Feasibility Study for Adaptive Use of

The Former Empire Stove Works Foundry
285 2nd Street, Troy, NY
(a.k.a. Lindy’s Hardware, and the Irish Mist restaurant)

September 29, 2014

Prepared by:
TAP, Inc.
210 River Street
Troy, NY 12180
(518) 274-3050

With funding from:

J.M.
KAPLAN
FUND

ERIE CANALWAY
National Heritage Corridor

nationalgrid
Foreword

New York State, a leader in 19th and 20th century industry, has seen those industries move elsewhere and businesses close over the last half-century. While this dynamic can be found throughout upstate New York, industrial corridors along water or transportation lines have the greatest concentration of vacant or greatly underutilized historic buildings. These industrial buildings are often found within struggling communities, as the loss of their dominant industry leads to population decline and closing of Main Street businesses.

From the opening of the Erie Canal in 1825 through the mid-20th century, companies built a rich and diverse assortment of headquarters, warehouses, mills, manufacturing and utility buildings reflecting the leading upstate industries. These include masonry-clad post and beam structures from the first half of the 19th century, through the Daylight Factories of the late 19th and early 20th centuries, and beyond to the large General Electric plants of the post-World War II period.

Throughout the second half of the 20th century, industry largely abandoned upstate New York, leaving behind canyons of historic industrial buildings. These buildings define the history of each municipality yet present very modern development challenges. Many communities have mixed feelings about these surviving reminders of their city’s boom and bust, seeing them as liabilities and remnants of the past, instead of assets and development opportunities.

The Preservation League’s Industrial Heritage Reuse Project is the first effort of its kind in New York State to promote historic industrial building redevelopment through condition survey and code analysis. Troy Architectural Program (TAP, Inc) has produced these feasibility studies for our five project sites, located within New York’s Capital Region in Montgomery, Schenectady, Albany, and Rensselaer Counties. We believe that these reports will spur industrial building rehabilitation in the project communities and provide models for similar properties across New York State.

Thank you to the J. M. Kaplan Fund for providing primary support for this project. We also thank the Erie Canalway National Heritage Corridor and National Grid for their project support.

Jay DiLorenzo, President
Preservation League of New York State
Feasibility Study for Adaptive Use of
285 Second Street, Troy, NY

Table of Contents:

I.  Overview

II.  Building Location

III.  Building Description
     Exterior
     Interior
     Structural issues

IV.  Proposed Use & Schematic Floor Plans

V.  Code Analysis
     Occupancy & Construction Classification
     Fire Separation
     Exits
     Fire Protection Systems (sprinkler, fire alarm)
     Handicapped Accessibility

VI.  Scope of Work Needed

VII.  Cost Estimate

VIII. Approval Processes
     Zoning, Planning, SEQR
     Listing on State and National Register of Historic Places
     Building Permit

IX.  Funding Assistance
     Historic Tax Credits
     Low Income Housing Tax Credits
     NYS Consolidated Funding programs
     NYS Brownfield Redevelopment programs
     The Community Preservation Corporation
     Industrial Development Agencies (IDAs)

X.  Summary of Recommendations

Appendix A – Environmental Contaminants – Resources
Appendix B – Existing Building Code Table 912 Relative Hazard Categories
This page intentionally left blank.
I. Overview:

This Feasibility Study is part of the Preservation League of New York State’s Industrial Heritage Reuse Project. By providing building owners with schematic re-use alternatives, code evaluations, cost estimates, a list of funding assistance, and an outline of approvals required, the Preservation League hopes owners and community officials will successfully package a development plan. The project is supported by the J.M. Kaplan Fund with additional assistance from the Erie Canalway National Heritage Corridor and National Grid.

II. Building Location:

The building is located in the South Central Neighborhood of Troy, NY. The property comprises all of the private land between First Street on the West, Ida Street on the North, 2nd Street on the East and the Poestenkill Creek on the South.

It is located in an active and historic mixed-use neighborhood. Industrial neighbors include a road salt distribution facility served by rail, river, and road to the west, a commercial facility to the north which recently housed an industrial lift rental company, and an early 1800’s industrial building to the north east which housed a variety of small industrial businesses.

To the north just beyond this industrial pocket, the neighborhood becomes residential with a handsome stock of 19th century row houses, including Troy’s premier inner city residential neighborhood, Washington Park. To the south, and east along Ida Street, is a largely intact area of more modest 19th century row-houses.

It is located about 3/4 of a mile to the downtown area, where restaurants, nightlife, and shopping are plentiful. It’s close to major employers and schools: 1/2-mile to Russell Sage College, 1.5 miles to RPI, 2 miles to Samaritan Hospital, and 2.5 miles to Hudson Valley Community College. There is easy highway access, as both I-787 and the Route 7 corridor are about 2 miles away. There is public transportation along 2nd Street, and the Albany bike path along the river is 2 miles away, just over the Menands Bridge.
III. Building Description:

The building consists of a 4-story original section (plus a partial cellar) with a smaller 4 story section, a small 3-story section, and a small 1-story garage addition. The exterior is brick in reasonably good condition with some areas needing re-pointing or patching, and at least one area in particular needing structural repair. There are brick arches and keystones above the windows, a corbelled brick cornice, and several warehouse-style loading doors on the two primary facades. The original building was built in approximately 1840-1845 to house the Empire Foundry and Stove Works. Overlooking the Poestenkill Creek, there is a partially enclosed veranda as well as an open deck.

The windows on the original four story section of the building are the original 6/6 wood double-hung windows with round tops on the north and east facades, and slightly arched tops on the south side. Similarly, the 4-story addition has 6/6 windows, with slightly arched tops. Some of the glazing is missing and many of the windows are in poor condition. The 3-story section of the building has replacement double hung, 1/1 windows. Consistent with its original use as a manufacturer/warehouse, there are six large loading bay openings on the upper floors of the four story sections, some with plywood infill, some with wood doors. The main front entry door on the east façade has been replaced with an aluminum and glass storefront door.

The roof is primarily a low-slope metal roof pitched to drain over the walls, with some areas of built-up asphalt roofing as well. It has a brick parapet wall on two sides of the front four story section. It is not known when the most recent roofing was installed. The metal roof appears to have been installed as a temporary measure as there is very little flashing or other roof accessories which would indicate a finished or permanent job. The single story garage roof is low pitched built-up asphalt draining to a gutter system, with a pressure-treated wood deck/patio constructed over it.
The entire building is a mix of heavy timber construction and ordinary construction, with varying sizes of structural elements. Generally, the solid wood columns are 8”x8” or larger, and the main bearing beams are 8”x10” or larger. The floor joists vary from 2x10’s to 8x10’s with (2) layers of 5/4” thick wood flooring in most places. With the exception of the 1st floor restaurant space and the 3-story addition used as a residence, the space is wide open on all floors with few partitions and few finishes.

The building has several areas of structural damage. There is evidence of past roof leaks, with many rafters showing signs of mold and areas of rotten roof deck. There is also a large area of either an active or recent roof leak, with floors protected by plastic sheeting. Brick damage from water occurs above and below many windows, which will require repair and rebuilding. Several brick walls have structural cracks that suggest some movement, which will need to be stabilized. There is evidence of a previous fire on the 4th floor of the original building. The charred timbers (rafters, beams and a column) should be examined for potential loss of structural capacity.

Also of note is the south wall of the building, the foundation of which serves as the retaining wall along the creek bed. Since this wall is subject to various water levels, constant running water, and occasional impact from moving ice and debris, a structural evaluation may be prudent to determine the long-term health of the wall.

At this time the building is stable, and mostly weather-tight.
IV. Proposed Use:

A prospective owner envisions the entire building, with the exception of the garage, as apartments on all floors. TAP, Inc. has provided schematic layouts to estimate the number of apartments possible. The following code analysis and approval processes are based on the schematic designs and are shown below.

**By floor level:**

<table>
<thead>
<tr>
<th>Floor</th>
<th>Apartments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>8</td>
</tr>
<tr>
<td>2nd</td>
<td>8</td>
</tr>
<tr>
<td>3rd</td>
<td>8</td>
</tr>
<tr>
<td>4th</td>
<td>4</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>28 apts.</strong></td>
</tr>
</tbody>
</table>

Proposed First Floor Plan
Group R-2 Apts. = 9,035 SF
Group S-2 Garage = 1,735 SF

Proposed Typical Upper Floor Plan
Group R-2 Apts. = 9,035 SF
V. Code Analysis:

**Occupancy Classification:**

(BC 303.1)

Last known occupancy

First floor: Group A-2 restaurant and Group S-2 low-hazard garage (rear)

Upper floors: Group M (hardware store) and Group R-3 apartment (in the 3-story addition)

Existing occupancy: Vacant except for the 1st floor Group S-2 low-hazard garage (rear):

Proposed occupancies:

First floor: Group R-2 apartments and Group S-2 low-hazard garage (rear)

Upper floors: Group R-2 apartments

**Construction Classification:**

(BC 602)

Even though much of the structure appears to be Heavy Timber (HT), the building does not completely satisfy the code requirements for the HT construction classification due to smaller sized framing members and inadequate floor thickness. Therefore, the original building and the garage are designated Type III B (masonry exterior walls with combustible, non-rated interior structural components).

**Allowable Building Heights and Areas:**

(EBC 912.5 and BC T. 503)

*The Code definition of Bldg. Height = “vertical distance from grade plane to the average height of the highest roof surface.” This excludes parapets, and we interpret the roof access area as excluded too.*

Actual (existing) height: approx. 46’ (from grade plane to main roof at front)

Actual (existing) # stories: 4 (basement is not a story above grade plane)

Actual 1st floor area: 9,035 SF + 1,735 SF garage (within exterior walls)

Actual 2nd and 3rd floor area (each): 9,035 SF (within exterior walls)

Actual 4th floor and Mezzanine: 2,846 SF front + 1,934 SF mezzanine = 4,780 SF

Actual Total building area: 31,885 SF +1,735 SF garage = 33,620 SF (within exterior walls).

The Existing Building Code accepts the existing building height and area when the change of occupancy is from a higher hazard category to an equal or lower hazard category, per EBC T.912.5 (included in Appendix B). If the change of occupancy is from a lower hazard category to a higher hazard category, the height and area of the existing building must comply with Building Code T.503.

In this case, changing the upper floors from Group S-2 low-hazard storage to Group R-2 apartments is a change from a lower to a higher hazard category, so BC T. 503 applies. Group R-2 in a Type IIIB building is limited to a maximum of 60’ total height, 4 stories, and 16,000 SF per story. This building complies with these requirements.
Fire Separation: (BC 508., 708, and T.1017.1)

In a mixed use building with new occupancies, the different occupancies must be fire-separated by fire barriers. In a sprinklered building such as this, the fire-rating of the fire-separations between Group R-2 (apts.) & Group S-2 (garage) shall be 1-hour, provided the sprinkler system extends into the garage.

There is a 12” thick solid masonry wall between the garage and the remainder of the building, continuous from foundation to roof. It is assumed that this separation meets the BC requirements for separation. As the project progresses, this feature must be verified.

In addition, the new walls between apartments, and the walls of the new enclosed corridor connecting the two exits, must all be ½-hour-rated fire partitions. (BC 708.3 exception 2, and BC T. 1017.1)

Fire Protection Systems:

Sprinkler:

Per the Existing Building Code [EBC 912.2.1], where the occupancy group changes to an occupancy that requires a sprinkler system per the Building Code chapter 9, such system shall be provided throughout the area where the change of occupancy occurs. Per Chapter 9, [BC 903] the Group R-2 apartments require an automatic sprinkler system throughout the building, installed per NFPA 13 or NFPA 13R, which is allowed in residential buildings up to and including 4 stories in height. The sprinkler system must be monitored by a central station (i.e. outside alarm company or fire department) and must be tied to the building fire alarm system.

There is an existing sprinkler valve and sprinkler piping and heads visible on all stories of the building, but it is unknown if this is a working system. The existing sprinkler system will need to be evaluated by a professional sprinkler installer, and redesigned to comply with the NFPA 13R or 13 standards.

Standpipe:

Per EBC 704.3, because the work areas exceed 50% of any floor area, and a work area is more than 30’ above the lowest level of fire department access, a standpipe system will be required per the Building Code. Per BC chapter 9 [BC 905], a class I standpipe is required where the building is equipped throughout with a sprinkler system per NFPA 13 or 13R, and the standpipe hose connections are required for each floor level in every required stairway.

There is an existing Fire Department connection on the north side of the building, but it is not known if it connected to the piping within the building. A new Class I standpipe system is required, with hose connections located in every required stairway, including at the highest landing of a stairway with access to the roof.
Fire alarm and detection:

Per the Existing Building Code [EBC 912.2.2], where the occupancy group changes to an occupancy that requires a fire alarm and detection system per the Building Code chapter 9, such system shall be provided throughout the area where the change of occupancy occurs. Per Chapter 9 [BC 907.2.9], Group R-2 requires both a manual fire alarm and an automatic fire detection system (smoke detectors).

Currently there are no fire alarm systems in the building. Both manual and automatic fire alarm systems shall be installed throughout the building and connected to a fire alarm panel, monitored by a central station.

Exits: (EBC 912.4 and BC Chapter 10)

Regardless of whether this is a change of occupancy to a higher, equal, or lower hazard category per EBC 912.4, there are no existing exit stairs, corridors, or other elements to work with, so new exit paths and elements must be created. Newly constructed or configured means of egress shall comply with BC Chapter 10. Per BC T. 1004.1.1, the occupant load for Group R-2 of 9,035 SF @ 200 GSF/person = 45p per story.

There are four existing exit doors on the first floor; one on the front, one on the rear and two on the north elevation. Neither door is part of an enclosed exit path from the upper floors. There are no enclosed stairs.

For the Group R-2 apartments, two fire-rated and enclosed exit stairs are required, which must be located a certain code-prescribed distance away from each other, and must be connected by a fire-rated corridor. It will be necessary to construct both required enclosed exit stairs, from top floor to exit discharge level (at grade), with 2-hour fire-rated walls and 1 1/2-hour rated doors with automatic closers.

Handicapped Accessibility:

Per the EBC, buildings with a change of occupancy shall have all of the following accessible features:
1. At least one accessible building entrance.
2. At least one accessible route from accessible entrance to primary function areas.
3. Signage per BC 1110.
4. Accessible parking, if parking is provided.
5. At least one accessible passenger loading zone, if provided.
6. At least one accessible route connecting accessible parking to accessible entrance.
7. At least one accessible toilet room per BC 1109.2.1, where WC’s provided.
8. Where >4 Group R-2 dwelling units, 25% shall comply with BC 1107.2.

The existing front entrance is the only accessible entrance. It is a 3’ wide door opening to a level landing, accessed by a short ramp from street level. There is no elevator in the building.

The Group R-2 apartments require an accessible entrance, an accessible route (corridor), vertical accessibility to each floor (elevator), and 25% of all units must be accessible. In addition to the front entry, the rear and side entries could be reworked to include a ramp for added accessibility.
VI. Scope of Work Needed:

This building needs an extensive amount of work to bring it back into usable space for the anticipated new occupancy. Because the building is mostly raw space, with nothing to be reused, almost every building system is a big-ticket item.

The structural system seems to be in adequate condition with no major structural failures noted or imminent. A structural analysis will need to be undertaken in order to determine if the existing structural system will be adequate for the anticipated occupancy.

The building envelope needs work to infill or repair the many door and window openings with new wall and/or windows, and to bring it into compliance with the Energy Conservation Construction Code of NYS (NYS Energy Code). This shall include window repair and replacement, and insulation of walls and attic/roof.

It is important to note that if the building is listed on the National and State Register of Historic Places, it would be exempt from the current (2010) NYS Energy Code, although this exemption is likely to sunset in the next 2-3 years. However, to keep the utility bills reasonable and the building occupants comfortable, it is recommended that the Energy Code be followed as much as possible.

New enclosed stair towers and an elevator need to be installed to comply with the means of egress (exit) and handicapped accessibility requirements.

There are no finished spaces in the building to be reused, so tenant fit-up (framing, drywall, floor and ceiling finishes, interior doors and hardware, etc.) will be extensive.

All new mechanical systems (plumbing, HVAC, electrical, and fire protection) need to be installed throughout the building.

VII. Cost Estimates

At this stage of the project (the conceptual stage when no details are available), it is useful to use square foot costs to estimate the construction costs. The estimated costs represent what the project may be built for, based on data of what other similar projects have been built for, but it is no guarantee, merely a useful starting point. It is customary for a project of this size to have a developer that can pull together the funding required and coordinate all of the consultants, approvals, and construction, especially if historic tax credits are to be used.

For this project, a square foot cost could range from $120 - $150 per SF. At a total area of 33,620 SF (including garage), that means a total budget of about $4 - $5 million for construction renovation. Other items that may drive up these costs include:

- Abatement of hazardous materials
- Site work & parking areas
- High-end finishes and equipment
- Architectural and engineering fees
- Financing, accounting, and legal fees
- Insurance
- Developer’s fee
VIII. Approval Processes:

1. City of Troy Zoning and Planning, including SEQR:

The property is zoned R-4, Urban Neighborhood Residential. It is not in a local historic district. Permitted uses in this zone include multi-family residences and neighborhood commercial establishments. The proposed use is allowed.

There are off-street parking requirements that need to be met. Per the Zoning regulations:

<table>
<thead>
<tr>
<th>Proposed Use</th>
<th>Required parking ratio</th>
<th>Required # of parking spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartment house</td>
<td>2 spaces per unit</td>
<td>56 (28 planned units x 2)</td>
</tr>
</tbody>
</table>

Currently there appears to be insufficient parking on the property (7-8 spaces in rear yard) and no availability on adjacent lots. Unless another parcel is purchased or an agreement is made for parking on a neighbor’s lot, the proposed use would require an exemption (variance) from the parking requirements.

The City also requires site plan review by the Planning Board. As part of this application, a State Environmental Quality Review (SEQR) environmental assessment is done to identify and mitigate any potential environmental impacts produced by the proposed project. Usually the short form Environmental Assessment Form (EAF) is adequate. If the proposed project is deemed to have no significant adverse environmental impacts, a determination of no significance (Negative Declaration) is made. It is likely that the proposed use will be considered a “neg dec.”

The process for Zoning and Planning approvals consist of preparing a site plan per the Zoning requirements and submitting it along with the Zoning and Planning applications, and attending a public Zoning Board meeting and public Planning Board meeting, where each Board will make a decision. The approval process can take a minimum of 2-3 months.

For more information, visit the City of Troy Zoning and Planning website at: [http://www.troyny.gov/Departments/PlanningZoning.aspx](http://www.troyny.gov/Departments/PlanningZoning.aspx)

2. Listing the building on the NYS and National Register:

The first step in getting the building listed has already been done. The State and National Registers Program Applicant Form and the Historic Resource Inventory Form have been submitted to the State Historic Preservation Office (SHPO) and SHPO has determined that the building is eligible for listing.

Next, the owner must submit all other documentation as required to complete the National Register Nomination Form. This documentation can involve working with an architect or other preservation consultant, as it includes research, maps, and photographs. The draft Nomination is shared with local officials for feedback, then submitted to the State Review Board for approval and entry onto the State Register. Nominations must be submitted 3 months in advance of the Review Board’s meeting. After State approval, the Nomination is sent to the National Park Service for approval and entry onto the National Register. For more information, visit the NYSHPO website: [http://nysparks.com/shpo/national-register/](http://nysparks.com/shpo/national-register/)

The process to get the building listed can take a minimum of 6 months. Listing the building helps pave the way for using the Historic Tax Credits. See the “Funding Assistance” section of this study.
3. Building Permit

Once the Zoning and Planning variances and approvals are obtained, a building permit is required. To apply for a permit, submit the following to the Building Dept.

- Building Permit Application;
- Stamped drawings from a licensed architect or engineer which address structural issues, building code issues, energy code issues, and all mechanicals;
- Estimate of the cost of construction, upon which the permit fee is based;
- Payment for the building permit fee; and
- Proof of liability insurance with the City of Troy additionally insured must be submitted along with proof of worker’s compensation insurance.

For more information, visit the Troy City Building Dept. website: http://www.troy.ny.gov/Departments/CodeEnforcement/BuildingPermits.aspx

The process of hiring an architect, finalizing the design, complying with all code requirements, producing construction documents, undergoing building department review, and finally obtaining a building permit can take a minimum of 4-6 months, if everything goes smoothly. Common delays which can increase this time include, but are not limited to, extensive design exploration, change of direction or scope of work during design phase, negotiating design elements with the SHPO or code official, and cash flow problems.
IX. Funding Assistance:

1. State and Federal Historic Tax Credits:
   http://www.nps.gov/tps/tax-incentives.htm
   http://nysparks.com/shpo/tax-credit-programs/

   Once the building is eligible for listing and certified as historic, it may be eligible for both Federal and NYS Rehabilitation Tax Credits, totaling 40% of the cost of the rehabilitation. The credits may be taken by the property owner, or syndicated to investors whose purchase of the credits provides upfront financing for rehabilitation.

   The Federal Rehabilitation Tax Credit program is administered by the National Park Service (NPS) and the Internal Revenue Service in partnership with the State Historic Preservation Office (SHPO). An income tax credit of 20% of the cost of substantial rehabilitation is available for the rehabilitation of “certified historic,” income-producing buildings. Owner-occupied residential properties do not qualify for this tax credit.

   Part 1 of this process is obtaining “certified historic structure” status, by securing National Register eligibility and beginning the National Register designation process, to get the building listed on the National Register. Part 2 consists of a property narrative, pictures that document the architectural and historical features of the building in its current state, and a description of the proposed work. It should be filed with the SHPO before the rehabilitation begins, and both SHPO and the NPS must approve all proposed work. This process can take several months.

   After the rehabilitation is complete, Part 3 is submitted and the SHPO and NPS review the work and certify compliance with the Part 2 approved scope of work. The 20% credit is based on the total qualified rehabilitation expenses incurred. Working with a tax professional is recommended to properly claim this credit.

   The NYS Rehabilitation Tax Credit must be used with the Federal Rehabilitation Tax Credit Program for Income Producing Properties. Owners of income producing properties that have been approved to receive the 20% federal rehabilitation tax credit automatically qualify for the additional 20% state rehabilitation tax credit if the property is located in an eligible census tract and the Part 2 and Part 3 state fees have been paid. There is no application form. After Part 3 of the federal application is approved by the National Park Service and, the state fees are paid, the New York State Office of Parks, Recreation, and Historic Preservation will issue a certification allowing owners to take the state credit.

2. Low Income Housing Tax Credits
   http://www.nyshcr.org/Programs/LIHC/ [federal]
   http://www.nyshcr.org/Programs/SLIHC/ [state]

   The LIHC program provides a federal income tax credit for project owners who develop rental housing that meets federal criteria for income, occupancy, and rent, with state approval. (Typically the units must serve those whose household income does not exceed 60% of area median income.)

   The SLIHC provides a state income tax credit to investors in qualified low-income housing. Assisted units must serve households whose incomes meet more stringent criteria than the federal program (typically 90% of area median income).
3. **New York State Consolidated Funding Application**

In 2011, Governor Andrew M. Cuomo created 10 Regional Councils to develop long-term strategic plans for economic growth. The annual Consolidated Funding Application became the umbrella, single-grant procedure for these key programs:

- **The Environmental Protection Fund**
  [http://nysparks.com/grants/grant-programs.aspx](http://nysparks.com/grants/grant-programs.aspx)

  The Environmental Protection Fund is a matching grant program to improve, protect, preserve, rehabilitate, restore or acquire properties listed on the State or National Registers of Historic Places and for structural assessments and/or planning for such projects.

- **New York Main Street** (may not be applicable)
  [http://www.nyshcr.org/Programs/NYMainStreet/](http://www.nyshcr.org/Programs/NYMainStreet/)

  The New York Main Street (NYMS) Program provides resources to assist New York’s communities with Main Street and downtown revitalization efforts. The program funds projects that provide economic development and housing opportunities in downtown, mixed-use commercial districts. A primary goal of the program is to stimulate reinvestment and leverage additional funds to establish and sustain downtown and neighborhood revitalization efforts. Funds may be used to help rehabilitate upper-floor space and larger anchor projects.

- **Community Development Block Grant**
  [http://www.nyshcr.org/Funding/](http://www.nyshcr.org/Funding/)

  The (CDBG) program is a federally funded program administered by the NYS Office of Community Renewal (OCR). The funds, provided to small communities (below 50,000 population) and counties in New York State, support activities that focus on community development needs such as creating or expanding job opportunities, providing safe affordable housing, and/or addressing local public infrastructure and public facilities.

- **NYSERDA**
  [https://www.nyserda.ny.gov/](https://www.nyserda.ny.gov/)

  The New York State Energy Research and Development Authority offers financial incentives to assist large commercial projects make energy efficiency improvements. A similar program exists for multi-family buildings of five or more units.

4. **NYS Brownfield Redevelopment Programs**

- **Environmental Restoration Program**

  Under the Environmental Restoration Program, the NYS Department of Environmental Conservation provides grants to municipalities and community-based organizations to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation.
and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

- **Brownfield Opportunity Areas Program**
  http://www.dec.ny.gov/chemical/8650.html

The Brownfield Opportunity Areas Program, made possible by the Superfund/Brownfield law in October 2003, provides municipalities and community based organizations with assistance, up to 90 percent of the eligible project costs, to complete revitalization plans and implementation strategies for areas or communities affected by the presence of brownfield sites, and site assessments for strategic brownfield sites.

5. **The Community Preservation Corporation (CPC):**
   http://www.communityp.com

The Community Preservation Corporation (CPC) is a not-for-profit mortgage finance company which specializes in lending for the preservation and construction of multi-family affordable housing and downtown revitalization projects throughout New York State. CPC offers a range of products, including:

- Construction financing
- Permanent financing
- Freddie Mac
- Coop financing
- Supportive and Special Needs Housing financing

6. **Industrial Development Agencies and Local Development Corporations**

An IDA is a municipal-sponsored agency designed to promote economic development because the agency can offer several benefits to private companies as inducements for them to relocate to, expand in or remain in their jurisdictions. An IDA can:

- Offer tax breaks to eligible projects whose developers in turn may agree to a PILOT (Payment in Lieu of Taxes,) usually for an amount less than the true tax amount;
- Acquire, own and dispose of property;
- Directly issue debt;
- Own property that is exempt from property taxes and mortgage recording taxes, and;
- Make purchases exempt from state and local sales taxes in support of an approved project.

A LDC is a private, not-for-profit corporations often created by, or for the benefit of, local governments for economic development. A LDC can:

- Construct, acquire, rehabilitate, and improve industrial or manufacturing plants;
- Assist financially in such construction, acquisition, rehabilitation, and improvement;
- Maintain such plants for others;
- Acquire real or personal property by purchase, lease, gift, or bequest;
- Borrow money and issue bonds, notes, and other obligations therefore;
- Sell, lease, mortgage or otherwise dispose of any such plants or any of their real or personal property upon terms determined by the LDC.
These local IDA and LDC may assist in the reuse of historic properties:

Rensselaer County

City of Troy
www.troyny.gov/Departments/EconomicDevelopment/TroyIDA.aspx
http://troyny.gov/Departments/EconomicDevelopment/TroyTLDC.aspx

Many of these programs have complex requirements. It is recommended that you work with a developer, attorney, accountant, and architect who have experience with the program requirements.

X. Summary of Recommendations:

285 Second Street in Troy is a typical warehouse building which readily lends itself to redevelopment. It currently is bank-owned due to foreclosure. The proposed plan for the building calls for apartments on all floors.

TAP endorses this proposal. From a code standpoint, it is a viable project.

An accessible route must be provided into the residential entrance, and 25% of the apartments must be accessible (minimum Type B).

The building is not in a Historic District and is not yet individually listed on the National Register. The building has been determined eligible for listing by the NY State Historic Preservation Office.

TAP recommends proceeding with NR nomination and a filing for Historic Tax Credits, if the future owner wishes to develop the project as housing.

The proposed apartments will require Zoning and Planning approval. Approvals will include a parking plan that will meet the City requirements and satisfy the surrounding neighbors.

TAP recommends pursuing parking solutions not just for local approvals and surrounding neighbors, but to increase the building’s desirability for residential tenants.

This building is a stable structure with serious localized damage due to roof leaks. The scope of repair work needed to make the building habitable is extensive. The cost of energy conservation measures, the repair of structural and surficial damages, the installation of all new mechanical, electrical and plumbing systems, and the extensive window repair required suggest a substantial project budget.

TAP estimates the cost at $4 to $5 million.

This project has great potential in the hands of a well-funded and motivated owner. If local approvals can be obtained and if residential tenants can be attracted by an appealing renovation, this should be an achievable project.
Older buildings often contain materials that are environmental hazards or contaminants, both in their existing state and during their removal. Many of these materials are regulated by the federal Environmental Protection Agency (EPA) or other governmental bodies. Since contamination of the surrounding air, soil, and adjacent building spaces can occur during removal, it is important to follow safe removal practices to protect the health of workers, neighbors, and future building occupants. Below is a list of the most commonly found environmental contaminants and the best practices for removal.

1. Lead

Lead exposure continues to be a significant health concern despite federal and state policies and practices aimed at reducing it. Lead-based paint is a major source of lead poisoning for children and can also affect adults. Lead exposure from lead plumbing pipes is another potential source. The lifelong effects of childhood exposure, to even small amounts of lead or lead dust, are well established by medical research, and include learning disabilities, behavioral problems, and retarded mental and physical development. Severe lead poisoning in children and adults can cause irritability, poor muscle coordination and damage to the kidneys, nerves and brain. Lead poisoning also may increase blood pressure in adults. Because lead does not break down naturally, it remains a problem until removed.

Lead paint was outlawed for residential purposes in 1978, yet it is still present in millions of buildings and homes, particularly in neighborhoods with older building stock. Lead paint may be found on any surface, but is most commonly found on exterior-painted surfaces, interior woodwork, doors, and windows. When properly maintained and managed, this paint poses little risk, although friction surfaces (windows and window sills, doors and door frames, and stairs and railings) are a concern. Lead-based paint that peels or deteriorates is especially risky. Lead dust is most commonly found around friction surfaces, as well as in the soil around a building. Lead poisoning can occur not only through visible lead-based paint chips and flakes, but also from inhaling lead contaminated dust or soil.

Eliminating the lead hazard(s) in a building can be done by abatement work or by renovation, repair, and painting (RRP). Abatement work is a specialized activity designed to permanently remove lead in the building and includes lead-based paint inspections, risk assessments and paint removal. RRP activities (including most building renovations) disturb paint as a consequence of the activity, but they are often undertaken for reasons unrelated to lead issues. One can either presume the existence of lead-based paint and dust or have trained personnel take actual XRF readings to locate specific areas containing lead-based paint. Soil samples should also be taken since contamination of the soil is possible from paint chips. EPA requires individuals and firms who perform abatement projects in pre-1978 target housing and child-occupied facilities to be RRP-trained and certified, and to follow specific work practices, including verifying that the work area is clean (free of lead dust) after completion of the renovation.

If lead plumbing pipes still exist, either within the building or connecting the building to the water line in the road, there are two options. Either remove and replace them with copper or other code-allowed material, or install a reverse osmosis water system to purify the drinking water.

For more information about lead hazards and abatement, visit the website: [http://www2.epa.gov/lead](http://www2.epa.gov/lead)
2. Asbestos

Asbestos is a generic term referring to a group of naturally occurring fibrous minerals, prized for their thermal and insular properties, as well as their flexibility and durability. Vermiculite, a lightweight, granular, fire-resistant insulation, is also considered an asbestos containing material (ACM). Generally, asbestos-containing material that is in good condition and will not be disturbed (by renovations, for example) will not release asbestos fibers, and does not pose a health risk. Asbestos containing material is most hazardous when friable, or easily crumbled or powdered by hand. Asbestos fibers may be released into the air by the disturbance of asbestos-containing material during product use, demolition work, building or home maintenance, repair, and remodeling. Exposure may occur when the asbestos-containing material releases particles and fibers into the air, which are then inhaled or ingested. Exposure to asbestos increases your risk of developing lung disease and cancer.

Although the EPA began banning various types of asbestos containing materials in the 1970’s, many construction products containing asbestos are not banned and are actively used today. Therefore, ACM are still present in many buildings. Asbestos was and is commonly used as a fire retardant, heat insulator, sound reducer. It can be found in roofing cement and coatings, exterior shingles, drywall compound, flooring tiles and mastic, wall and ceiling insulation, pipe insulation, gaskets on furnace and boiler doors, and glazing compound on windows. Vermiculite is commonly found as attic or concrete block fill insulation.

Eliminating the hazard of asbestos before a renovation can only be done by identifying and removing the ACM. This work should be done by trained asbestos professionals, before demolition and construction begin. An asbestos inspector can inspect a building, take samples of suspected materials for testing, and advise about what corrections are needed. They can also ensure the corrective-action contractor has followed proper procedures, including proper clean up, and can monitor the air to ensure no increase of asbestos fibers. An asbestos contractor can remove the ACM.

For more information about asbestos and abatement, visit the website: http://www2.epa.gov/asbestos.

3. Mold

Molds are fungi, found both indoors and out, which reproduce and spread by spores. Exposure to molds can cause respiratory symptoms ranging from coughing and wheezing in healthy people, to nasal stuffiness, eye or skin irritation, or asthma in mold-sensitive people, to fever, shortness of breath, or lung infections in workers with long-term exposed to mold.

Mold grows best in warm, damp, and humid conditions, and mold spores can even survive in dry conditions that do not support normal mold growth. Indoors they can be found where humidity levels are high, such as basements or showers, or anywhere building elements are wet due to leaks in the building envelope (particularly roofs) or plumbing.

Eliminating the hazard of mold starts with identifying the sources of water, condensation, and humidity, and eliminating them via repairs, maintenance, or ventilation. Completely clean up mold, and dry water-damaged areas, using the most appropriate cleaning and drying methods for damaged/contaminated materials. These methods include:

- using a wet-vac to vacuum up actively wet areas;
- damp-wiping non-porous surfaces or scrubbing with a bleach solution;
- carefully containing and discarding wet and moldy porous surfaces such as wood and carpet in doubled 6-mil poly bags, or wrapping large items in plastic sheeting and securing with duct tape;
• using a HEPA-vacuum for final cleanup of remediation areas after materials have been thoroughly
dried and contaminated materials removed. HEPA vacuums are also recommended for cleanup of dust
that may have settled on surfaces outside the remediation area.
• To reduce the risk of airborne mold exposure, use appropriate Personal Protective Equipment (PPE)

The use of a biocide, such as chlorine bleach, is not recommended as a routine practice during mold
remediation, although there may be instances where professional judgment may indicate its use. Any
remaining spores will not grow if the moisture problem in the building has been resolved. If you choose
to use disinfectants or biocides, always ventilate the area taking care not to distribute mold spores
throughout an unaffected area. Biocides are toxic to humans, as well as to mold, so appropriate PPE
should be worn. Some biocides are considered pesticides, and some States require that only registered
pesticide applicators apply these products.

For more information about mold and its removal, visit the website: http://www2.epa.gov/mold.

4. Guano

Guano is bird excrement. It is often accompanied by other organic matter such as feathers, bones,
carcasses, and the bugs and rodents that are attracted to such. Guano itself poses a respiratory health risk,
particularly during removal when airborne particles are likely to be inhaled, while the live specimens
(birds, bugs, etc.) carry disease and parasites.

Guano is present when there is or was a bird infestation; usually pigeons or even bats. Piles of guano can
be seen where birds roost or below areas where birds perch. Typical locations include attic floors, tops of
joists or other exposed horizontal members, on walls below nests, on debris and other floor surfaces.

Eliminating the hazard of guano starts with determining if there is an existing infestation, and taking
measures to seal off all entry points to the building prior to removal. Using an Industrial Cleaning or Pest
Control company is recommended over do-it-yourself or contractor removal, as these professionals know
the governmental regulations and have all the proper personal protective equipment. Prior to actual
removal, design a plan which includes the following:

• Identify all locations to be decontaminated (rooms, floors, walls, beams, sills, ductwork, etc.)
• Identify all locations to be protected from airborne dust, both within building and at perimeter.
• Identify all items to be removed (just guano and organic matter, or the contaminated materials like
  insulation also?)
• Wet or dry removal? (Wet reduces dust and airborne particulates.)
• Method of removal from building elements (shovel, scraper, wire brush, power washer, HEPA-
  vacuum?)
• Method of removal from building (bag, bucket, barrel) and route out of building. This is particularly
  important if the building is partially occupied.
• Disinfection/wet cleaning of areas and building elements after bulk removal with a 1:10 bleach
  solution.
• Disposal of material must comply with governmental regulations.
5. Radon

Exposure to radon in the home or workplace is responsible for an estimated 20,000 lung cancer deaths each year. Exposure to radon is the second leading cause of lung cancer after smoking. Radon is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water, and is a proven carcinogen. Lung cancer is the only known effect on human health from exposure to radon in air. Thus far, there is no evidence that children are at greater risk of lung cancer than are adults.

Radon in air is ubiquitous. Radon is found in outdoor air and in the indoor air of buildings of all kinds. According to the NYS Department of Health, there are 37 counties in NY designated as high radon risk areas and they include: Albany, Columbia, Rensselaer, Schoharie and Washington Counties. The EPA recommends radon mitigation in buildings where the radon level is 4 pCi/L (picocuries per liter) or more. Because there is no known safe level of exposure to radon, EPA also recommends mitigation for radon levels between 2 pCi/L and 4 pCi/L. The average radon concentration in the indoor air of America's homes is about 1.3 pCi/L. The average concentration of radon in outdoor air is 0.4 pCi/L or 1/10th of EPA's 4 pCi/L action level. Radon can also be found in the water supply, most commonly if the building’s water source is ground water.

Eliminating the hazard of radon begins with testing for its presence. Both long and short term radon testing devices are available, and will show the level of radon present in the air of the space tested. Since radon in the soil primarily enters a building through the foundation and floor slab, reducing radon in a building can be done by sealing cracks in foundations and slabs, and providing proper ventilation to allow the radon to exit the building by either natural or mechanical means. The primary method of radon reduction, or mitigation, is a vent pipe system and fan, which pulls radon from beneath the building and vents it to the outside. This system, known as a soil suction radon reduction system, does not require major changes to the building. If radon is found in the public water supply, the water supplier should be contacted to take action. If radon is found in the water from a private well, it can be removed by installing a point-of-entry treatment system or a point-of-use treatment device. Lowering high radon levels requires technical knowledge and special skills. A qualified contractor who is trained to fix radon problems can study the radon problem in the building and recommend the right treatment method.

For more information about radon hazards and mitigation, visit the website: http://www2.epa.gov/radon.

6. Fuel Oil Storage Tanks

Fuel oil storage tanks, both under-ground and above-ground, can become an environmental hazard and a financial liability when they begin to leak. Clean-up costs due to a leak are borne by the owner. If a fuel oil leak contaminates the soil, clean-up costs can be $20,000 – $50,000. If it contaminates the groundwater, the costs can exceed $100,000.

Fuel oil storage tanks are used primarily for heating oil, but also for gasoline or other petroleum products. For comparison, a single-family home heating oil tank might be 275-1,000 gallons; a multi-family or commercial property might have tanks up to 20,000 gallons. They are commonly found in basements, yards, and underground. Because all responsibility for leaking tanks belongs to the owner, it is important to know if and where there are any such storage tanks on the property, especially underground tanks. The NYS Department of Conservation (NYSDEC) regulates both UST’s (underground storage tanks) and AST’s (above-ground storage tanks) when at least one tank exceeds 1,100 gallons. A building with (3) 500-gallon tanks, for example, would not be regulated. UST’s must be registered with DEC, require periodic testing, and must meet other performance standards.
Eliminating the hazard of fuel oil storage tanks starts with identifying their location, age, condition, and registry with the NYSDEC. If there are known petroleum tanks on the property, it is important to review their maintenance records, and keep them current. NYSDEC has rules and enforcement actions for buildings which fail to properly register tanks, report spills and remediate contamination. It is critical therefore to hire the right kind of consultant for leaking oil tanks, such as an environmental remediation specialist. Regulated heating oil tanks that are out of service for more than a year must undergo closure per NYSDEC’s closure requirements. The tank must be cleaned out, visually inspected for holes, but no groundwater or soil samples are ordinarily required to achieve closure unless there is visual evidence or a leak. It is therefore possible that a heating oil tank that was closed in place and obtained regulatory closure by NYSDEC may have impacted the property. It is always advisable for purchasers of property with abandoned heating oil tanks to review the closure documentation to see if sampling was conducted. In the absence of such documentation, purchasers should consider conducting their own sampling since the purchasers could be strictly liable under the state Navigation Law if an abandoned tank that was closed in place has impacted the environment. It is crucial that purchasers determine if abandoned tanks exist or are discovered, particularly heating oil tanks, and that, prior to the closing or before the purchaser takes control, they be removed.

To search the NYSDEC database of known, regulated tanks, visit:

For more information on petroleum bulk storage regulations, visit:
http://www.dec.ny.gov/regulations/2387.html
This page intentionally left blank.
EVALUATING HAZARD CATEGORIES per §912 of the Existing Building Code:

When considering a change of use to an existing building it is advisable to consider whether the proposed new use increases the hazard classification of the building. When a change of occupancy is made to an equal or lower hazard category, it is treated much like a continued use. But, when a change of occupancy is made to a higher hazard category in any of the categories, the building must meet many of the requirements of new construction for those categories. These tables do not apply if using the EBC Chapter 13 Performance Compliance Method.

OCCUPANCY CLASSIFICATION per §302.1 of the Building Code of NYS

Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied.

Occupancy Classifications: (Note descriptions below are summaries, not full quotes from code)

1. Assembly = Group A:
   - A-1 Performing Arts or Motion Pictures
   - A-2 Food or Drink Consumption
   - A-3 Uses not classified elsewhere in Group A
   - A-4 Spectator Seating Arenas
   - A-5 Outdoor Activities

2. Business = Group B

3. Educational = Group E

4. Factory and Industrial = Group F:
   - F-1 Moderate Hazard (all that are not F-2)
   - F-2 Low Hazard (non-combustibles)

5. High Hazard = Group H:
   - H-1 Detonation Hazard
   - H-2 High Flame Hazard
   - H-3 Readily Combustible
   - H-4 High Health Hazard
   - H-5 Hazardous Research & Development

6. Institutional = Group I:
   - I-1 Required Supervised Residential
   - I-2 24 hour care
   - I-3 Restrained and Secured Persons
   - I-4 Daycare Facilities

7. Mercantile = Group M (retail or wholesale)

8. Residential = Group R:
   - R-1 Transient Occupancy
   - R-2 Apartment Houses
   - R-3 Permanent Residence not otherwise listed
   - R-4 Assisted Living, less than 16 people

9. Storage = Group S:
   - S-1, Moderate Hazard (all that are not S-2)
   - S-2 Low Hazard (non-combustibles)

10. Utility and Miscellaneous = Group U