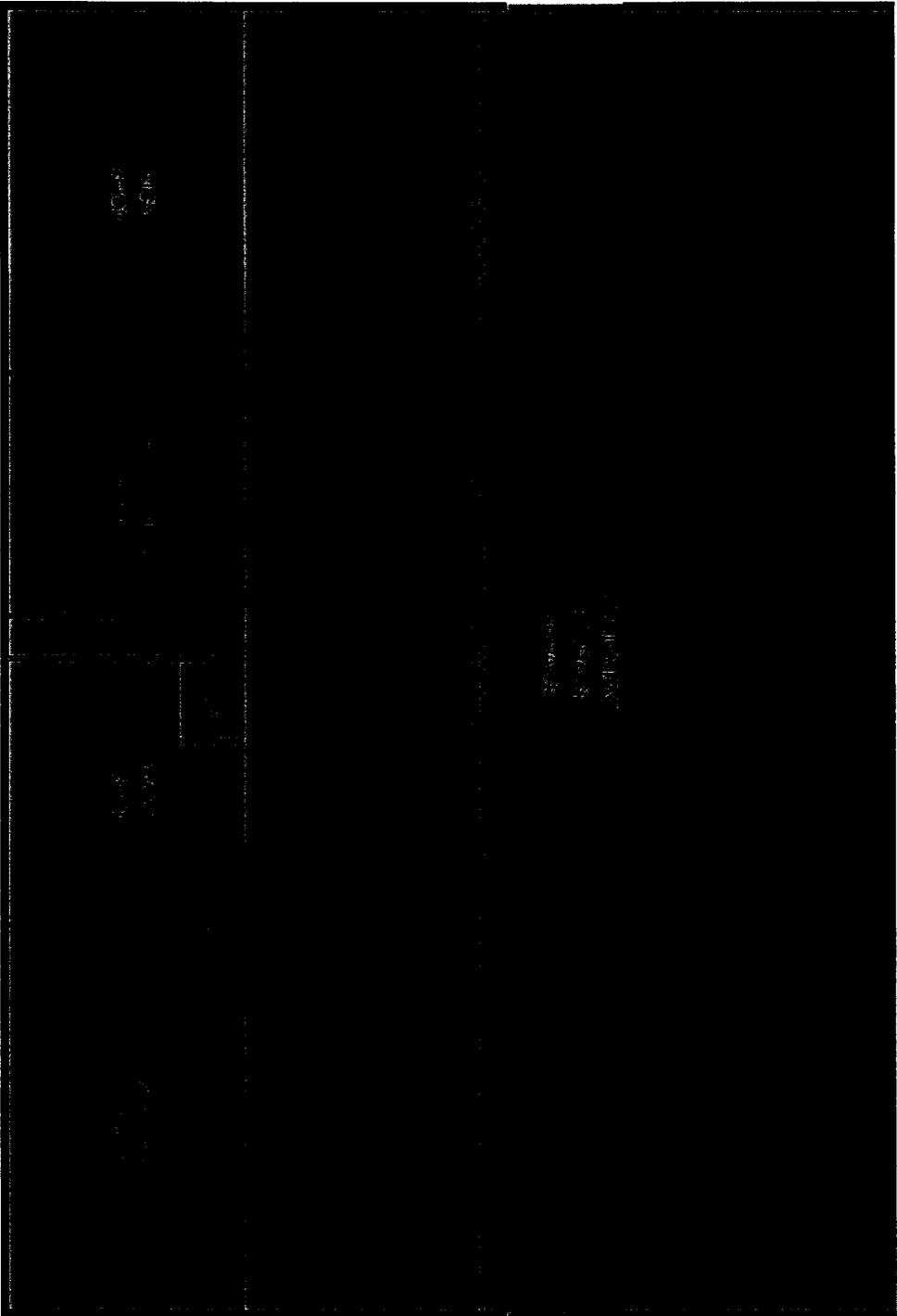


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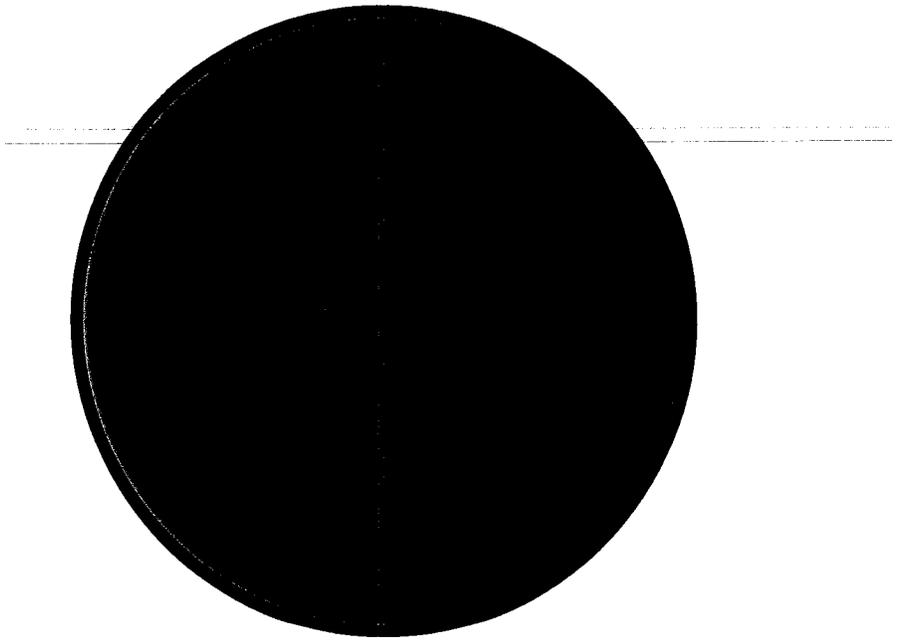
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**FACILITIES ASSESSMENT**  
for  
**CITY OF MENASHA**  
Menasha, Wisconsin

May 22, 2002

**BUDGETS FOR OPTIONS**

These costs include a 15% contingency fund and a 10% allowance for fees, agency approvals and miscellaneous.

The budgets include the following costs as they relate to each option:

- Update of architectural/mechanical/electrical systems
- Interior remodeling
- New construction or additions
- Demolition where required
- Fixed equipment

The budgets do not include the following:

- Purchase of a new site
- Site development
- Loose equipment
- Hazardous material abatement

**Option #1- City Hall**

Update / Remodel	\$	1,810,000.00
Additions		<u>408,000.00</u>
	<b>Total \$</b>	<b>2,218,000.00</b>

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**Option #2 - Health Department**

New Building	<b>Total \$</b>	<b>568,000.00</b>
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**Option #3 - Health Department**

Remodel at Public Protection	<b>Total \$</b>	<b>464,000.00</b>
Fire Department Relocates		

#### Option #4 - Health Department

Remodel at Public Protection - Apparatus Room	Total \$	396,000.00
Fire Department Relocates		

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#### Option #5 - Senior Center

Update / Remodel	\$	256,000.00
Addition		<u>252,000.00</u>
Total \$		508,000.00

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#### Option #6 - Memorial Building

Update	\$	473,000.00
Addition		<u>326,000.00</u>
Total \$		799,000.00

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#### Option #7 - Fire Station #2

Update / Remodel	Total \$	246,000.00
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#### Option #8 - Public Protection - Police / Fire

Update / Remodel	\$	1,378,000.00
Additions		<u>567,000.00</u>
Total \$		1,945,000.00

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#### Option #9 - Public Protection - Police

Update / Remodel (less area for Health)	Total \$	1,375,000.00
Fire Department Relocates		

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#### Option #10 - Public Protection - Police

Update / Remodel (less area for Health)	\$	958,000.00
Addition		513,000.00
Fire Department Relocates	Total \$	1,471,000.00

### Option #11 - Main Combined Fire Department

New Building (sell Station #2)	Total \$	2,102,000.00
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### Option #12 - Public Works - Remodel / Addition to Main

Update / Remodel	\$	899,000.00
Additions		<u>3,666,000.00</u>
	Total \$	4,565,000.00

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### Option #13 - Public Works - New Main

New Building	Total \$	5,874,000.00
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### Option #14 - Sign Shop / Storage

New Building	Total \$	1,436,000.00
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### Option #15 - Salt Storage

New Building	Total \$	280,000.00
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CITY OF MENASHA  
 FACILITIES ASSESSMENT  
 PROJECT NO. 2550

Bray Associates Architects, Inc.  
 Sheboygan, Wisconsin

May 22, 2002

**POSSIBLE SCENARIOS**

Scenario One

Options

1. City Hall - Update/Remodel/Additions	\$ 2,218,000
2. Health Department - New Building,	568,000
5. Senior Center - Update/Remodel/Additions	508,000
6. Memorial Building - Update/Addition	799,000
7. Fire Station #2 - Update/Remodel	246,000
--8-.Public Protecttoor=-Policefire---Update/Remodel/Additions	1,945,000
12. Public Works - Remodel/Additions to Main Building	4,565,000
14. Sign Shop/Storage - New Building	1,436,000
15. Salt Storage - New Building	<u>280,000</u>
Total	\$ 12,565,000

Scenario Two

Options

1. City Hall - Update/Remodel/Additions	\$ 2,218,000
4. Health Department - Remodel at Public Protection (Fire Dept.)	396,000
5. Senior Center - Update/Remodel/Additions	508,000
6. Memorial Building - Update/Addition	799,000
9. Public Protection - Police - Update/Remodel	1,375,000
11. Main Combined Fire Station - New Building	2,102,000
13. Public Works - New Main Building;	5,874,000
14. Sign Shop/Storage - New Building	1,436,000
15. Salt Storage - New Building	<u>280,000</u>
Total	\$ 14,988,000

**CITY OF MENASHA  
FACILITIES ASSESSMENT  
PROJECT NO. 2550**

**Bray Associates Architects, Inc.  
Sheboygan, Wisconsin**

## **COMMENTARY**

**Subsequent to the building assessments, department interviews, and the development of space needs programs, various options were developed for a number of departments. For other departments, a single option appeared to be the most appropriate.**

**From these options, a number of scenarios were developed for review and discussion. Through this discussion, a number of alternatives were addressed that would impact the solutions and costs. The alternatives included:**

- **The possible purchase of an existing building to serve the needs of the Health Department or the Senior Center.**
- **The possible consolidation of the Fire Department with an adjacent community.**
- **The potential use of Fire Station #2 for one of the city departments, should the Fire Department consolidate or if a new combined central Fire Station be constructed.**

**The task of establishing the priorities was addressed and discussed. There is a consensus for the order of the first three most immediate needs. In order, these are the Public Health Department, the Public Works Department, and City Hall. There are various opinions of the priority for the Police Department, Fire Department, the Senior Center and the Memorial Building. This issue will require future discussion.**

**It is intended that this report serve the City of Menasha as a Master Plan for its municipal facilities. The Master Plan must allow for flexibility as alternatives may need to be addressed in the future and the Master Plan may need to be adjusted accordingly.**

**Another issue that would need to be addressed is the issue with the site planning for the Public Works facility. There are many activities that occur on the site, which will need to be organized and coordinated. There is also the issue of the possible development of the adjacent property along Plank Road, Highway 114, which would have an impact on site planning and design.**