

GREEN-HISTORIC PROJECT DEVELOPMENT CHECKLIST

Introduction to the Checklist

The following checklist has been produced as part of the Over-the-Rhine Green-Historic Study. Using the conclusions of the study, the checklist is intended to be a chronological overview of the steps involved in LEED certified rehabilitation of a historic building. Much of the checklist is applicable to green-historic redevelopment throughout Ohio, but like the project itself, the checklist is the product of analyzing green-historic opportunities in Cincinnati's Over-the-Rhine neighborhood. References to the Over-the-Rhine Green-Historic Study, Cincinnati, or Hamilton County processes or incentives are an attempt to make the checklist as applicable to real-world development as possible. However, this also means that application of the checklist outside of the parameters that produced it – particularly outside of the City of Cincinnati – will require some modification. It is also important to note that this checklist is an overview. It does not incorporate every development scenario (e.g. stacking federal historic tax credits with low-income tax credits or new market tax credits, etc.), and is not intended to be a substitution for project-specific professional advice.

Green-Historic Project Development Checklist

- I. **Initial Building and Site Assessment.**
 - A. Documenting existing conditions is critical to both applications for historic tax credits and LEED certification. Initial assessments and professional consultations should be conducted prior to any work being done on the property. If possible, they should be performed prior to acquisition.
 - B. Determine whether the property is individually listed in the National Register of Historic Places, or as a contributing building in a National Register Historic District, or a contributing building in a locally-designated historic district.*
(*applicable only if local historic district is certified by the National Park Service, which is the case for the majority of Cincinnati districts)

- a.) National Register for Historic Places information, contact the Ohio Historic Preservation Office at: (614) 298-2000 or www.ohiohistory.org/resource/histpres/toolbox/nr/index.html
- b.) Locally-designated historic district boundaries and related information, contact the Historic Conservation Office, City of Cincinnati at: (513) 352-4843 or www.cincinnati-oh.gov/cdap/pages/-3668/
- c.) More information about Cincinnati area historic districts, standards, and basic resources can be obtained from the Cincinnati Preservation Association at: (513) 721-4506 or www.cincinnati-preservation.org
- d.) A building more than 50-years old that is not listed on the National Register may or may not have sufficient significance to be listed on the Register. A National Register nomination can be combined with the historic tax credit process. However, professional consultation should be sought to determine the likelihood of the property being listed.

II. Initial assessment of potential for federal historic rehabilitation tax credits.

- A. As a general matter, a qualified historic property will be eligible for federal historic rehabilitation tax credits if:
 - a.) It is income-producing, such as an office, retail, industrial, or rental residential property. A portion of a larger rental property may be owner-occupied, but that portion of the building is excluded from tax credit eligibility; owner-occupied single family homes and condominium conversion projects are not eligible.
 - b.) Complies with the Secretary of Interior's Standards for Rehabilitation:
 - b.) An Introduction to The Secretary of Interior's Standards for Rehabilitation and related federal historic tax credit guidance can be found at: www.nps.gov/history/hps/tps/tax/rehabstandards.htm
- B. Application for federal historic rehabilitation tax credits is made to the Ohio Historic Preservation Office: (614) 298-2000 or www.ohiohistory.org/resource/histpres/yourtown/tax

- C. Knowledge and experience applying the Secretary of the Interior's Standards for Rehabilitation for an historic tax credit project are critical to a successful project; a professional consultant should be hired.

III. Initial assessment of potential for state historic tax credits.

- A. For up-to-date information on the status and eligibility of your project for Ohio's Historic Tax Credit program contact the Ohio Historic Preservation Office at (614) 298-2000 or review the information at:
www.ohiohistory.org/resource/histpres/yourtown/tax

IV. Identify route for LEED certification.

- A. Assess potential rating systems for LEED certification applicable to your project, and viability of achieving LEED certification. Knowledge of LEED rating systems and experience conducting LEED certified projects is pivotal to project success; a professional consultant should be hired. There is no rating system just for historic buildings, and more than one rating system may be applicable to a particular project. An introduction of parameters of different LEED paths can be found at <http://www.usgbc.org/leed/>
 - a.) LEED for Existing Homes
 - b.) LEED for New Construction
 - c.) LEED for Neighborhood Development
 - d.) LEED for Mid-rise
 - e.) LEED 2009 changes/final version

V. Identify any LEED or "green" based incentive dollars:

- A. This project has failed to identify any current "green" incentives, but several programs have been suggested on a local level, and others may be implemented (or re-implemented on a state or federal level.)

- a.) Program funds to be distributed by the State of Ohio from the Federal Stimulus package include grants to fund “energy efficiency retrofits of buildings,” funds for rebates to purchase Energy Star products, and Energy Efficiency and Conservation Block Grants. Program guidelines and updates are available at www.recovery.ohio.gov
- b.) The City of Cincinnati’s “Climate Protection Action Plan” proposes the creation of a “Green Loan.” At present, this is only an idea. Similarly, Hamilton County has discussed focusing its HIP loan on energy efficient projects, but has not restricted the loan on energy efficiency grounds, and the loan remains problematic to access. The Over-the-Rhine Green-Historic Study calls for using HIP as a basic structure for a Green Loan, merging city and county programs, and make the loan more attractive. A full copy of the city’s “Climate Protection Action Plan” can be downloaded at <http://www.cincinnati-oh.gov/cmgr/pages/-17659/> . The Office of Environmental Quality can be contacted at (513) 352-6991.

VI. Assess potential usefulness of LEED tax abatement

- A. If the project is a three-family or smaller, the abatement only requires \$2,500 in home improvements and you can apply for the abatement after completion of the project. The same basic process for both LEED and the standard abatement applies.
 - a.) Standard abatement is available if the property is in the City of Cincinnati and the homeowner makes repairs that result in an increased property valuation. Improvements can be a broad range of things of things to be eligible, but they must generally be of the type that would increase the appraisal value of the property. For example, landscaping work will not make the property eligible for an abatement. The abatement will essentially freeze the tax valuation of the property at the pre-improvement assessment for a period of 10 years, up to a maximum improved value of \$275,000. Above this amount, the property is taxed at standard rates. Details about the

standard abatement can be found at: <http://www.cincinnati-oh.gov/cdap/pages/-3521-/>

b.) The LEED abatement is only valuable if the property will be worth more than \$275,000 after improvement. The LEED abatement raises the maximum valuation to \$500,000 for a home that is LEED Certified, LEED Silver, or LEED Gold. LEED Platinum properties have no maximum abatement amount, providing the greatest incentive for residential LEED Platinum projects that exceed \$500,000 in valuation. The more valuable the property the more the abatement is worth, providing significant incentive for affluent home owners to seek Platinum status. Information about the LEED abatement can be found at www.cincinnati-oh.gov/cdap/pages/-16940-/.

B. If the project is a four-family or larger, or if it is commercial in nature, the abatement must be approved in advance of work. A minimum of \$40,000 must be invested in the property. The amount of the abatement depends on the type of use and requires advance agreements with the city and school district. Information about commercial abatements can be found at www.cincinnati-oh.gov/cdap/pages/-3481-/ All commercial projects regardless of LEED status must obtain approval from City Council by a majority vote of members, and enter an agreement with Cincinnati Public Schools. However, advanced agreements with the school district and city ordinance streamline the process and make approval of abatements much more likely if the project is LEED. The application for the commercial LEED tax abatement can be obtained at www.cincinnati-oh.gov/cdap/downloads/cdap_pdf17258.pdf.

a.) There is no cap on the maximum market value eligible for commercial/ industrial projects.

b.) Multi-unit residential developments have a market value cap of \$500,000 per unit.

VII. Consult Historic Preservation/Historic Tax Credit Professionals.

- A. Architects familiar with historic properties, historic tax credits, and Cincinnati's Historic Conservation Board are a must. Ken Jones & Associates Architects is the firm used for the "OTR Green-Historic Study." Ken Jones has decades of experience with historic properties and currently sits on the Historic Conservation Board. Mr. Jones can be contacted at: Jones & Associates Architects, 542 E. 12th St., Cincinnati, Ohio 45202, (513) 241-2022. Steve Hampton of Hampton & Associates Architects has also been part of the project and has familiarity with the board's process and standards. Mr. Hampton's contact information is below. The Ohio Historic Preservation Office and the Cincinnati Preservation Association will also have additional recommendations for qualified architects.
- B. If seeking federal or state historic tax credits, a historic consultant is also critical to the project. The "OTR Green-Historic Study" was co-managed by the Over-the-Rhine Foundation and Gray & Pape, Inc. Gray & Pape is an international firm with significant experience in obtaining historic tax credits. Contact Michael J. Matts, Director of Historic Preservation and Planning, or Patrick O'Bannon, Senior Historian at (513) 287-7700.
- C. The Cincinnati Preservation Association can also assist with tax credit applications and locating tax credit professionals. CPA also has a historic façade program that can provide additional incentive for historic preservation work. CPA can be contacted at: www.cincinnati-preservation.org or at 342 W 4th St., Cincinnati, OH 45202, (513) 721-4506

VIII. Obtain LEED professionals.

- A. LEED guidelines are available online, but a LEED accredited professional is essential to obtaining certification. Like historic professionals, LEED professionals should be contacted prior to any work being done on the property - particularly before any demolition or waste disposal. Three LEED accredited architects were used on the OTR Green-Historic project. They are:
 - a.) Emersion Design, 1776 Mentor Ave., m.l. 216 Cincinnati, Ohio 45212, (513) 841-9100, www.emersiondesign.com

- b.) Hampton & Associates Architects, 110 E. McMicken Ave., Cincinnati, Ohio 45202, (513) 784-0352, www.hamptonarchitects.com
 - c.) SOL Developments, 1332 Spring St., Cincinnati, Ohio 45202, (513) 939-8400, www.soldevelopments.org.
- B. Other LEED professionals may be found through the US Green Building Council. More information about USGBC and its local affiliates can be found at: www.usgbc.org.
- C. Consider LEED legal professionals. The Cincinnati law firm Keating Muething & Klekamp, PLL is a leader in green design legal issues. The firm can be contacted at www.kmklaw.com, by mail at One East 4th St., Ste. 1400, Cincinnati, Ohio 45202, or by phone at (513) 579-6400. The LEED system was developed due to the subjective and over-use of the phrase “green design.” Similarly, ensuring that specific criteria for “green” and “historic” are included in contracts with other members of the professional team can create objective steps and work parameters that avoid misunderstandings or costly errors. Contracts should not be viewed contentiously. They should be seen as an opportunity to clarify roles and expectations in advance of work so that conflicts are avoided. Money spent on a historic consultant may be wasted if a contractor demolishes interior elements of the building; and a track toward LEED certification may be ruined if a subcontractor hauling away construction debris mishandles it or fails to document recycling. Lawyers are most cost-effective when they are used to prevent trouble rather than paid to litigate conflicts after they occur.

IX. Call a joint meeting of the professional team.

- A. One of the critical findings of the “OTR Green-Historic Study” is the importance of early cross-disciplinary communication. Many of the documentation requirements for both historic tax credits and LEED certification are the same, or are similar enough that they should occur simultaneously. Another critical finding has been the realization that many of the perceived conflicts between “green” and historic dissipate with increased understanding. While getting an architect, historic consultant, LEED contractors, and potentially LEED-knowledgeable

attorneys in the room at once may sound expensive, it may actually be the most critical step toward making a project feasible and efficient. For example, paying both your historic consultant and your LEED consultant to take the same elevation photographs of existing conditions is wasteful; so is having a LEED architect draw plans that the historic consultant will reject. Basic design and construction parameters, objectives, and limitations should be determined at one time.

X. Identify a path to LEED, and the goal for an obtainable level of LEED Certification.

- A. Identify a realistic level of LEED certification, and a preferred rating system.** As described above, obtaining Platinum status may permit extraordinary real estate tax savings on certain projects. It may also be cost-prohibitive in many circumstances, and may create conflicts with historic preservation. Gold should save more energy than Silver, and Silver more than Certified, but the realistic cost of obtaining these goals should be considered on an individual basis. The “OTR Green-Historic Study” concludes that reaching higher levels of certification with historic buildings is possible and is primarily prohibitive in some circumstance for the same cost concerns that would affect new construction (e.g. price of solar panels.) Simply using any existing building, historic or not, also imposes limitations on material choices, wall thickness, roof loads, etc. In fact, in the case of interior insulation, the study concludes that the historically preferable approach is also the most cost-effective and practical in existing building stock in Over-the-Rhine. In addition, there are both opportunities and challenges created by historic properties. Historic status may place limitations on the types of windows used. However, it may also provide a number of opportunities for LEED points, as does an urban location. Simply being located in a walkable urban community near a number of amenities gives projects in OTR an advantage.
- B. Determine insulation and envelope strategy.** It will be critical to identify any potential conflicts between a path to LEED certification and historic requirements. Regardless of the path to LEED chosen, the project

must meet Energy Star standards of efficiency. This will affect both envelope and HVAC choices.

- a.) If utilizing historic tax credits, treatment of the building's interior will be critical to eligibility. Even if not seeking tax credits, good preservation requires consideration of how historic interiors are treated. If walls are originally plaster on brick, SOI Standards may permit a thin layer of furring strips and foam board insulation. The study also concludes that this approach is the most cost-effective in most circumstances. Roof/ ceiling insulation will typically be the most critical insulation requirement and may present the fewest conflicts with historic preservation.
- b.) Windows will be another critical issue. SOI standards will require that original windows be retained if they are repairable. In this circumstance, the proper choice of storm windows can permit historic, single-pane windows to obtain the same energy efficiency as replacements. Conversely, in some circumstances using maximum efficient replacement windows may be a means of reaching Energy Star efficiency levels without inappropriate treatment of interior walls. (The Clay Street property in the "OTR Green-Historic Study" is an example.)

C. Determine heating and cooling systems for energy efficiency, payback, and intrusiveness to historic elements. An analysis of different systems and private incentives can be found at: www.duke-energy.com/ohio/savings/smart-saver.asp

- a.) Is geothermal an option? It will require drilling access unavailable to many urban lots. The payback may not justify the initial capital costs.
- b.) Although more costly than traditional water heaters, passive solar systems for water heat can be cost effective; so can tank-less water heaters.
- c.) Photovoltaic solar systems: May be cost-effective in LEED Platinum projects; and they can typically be installed in a historically non-intrusive manner. Photovoltaic systems may be justified by future tax credits or other government incentives, But capital costs will currently

exceed pay-back on most projects in OTR. Panels can also conflict with historic guidelines if they are visible from the street or are installed in a manner that compromises historic elements.

- d.) Electric heat pumps: found to be most cost-effective return in most scenarios by the OTR Green-Historic Study.
- e.) High efficiency forced gas air systems: may be a viable option, but if the building does not currently contain duct work, installation should respect historic integrity.
- f.) High efficiency radiant heat systems: Can be efficient and can be installed under existing historic floors, but will require intrusion into ceilings. Appropriateness should be determined by historic consultants as well as for pay-back calculations.
- g.) High efficiency boiler: May be most cost-effective in building with existing boiler and radiators, and may be least intrusive system if the building was originally built to utilize radiators.

D. Create an approach to storm water reuse.

- a.) Are rain gardens possible on the site? Can water be diverted to a nearby community garden?
- b.) Urban lots without garden space may be able to harvest water through:
 - (i) Flower boxes: The Over-the-Rhine Foundation is working to create a Rhinegarten project that would collect, store, and feed harvested rainwater through hanging flower boxes. This may be one of the best means of reducing rainwater entry to storm sewers where buildings have zero lot lines and green roofs are not feasible.
 - (ii) Green roofs, if the structure will support it. Code requirements for changing roof weight loads, combined with original construction makes roof gardens problematic in most of OTR's building stock.

- E. **Develop a re-use and recycling plan.** Recycling will require separate dumpsters, but cost can frequently be off-set or exceeded by salvage return on recyclable materials. Documentation of recycling may be critical to LEED certification. Assessing recycling plan and discussion of treatment for different materials may also lead to improved preservation. Communication with contractors and subs will be critical prior to the commencement of work.
 - F. **Consider education or innovation point choices.** Education or innovation points may be available without any additional costs. The project properties that participated in this study, for example, would be eligible for an innovation point on the development. Education points may be acquired as simply as creating and affixing a plaque that describes green techniques utilized in the project.
- XI. **Re-assemble the design, construction, and consultant team to review design plans.**
- A. As reflected in this study, actual projects will benefit from a minimum of two cross-disciplinary project meetings: One to set initial design parameters, and a second to review designs, work schedules, responsibilities for documentation, oversight of recycling and treatment of historic elements, etc.
 - B. Synchronize documentation of existing conditions. If seeking both LEED certification and historic tax credits, or even local Historic Conservation Board review, money may be saved by combining documentation of existing conditions. Many of the documentation requirements (e.g. elevation photos) for existing conditions will be the same for both LEED certification and eligibility for federal and/or state tax credits.
 - C. Develop a timeline and order of steps to prevent conflicts in construction. Clearly, slowing down construction progress is generally bad, but proceeding without documentation of steps can be as damaging as working faster than code inspections permit.
- XII. **Seek approval of the City of Cincinnati's Historic Conservation Office (a subset of the Planning Department.)**

- A. Even if not seeking tax credits, treatment of the exterior of the building will need to obtain approval of the Cincinnati Urban Conservator's office. The office can grant approval of some plans without a hearing. More substantial changes require approval of the Historic Conservation Board. The City's historic review process will analyze window and door choices with the same basic criteria used for tax credits. Any project conducting enough rehabilitation work to become eligible for LEED certification is likely to require design review by the full board. More information about Cincinnati's historic districts and the historic review process can be found at <http://www.cincinnati-oh.gov/cdap/pages/-3662-/> or 805 Central Ave, Cincinnati, OH 45202, (513) 352-6146

- XIII. **If applicable, initiate historic tax credit process.**

- XIV. **If applicable, apply for commercial LEED tax abatement:** Residential abatements can be acquired after construction, but commercial abatements must be obtained prior to starting work.

- XV. **Begin Construction.**

- XVI. **Consult and re-examine time-line and steps during construction.**

- XVII. **Complete project**
 - A. Acquire tax credits, if applicable.
 - B. Acquire LEED certification.
 - C. Acquire LEED tax abatement, if applicable. (Residential tax credits can be obtained after construction.)