Code Analysis and Conditions Assessment Report

Evanston Arts Center

2603 Sheridan Road
Evanston, IL 60201

Prepared for:
City of Evanston

Prepared by:

McGuire Igleski & Associates, Inc.

In Consultation with:

WMA Consulting Engineers, Ltd.

June 25, 2012

EXECUTIVE SUMMARY

The Evanston Arts Center (EAC) occupies the former Harley L. Clarke House, a large historic mansion located at 2603 Sheridan Road. The property, constructed in 1927, is owned by the City of Evanston (COE), and includes an adjacent coach house that is currently unoccupied. The residence was acquired by COE in 1966; the EAC was established in 1929 and has leased the building from COE since 1969. The property was designated an Evanston Historic Landmark in 1978.

In order to identify the level of compliance with COE adopted building codes, and to evaluate the overall condition of the buildings, COE retained McGuire Igleski & Associates, Inc. to prepare this Code Analysis/Conditions Assessment Report. Evaluation of the building systems was performed by WMA Consulting Engineers, Ltd. This assessment is limited to building code, accessibility compliance and life safety review, a general evaluation of the exterior conditions and identification of potential structural damage. Assessment of hazardous materials is not included.

Based on the current occupancy and use, there are code compliance deficiencies related to exiting, fire protection, accessibility, ventilation, electrical and plumbing issues. The scope of work to correct code deficiencies is dependent on the use of the buildings, and could be significant if there is a change in occupancy and/or a costly rehabilitation.

A preliminary budget of approximately $430,000, including mechanical, electrical and plumbing work, is estimated to correct code deficiencies related to the existing use and occupant. Order-of-Magnitude budget estimates for MEP/FP upgrades that will be required if a new Business user occupies the EAC are also provided.

ACKNOWLDEGEMENTS

Michael Rons of the City of Evanston Fire Department and Walter Hallen of the City of Evanston Building and Inspection Services Division were consulted during this assessment.

Information on the history of the Harley L. Clarke House was drawn from a report prepared by Kris Hartzell in 2011.

Introduction

The Harley L. Clarke House and Coach House were constructed in the 1927 in the Picturesque Style. Designed by Chicago architect Richard Powers, the house received an award in 1928 from the Evanston Arts Commission for architectural excellence. The grounds were designed by noted landscape architect Jens Jensen. The property achieved Evanston Historic Landmark status in 1978. The Evanston Arts Center (EAC) has occupied the residence since 1969, and uses the interior for art classes, gallery space and administrative offices. The coach house was designed to accommodate two individual residential units and is currently vacant.

Project Scope Statement

The City of Evanston (COE) retained McGuire Igleski & Associates (MIA) to conduct a building code review of the property, and to evaluate the overall condition of the buildings and exterior grounds. WMA Consulting Engineers (WMA) assessed the mechanical, electrical and plumbing systems. The following Code Analysis and Conditions Assessment Report is a summary of the findings and provides preliminary estimates of construction cost to correct the deficiencies.

Methodology

COE provided pdf floor plans of the house and AutoCad floor plans of the coach house. No original construction drawings are available. MIA/WMA conducted on-site assessments on May 11 and May 15, 2012. As part of the assessment, the general layout of interior spaces was confirmed, and updated floor plan drawings were generated in AutoCad. General dimensions were verified, but the adjusted drawing files should not be considered "as-built" documents. Photographs of representative conditions were taken and selected images are included in this report.

Architectural Description

Site

The site is on the east side of Sheridan Road across from Central Street, and adjacent to the historic Grosse Point Lighthouse. A parking lot on the north side of the house accommodates 40 vehicles. The public lot is also used by visitors to the beach and lighthouse. Additional parking is located in front of the house and in front of the coach house garage. The remainder of the site is landscaped.

House

The original residence is a three story structure with a full basement and partial attic space. The house is large, totaling approximately 18,500 square feet including the basement. Structural framing was not visible within the house; wood roof framing is visible in the attic so it is presumed that the floors are also wood framed. Exterior walls are quarry-faced lannon stone laid in a random, squared stone pattern. Windows are steel casements that appear to be original, with wood sills and trim. Roof forms are generally hip framed structures clad in flat clay tile. Flat roofs exist at the top of the large hips and at several second floor sunrooms and projecting bays. A large conservatory to the south is predominantly glass, with a hipped roof structure clad in standing seam copper. Decorative copper gutters and downspouts exist at all areas.

The EAC has occupied and utilized nearly all available interior space. The basement level consists of photography studios and darkrooms to the north, and pottery studios to the south. A kiln room exists adjacent to the main mechanical room that houses the boiler, water heaters and electrical panels. The first floor contains administrative offices to the north, and gallery spaces to the east and south. The original entry foyer and main stair contain the reception area. The original conservatory is not accessible from the interior of the house; it now houses a metal shop and is accessible at the east and west ends from the exterior. The second floor is predominantly studio space, with two offices in the northeast corner. The third floor contains a large painting studio, a computer lab, storage and one office. The attic is accessed from the south storage room and is used for storage.

Recent renovations to the house include: accessible ramp and automatic door operators at main entry, a first floor unisex toilet room, a new copper roof on the metal shop (conservatory), and a new modified bitumen roof on the upper portion of the structure.

Coach House

The coach house is designed in a similar style to the main residence, using the same exterior materials. It is a two story structure plus a partial basement, with a three bay garage to the east and a greenhouse addition to the west, facing Sheridan Road. The structure is designed to accommodate two separate residential units. The first floor residential unit is accessed from a raised entry porch on the north side. The stairway to the second floor unit is also accessed from the north side through a separate entry door near the garage. Both residential units contain a kitchen, living area, pantry, bathroom and bedroom. The second floor unit has a small balcony accessible from the stair hall and an additional room accessible only through the front bedroom. The greenhouse is separated from the first floor residential unit by a workroom and storage room; these three spaces are accessed only from the exterior. A 2009 exterior renovation included replacement of all windows, reconstruction of the first floor entry patio and south entry stair, ivy removal, full tuckpointing of the exterior stone walls, and repair/replacement of copper gutters and downspouts.

Code Analysis

The following code analysis is based on the existing occupancy and construction type as defined by the International Building Code (IBC), 2003 Edition:

- EAC (former main residence) – Business Group B, Type III-B construction.
- Coach House – Residential Group R-3, Type III-B construction**.**

The code analysis is based on the following codes adopted by the City of Evanston:

2003 International Building Code (IBC)

2003 International Plumbing Code

2003 International Mechanical Code

2003 International Fuel Gas Code

2005 National Electric Code (NFPA 70)

2003 NFPA Life Safety Code 101
2003 International Fire Code
2009 International Energy Conservation Code
State of Illinois Plumbing Code
State of Illinois Accessibility Code (IAC)
Illinois Energy Conservation Code
Green Building Ordinance

Code Violations/Deficiencies

The City of Evanston uses NFPA Life Safety Code 101 for existing buildings (IBC generally pertains to new construction). For the coach house, the governing code is the 2003 International Residential Code, for one and two family dwellings.

A building code analysis is driven by the building construction, size and occupancy. This analysis is based on the buildings retaining their current use and occupancy classification as defined by the IBC; Adult art education, office and gallery space under IBC Business Group B classification.

A change in user type within the Business Occupancy will potentially reduce the number of code compliance issues. For example, there will be no requirements for fire separation of kiln rooms or ventilation of dark rooms if the building only contains offices. However, it is important to emphasize that any change in occupancy, such as to Residential or Assembly, will potentially trigger numerous code compliance issues, such as the requirement for a sprinkler system, additional exiting, and greater accessibility. A comprehensive list of potential requirements is beyond the scope of this assessment.

The following matrix includes a detailed list of the deficient elements and conditions. Some items are considered 'existing non-compliant' by the City of Evanston Building Department. Conditions that require immediate correction due to life safety concerns are identified in the matrix.

	NFPA 101 - Life Safety Code				
Item No.	**Section**	**Requirement**	**Deficiency**	**Grandfathered?**	**Corrective Action**
	Section 7.2.1.4.4	Egress doors to be swinging	Sliding pocket doors in south gallery not compliant	No	Fix doors in open position, or remove and install swinging doors with panic hardware
	Section 7.2.1.4.4	Door shall not obstruct more than 1/2 of a passageway or project more than 7 inches into it when fully open	Door to fire escape at 2nd floor studio fully blocks egress from the 3rd floor when opened.	No	Reverse door swing
	Section 7.2.2.1(b)	Width of Existing Stairs - 36 inches minimum	North stair connecting basement, 1st and 2nd floors is 35" wide, so this stair may not be considered a means of egress	Yes	
	Section 7.2.2.4.4.1 - Handrails	34-38" above tread nosing	Most stair handrails are 32 inches above the nosing	Yes	
	Section 7.2.2.5	Enclosure and protection of stairs	Stair from third floor down to second floor is not enclosed at upper floor, and empties into North Studio Space, and then leads to open two story main stair	No	Provide rated partitions and doors on south wall of studio at corridor leading to toilet room
	Section 12.2.2.2.3	Panic hardware for egress doors serving areas with an occupant load of more than 100 persons	Sliding pocket doors in south gallery not compliant	No	Fix doors in open position, or remove and install swinging doors with panic hardware
	Section 39.2.4.3	Two exits required for rooms with occupant load greater than 100 persons	South Gallery has occupant load of 155, when calcuated at 5 square feet per person.	No	Provide secojnd exit to the east, unless COE allows a maximum posted occupancy of 99.
	Section 39.3.2	Protection from Hazards: Provide 1 hour fire protection at areas of general storage, boiler or furnace rooms, woodworking and painting areas	Basement - Kiln Room, Mechanical Room, 2 storage rooms and pottery glazing studio need 1 hour fire protection.	No	Walls may be existing 1 hour. Provide 1-hour rated doors on all rooms.
			First Floor - Storage room south of kitchen needs 1 hour fire protection	No	Provide 1-hour rated doors
			Second Floor - south storage room needs 1 hour fire protection	No	Provide 1-hour rated doors

			Third Floor - south storage room needs 1 hour fire protection	No	Provide 1-hour rated doors
	2003 International Fire Code				
Item No.	**Section**	**Requirement**	**Deficiency**	**Grandfathered?**	**Corrective Action**
	Section 1013 - Exit Access - 1013.2 Egress Through intervening spaces	Egress shall not pass through adjoining or intervening rooms that are not accessory to the area served, or through kitchens, storage rooms, closets, or spaces used for similar purposes	Basement - Kiln room egress through adjoining storage rooms	No	Provide new 1-hour rated egress door directly to corridor. Provide 1-hour rated doors from kiln room to adjoining storage rooms
			Kitchen - egress through storage room to south and office to east	No	Change use of storage room and remove stored materials

Handicapped Accessibility

EAC

At the moment, the building is does not meet code requirements for accessibility. Two handicapped parking spaces in front of the building are not in compliance with (Illinois Accessibility Code) IAC. The slope of the ramp from the parking area requires guardrails and 60 inch turns at changes in direction, and the automatic door operators at the main entry are not functioning. With corrections, only the first floor is accessible. An elevator would be required to access the pottery, painting and photography studios on the upper and lower floors.

The extent of required accessibility upgrades is determined by the cost of building renovations. The IAC determines the required scope of accessibility upgrades based on a ratio of the alteration/renovation costs (AC) to the reproduction cost of the building (RC). The AC is considered to be the total amount of all alterations (exempting maintenance and repair work and upgrades such as sprinkler systems that do not affect the usability of the building) made within the last 30 months, including the cost of the anticipated project:

- If the AC is 15% or less, only the element or space being altered shall comply with the applicable requirements for new construction. This is not required for religious entities, private clubs or owner-occupied transient lodging of five units unless the cost exceed $100,000.
- If the AC is 15% to 50% of the RC and less than $100,000, the element or space being altered shall comply with the applicable requirements for new construction, and an entrance and means of egress intended for use by the public.
- If the AC is 15% to 50% of the RC and more than $100,000, then a number of accessibility requirements apply:
    - The space being altered
    - An entrance
    - All spaces and elements necessary to provide horizontal and vertical accessible routes from the entrance to the altered spaces

    - At least one fully accessible toilet room for each sex, or a unisex toilet
    - Accessible parking
    - Accessible route from parking and/or public sidewalks to an accessible entrance
- If the AC is 50% or more, the entire facility shall comply with the applicable requirements for new construction.

Therefore, the requirements for accessibility improvements depend on the established replacement cost of the building and the costs of rehabilitation, and cannot be fully defined in this report. A large renovation project could potentially trigger extensive accessibility upgrades.

Coach House

The two residential units in the coach house are not handicapped accessible. Under the IAC, privately financed alterations to housing are not covered, so the non-accessible condition could remain. If any alterations to the building are financed or guaranteed by a governmental unit, then the requirements as described above for the EAC apply.

Plumbing Fixtures

EAC

The conversion of the building from single family residential to a business use resulted in a deficiency in the required number of plumbing fixtures, due to increased occupant load. The EAC has also removed several lavatories and replace them with art sinks or service sinks. In the current use, the plumbing fixture count includes 6 toilets, 6 lavatories and 1 drinking fountain. Based on the Illinois Plumbing Code, the occupant load requires separate rooms for male and female patrons, and should include the following:

- 4 toilets for men with an allowed substation of 2 urinals
- 6 toilets for women
- 4 lavatories for men
- 4 lavatories for women
- 3 drinking fountains
- 4 service sinks, 1 per floor.

New multi-use toilet rooms must comply with all IAC requirements for accessibility.

Coach House

The fixture count provided for the two residential units is satisfactory.

Existing Conditions

A summary of the EAC and Coach House conditions follows. The assessment of existing conditions was visual in nature and did not include inspection openings, material testing of other detailed analysis. Reports detailing structural, mechanical, electrical, plumbing, and hazardous materials conditions are appended. For the discussion of the conditions below the following terminology is used:

- GOOD – the element is structurally sound; performing its intended purpose, has few cosmetic imperfections and needs no repair, or only minor or routine maintenance.
- FAIR – the element shows early signs of wear, failure, or deterioration, though it is overall structurally sound and performing its intended purpose. There may be a failure of a sub-component.
- POOR – the element is no longer performing its intended purpose, is missing, more than 25% deteriorated or damaged and cannot be repaired or adjusted, or if it shows signs of imminent failure.

EAC

Exterior

No major structural deficiencies were observed in the EAC; the conditions observed are generally a result of deferred maintenance, with exterior resulting in varying states of material degradation. The majority of exterior stone is covered by ivy and plant growth, which has a tendency to trap and hold moisture against the masonry. The density of the plant growth is so heavy that the stonework cannot be assessed (Photos 1 and 2). Mortar joint deterioration was observed in many locations (Photo 3). The stone walls supporting the original north exterior stair are in very poor condition (Photo 4). A new wood stair has been constructed over the original construction.

Surface corrosion exists on the steel window sash and frames, which overall are in fair to poor condition. In many locations the wood sills are in poor condition. Wood trim around doors and windows is also in fair to poor condition (Photos 5 and 6).

The clay tile roof is comprised of heavy shingle style units, and appears to be in good condition. Evidence of minor damage and localized repair of individual tiles was observed. The brick masonry chimneys appear to be in fair condition. Localized brick deterioration and cracked mortar joints were observed (Photo 7). Wood trim at dormers and the south fire escape doors is weathered and is in generally fair condition (Photo 6).

The fire escape is fair condition. Paint failure and surface corrosion were observed throughout. No loose structural elements were discovered (Photo 8).

Interior

The interior of the house appears to be in good condition structurally. Interior finishes and materials have suffered from the wear and tear of public use, particularly in rooms functioning as art studios, and adjoining storage rooms. Two of the original bathrooms now function as clean-up areas for art studios. Lavatories have been replaced with art sinks, and the wall finishes are in poor condition. The second floor north bathroom is currently functioning as an office, and plumbing fixtures are either removed or covered.

Coach House

Exterior

The exterior of the coach house is in good condition, due to the recent repair work. Ivy has been removed, mortar joints tuckpointed, and windows replaced (Photo 9). There is extensive moisture infiltration where the greenhouse addition meets the east exterior wall (Photo 10). This may be due to poor flashing conditions between the wall and greenhouse. It is not clear if the problem was addressed as part of the recent rehabilitation.

Interior

The interior of the coach house is in fair to poor condition. The prolonged vacancy of the residential units, and presumably the lack of heat in winter months, had resulted in extensive peeling paint, and deteriorating interior conditions. There is a depressed area in the floor of both units in the stair hall leading to the bedroom that may be a structural framing deficiency. In general, the residential units will require a complete interior renovation before they are habitable.

Environmental Assessment

The presence of hazardous materials in the buildings is beyond the scope of this assessment, but it can be assumed that both lead and asbestos containing materials are present in each building given the age of construction. The COE has documentation that an underground storage tank and contaminated soil was removed in 1991. No other documentation of hazardous material identification, containment or removal was made known to us during this assessment.

APPENDIX A

MECHANICAL, ELECTRICAL, PLUMBING AND FA/FP CONDITIONS ASSESSMENT REPORT

MEP/FP CODE ANALYSIS

AND

CONDITIONS ASSESSMENT REPORT

FOR THE

EVANSTON ARTS CENTER
2603 SHERIDAN ROAD
EVANSTON, IL 60201

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WMA Project #12090-00
Dated: June 15, 2012 (Draft)
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INTRODUCTION

WMA was commissioned by McGuire Igleski Architects to perform the MEP/FP portion of a Code Review and Conditions Assessment for the Evanston Arts Center located at 2603 Sheridan Road.

The building was originally constructed in1927 as a large single family residence. The City of Evanston acquired the property in 1966 and the change in occupancy from residential to business was made in 1969 when the Evanston Arts Center the current tenant first leased the building. They have occupied the building ever since.

It appears that minimal upgrades were done to the building systems with the move in of the Arts Center. As such, some of the observed deficiencies have been existing for many years. Many of the systems that were appropriate for a residential occupancy are marginally suitable for a business occupancy.

VENTILATION

One of the biggest deficiencies with the present Arts Center is with the ventilation systems. When originally constructed as a residence, the building utilized natural ventilation, i.e. operable windows. When the facility was converted to a business occupancy the use of operable windows was maintained as the source of code required ventilation air.

Per the IMC for a business occupancy to comply with natural ventilation there must be window area equal to at least 8% of the room floor area and vent area equal to at least 4% of the room floor area.

A room by room calculation was done based on the measured window sizes. Most of the occupied spaces do meet this requirement for natural ventilation.

However, the Arts Center is a specialized type of a business occupancy which brings on other ventilation issues. Areas such as the pottery, ceramics, glazing studios, the photo lab darkrooms and the metal working shop have requirements for mechanical exhaust. Once a space is required to have mechanical exhaust, then it must be able to makeup

from the outdoors, the same amount of air. Also this makeup air must be tempered (heated). So if a space is required to have exhaust, then it can no longer claim to be naturally ventilated, a mechanical supply system is required.

These issues, though are specific to the Arts Center operation. If the Arts Center was to move out and a business use of all general office spaces replaced it, the claim for natural ventilation would be valid and could still be used.

DEDICATED EXHAUST SYSTEMS

The Arts Center has some existing deficiencies with how the existing exhaust systems are installed. The exhaust from the photo labs are exhausting fumes. The exhaust from the ceramics and pottery spaces are exhausting dusts. All of the exhaust fans are located at grade such that exhaust air is discharged where people could be walking. These are hazardous exhausts that can cause a nuisance in the way that they are discharged. Many newer Arts Centers with similar occupancies exhaust these spaces to a dust collector so that clean air is discharged to outside. At a minimum, these exhausts would need to be elevated so as not to be harmful to the public.

Again, if the Arts Center were to move out and be replaced by a more traditional business occupancy, these issues would go away. These dedicated exhaust systems would no longer be required and would be removed.

KILN ROOM

In the basement, there are a number of gas fired ceramics kilns. This space by code needs to be enclosed in a fire rated room. Presently it is open to the rest of the basement. A few of the Kilns have exhaust hoods over them but they appear inadequate in size and location to do an adequate job of exhausting heat and fumes.

We were unable to follow the exhaust duct routing to determine where the hood exhaust duct discharges. This should go up above roof level, but a duct shaft was not visible.

Another problem with the Kiln room is that there is no makeup air to it. The way it is now setup when the exhaust system runs, it draws air from the rest of the basement. If

a fire rated room is built to enclose the Kilns, then a makeup air system is necessary. Both supply and exhaust are necessary to be able to purge the room in the event of an equipment malfunction. This is a safety issue that again is specific to the Art Center operation.

On grade at the north side of the building, there is a propane tank. It is assumed that this is tied into some of the Kilns in the basement. The tank is less than 10 feet from the building and on a side of the building with operable windows. This location does not satisfy code requirements for a propane storage tank.

PLUMBING SYSTEMS

As noted in the Architectural portion of this report the plumbing systems are deficient for a business occupancy. The number of toilet rooms, fixture counts and locations are as they were for the original residence. No changes were made with the conversion to a business occupancy. Also a few fixtures have been removed over the years. All of the bathtubs have been capped over so they cannot be used. A couple of the toilets were noted as being cracked and some of the lavatories were replaced with slop sinks.

The Arts Center is a mixed use business/assembly occupancy so that the calculated occupant loads are much greater than for a residence. However even if a new Owner or tenant moved in that was only a business occupancy there would be a need to increase the plumbing fixture counts.

Construction of new centrally located Men's and Women's toilet rooms with the appropriate number fixtures to bring the counts up to code requirements, and meeting ADA requirements would need to be constructed.

If this were done, the incoming water service may need to be replaced. Presently there is a 1 ½" supply pipe and a 1" water meter. The new requirement would be for at least a 2" possibly larger. Also, if flush valve fixtures were to be used instead of tank type which is normal for business uses a domestic water booster pump may be needed.

The domestic hot water heater would also be undersized for this upgrade. The heater is over 20 years old so it is at the end of its expected useable life anyway and would be in need of replacement. It is located in the boiler room in the basement.

Many of the art studios painting, pottery, ceramics and photo lab have slop sinks installed in them. The faucets at these sinks do not have a vacuum breaker to prevent possible contamination of the water supply. These slop sinks do have plaster traps to help keep debris out of the drains. There are no local backflow preventers on the water supplies.

WINDOW A/C UNITS

The building for the most part is not air conditioned. A number of rooms have window air conditioning units installed to provide cooling.

Oddly, that is actually a code issue for the building. Once you install a window air conditioning in a window opening, then the window is not operable and the access to natural ventilation is lost. In reality, if you were running the AC unit for cooling, you probably would not want to open the window, but the code ventilation requirement still exists.

The majority of window air conditioners are set up to recirculate the inside room air and use outside air for heat rejection, but no ventilation air is brought into the building. As a result the code ventilation requirement is not met.

What is a popular alternative where individual room cooling is desired instead of a central system, are "ductless split systems". These type of units have an evaporator that is wall mounted inside the building and a condensing unit outside the building and refrigerant piping is run between the two. Such a system can provide room cooling (and heating if needed) without prohibiting the use of the windows for natural ventilation. Multiple evaporators could be connected to a single condensing unit to address small groups of rooms.

Note that from a code standpoint for the office spaces the ventilation requirement is met via the operable windows. Air conditioning is not a code requirement; it would be a tenant upgrade.

The best solution, if a new tenant were to occupy the building and major remodeling was to be done would be to install a central air handling system that could provide ducted supply air throughout many spaces of the building.

ELECTRIC SERVICE

The buildings incoming electric service appears to have been replaced in the 1980's however many of the branch panels were reused, are older and in fair to poor condition.

If the Arts Center were to stay as the building tenant, the service size 600A, 120/240V, 1 phase, 3 wire is probably adequate but local portions of the distribution should be upgraded. It appears that there is not adequate panel space for providing the required number of circuits.

One of the biggest problems with the present Arts Center electrical distribution is the prevalent use of temporary wiring devices. A residence typically does not have an over abundance of receptacles, so from the existing outlet locations, surface wiremold sections were run with outlets built in but then plugged into these are plug strips that serve various equipment. The NEC does not allow plug strips to be used for permanent installation. This is very noticeable in the pottery and ceramics studios.

Another frequent problem is that there are open junction boxes with wires hanging out in many locations. These should all be closed up with appropriate box covers. If the wiring is abandoned it should be so identified and removed.

The lighting systems throughout the building utilize older less efficient T-12 flourescent lamps. If a new tenant were to occupy the building, a lighting upgrade should be

considered to newer more energy efficient lamps. This however is not code required but would be a tenant upgrade.

Exit and Emergency lighting is provided via unitary battery pack fixtures. Because of the winding routes to get to the exits and exit stairs a number of additional fixtures should be installed to provide adequate code required illumination. The building does not have an emergency generator. For a normal business occupancy this would not be required. But if the occupancy classification shifted to assembly, then one may be required.

The building fire alarm system needs to be upgraded for the current occupancy.

EXISTING MEP INFRASTRUCTURE

The building is heated by a gas fired hot water boiler as manufactured by Hayes Boiler. This unit was built in 1980 and is now over 30 years old. This unit is nearing the end of its expected useable life of 40 years, but at this time is fully functional.

The replacement of this boiler should be planned within the next 5 to 10 years. If a new tenant were to occupy the building and do major remodeling that would be the ideal time to replace it. A new high efficiency modular boiler could be installed. The existing boiler is probably in the 70% efficient range, new boilers in the 95% efficient range could be utilized, resulting in substantial energy savings. Again, replacement of older equipment with new is not a code requirement.

The combustion air intake for the boiler room has a louver and an auto damper approximately 35 x 15 installed in a window opening. The size is marginal for the capacity of gas fired appliances installed, plus it is blocked up with debris, leaves etc. This should be upgraded when the boiler is replaced.

FIRE SPRINKLERS

The building does not have a fire sprinkler system installed. For a residential occupancy it would not have been required.

Based on the area of the building and the type of construction, less than 20,000 sf and type IIIB construction for a business occupancy, the International Codes, would not require this building to be sprinklered. However an Evanston Fire Department requirement recently enacted is that any new business occupancy greater than 5,000 sf is to be sprinklered.

Based on this requirement a new Fire sprinkler system would only be required by the Evanston Fire Department if there was a change in the building occupancy classification, or if remodeling costs exceeded 50% of the replacement value of the building.

If the Arts Center remained the tenant in the building, or if a new business tenant moved in, it could be argued that the installation is "grandfathered" so as to be acceptable without a sprinkler system.

COACH HOUSE

The Coach house on the EAC property has a first floor and a second floor apartment. As they exist, due to the long time being unoccupied, all of the fixtures etc. are in poor condition and would need to be replaced.

In the basement, there is a hot water boiler that is newer, with two zone pumps for heating the apartments. These possibly could be reused if the apartments were to be renovated but they would need to be serviced.

One item of concern is that on the wall of the basement storage room are level gauge equipment for an underground fuel tank. At some time, this facility must have been

heated with fuel oil. The pipes go out the basement wall and underground. It was confirmed by the Evanston Fire Department that there was a fuel oil tank underground, but it was removed in 1991 with approval of the State Fire Marshall's office.

There are a number of open electrical junction boxes in the basement and it looks like an old abandoned service. This all needs to get cleaned up and removed.

The attached greenhouse has its own heating and ventilating equipment however it appears to be older and in poor condition. If the greenhouse were to be put back in service these systems would need to be replaced with new.

3rd floor toilet exhaust ducted through attic

Panel at base of attic stairs

Slop sink in 3rd floor art studio

3rd floor office

Ceiling of 3rd floor office

3rd floor computer lab

3rd floor toilet room

3rd floor toilet room (fixture cracked)

3rd floor office

Panel in art studio

Basement pottery studio

Basement pottery studio

Plug strips used in studio

Heating boiler

Main electrical panel

Domestic hot water heater

Older electric panels

Combustion air intake for boiler room

Electric meter

Emergency power switches

Photo lab

Photo lab blanked off grilles

Sink in photo lab

Abandoned incinerator

Basement toilet room

Basement computer lab

Old telephone and open electrical boxes

Kiln room

Kiln room

Spray booth exhaust

Slop sink in ceramics studio

Air compressor

Incoming water service

Water meter

Old electrical open boxes

Gas meter

First floor toilet room

Office with exhaust

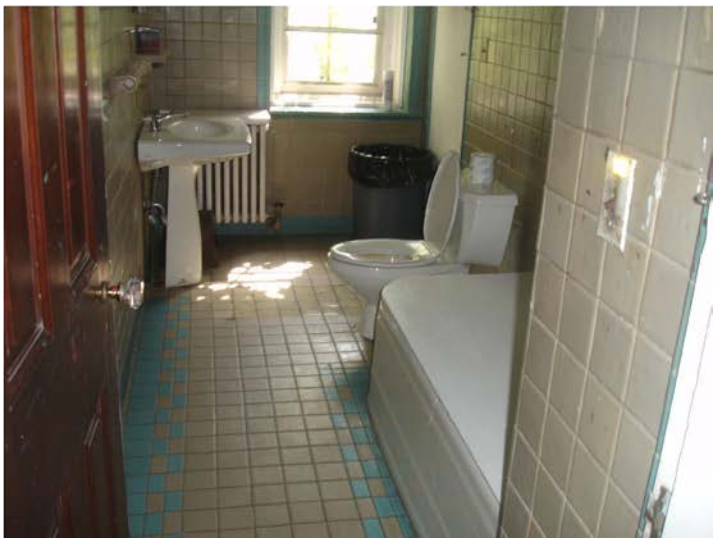
Toilet room exhaust fan

First floor handicapped toilet

Accessible entrance not working

Fire alarm panel

Sink in kitchen



2nd floor toilet room

Knox box at entrance

Coach house / garage

Garage heating

Coach house apt kitchen

Coach house apt bedroom

Coach hose apt. toilet room

Combustion air to basement

Boiler in coach house basement

Coach house water service

UG tank level equipment (abandoned)

Old electrical panel

Coach house gas meters

New coach house electrical panel

Sump pump in basement of coach house

Gas service to coach house

Greenhouse attached to coach house

Green house heating unit

Greenhouse boiler

Green house electrical panel

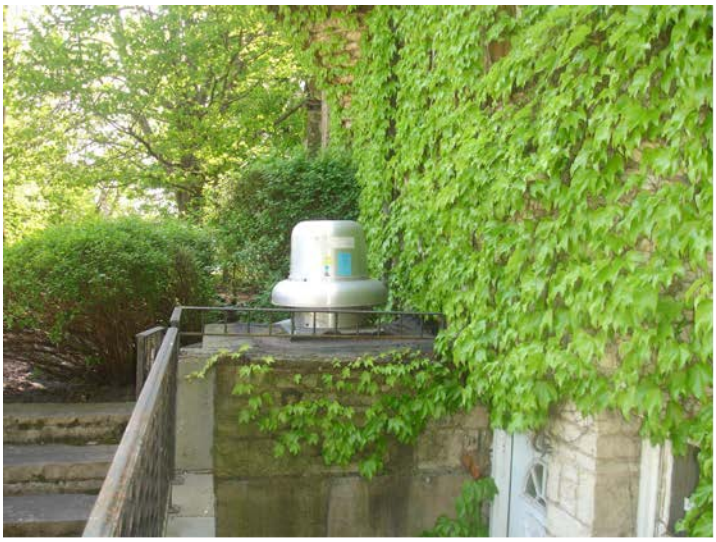
Coach house electric meter

Metal shop heating unit

Metal shop

Spray booth exhaust

Propane tank on grade

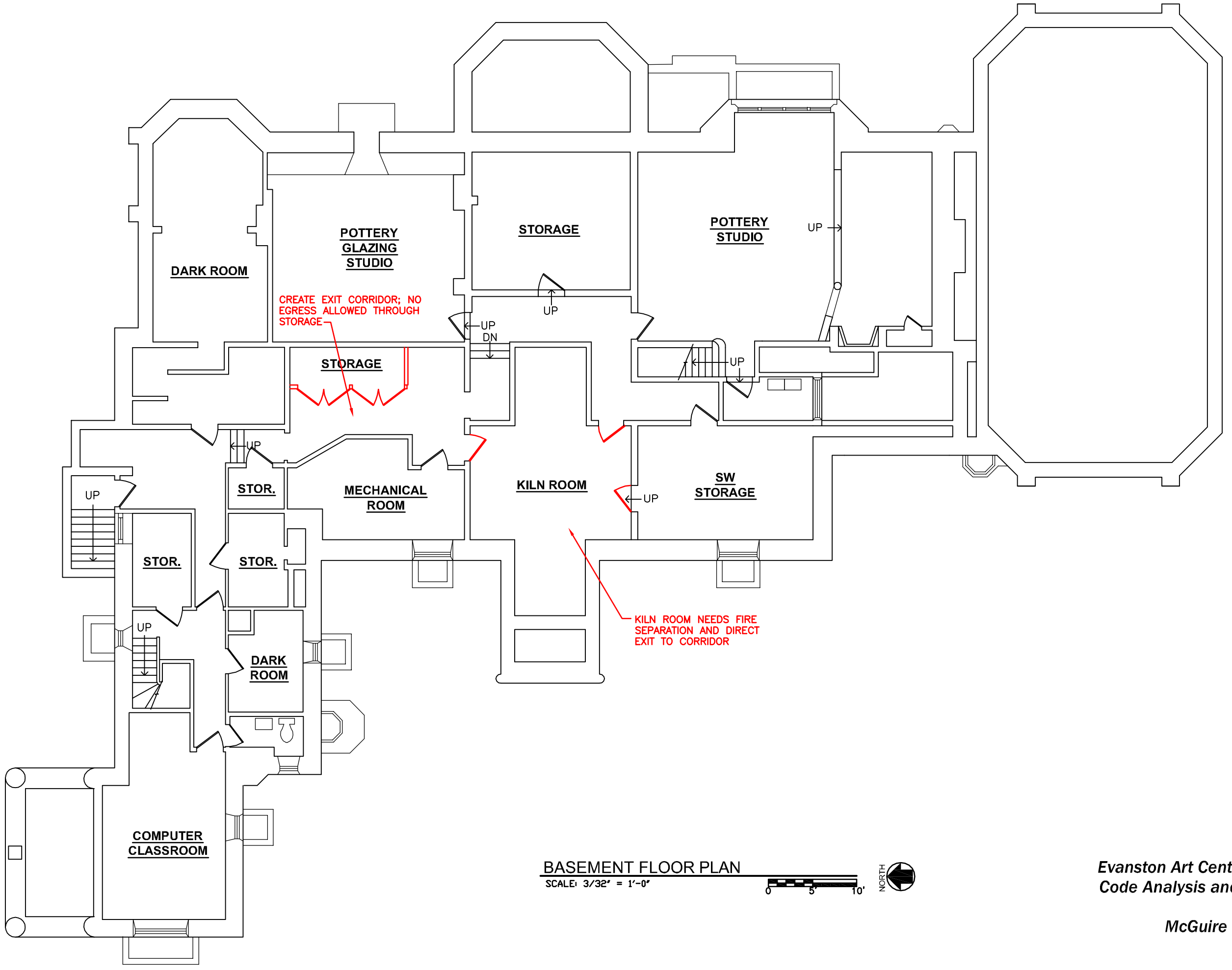


Basement photo area exhaust

Spray booth exhaust

APPENDIX B

FLOOR PLANS



BASEMENT FLOOR PLAN

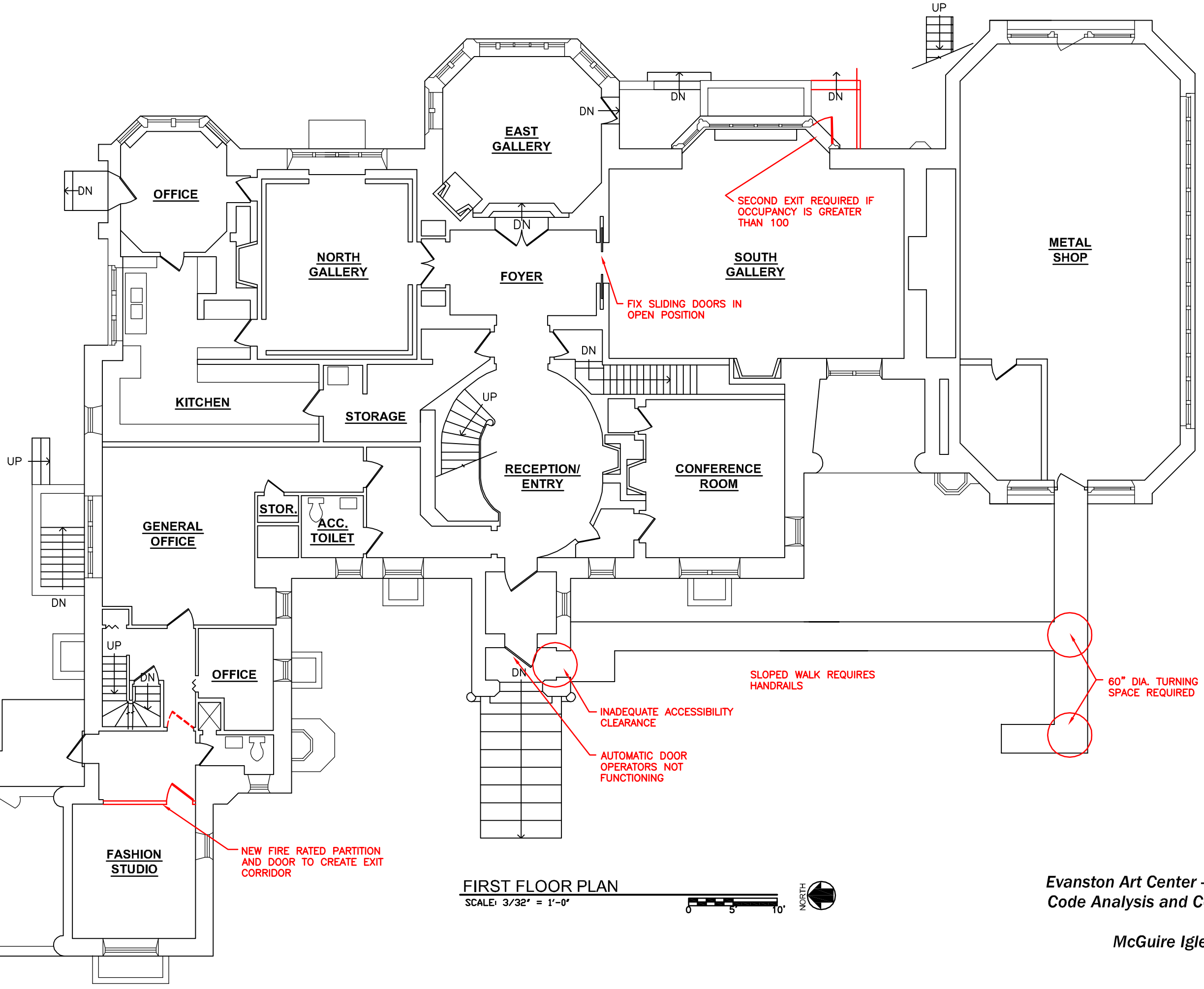
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



FIRST FLOOR PLAN

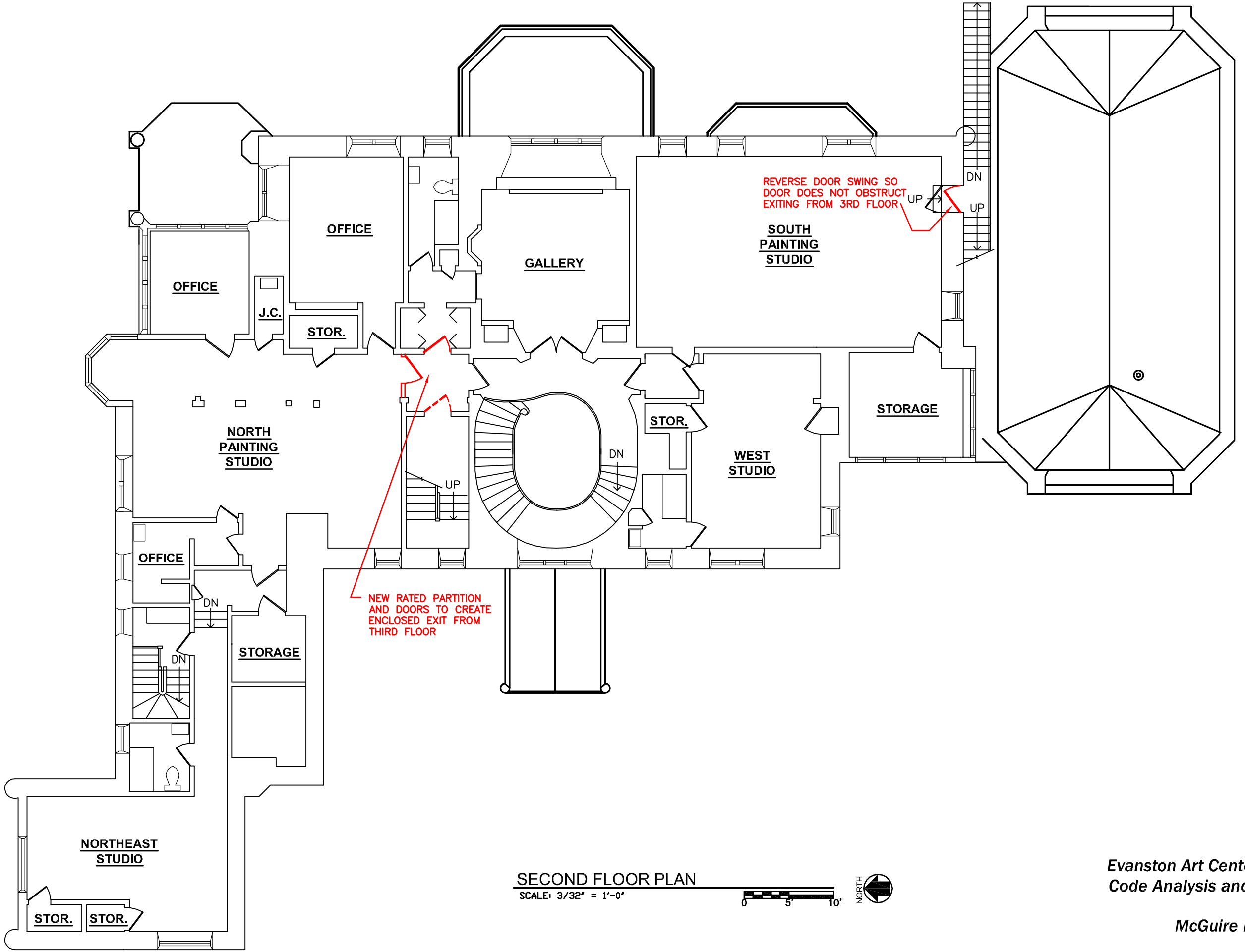
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



SECOND FLOOR PLAN

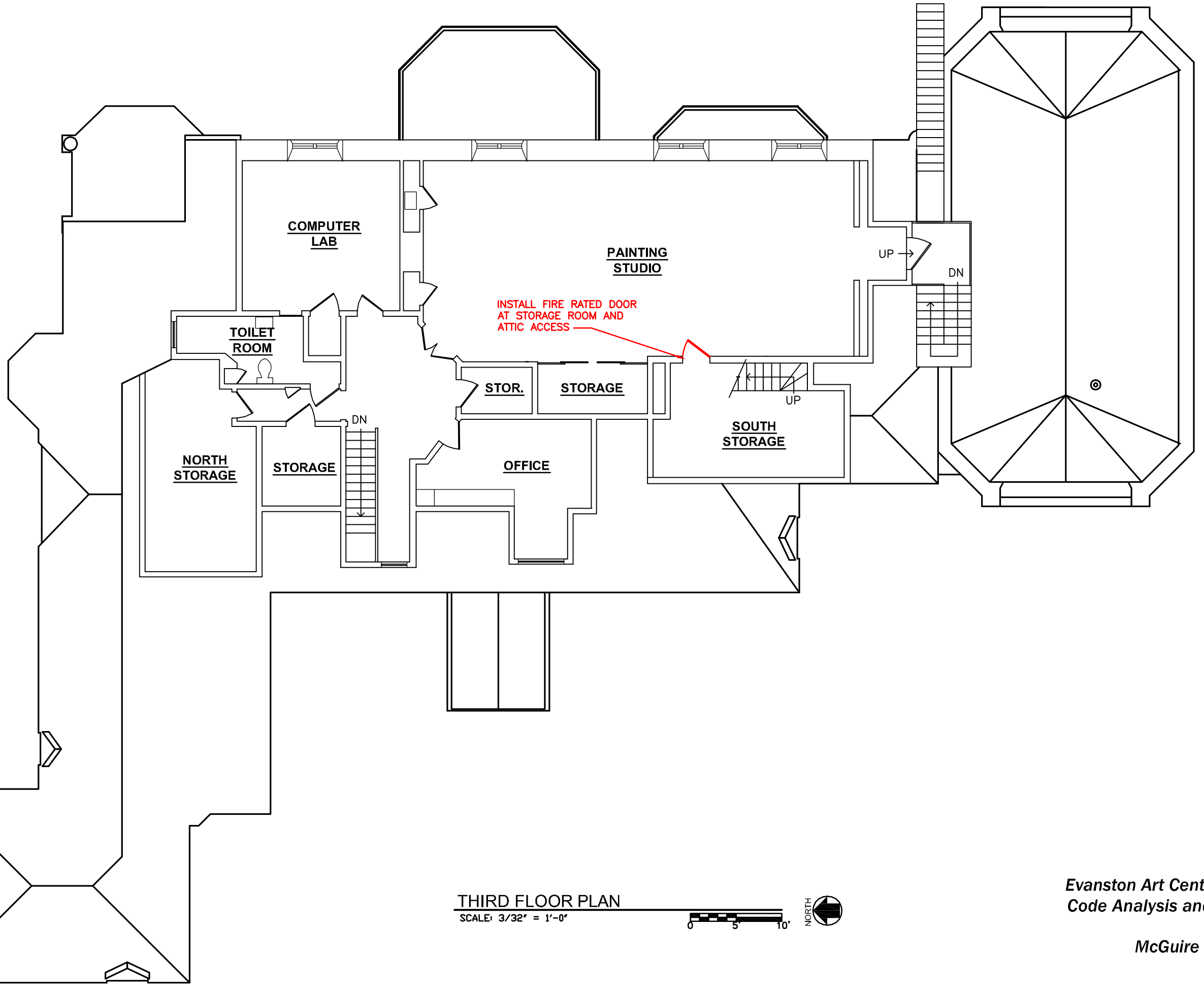
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



THIRD FLOOR PLAN

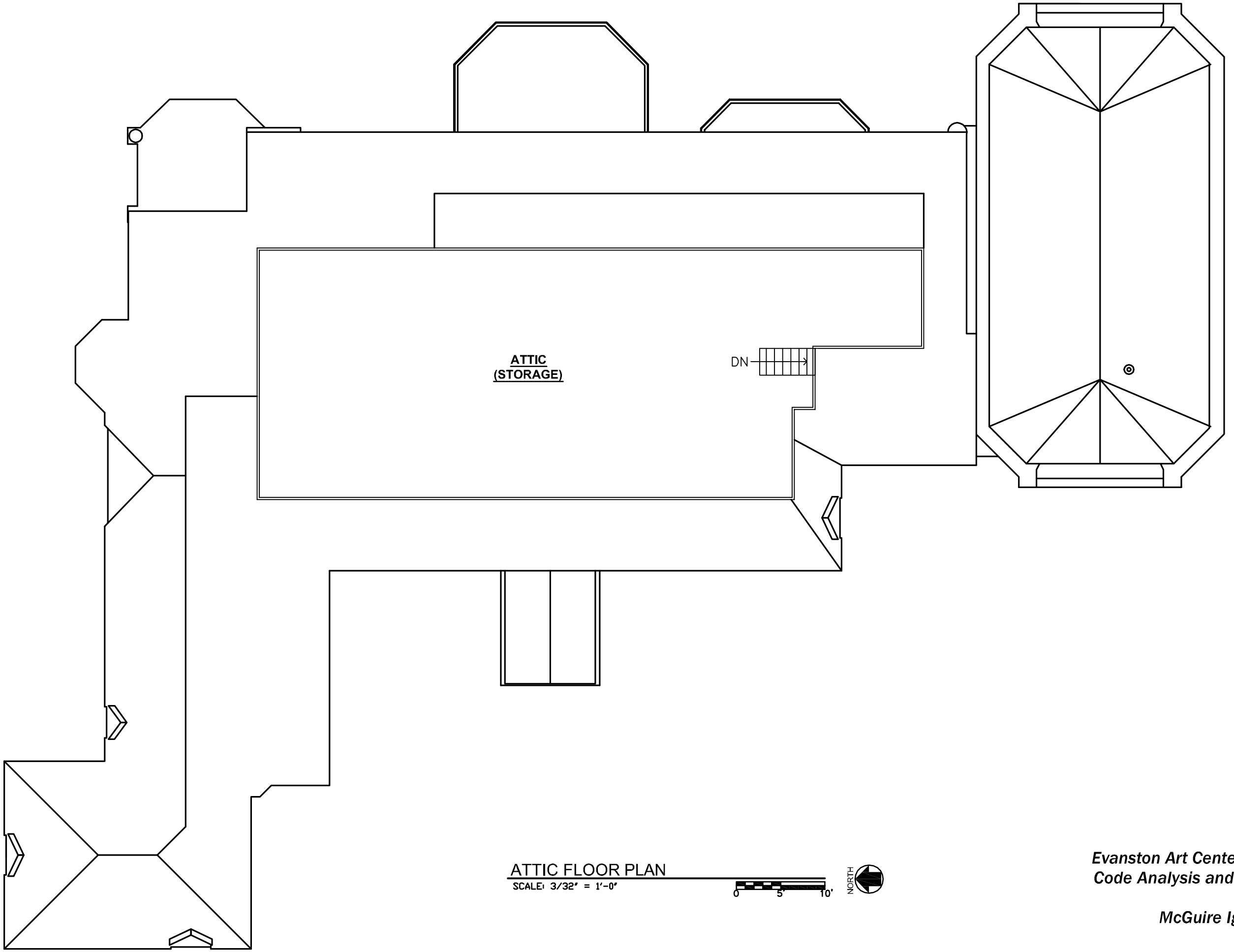
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



ATTIC FLOOR PLAN

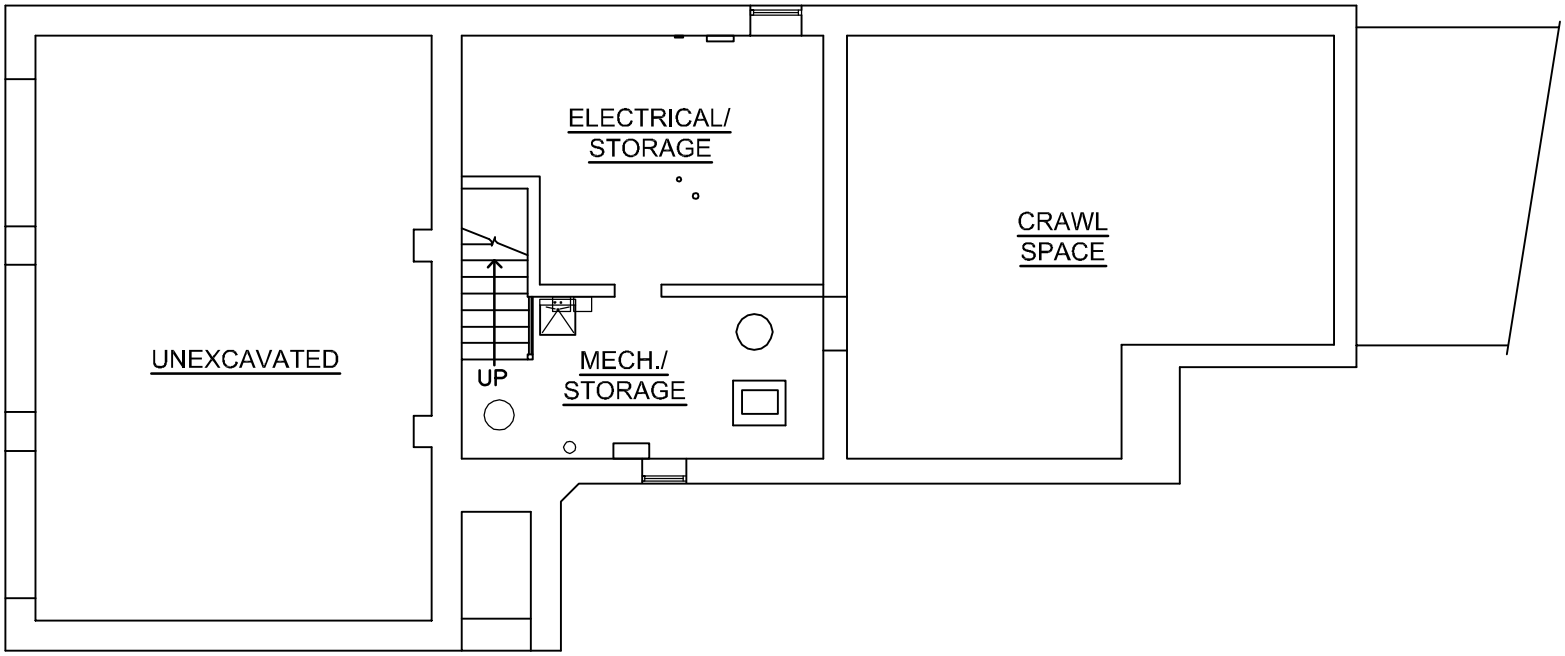
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



COACH HOUSE BASEMENT FLOOR PLAN

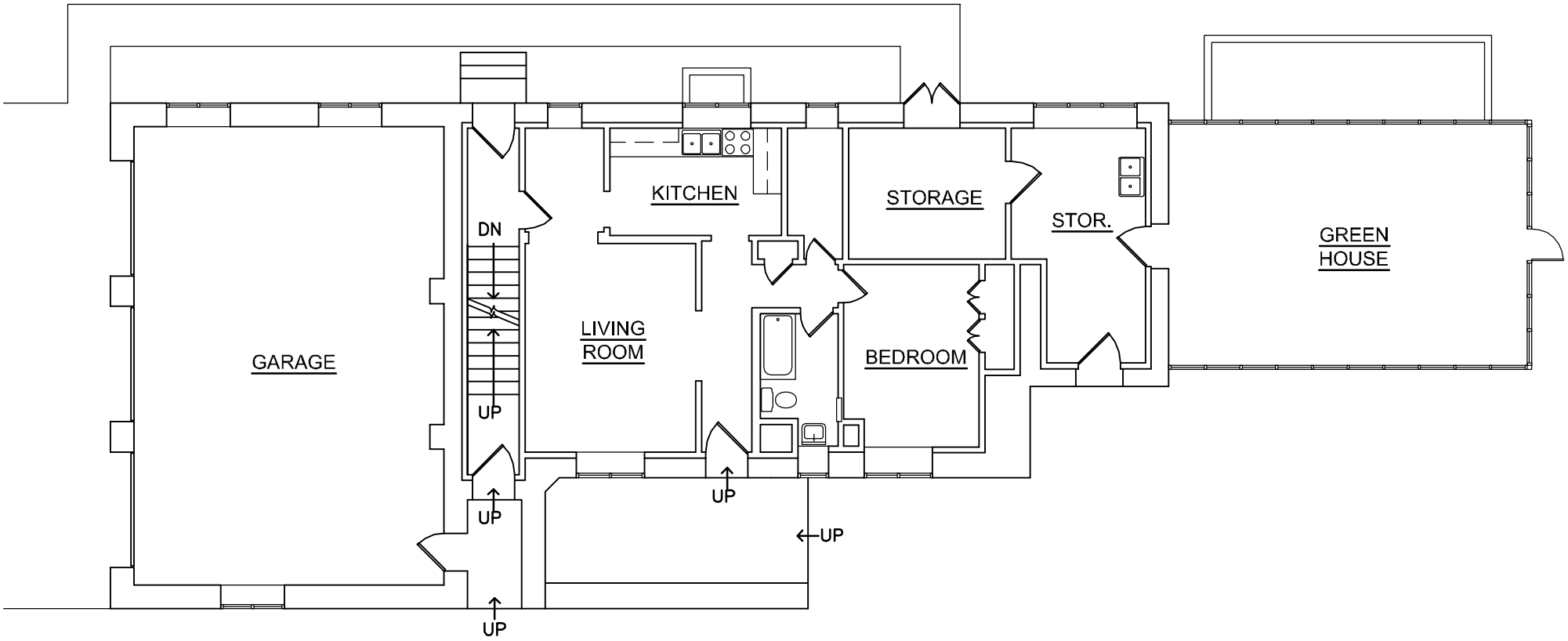
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



COACH HOUSE FIRST FLOOR PLAN

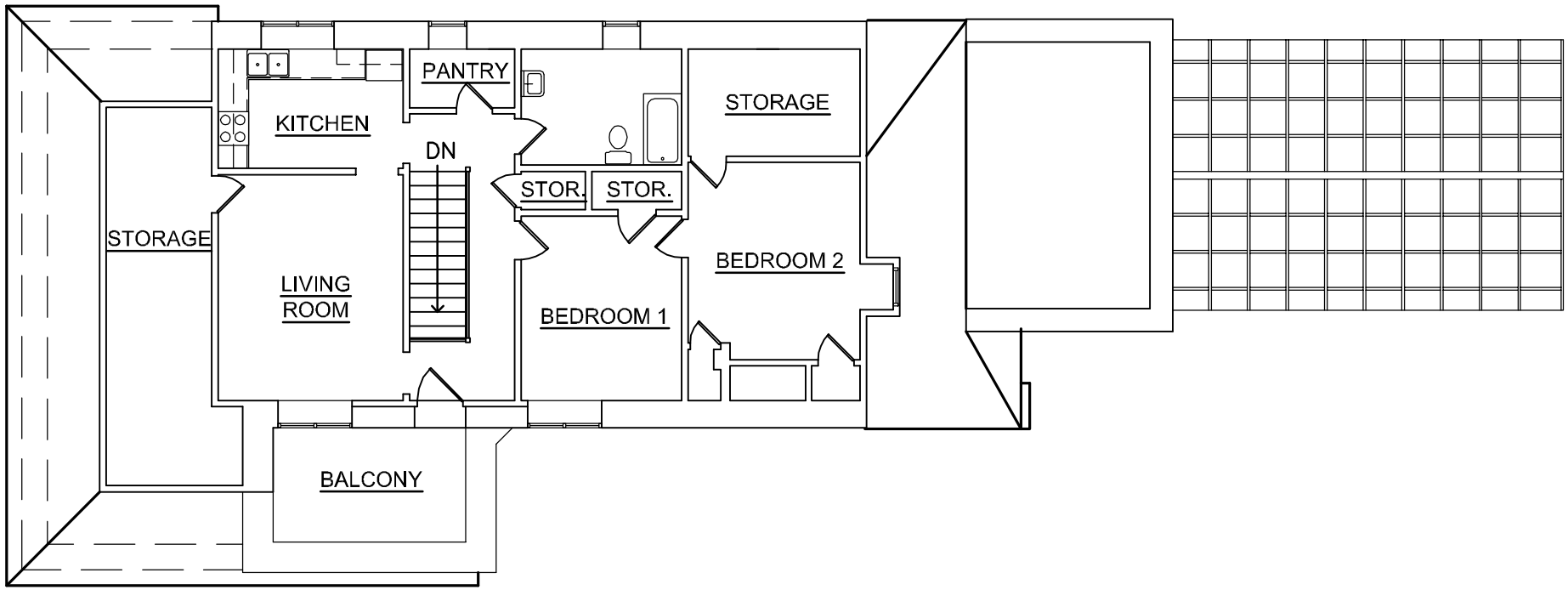
SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012



COACH HOUSE SECOND FLOOR PLAN

SCALE: 3/32" = 1'-0"

0 5' 10'

NORTH

Evanston Art Center - 2603 Sheridan Road
Code Analysis and Conditions Assessment

McGuire Igleski & Associates, Inc.
June 2012

APPENDIX C

PHOTOGRAPHS

Photo 1 – West Elevation

Photo 2 – East Elevation

Photo 3 – Mortar deterioration at west porch

Photo 4 – Masonry at original north stair.

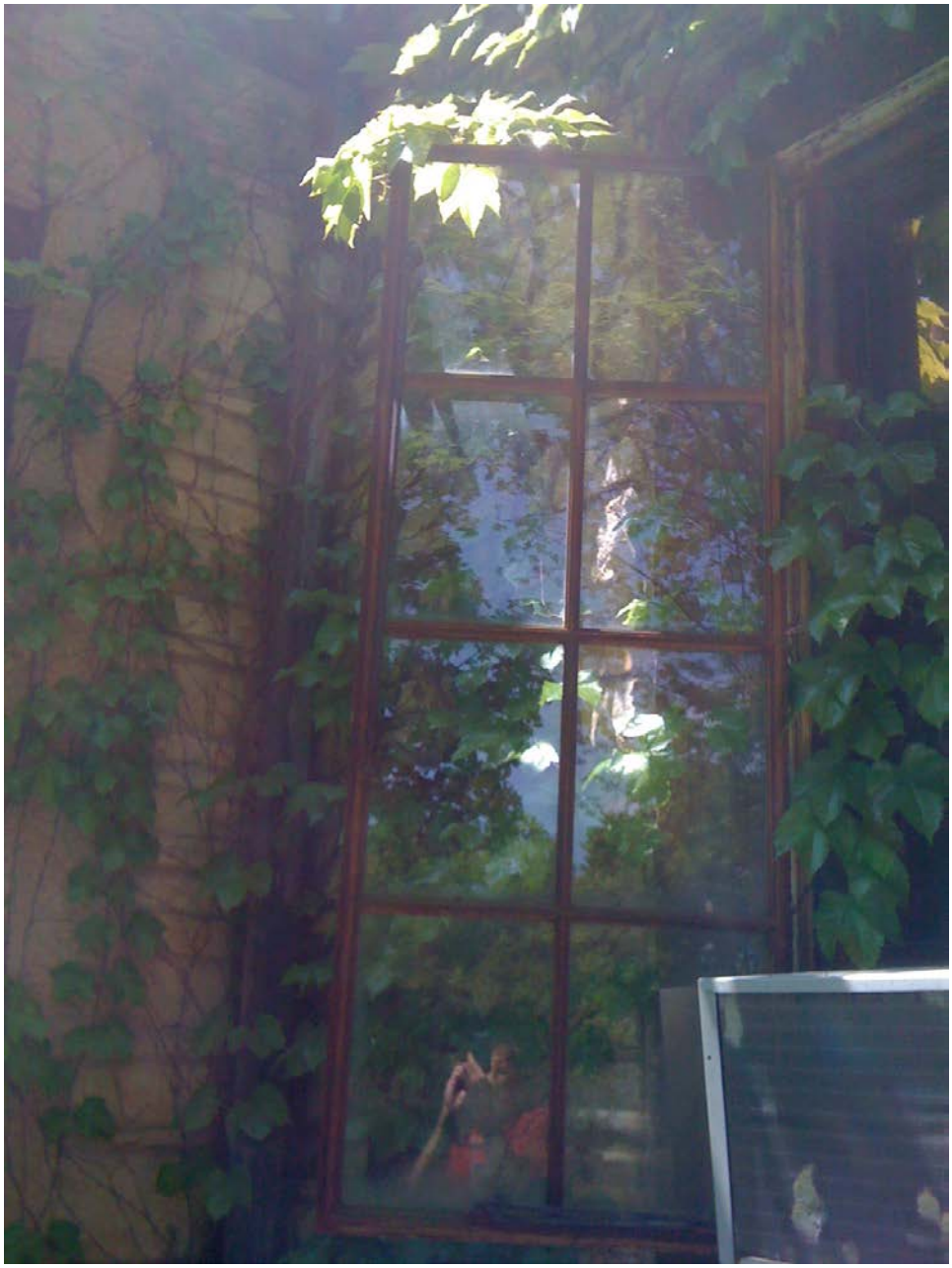


Photo 5 – Surface corrosion on steel windows.

Photo 6 – Deteriorated wood trim at south fire escape exit doors.

Photo 7 – View of roof tiles and chimney, south elevation.

Photo 8 – Surface corrosion and tread deterioration on fire escape.

Photo 9. North Elevation of Coach House.

Photo 10. Interior of greenhouse, looking east.

APPENDIX D

AREA CALCULATIONS

Evanston Arts Center							
6/25/2012							
Area Calculations							
Basement	4,508	gross square footage of entire floor taken at inside face of exterior walls					
First Floor	6,806						
Second Floor	4,460						
Third Floor	2,728						
Total	18,502						
Floor	Room	Area	Floor Area per occupant	Occupancy Load	Window Area		
Basement	Darkroom	462	50	9	0.0		
	Pottery Glazing	460	20	23	0.0		
	Storage (East)	280	300	1	0.0		
	Pottery Studio	756	20	38	44.8		
	Storage Room (North)	228	300	1	0.0		
	Mech. Equip. Rm.	180	300	1			
	Kiln Room	376	50	8	0.0		
	Storage Room (SW)	256	300	1			
	Storage	70	300	0	7.6		
	Storage	67	300	0	0.0		
	Storage	30	300	0	0.0		
	Sm. Darkroom	90	50	2	8.7		
	Computer Classroom	283	20	14	28.4		
	Toilet	32			7.5		
Basement Total		3570		97			

First Floor	Office (NE)	160	100	2	46.7		
	North Gallery	385	15	26	45.3		
	East Gallery	293	15	20	124.6		
	South Gallery	775	15	52	105.0		
	Kitchen	343	100	0	26.0	shared space	
	Admin. Office	410	100	4	31.4		
	Reception/Entry	252	100	3	0.0		
	Conference Room	279	100	0	52.5	shared space	
	Office	86	100	1	12.2		
	Fashion Design Studio	300	20	15	31.4		
	Metal Shop	1190	50	24			
	Storage	144	300	0	0.0		
	Toilet	32			2.1		
	Accessible Toilet	49			12.3		
First Floor Total		4698		145			

Second Floor	Office (NE)	127	100	1	74.7		
	Office (E)	209	100	2	40.0		
	Gallery	290	15	19	40.0		
	Painting Studio (S)	731	20	37	50.0		
	Studio Storage	143	100	1	62.8		
	Studio (SW)	307	20	15	30.0		
	Studio (N)	705	20	35	67.3		
	Studio (NW)	298	20	15	26.7		
	Storage	62	300	0			
	Storage	28	300	0			
	Toilet (E)	61			10.0		
	Toilet (NW)	51			10.0		
	Toilet (SW)	44			9.3		
Second Floor Total		3056		126			
Third Floor	Computer Studio	282	20	14	18.6		
	Painting Studio	1116	20	56	56.0		
	Studio Storage	207	300	1			
	Office	200	100	2	8.0		
	Storage	74	300	0			
	Storage	255	300	1			
	Storage	39	300	0			
	Closet	14	300	0			
	Toilet	91			7.5		
Third Floor Total		2278		74			
Combined Occupancy all Floors				**443**			

Evanston Arts Center						
6/25/2012						
Plumbing Fixture Count						
Per Illinois Plumbing Code						
Floor	Room	Area	Floor Area per occupant	Occupancy Load		
Basement	Darkroom	462	50	9		
	Pottery Glazing	460	50	9		
	Pottery Studio	756	50	15		
	Kiln Room	376	50	8		
	Sm. Darkroom	90	50	2		
	Computer Classroom	283	50	6		
					49	
First Floor	Office (NE)	160	200	1		
	North Gallery	385	50	8		
	East Gallery	293	50	6		
	South Gallery	775	50	16		
	Admin. Office	410	200	2		
	Reception/Entry	252	200	1		
	Office	86	200	0		
	Fashion Design Studio	300	50	6		
	Metal Shop	1190	50	24		
					63	
Second Floor	Office (NE)	127	200	1		
	Office (E)	209	200	1		
	Gallery	290	50	6		
	Painting Studio (S)	731	50	15		
	Studio (SW)	307	50	6		
	Studio (N)	705	50	14		
	Studio (NW)	298	50	6		

					48	
Third Floor	Computer Studio	282	50	6		
	Painting Studio	1116	50	22		
	Office	200	200	1		
					29	
						189
Summary	occupancy	toilet calc	lav calc	toilets reqd	lavs required	
Male Classroom occupants	74	1 per 40	1 per 40	2	2	
Female Classroom occupants	74	1 per 20	1 per 40	4	2	
Male Office occupants	6	1 for 1-15	1 for 1:15	1	1	
Female Office occupants	6	1 for 1-15	1 for 1:15	1	1	
Male assembly occupants	18	1 for 1-100	1 for 1-200	1	1	
Female assembly occupants	18	1 for 1-100	1 for 1-200	1	1	
Totals						
Toilets (Men)					4	
Toilets (Women)					6	
Lavatories (Men)					4	
Lavatories (Women)					4	
Drinking Fountains	1 per 75 for each use				3	
Service Sinks	1 per floor				4	

Evanston Arts Center - Coach House					
Area Calculations					
Basement	472				
First Floor	1,786	(includes garage)			
Second Floor	970				
Total	3,228				
Floor	Room	Area	Floor Area per occupant	Occupancy Load	Window Area (sf)
Basement	Electrical/Storage	252			
	Mechanical/Storage	167			
Basement Total		419		0	
First Floor	Garage	712			
	Living Room	179			17
	Kitchen	92			9
	Pantry	34			4.5
	Bedroom	121			12.5
	Greenhouse Storage	140			
	Greenhouse Storage	103			
First Floor Total		1381		0	
Second Floor	Kitchen	94			10.8
	Living Room	178			12.5

	Storage	26			
	Storage	11			
	Storage	15			
	Bedroom 1	126			12.5
	Bedroom 2	148			6.2
	Pantry	79			4.5
	Closet	6			
	Closet	7			
Second Floor Total		690		0	
Combined Occupancy all Floors				**0**	

APPENDIX E

PRELIMINARY COST BUDGET

Floor	Room Location	Building	Topic Number			2603 Sheridan Road Preminimary Budget for Code Compliance Minimum Code Upgrades for no change in use (EAC stays in Building) - 06/25/12	Quantity	Unit	Unit Cost		Item Cost	
						Base Scope						
						ARCHITECTURAL						
						Main House - Basement						
					1	Kiln Room - Provide new fire rated doors and frames adjacent to north and south rooms	2	EA	$1,500		$3,000	
					2	Kiln Room - Cut new exit door opening to corridor and provide new fire rated door and frame	1	EA	$2,500		$2,500	
					3	Kiln Room - Remove built-in shelves in north storage room and convert to exit corridor	1	LS	$500		$500	
					4	Construct Storage Closets to create north exit corridor	1	LS	$1,500		$1,500	
												$7,500
						Main House - First Floor						
					5	South Gallery - Modify sliding doors to remain in open position	1	EA	$500		$500	
					6	South Gallery - Add second means of egress through bay window	1	EA	$4,000		$4,000	
					7	North Exit - Remove door adjacent to stair	1	EA	$175		$175	
					8	New 1 hour rated partition on east side of fashion studio	90	SF	$9		$810	
					9	New 1 hour rated entry door and frame to Fashion Studio	1	EA	$1,500		$1,500	
					10	Repair non-functioning automatic door operator at main entry	1	LS	$3,000		$3,000	
					11	Add 60 inch diameter concrete turning areas in walkway	2	EA	$250		$500	
												$10,485
						Main House - Second Floor						
					12	Add fire rated partition at base of stair from third floor	45	SF	$9		$405	
					13	Add two fire rated doors at base of stair from third floor	2	EA	$1,500		$3,000	
					14	Reverse door swing at fire escape	1	EA	$500		$500	
					15	Reg-glaze window at stair landing with tempered glass	1	EA	$250		$250	
												$4,155
						Main House - Third Floor						
					16	Add fire rated door at storage room	1	EA	$1,500		$1,500	
					17	Architectural Work associated with MEP upgrades - 35%					$78,750	
					18	Mechanical, Electrical and Plumbing - Budget Estimates					$225,000	
						GRAND TOTAL:					**$327,390**	
						General Construction Allowance (2%)			$0	$0	$6,548	
						SUBTOTAL			**$0**	**$0**	**$333,938**	
						General Conditions/Bond/Insurance (7%)			$0	$0	$23,376	
						Contractor's Fee (4%)			$0	$0	$14,293	
						SUBTOTAL: (Total Construction Costs w/o Environmental)			**$0**	**$0**	**$371,606**	
						Environmental (5%)			$0	$0	$18,580	
						SUBTOTAL: (Total Construction Costs w/o Contingency)			**$0**	**$0**	**$390,186**	
						Contingency (10%)			$0	$0	$39,019	
						TOTAL ESTIMATED CONSTRUCTION COSTS			**$0**	**$0**	**$429,205**	

SUMMARY OF RECOMMENDATIONS AND COSTS FOR MAIN BUILDING

A. IF EAC STAYS AS TENANT

1. Install makeup air system to serve the studio
   Spaces in the lower level $45,000.00
2. Relocate existing exhaust fans to eliminate
   Nuisance at grade..... 15,000.00
3. Install new makeup air system to serve the Kiln
   room.
   Modify exhaust hoods and controls as required..... 25,000.00
4. Buildout new Men's and Women's
   toilet rooms to upgrade fixture counts. Including
   new water service, water heater, exhaust fans..... 35,000.00
5. Install proper vacuum breakers and local backflow
   Preventers in studio spaces..... 15,000.00
6. Electrical Distribution upgrades throughout studios..... 50,000.00
7. Install additional Exit and Emergency lighting fixture..... 20,000.00
8. Upgrade existing Fire Alarm System 20,000.00

Preliminary Estimate of MEP/FP Construction Cost..... $225,000.00

Note that the above estimate does not include any environmental issues such as asbestos abatement, lead point removal, mold remediation, etc.

B. IF NEW BUSINESS TENANT

1. Buildout new Men's and Women's toilet rooms
   To upgrade fixture counts.

   Including new water services water heaters exhaust
   fans, etc. 35,000.00
2. Electrical Distribution upgrades 50,000.00
3. Install additional Exit and Emergency
   Lighting fixtures..... 10,000.00
4. Upgrade existing Fire Alarm system 20,000.00
5. Install new Fire Sprinkler system ..... 150,000.00 (*)

Preliminary Estimate of MEP/FP Construction Cost..... $265,000.00

Note that the above estimated costs are very preliminary. They do not include any contingency. They only include the MEP/FP work and do not include related general construction or general contractor costs.

Also they do not include MEP/FP costs for overall remodeling of the building for a new tenant or for removal of the Arts Center Equipment.

(*) A Fire sprinkler system would only be required if the cost of remodeling exceeded 50% of the replacement cost of the building for a business occupancy, or if there was a change in occupancy classification.