



Mill Race Inn
Building Assessment Report
August 17, 2022

Mill Race Inn

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A. INTRODUCTION

On July 20th and July 22nd, 2022, AltusWorks Inc. and our consulting engineers, Architectural Consulting Engineers and K. Eng. LLC, assessed the conditions of the existing building, building systems, structure, and accessibility in accordance with our scope of services for the Mill Race Inn, located at 4 East State Street in Geneva, Illinois.

The purpose of this assessment is to identify a scope of work required to adaptively reuse the building to bring the Mill Race Inn into code compliance to serve as an office or retail building. Such improvements include bringing the existing building into a state of good repair, adding new building elements and MEP systems (including site utilities), and providing equitable access to the property.

1. General Building Description

The Mill Race Inn, built circa 1843 and locally landmarked in 2018, was originally the historic Alexander Brother's Blacksmith shop, an Early Settlement-era limestone structure. Typical of this Early Settlement era, the property is a utilitarian, vernacular structure of little to no architectural style. However, the small and humble character of this mid-19th century building provides a glimpse of the buildings that the first pioneers erected when establishing a new community.

Located to the south of East State Street (Route 38) and to the west of Bennett Street, the site that contains the historic Mill Race Inn is situated along the east bank of the Fox River. This building is located at the north end of the site and an area of historic significance was defined by the city as extending 20 feet around the perimeter of the building.

The existing one-foot-thick limestone masonry walls are one-story high configured in a rectangular plan with the long axis oriented in the north-south direction. Where the exterior limestone walls have been removed at the west and east side of the north end. Wood frame walls with plywood panels have been provided to infill the voids (Figure 1, Figure 2 and Figure 3). The southern two-thirds of the building is slab-on-grade supported by limestone foundation walls. The northern one-third of the building has a basement consisting of a combination of concrete and limestone foundation walls and basement access is via an external stair at the north end of the building (Figure 4 and Figure 5). The wood and steel beam roof structure is mono-pitch and slopes to the south (Figure 1). Two brick chimneys extend above the roof (Figure 2 and Figure 3).

2. Assessment Process

Heather Kneezel and Kesha Patel of AltusWorks, Ken Karston of K. Eng. LLC. and Mark Nussbaum of Architectural Consulting Engineers visually assessed the conditions of the building's envelope, interior, and systems from grade. The foundation was exposed at two locations. The foundations and the structural framing were reviewed by K. Eng. LLC. No destructive or soil testing was performed.

The following documents were reviewed: past assessment reports prepared in 2019, the Evolution and Preliminary Historic Significance Evaluation of the Former Mill Race Inn Property from 2014, the City of Geneva Historic Preservation Ordinances, local building and zoning codes, and other documentation provided by the property owner. These documents provided insight including but not limited to the building's history and significance, observed deficiencies, and proposed future building reuse.



B. OBSERVATIONS

1. Site and Building Accessibility (Refer to **Appendix A**)

Located at the north end of the site, the building is inaccessible from the public way or the remainder of the site due to the lack of paved pathways and the existing sloped topography. The parking lot at the south end of the site is accessed from a steep driveway off South Bennett Street and is approximately 175' from the current building. The current condition of the lot is poor and there is no accessible route to the building from the lot. The building is also inaccessible from East State Street due to the 4-foot height difference in grade between the existing sidewalk and the first floor level of the building.

Immediately surrounding the building are foundations remaining from the demolished building additions. These foundations were not considered in this assessment.

2. Envelope Systems (Refer to **Appendix B** for Drawing references and **Appendix C** Cost Estimate for the detailed scope of work).

i. Foundation

Limestone Foundation (South 2/3s of building)

Sections of the 17" thick limestone below grade foundation walls were exposed on the east and south sides of the building. These sections were found to be in good condition and well preserved. It is anticipated that the remainder of the limestone foundation walls would have the same condition.

Concrete and Limestone Foundation (North 1/3 of building)

At the north one-third of the building the concrete and limestone foundation walls are in fair condition. Areas of missing and displaced masonry are at the top of the foundation and deteriorated parging is located on the west exterior limestone wall. Interior concrete walls exhibit peeling paint.

ii. Exterior Walls and Openings:

Exterior Walls

The exterior walls consist of primarily of limestone construction with some common brick used at the interior face of the north wall. Wood framed walls run along the perimeter to support the sloping roof. The limestone walls have areas that exhibit severely deteriorated (poor condition) or missing limestone (Figure 6).

Limestone (Good to fair condition): Overall, the existing limestone is in fair condition. There are occurrences of open or cracked mortar joints, missing mortar, and individual damaged limestone pieces. In addition, some areas of the masonry walls were not properly pointed leaving mortar on the face of the limestone units (Figure 12). The exterior face of the



limestone on the north elevation and west elevation of the building are partially painted (Figure 13).

Limestone (poor condition): Large sections of removed limestone have been infilled with wood framed plywood walls at the north, east and west elevations (Figure 3, Figure 1 and Figure 2). The northwest corner of the building has original stone but it is unstable.

Frame Walls (poor condition): The wood walls are missing some studs and sheathing.

Openings

A majority of the doors and windows at the Mill Race Inn are missing and where they are present, they are remnants likely from a former remodel (Figure 8 and Figure 11). Openings have been infilled with plywood (Figure 1, Figure 2, Figure 8 and Figure 11). The steel exterior lintels appear to be in a good condition except for a missing lintel at the window opening on the north elevation (Figure 1). The temporary door on the east elevation is the only usable entrance to the building (Figure 10).

iii. Roof and Drainage Systems:

Roof System

The existing wood frame is a shed roof, sloping down from north to south, is a dilapidating structure in poor condition (Figure 8, Figure 9 and Figure 10). The roof is covered by a tarpaulin as an attempt to keep the elements out (Figure 1 and Figure 2). The framing consists of wood plank decking supported by 2x8 joists spaced at 20" on center spanning east-west. The roof joists are supported by varying height wood frame walls placed over the perimeter masonry walls and over steel beams running north-south along the center of the building. The steel beams are supported by a steel interior column and by the exterior walls. An undocumented fire has partially damaged some joists and decking (Figure 11). There are brick chimneys at the east and west facades that are in fair condition. Refer to "Interior" and "Building Systems" sections for further information.

Drainage

No drainage systems were observed at the existing building.

iv. Interior

Concrete Floor Slab

The existing floor consists of a concrete slab-on-grade over the southern two-thirds of the building while the northern one-third is a structural slab over the basement (Figure 10 and Figure 11). There are multiple penetrations through the structural slab for mechanical duct work and piping. At the east door, there is a remnant of a floor leveling compound which most likely was placed over the entire slab-on-grade. Refer to the "Building Systems" section for further information.

Steel Framing

Refer to the "Building Systems" section for further information.

Interior Partition

The interior partition wall and doors is in a poor condition with missing lath and areas of



missing plaster. The east portion of the interior wall is missing in its entirety. (Figure 9)

3. Building Systems

i. Structural

The existing building is a mixture of structural elements that were assembled during different time periods. The southern two-thirds of the building is slab-on-grade surrounded by a limestone foundation wall which was constructed circa 1843. The one-story limestone walls above grade (approximately 9' -0" tall) were constructed during this same time but have been modified. The northern one-third of the building has a basement consisting of either concrete or limestone foundation walls, supporting a 3 ½" thick concrete slab. The slab is supported by two concrete encased steel beams supported by two 4" diameter pipe columns.

The roof consists of 2x8 joists spaced at 20" on center spanning in the east-west direction. These joists are supported by varying height wood frame walls placed over the perimeter masonry walls and over steel beams running north-south placed down the center of the building. A building renovation was when the steel beams were added. A W12x53 beam runs two-thirds the building length to the south and a W8x34 beam runs the remainder to the north over the basement. The beams bear over wood beam lintels at the exterior and on a W6x15 column at the interior. The column is supported by a concrete foundation wall.

A review of the existing conditions found these issues:

- Basement columns are deteriorated at their base.
- Deteriorated rebar, spalled concrete, and multiple cores are present in the 3 ½" concrete slab.
- Frame walls supporting the roof over the steel beams and perimeter walls are missing studs and sheathing.
- Some roof joists are rotted, damaged, or otherwise missing support.
- Large holes can be found throughout the roof.
- All masonry walls above grade and basement walls below grade and exposed along the west side have occurrences of open or cracked mortar joints, missing mortar, and damaged individual limestone pieces.
- The masonry pier at the northwest corner is missing pieces of stone and is no longer stable.

A structural analysis was completed on select structural components using the adopted 2009 International Building Code. These are the findings:



- The 3 ½" slab over the basement has #4 rebar spaced at 6" on center which would have been capable of 100lbs/sq ft loading. However, the noted deterioration has reduced its capacity. The slab can be salvaged. Refer to the "Building Systems" section.
- The steel roof beams can support roof dead and code required snow loads.
- The roof joists are not capable of supporting roof dead and code required snow loads.
- The masonry walls are not properly braced where they meet the wood framed walls. Ceiling joists would be required to brace the walls.
- The imposed loading on the existing foundations is producing a bearing pressure of 3000lbs/sq ft which is at the limit of the wet sandy/silty subbase. There is no capacity to provide an additional level of loading over the existing foundation walls.

ii. Mechanical

This building has no mechanical systems installed at this time. There are some artifacts from the previous system like a couple of floor grille openings (Figure 14) on the south side of the building that appear to be fed by a large vitreous clay duct/pipe routed through the crawlspace from the partial basement to the south exterior wall (Figure 15 and Figure 16). These remaining abandoned system components should be demolished unless there is a desire to use the underfloor duct/pipe to route other utilities from the back of the building to the partial basement.

iii. Plumbing

This building has no operational plumbing systems installed at this time. There are abandoned system components that remain in the building but nothing that can be reused. In the partial basement, there is what appears to be a domestic water pipe, severed at the wall (Figure 17). Additionally, a cast iron waste pipe (Figure 17) is located in the southeast corner of the partial basement with the pipe extending south into the basement wall that abuts the crawlspace. There is a small sump pit (Figure 18) in the basement, but no pump is installed and there is no visible associated piping.

iv. Electrical

The building has no operational electrical system. There are numerous abandoned electrical components (conduit, receptacles, light fixture housings, junction/pull boxes, etc.) but there is no electric service to the building, distribution panels, or other equipment that is operational. (Figure 19, Figure 20 and Figure 21)



C. RECOMMENDATIONS

Design Approach:

Adaptive reuse of the historic Mill Race Inn to serve as an office or retail space directed the design approach. Code and zoning compliance was determined as part of this exercise and where codes differed between office and retail, the most stringent codes were applied (refer to **Appendix D** for applicable code and zoning regulations).

The basis of the design approach is to preserve and repair the historic building elements while incorporating new elements which are sympathetic to the existing building fabric. By adding a gabled roof, the overall building shape will revert to the original and unaltered style of the building as it was in the early 1840s. Incorporation of new façade elements include new store front systems at locations of removed masonry and new aluminum clad wood windows and doors throughout. The mechanical system will be provided within the attic of the new gabled roof. The structural components will be repaired, added to or replaced new framing. Restrooms to be located at the north end of the building to take advantage of the open basement below. Basement access will be from a new west exterior basement door rather than the north stair. Refer to the "Building Systems" section for additional descriptions of the proposed work.

For the complete recommended course of action for repair and renovation work for this building refer to the itemized cost estimate **Appendix C**.

1. Site and Site Accessibility

- a. Provide 3 parking spaces 9' wide x 18.5' deep and one accessible parking space 16' wide x 18.5' deep which includes an access aisle. Include curbs, striping etc. Parking shall be located within 350' of the main building entrance and can be located on a different zoning lot. (Refer to **Appendix A Plat of Survey and Appendix D** for zoning requirements.) The parking spaces in the cost estimate only include the area of the spaces and do not include the larger parking lot and driveway since this will be provided by another development.
- b. Provide a new 5' wide concrete sidewalk to the parking lot, including new lighting. Allow for regrading of site to meet ADA.
- c. Provide a new ADA code compliant ramp from the State Street sidewalk down to a 5' wide concrete walk leading to the building entrances.
- d. Provide ADA compliant concrete landings at each building entrance.
- e. Provide new concrete pad and fencing for utilities at the location of the removed north exterior stair. (Work includes infill of the basement door and stair.)
- f. Provide new set of stairs at the south end of the building to access the basement level. Remove exterior concrete as required and install new concrete for a pathway to the new door opening to the basement.
- g. Add a steel guardrail at northwest corner at the retaining wall.
- h. Provide site and exterior building lighting.
- i. Landscaping and demolition of concrete foundations on the site is not included.



2. Envelope Systems

Demolition

- a. Remove CMU block infill at window and doorway, west side.
- b. Remove wood frame walls with plywood siding and (1) associated door and frame. Remove infill plywood from window and door openings.
- c. Remove window frames, sills and interior aprons at each window and door opening.
- d. Remove brick chimneys.
- e. Partially remove north concrete stair to basement.

New Work (Refer to **Appendix B Drawings** for extent and location of work)

f. *Foundations:*

- Provide 24" high perimeter insulation at the exterior of the building foundations.

g. *Limestone Foundation and Walls:*

- Repoint the existing limestone façade in its entirety including exposed foundations and spot replace limestone units as necessary. Repointing of exposed foundations occurs only where excavation occurred due to inspection openings and where perimeter insulation is required.
- Salvage unstable limestone masonry from the northwest corner of building and rebuild.
- Repair ends of limestone walls to receive storefront system.
- Infill missing limestone masonry to match existing above the east window on the north elevation and at the foundation.
- Infill select openings with limestone to match existing: infill (2) doorways at the north end of building to allow for more usable interior space and infill (1) window on the east elevation.
- Remove paint from masonry.
- Scrape, prime and paint existing steel lintels at masonry openings.

h. *Storefront System:* Provide a new aluminum store front system only where masonry is nonextant or where doors are no longer required and where glazing is preferred. Alternative infill systems can be provided in these openings; however a storefront system was selected to clearly delineate between existing and new building elements.

i. *Windows and Door Openings:* Provide new aluminum clad wood windows and doors to meet energy requirements. New window types shall be similar to those existing including muntin configurations.

j. *Roof System:* Provide new wood framed gabled roof system with asphalt shingles and aluminum flashing, gutters and downspouts. Slope of roof to be compatible with historic roof slopes, 6:12.

- Supporting end walls to be of wood framed construction with Hardi-plank siding.



- Provide triangular wood louvers below the roof at the north and south ends of the walls.
- New insulation and ventilation at roof and supporting walls.
- New drainage system.

3. Interior

a. Basement:

- Demolition:
 - a. Remove 12" wide concrete at perimeter of concrete slab to install interior perimeter drainage. Refer to plumbing scope for additional detail.
- New Work:
 - a. Infill door opening and mechanical opening with concrete.
 - b. Remove paint from walls.
 - c. Add to and replace structural supports for the concrete slab above. (Refer to structural scope for additional detail.)
 - d. Insulate the underside of the slab.

b. First Floor:

- Demolition:
 - a. Remove interior wood framed wall (9'H), plaster and doors & frames at first floor.
 - b. Remove interior masonry fireplace and hearth on east wall. Reinforce existing exterior masonry wall. (Interior chimney on West side to remain.)
- New Work:
 - a. Furr out interior side of masonry walls with wood studs and provide insulation and GWB with vapor barrier.
 - b. Provide (1) utility closet with electrical panel and utility sink.
 - c. New finishes throughout.
 - d. Accessibility (building components to be completely ADA accessible)
 - i. Provide (2) new single user toilets. (6' x 8'). Provide door hardware, windows, built in furniture and building controls to meet ADA and plumbing requirements.
 - ii. Provide new (1) Hi-Lo drinking fountain to meet ADA and plumbing requirements.
 - iii. Provide new ADA complaint entrance to the building.

4. Building Systems

Structural



- a. Remove the existing wood framing (joists, decking, and walls), steel beams, and steel column to allow for the proposed modification.
- b. Replace two basement pipe columns.
- c. Add three steel beams under the first-floor slab to reduce the slab spans in half. This will allow for the slab to remain in place and be able to support a 100lbs/sq ft loading even with a 50% reduction in steel reinforcement area due to deterioration and corrosion.
- d. Spot patch concrete foundation walls.
- e. Infill abandoned openings above and below grade to match existing surrounding construction with either limestone or concrete.
- f. Infill basement stairs that are to be abandoned.
- g. Patch concrete slab including filling in holes and divots.
- h. Add steel beam lintels over the large openings at the north end of the building (east and west sides) including a steel column at the northwest corner.
- i. Add steel beam lintel over the north window opening.
- j. Add steel beams in the attic to support HVAC equipment.
- k. Rebuild roof by providing new wood framed gable roof spanning in east-west direction consisting of 2x10 rafters at 12" o.c lapped with 2x10 ceiling joists and a 2x12 ridge beam. Provide a perimeter wood plate anchored to existing masonry walls with epoxied rods at 24" o.c. Provide 5/8" plywood sheathing for the roof and 1/2" plywood sheathing over the ceiling.

Mechanical

- a. Install a new all-electric HVAC system in the new accessible attic with an exterior Variable Refrigerant Flow (VRF) heat pump unit on concrete pad on north side of the building. Include a horizontal VRF heat pump compatible air handler with economizer controls to provide the first stage cooling. The air handler should be suspended from the roof structure with vibration isolation hangers and should include a secondary drain pan below the unit. The supply & return ductwork would be routed in the attic to ceiling air devices and should be insulated to R6 to meet the State of Illinois Energy Conservation Code. The outside air duct should be insulated to R12 and should be sized for full economizer function. This outside air duct would be extended to a louver in the south gable. The economizer relief duct should be sized for full economizer function and should be routed to a louver in the north gable.
We have calculated the required cooling and heating load for the building. We compared both a retail and office occupancy to determine which occupancy had the worst-case ventilation requirement. The retail occupancy proved to be the worst-case ventilation requirement. This analysis of the heating and cooling loads associated with the renovated building, occupancy type, and required ventilation air for a Retail Occupancy provides the following results:

- First-Floor



- a. Total First-Floor Cooling load = 4-tons = 48,000 Btuh
 - b. Total First-Floor Heating Load = 47,000 Btuh
- b. Provide VRF heat pump system to have a cooling capacity of 4-tons, and a heating capacity of 54,000 Btuh.
 - c. Air handler to have a 15-kw emergency electric heater.
 - d. Provide ceiling mounted exhaust fan at the restrooms and janitor closet and the exhaust to be extended to the north gable end.

Plumbing

All new plumbing systems shall be required for this renovated building.

- a. A new domestic water service (one inch diameter) shall be installed into the basement. This water service should connect to the nearest water main to the east or south of the building. This incoming service should be installed with code required shutoff valve, meter, and backflow prevention. Insulated cold water pipe should be routed up to the attic to serve the domestic water heater, and to all new plumbing fixtures. Incoming water service piping shall be Type K copper. All interior water piping shall be Type L copper.
- b. A new sanitary service will be required for this building. Due to distance (approximately 300 linear feet) and possible elevation changes, a sanitary grinder ejector pump should be installed in the basement to receive waste flow from all plumbing fixtures, where it will be pumped to the sanitary sewer main. The ejector sump should be a 24" diameter, 48" deep pit complete with a sealed, vented cover, and high-level alarms.
- c. A new interior drain tile system should be installed in the basement to help remove static water pressure off the exterior walls. The drain tile piping would terminate in a new 24" diameter by 36" deep sump pit. The associated sump pump would include a battery backup, and the pit would include a high-level alarm. The sump pump would discharge to the site storm water system.
- d. A new 28-gallon, electric (4,500 watt) water heater would be installed in the attic to serve the first-floor mounted plumbing fixtures. This water heater would be set in a secondary drain pan. A domestic water expansion tank will be required due to the back flow preventer.
- e. The new plumbing piping systems (water, waste & vent) shall be installed to accommodate two new toilet rooms with a lavatory and water closet, a service sink in the janitor closet, and one high-low drinking fountain. The new plumbing piping shall be located in the basement below the restrooms at the north end of building. Provide floor drains in each toilet room and utility closet including required floor core. Provide hub drain in attic for equipment condensate. Extend sanitary sewer to basement recessed sanitary lift station.

Electrical

- a. A new 200-amp, 120-240 volt, 1-phase underground electric service should be installed at the north end of the building or as determined by utility map. A new utility meter should feed power into a new 200 amp, 42-circuit main service panel which should be located in the first-floor utility closet to avoid any potential moisture issues in the basement. This new electric service shall serve all new interior and exterior electrical loads.
- b. New LED site lighting should be installed for the parking lot, walkways, stairs, and ramp. This lighting should be controlled with a photocell and timeclock. All lighting loads should be



- fed from the new electrical panel.
- c. New historically appropriate light fixtures with LED lamps should be added to the entrances. These lights should be fed through a remote battery unit and switching control to act as code required emergency lights to illuminate the path of egress away from the building. All lighting loads should be fed from the new electrical panel.
 - d. New LED exit and emergency lights with 90-minute battery back-up should be installed inside the building to illuminate the path of egress to the exit doors. Additionally, a battery back-up emergency light should be installed in the toilet rooms, at the main electric panel, and up in the attic near the mechanical equipment and access hatch. All lighting loads should be fed from the new electrical panel.
 - e. New LED general lighting should be installed throughout the building – basement, first floor, and attic – with code compliant switching controls. All lighting loads should be fed from the new electrical panel.
 - f. New receptacles should be installed throughout the building to meet the programming needs of the space. There is no specific spacing requirement for commercial occupancies, however, ground-fault receptacles should be added to the restrooms, utility closet, the basement, and exterior at the front and back of the building. Exterior receptacles should also be weatherproof. A 20-amp service receptacle should be installed in the attic near the mechanical equipment. All receptacles should be fed from the new electrical panel.
 - g. Power should be provided from the new electrical panel for all new mechanical equipment and plumbing equipment.
 - h. Hardwired fire alarm smoke detectors with battery backup should be installed throughout the building including one in the basement, two in the attic and as required on the first-floor to meet the room layouts.

Standard of Care

AltusWorks, Inc.'s and our consultants' professional services for the preparation of an Assessment Report are exercised with reasonable care and competence. AltusWorks' standard of care is in conformance with industry standard, with the understanding that, because of the physical properties of the many materials and systems commonly used for the construction of buildings, and the limitation on detecting concealed or operational issues, the Assessment Report may not have found "unsafe and imminently hazardous conditions" in the building that are not visibility apparent. Therefore, submittal of the Assessment Report is not a representation that all "unsafe and imminently hazardous conditions" in the building have been identified.

The Assessment Report to be prepared by AltusWorks, Inc. and our consultants (K. Eng. LLC, Architectural Consulting Engineering and The Concord Group), shall not be construed to warrant or guarantee the building and/or any of its components under any circumstances. AltusWorks shall not be responsible for latent or hidden defects that may exist, nor shall it be inferred that all defects have been either observed or recorded. The review was intended solely to identify the general conditions for the building and the necessity of repairs. The Assessment Report shall not constitute a detailed specification for repairs and shall not be used to perform the actual repairs.

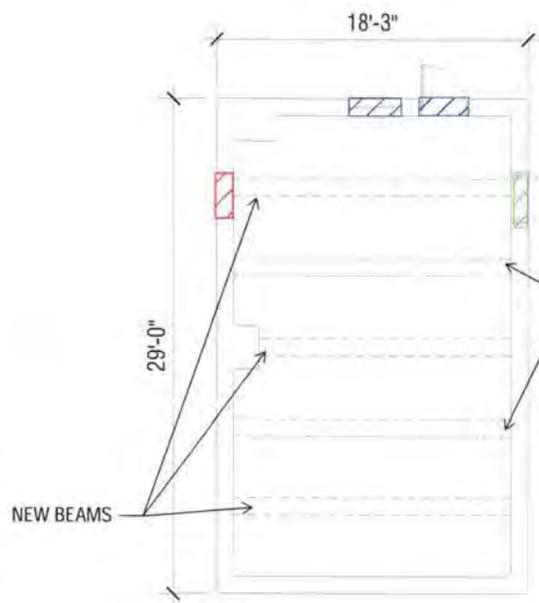


Appendix

A. Plat of Survey



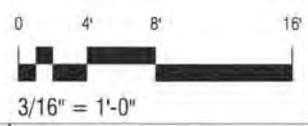
B. Drawings



- NOTES:
1. Drawings are for general scope of work. Not all work is indicated in drawings. Refer to report and cost estimate for complete scope. **Drawings are NOT FOR CONSTRUCTION.**
 2. Repoint limestone facade in its entirety.
 3. Remove chimneys.
 4. Provide new casement and double-hung windows where shown.
 5. Scrape, prime and paint existing steel lintels.
 6. Remove paint from north elevation.

EXISTING BEAMS
REMAIN. COLUMNS
TO BE REPLACED

- LEGEND
- LIMESTONE INFILL
 - CONCRETE INFILL
 - REMOVE CMU INFILL

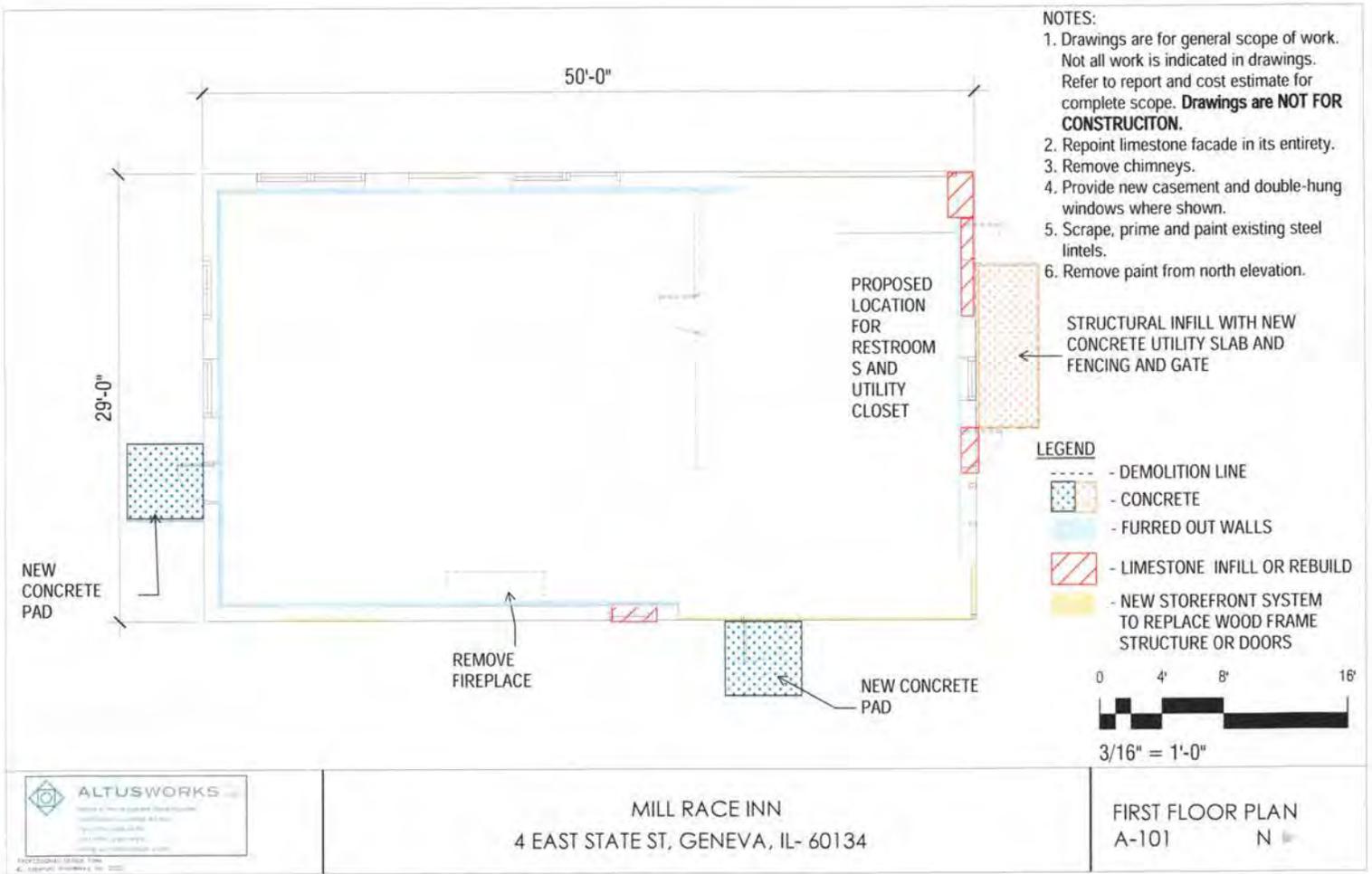


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PROFESSIONAL DESIGN FIRM
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MILL RACE INN
 4 EAST STATE ST, GENEVA, IL- 60134

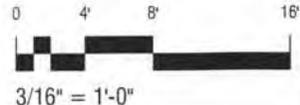
SCALE: 3/16" = 1'-0"
 BASEMENT PLAN
 A-100 N



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STRUCTURAL INFILL WITH NEW CONCRETE UTILITY SLAB AND FENCING AND GATE

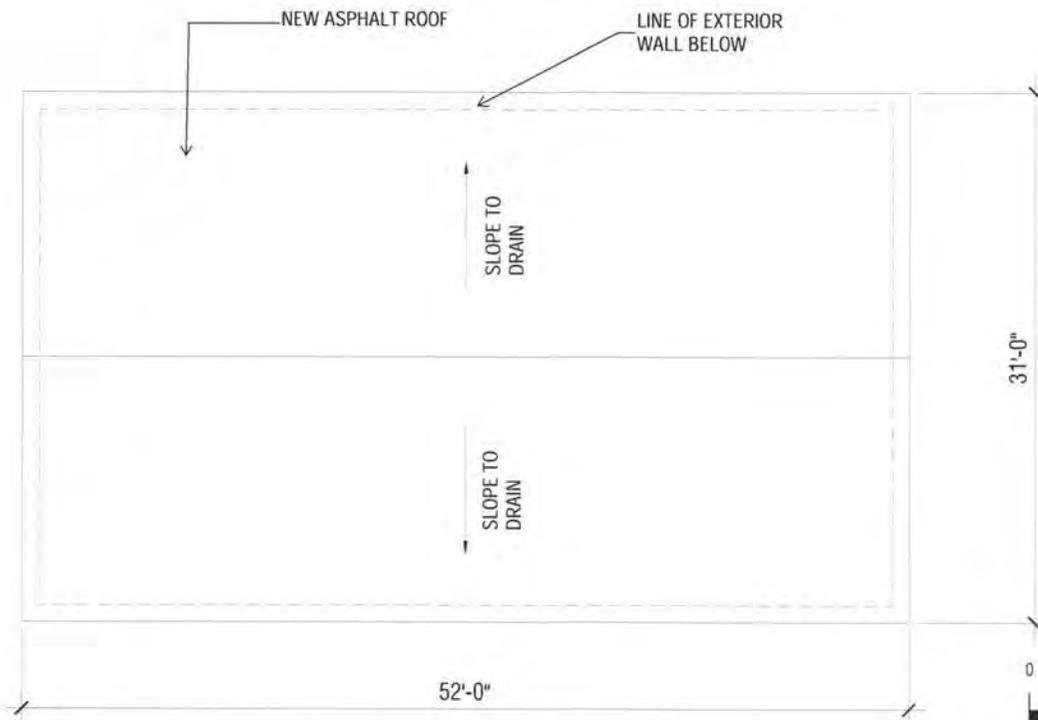
- LEGEND**
- - - - - DEMOLITION LINE
 - [Pattern] CONCRETE
 - [Pattern] FURRED OUT WALLS
 - [Pattern] LIMESTONE INFILL OR REBUILD
 - [Pattern] NEW STOREFRONT SYSTEM TO REPLACE WOOD FRAME STRUCTURE OR DOORS



MILL RACE INN
4 EAST STATE ST, GENEVA, IL- 60134

FIRST FLOOR PLAN
A-101 N

Drawings are NOT FOR CONSTRUCTION.



MILL RACE INN
4 EAST STATE ST, GENEVA, IL- 60134

ROOF PLAN
A-102 N



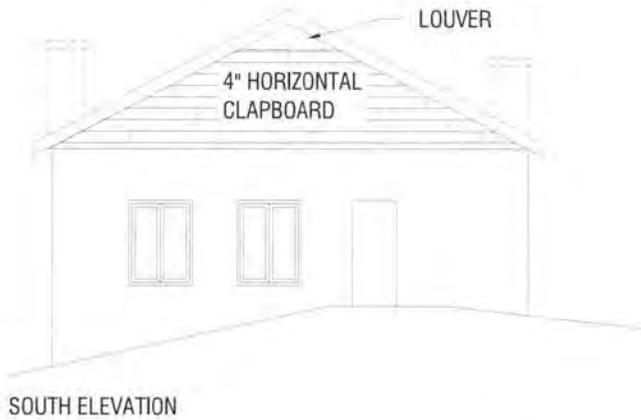
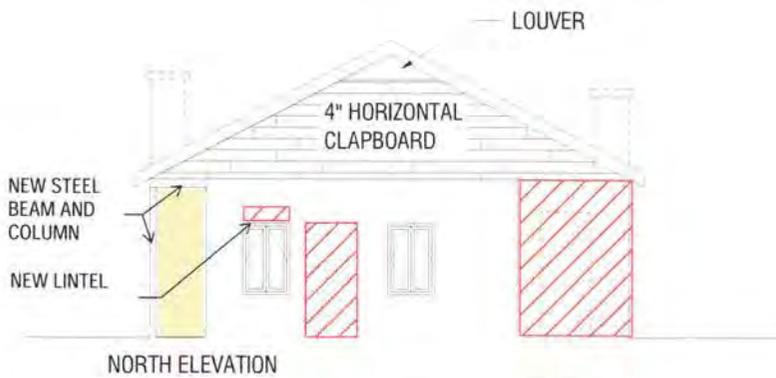
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- LEGEND**
-  - LIMESTONE INFILL OR REBUILD
 -  - NEW STOREFRONT SYSTEM TO REPLACE WOOD FRAME STRUCTURE OR DOORS
 -  - REMOVE CMU INFILL AND PROVIDE NEW BASEMENT DOOR AND WINDOW

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ELEVATIONS
 A-201

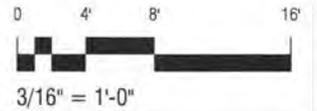


NOTES:

1. Drawings are for general scope of work. Not all work is indicated in drawings. Refer to report and cost estimate for complete scope. **Drawings are NOT FOR CONSTRUCTION.**
2. Repoint limestone facade in its entirety.
3. Remove chimneys.
4. Provide new casement and double-hung windows where shown.
5. Scrape, prime and paint existing steel lintels.
6. Remove paint from north elevation.

LEGEND

-  - LIMESTONE INFILL OR REBUILD
-  - NEW STOREFRONT SYSTEM TO REPLACE WOOD FRAME STRUCTURE OR DOORS



MILL RACE INN
4 EAST STATE ST, GENEVA, IL- 60134

ELEVATIONS
A-202



C. Cost Estimate

Clarifications and Qualifications

00 - Notes Regarding This Estimate

- 1 This Conceptual estimate is based on information prepared by the office of Altusworks Inc. and received on 07/26/2022, together with discussions with their staff.
- 2 This estimate assumes a normal market condition.
- 3 This estimate assumes five or more qualified Contractors competitively bidding on this project.
- 4 This estimate assumes one contract awarded to one General Contractor.
- 5 Those cost estimates provided by the Architect and/or Consultants are identified in the body of the estimate.
- 6 After six months, this estimate should be updated for current market conditions.
- 7 Escalation is not included in the estimate

THIS ESTIMATE EXCLUDES:

- 1 Testing, moving expense, etc. for Owner's account.
- 2 Furnishings and equipment other than those shown in the body of the estimate,
- 3 Premium costs for work done in phases, out of sequence, out of hours,
- 4 Building Permits,
- 5 Builder's Risk Insurance,
- 6 Phasing
- 7 This estimate is based on information available at this time. The scope of this estimate should be reviewed to insure our interpretation of the drawings and other information is correct. This estimate should be updated as the design evolves and is completed.
- 8 This cost estimate represents our opinion of probable construction cost for this project. We have exercised due professional diligence in the preparation of this estimate. Since we have no control over final material selection, bidding strategies and market conditions, no guarantee is given or implied with this estimate.



Mill Race Inn, Geneva IL
AWI Project No. : 21-030

PROJECT: Mill Race Inn Assessment

SUMMARY			TOTAL
CIVIL			\$144,480
ARCHITECTURAL EXTERIOR			\$205,485
ARCHITECTURAL INTERIOR			\$109,255
STRUCTURAL			\$143,800
MEP			\$284,350
SUBTOTAL			\$887,370
Environmental	2%	\$17,747	
General Conditions / Bond	11%	\$99,563	
Insurance	1.8%	\$18,084	
Contractor's Fee	5%	\$51,138	
Design Contingency	10%	\$107,390	
Construction Contingency	13%	\$147,662	
Architect/Engineering Fee	10%	\$132,895	
TOTAL ESTIMATED DESIGN AND CONSTRUCTION COSTS			\$1,461,849

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
CIVIL		Note: Site costs will vary based on the surrounding development.				
North Side		Remove (1) exterior handrail at basement stairs.	12	LF	5	\$60
North Side		Provide new 5" thick concrete service slab.	56	SF	20	\$1,120
North Side		Provide wood fence enclosure with gate for trash, compressor, and electric.	20	LF	50	\$1,000
South Side, West		Provide 3' wide exterior concrete stairs (15 risers) with painted metal handrail both sides down to basement level. Stairs shall be built with sloped earth (allow for regrading). Allow for minimum 42" foundation at base of stair and 3'x5' wide landings at top and bottom of stairs.	1	LS	5,000	\$5,000
West Side		Remove existing concrete stub walls at basement level on west side of building as required to provide a level sidewalk (pitched to drain away from the building). Assume 5' wide walk. (Remainder of demolished building foundation is not in this scope of work.)	1	LS	10,000	\$10,000
East Side		Provide new concrete ramp (3' wide) with retaining walls, painted steel guardrail (both sides of ramp) and handrails (both sides of ramp) from State Street sidewalk down to building entrance. Allow for 48' long ramp including (3) 3'x5' landings (4' of grade change).	48	LF	2,000	\$96,000
Site		Provide new 5' wide concrete walk from ramp to two building entrances.	80	LF	36	\$2,880
East and South Sides		Provide 4'x4' concrete pads on compacted gravel fill at two entrances (one on south, one on north end of building. Regrade to allow ADA compliance of landings.	2	EA	500	\$1,000
Site		Provide new 5' wide concrete walk to parking. Allow for regrading of site to meet ADA.	345	LF	36	\$12,420
Site		Provide 3 parking spaces 9' wide x 18.5' deep and one accessible parking space 16' wide x 18.5' deep which includes an access aisle. Include curbs, striping etc. We do not need to provide cost for the drive because it is assumed these spaces will be in addition to a larger parking lot.	1	LS	15,000	\$15,000
		SUBTOTAL				\$144,480

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
Arch Exterior						
West Elevation	2.1	Remove CMU block infill at window and wall, west side.	30	SF	10.00	\$300
Roof	2.2	Remove roof and structure, refer to Structural scope of work.		n/a		
North and East Elevations	2.3	Remove wood frame walls with plywood siding and (1) associated door and frame.	360	SF	2.00	\$720
All Elevations	2.4	Remove infill plywood from window and door openings.	5	EA	50.00	\$250
All Elevations	2.5	Remove window frames, sills and interior aprons at each window and door opening.	9	EA	400.00	\$3,600
All Elevations	2.6	Remove brick chimneys (2'wx2'lx5'h).	2	EA	6,000.00	\$12,000
All Elevations	4.1	Repoint existing limestone façade in its entirety including exposed foundations (only where excavation occurred due to inspection openings), salvage limestone from northwest corner of building. Rebuild with a combination of existing and new limestone to match existing. Infill existing doorways (2) at north end of building with masonry to match existing. (40SF rebuild, 40SF infill)	1,350	SF	25.00	\$33,750
North Elevation	4.2	Rebuild limestone to match existing above existing window opening.	80	SF	300.00	\$24,000
North Elevation	4.3	Remove point from limestone masonry at north end of building and at basement level of west elevation.	2	SF	300.00	\$600
North & West Elevations	4.4	Infill masonry hole with limestone at basement level. Assume 17" thick wall.	270	SF	3.00	\$810
North Elevation	4.5	Infill round hole in foundation with limestone. Assume 17" thick wall.	2	SF	250.00	\$500
South Elevation	4.6	Rebuild top of masonry foundation at basement level.	2	SF	250.00	\$500
East Elevation	4.7	Infill window opening with limestone to match existing.	3	SF	250.00	\$750
East Elevation	4.8	Replace end of stone units for smooth transition to store front system. Allow for 12" wide by 9' high.	6	SF	300.00	\$1,800
West, North and East Elevations	4.9	Rebuild top of masonry wall below first floor level (10SF). Replace brick masonry at end of limestone wall at first floor level (5SF).	3	EA	500.00	\$1,500
West Elevation	4.1	Remove exterior parging on west exterior limestone wall and repair masonry.	15	SF	100.00	\$1,500
West Elevation	4.11	Ground down existing embedded railroad ties to remove sharp corners.	250	SF	3.00	\$750
West Elevation	5.1	Provide hardi-board prefinished cladding on roof supporting walls at north and south ends of gabled roof. Refer to structural scope for wall construction.	8	EA	50.00	\$400
North & South Elevations	6.1	Provide triangular shaped louvers below the gable at the north and south elevations - provide in material similar to hardi-board.	270	SF	25.00	\$6,750
North & South Elevations	6.2	Provide new architectural grade asphalt shingles with underlayment including associated flashing at MEP penetrations. Refer to structural scope of work for roof structure and MEP scope of work for roof penetrations.	2	EA	2,000.00	\$4,000
Roof	7.1	Provide 3' wide ice dam membrane at eaves of the roof.	1,800	SF	15.00	\$27,000
Roof	7.2	Provide gutters along eaves of roof.	100	LF	10.00	\$1,000
Roof	7.3	Provide (2) downspouts down to grade.	100	LF	20.00	\$2,000
Roof	7.4	Provide soffits with hardi-plank enclosure and associated soffit vents.	30	LF	20.00	\$600
Roof	7.5	Provide insulation between roof rafters with mineral wool or spray foam insulation R-49 minimum. Provide baffles on top side of insulation between joists to allow for air movement between vented ridge and soffit vents.	100	LF	75.00	\$7,500
Roof	7.6	Provide insulation between studs of roof supporting framed walls R-20 minimum.	1,800	SF	5.00	\$9,000
All Elevations	7.7		270	SF	5.00	\$1,350

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
North, East and South Elevations	7.8	Provide rigid insulation at exterior foundation perimeter to insulate slab to 24" below grade. Include excavation to install insulation. R-14.6	108	SF	10.00	\$1,080
East and West Elevation	8.3	Provide aluminum store front window infill (7' tall) at removed doors. (U-Value 0.36)	77	SF	125.00	\$9,625
South Elevation	8.4	Provide new glazed aluminum clad wood entrance door and frame with associated weatherstripping, sealant and flashing. Provide extended wood jambs with interior painted or stained wood trim. (U-Value 0.30)	1	EA	3,000.00	\$3,000
West Elevation	8.5	Provide new hollow metal door and frame with associated weatherstripping, sealant and flashing at basement level. (U-Value 0.30)	1	EA	1,500.00	\$1,500
West, North and East Elevations	8.6	Provide aluminum store front system (9' tall) at sections of wall without masonry. Include (1) aluminum door with glazing on west elevation. (U-Value 0.36)	360	SF	125.00	\$45,000
West Elevation	8.7	Provide 1 fixed aluminum window at basement level. 5 SF. U(-Value 0.45)	1	EA	1,000.00	\$1,000
All Elevations	9.1	Scrape, prime and paint existing steel lintels at masonry openings.	45	LF	30.00	\$1,350
		SUBTOTAL				\$205,485

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
Arch Interior						
Basement		Clean out debris in basement. Scrape loose paint from walls.	1	LS	2,500.00	\$2,500
Basement		Remove 12" wide concrete at perimeter of concrete slab to install interior perimeter drainage. Infill concrete slab. Refer to plumbing scope for additional detail.	95	LF	50.00	\$4,750
Basement		South end of basement, fill in opening in concrete wall with concrete.	6	SF	150.00	\$900
Basement		Ceiling spray foam insulation R-14.6 ci	324	SF	8.00	\$2,592
1st Floor		Remove interior wood framed wall (9'H), plaster and doors & frames. Refer to structural for structural removal.	20	LF	180.00	\$3,600
1st Floor		Scrape peeling paint from interior masonry walls.	1,100	SF	1.50	\$1,650
1st Floor		Repoint 25% interior masonry walls.	280	SF	20.00	\$5,600
1st Floor		Remove interior masonry fireplace and hearth on east wall. Reinforce existing exterior masonry wall. (Interior chimney on West side to remain.)	1	LS	5,000.00	\$5,000
1st Floor		Remove concrete topping (approx. 155SF) and provide new self leveling concrete topping entire concrete slab.	1,300	SF	10.00	\$13,000
1st Floor		Provide 1 layer type X GWB ceiling directly to joists throughout.	1,300	SF	4.00	\$5,200
1st Floor		Furr out interior side of masonry walls with wood studs and provide insulation and GWB with vapor barrier.	1,100	SF	10.00	\$11,000
1st Floor		Provide new 3'x3' attic hatch with telescoping ladder at north end of building to access mechanical equipment. (Located in center of building (east-west) at the north end of the building).	1	EA	5,000.00	\$5,000
1st Floor		New wood stud interior non-load bearing partitions walls for (2) new restrooms and one utility closet (9' tall), including GWB both sides and batt sound insulation within walls.	70	LF	180.00	\$12,600
1st Floor		New interior wood panel doors and frames to restrooms.	2	EA	1,500.00	\$3,000
1st Floor		New toilet, sink and accessories for ADA compliant restroom.	2	EA	1,500.00	\$3,000
1st Floor		New Service sink with floor drain (through existing concrete).	1	EA	1,500.00	\$1,500
1st Floor		Prime and Paint GWB walls.	1,750	SF	1.25	\$2,188
1st Floor		Prime and paint GWB ceiling.	1,300	SF	1.25	\$1,625
1st Floor		Provide LVP flooring or approved equal.	1,170	SF	15.00	\$17,550
1st Floor		Provide 6" wood base throughout.	190	LF	5.00	\$950
1st Floor		Provide wood casing at doors and windows	130	LF	10.00	\$1,300
1st Floor		Provide ceramic tile at restrooms including ceramic base (64LF).	130	SF	25.00	\$3,250
Attic		Provide 4'x8' plywood landing at mechanical unit for service space.	1	EA	1,500.00	\$1,500
		SUBTOTAL				\$109,255

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
Structural						
Basement		Rebuild masonry foundation at northwest corner of building.	6	SF	250.00	\$1,500
Basement		Replace 2 steel pipe columns with new Pipe 3 1/2 Std columns 9ft tall w/ base plates expansion bolted to existing footing	2	EA	1,500.00	\$3,000
Basement		Provide (3) W8x24 beams x 17ft long subdividing three existing slab bays. Provide new beam pockets in concrete or masonry foundation walls. Beams need to be spliced for installation.	3	EA	2,975.00	\$8,925
Basement		Sound existing parging along interior foundation walls, approx. 86 linear ft. Repoint masonry joints and replace stone pieces as required. At concrete foundation, wall patch areas with Sika brand repair mortar.	86	LF	150.00	\$12,900
Basement		At north face, cut down top of foundation wall to be 2ft below grade	20	LF	250.00	\$5,000
Basement		Infill abandoned stair with engineered fill. Basement depth is approximately 9ft.	185	CF	75.00	\$13,875
Basement		Infill basement door opening with concrete and #4 @ 8" o.c each way. #4 bars to be epoxied into existing foundation walls using Hilti HY270 epoxy. Wall is approx. 17" thick.	18	SF	150.00	\$2,700
First Floor		Remove 2 existing steel beams and associated steel column. Total beam length is 50ft.	1	LS	1,000.00	\$1,000
First Floor		Repair existing concrete slab by cleaning rebar of rust and providing Sika brand repair mortar. Locations vary throughout basement ceiling. Approximately 30sq ft. Galvanic anodes to be added at these areas to control rust. Full depth patches required at abandoned holes. Approximately 4sq ft.	1	LS	2,000.00	\$2,000
First Floor		Provide new steel railing at existing foundation wall (approximately 8ft long) at northwest corner consisting of Pipe 2 X-Stg posts @ 3ft o.c., Pipe 2 Std top and bottom railings, and 1/2" bar ballusters. Posts to be epoxied into foundation wall.	1	EA	1,000.00	\$1,000
First Floor		Provide HSS4X4X1/4 column at northeast corner of building to support roof structure. Column base plate to be epoxied to existing foundation using (4) 1/2" dia. threaded rods and Hilti HY270 epoxy.	1	EA	2,500.00	\$2,500
Attic		Provide (2) W10x22 beams running east-west to support each mechanical unit(s) in attic.	2	EA	2,500.00	\$5,000
Roof		Remove existing wood framed mono-pitch roof and associated knee walls in its entirety.	1,450	SF	10.00	\$14,500
Roof		Provide new wood framed gable roof spanning in east-west direction consisting of 2x10 rafters @ 12" o.c lapped with 2x10 ceiling joists (66ft), 2x12 ridge beam (53ft), 2x10 blocking @ 6ft o.c at rafters and ceiling, and Simpson sheet metal angles at peak. Provide 2x12 plate anchored to existing masonry walls with Hilti HY270 epoxy and 1/2" dia. threaded rods at +/- 24" o.c. Provide 1800sq ft of 5/8" plywood sheathing at roof and 1400sq ft of 1/2" plywood sheathing over ceiling.	1	EA	54,000.00	\$54,000
Exterior		Provide new wood framed end walls consisting of 2x6 studs @ 16" o.c. below roof at north and south elevations	270	SF	20.00	\$5,400
Exterior		Masonry work refer to Architectural Exterior.				
Exterior		Provide W8x18 lintels recessed within the wood framed walls above the masonry at three existing openings. (For storefront system). (west and east and north sides). Lintels to bear on 3/8" steel bearing plates with 1/2" dia. threaded rods installed into masonry with Hilti HY270 epoxy.	40	LF	250.00	\$10,000
Exterior		Provide new steel lintel supporting full width of masonry, (4) L4x4x3/8 for each lintel (5LF), above windows at north side of building, rebuild exterior limestone masonry above (with wood framing interior).	1	EA	500.00	\$500

PROJECT: Mill Race Inn Assessment

LOCATION	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	SUBTOTAL
MEP						
HVAC						
Attic		Provide new all-electric HVAC system in attic with exterior VRF heat pump unit on concrete pad on north side of the building. System shall include a horizontal VRF heat pump compatible air handler with economizer controls to provide first stage cooling. Supply & return ductwork shall be routed in the attic to ceiling air device and shall be insulated to R6. Outside air duct shall be insulated to R12 and shall be sized for full economizer function and shall be extended to a louver in the south gable. The economizer relief duct shall be sized for full economizer function and shall be routed to a louver in the north gable. Cooling capacity shall be 4-tons - heating capacity shall be 54,000 Btuh input. Air handler shall include a 15-kw emergency electric	1	EA	75,000	\$75,000
1st Floor		Provide new toilet exhaust for new toilet room facilities. 50 CFM per fixture continuous operation during occupied hours.	2	EA	350	\$700
Basement	General	No gas service is required with this design.				
Plumbing						
Exterior		Provide new 1" diameter domestic water service. New service shall come into basement at east basement wall or as determined by utility map	1	LS	30,000	\$30,000
Exterior		Provide new connection to sewer system. Per Owner, the sanitary man hole is approximately 300' to the south of the building.	1	LS95	30,000	\$30,000
Attic		Provide new electric water heater sized for total building domestic hot water load, located in attic, 28 gal, 4500 watt element, A.O. Smith or equal.	1	EA	1,600	\$1,600
1st Floor		New plumbing systems (water, waste & vent) to accommodate (2) new toilet rooms, (1) service sink, and (1) high-low drinking fountain. New plumbing piping to be located in basement below restrooms at the north end of building. Provide floor drains in each toilet room and utility closet including required floor core. Provide hub drain in attic for equipment condensate. Extend sanitary sewer to basement recessed sanitary lift station	1	LS	60,000	\$60,000
Basement		Provide a sanitary lift station with a grinder style sewage ejector. Ejector lift station shall include high level alarms, 24" diameter X 48" deep pit	1	LS	10,000	\$10,000
Basement		Provide interior perimeter drain tile in basement and connect to new sump pump. Sump pump shall include battery back-up and high level alarms. 24" diameter X 36" deep pit	95	LF	80	\$7,600
Electrical						
First Floor		Remove electrical boxes and conduit throughout.	1	LS	2,500	\$2,500
Exterior/1st Floor		Provide new 200 amp, 120-240 volt, 1-phase underground electric service at the north end of the building or as determined by utility map. Provide one meter feeding into a new 200 amp, 42-circuit main service panel in 1st floor utility closet.	1	LS	8,500	\$8,500
Site		Provide site lighting for parking lot, walkways, stairs and ramp.	6	EA	3,500	\$21,000
Exterior		Provide historically appropriate exterior lights at entrances.	2	EA	5,000	\$10,000
All floors		Provide new 120 v, interconnected smoke and CO detectors - 2 of each on the first floor and one each in the basement.	3	EA	550	\$1,650
All floors		Provide new 90-minute, battery back-up LED exit and emergency lighting for egress path.	1	LS	1,200	\$1,200
All floors		Provide new LED lighting, switches and receptacles to accommodate layouts and programmed uses.	1	LS	17,400	\$17,400
Attic & Exterior		Provide power to new HVAC equipment.	1	EA	1,500	\$1,500
First Floor		Provide power to new exhaust fan	2	EA	800	\$1,600
Attic		Provide power to new plumbing equipment: water heater (4500 W at 240 v)	1	EA	300	\$300
All floors		Provide power to new plumbing equipment: sump pump	1	EA	300	\$300
All floors		Provide power to new Plumbing equipment: sewage ejector	1	EA	500	\$500
per email 7/26		1. MEP: Provide (1) hi-lo drinking fountain and associated plumbing.	1	LS	3,000	\$3,000
SUBTOTAL						\$284,350



D. Reference Codes and Zoning



City of Geneva IL

Current Adopted Building Codes (Refer to the link for City of Geneva's Code and Documents: <https://www.geneva.il.us/142/Codes-Documents>)

City of Geneva Building Regulations	<u>Title 10</u>
International Residential Code	2015 (with amendments)
International Building Code	2009 (with amendments)
International Energy Conservation Code	2018
International Fuel and Gas Code	2015 (with amendments)
International Property Maintenance Code	2006
International Mechanical Code	2015
International Swimming Pool and Spa Code	2015 (with amendments)
State of Illinois Plumbing Code	<u>Most recent edition</u>
State of Illinois Accessibility Code	<u>Most recent edition</u>
Americans with Disabilities Act	2010
National Electrical Code	2005
Life Safety Code	2003

Illinois Plumbing Code (for full code, refer to <http://www.idph.state.il.us/envhealth/pdf/SOS%20Official%20Version%20Part%20890%20Plumbing%20Code%20A5%20Paper%206%2018%2014.pdf>)

Existing Gross Area = 1,215 SF

Office Buildings: 200SF/person= 7 people

Mercantile Units, First Floor: 100SF/person = 13 people

Required Restrooms: Separate men and women restrooms required for employees only. (1, water closet, 1 lavatory per restroom)

Drinking Fountains and Service Sinks:

Mercantile Units: 1 high-low drinking fountain required, 1 service sink required

Office Building: 1 drinking fountain required, 1 service sink required. Note: Whenever a drinking fountain is required by this Part, bottled drinking water or a water dispensing faucet (water station) may be substituted for a drinking fountain, provided drinking water is accessible to the public. When bottled drinking water is provided in lieu of a drinking fountain, the bottled water used must be commercially sealed in accordance with the Illinois Bottled Water Act and with the Illinois Safe Bottled Water Act.



International Building Code (for full code, refer to <https://codes.iccsafe.org>)

- Office buildings: 200SF/person = 7 people
- Mercantile Units, basement and grade level: 30SF/person = 40 people

For Group M (Mercantile): (1) exit required for maximum occupant load of 49.

International Energy Conservation Code (for full code, refer to <https://codes.iccsafe.org>)

- Table C402.1.3 Opaque Thermal Envelope Insulation Component Minimum Requirement, R-Value Method
 - o Attic and other: R-49
 - o Mass Walls, above grade: R-7.6ci
 - o Walls, below grade: N/A basement is not conditioned
 - o Floors: R-14.6ci
 - o Unheated Slab on Grade: R-15 for 24" below
- Table C402.4 Building Envelope Fenestration Maximum U-Factor and SHGC Requirements
 - o Fixed Fenestration U-Value 0.36
 - o Operable Fenestration U-Value 0.45
 - o Entrance Doors U-Value 0.63
 - o SHGC Operable 0.33
 - o SHGC Fixed 0.36

Illinois Accessibility Code (for full code, please refer to <https://www2.illinois.gov/cdb/business/codes/IllinoisAccessibilityCode/Documents/2018%20Illinois%20Accessibility%20Code.pdf>)

- One parking space required
- Accessible route from public way and accessible parking to building entrance and within the building
- Accessible toilet rooms



City of Geneva, Illinois: Zoning Ordinance (excerpts)

For full Zoning Ordinance, go to <https://www.geneva.il.us/465/Zoning-Ordinance>

11-3-5: - FENCES AND WALLS:

2. Business And Industrial Districts:

Street setback	8 feet
Side setback	8 feet
Rear setback	8 feet
Visibility triangle	3 feet

11-4A-11: - D-CM COMMERCIAL MIXED-USE DISTRICT:

BUILDING PLACEMENT:

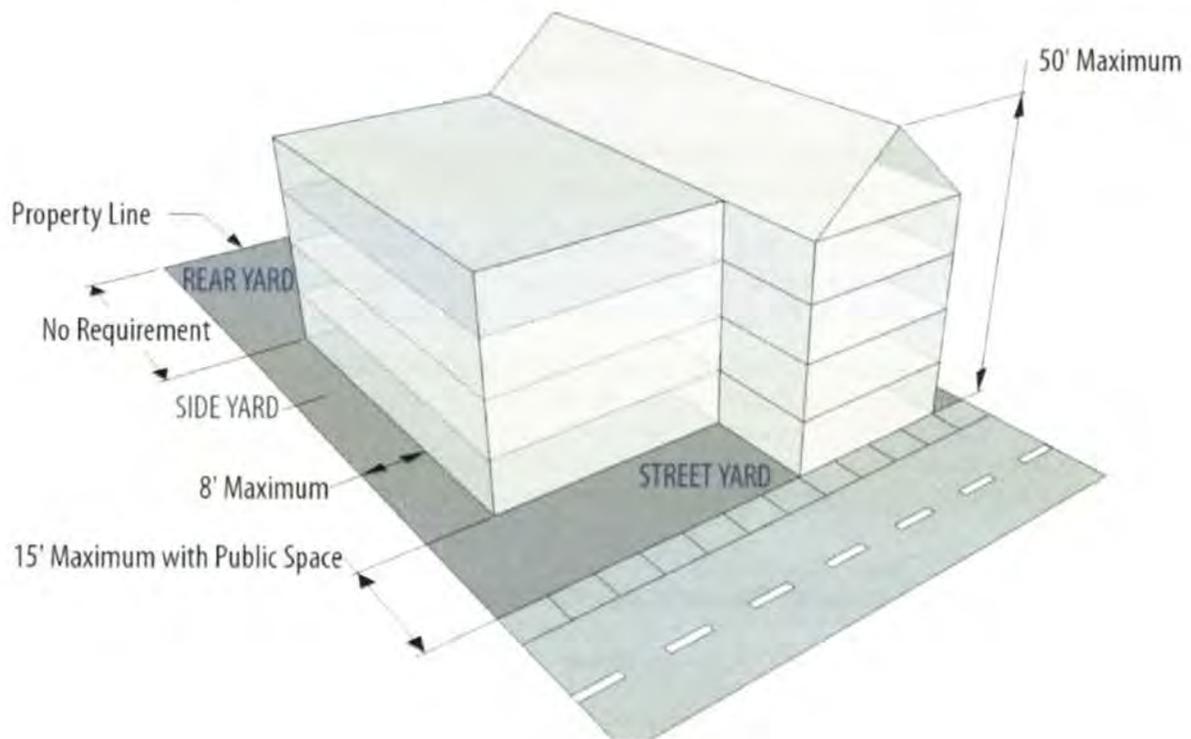
SETBACKS:	
Maximum Street Setback (without open space)	0'
Maximum Street Setback (with open space)	0'—15'
Maximum Interior Side Setback	0'—8'
Minimum Rear Setback	0'
Minimum Rear Setback (abuts a residential use)	15'

OFF-STREET PARKING PLACEMENT:

SETBACKS:	
Parking lots and entrances to parking lots cannot be located along State Street and must be located in the rear of the building.	
Minimum Street Setback	5'
Minimum Interior Side Setback	5'



SETBACKS:	
Minimum Rear Setback	5'
Minimum Rear Setback (abuts a residential use)	10'
BUILDING HEIGHT	
Maximum Height	50'



11-11A-2: - LOCATION, SIZE AND OTHER REQUIREMENTS:

Highlighted below are the key items to this project

A. Location: All parking spaces required to serve buildings or uses erected or established after the effective date of this article shall be located on the same zoning lot as the building or use served, except that parking spaces to serve business or industrial buildings may be located within three hundred fifty feet (350') of such use if said spaces and uses they are intended to serve are located in a business, office, office research or industrial district.

B. Buildings or uses existing on the effective date of this article which are subsequently altered or enlarged so as to require the provision of parking spaces under this article, may be served



by parking facilities located on land other than the zoning lot on which the building or use served is located, provided such facilities are within three hundred fifty feet (350') walking distance of a main entrance to the use served. Owners of property, nonconforming as to parking, who elect to provide parking and become conforming may locate such parking on land other than the zoning lot on which the building or use is located, as allowed in this section.

C. Control Of Off-Site Parking Facilities: In cases where parking facilities are permitted on land other than the zoning lot on which the building or use served is located, such facilities shall be in the same possession as the zoning lot occupied by the building or use to which the parking facilities are accessory. Such possession may be either by deed or long term lease, the term of such lease to be determined by the planning and zoning commission; and such deed or lease shall be filed for approval by the city attorney. The deed or lease shall require such owner, heirs and assigns to maintain the required number of parking facilities for the duration of the use served. The deed or lease shall be recorded in the Kane County office of the recorder of deeds.

E. Collective Provision: Off-street parking facilities for separate uses may be provided collectively if the total number of spaces so provided is not less than the sum of the separate requirements of each such use and all regulations governing location of accessory parking spaces in relation to the use served are adhered to. Further, no parking space or portion thereof shall serve as a required space for more than one use unless otherwise authorized by the city council, and except as provided in subsection F of this section.

F3. Shared off-street parking may be approved by the director of community development where an application does not otherwise require any form of plan approval by the planning and zoning commission and city council. The director of community development, planning and zoning commission or city council may require any necessary studies on behalf of the applicant to determine the operational characteristics of the shared parking arrangement proposal.

11-11A-4: - D-CM AND D-RSCM DISTRICT SPECIAL PROVISIONS:

4. If a use change, building expansion or development results in parking requirements not being met, or in a reduction in the existing amount of private off-street parking spaces or public parking spaces, the development entity (owners, lessees or successors and assigns in possession of property) shall be required to locate an equivalent amount of parking spaces within three hundred fifty (350) feet of the subject property. If the development entity is unable to provide the required off-street parking within three hundred fifty (350) feet, the entity may petition the city council to pay an in-lieu fee in the amount of ten thousand dollars (\$10,000.00) for each required space. The petition to waive required parking spaces and pay an in-lieu fee shall be submitted to the community development department, subject to review and approval by the city council. If approved, the fee shall be paid prior to the issuance of a building permit or certificate of occupancy.

11-11A-6: - PARKING SPACES AND DESIGN REQUIREMENTS:

3 of required parking spaces

Retail and Offices: 4/1,000sf (1 space to be ADA compliant)



E. Photos



Figure 1. North and East Elevations



Figure 2. East and South Elevations



Figure 3. West facade



Figure 4. Existing Door opening in basement



Figure 5. Stair to basement



Figure 6. West Elevation - basement rebuild

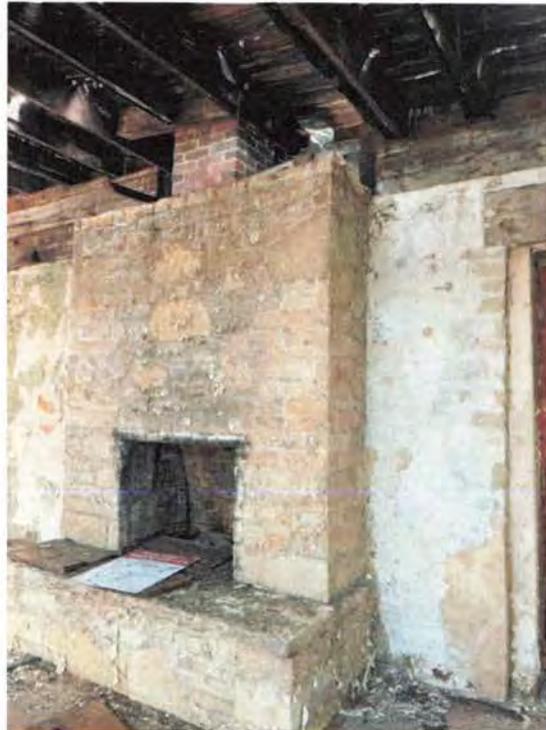


Figure 7. Existing fireplace and peeling paint



Figure 8. Interior looking northwest



Figure 9. Interior Wall



Figure 10. Concrete slab and existing main entrance



Figure 11. Interior looking west

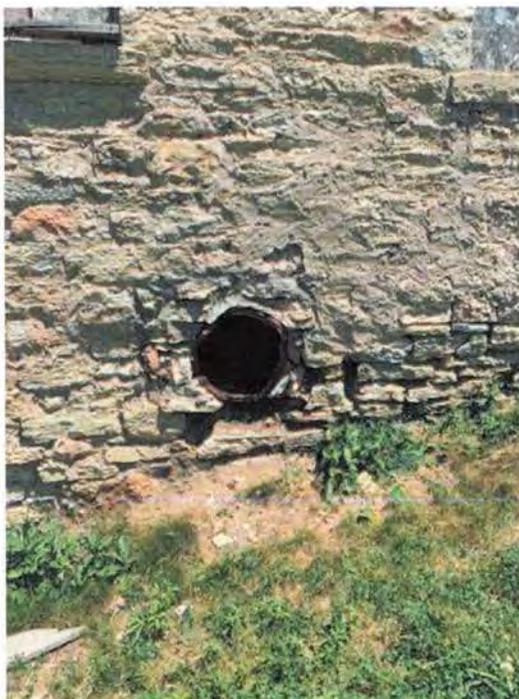


Figure 12. Existing masonry and mortar on limestone

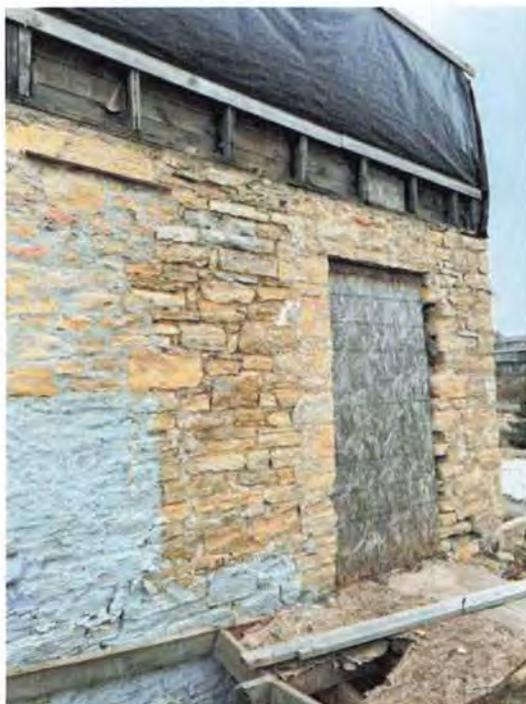


Figure 13. North Elevation - masonry rebuild and infill



Figure 14. Floor Return Grille



Figure 15. Abandoned Duct/Pipes at Basement Wall



Figure 16. Duct/Pipe Opening at South Exterior Wall



Figure 17. Waste Pipe Out Basement Wall and Assumed Domestic Water Directly Below.



Figure 18. Small Sump Pit in Basement Floor



Figure 19. Abandoned Conduit Throughout the Building



Figure 20. Abandoned and Obsolete Receptacles Throughout the Building



Figure 21. Abandoned Exit Light Housing



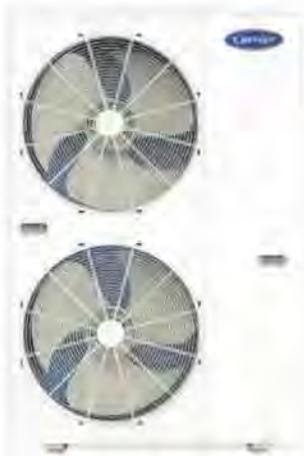
F. Mechanical Unit Cut Sheets

Single Phase VRF Outdoor Unit 38VMB048HDS3-1—Heat Pump



Submittal Data

Job Name _____ Location _____
Tag _____



Standard Features

- High Efficiency Rotary Inverter Compressor
- Optimized Compressor Start-Up Technology
- DC Condenser Fan Motor
- Aerodynamic Fan Design for Increased Airflow
- Field Configurable Four Side Piping Connection
- 492 ft (150m) actual total system piping (liquid line)

Header Unit Model	38VMB048HDS3-1	
PERFORMANCE		
Nominal Cooling Capacity	Btu/h	48,000
Nominal Heating Capacity	Btu/h	52,500
Maximum Total Connected Indoor Unit Capacity		50% to 130%
COOLING EFFICIENCY†		
SEER, Ducted FCUs	Btu/Wh	18.00
SEER, Ductless FCUs	Btu/Wh	19.20
HEATING EFFICIENCY†		
HSPF, Ducted FCUs	Btu/Wh	10.50
HSPF, Ductless FCUs	Btu/Wh	10.50
Fan Type (Qty)		Propeller (2)
Airflow, Standard Range	CFM	4,100
Sound Pressure, Cooling/Heating	dBA	60.1
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/1/60
Minimum Circuit Amps (MCA)	A	38
Recommended Fuse Size	A	40

LEGEND

SEER — Seasonal Energy Efficiency Ratio
FCU — Fan Coil Unit
HSPF — Heating Seasonal Performance Factor

COMPRESSORS

Type (Number)		Hermetically Sealed Rotary DC Inverter (1)
---------------	--	--

FAN MOTOR

Motor Type (Qty)	Brushless DC (2)
------------------	------------------

PHYSICAL DATA

Pipe Connection Size - Liquid (High Pressure)	in.	3/8
Pipe Connection Size - Gas (Low Pressure)	in.	5/8
Refrigerant		R-410A
Factory Charge††	lb	8.6
Unit Width	in.	35-1/2
Unit Height	in.	52-1/4
Unit Depth	in.	15-3/4
Net Weight	lb	220.0

OPERATING TEMPERATURE RANGE

Cooling (DB)	°F	5-118
Heating (WB)	°F	-13-64

†Rated per AHRI (Air-Conditioning, Heating and Refrigeration Institute) 210/240 Standard.

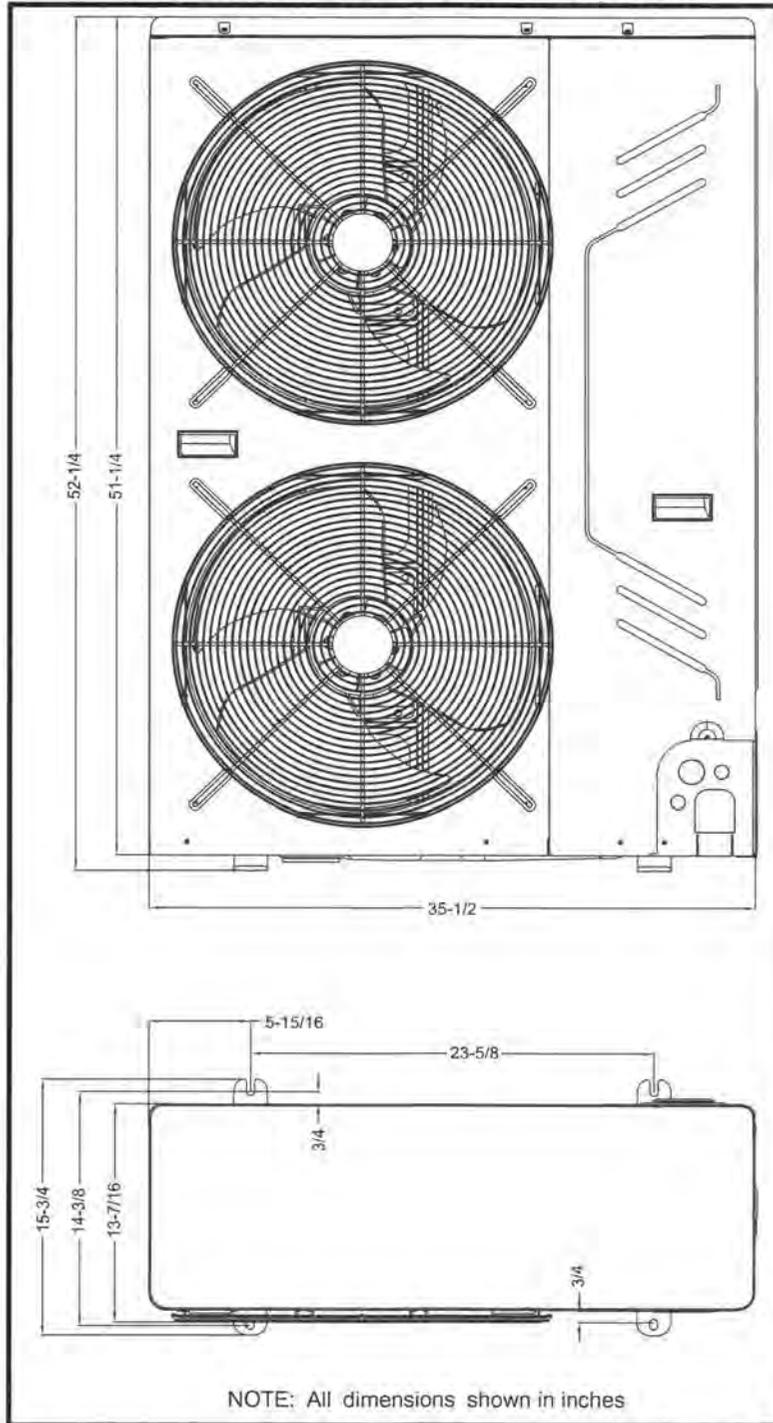
Cooling: Indoor 80°F (27°C) db/67°F (20°C) wb; Outdoor 95°F (35°C) db

Heating: Indoor 70°F (21°C) db; Outdoor 47°F (8°C) db/43°F (6°C) wb

††Additional charge required.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

DIMENSIONAL DRAWING OUTDOOR UNIT 38VMB048HDS3-1



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Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.

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Form 38VMH0483-C-3SD

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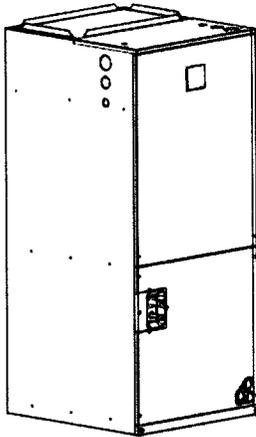
Replaces: 38VMH0483-C-2SD

VRF Indoor Unit 40VMV048A--3 — Vertical AHU



Submittal Data

Job Name _____ Location _____
 Tag _____



A210734

STANDARD FEATURES

- Dual Drainage Spouts
- Three Fan Speeds - High, Medium and Low
- Unit can be installed vertically or horizontally with supply air discharge on the right
- DC Fan Motor
- Built in EXV (Electronic Expansion Valve) for Installation Ease
- Removable Front Panel Provides Easy Access

Indoor Unit Model		40VMV048A--3
PERFORMANCE		
Cooling Rated Capacity	Btu/h	48,000
Sensible Cooling Capacity	Btu/h	37,100
Heating Rated Capacity	Btu/h	54,000
Airflow (H / M / L)	CFM	1600 / 1360 / 1120
Sound Pressure (H / M / L)	dBA	46.9 / 44.1 / 39.3
ELECTRICAL		
Power Supply	V/Ph/Hz	208-230/1/60
Motor Type		DC
Indoor Unit Fan Motor Power Consumption (Input)	W	187
Minimum Circuit Amps	A	5.3
Maximum Overcurrent Protection	A	15
Minimum External Static Pressure (ESP) (Factory Default)	in. wg	0.0
Maximum External Static Pressure (ESP)	in. wg	0.8

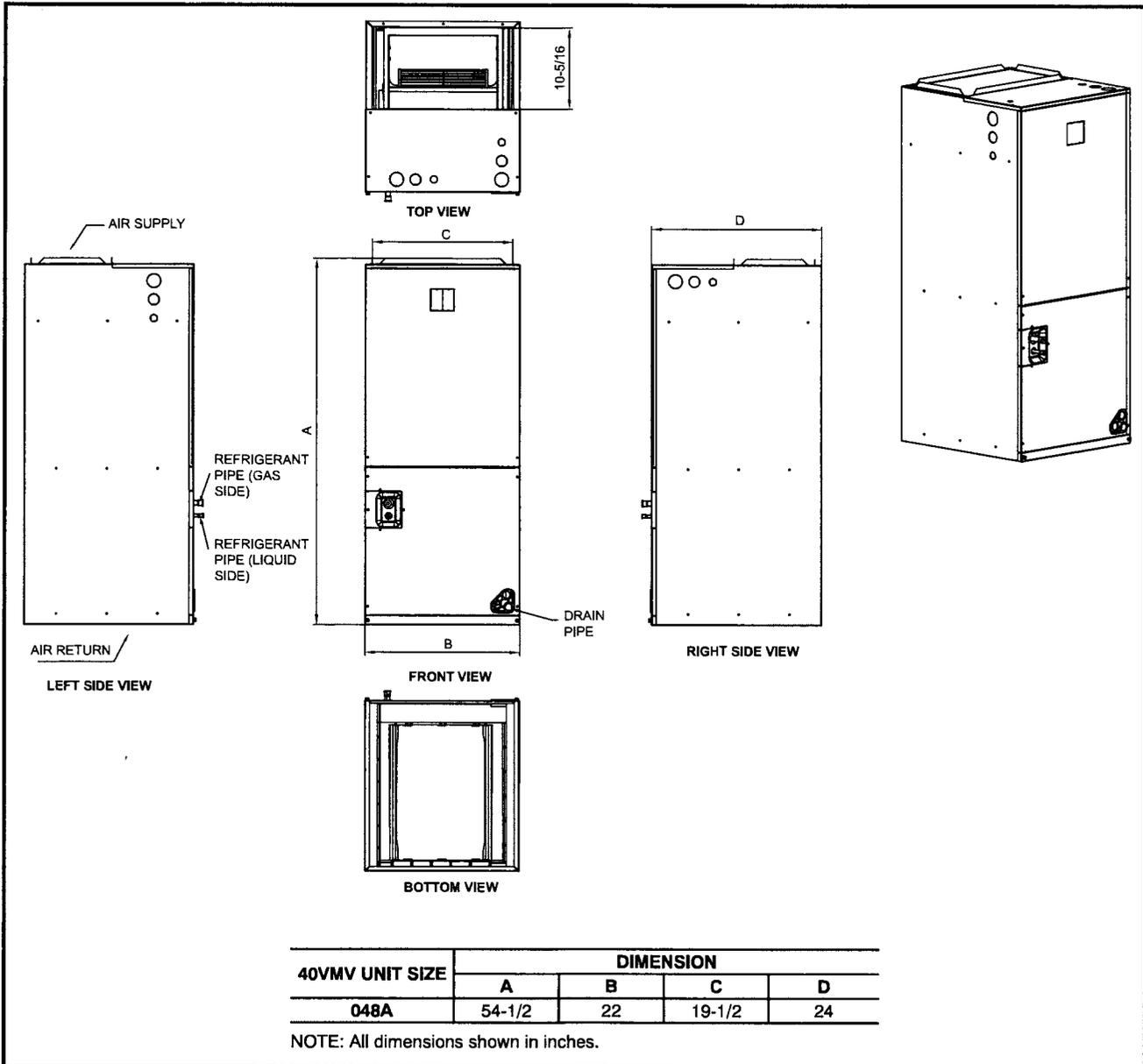
PHYSICAL DATA

Pipe Connection Size - Liquid	in.	3/8 (OD)
Pipe Connection Size - Suction	in.	5/8 (OD)
Pipe Connection Size - Drain	in.	3/4 (NPT)
Refrigerant		R-410A
Unit Width	in.	22
Unit Height	in.	54-1/2
Unit Depth	in.	24
Net/Gross Weight	lb	157/183

ACCESSORIES (Optional)

- Wireless Remote Controller 40VM900001
- Wired Remote Controller - Non-Prog. 40VM900002
- Wired Remote Controller - Prog. 40VM900003
- Touch Screen Wired Controller 40VM900005
- Touch Screen Central Controller 40VM900006

DIMENSIONAL DRAWING INDOOR UNIT VERTICAL AHU 40VMV048A-3



A210740



EXHIBIT 1.d

Stone Remnant Structure demolition site stabilization

Estimate of work

Dated 10/31/25

4 E. State - Soil Replacement Budget

10/31/2025

Description

Estimate

Project Management	\$9,600	\$120x80hrs
General Labor	\$3,200	\$80x40hrs
Engineering	\$4,500	LS
Permits	\$400	LS
Stormwater Management Fee	\$2,800	Escrow & Fee
Construction Fencing	\$2,460	LS
Erosion Control, Silt Fence	\$1,000	\$2.5x400lf
Excavation, Mobilize, Grading	\$6,800	2 Days \$300x16hrs=\$4,800+ \$2,000 mobilize
Import Clay	\$3,600	\$30x120cy=\$3,600
Import Topsoil	\$1,680	\$35x48cy=\$1,680
Erosion Control Seeding	\$400	\$.80x400sy=\$400
Erosion Control Mat, Class 1 Type A	\$2,000	\$5.00x400sy=\$2000
Silt Fence Maintance	\$800	\$2.00x400lf=\$800
TOTAL	\$39,240	