



75-77 East Washington Street

***In-depth Building Analyses and
Recommendations***

In-depth Building Analysis Overview

Four of the nineteen downtown buildings selected for façade assessments and recommendations also received a structural analysis and a more in-depth analysis of the building shell. The in-depth analysis defined visible defects in exterior walls, interior/exterior structure, roof, window, storefront and doors. A façade rendering of each building was then prepared noting the recommended changes and graphically showing what the building would look like if fully restored.

Estimate of Probable Construction Cost

Restoration of a historic building often is completed in multiple stages over several years. To help building owners plan for the restoration process, conceptual construction cost estimates were prepared for the four in-depth buildings. The exterior construction estimates are based on current (summer 2010) prices and assumes that the work will be done by contractors and not self performed by the building owners.

Interior construction estimates were prepared for the second floor only and are based on residential use for the second floor space. With no elevators in any of the downtown buildings and a large volume of ground floor space available for office and commercial use, it seems unlikely that the second floor space could be marketed as prime office or retail space.

Construction estimates to renovate the lower floors into commercial space were not prepared due to the large variables of finish based on uses that are currently undefined.

Conceptual Pro Formas

To help the property owners develop a business plan that will take advantage of their second floor space, conceptual pro formas were prepared based on interior restoration costs amortized over a typical 20 or 25 year mortgage. Exterior construction costs were not included in the calculation due to the fact that the buildings could be occupied (assuming the interior spaces are renovated to a livable condition) without immediate restoration of the building exterior. The pro formas are for planning purposes only and need to be recalculated once final construction drawings are prepared, bid estimates are received for the spaces and current finance charges are established.

Estimated construction costs for second floor space are included in the Estimate of Probable Construction Cost located at the end of each of the four building analysis sheets.

27-29 East Washington Street 2 Rental Units

- Monthly Amortization Cost:
\$81,500 @ 20 years @ 6% \$584.00
\$81,500 @ 25 years @ 6% \$525.00
- Estimated Monthly Rental Income:
\$400.00 per month, owner pays sewer & water of \$50/month:
- **Net of \$350.00 @ 2**

75-77 East Washington Street 4 Rental Units

- Monthly Amortization Cost:
\$253,400 @ 20 years @ 6% \$1,814.00
\$253,400 @ 25 years @ 6% \$1,633.00
- Estimated Monthly Rental Income:
\$550.00 per month, owner pays sewer & water of \$50/month:
- **Net of \$500.00 @ 4**

50 North Main Street 1 Rental Unit

- Monthly Amortization Cost:
\$28,900 @ 20 years @ 6% \$207.00
\$28,900 @ 25 years @ 6% \$186.00
- Estimated Monthly Rental Income:
\$600.00 per month, owner pays sewer & water of \$50/month:
- **Net of \$550.00**

46 North Main Street Owner Occupied Unit

- Monthly Amortization Cost:
\$127,500 @ 20 years @ 6% \$913.00
\$127,500 @ 25 years @ 6% \$822.00
- Estimated Monthly Rental Income:
\$400.00 per month, owner pays sewer & water of \$50/month:
- **Net of 0.00**

Cautionary Information on Preliminary Cost Estimates

- ❖ Cost Estimates are preliminary and are to be used only for short term planning and budgeting.
- ❖ Estimates are based on current (summer 2010) cost estimating guides and knowledge of current bid prices.
- ❖ Estimates are based on square foot prices and will change as design development and construction documents are prepared for these projects at some time in the future.
- ❖ Construction costs are volatile and are totally dependent on the labor market and construction commodities market. Steep spikes in construction cost have been experienced in the recent past due to increasing oil and steel prices. The current downturn in the business markets (summer 2010) impact other material prices due to shortages based on reduced production and availability. Inflation contingencies should be added to any preliminary estimate at 6 month to 1 year increments.
- ❖ The estimated construction costs do not include architect or engineering fees for preparation of construction documents or abatement of hazardous materials (if present).



North Elevation



North Elevation. Area behind truck



North Elevation. Area behind truck



West Elevation

Recommendation: Remove all billboards, open bricked in windows and install new windows, remove paint using non-abrasive methods then repoint all joints.



Recommendation: Remove all billboards, open bricked in windows and install new windows, remove paint using non-abrasive methods then repoint all joints. Remove vegetation near building to protect foundations from destructive roots.

South Elevation.



Recommendation: Remove deteriorated wood frame building addition due to unsafe and unsalvageable condition. Protect adjacent brick walls and foundations during deconstruction. Replace roof immediately on brick portion of building to protect interior from continuing deterioration.

South Elevation, alternate view.

Structural Analysis

General Description

- The overall building is two stories with a partial basement and partial crawl space.
- The original structure was residential with the commercial front added in 1915.
- The wood framed east wing is clad in wood clapboard siding and is distinct from the ‘L’ shaped wing of the building because it is not constructed with exterior brick bearing walls.
- There is a one story addition seen from the rear that was built in what was likely a courtyard between the west two story portions and the adjacent building to the east. This one story addition is occupied by a jewelry store. The owner requested no photos be taken in the interior. No structural information was recorded for this one story addition.
- There is wood joist floor framing at the first level of the two story portion of this building.
- There is wood framing at the second level of the two story portion of this building.
- The roof is wood framed throughout this building.
- The roof over the front portion of the building is low sloped front to rear. The west ‘L’ wing roof is a gable profile sloping to the east and west.
- The building has exterior brick masonry bearing walls except at the rear wing, two story wood addition.
- The basement walls and crawlspace are constructed of clay brick masonry.
- The floor of the basement is brick and dirt.
- The west and south façade is painted brick.
- Most window openings in the west and south facades have been bricked in or covered over with plywood.

Structural Condition

Basement

- The brick walls in the basement are in poor condition in many areas. The basement is very wet and the brick retaining walls have suffered partial collapse in a few locations.
- On one wall in the rear wing at the south east corner of the inner boiler room between the basement and crawlspace, the brick has collapsed to a significant degree. This appears to be causing severe sagging of the first floor directly over this area.
- There are structurally unstable areas of the retaining wall on the north and south sides of the exterior stairs leading to the

basement. The brick and block masonry is bowed outward and partially collapsed.

- There is a corroded steel lintel over the opening between the inner and outer basement rooms.

First Floor

- From the basement, it can be seen that the floor joists themselves are in fair condition. There does not appear to be an excessive amount of water damage.
- The floor is not level. To the rear of the pool store space, there is an area of the floor that is severely sagging, soft and spongy. This is over an area in the basement where the brick wall below is collapsed as mentioned above.

Second Floor

- The second floor of the ‘L’ shaped, two story portion of the building is un-level and sags in several areas. The floor should be limited to residential usage and should have a thorough structural investigation to determine the load capacity. The second floor in the rear wood framed wing of the building is in very poor condition due to water damage and deterioration.

Roof

- Significant portions of the roofing over the rear wing, wood framed addition of the building are missing. This has likely resulted in water damage to the roof framing members and wood roof deck.

Recommendations

Immediate Items

- It is recommended that the wood wing of the building at the rear be completely demolished due to the poor and unsalvageable condition of the structure (see note regarding further structural study). This demolition will need to respect the one story jewelry store addition. The front wing and the west ‘L’ wing can then be rehabilitated and repaired for future usage.
- The overall strength and stability of the first floor needs to be reviewed and appropriate strengthening members put in place for retail loading. This will require a more in-depth structural study.

- The collapsed walls in the basement and basement stairs need to be relayed and stabilized to provide a functioning retaining wall and provide proper joist support.
- The steel lintel over the basement wall opening should be removed and replaced. The opening can be reduced to require a shorter lintel.
- The roof framing over the west ‘L’ wing should be removed and replaced and all new decking and roofing be installed. The new roof can be profiled to accommodate the removal of the wood framed east wing.

Future Items

- The basement should be cleaned out and abandoned pipes and mechanical equipment removed to create a less hazardous basement area.
- The second floor of the brick wings of the building should be thoroughly analyzed for future residential occupancy loading.
- The roof framing over the front wing of the building should be checked for water damage and repaired as needed.

Further Structural Study

- The overall load capacity for the first floor should be determined for comparison to retail code loading of 100 psf.
- The entire basement, along with the exterior stairs, should be studied to determine what structural measures need to be taken to ensure the stability of the building above.
- Removal of the wood framed rear wing of the building will require further study including careful deconstruction to determine whether the hidden structure is in better condition than the visible surface materials. If the hidden structure is found to be sound then it may be possible to save and rebuild using some of the existing structure.
- The gable roof over the west wing of the building will require further study to determine how best to remove and replace the framing.



P1 – View of the front façade of the building that faces Washington Street.



P2 – View of the front façade and the west side of the building looking southeast.



P3 – View of the west side of the building. The original structure was a residential building and the commercial front was added later.



P4 – View of the rear of the building. Note the wood framed portion of the west wing addition and the one story infill addition.



P5 – Collapsed basement wall. This occurs under the severely sagging area of the first floor.



P6 – Partially collapsed block masonry on the south side of the rear stair that leads to the basement.



P7 – Partially collapsed and bowing brick masonry on the north side of the rear stair that leads to the basement.



P8 – Corroded steel lintel over a basement wall opening.



P9 – View of the floor and walls of the upper level over the front wing of the building.



P10 – View of the upper level floor of the wood framed addition of the west wing of the building.



P11 – View of the ceiling over the upper level of the wood framed addition of the west wing of the building.



P12 – View of the west side of the rear addition. Note the missing roofing and the exposed wood deck on the gable portion of the roof.



P13 – View of the rear of the building. Note the deterioration of the wood framed portion of the west wing addition.



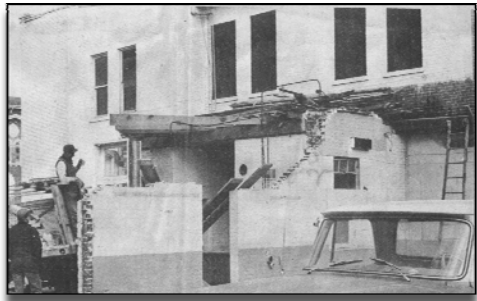
P14 – View of the abandoned boiler in the basement. May represent a hazardous material condition.



P15 – View of the basement looking south. Note the crumbling concrete at the base of the wall and the wet dirt floor.



This c. 1916 photo of 27-29 East Washington Street shows that the current building facades have not changed significantly, with the exception of more modern bronze window and door frames.



Demolition of the adjacent gas station to the west in the late 1960s shows the older window openings on the west side of the building now covered by billboards.



Existing Building Façade

- Repair coping to prevent water getting into walls.
- Replace roof, gutters and downspouts.
- Remove paint using non-abrasive methods then clean brick and repoint all joints on south and west facades.
- Remove old billboards complete. Repair holes left by attachment hardware.
- Remove masonry and wood infill on all existing window openings.
- Remove window air conditioner.
- Remove wood covering over existing transoms.



Proposed Building Façade Improvements

- Restore and paint decorative wood trim.
- Install clear glass transoms over storefront windows.
- Install new windows with clear glass; size of windows to match opening size in brick wall.
- Replace aluminum doors with painted wood doors to match historic style of building.
- Bronze window frames to remain. Do not use abrasive cleaning methods on frames which could remove dark color patina.

27-29 East Washington
Estimate of Exterior Probable Construction Cost

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
02000 SITE CONSTRUCTION			
Selective demolition, disposal only, urban buildings with salvage value allowed, wood frame, includes loading and 5 mile haul to dump.	100.00 CY	\$27.75	\$2,775
Deconstruction of billboards and misc. trim and wainscoting, up to 2 stories, includes handling, packaging or disposal costs.	250 SF	\$4.24	\$1,059
Deconstruction of roofing and accessories, built-up roofs, up to 2 stories, excludes handling, packaging or disposal costs.	3,000 SF	\$2.00	\$5,995
Deconstruction of wood components, roof sheeting up to 2 stories, excludes handling, packaging or disposal costs.	1,000 SF	\$3.40	\$3,396
Subtotal			\$13,225
04000 MASONRY			
Repoint masonry labor and material, north elevation only	250 SF	\$13.98	\$3,494
Remove paint from brick, clean and repair brick and repoint joints on south and west walls only.	4,000 SF	\$25.00	\$100,000
Subtotal			\$103,494
06000 WOOD AND PLASTICS			
Wood roof, flat rafter, 2 x 12 @ 12" O.C.	3,000 SF	\$t.06	\$15,166
Subtotal			\$15,166
07000 THERMAL AND MOISTURE PROTECTION			
Aluminum gravel stops, coping mill finish, .050" thick, 4" face height, east and south elevations.	100 LF	\$14.18	\$1,418
Roofing, single ply membrane, CSPE, 35 mils, fully adhered.	3,000 SF	\$3.85	\$11,548
Insulation, rigid, roof deck, fiberboard, mineral, 2" thick, R5.56	3,000 SF	42.00	\$5,994
Subtotal			\$18,960
WOOD TRIM			
Restore and paint decorative wood trim	Lump Sum		\$4,891
Subtotal			\$4,891
STOREFRONT GLASS			
Float glass, clear, plain, 1.4" thick, remove existing and install new glass.	192 SF	\$23.70	\$4,551
Subtotal			\$4,551

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
WINDOWS AND DOORS			
Cutout & demolition of brick in building openings, 12" thick. Includes toothing-in, lintel, loading and disposal.	9 EA	\$882.44	\$7,942
Wood windows, double hung, low E glass, size to match elevation opening includes frames, screens, no inside trim.	9 EA	\$638.40	\$5,746
Remove existing aluminum doors, install new wood doors, exterior, poplar, full lite to 7' x 3' including hardware.	3 EA	\$1,144.26	\$3,433
Subtotal			\$17,121
Total Building Exterior			
			\$177,408

Estimate of Interior Probable Construction Cost for Second Floor Residential Use

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Program: Create two apartment units on second floor each containing approximately 660 square feet.			
Plan Preparation	Lump Sum		\$500
City & State Permits	Lump Sum		\$400
Demolition & Trash Removal	1,320 SF	\$1.50	\$1,980
General Construction	1,320 SF	\$11.00	\$14,520
Building Materials	1,320 SF	\$12.00	\$15,840
HVAC-Labor and Material <ul style="list-style-type: none">(2) 1.5 ton/13 Seer Air Handler(2) 1.5 ton/13 Seer Heat Pumps	Lump Sum		\$12,000
Electrical <ul style="list-style-type: none">Install 2 new 200 Amp ServicesFurnish & install all wiring, switches & receptaclesFurnish & install florescent ceiling lights	Lump Sum		\$12,500
Floor Coverings	1,320 SF	\$4.50	\$5,940
Plumbing	1,320 SF	\$4.00	\$5,280
Drywall Labor	1,320 SF	\$4.00	\$5,280
Painting- labor & material	1,320 SF	\$3.00	\$3,960
Subtotal			\$78,200
General Contingency	4%		\$3,300
Total Second Floor Interior Renovation			
			\$81,500



75-77 East Washington Street - North Elevation.



Existing repointing appears to be of extremely hard mortar and poor workmanship. Option one: Repoint entire north elevation with proper mortar. Option two: Repoint marked areas to match older existing mortar.

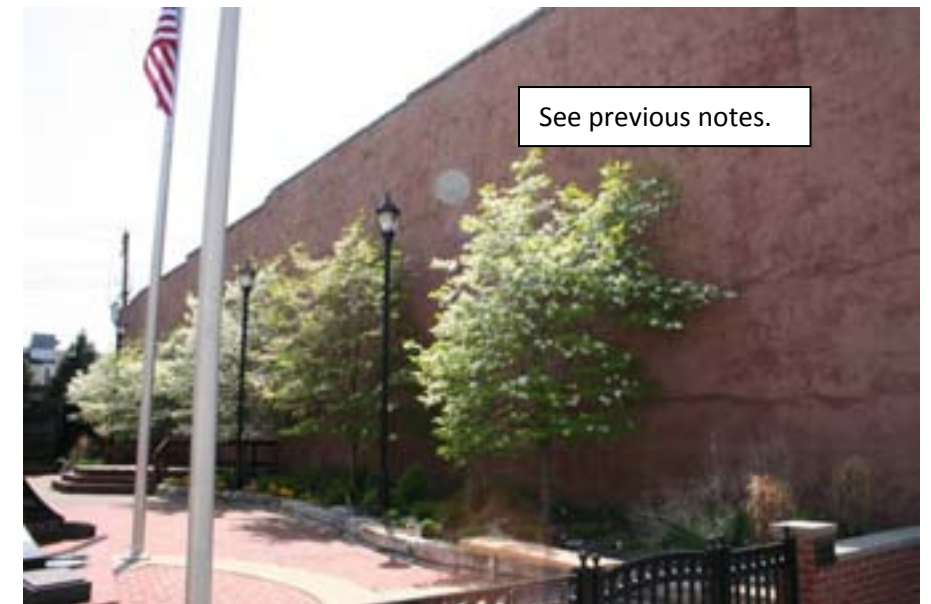


East Elevation

Note: There are two major factors that need addressed at the east building wall.

1. The landscape material should not come in contact with the building, and the drainage from the planters must drain away from the wall. Remove branches that contact wall. Install perforated drain tile along wall for positive drainage away from wall.
2. The plaster along the east wall is cracking and delaminating. The most economical approach to repair wall surface is to mechanically reattach the plaster and install a 1 to 1-1/2 inch EIFS over the existing plaster. *See the definition of EIFS in the Façade Assessment & Improvement Recommendations Overview, page 43.* Install a new metal coping at the top of the parapet wall.

The moisture from the planter will cause damage to the floor joists that are embedded into the exterior masonry wall.



See previous notes.



Water draining into building.

South Elevation



Area needs to be raised or proper drainage be provided.

Seal off old coal chute.

Repair improper drainage in alley by removing old coal chute and raising finish grade near building to shed storm water away from building. Either connect downspout drains to city storm sewer system or direct water to street and away from building foundations. Remove exterior stair to basement and fill opening in foundation. Waterproof entire below grade wall before backfilling. Install new stair to basement inside building.

The plaster along the south wall is cracking and delaminating. The most economical approach to repair wall surface is to mechanically reattach the plaster and install a 1 to 1-1/2 inch EIFS over the existing plaster. *See the definition of EIFS in the Façade Assessment & Improvement Recommendations Overview, page 43.* Install a new metal coping at the top of the parapet wall.

South Elevation



Provide proper drainage for condensation lines from HVAC units.

South Elevation

General Description

- The overall building is two stories with a partial basement and partial crawl space. The crawl space generally occurs under the north half of the building and the basement is under the south half.
- The overall structure of the building is divided into two distinct halves. There is a masonry demising wall that is also a bearing wall that divides the building approximately along the center.
- The east half of the building is occupied by a Veterans Museum (VM) at the first floor and is vacant at the second level. The west half is occupied by an art store at the first floor and is vacant at the upper level. The basements are un-occupied.
- The exterior walls and the interior demising wall are load bearing masonry.
- There is wood joist floor framing at the first level, second level, and the roof.
- The first floor joists at the art store and VM are supported mid-span by a line of wood posts, columns and wood beams. There are steel jack column additions to the beam support system at the art store. The second floor joists and roof framing appear to clear-span the distance between the exterior and interior masonry bearing walls.
- The wood posts in the basement of the art store and VM are bearing at or near the basement floor and, as such, are exposed to water that leaks into the basement.
- The roof slopes from a high elevation at the front down to a low elevation in the rear, draining to gutters and downspouts.
- The basement walls and crawlspace walls are constructed of brick masonry for both the art store and VM.
- The basement floor of the art store is brick pavers and dirt and the basement floor of the VM is concrete.
- The east face of the east masonry wall has had a stucco finish applied at some time in the past. Apparently this wall was an inside wall prior to fire destroying the building that once stood to the east. The wall has apparently leaked over the years. No information about the condition of this wall after the fire is available.

Structural Condition

Basement

- The brick walls in the basement under the art store and VM are in fair condition but appear to have suffered the effects of past water leakage, especially along the rear wall on the south side. The basements are apparently damp to wet at times.

- Along the rear of the building, the existing grade is lower than the adjacent alley. This condition is likely the main source of water leakage into the basements. Water may be getting into the VM basement along the east side of the building as well.
- There appears to be a brick wall along the length of the crawlspace that supports the floor joists at mid-span in both the art store and VM.

First Floor

- From the basement under the art store, it can be seen that the first floor joists on the west half of the building are in fair condition. The joists over the front crawl space were in similar condition, where visible. There was not an excessive amount of water damage observed.
- The east ends of some joists under the VM were water damaged. The first floor of the VM was bouncy and not level in the rear room of the space. The front was less bouncy.
- Under the art store, some new steel jack columns have been added to help support the wood beams along the mid-span of the joists in the basement. This work was apparently done based on recommendations made in a previous report on this building.
- The existing wood beam under the art store has had some recent repair modifications, likely recommended in the prior report. The floor load capacity is at least 100 psf with the modifications that have been previously made. This is adequate for retail occupancy.
- An analysis of the joists and beams under the first floor of the VM indicate that the floor load capacity is approximately 60 to 70 psf depending on the wood species assumed, and is limited by the central wood beam. This is below retail floor load capacity of 100 psf.
- The wood posts under the art store and VM are subject to water damage at the bottom due to basement water leakage.

Second Floor

- The second floor appeared to be in fair to good condition. The floor had a reasonably solid feel and excessive sagging or bounciness was not noticed.

Roof

- The roof framing was not directly examined, but there did not appear to be excessive water damage to the ceiling finishes that would indicate water damage to the wood roof framing above the ceiling framing.

Recommendations

Immediate Items

- The low finish grade in the rear of the building is contributing to water leakage in the basement. This condition should be studied and corrected as soon as possible to prevent further water leakage in the basement. The stair leading to the basement on the museum side of the building and the abandoned coal chute on the art store side should be closed off and filled in to eliminate this point of entry for water leakage. An access stair to the basement from the VM should be built internally.
- The wood beam supporting the first floor joists in the VM should be modified and intermediate steel jack posts added to increase structural floor capacity to 100 psf.
- The water damaged joists at the first floor of the VM should be removed and replaced.

Future Items

- The wood posts in the basement under the art store and VM should be protected from water damage by installing a masonry or concrete pier under the wood posts to elevate them off of the wet basement floor.

Further Structural Study

- The east wall of the building was exposed to fire according to a past report. If an examination and assessment of this wall has not already been made, such a study should be considered.



P1 – View of the front façade of the building facing Washington Street.



P2 – Close-up view of the front façade of the upper level.



P3 – View of water damaged joists along the east side of the Veterans Museum first floor.



P4 – View of the base of a wood post under the first floor of the Veterans Museum. Note the water damage.



P5 – View of the first floor framing under the Veterans Museum showing wood joists and wood beam.



P6 – Close-up of the rear of the building. Note the low grade against the building.



P7 – View of the inside of the east wall of the Veterans Museum. Note the peeled paint due to water leakage.



P8 – View of beam repairs and a new steel jack column in the basement under the art store.



P9 – View of the crawl space under the art store.



P10 – Abandoned coal chute in the south basement wall under the art store. This is one point of entry for water.



P11 – View of the basement wall under the art store looking southwest. Note the water damage to mortar joints.



P12 – Overall view of the basement under the art store looking to the north. The openings in the north wall lead to the crawlspace.



P13 – Overall view of the second floor looking to the south. This view was taken above the museum.



P14 – Close up view of the second floor, east wall of the building. This wall was exposed to fire in the past.



P15 – View of the exterior stair leading to the basement under the museum.



This c. 1916 photo shows that the current storefront and upper building elevations have not been significantly altered.



Existing Building Façade

- Clean, caulk and paint windows. Caulk perimeter of wood frames.
- Replace glass with energy efficient glass.
- Remove existing projecting sign brackets & hardware.
- Remove existing plywood infill panels over transoms.
- Clean and repair bulkheads below storefront windows.
- Remove cementitious coating on east side of building and install new Exterior Insulation and Finish System (EIFS). Install waterproof material along east base of building where finish earth grade is 3' up building wall.



Proposed Building Façade Improvements

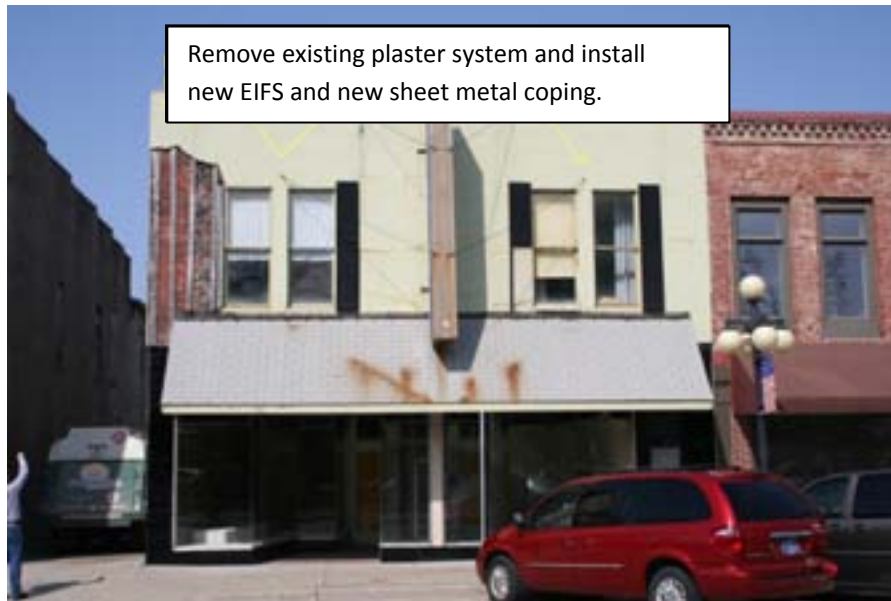
- The brick has been pointed with inappropriate mortar in a poor workmanlike manner. Preferred repair is to remove old mortar and repoint.
- Clean and paint existing wood frames and replace missing frame elements.
- Clean and paint lower cornices.
- New more appropriately scaled projecting sign.
- Clean existing bronze storefront window frames using nonabrasive methods.
- Replace doors with wood frame doors that have historically accurate detailing and energy efficient glazing.
- Install marble bulkheads to replicate original bulkheads.

75 - 77 East Washington
Estimate of Exterior Probable Construction Cost

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
02000 SITE CONSTRUCTION			
Remove Sign	1 Each	\$262	\$262
Subtotal			\$262
04000 MASONRY			
Repoint masonry labor and material, Option 1	860 SF	\$13.98	\$11,254
Repoint masonry labor and material, Option 2	20 SF	\$13.09	\$262
Subtotal			\$11,516
07000 THERMAL AND MOISTURE PROTECTION			
Exterior Insulation Finish System (EIFS), field applied, 1" EPS insulation, east and south elevations	6,500 SF	\$11.02	\$71,620
Aluminum gravel stops, coping mill finish, .050" thick, 4" face height, east and south elevations.	200 LF	\$14.18	\$1,418
Subtotal			\$73,981
08000 DOORS AND WINDOWS			
Clean, caulk and paint window frames	14 EA	\$235.55	\$3,298
Float glass, clear, plain, ¼" thick. Remove existing panels and install new glass.	200 SF	\$22.19	\$4,439
Remove plywood in transoms and replace with glass	Lump Sum	\$720	\$720
Subtotal			\$8,456
REPOINT BRICK			
Remove and repoint inappropriate mortar repair	150 SF	\$13.09	\$1,963
Subtotal			\$1,963
CLEAN AND PAINT LOWER CORNICE	Lump Sum		\$785
Subtotal			\$785
CLEAN EXISTING BRONZE STOREFRONT WINDOW FRAMES	Lump Sum		\$523
Subtotal			\$523
REPLACE EXISTING DOORS WITH SOLID WOOD DOORS 3' X 7' wood, 1 ¾" thick	3 Each	\$1,157	\$3,471
Subtotal			\$3,471
Total Building Exterior			\$100,957

Estimate of Interior Probable Construction Cost for Second Floor Residential Use

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Program: Create four apartment units on second floor each containing approximately 1,192 square feet. Note that a new back exit and stairway will be required in conjunction with a new interior corridor.			
Plan Preparation	Lump Sum		\$500
City & State Permits	Lump Sum		\$500
Demolition & Trash Removal	5,368 SF	\$1.00	\$5,368
Create secondary access in back of building	Lump Sum		\$5,000
Create new interior circulation corridor	600 SF	\$6.67	\$4,000
General Construction	4,768 SF	\$11.25	\$53,640
Building Materials	4,768 SF	\$12.00	\$57,216
HVAC-Labor and Material <ul style="list-style-type: none">(2) 1.5 ton/13 Seer Air Handler(2) 1.5 ton/13 Seer Heat Pumps	Lump Sum		\$27,500
Electrical <ul style="list-style-type: none">Install 4 new 200 Amp ServicesInstall new grounding systemFurnish & install all wiring, switches & receptaclesFurnish & install fluorescent ceiling lightsInstall wiring for HVAC units	Lump Sum		\$32,500
Floor Coverings <ul style="list-style-type: none">Furnish and install carpet, pad, vinyl flooring	4,768SF	\$4.50	\$21,500
Plumbing <ul style="list-style-type: none">Plumbing rough-ins for kitchens & bathsWater & sewer linesFinal hookups	4,768 SF	\$2.50	\$12,000
Drywall Labor	4,768 SF	\$3.00	\$14,300
Painting- labor & material	4,768 SF	\$2.50	\$12,000
Subtotal			\$246,024
General Contingency	3%		\$7,376
Total Second Floor Interior Renovation			\$253,400



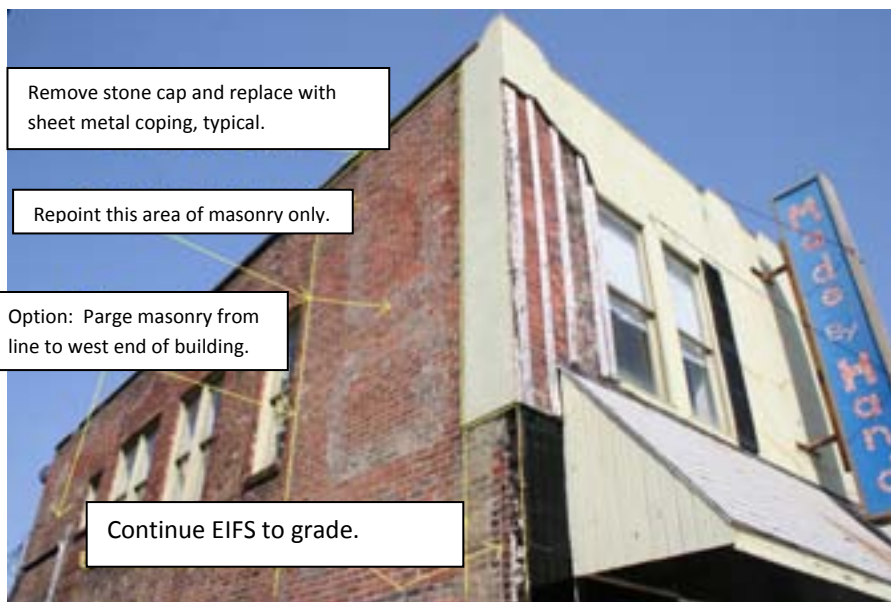
50 North Main Street, East Elevation



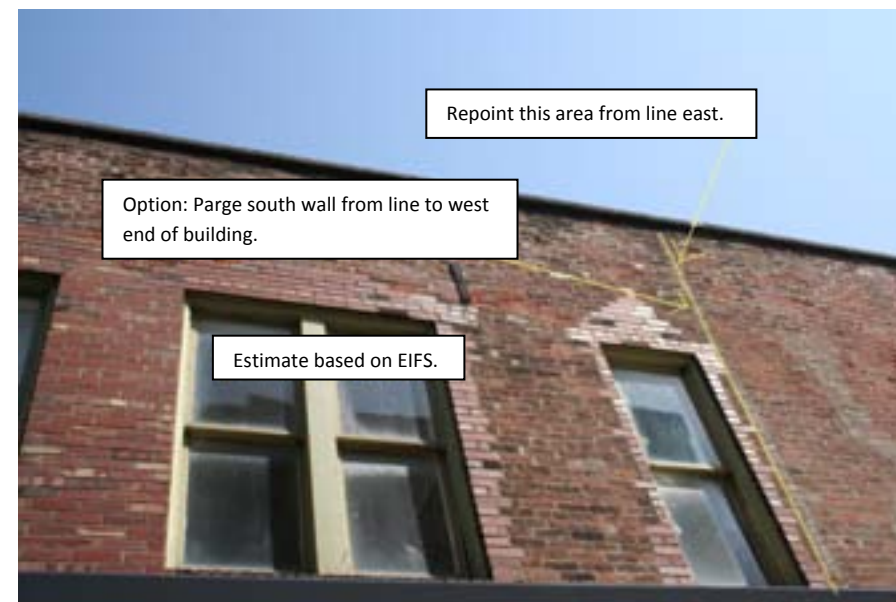
Partial South Elevation



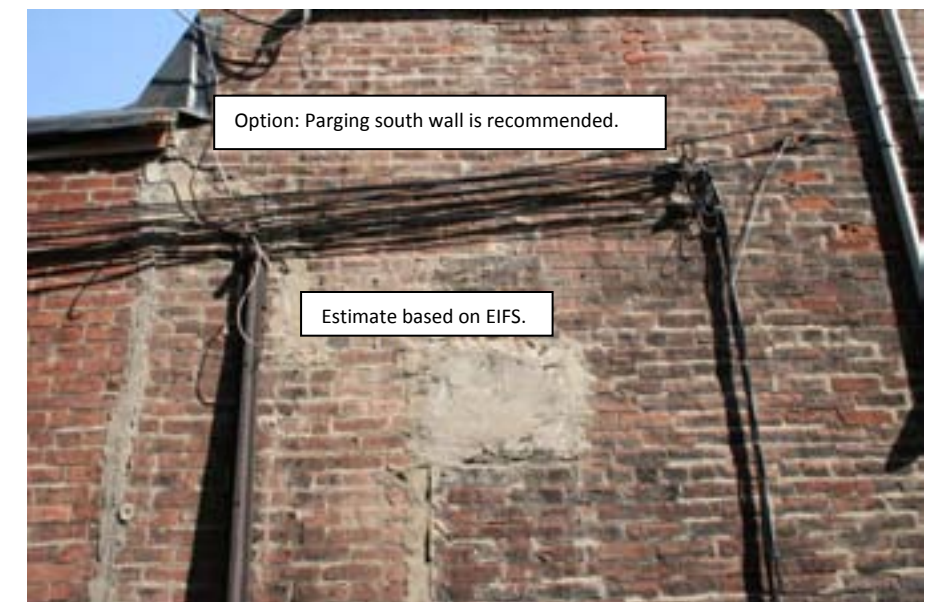
Partial South Elevation



Partial South Elevation



Partial South Elevation



Partial South Elevation



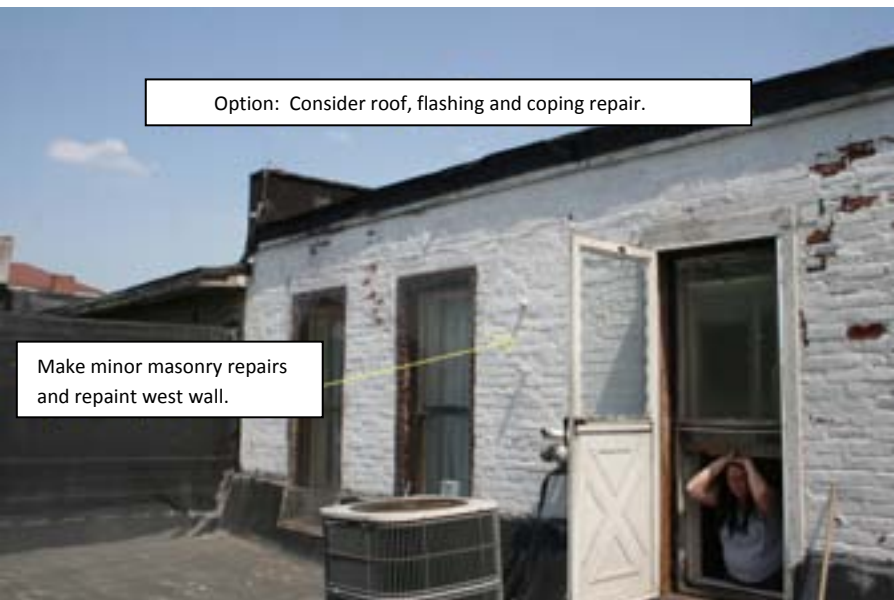
Option: Parging south wall is the only recommendation made. Repointing this areas would not produce good results.

Partial South Elevation



Option: Parge existing brick.

West rear wall



Option: Consider roof, flashing and coping repair.

Make minor masonry repairs and repaint west wall.

Upper West wall



Remove vegetation and loose parging and reparge entire area.

West and South rear walls



Remove vegetation and loose parging and reparge entire area.

North rear wall



Make minor masonry repairs and repaint west wall.

Upper West wall

General Description

- The overall building has a two story wing and a rear one story wing with a smaller projecting wing at the very rear of the building.
- The building has a partial basement under the two story wing and crawl space under the one story wing.
- It appears as though the front wing that faces Main Street was the original structure. The rear one story wing to the west was likely an addition.
- The exterior walls are typically brick masonry bearing walls.
- Portions of the west face of the one story addition have been parged with a cement based material.
- The front façade is brick masonry covered with cement parging at the second story and brick clad in black glass panels at the first level.
- The entrance at the first level is a deeply recessed standard glass storefront with display enclosures.
- There is a wood framed canopy over the sidewalk on the front of the building. This canopy is a more modern addition and did not exist on the building originally.
- There is wood joist floor framing at the first level of the two story portion of this building.
- There is wood framing at the second level of the two story portion of this building.
- The roof of both the one story and the two story wings are wood framed throughout this building.
- The roof over both wings appears to be low sloped front to rear, draining to gutters and downspouts at the rear of both wings.
- The basement walls and crawlspace are constructed of brick masonry.
- The floor of the basement is concrete slab in most areas and dirt in a few areas. The crawl space is dirt throughout.
- The window openings in the two story wing are punched openings with steel lintels at the window heads.
- The window openings in the one story wing along the south side are punched openings with arched brick masonry head and a stone sill.

Structural Condition

Basement

- The brick walls in the basement are in fair to good condition in most areas. Some water damage has occurred to the wall along the south side in the vicinity of the alley coal chute.

First Floor

- There are two floor areas observed that are sagging and spongy. These areas cannot support even modest load. These areas sag noticeably when supporting the weight of a person. Both of these areas are on the south side of the first floor, one in the two story wing and the other in the one story wing.

Second Floor

- The second floor of the two story wing has recently been occupied by a residential tenant. The floor is somewhat un-level and appears to have slight sagging in some areas. The second floor otherwise appears to be in fair condition.
- The second floor wood framing appears to be supported by a line of beams and columns along the mid-span. The columns can be seen at the first floor, but the beam and joist framing was not visible due to ceiling finishes.
- The rear, upper exterior wall of the two story wing is supported at the roof line of the one story wing by a double steel beam that spans across the width of the building, with one column at the mid-span. This beam supports the exterior brick wall above.
- There was noticeable water leakage and some masonry damage on the inside of the rear, upper exterior wall. This wall bears on a steel beam as described above. The water leakage appears to be the result of roof leaks and leaks around the windows.
- Some minor rust was noted on the bottom of the double beam that supports the rear, upper exterior wall.

Roof

- Some fire damage was noted to the roof framing in a limited area of the one story wing.
- The roof framing over the two story wing was largely hidden by ceiling finishes, so the overall condition could not be verified. It is likely that some limited water damage is present.
- The roof framing over the rear one story projecting addition wing shows signs of past structural modifications, made for reasons that are not known.

Recommendations

Immediate Items

- It is recommended that the wood floor framing in the spongy areas of the first floor be removed and replaced with new floor joists and new wood floor deck. Extent of the replacement to be field verified.
- The overall strength and stability of the first floor needs to be reviewed and appropriate strengthening measures put in place for retail loading, if required. This will require a more in-depth structural study.
- Remove and replace the roof framing over the rear one story projecting addition wing as required. Field verify the extent of the work needed.

Future Items

- The basement should be cleaned out and abandoned pipes and mechanical equipment removed to create a less hazardous basement area.
- The second floor of the two story wing should be thoroughly checked for future residential occupancy loading.
- The double steel beam supporting the rear, upper exterior masonry wall should be exposed and examined for the presence of corrosion that might reduce the beam capacity. This is needed because of the observed water leakage in this wall at the second floor.

Further Structural Study

- The overall load capacity for the first floor should be determined for comparison to retail code loading.
- The steel beam supporting the upper brick wall should be examined to determine if corrosion has occurred from water leakage.



P1 - Front of the building showing the storefront and the modern awning.



P2 - 1959 photo of the front of the building. Tenant was Adler's Department Store.



P3 - Rear of the building. Note the smaller projecting addition on the western-most end of the building.



P4 - South side of the one story wing looking west.



P5 - South side of the two story wing looking east.



P6 - First level interior at the two story wing. Note the interior columns.



P7 - View of the basement under the two story wing looking south west.



P8 - Upper level exterior masonry wall at the rear of the two story wing. Note the water damage to the inside face of the wall.



P9 - Upper level exterior masonry wall at the rear of the two story wing. View of the outside face of the wall.



P10 - Bottom of the double steel beam supporting the upper masonry wall at the rear of the two story wing.



P11 - Spongy and sagging floor area at the south side of the first floor.



P12 - Spongy and sagging floor area at the south side of the first floor.



P13 - View of the roof framing over the rear projecting one story addition. Note the structural modifications.



P14 - Upper level kitchen.



P15 - View of the roof over the one story wing looking west. Rubber membrane roofing.

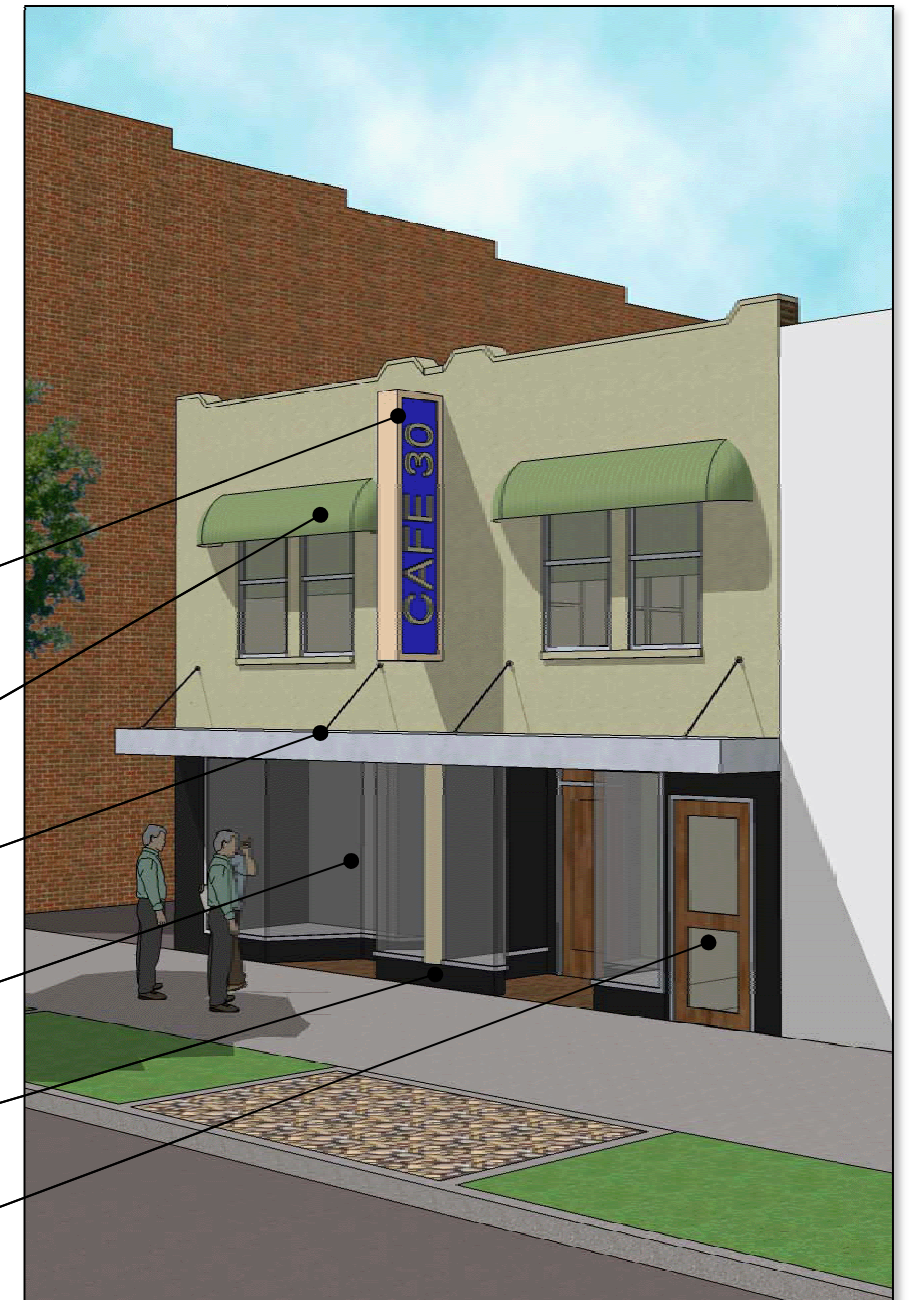


Existing Building Façade

- Remove existing oversize sign.
- Remove all existing cementitious coating and wood lath. Repair brick and mortar and add Exterior Insulation and Finish System (EIFS) to mimic plaster coating. Colors shall be muted neutrals.
- Replace existing wood windows that have missing or rotten wood mullions or frames.
- Remove wood and shingle awning.

Proposed Building Façade Improvements

- Install appropriately scaled new signage detailed and hung in accordance with Historic Downtown District ordinance.
- New window awnings to match Art Deco style of 1930s renovation.
- New canopy to match 1940s renovation and character of building; color and materials to complement building materials.
- Restore existing window frames and modify to install clear, energy efficient glass.
- Reattach black glass tile to storefront. Replace missing tile from new canopy to building base.
- Restore/refinish doors.



50 North Main
Estimate of Exterior Probable Construction Cost

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
02000 SITE CONSTRUCTION			
Selective demolition, disposal only, urban buildings with salvage value allowed, wood frame, includes loading and 5 mile haul to dump.	20.00 CY	\$26.11	\$522
Deconstruction of canopy and misc. trim and wainscoting, up to 2 stories, includes handling, packaging or disposal costs.	250 SF	\$4.24	\$1,059
Deconstruction of roofing and accessories, built-up roofs, up to 2 stories, excludes handling, packaging or disposal costs.	500 SF	\$3.18	\$1,590
Remove 4 existing second floor windows on east side of building	Lump Sum		\$1,200
Remove existing projecting sign	Lump Sum		\$654
Subtotal			\$3,967
04000 MASONRY			
Thin coat plaster, 1 coat veneer, exc. Lath North elevation; included .10 per sq. ft. for patch work	500 SF	\$1.09	\$543
Surface prep., exterior, siding, masonry brick & block, pressure-wash based on 2,500 psi operating pressure	500 s.f.	\$.24	\$122
Repoint masonry labor and material, north elevation only	350 SF	\$13.09	\$4,580
Subtotal			\$5,245
07000 THERMAL AND MOISTURE PROTECTION			
Exterior Insulation Finish System (EIFS), field applied, 1" EPS insulation, south elevation and rear of building	2,810 SF	\$11.02	\$30,962
Exterior Insulation Finish System (EIFS), field applied, 1" EPS insulation, east elevation storefront	500 SF	\$11.02	\$5,509
Aluminum gravel stops, coping mill finish, .050" thick, 4" face height, east and south elevations, east and south elevations	185 LF	\$13.34	\$2,468
Subtotal			\$38,940
INSTALL NEW PROJECTING SIGN			
Aluminum frame, double faced including brackets	Lump Sum		\$3,307
Subtotal			\$3,307
INSTALL NEW CANOPY			
Install custom canopy	Lump Sum		\$3,664
Subtotal			\$3,664
RESTORE WINDOW FRAMES & TILE STOREFRONT			
Insulating, double glazed, clear, ¼" float for 1P thick unit	225 SF	\$36.98	\$8,320
Reattach black glass tiles	Lump Sum		\$523
Refinish door	Lump Sum		\$654
Subtotal			\$9,497

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
SECOND FLOOR AWNING			
Install custom made fabric awnings	2 EA	\$713	\$1,426
Subtotal			\$1,426
SECOND FLOOR WINDOWS			
Install new windows, wood, double hung, low E glass	4 Ea	\$597.78	\$2,391
Subtotal			\$2,391
Total Building Exterior			\$68,437

Estimate of Interior Probable Construction Cost for Second Floor Residential Use

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Program: Renovate existing 1,500 s.f. second floor apartment			
Plan Preparation	Lump Sum		\$250
City & State Permits	Lump Sum		\$400
Demolition & Trash Removal	1,500 SF	\$.50	\$750
General Construction <ul style="list-style-type: none">Labor to install insulation in ceilingLabor to install acoustical ceilingSet new kitchen & bathroom fixtures	1,500 SF	\$2.50	\$3,750
Building Materials <ul style="list-style-type: none">InsulationAcoustical ceiling system with tileNew Kitchen cabinets, sink, faucetKitchen appliancesBath vanities, faucets, sinks, tubs, toilets	1,500 SF	\$4.50	\$6,750
HVAC-Labor and Material <ul style="list-style-type: none">New heat pump & air handler	Lump Sum		\$6,000
Electrical <ul style="list-style-type: none">Misc. electrical upgrades & lights	Lump Sum		\$2,500
Floor Coverings	1,500 SF	\$4.00	\$6,000
Plumbing	Lump Sum		\$1,000
Painting- labor & material	Lump Sum		\$1,500
Subtotal			\$28,900
General Contingency	4%		\$1,156
Total Second Floor Interior Renovation			\$30,056



46 North Main Street – East Elevation



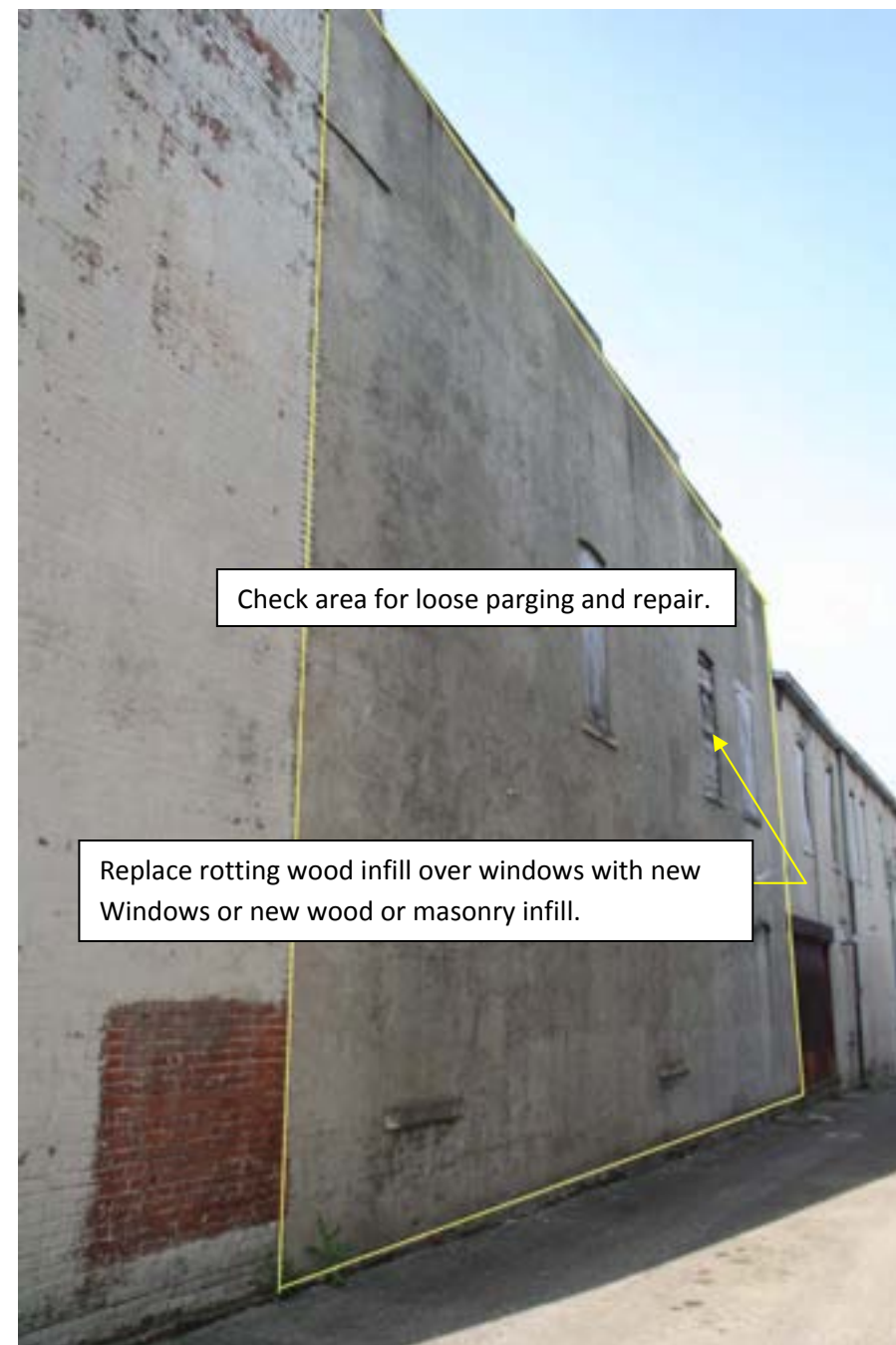
Partial North Elevation (upper)



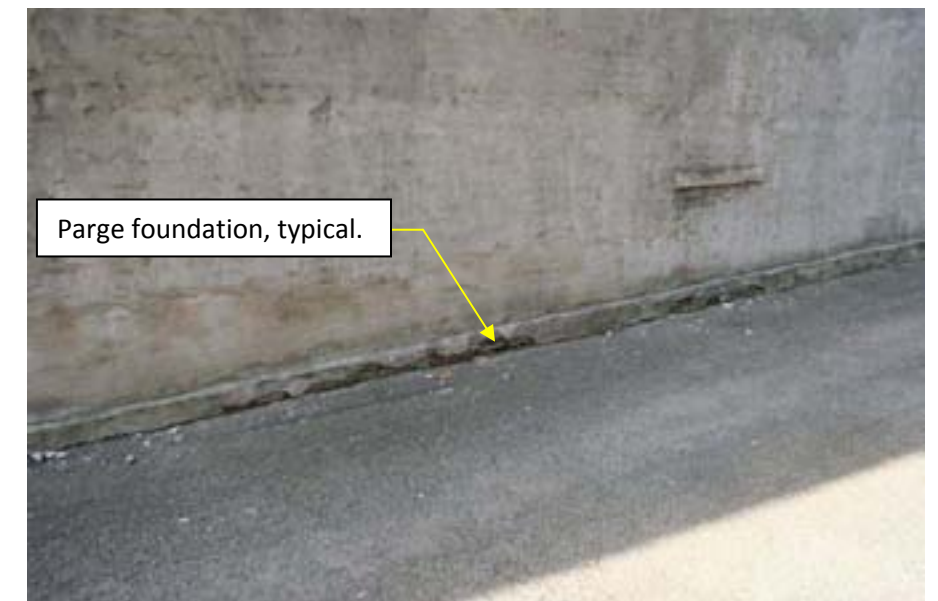
Partial North Elevation (lower)



Partial North Elevation (mid section)



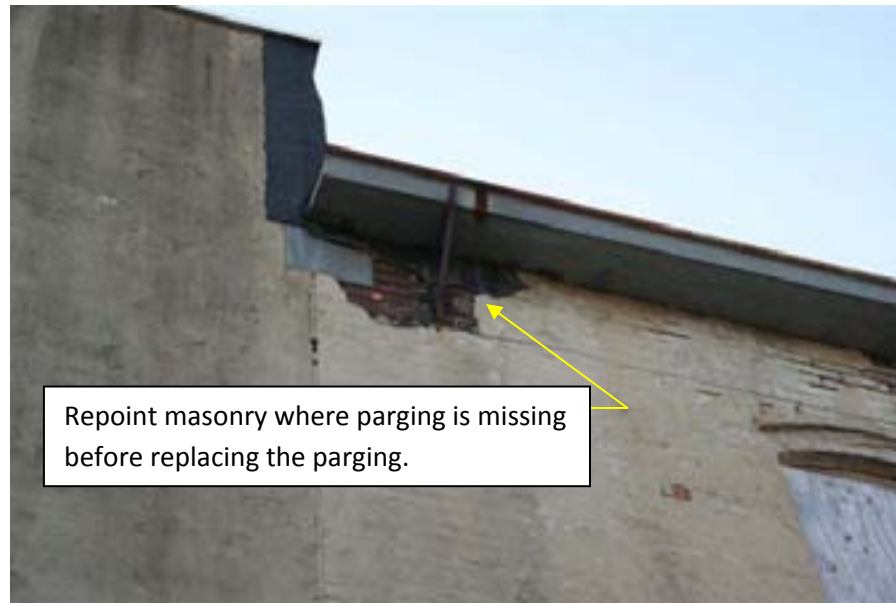
Partial North Elevation (mid section)



Partial North Elevation (mid section)



Partial North Elevation (mid section)



Partial North Elevation



General Description

- The overall building is two stories with a partial basement.
- The partial basement is divided into two compartments, front and rear, connected by a dirt tunnel along the center of the building.
- It appears that the front section of the building is original, and the rear is an addition.
- The first floor is made up of wood joist framing.
- It is assumed that the second level framing is also wood joists.
- The framing for the roof appears to be wood rafter framing.
- The typical exterior of the building consists of exterior brick masonry bearing walls.
- The basement walls are a combination brick and stone.
- The basement floor has areas where there is brick paving and other areas where the floor is dirt.
- There are steel columns on either side of the storefront supporting a lintel beam across the face of the storefront. The lintel beam was not visible.
- There are cast iron decorative columns on either side of the storefront.
- On the north and west sides of the building, the brick is covered with a cementitious parging overlay.
- The south side of the building, at the upper level, is unpainted brick masonry.
- Window and door openings have arched brick over the heads of the openings with stone sills.
- There is one large opening at the first level on the north side with a corroded steel lintel over the opening.
- There is a modern wood framed awning over the east storefront.

Structural Condition

Basement

- The basement brick wall on the south side near the east corner of the building has suffered partial collapse of the inner wythe of brick over about 9 feet length of the wall. This condition has left several floor joists without adequate end support.
- There is a collapsed cistern in the floor in the front section of the basement that creates a large hole in the floor which is a hazardous condition.

- The tunnel that connects the front and the rear compartments of the basement has several locations where the floor joists are supported by loosely stacked stone units with wood shims to make up the gap between the stone and the floor joists. These supports occur on either side of the tunnel and rest on the dirt tunnel side walls.

First Floor

- From the basement, it can be seen that there are several areas where the first floor joists are supported on added wood post and beams. It appears that the joists were originally intended to span the width of the basement which is about 18'-8" from side wall to side wall.
- An estimate of the floor live load capacity, depending on the wood properties assumed, is about 50 to 60 psf. This is inadequate for retail occupancy which requires 100 psf.
- The floor is not level and is lower at the north side compared to the south side.
- An area of the floor on the west side in front of the door opening is very soft. The support below is weak.
- In the rear basement compartment, there are several areas where wood post and beam supports have been added.

Second Floor

- The second floor was not reviewed due to the presence of hazardous material which will need to be cleaned before a more in-depth study is completed.
- It was noted that the front faced upper level masonry wall is bowing outward slightly. Evidence of this bowing can be seen by the presence of a gap between the front masonry wall and the east end of the perpendicular corridor wall where the two abut each other.
- It is assumed that the second floor and the roof are both wood framed.

Recommendations

Immediate Items

- The overall strength and stability of the first floor needs to be reviewed and appropriate strengthening members put in place. This will require a more in-depth structural study.
- The collapsed wall in the basement needs to be re-laid and the joist end supports restored.
- The cistern in the floor should be filled in with pea gravel or concrete to eliminate this hazard.
- The stone and wood floor supports along each side of the dirt tunnel need to be removed and a more permanent support system installed to more permanently support the joists.

Future Items

- The basement should be cleaned out and abandoned pipes and mechanical equipment removed to create a less hazardous basement area.
- The front masonry wall of the building should be anchored back to the second floor plate and the corridor walls to prevent further bowing.
- The large opening on the north wall at the first floor level should be in-filled with concrete block and the outside surface parged to match the rest of the building. The steel lintel should be removed as the new block is added.

Further Structural Study

- The cause of the drop in the first floor on the north side should be determined and corrections recommended.
- The second floor should be further examined after the hazardous material is addressed.
- The overall structural stability and effectiveness of the first floor framing should be further studied due to the presence of what appear to be numerous instances where attempts to shore up the first floor framing over the life of the building have been made.



P1 - Front of the building showing the storefront and the modern awning.



P2 - Opening on the north side of the building. This opening should be filled with new concrete block. Note the corroded lintel.



P3 - Rear of the building.



P4 - Collapsed brick in the basement. Joist end bearing is compromised by this collapse.



P5 - Collapsed cistern in the basement within the front compartment.



P6 - Stone and wood shim joist support on either side of the dirt basement tunnel. Note loose laid stone units.



P7 - View of the front compartment of the basement. Note the wood posts and beams providing additional floor joist support.



P8 - Rear compartment of the basement. Note the wood posts and beams providing additional floor joist support.



P9 - Rear compartment of the basement. Note the wood posts and beams providing additional floor joist support.



P10 - The floor just inside this rear door opening is very soft due to structural deterioration.



P11 - View of the basement front compartment looking west.



P12 - Broken floor joist in the rear basement compartment.



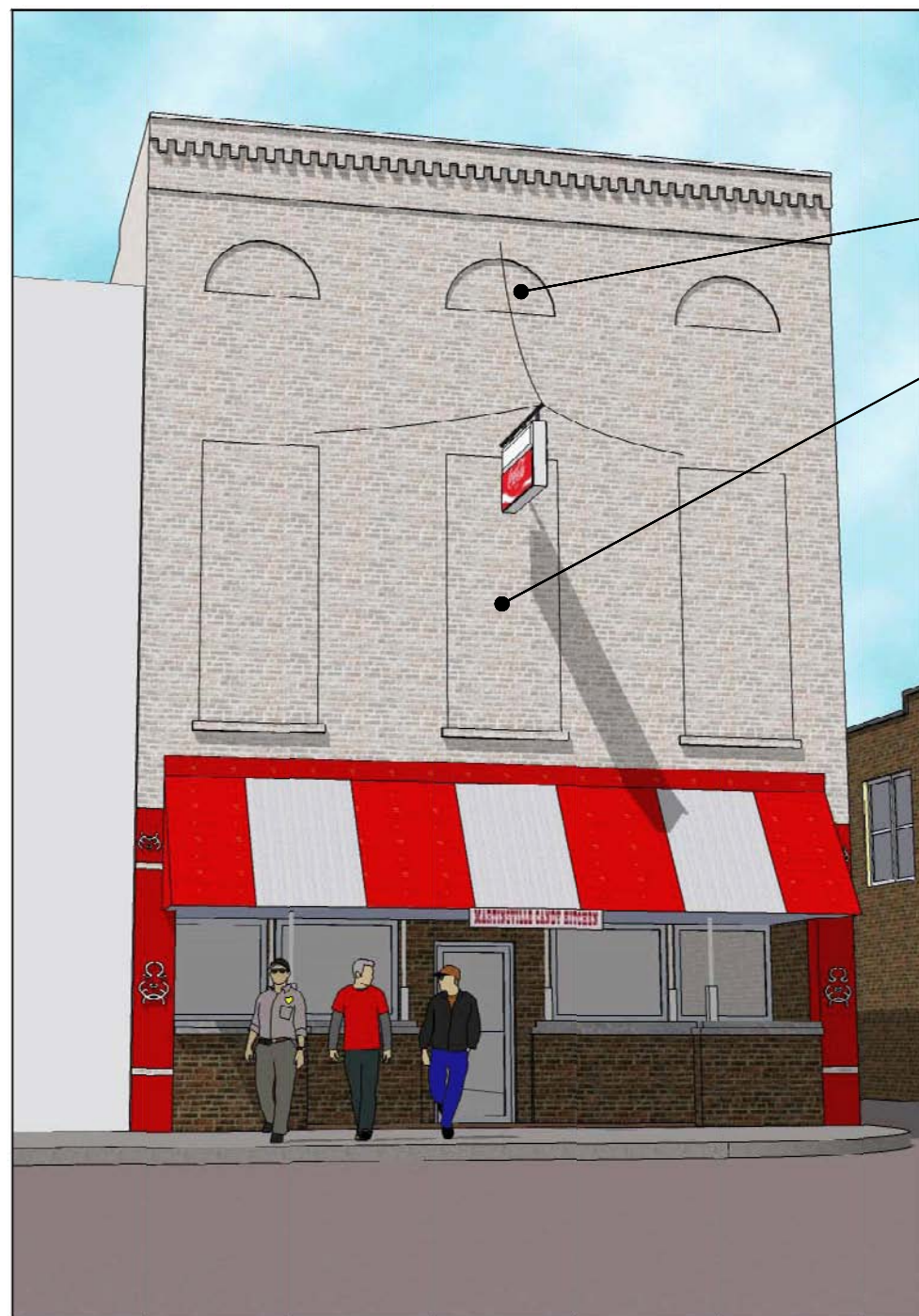
P13 - View of the interior of the candy shop looking west.



P14 - View of the south side of the building. The exterior upper portion of the south side is unpainted brick.



P15 - Close up of the storefront looking north.



Existing Building Façade

- Install grilles with traditional pattern openings. Install back screen to make bird and insect tight.
- Remove brick from original window openings.

Proposed Building Façade Improvements

- Install new energy efficient operable double hung window units with window frame widths to match historic time frame of building.
- Install new signage on cornice, compliant with Historic Downtown District ordinance.
- Open glass transoms and rework ceiling beyond to open windows on inside of shop.
- Install full height energy efficient storefront glass.
- Frame sides of door and window with composite wood or wood. Do not use brick for storefront.
- Install taller door with wider frame to match scale of taller storefront windows.
- Lower base of storefront to allow increased glazing height.



46 North Main
Estimate of Exterior Probable Construction Cost

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
04000 MASONRY			
Thin coat plaster, 1 coat veneer North elevation; included .10 per sq. ft. for patch work	3,990 SF	\$1.09	\$4,334
Remove paint 'Peel Away' material	100 Gal.	\$39.26	\$3,926
Labor to apply 'Peel Away' material	1,550 SF	\$3.60	\$5,578
Repoint masonry labor and material	1,550 SF	\$13.09	\$20,284
Subtotal			\$34,121
INSTALL GRILLES			
Grilles and panels, hardwood, custom design, finished	24 SF	\$129.75	\$3,114
Subtotal			\$3,114
REMOVE BRICK IN WINDOWS & ADD NEW WINDOWS			
Cutout brick in windows, 12" thick, includes toothing, lintel, loading, disposal	3 EA	\$826.29	\$2,479
Install new windows, wood, double hung, low E glass,	3 EA	\$597.78	\$1,793
Subtotal			\$4,272
STOREFRONT RENOVATIONS			
Open transoms and rework ceiling, ¼" thick glass	60 SF	\$22.19	\$1,428
Install full height storefront glass, 1" thick glass	200 SF	\$37.01	\$7,402
Wood trim	Lump Sum		\$1,047
Subtotal			\$9,877
INSTALL NEW SIGNAGE			
Individual letters on cornice	Lump Sum		\$1,332
Subtotal			\$1,332
INSTALL NEW DOOR AND FRAME			
Install new doors, solid wood, 1 ¾" thick, stile and rail 3' x 7'	Each	\$1,145	\$1,145
Subtotal			\$1,145
INSTALL NEW BULKHEAD BELOW STOREFRONT			
Install wood or composite wood bulkhead	Lump Sum		\$2,617
Subtotal			\$2,617
Total Building Exterior			\$56,478

Estimate of Interior Probable Construction Cost for Second Floor Residential Use

DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
Program: Renovate existing 1,500 s.f. second floor apartment			
Plan Preparation	Lump Sum		\$250
City & State Permits	Lump Sum		\$400
Demolition & Trash Removal	1,500 SF	\$.50	\$750
General Construction <ul style="list-style-type: none">Labor to install insulation in ceilingLabor to install acoustical ceilingSet new kitchen & bathroom fixtures	1,500 SF	\$2.50	\$3,750
Building Materials <ul style="list-style-type: none">InsulationAcoustical ceiling system with tileNew Kitchen cabinets, sink, faucetKitchen appliancesBath vanities, faucets, sinks, tubs, toilets	1,500 SF	\$4.50	\$6,750
HVAC-Labor and Material <ul style="list-style-type: none">New heat pump & air handler	Lump Sum		\$6,000
Electrical <ul style="list-style-type: none">Misc. electrical upgrades & lights	Lump Sum		\$2,500
Floor Coverings	1,500 SF	\$4.00	\$6,000
Plumbing	Lump Sum		\$1,000
Painting- labor & material	Lump Sum		\$1,500
Subtotal			\$28,900
General Contingency	4%		\$1,156
Total Second Floor Interior Renovation			\$30,056