18-0359

Harry J. Olson Senior Center
La Crosse, Wisconsin

6 September 2012 ARCHITECTURAL AND ENGINEERING ANALYSIS

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INTRODUCTION

Purpose

The City of La Crosse is administering an Architectural and Engineering Analysis program under the Community Development Block Grant Program from the U.S. Department of Housing and Urban Development. The objective of this analysis and report is to evaluate the condition of the existing building and assess its potential for future use.

Project Team

The Historic Abstract was prepared by Eric J. Wheeler, La Crosse, WI. The Structural Analysis was prepared by Alan R. Hiniker, P.E. of Structural Design Group, Inc., Rochester, MN. The Mechanical, Electrical, and Plumbing Analysis was prepared by Chris C. Olsen, P.E. of Galileo Engineering, La Crosse, WI. This report was prepared by River Architects, Inc., La Crosse, WI.

Methodology

Limited existing building plans were available for this building so field measurements were taken in order to facilitate the drawing of full building plans. The included plans are for graphic representation only and should not be utilized without verification for construction purposes.

The scope of this report does not include observation of or testing for hazardous materials including but not limited to: asbestos, radon, PCBs, mold, lead based paint. Given the age of the building it would be unusual if it did not contain some lead based paint. The Owner is advised that it would be prudent to take necessary precautions when working with or removing existing paint, unless testing shows that it does not contain lead.

The analysis contained in this report is based on visual observation of accessible spaces. There was no observation and investigation of concealed conditions.

HISTORIC ABSTRACT

The building now known as the Harry J Olson Senior Center at 1607 North Street in North La Crosse, has had several significant use and structural changes since its construction 125 years ago. These uses can be divided into three periods of approximately forty years each. The original design as a social and lodging center for railroad workers lasted from construction in 1887 until 1930, and represents the most significant period historically and architecturally for the building. The second period, from 1933 until 1973, was a time of adaptive re-use and major alteration by a local church community that significantly altered the architectural integrity of the building. The current use as a neighborhood senior center for seniors began in 1974 and includes a large single story addition built in 1978 that is architecturally oppositional to the original stylistic character of the building.

1) Chicago, Burlington and Quincy - Dormitory and Clubhouse (1887-1930)

The arrival of the Chicago, Burlington and Quincy Railroad line in 1886 established North La Crosse as a major regional rail hub. Soon after the extension of the rail line to La Crosse, the C. B. and Q. built a depot, shops and roundhouse on the east edge of the north side near Grand Crossing. The railroad built the Dormitory and Clubhouse nearby at 1607 North Street in 1887. The Godard Hotel (1888) located two blocks away at 1639 Prospect Street, was a privately owned hotel designed to take advantage of the huge influx of railway workers in the neighborhood.

Originally a two and a half story brick building with design and decorative elements typical of late 19th century commercial buildings, the dormitory and clubhouse was built by Joseph Rawlinson, a noted local brick mason and contractor. (see archival photos #1, #2, and #3) The rough-cut massive stone foundation has above grade windows for increased utility. The segmental round arched windows on the first story are typical of the Romanesque Revival style, very popular for institutional and commercial buildings in the 1880s. The central pavilion has a double door entry with round arched window, keystone and flanking sidelights; creating a classical Palladian motif. Recessed terra cotta tiles were originally located on each side of the main entry arch and above the side windows on the entry pavilion. Also, originally above the entry was an open porch with turned wooden columns capped by a wooden balustrade. (Note the “The Burlington” name on the railing in the historic south façade photo #2)

A similarly decorative open dormer with scrollwork and triangular pediment sat high atop the central pavilion at the attic level. These decorative flourishes reflect the Queen Anne style, coming into popularity in the late 1880s. The east and west facades at the roofline are enhanced by a single, centrally place pedimented dormer with round arch window and flanking capped column extensions. The red brick façade is highlighted by cut limestone window hoods and sills, and a thick cut stone beltcourse that extends along the top of the second story windows, continuing around the building.

The Dormitory and Clubhouse had sleeping quarters for railroad workers, a billiard room, gymnasium, office for the railroad division headquarters, a doctor’s office and kitchen in the basement. The size, decorative design and multiple functions of this historic building indicate the importance of the Dormitory and Clubhouse for the Chicago, Burlington and Quincy railroad in La Crosse.

2) Bethany Evangelical Free Church (1933-1973)

Building research indicates that the C. B. and Q. Dormitory and Clubhouse was vacated by the railroad in 1933 after the construction of the new North La Crosse Burlington Depot (1932) two blocks away at

1601 Rublee Street. The building was purchased by Herman Tillman in 1933 and rented to the Bethany Gospel Tabernacle for the next decade for a nominal annual fee. The church purchased the building in 1946, and in 1951 undertook a major alteration and renovation for church purposes. (see archival photo #4 and #5)

Exterior alterations included complete removal of the attic and partial removal of the second story. Four evenly spaced gable roofed dormers were placed at the new roofline on the east and west sides. The upper levels of the central pavilion was reduced down to the first story, and replaced by a square bell tower with pyramidal steeple. Religious-themed stained glass windows were inserted into the original round arched window openings on the first story. The alterations in 1951 effectively changed the architectural appearance of the building from residential and institutional to ecclesiastical.

3) Harry J Olson Senior Citizen Center (1974-current)

In 1973, the Bethany Evangelical Free Church moved to a new location on CTH B outside of La Crosse. In 1974, the City of La Crosse purchased the former church for use as a neighborhood senior center. After some interior remodeling, the building opened as the Harry J Olson Senior Citizen Center in 1975. A single story 60' by 60' concrete block addition was added to the east side of the building in 1978. The addition provides a large community room and enhanced the utility of the building for social service purposes. In 1980, an elevator with concrete block housing was added on the southeast corner of the building to provide handicap access from the addition up to the main level of the original part of the building. Over the years the bell tower section was reduced to its current configuration, matching the roofline and projecting entry of the altered existing building.

Summary

Although greatly altered overall from its original design, the historic C.B and Q Dormitory and Clubhouse (1887) retains some of its original architectural character, and continues its significance as one of the few remaining buildings in the City of La Crosse associated with the railroad history of the city. The C, B and Q. Dormitory and Clubhouse was listed as a La Crosse City Historic Landmark in the year of its centennial, 1987. However, after a new historic preservation ordinance was passed by the city in 1995, the C. B. and Q. Dormitory and Clubhouse was not re-listed. The bronze City Historic Landmark plaque is still attached to the south wall of the building just to the right of the entrance.

Sources:

Harry J Olson Multi-Purpose Senior Citizen Center, James Adkins – student research paper, 1979-1980, Area Research Center, Special Collections, Murphy Library, UW-La Crosse.

Grand Crossings - Railroading and People in La Crosse, Wisconsin edited by Joseph Follmar, The 4000 Foundation, La Crosse, 1992, (chapter on railroad Depots by Dr. Les Crocker, pp.43-44.

Burlington R.R. Club House, North La Crosse, WI (c. 1900)

South Elevation (c. 1890)

East Elevation (c. 1890)

Reduction and remodeling by Bethany Evangelical Free Church (1951)

Harry J. Olson Senior Center before 1978 additions (c.1976)

BUILDING DOCUMENTATION

Overview

The Harry J. Olson Senior Center is a 11,200 square foot commercial building with a 125 year history located on the north side of La Crosse. The original 1887 building had three levels of approximately 2,500 square feet each. A 3,600 square foot addition was constructed in 1975 on the east side and a small elevator addition was added in 1980 on the south side of the original building. The entire facility is used as a community center with primary emphasis on the senior community.

Site

The building sits on the north east quadrant of the intersection of Onalaska Avenue and North Street in North La Crosse. The 38,043 square foot parcel is bordered by residences to the north and the rail yard right-of-way to the east. The parcel is zoned PS, Public and Semi-Public in the City of La Crosse. The original 1887 building is setback approximately 60 feet from the south and west property lines on the street sides. The 1975 multipurpose addition is constructed on the east side and opens to a 34 space paved parking area on the east side. The 1980 elevator addition is located on the east side of the original building's main entrance on the south elevation. A small storage garage was recently constructed and positioned off the northeast corner of the 1975 addition. There are two primary entrances, the original building has an entrance with steps on the south side, and the 1975 addition has a barrier free entrance at grade on the east side.

Summary of Past Work

Since the City of La Crosse purchased the building in 1974 they have kept a record of the construction and maintenance work on the project. This list was developed by the Engineering Department and addresses the major items as follows:

- 1978 - Construct single story, 3,600 square foot, multi-purpose room addition to the east side of the original building.
- 1980 - Construct an elevator addition on the south elevation of the original building for barrier free accessibility to two of three levels.
- 2003 - Add duct insulation to the roof top mechanical unit.
- 2004 - Add an in-ground irrigation system.
- 2007 - Replace east addition roof with a metal standing seam roof.
- 2008 - Replace the furnace and air conditioning unit for the original building.

Brick and Foundation condition at south elevation (2012)

Foundation and Sill condition at south elevation (2012)

- 2010 - Multiple projects including exterior door accessibility, replacement of ceiling tile, replace gypsum wall board in elevator shaft, and new air unit for upper floor.

Envelope

The facility is basically two different building types, constructed in different eras, and joined together. The original building was constructed in 1887 with multi-wythe exterior masonry bearing walls and wood floor and roof framing. The building was severely altered in 1951 with the removal of the roof, attic, and the second floor. The 1975-80 additions are concrete masonry unit (CMU) walls with a steel structural system. The original building and the addition are functionally connected and not aesthetically coordinated. These alterations and additions to the building are so severe in their disregard for the original building that it is the opinion of the Wisconsin Historical Society that the original building is no longer eligible for nomination to the State Register of Historic Places.

The roof on the original building was lowered and re-framed with new dormers in 1951 and is clad with asphalt shingles. According to a roof inspection report prepared by Speciality Associates dated August 5, 2003, the 240# asphalt shingles were 10-12 years old at that time. The shingles are now 20+ years old and nearing the end of their 25 year limited warranty period. The team did not have access to the roof, but from the ground it appears that the shingles are near the end of their life expectancy. When the shingles are replaced the removal of the dormer windows may be considered to simplify the flashing, ventilation, and overall integrity of the roof. The dormer windows bring light into a non-habitable storage use on the second story and may be considered expendable. The roof on the 1975 addition was originally a fully adhered .045 mil EPDM roof and was replaced in 2007 with a standing seam metal roof and appears to be in good condition.

The exterior brick and limestone walls of the 125 year old original building are showing their age and need maintenance. All four sides of the original structure exhibit deterioration of the brick, limestone, and mortar due to weathering, water infiltration, and age. Our recommendation is to replace the excessively deteriorated limestone blocks and sills, the spalled and damaged bricks, and to tuckpoint the grout joints on all the affected walls. The concrete masonry unit walls of the 1975-80 additions have been properly maintained, painted, and appear to be in satisfactory condition. Our recommendation is to continue moni-

Sill and window condition at west elevation (2012)

Multi-purpose room in 1975 addition (2012)

toring their condition, re-coating the walls with quality paint, caulking all the joints, and tracking maintenance and corrective work to establish a proactive cyclical schedule.

The windows of the original building have been modified over the years and are not good examples of thermal efficiency. The arched top stained glass windows on the first floor were likely installed in 1951 with the church renovation and are not operable and have a protective storm window affixed on the exterior side. These decorative leaded glass units are high maintenance and are not consistent with the current use of the facility. It is our recommendation to consider removing them, selling them in the architectural salvage market, and replacing them with similar sized and shaped operable insulated glass metal clad wood frame window units for thermal efficiency and maximum natural light penetration. The glass block windows in the lower level of the original building are in fair condition and provide translucent natural light and security, but do not have ventilation potential. The small windows on the 1975 addition are in good condition.

The integrity of the thermal envelope of the facility is inconsistent. The original building has minimal insulation in the roof and nothing in the walls. The east addition exterior walls have 2 inches of rigid insulation.

Kitchen in lower level. (2012)

Interior

Ground Level

The 1975 addition to the original building is in fair condition and has been relatively well maintained. There are a few water stained acoustic ceiling tiles in the main multi-purpose space and the adjacent mechanical room. The kitchen, although dated, is in good working condition and the space is well maintained. The multi-purpose space to the west of the kitchen is generally in good condition. The exposed conduit should be concealed (here and throughout the building) and the paint is showing wear in various locations.

The lower level storage space has a sliding door that should be replaced with a standard swinging door. The smaller separated space within the storage area has exposed foundation walls and require repair (see structural) and penetrations at pipes through these walls need to be sealed properly. There are CMU infilled window openings in this area as well. The interior painted brick wall is showing areas of stress and should be repaired and repainted.

The hall joining the multi-purpose space to the rear exit has damage along the wall that needs to be addressed, once the source of damage is located and repaired the damaged area of the wall should be

Multi-purpose room in original building lower level. (2012)

stripped and repainted. The duct and pipe through this space should be enclosed to protect the corridor.

The rest rooms in this area both require renovation. The floor tile and walls are stained and very worn and should be refinished. The walls themselves are showing signs of damage due to water and should be repaired. The walls should also have a non-porous finish within four feet of any toilet/urinal fixtures.

The hall between the addition and the stair to the upper level is in fair condition. The storage closet off this hall is also in passable condition for its use. The carpet on the stair to the first floor may pose a trip hazard and should be considered for replacement with an alternate finish.

First Floor

The first floor of the building is contained within the original 1887 building. The entry vestibule at the south entrance has areas that could use attention. The replacement of the original openings with glass block has resulted in uneven wall surfaces where they have been patched. These areas could be addressed and repainted. There is another area where the wall is rough, adjacent to the doorway to the stair to the lower level, that can also be easily fixed.

The panelling throughout the first floor, although dated, is in good condition. The window condition is addressed in the exterior portion of this section of the report. The directly adhered ceiling and wood floor in the main multi-purpose space is in good condition as well.

The floor in the northernmost storage room is starting to wear in places and should be considered for replacement.

Second Floor

The stair to the second floor has individual grip treads which are worn and pose a trip hazard. These should be replaced with alternate means of traction. The painted finish on these stairs is also worn and the stairs should be entirely re-finished.

The linoleum tile flooring on the second floor is mostly intact, but there are areas with severe damage/staining which should be replaced. There is a section of floor covered in carpet. This section should be removed and tile to match the remainder of the hall should be installed.

The walls of the previous classrooms are finished and are in fair condition with few exceptions. In some rooms the walls have been damaged and require

Foundation condition in lower level storage area. (2012)

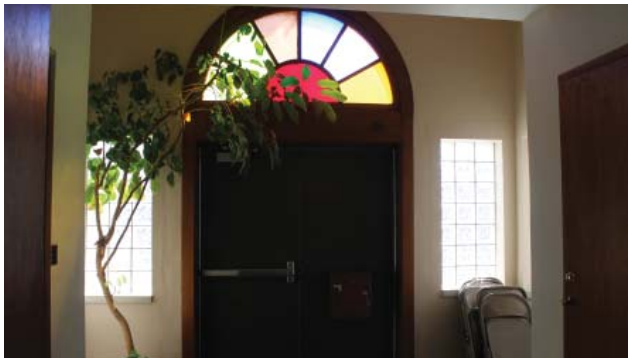
Interior wall condition in lower level storage area. (2012)

repair, such as under one of the heating units where a portion of the wall and the base trim has been removed.

The north portion of the second floor however is in various states of being finished. The corridor walls and ceiling in this portion of the building have gypsum wall board that has not been finished or painted. The two northern-most rooms on this floor are completely unfinished with exposed structure and tar paper over the subfloor. If these spaces are to be used for any purpose they will be required to be finished properly.

The second floor also shows signs of habitation by various rodents and birds. These need to be removed from the premises.

Lower level rest rooms in lower level. (2012)



First floor entrance lobby. (2012)

Multi-purpose room on first floor of original building. (2012)

FInished storage space on second floor. (2012)

Un-finished space on second floor. (2012)

CODE ANALYSIS

General

As an existing building without any changes to the building or the occupancy type (Assembly A-2 and A-3; food service and general assembly), updates to the building to meet current code standards or accessibility levels are not required. However, it is still suggested that certain existing life-safety and accessibility code issues be considered.

Fire Protection

Although a sprinkler system would be required in a new building of this size and type it is not required to be installed in this building unless other changes are being made. In order to provide a minimum level of protection a fire alarm and detection system should be considered. The lower level storage room in the original building has a sliding door which would not be considered sufficient to keep the storage space separated from the remainder of the building. The storage rooms throughout the building should be separated from the remainder of the building by a 1 hour fire-rated separation. This requirement would be eliminated with the installation of a sprinkler system.

Exiting

An area of rescue assistance, interior or exterior, would be required for at least one of the exits from the first floor due to neither discharging at grade level. Doors throughout the building should meet a minimum clear width of 32 inches.

The stairs in the original portion of the building are not code compliant. The height of the risers is varied and many do not meet the maximum allowable height. The run length of the treads do not meet the minimum requirements either. The general layout of steps and landings is not compliant and constitutes a dangerous situation. The positioning of doors to the stair and lack of enclosure of the stair as a whole is a concern. The stair is required for egress from the second floor. The stair between the basement and the first floor is not a required egress route however it is still required to meet the safety requirements. Rebuilding the stair as a continuous "tower" would be a remedy to this situation. Additionally at the stair the handrails are not code compliant and pose a hazard. In order to meet current building codes the handrails need to be on both sides of the stairway, be continuous or have extensions at the top and bottom of each run of stair, and be securely mounted.

The required egress from the upper two floors of the original building are in part by exterior fire escape. Replacement of these structures with code compliant exterior stairs should be considered. Access to the escape from the first floor is through a storage space which would not be permitted under current code. Egress from the original building multi-purpose space in the basement is via an exterior stair that is also not code compliant in width, stair dimension, corridor separation (ducting through walls) or handrails. The signage to this exit is also blocked by the overhead duct.

Accessibility

The 1980 elevator addition provided barrier free access to the Ground and First Floor levels of the original building and the 1975 addition, but not the second floor of the original building. This lack of accessibility to the upper level means that the level can only be utilized for non-occupied storage or mechanical purposes.

By current code calculations the building would require 3 toilet fixtures for each sex, and of these a minimum of one fixture in each restroom must be accessible. The existing fixtures located in the 1975 and the original building are not considered accessible by current standards.

The exiting requirements previously outlined also contribute to the accessibility issues found within the building.

STRUCTURAL AND SYSTEMS ANALYSIS

Structural Analysis

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May 31, 2012
Revised September 6, 2012

Tracy Donlan
River Architects
740 7th Street North
LaCrosse, Wisconsin
54601-3308

RE: Harry J. Olson Senior Center Condition Survey
1607 North St, LaCrosse, WI

SDG Project Number 12037

On Thursday May 17, 2012 I visited the above building to survey the existing structural condition of the building. I met with Tracy Donlan and Mr. Val Schute of River Architects on site to gain access. In summary, I found the building to be in fair condition for the age of the structure, with needed repair and maintenance of the foundations and exterior masonry required.

The building was originally constructed as a dormitory/club house for railroad workers. The structure is constructed of multi wythe exterior masonry walls, limestone foundations, wood floor framing for the first and second levels, and hand-framed roof rafter framing.

Observations:

1. The Northside senior center, also known as the Harry J. Olson Senior Center, was constructed in 2 parts. The original structure is brick and wood framing. The addition in the mid 70's is a 1-story slab on grade, CMU masonry exterior bearing wall, steel bar joist and standing seam roof structure.
2. The 1970's addition appears to be in relatively good condition. Some minor signs of moisture entering through the masonry wall on the north side (backside) of the building is visible.
3. The roof framing visible in the upper level rooms appear to be in good condition. Second floor framing appears to be wood joist framing, but is not visible during our inspection. No visible areas of deterioration were noted.
4. The first floor framing of the original building is also apparently wood framed. No signs of deterioration are visible.
5. The limestone foundation show sign of deterioration most notably at the mortar joints and requires tuck-pointing.
6. The exterior walls of the 1st and 2nd levels are multi wythe brick. The exterior wythe of brick is severely deteriorated as evidence by the attached photos and requires repair.

Recommendations:

1. Hand excavate down on the exterior of the foundation wall to determine the condition of the mortar joints on the below grade portion of the building and if tuck-pointing is required tuck point the foundation walls.
2. The brick on the exterior is severely damaged and requires repair. Recommend developing a program and implementing a repair of the exterior masonry.

Based on my observations, it is my opinion that the structure was originally designed for floor loads similar to the current use. This letter is not intended as a guarantee of the building condition. No testing of materials was performed. Testing and or observation of any hazardous materials is not part of the scope of Structural Design Group, Inc services.

Regards,

Alan R Hiniker P.E.
Wisc. No 30006

South Elevation showing original building and 1975-80 additions.

West wall of original building showing masonry and stone deterioration.

East wall of 1975 addition with original building behind.

South wall of original building showing masonry deterioration.

West wall of original building showing limestone deterioration.

West wall of original building showing masonry deterioration.

Close-up of limestone wall foundation at grade on the west elevation.

North wall of original building showing masonry deterioration.

Electrical Systems

1. Electrical Service

A. Electrical power is supplied to the building by the local electric utility (Xcel Energy). There is a wood pole in the boulevard directly south of the building. Power routes down this pole and underground directly into the newest addition of this building.

B. The electrical service is 120/240 VAC, three phase, four wire connected in a "Delta" arrangement. This is an antiquated electric supply, but was quite common for buildings such as this one. The power distribution is generally 120/240 VAC single phase within the building, but the elevator and some HVAC equipment required three phase power. The "Delta" arrangement allows for this.

C. The service equipment is located in a dedicated mechanical/electrical room and is in overall fine condition. In this building, the electrical supply penetrates the floor and terminates in a main disconnect switch. The service is nominally rated at 400 amp. The metering cabinet and utility meter are located "downstream" of this main disconnect switch. Although this is no safety hazard, and was commonly done in the past, this installation is contrary to current Xcel Energy service rules. At some time, Xcel Energy may require that the upstream disconnect switch be removed or relocated, and that the meter be located exterior to the building.

D. The service consists of the main disconnect switch, the metering cabinet, and multiple load centers and disconnect switches . One of the switches is located on the exterior wall and is "piped" into the main disconnect switch. This gives the appearance that this disconnect switch is tapped "upstream" of the metering equipment. Presumably, that is not the case. Most likely, the conductors serving this switch are tapped in the metering cabinet and routed backwards through the main disconnect switch. If so, that would be a minor Code violation. We did not open the metering cabinet to verify the exact wiring details, as that cabinet is sealed by Xcel Energy.

E. In general, the service entrance equipment is in good condition and should be suitable for many more years of service. This is no room for "easy" expansion, but additional load centers or disconnect switches could be installed and tapped to the electrical supply without great difficulty. A 400 amp service seems reasonable for this building based on the current use. At some time in the future, the electric service will probably be converted to 120/208 VAC, three phase, four wire. This will inherently provide additional capacity to

Multiple metering cabinets, load centers, and switches. (2012)

Multiple metering cabinets, load centers, and switches. (2012)

the building without having to replace the exterior service conductors.

2. Major Electrical Distribution

A. There is not much for major electrical distribution within this building. There is one fairly new load center located in the Basement Boiler Room of the original building. This is a 200 amp, Cutler-Hammer load center with main circuit breaker. It is presumably supplied from one of the disconnect switches in the main Electrical Room. The conduit servicing this panel is EMT (metal) and in fine condition. This load center appears to supply most of the branch circuits within the original building.

B. In the main Electrical Room, there is another 200 amp Cutler Hammer load center that supplies most of the branch circuits in the building addition, a disconnect switch that services the rooftop HVAC unit for the building addition, and a disconnect switch that services the elevator controller.

C. In general, the major distribution equipment is in fine condition and no significant deficiencies or Code violations were observed.

Multiple metering cabinets, load centers, and switches. (2012)

3. Branch Circuit Wiring and Electrical Devices

A. All of the observed branch circuit wiring was installed in EMT conduit, flexible metal conduit, or was MC cable. These are all approved wiring methods under City of La Crosse Codes. In general, the branch circuit wiring was neatly installed and nothing appears to be original to the main building.

B. Electrical devices (receptacles, switches, etc.) are showing their age and many are not currently code-compliant. Very few GFCI-protected receptacles were observed. Even within the kitchen, no GFCI-protected receptacles were observed. Lighting switches are old and “remodeling-style” switch configurations have been added to obtain more switching in single gang boxes.

C. We would recommend that a detailed survey be completed to install GFCI-protected receptacles to meet current code. This is a relatively low cost investment. GFCI-protected receptacles would normally be installed throughout the kitchen, all bathrooms, exterior to the building, in the basement mechanical rooms, and select other locations as required by National Electric Code.

D. We would also recommend that most of the lighting switches be replaced. Lighting switches


Typical light switches. (2012)

do wear out. In a commercial building, it is good practice to replace frequently-used switches at 20 year intervals.

4. Grounding Systems

A. The electrical service is grounded to the main water service is a 3/0 copper conductor. This is compliant with both current Code, as well as the Code when the building addition was added. Presumably the secondary service grounding, typically one or more ground rods, are existing, although we did not observe them.

B. Feeder grounding was observed to be present in the major disconnect switches.

C. It appears that basic electrical grounding is in place and installed in an acceptable manner.

5. Lighting Fixtures and Equipment

A. All of the lighting fixtures and systems within this building are antiquated, marginal in light levels, and not energy-efficient per current standards.

B. Most of the lighting is fluorescent, but many of the fixtures , especially in the original portion of the building, use old fluorescent "circline" lamps. It appears that many of the lighting fixtures in the original building may have been replaced when the addition was constructed.

C. In general, all interior lighting fixtures should be considered for replacement with new fixtures using modern, energy-efficient lamps and ballasts.

D. Exterior lighting is marginal, but probably adequate for the current needs. Although the original building has historic interest, the exterior lighting is mostly HID-style "farm lights". There is a flagpole at the entrance to the original building, but no flagpole lighting was observed. Control of the exterior lighting appears to be by photocell only (dusk to dawn operation).

6. Emergency Power Supplies

A. This building is not equipped with any type of emergency power supply, including stationary emergency power generators, provisions for a temporary mobile generator, or large capacity battery-based power supplies.

7. Emergency Egress Lighting

A. This entire building is significantly deficient in emergency egress lighting. Typical, this would consist of wall or ceiling-mounted emergency lighting units that automatically illuminate when the primary power supply is interrupted. There are two such units in the Community Room in the new addition, but the remainder of the building has nearly no emergency lighting provisions. Even in the Community Room, the emergency

Exterior lighting fixtures. (2012)

Exterior lighting fixtures. (2012)

lighting is inadequate per current Code and the units are mounted too high for easy testing.

B. The entire building needs to be fitted with Code-compliant emergency egress lighting.

C. There are numerous exit lights located throughout this building. In general, exit lighting is adequate and would have met the Code at the time the addition was built. Exit lighting is deficient on the Second Floor Level, but that floor level does not appear to be occupied at this time.

D. Similar to the egress lighting, the exit light locations should be reviewed in detail and the exit lights should be inspected to verify that they have functioning battery back-up capabilities.

8. Fire Alarm and other Life Safety Signaling Systems

A. This building has no fire alarm system at present.

B. There are a number of line voltage smoke detectors located in corridors. It is unknown if these smoke detectors are electrical connected so that they all alarm if any senses smoke. Presumably that is not the case, as these smoke detectors appear to have been added after the original construction of the new addition.

Rooftop heating unit located at west side on grade. (2012)

9. Communications and Low Voltage Wiring Systems

A. In general, low voltage wiring systems consist of simple telephone wiring using older station cable.

Heating and Ventilation Systems

1. Primary Heating Plant and Equipment

A. This building has no primary heating equipment or central boiler plant.

B. The "new" addition is served by a single packaged rooftop unit located in the approximate center of the roof. We did not get onto the roof to inspect this unit in detail, but it appears to be a Trane "Voyager" series unit. This is a current Trane model. Observing from the second floor windows, the unit appears to be in satisfactory condition. This a constant volume unit providing heat from a natural gas supply and air conditioning. The unit is equipped with an "economizer" option for improved energy efficiency. The unit was in operation during our field observations and appeared to working fine.

C. The Basement Level of the original building, including the kitchen, is served by a rooftop unit located on grade on the west side of the building. This unit was installed in 2008 and appears to be in very good condition. The air is ducted through the sidewall of the original building and ductwork is generally exposed at the ceiling of the basement. This unit provides heat from a natural gas supply and air conditioning. This unit is not equipped with an "economizer" and does not appear to have any outside ventilation air capabilities. This would be a Code violation for the commercial occupancy of this space. The unit/system should be fitted with a means to introduce tempered outside air into the building during occupied periods. At present, this seems to be more of a "residential" installation.

D. The First and Second floors of the original building are heated and cooled with a single residential furnace and an exterior compressor-condensing unit. The furnace is located in a storage room on the First Floor Level. Like the basement system, there appears to be no ventilation capabilities installed for this system. Both the furnace and compressor-condensing unit are relatively new and appear to be in fine condition. The exterior component was reportedly installed in 2010.

E. In general, all of the HVAC equipment is in physically-good condition and should provide for many more years of service, BUT, the systems in the original building are deficient in ventilation capabilities.

2. Terminal Heating Equipment

A. A few pieces of supplement electric heat are installed near exterior doors or other areas of high heat loss. In many cases, these units are in poor condition and should be considered for replacement.

3. Piping / Ductwork Condition

A. There are no remaining HVAC-related piping systems within this building.

B. The observed ductwork systems are in good condition. Much of the ductwork is newer than original and surface-mounted below existing ceilings. No significant deficiencies were discovered.

Supplemental electric heat. (2012)

4. Temperature Control Systems

A. All HVAC equipment is controlled by residential-style room thermostats. Each of the three systems has a single room thermostat located in a common location.

B. None of the observed thermostats are programmable and none are “commercial” in design. If night setback of space temperatures is occurring, it is by manual means only.

C. In all cases, it is highly recommended that programmable thermostats be installed to automatically set back space temperatures when the building is not in use, and to disable any ventilation capabilities during un-occupied periods.

5. Energy Efficiency Commentary

A. In general, the equipment installed is energy-efficient, compliant with current standards and efficiency levels, and capable of being operated in an energy efficient manner.

B. Ventilation capabilities should be added to the systems serving the original building. This will increase energy consumption, so accurate control of these ventilation systems is critical to minimize energy usage.

C. Although the occupants of this facility are likely very good stewards of energy consumption, programmable room thermostats will ensure that space temperatures are set back whenever possible.

Air Conditioning Systems

(All air conditioning equipment is integral to the heat-

ing and ventilation equipment under Item 4.)

Dedicated Ventilation Systems

1. Code-mandated Exhaust Systems and Equipment

A. The toilet rooms are equipped with exhaust fans as required by building Code. These are individual cabinet fans and appears to be interlocked with the room lighting. In general, these systems appear to be operational

B. The kitchen is equipped with a commercial-duty exhaust hood and fan over the cooking range. The hood is of good quality and appears to be operational. The installation is not compliant with current Code, but likely was at the time of installation. No corrective work is required.

2. Process Exhaust Systems and Equipment

A. There are no other process or special exhaust systems within this building.

Plumbing Systems

1. Water Service and Supply Source

A. Domestic water supply is from the municipal service presumably located in the street south of the building. The service appears to be 1-1/2 inch or 2 inch in size and enters the building through the floor in the Mechanical/Electrical Room in the new addition. A 1-1/2 inch branch serves a fire standpipe. The domestic supply is reduced to approximately 1 inch in size and metered with a 5/8 inch meter. A pressure reducing valve is installed, indicating the supply pressure may exceed 80 PSI.

B. The service material appears to be copper and seems to be in fine condition. All service water piping is insulated well with rubber insulation.

C. There is a lawn irrigation branch that splits off at the service entrance point.

2. Interior Water Distribution Material and Condition

A. It appears that the original water distribution in the new addition was constructed entirely with copper pipe. Visible pipe appears to be in fine condition and no leaks or significant deficiencies were observed.

B. The water distribution piping in the original building services the kitchen and two small toilet rooms on the Basement Floor Level. This water supply piping has been replaced within the last 20 years and is not constructed with copper tubing. The piping appears to be in satisfactory condition. No leaks or significant deficiencies were observed.

C. Hot water for the new addition toilet rooms is generated by a small (30 gallon) electric water heater located in the main Mechanical/Electrical Room. The heater is located on a steel frame near the ceiling to maintain storage under the heater. The heater is insulated with an exterior insulation blanket, so the physical condition of this heater was not observed. The presence of an auxiliary insulation blanket tends to indicate that the heater is old, and perhaps original to the construction of the new addition.

D. Hot water for the kitchen and the original toilet rooms is generated by a gas-fired, 50 gallon, “residential” water heater located in the old Boiler Room behind the kitchen. This heater appears to be relatively new, although the venting is “conventional”, requiring a chimney and a source of combustion air. Combustion air is presumably drawn from the interior of the building. The heater is rated at 40,000 BTU/Hr., so the combustion air requirement is very small. This heater appears to be in satisfactory condition.

E. In general, the interior water distribution piping should be acceptable for many more years of service.

3. Sanitary Sewer Discharge Source

A. Sanitary sewage is discharged below grade into the municipal sanitary drainage system in the adjacent streets. The exact point of discharge is not known.

4. Interior Sanitary Piping and Equipment

A. The sanitary drainage piping in the original building is entirely cast iron with bell & spigot connections. The kitchen drainage system has been renovated in recent years to incorporate an above-floor grease interceptor and to replace above ground piping.

B. For the most part, sanitary drainage in the new addition is not visible and is either located below the floor or concealed in the wall construction.

C. In the original building, the wall has been opened in at least one location to access piping. It is not known if this was for sanitary drainage problems, or other reasons.

D. The age of the original sanitary drainage piping is of some concern. Since much of this piping is not accessible, there is little to do prior to problems developing. As new construction is contemplated, it would be best to abandon any existing sanitary drainage piping and to replace with new materials as much as possible.

5. Storm and Rainwater Discharge Source

A. All storm water and rain water discharges directly onto grade around the perimeter of this building. There does not appear to be a storm sewer service on this property.

6. Interior Storm and Rainwater Piping and Equipment

A. There are no interior stormwater or roof drain piping systems within this building. The roofs are all pitched on this building to exterior, perimeter gutters, or the roofs simply spill onto grade. On the new addition, enclosed downspouts on the exterior of the building convey the water to grade.

7. Plumbing Fixtures and Primary Equipment

A. Plumbing fixtures in the original building are in generally good condition and operational. The plumbing fixtures in the building addition are commercial-quality and in good condition. Toilets are tank-style and do not typically meet current ADA requirements. Lavatories are typically wall-hung, but again do not meet any current ADA requirements.

Opening in wall to access piping. (2012)

Lower level women's room in original building. (2012)

B. Plumbing fixtures in the Kitchen are minimal and not adequate for any commercial cooking. As a serving kitchen and for clean-up activities, it is acceptable. Basically, there is a single sink and a small, commercial-duty dishwasher.

8. Backflow Prevention

A. In general, there are minimal requirements for backflow prevention in this building.

B. The fire standpipe system should either be removed, or fitted with a dedicated backflow device. See item 7.5.2 B.

C. The laundry tub in the Electrical Service Room is fitted with Code-compliant vacuum breaker.

D. The exterior hose bibs should be inspected for, and fitted with, Code-compliant vacuum breakers, if needed. We did not observe these in detail. This is an easy, and low cost, corrective measure if needed.

9. Process Plumbing Systems

A. There are no process plumbing systems in this building.

Lower level men's room in original building. (2012)

Fire Protection Systems

1. Fire Sprinkler Systems

A. There is no fire sprinkler system currently installed within this building.

B. The existing water service to this building is not large enough to supply a fire sprinkler system. Presumably there is adequate municipal water in the adjacent streets to supply a fire sprinkler system if a new service were installed to the building.

2. Fire Standpipe Systems

A. This building has a single 1-1/2 inch branch water supply from the domestic water service that serves a single fire hose located in the Basement Floor Level near the Kitchen in the original building. Although the hose and cabinet appear to be in good condition, we do not know the actual age and condition of this hose. Typically, these hose cabinets are no longer used by fire fighting

Lower level fire hose. (2012)

personal. We would recommend that the local Fire Department be queried about the need for this hose cabinet. If the local Fire Department does not want this cabinet, it may be better to remove the cabinet and hose rather than expend the money to inspect and maintain the hose and water supply.

B. In addition, the water supply to the fire hose cabinet is tapped directly from the domestic water service. There is a standard "swing-type" check valve that is designed to protect the domestic water supply from the water within this piping. A standard check valve is not an approved back-flow device. The water in the piping serving the hose cabinet is stagnant and likely hasn't been flushed out for a long time. For health and safety reasons, the water supply to the hose cabinet should either be disconnected (if the hose cabinet is not required), or the check valve should be replaced with an approved backflow protective device.

3. Fire Protection Systems Alarms and Controls

A. Since there are no fire sprinkler systems currently installed within this building, there are no related alarm systems. There are no flow switches or other means to signal that the fire standpipe system is in operation.

Fire hose water supply pipe. (2012)

COST ESTIMATE (Deferred Maintenance)

The facility was renovated into a Senior Center in 1975 and is in active use and well maintained by the City of La Crosse. The work that is estimated in this section are items that are end of service life replacement and elective items that may enhance the safety and accessibility of the structure. The elective items are not triggered by code without a significant renovation project or change of use to meet compliance requirements. The cost estimating work is not aligned with a proposed renovation project, but focuses instead on individual work items that may be considered in the future. The work items are individually estimated and includes a listing for the rationale (ie. maintenance, energy conservation, elective) and prioritization.

ITEM	RATIONALE	COST	PRIORITY
• Original Building Exterior Wall Repair Work - Limestone - Brick Tuckpointing	Maintenance	$140,000 - 175,000	High
• Original Building Window Replacement	Energy Conservation	40,500	Medium
• Original Building Roof Replacement	Maintenance	27,500	High
• Original Building Stair Replacement	Elective	9,000	Medium
• ADA Upgrades to the Restrooms	Elective	30,000	Medium
• Provide GFCI receptacles to meet current-Code and Industry Practices		2,000	Medium
• Update lighting systems. Replaced fluorescent strips with fluorescent trip lighting with high-performance T8 lamps. Replace surface-mounted incandescent fixtures with compact fluorescent or LED fixtures. Modify decorative lighting with compact fluorescent or LED lamps.		24,000	Low
• Add emergency lighting to meet current Codes and standards. Replace units greater than 10 years old.		3,000	High
• Install a fire alarm system with remote monitoring.		12,000	Low
• Install automatic night setback thermostats for all heating and cooling systems.		2,500	Medium
• Zone the second floor separate from the first floor (in the original building) with separate heating-only furnace.		15,000	Low
• Add ventilation capabilities to the “on grade” rooftop unit. Ventilation should be provided for Code compliance and provides for energy improvements during moderate seasons.		2,500	Medium

ITEM	RATIONALE	COST	PRIORITY
• Pending review with the La Crosse Fire Department, remove the single fire hose cabinet and water supply piping serving this fire hose.		2,000	Low
• Replace water heater serving the Kitchen with a sealed-combustion, gas-fired water heater. This will improve energy efficiency, but more importantly allow for elimination of the old chimney and combustion air supply – both of which leak significant amounts of cold air into the building		2,500	Low

PRIORITY LEVEL	COST
LOW	$160,500 - 195,500
MEDIUM	$86,500
HIGH	$65,500
TOTAL	$312,500-347,500

The “construction cost” for a new building of comparable size (11,200 SF) is in the $1,680,000 - 1,960,000 range, and will ultimately be determined by the type of construction, number of levels, materials/finishes, mechanical/electrical systems, and the complexity of the design. This construction cost figure does not include site acquisition, site development and parking, FF+E (furnishings, fixtures, and equipment), contingency, A/E fees, and direct costs (ie, survey, geotechnical, legal, financing, code review, etc.) that constitute the overall project cost.

APPENDIX: Elevations and Plans

South Elevation (2012)

West Elevation (2012)

North Elevation (2012)

East Elevation (2012)

Aerial Site Plan (2012)

GARAGE

UP

MEN

WOMEN

STORAGE

MULTI-PURPOSE SPACE

MULTI-PURPOSE SPACE

KITCHEN

HALL

UP

WOMEN

MEN

PLATFORM

STORAGE/ MECH

STORAGE

ELEV

EXISTING BASEMENT FLOOR PLAN

1/8" = 1'-0"

N

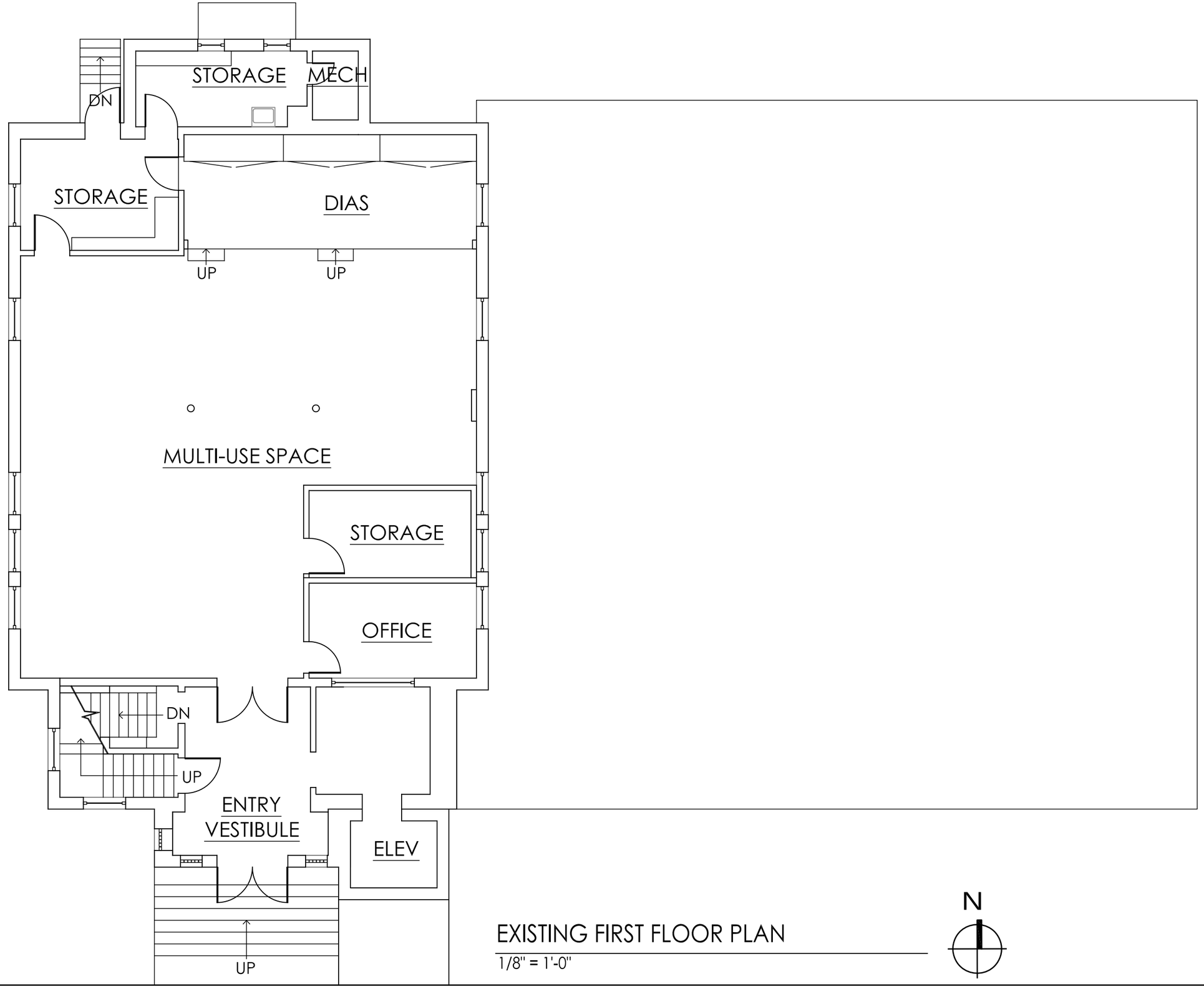
river ARCHITECTS
740 7th Street North La Crosse, WI 54601-3308 Tel 608 785-2217

PROJECT
HARRY J. OLSON SENIOR CENTER
1607 NORTH ST., LA CROSSE, WI

DATE September 6, 2012
DRAWN BY RA
CHECKED BY RA

PROJECT No 1329A
DRAWING TITLE EXISTING BASEMENT FLOOR PLAN

A1



EXISTING FIRST FLOOR PLAN

1/8" = 1'-0"

N

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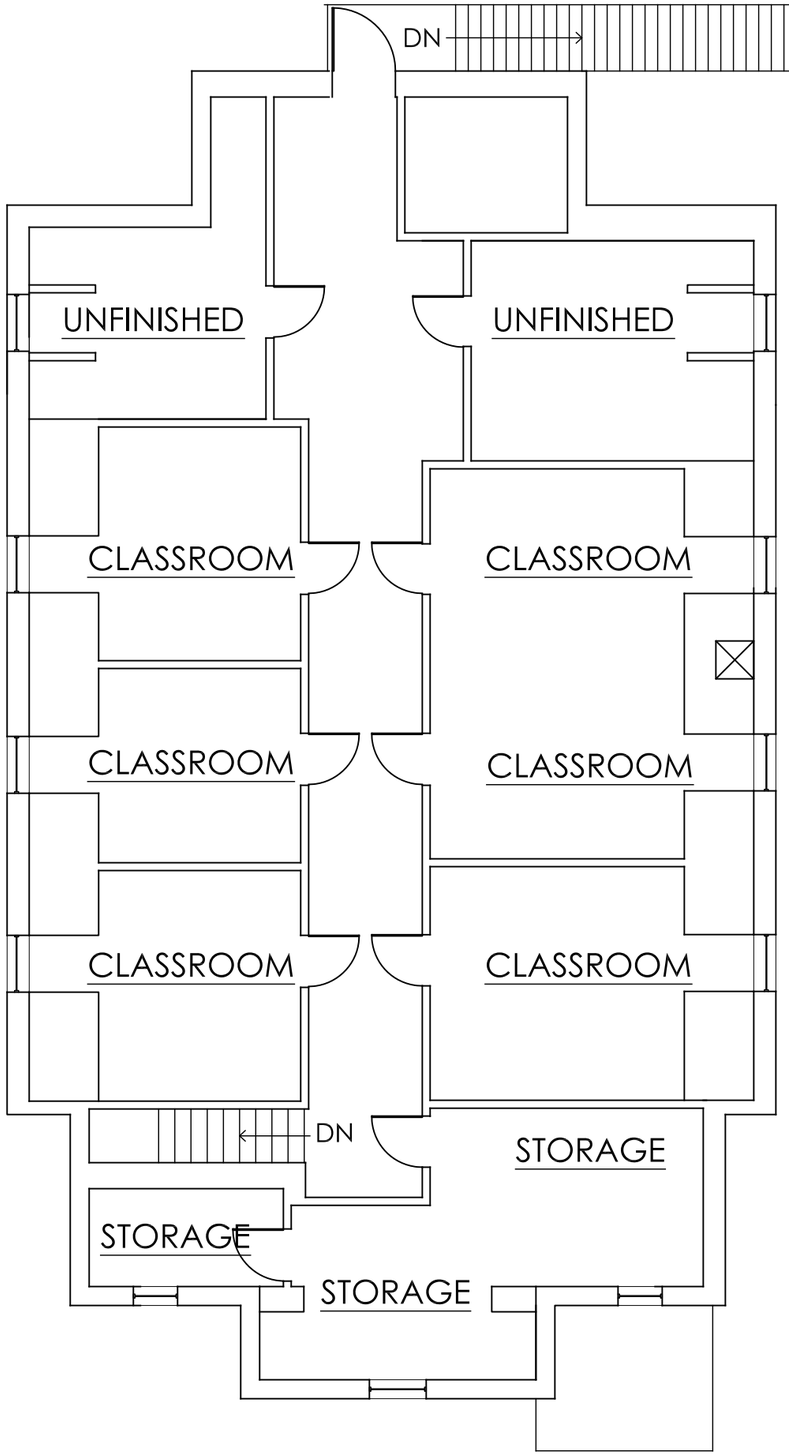
DRAWING TITLE EXISTING FIRST FLOOR PLAN
CHECKED BY RA

A2



EXISTING SECOND FLOOR PLAN

1/8" = 1'-0"

N

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A3