Strategy Guide—Best Practices for Affordable Housing Rehab

Strategy	Description	Example	Evaluation/Comments
Receivership	Receivership is a legal process, and potentially powerful rehab tool, in which a receiver is appointed to manage a badly deteriorated or dangerous property to abate a continuing nuisance and bring the property into conformity with applicable code requirements. Once a receivership petition is approved, the receiver takes control of the property from the delinquent owner, collects rent, and uses the proceeds to make the necessary improvements	Cleveland, OH: Ohio's receivership law allows a nonprofit housing corporation to be appointed as a receiver on a deteriorated property. Community development corporations wishing to undertake receivership use pro bono legal expertise. The Ohio receivership statute places the receiver's lien in front of all other liens except mortgage and federal liens—a situation that improves the likelihood that a receiver's lien will be paid off at time of disposition. Chicago, IL: The Mayor's Home Rehabilitation Program (MHRP) encompasses receives appointed to repair deteriorated, foreclosed properties. MHRP secured responsible contractors, obtained financing, coordinated service agencies, and prepared legal documents.	The language and structure of the receivership statutes vary state by state, thereby leading to differences in applicability and success. (See Resource Guide, section G and Volume II for state by state details.) The process to appoint a receiver typically takes many months and requires extensive legal expertise. If appointed, a receiver is responsible for bringing a building up to code standards and then disposing of it. There may be a need for bridge financing and subsidies for the receiver to complete the repairs. While not a simple to effect mechanism, receivership does offer the potential for controlling problem properties that may discourage rehab and for acquiring sufficient properties so as to effect rehab in larger scale.
Accelerated tax foreclosure	Accelerated tax foreclosure allows state and local governments to expeditiously acquire tax delinquent properties, many of which may be vacant or deteriorated. This strategy can also be used to accelerate acquisition for rehab and bring unsafe properties under reasonable management.	Michigan: Michigan's Public Act 123 of 1999 replaced the sale of tax liens to third parties with the direct foreclosure of the tax delinquent property by either the county or the state. The power to directly foreclose on tax liens expedited the foreclosure process. The first time Michigan counties could effect the new procedure was in 2002. Genesee County, Michigan foreclosed on and took approximately 1,300 properties in March 2002. Two-thirds of these properties had assessed values of less than \$10,000. Ohio: Ohio's HB 603, passed in 1988, streamlined the foreclosure process, and abated delinquent taxes on properties deposited in a land bank. Once taxes are delinquent for a year, foreclosure proceedings begin. Sheriff sales are held three times a year, and owners have a 15-day redemption period for sold	Although accelerated tax foreclosure can be useful for property acquisition it remains a lengthy procedure.

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		properties. If a property remains unsold after two Sheriff Sales, then the property is deemed forfeited and either deposited in a land bank or sold by the State of Ohio at an Auditor's Sale.	
Proactively favor rehab in the disposition of foreclosed properties	This strategy entails giving rehab priority over demolition in the disposition of foreclosed properties.	Troy, NY: The city of Troy developed a system for the sale of tax-foreclosed properties that requires the review of a "purchase proposal." The intended use is considered more important than the proposed purchase price. This process ensures that buyers put the properties to new uses that contribute to neighborhood revitalization. A local ordinance specifies that the City of Troy is required to offer foreclosed properties for sale by the "purchase proposal" method. To promote this process, the city hired Troy Architectural Program (TAP), a private, nonprofit community design center, and assigned city staff to work specifically on promotion. The city and TAP photograph all of the available tax-foreclosed properties and prepare information sheets for each one. Foreclosure signs are displayed prominently on all properties, local news coverage is generated, and applicants are directed to TAP for assistance in completing the proposal application. The city also posts detailed property descriptions on its web site. When property proposals are reviewed, the intended use is considered to be more important than the bid price, and only after a property has failed to sell by the proposal method will it be offered at auction.	Over 100 parcels have been sold for rehab under Troy's "purchase proposal" program. Most buyers have been residents of the Troy area but one purchaser hailed from as far away as San Francisco. Following Troy's near bankruptcy in recent years, the city is experiencing some renewal, which this program has helped to make possible. It has inspired a renewed interest in Troy's rich architectural heritage and has encouraged a preservation ethic in a new generation of city residents.
Eminent domain	Eminent domain is the governmental power to take private property for a public purpose as long as the owner is paid just compensation for the taking.	Trenton, NJ: Under New Jersey's Local Redevelopment and Housing Law (LRHL), the public acquirer can take properties in designated "areas in need of redevelopment" through eminent domain condemnation proceedings.	Eminent domain can be an effective property acquisition strategy for rehab, especially when all other acquisition strategies fail. Purchase values must be realistic, however, and the legal requirements and protections governing
		Massachusetts: This state's 40Q statute has	condemnation must be followed. Further, there is a backlash against the application of eminent

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		removed the need to prove the area around the condemned real estate is "blighted" and permits municipalities to set aside up to 25 percent of their acreage as "development districts"—in which the expanded powers of eminent domain can be used.	domain when the acquired property is used for private as opposed to public purposes.
Addressing and reducing "lienfields"	"Lienfields" are properties that have accumulated unpaid taxes or liens, over the years. Governments are able to address and reduce "lienfields" through actions that reduce or remove back taxes.	Philadelphia, PA: The Donor-Taker Program in Philadelphia allows property owners to deed their vacant or abandoned property to the city, which accepts it as a donation and waives all tax liens. The Redevelopment Authority (RDA) then takes ownership of the property and has the ability to transfer it to individuals, community organizations, or city agencies under the city's "Gift Property" program. The Donor-Taker and Gift Property Programs are relatively centralized and user friendly. Applications are taken to a central city office that checks to see if there are other applicants and whether there are any existing public plans for the property. The applicant, or Taker, submits a standardized rehab plan. If the application is approved, then the property is deeded to the Taker for no cost. Ohio: Ohio's HB 603, passed in 1988, included a provision that allows for the abatement of delinquent property taxes when a property is deposited into the land bank of any municipality. Before its passage, properties in the land bank carried the tax lien until purchase by a private owner.	The Donor-Taker program in Philadelphia requires that the owner of the vacant or abandoned property also apply to the city. Therefore, the program is essentially ineffective if a property owner cannot be found, or is not willing to donate the property. It is not uncommon for city records to list an abandoned property as the mailing and home address for an owner, when it is clear that the building is unoccupied. Improved ownership records would assist in the identification of owners, enhancing the effectiveness and scale of the Donor-Taker program. Further, since the program is not automated, the effectiveness and operation of the program rests on the staff and organization of the RDA. If participation in the program increased dramatically, investments and improvements at the RDA would be necessary to maintain the timeliness and efficiency of the program. The abatement of tax liens on properties deposited into municipal land banks in Ohio reduces the cost of acquisition and improves the overall cost-effectiveness of rehab projects. This process of lien abatement is contingent on properties being deposited in the land bank, otherwise it is essentially a moot point in addressing and reducing "lienfields".
Land banks	Land banks consist of properties,	Cleveland, Ohio: Ohio municipalities are able to	In Cleveland, the process of acquiring property
(also property	typically neglected or underutilized, that	establish land banks through a 1976 enabling	through the land bank is limited to CDCs.
donation)	are held, or "banked" for a specified future use, which may include rehab.	statute. Properties are deposited either as a gift in lieu of foreclosure, or after foreclosure and the	Proposals must be submitted for evaluation by the land bank staff, a neighborhood planner, and a
	They allow for the acquisition,	failure of the property to be sold at Sheriff's sale.	neighborhood advisory council.

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	management, and disposition the acquired properties so that they can be returned to use and tax revenue status.	There are approximately 5,000 to 6,000 properties in the land bank, with 200 to 300 gifted annually. The city maintains property records for the entire land bank.	
		Once a property has entered the land bank, title is cleared and private liens are removed. HB 603 allows for the abatement of delinquent property taxes after the property is deposited in the land bank (see above). A LISC (Local Initiatives Support Corporation) report estimates that about 90% of CDC (community development corporation) properties in Cleveland are acquired from the land bank and approximately 500 properties from the land bank are sold to community development corporations annually.	
Enhanced property identification	Use of GIS and other procedures to assemble and integrate property information.	Philadelphia, Pennsylvania: The Neighborhood Information System (NIS), housed at the Cartographic Modeling Lab (CML) at the University of Pennsylvania, houses address-level data for over 560,000 Philadelphia properties. The ParcelBase application of the NIS includes information from many city agencies, including the: Board of Revision and Taxes (owner name, property type, sale date, sale price, assessed value); Department of Licenses and Inspections (demolition, clean and seal, housing code violations, vacancy status); Revenue Department (current tax bill, tax arrearages, lien sale); Water Revenue Department (water shutoff, water bill arrearages); Philadelphia Gas Works (gas shutoff); Office of Housing and Community Development (results of community foot surveys, digital photos); and Office of the Fire Marshall (date of fire, cause, type of investigation). The NIS provides immediate access through the internet to a variety of data that would otherwise require many phone calls and visits to different agencies.	These systems provide much data from a "one-stop" source. A survey revealed that the Philadelphia NIS is providing access to data to people who might not otherwise have the ability to access it (20% of survey respondents answered they would not know who to contact for the information if it was not available through the NIS) and is reducing the burden of city agencies to provide address level data. (Survey respondents answered that without access to the NIS, 67% would call the responsible city agency and 42% would visit the agency in person.) However, GIS-type data assembly can be challenging.

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		Additionally, the data is linked through a Geographic Information System (GIS) to parcel maps, which allows a user to examine the City of Philadelphia's cadastral data. Over 50 city agencies and 175 non-profit organizations had employees who were registered ParcelBase users.	
		Genesee County, MI: PropertyInfo, an online search service provided by Genesee County, Michigan, receives property information from local cities, villages and townships in Genesee County. It provides accessibility to data about the taxpayer/owner, assessed and taxable values, delinquent tax information, and legal property descriptions.	
Negotiated bulk purchase	Through negotiated bulk purchase, a rehab entity negotiates to acquire properties in volume from governmental and/or private sources (e.g., lenders).	Miami, FL: Greater Miami Neighborhoods (GMN) negotiated with HUD and Miami-Dade County for the right of first refusal of all properties disposed of by HUD and the county in certain zip codes. GMN was further given a discount of up to 50% of the nominal property values. GMN would rehab the given properties or would transfer them to other nonprofits, such as the Little Haiti Housing Association.	Negotiated bulk purchase provides a steady source of properties and the bulk acquisition may realize a discount in property acquisition costs. Yet, bulk acquisition may pose financial, logistical, and other problems related to the higher volumes of acquisition.
Property "hold"	Rehab entity negotiates right of first refusal on properties potentially suitable for renovation.	Seattle, WA: Capital Hill Housing Improvement Program, a Seattle nonprofit, has effected this strategy to lay claim to properties in a "hot" real estate market.	This strategy is potentially useful, but ties up scarce "up-front capital" (See "Bridge Loans").
Proactive identification of properties suitable for rehab	Proactive property identification entails the creation of listings and catalogues of buildings and vacant parcels available, or earmarked, for rehab.	Rochester, NY: The Landmark Society of Western New York established a creative new approach in 1998 to encourage homeownership in the city by starting a marketing initiative: the Home Room City Living Resource Center. Featuring a web site and resource center with extensive listings of houses currently for sale in Rochester and detailed information on many city neighborhoods, the center educates the public as well as realtors about the benefits of city (Rochester) living through classes, tours, a weekly newspaper column, advertising	Rochester, NY: The Home Room City Living Resource Center has greatly strengthened the relationship between the Landmark Society, the Greater Rochester Association of Realtors, and local real estate agents. The Home Room programs have been popular: 37,000 hits to the Web site in April 2000, 500 visitors to the Resource Center in a two-year period, and a positive response among realtors for the "Marketing Historic Homes Successfully" course. Local realtors and potential homebuyers are better

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		campaigns, and an annual housing fair. The Home Room also offers a course specifically for realtors called "Marketing Historic Homes Successfully."	informed about the rehab potential of historic residential properties, and home sales within the city have increased.
		Hartford, CT: The Local Initiatives Support Corporation (LISC), a nonprofit community development intermediary, created a catalogue of buildings available for development in order to inform developers and encourage them to invest in city housing.	Hartford, CT: By marketing the redevelopment potential of these Hartford properties, LISC expects to galvanize nonprofit developers and the funding community to work together to revitalize the structures and eliminate blight in their neighborhoods. In addition, a local funding group
		LISC's Hartford Office sought a means to visually showcase and market to investors and community development corporations properties that were available for redevelopment. To that end, LISC, with the help of a consultant and an intern from a local college, developed a catalogue of 125 vacant buildings available for renovation into homes. The catalogue features pictures of the vacant buildings and provides critical information about each one, including lot size, name and address of the current owner, and tax delinquency status to help the nonprofit developer plan its acquisition and redevelopment.	has pledged financial support in the form of a \$10,000 incentive fee per housing unit to any nonprofit developer who will renovate buildings listed in the catalogue. Already, nonprofit developers have identified approximately 50 properties from the most recent Hartford catalogue that they intend to acquire and renovate.
Swap properties	Through a property swap entities owning different properties can swap their holdings to better serve their respective needs.	Seattle, WA: In one instance, two non-profits swapped properties they respectively owned because the properties they each acquired through the swap better met their organization's mission and capabilities. Another case saw a non-profit joining forces with the Seattle Public Library to acquire a property that would be used to benefit both parties.	A practical and useful strategy—if the multiple entities holding properties can be brought together and their mutual interests satisfied.
Bargain sales	Through "bargain sales," sellers of real estate can make a partial donation of equity to a nonprofit buyer with the seller then claiming a charitable contribution to reduce tax liabilities.	Seattle, WA: Capital Hill Housing Improvement Program, a Seattle nonprofit, has negotiated transactions including nearly \$1 million in such donations over the past five years.	A useful strategy— if the parties can be brought together and their mutual interests satisfied.
		Providence, RI: Stop Wasting Abandoned Properties (SWAP), Inc. began selling houses for a dollar and helping families renovate them for owner-occupancy. In addition to rehabilitating	Providence, RI: Over the course of its existence, SWAP has facilitated the rehabilitation or construction of 73 units of affordable rental housing and 43 home ownership units. The effect

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		homes and building new ones on vacant lots, SWAP also develops rental and cooperative-living opportunities. Today SWAP provides a variety of housing-related services through its Home Buyer Education Program.	on the community has been dramatic because it has provided the impetus for major investment in both public and private funds.
Bridge loans and other financial supports for property acquisition	Bridge loans provide "up-front" capital to permit timely property acquisition.	Seattle, WA: The Seattle Office of Housing provides bridge loans for property acquisition. Loan terms are: 100% Loan-To-Value (LTV), 3 year term, at 3% interest rate. Loan repayment can be deferred. New Haven, CT: Connecticut passed the Livable City Initiative (LCI) in 1996. LCI expands government support of rehab in areas designated as "neighborhood revitalization zones." The program provides acquisition funding for properties located in these designated zones, which then allows Neighborhood Housing Services of New Haven to undertake rehab. National: LISC provides bridge loans for property	While Seattle funding sources for this purpose are very limited this city's bridge loans are very useful since up-front expenses are particularly problematic for most rehab entities. There is a risk, however. As noted by the Capital Hill Housing Improvement Program (CHHIP, a non-profit organization based in Seattle, WA): "Buying with a bridge loan may not work. The rehab may not be realized and then you are stuck as the owner, having to make repairs, raising rents and confronting the possibility of a property's value going down."

Strategy Guide—Best Practices I. B. Cost Estimation

Strategy	Description	Example	Evaluation/ Comments
Cost estimating software	See strategy.	Miami, FL: Little Haiti Housing Association (LHHA) has tested software called "Housing Developer Pro" (HDP).	LHHA has found HDP to be difficult and time consuming for use, especially by less experienced contractors (e.g., HDP has a 6-page "spec" list for plumbing/electrical components alone). Software programs, however, may be useful for larger rehab jobs and for more experienced contractors. Most agree that software is a helpful tool that should be used in conjunction with, but not in place of, "hands on" field-level estimates.
Customized rehab checklist	Rehab entity develops custom checklist, "spec sheet," and other materials for estimating the rehab costs of the type of buildings being renovated.	Miami, FL: LHHA has successfully developed a checklist for cost estimation and for its typically single-family detached housing rehab.	It requires expertise to develop a checklist. Further, these lists are most useful for renovating similar types of properties. Given the similarity in housing units that LHHA rehabs, this organization's checklist proved to be very successful for them.
Rehab entity acts as general contractor (GC)	Performing as a GC gives rehab entity better expertise to estimate costs and the GC "mark-up" can then be captured internally.	Miami, FL: LHHA has used this strategy.	Performing GC functions requires skill, expertise, licensing, and finances that may be beyond the capacity of many rehab entities.
Work with similar group of construction professionals	Tap the expertise of a cadre of subcontractors in estimating costs	Miami, FL: LHHA has the same staff (and often subcontractors) involved in its cost estimation and this continuity provides invaluable cost-estimation expertise. Trenton, NJ: Isles maintains a relationship with an architect who is also a developer and thereby very good at estimating costs. An experienced contractor is often contacted to assist in the estimate.	Subcontractors can be very knowledgeable; however, it may be difficult to work with the same subcontractors because of bidding (lowest bid gets job), volume (rehab entity does not do enough work to ensure working with similar contractors), and other challenges.
Careful initial cost estimation	Allow resources for careful cost estimation—before rehab project commences.	New Haven, CT: Neighborhood Housing Services of New Haven relies on in-house experts, and finds that an upfront investment in time and money for the most thorough inspection and estimation possible is helpful in reducing unexpected costs. Trenton, NJ: Isles' first concern when estimating is design. It believes that if money is invested in upfront design and cost estimation, benefits will be reaped through a reduction in overall costs and the improvement of the project.	Useful, however, there is often insufficient monetary resources and time to effect a careful cost estimation "up front."

Strategy Guide—Best Practices I. B. Cost Estimation

Strategy	Description	Example	Evaluation/ Comments
Careful initial cost estimation (continued)	See above description.	Isles' second priority is to seek economies of scale whenever possible in order to increase benefits and decrease costs. Finally, it emphasizes value engineering. If contractors and architects work together, they are more likely to come up with the best design and budget.	
Retain experienced cost estimator	See strategy.	Miami, FL: Little Haiti Housing Association (LHHA) notes that, "We have two generations of rehab experience." This has allowed the same individuals to make estimates on similar properties project after project for LHHA. Seattle, WA: Case study underscored importance of experience of local nonprofits in estimating costs. Trenton, NJ: Isles has experienced construction people on its staff, and these personnel have worked numerous years on Isles' rehab jobs. This, coupled with the inherent simplicity in much of the housing stock renovated by Isles, has allowed consistent and accurate cost estimates.	An experienced cost estimator is especially important for larger and more complex jobs.
Avoid generalizations	It is important for cost estimates to be developed on a case-by-case basis.	South Greensboro, SC: Cost estimates were used in an evaluation of when, and how much, there would be savings by choosing an alternative treatment or materials; it was common for the restoration or repair of an architectural feature to represent cost savings over its replacement. The process, however, was cumbersome and the cost saving estimates on one house was not easily generalizable. During this demonstration project, it became evident that a general property cost analysis was not useful in setting the design guidelines because there is so much variation between properties. Instead, the team shifted its focus to establishing a four-stage process that was replicable and could be applied to each property but with the ability of	Although general checklists can be useful, they should not be used as an end-all. As the South Carolina example illustrates, each situation must viewed on an individual basis.

Strategy Guide—Best Practices I. B. Cost Estimation

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		"accounting" for customization and individual house specifics.	
Effect extensive as opposed to selective rehab	See strategy.	New York, NY: "Instant rehab" demonstration installed factory-built modules to the substantial rehab of deteriorated buildings.	Substantial rehab may be easier to estimate accurately than a more moderate renovation because in the latter there are more judgment calls concerning items that could be retained as is, those that need to be repaired, and finally, systems that must be replaced. With substantial rehab, almost everything is replaced; thus, estimating that type of job is more akin to new construction. On the other hand, substantial rehab is the most expensive form of renovation intervention.
Provide cost	City or other public institution can	Seattle, WA: This strategy was proposed by	Useful, but avoid using as a universal guide.
guidelines	disseminate information on actual rehab costs by property type, location, and rehab category.	architects working on common configurations of buildings in this city.	

Strategy Guide—Best Practices I. C. Insurance

Strategy	Description	Example	Evaluation/ Comments
Cultivate services of competent professionals	Obtaining insurance coverage for rehab projects can be problematic, so working with a knowledgeable insurance professional is helpful.	New Haven, CT: Neighborhood Housing Services of New Haven has not encountered any problems in obtaining insurance. It has a "fortunate relationship with a good insurance agency."	Maintaining a favorable relationship with insurance agents and companies is extremely important for without proper and reasonable insurance coverage, rehab cannot take place.
Reduce insurance risk	Reducing risk factors can lower insurance premium costs.	Seattle, WA: Low Income Housing Institute (LIHI) advised up-front investment in alarms and sprinklers in order to reduce long term insurance costs in renovated buildings.	A useful strategy with any insurance situation.
Allow flexibility	See strategy.	Trenton, NJ: While Isles does not report problems with obtaining insurance for its needs (including hazard, builder's risk, and other coverage), some of the smaller contractors working on Isles projects have not been able to obtain surety bonding. "Funders have recognized the problem," however, and have allowed the builders to work without payment for performance protection.	While useful, this strategy has its limitations because larger rehab jobs may necessitate surety and other insurance coverage.
Educate underwriters and insurance companies	Education is necessary because insurance underwriters may view rehab as "having a greater risk factor exposure" relative to new construction. Thus, premiums may be higher.	Miami, FL: It costs a nonprofit, Little Haiti Housing Association, approximately two times as much to obtain general liability and hazard insurance coverage for rehab relative to new construction projects. Rehab is viewed as inherently more risky because "whether or not it is justified, the rehab situation is perceived as an open invitation for vandals, squatters, and others who can damage a vacant unit. If the unit is occupied and rehab is being done around tenants that triggers yet other risks. New construction has a cleaner exposure."	Education and developing accurate actuarial record for rehab are useful strategies.
		In fact, however, the LHHA rehab projects have minimal insurance claims.	

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Address rehab property appraisal issues	Since financing often is secured at a share of value, the appropriate determination of the value of properties being renovated is a prerequisite for obtaining adequate-sized mortgage loans for rehab. Professional valuations are done by appraisers who assign values to a given property by considering three common formulaic approaches: cost of production (cost approach), what buyers have paid for comparable properties (sales of "comps"), and what the property is worth as investment (income approach). Problems may arise with appraisals, as appraisers may assign inaccurate estimates of the values of renovated properties, especially in areas undergoing improvements.	 Miami, FL: The appraisal of one property renovated by Little Haiti Housing Association's (LHHA) demonstrates mistakes made by appraisers in a rehab situation. In the LHHA case, the appraiser misapplied all three valuation approaches: Cost approach: the depreciation factor applied by the appraiser was too high as it did not take into account the rehab investment in the subject property. Sales of comps: superior condition and marketability of the subject property post-rehab was not taken into account. Income approach: the appraiser did not factor an increase in the rent roll following rehab and also failed to acknowledge that the vacancy factor would be less with the improvements. When the building expense ratio was calculated, grants that could be used by LHHA were ignored—leading to an inflated capitalization ("cap") rate. Reduced investment risk on a renovated property, also supporting a lower "cap rate," was similarly ignored. Chicago, IL: Chicago's Vintage Homes Program helps to lessen the consequences of poor appraisals by subsidizing the difference between rehab costs and the rehab appraised value. 	A more accurate appraisal of the LHHA property sets a value of \$430,000—appreciably more than the \$310,000 original appraisal. The valuation errors (described under example) undermined LHHA's renovation. Appraisal sensitive to the rehab context (see example) is thus important.

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Encourage	Healthy neighborhoods require access to	Heightened lender attention to the credit needs of	The CRA has prompted additional financing for
lenders to meet	credit, including financing for rehab.	their service areas and related actions (e.g., ties	affordable housing rehab and other purposes.
the credit needs		between lenders and CDCs) has been fostered by	However, recent attempts to reduce the
of their service		the Community Reinvestment Act (CRA). The	applicability of CRA may lessen the effect of this
areas, including		CRA has encouraged lenders to expand their	statute.
the need for		financing to traditionally underserved populations,	
financing for		areas, and investments, including housing rehab.	
affordable			
housing rehab			

Strategy	Description	Example	Evaluation/ Comments
Maintain good relationship with lenders	Lenders may perceive rehab as being "more difficult" and "harder to realize its goals" relative to new construction. Thus, lenders may demand more equity in rehab cases. It therefore is imperative that rehab entities maintain favorable relationships with lenders to assist in their funding.	Miami, FL: Little Haiti Housing Association has a good working relationship with private lenders. LHHA tries to use private rather than public monies for its up-front acquisition and rehab expenses because of the government subsidies' ancillary requirements and other drawbacks. LHHA has obtained traditional construction loans from lenders, paying the prime rate plus additional basis points as dictated by the market, and has also availed itself of monies from the Community Reinvestment Group (CRG) whereby Miami-Dade County lenders extend to nonprofits up to 95 percent financing for acquisition-rehab at well below market interest rates. Lenders applauded LHHA's construction and development savvy, its ability to garner multiple subsidies, and the nonprofit's homeownership counseling and other social support services. New Haven, CT: Neighborhood Housing Services of New Haven has access to revolving lines of credit at three banks, which gives it access to working capital with "maximum flexibility."	Access to privately funded capital expands the resource base for affordable housing rehab.
Limit liability	Lenders would be more amenable to fund rehab if liability from brownfields and other potentially litigious situations were limited.	 Minnesota: In an attempt to help property owners and others interested in urban redevelopment clean up polluted sites without the fear of Superfund liability, Minnesota enacted the Land Recycling Act in 1992. This statue, the first of its kind in the nation, created the VIC program – for Voluntary Investigation and Clean-up – administered by the Minnesota Pollution Control Agency (MPCA). The program accomplishes its overall goal of reclaiming brownfields in several ways: It provides assurance against legal liability to people who voluntarily investigate site contamination and clean it up to MPCA's standards. The law extends this liability 	An important strategy to attract private capital for rehab.

Strategy	Description	Example	Evaluation/ Comments
Strategy Limit liability (continued)	See above description.	protection to other parties associated with the brownfield as well, such as owners, developers, lenders and their successors. It allows the MPCA to approve partial clean-up plans when property owners, who are not responsible for the pollution, want to develop just a portion of larger site. Clean-ups under VIC must meet standards similar to those of the Superfund, but the former are often much less expensive because uses planned for the site are known, thereby allowing for "risk-based assessments," and the process of identifying a clean-up method is streamlined.	VIC helps buyers and sellers of possibly Minnesota's contaminated land resolve legal and financial clouds over brownfields while expediting their clean-up. Potential buyers willing to invest in a site's reclamation are able to get assurance from an independent third party that if they restore a site to the satisfaction of the authorities, they will not have to worry about future liability.
		Other states: Other states have passed laws or created programs to facilitate the redevelopment of polluted sites. Delaware, Illinois, Indiana, Massachusetts, Missouri, New Jersey, Ohio, Oregon, Pennsylvania, Rhode Island, and Virginia are among these states. Delaware's law authorizes tax breaks and exempts new owners from future liability if they restore any of some 100 brownfields. Pennsylvania's Land Recycling Program, administered by the state Department of Environmental Protection, limits future liability on sites where clean-ups meet certain standards and provides grants and loans to help finance environmental assessments and site clean-ups. A New Jersey law permits owners of brownfields sites in "environmental opportunity zones" that are adequately cleaned up to qualify for a ten-year property tax exemption.	

Strategy	Description	Example	Evaluation/ Comments
Limit liability (continued)	See above description.	Rhode Island, whose urban corridor contains nearly 200 contaminated sites, enacted an Industrial Property Remediation and Reuse Act in 1995. Among other provisions, this law exempts landowners from liability for contamination if they did not contribute to a site's pollution (Beaumont 1996a, 129-131).	
Use layered financing (see also "Creative financing")	Layered financing involves the use of all available and appropriate sources of funding to revitalize existing properties. These sources include government programs, tax increment financing, property tax abatement, and others.	New Haven, CT: Drawing on federal Urban Development Action Grants (UDAG), Community Development Block Grants (CDGB), HOME, Connecticut Historic Homes Rehabilitation Tax Credit Program, and assistance from the Connecticut Housing Finance Authority, Neighborhood Housing Services of New Haven (NHS) was able do affordable rehab and new construction in the city.	Those doing affordable housing rehab often have no choice other than to draw upon multiple subsidies. However, utilizing multiple, layered subsidies proves its own challenge because different programs may have conflicting priorities and requirements.
		Miami, FL: Little Haiti Housing Association utilizes the Affordable Housing Program (AHP) from the Federal Home Loan System and funds from HUD (CDBG, HOME and HOPE) and the Miami-Dade County Housing Trust Fund to decrease the gap between rehab cost, and the housing outlays affordable to LHHA's low-income clientele.	
		Seattle, WA: Subsidies have been essential in helping Seattle affordable housing rehab. Among those taken advantage of have been: Low-Income Housing Tax Credits (LIHTC); Historic Rehabilitation Tax Credit (HTC); Affordable Housing Program (AHP) monies from the Federal Home Loan Bank; Local Initiatives Support Corporation (LISC) investment; assistance from the Washington State Housing Trust Fund, the city of Seattle, and HUD; and the Community Reinvestment Act (CRA)—a statute prompting low	

Strategy	Description	Example	Evaluation/ Comments
Use of layered financing (see also "creative financing") (continued)	See strategy.	cost rehab loans from lenders. Chicago, IL: Chicago is the only city in the country to have a specific allocation for the LIHTC. Rehab entities have relied on CDBG, HOME, Section 202, the LIHTC, HTC, and various state and city	
		supports. These include the Chicago Abandoned Property Program (CARP), Affordable Rents for Chicago Program (ARC), Chicago Low-Income Housing Trust Fund (a rental subsidy program), Multi- Family Rehab and New Construction Loan Program, Multi-Family Tax Exempt and Taxable Housing-Revenue Bond Program, Predevelopment	
		Loan Program, and Vintage Homes for Chicago Program. It is important to note that these Chicago-cited subsidies are most often combined. For example, the Historic Rehab Tax Credit (HTC) is commonly combined with the LIHTC to create a powerful	
		subsidy for low-income historic rehab. Philadelphia, PA: The Brentwood Apartments represents a collaboration between an active neighborhood-based, nonprofit corporation (Parkside Historic Preservation Commission (PHPC) and an experienced affordable housing developer (Partnership of Pennrose Properties, Inc.). The partnership effectively combines the	The development of the Brentwood Apartments in Philadelphia eliminated blight and hazardous conditions in a neighborhood struggling to reverse decades of disinvestment and deterioration. This project provided the necessary critical mass of livable space to support a more viable project. The restoration proved successful
		assets of each to gain local support, attracts the necessary financing, and obtains and provides the expertise in managing this most challenging development. As a contributing structure in the Parkside National Register Historic District, the historic rehab project was able to utilize the HTC.	in reconfiguring the interiors to meet contemporary housing needs while also preserving the historic integrity of the facades.
		Newark, NJ: St. James Community Development Corporation (CDC), a nonprofit, rehabilitated a	The rehab of the St. James row houses in Newark has been an integral part of the stabilization of a

Strategy	Description	Example	Evaluation/ Comments
Use layered financing (see also "creative financing") (continued)	See strategy.	series of limestone row houses in Newark, New Jersey. The city of Newark provided the funding necessary to attract additional capital to the project. Through its HOME and CDBG programs, Newark leveraged \$1.8 million in loans and \$1.8 million in equity, with the addition of a nominal grant from the Episcopal Church Center. Assistance was also provided through federal historic and low income housing tax credits.	historic neighborhood as well as countering urban blight. It has proven to be a catalyst in attracting private investment to the area, which has resulted in a neighborhood of mixed incomes. Reuse of properties with historic significance, where economically feasible, proved to be an effective strategy to preserve the architectural character of the neighborhood, offering residents a profound sense of positive change, and creating renewed economic interest in other buildings in the neighborhood.
		Warwick and Providence, RI: The Women's Development Corporation (WDC) is a nonprofit that designs, develops, and manages affordable housing for low-income families primarily female-headed households with children. Two WDC projects include School House Place in Warwick, an adaptive reuse of a school built in 1896, and the West End projects in Providence, which involved the reuse of 19 th century buildings. WDC brought to the table the expertise to leverage the necessary funds and experienced staff to see the projects through the construction phase.	In its School House Place project in Rhode Island, WDC converted a landmark public school in Warwick, built in 1886, into seven low-income units. The West End apartments were the first and second phases of a project that reclaimed 20 buildings, transforming them into 47 unites of affordable rental housing.
		Boston, MA: The Historic HomeWorks, a city-sponsored program, provides grants and technical assistance to help homeowners in making repairs that maintain the architectural integrity of their homes, and contribute to the overall historic character of their neighborhood. Grants of up to \$7,500 are available for historically appropriate exterior repairs and improvements. The amount of rehab can be between \$2,000 and \$35,000. Grantees must guarantee that they will use the house as their primary residence for 10 years. Fall River, MA: The Cushing Companies, a private developer/contractor, secured historic tax credits for several properties and made low-income rental	The Historic HomeWorks Program has helped many Boston homeowners maintain their housing. In a market with high housing cost, homeowners are not only at risk of declining conditions, but also bank foreclosure since so much of their income goes to maintaining their property. In addition, these at-risk homeowners are often elderly homeowners living on small fixed incomes, so basic maintenance costs are even harder to cover. This program was designed specifically to address these issues, and give much needed assistance to homeowners to make appropriate improvements.

Strategy	Description	Example	Evaluation/ Comments
Use of layered financing (continued)		housing development feasible with funds from the Low Income Housing Tax Credit and HOME programs. The redevelopment project leveraged \$3.8 million in low-interest loans from city and state agencies by attracting almost \$10 million in private equity from tax credits.	
		Dubuque, IA: The Henry Stout Senior Apartments were renovated by MetroPlains Development LLC from the former Iowa Inn/YMCA buildings in downtown Dubuque as affordable housing for community seniors. This project made use of tax increment financing, enterprise zone credits, Iowa Housing Corporation loan, city loan, CDBG loan, city grant, sales tax rebate for enterprise zone, and deferred developer fees.	
		Two Rivers, WI: The Marquette Manor, the former St. Luke's Catholic Elementary School (1909) was renovated by MetroPlains Development LLC into a 32-unit apartment complex for senior citizens. The HOME funds, Community Development Block Grant, tax increment financing, and gap financing were sources of funding for this project.	Marketed and funded as affordable housing, seniors have the opportunity to live in apartments in the Marquette Manor that have retained many of their original historical features, including large windows, antique storage lockers, original chalkboards, and pressed metal ceilings.
		Clinton, IA: The Van Allen Apartments project is an on-going conversion of a stately, four story department store designed by Louis Sullivan. Community Housing Initiatives, Inc, a nonprofit, has utilized HOME loans, local funds, Federal Home Loan Bank AHP, Save America's Treasures, and other resources for funding.	The Van Allen project offers 17-one and two-bedroom units affordable to residents at or below 60% of the area median income. An additional two rental units will be available at market rate. The non-residential space in the building includes approximately 8,000 square feet on the street level that will support a pharmacy, a computer center for residents and a public educational center documenting the life and times of Louis Sullivan and the history of the Van Allen and Sons building.
Use creative financing (See also "layered	See strategy.	Seattle, WA: An alternative method of financing for groups in Seattle has been through the sale of development rights, commonly known as transfer of development rights (TDR).	TDR has proven to be a valuable source of financing for Seattle rehab entities. Other creative sources can be employed to finance rehab projects.

Strategy	Description	Example	Evaluation/ Comments
financing") Use creative financing (continued)	Description	The city of Seattle permits certain developers, including those providing affordable housing or renovating historic properties, to sell their unused development rights. Pittsburgh, PA: The Bloomfield-Garfield Corporation uses the Lease-to-Purchase Program to rehab and renovate vacant housing by providing homeownership opportunities for low-income families with difficult credit histories. The potential homeowners, selected by the corporation, deposit \$100 at the time of the lease	The Lease-to-Purchase Program in Pittsburgh has demonstrated the potential for people with poor credit histories to become homeowners. The program also conserves the existing building stock and provides high-value housing for low-income residents in older neighborhoods.
		and agrees to purchase the house by payment of monthly fees that are collected as rent and deposited as mortgage payments until the renter is able to secure the mortgage loan. The rental deposit becomes the down payment on the mortgage and demonstrates the buyer's intent and commitment. Rent is set at a figure approximating the actual mortgage payment, and renters can move into the property and use the next 12 to 24 months to secure a mortgage loan.	
		The corporation is strongly backed by the City of Pittsburgh Urban Redevelopment Authority, which offers financial support to make the houses affordable through its Community Development Block Grant program.	
		Providence, RI: The Providence Preservation Society Revolving Fund (PPSRF), Inc., a Providence nonprofit, preserves the city's architectural heritage and stimulates community revitalization through advocacy, low-interest loans, technical assistance, and development. To that end, the PPSRF manages a capital pool that is used for rehab loans to homeowners and to acquire abandoned property for development and resale in targeted low-and moderate-income historic	Over 20 years, the PPSRF in Rhode Island has loaned in excess of \$2.5 million for 146 restoration projects.

Strategy	Description	Example	Evaluation/ Comments
		neighborhoods.	
Alter QAPs to favor rehab efforts	Low Income Housing Tax Credits (LIHTCs) are one of the largest sources of federal subsides for rehab. The IRS requires state agencies responsible for awarding LIHTCs to submit annual Qualified Allocation Plans (QAPs) explaining the basis on which they distribute their LIHTC allocations. Based on their QAP, states establish preferences and set-asides within their tax credit competitions so as to target the credits toward specific projects and/or housing recipients. In order to foster rehab, these QAPs should foster renovation. (See Resource Guide, section A for detail and listing of state QAP criteria for 1990 and 2001, and potential impact on rehab LIHTC projects.)	Federal expectations for the QAP include: low- income occupancy tests; procedures for monitoring the long-term compliance of the LIHTC project in terms of affordability; a mandate of 10 percent minimum allotment of tax credits to projects involving nonprofits; and other general categories of selection criteria. The competition for grant money, dictated by the QAP, is popularly referred to as a "beauty contest." Properties accumulate points based on the determined criteria. A recent study (see Volume II) determined that ten QAP criteria directly or indirectly affect the ability of rehab projects to secure LIHTCs. Of these ten, it was determined that four encourage rehab while six hinder it. The four favorable criteria are: • Award points for historic rehab • Award points for small-scale projects • Award points for location in challenging area The six hindering criteria are: • Award points for lowest cost per unit • Award points for lowest cost per unit • Award points for large units • Award points for large units • Award points for amenities (e.g., energy efficiency) • Award points for "ready to go" projects Additional set-asides make it even more difficult for rehab projects to obtain tax credits. For example, in New Jersey, one of four LIHTC applicants was able to secure a tax credit while only one in six urban applicants were successful; yet, rehab activity is concentrated in urban areas.	States should remove QAP criteria that discourage rehab and should consider adding QAP criteria that encourage renovation.

Strategy	Description	Example	Evaluation/ Comments
Tax-exempt financing	Tax-exempt financing, if attainable, can secure favorable interest rate loans.	Seattle, WA: Through tax-exempt financing, (due to its unique status as a non-profit development authority), Capital Hill Housing Improvement Program (CHHIP) can offer tax-free interest to its lenders, thus securing below-market interest rates for loans to CHHIP.	The ability to utilize tax-exempt financing was extremely helpful for CHHIP.
Expand use of federal Historic Rehabilitation Tax Credit	Effect structural changes to enhance the HTC's availability for housing rehab. Expand applicability of federal HTC to	See Resource Guide, section B and Volume II for detailed recommendations. The proposed (not enacted) Historic Home	The proposed structural changes would treat the HTC in the same manners as the LIHTC. Many states with HTCs (see below and Volume
(HTC)	owner occupied (and not just income- producing) properties.	Ownership Assistance Act (H.R. 1172, 107 th Congress) would have provided a credit of 20 percent for qualified rehab expenditures up to \$40,000 on owner occupied historic properties.	II) already grant these credits to owner-occupied, historic residences.
Provide state version of Historic Rehabilitation Tax Credit (HTC)	See strategy.	See Resource Guide, section D (and Volume II) for a state-by-state breakdown of the individual state programs including specification of: Tax credit level: The state historic tax credit programs provide different levels of tax credits, ranging from 5-50 percent.	States tailor their programs to individual needs and abilities—resulting in varied credit levels, eligible properties, and investment requirements. State HTCs are an important strategy and extend the usefulness of the federal HTC.
		Applicability: Credit programs vary in their inclusiveness. Eligible properties include residential, commercial, income-producing, and others. Investment requirements / Caps: Some jurisdictions	
		mandate minimum investment requirements to secure the credit while some limit the amount of credit one can receive by imposing a ceiling on statewide or individual project assistance.	
Provide state version of Low- Income Housing Tax Credit (LIHTC)	See strategy.	See Resource Guide, section C for state-by-state details. CT: The Connecticut State Housing Tax Credit Contribution (HTCC) Program allows the use of	A useful funding strategy—and analogous to states adding their own tax credits (over and above the federal) for historic rehab.

Strategy	Description	Example	Evaluation/ Comments
		state tax credit vouchers offering a dollar-for-dollar tax liability reduction to qualified businesses making cash contributions to specific housing programs of non-profit corporations.	
		The Connecticut Housing Finance Authority has increased its allocation for this program to about \$5 million annually (from \$1 million). Nonprofits continue to apply for allocations from this statewide pool through a competitive process in which applications are rated and then ranked to determine funding priority. The maximum allocation for this program is \$400,000 annually per organization.	
Provide other state tax credits for housing	Besides state HTCs and LIHTCs, other state tax credits for affordable housing and other purposes (e.g. employer assisted housing) can expand the availability of credits for affordable housing rehab.	New Jersey: The NJ Neighborhood Revitalization Tax Credit provides a 50 percent state tax credit to businesses, against business-related income, that contribute to participating 501(c)(3) organizations that have registered neighborhood plans with the NJ Department of Community Affairs. Credits are provided to business entities that invest in the revitalization of low- and moderate income neighborhoods in eligible cities. Businesses can contribute between \$25,000 and \$1 million per year. A multi-year commitment to a nonprofit organization is encouraged. Contributions to the nonprofit organizations can be used for projects including affordable housing, economic development, workforce development, open space, social services, business assistance, and other activities that promote neighborhood revitalization. There is a requirement that 60 percent of the tax credit funds must be used for housing and economic development activities, which include renovation and construction of affordable housing.	A useful funding strategy for aiding the financing of affordable housing rehab and other desirable activities. It adds to and complements the assistance provided by state HTCs and LIHTCs.

Strategy	Description	Example	Evaluation/ Comments
Proactively favor rehab in housing subsidies	See strategy and discussion of proactively formulating Qualified Application Plans to favor rehab applications.	Vermont: The Vermont Housing and Conservation Board (VHCB), a state agency, created a statewide incentive policy that combines its affordable housing development incentives with a priority on projects that involve the rehab of existing downtown buildings, encourage the development of affordable housing, foster reinvestment in city centers, and protect the countryside. Rehab is encouraged through the following VHCB strategies: • Affordable housing developers who receive state or federal funds from VHCB must look first to preservation and rehab when considering development. • Financial resources are focused towards rehab as opposed to demolition and/or new construction. • The Guidelines for New Construction Housing Projects reinforce the housing policies by steering developers towards rehab as opposed to new construction.	Of the 6,200 units that have received VHCB funding, more than 80 percent have involved the rehab of existing properties. Furthermore, many affordable housing units have been created through the adaptation of historic buildings, including schools, municipal buildings, commercial and industrial buildings, and single-family residential structures.

Strategy	Description	Example	Evaluation/ Comments
Develop ties between lenders and CDCs	Ties between lenders and CDCs can be very useful in securing financing and other resources for rehab.	Des Moines, IA: The River Bend Historic neighborhood did not have an active nonprofit organization with real estate development capacity. However, a local community development lending consortium, the Neighborhood Finance Corporation, agreed to spin off a community development corporation (CDC) to target River Bend and similar neighborhoods for rehab and infill housing.	In this case, the aggressive activities of the local bank resulted in the establishment of a CDC whose efforts focused on revitalizing the River Bend District. Such action went a long way in promoting rehab in the region.
		The Community Partners Program of the National Trust for Historic Preservation assisted the fundraising efforts of the Neighborhood Finance Corporation for the new local CDC and also became involved in efforts to secure financing through the LIHTC for several properties under development.	

Strategy Guide—Best Practices I. E. Land Use

Strategy	Description	Example	Evaluation/ Comments
Enact zoning fostering continued use or adaptive reuse of existing buildings	Lowell, MA: In the 19 th century, Lowell was one of the largest planned industrial communities in America, with a thriving textile industry. The decline of that industry left behind many buildings that were vacant and underutilized for years. They are now beginning to be reused for homes, businesses, and cultural activity, in part due to the addition of the Artist Overlay District to Lowell's zoning codes. The new ordinance allows artists to both live and work in the same space, a multiple use not typically allowed under municipal zoning regulations. The city implemented this policy to encourage artists to both live and work in the historic downtown and National Park areas, thereby stimulating the growth of a concentrated arts, cultural, and entertainment district. This policy has been a catalyst for a vibrant, 24-hour downtown life and stimulated new economic opportunities for the district.	Flexible zoning is essential for the continued use and adaptive reuse of many older properties.	
		Bangor, ME: The Freese Building was home to the city's leading department store for nearly 70 years. The store closed in 1985, and ownership of the sixstory, 140,000-square-foot building passed to a real estate developer who failed to put together a plan to reuse the structure. By 1995, the building was in severe disrepair, the city took possession and began exploring redevelopment options.	Fostered by zoning allowing mixed uses, the Freese building's adaptive reuse has injected a renewed vitality in the downtown. The project has creatively addressed the growing demand for elderly housing and offers a unique and positive opportunity for interaction between children and seniors. It has reinforced the tourist component of renovation, attracting 75,000 additional visitors to Bangor's downtown each year. In addition, the Maine Discovery Museum takes advantage of the building's unique mix of uses by recruiting volunteers from the building's residents. This project has encouraged other revitalization efforts as four major redevelopment projects are under way nearby in formerly deteriorated buildings.

Strategy Guide—Best Practices I. E. Land Use

Strategy	Description	Example	Evaluation/ Comments
Require "reasonable" parking requirements (see also context sensitivity)	Parking requirements imposed by local, county, or other governments should reflect the realistic need for off-street parking.	Seattle, WA: City government has reduced on-site parking requirements from 1.5 to 1.3 parking spaces per housing unit.	Excess parking is wasteful from cost and environmental perspectives.
Exempt certain developments from parking requirements	Exempt "high priority" or other "appropriate" housing developments (e.g., historic or affordable) from providing off-street parking.	Seattle, WA: Affordable housing developments located in Seattle's downtown (the "core") and historic preservation projects located anywhere in Seattle are exempt from providing off-street parking.	Such parking exemptions foster the continued use and rehab of the affected properties.
Provide context- sensitive parking requirements	The requirement for off-street parking should be sensitive to the contextual factors of project type and location.	Seattle, WA: The city has instituted context- sensitive parking standards whereby parking requirements vary by such conditions as parking already available in the neighborhood and, if a neighborhood has access to mass transit.	Excess parking is wasteful from cost and environmental perspectives.

Strategy	Description	Example	Evaluation/ Comments
Adopt smart codes	Until the 1990s, rehab work was regulated by reference to the overall building code, which was geared toward new construction. In the 1990s, it became clear that this form of regulation was often arbitrary, unpredictable, and constrained the reuse of older properties. Beginning with the state of New Jersey, state and local jurisdictions began to develop new ways to regulate work in existing structures. "Smart codes" is the term used to describe building and construction codes that encourage the alteration and reuse of existing buildings. (See Resource Guide, section H for examples of national-state model smart codes.)	National: In May 1997, HUD published the Nationally Applicable Recommended Rehabilitation Provisions (NARRP) to serve as a model for the development of rehab codes. Adopting a building code that establishes different levels of renovation with gradual increases in public requirements based on amounts of voluntary rehab is HUD's recommendation for solving the problem of burdensome rehab codes. Forms of smart codes have been adopted by: New Jersey; Maryland; Minnesota; Rhode Island; Wilmington, Delaware; Wichita, Kansas; and elsewhere. Using the New Jersey and NARRP smart codes as a template, the model building codes adopted chapters solely addressing rehab, including the International Building Code (IBC) Chapter 34 2003, International Existing Building Code (IEBC) 2003, and National Fire Protection Association (NFPA) 5000 Chapter 15 2000. (See Volume II for an in-depth breakdown and comparison of these codes.)	Smart codes are based on predictability and thus foster accurate predictions of improvement standards and costs. The smart codes also favor proportionality, the idea that a sliding scale of requirements should be established depending on the level and scale of the rehab activity.
		New Jersey: In January 1998, the state adopted the New Jersey Uniform Construction Code – Rehabilitation Subcode. It was recognized that the old code, which included the "25-50 percent rule" (i.e., new building standards are mandated when the value of the rehab is equal to 50 percent or more of the value of the building being renovated), was constraining the re-use of older buildings in New Jersey.	The New Jersey Rehabilitation Subcode is serving its purpose. The state reports that investment in building rehab in cities such as Trenton, Newark, and Elizabeth has increased substantially due to the new code. The subcode has reduced rehab costs by as much as 60 percent with the average around 10 to 20 percent. New Jersey rehab entities, such as Isles Inc., have reported that the new code has significantly

Strategy	Description	Example	Evaluation/ Comments
Adopt smart codes (continued)	See above description.	The adopted New Jersey provisions mandated the establishment of multiple hazard scales. A change of occupancy that involves an increase in hazard on one or more of the scales triggers specific additional requirements to address the added hazard. Progressively more complex rehab work entails progressively more extensive additional required life safety improvements. Reasonableness is achieved by establishing proportionality between the voluntary work proposed by the owner and the additional work imposed by the regulatory system.	improved the ease with which they effect rehab, seemingly exempting them from many regulations that would have been required under the old law.
		Massachusetts: The state replaced the rigid "25-50 percent rule" with a much more flexible standard. Rehab requirements are determined by the extent of the increase in hazard rating involved in the rehab. If there is no increase in the hazard involved in the rehab, then Article 34 mandates few changes. If rehab significantly increases the hazard level, then new-construction standards have to be met but compliance alternatives are permitted.	The Massachusetts provision, an early smart code, has encouraged rehab in this state.
Establish expert committee for smart code adoption	See strategy	New Jersey: A thirty-member committee under the coordination of Rutgers University was assembled to help draft the original version of New Jersey's smart code. Made up of fire and code officials, architects,	"We really had to rethink 100 years worth of building codes, all of which had been written with new buildings in mind," notes William A. Connolly, director of the division of codes and standards for the state of New Jersey.
		historic preservationists, advocates for people with disabilities, and government representatives, the committee met every three months between late 1995 and late 1997. The New Jersey Department of Community Affairs also created a special working group to oversee the writing and coordinate the effort.	It is clear that adopting smart codes is a lengthy and complex process, and New Jersey's strategy in forming an expert committee should be considered by others.

Strategy	Description	Example	Evaluation/ Comments
Limit local amendments of building code Apply flexible administration	In many states, local governments are able to make amendments to the state adopted building code. This results in much confusion for rehab entities conducting business in multiple jurisdictions. A rehab-sensitive building code can still pose a barrier to renovation if it is	New Jersey and Rhode Island: In these two states (and others), no local amendments are permitted to be added to the building code. Building Codes: Many building codes encourage "compliance alternatives" to rigid building codes.	This standardization of building codes across the state has set up conditions ideal for rehab entities and has helped to reduce problems caused by confusion over building code regulations. Compliance alternatives represent a viable and realistic approach to building-code-related rehab
(see also "sensitive treatment of historic buildings")	applied by code officials in an overly strict or otherwise inappropriate fashion. Conversely, the rehab problems that may be posed by any code can be mitigated through flexible and competent administration by code officials.	 These include (see Volume II for details): New Jersey Rehab Subcode: Owners may request a variation when compliance would result in practical difficulties. NARRP 1997: Equivalent alternatives may be authorized by building official. Other alternatives may be accepted if compliance is feasible. IBC Ch. 34 2003: Section 3410 provides a safety scoring system for 18 parameters. IEBC 2003: Equivalent alternatives may be authorized by building official. Ch. 12 reproduces Section 3410 of the IBC. NFPA 5000 Ch. 15 2000: Equivalent alternatives may be authorized by the building official. Other alternatives may be accepted if compliance is infeasible or would impose undue hardship. Cost Impacts: NJ, NARRP & NFPA allow for "infeasibility" alternatives. 	problems. By flexibly and realistically administering the building codes and allowing for alternatives, building officials can encourage rehab activity.
		Massachusetts: Article 34 of the Massachusetts State Building Code applies to rehab of existing buildings. The heart of the code contains sliding scales of standards as well as increased flexibility in	The passage of Article 34 in Massachusetts was an important step toward a realistic and flexible administration of the building code.

Strategy	Description	Example	Evaluation/ Comments
Apply flexible administration (continued) (see also "sensitive treatment of historic	See above description.	meeting requirements. The code states that: "Where compliance with the provisions of the code for new construction, required by this article, is impractical because of structural or construction difficulties or regulatory conflicts, compliance alternatives may be accepted by the building official."	
buildings")		Compliance alternatives in Massachusetts allow renovated structures to avoid precise compliance with the existing building codes through alternative (yet still substantial) options decided upon by local building officials.	
		An example in Massachusetts involved a one-hundred-year-old building that was originally designed as a high school. It had previously been used as a community center and was now being converted to forty residential condominium units. This change of use pushed the building to a lesser hazard index, so officials were able to issue variances without a problem.	
		South Brunswick, NJ: An old farmhouse was being converted to a community center before the adoption of New Jersey's smart code. On both the "25-50 percent" rule and the change-of-use standard (i.e., a building changing its use must satisfy the new building standard for the new use), the rehab would have to comply with all the standards for new construction for a building of its type and use.	What allowed the New Jersey project to proceed was the local code official's willingness to grant a series of variances. These variances allowed for the preservation of the ambiance of a 150-year-old farmhouse while at the same time providing for the safe use of the structure.
		However, what could have been a major problem—the retrofitting of a 150-year-old farmhouse to a modern structure—was avoided in this instance by the compliance alternatives allowed by the township's code official.	Demanding full compliance with every requirement of the code for new construction would have made it impossible to adaptively reuse the New Jersey farmhouse structure in a historically appropriate manner.

Strategy	Description	Example	Evaluation/ Comments
Foster coordination between building regulatory agencies	An inherent source of potential conflict exists because building officials and fire officials often have overlapping authority. This circumstance creates great consternation among rehab entities who often believe themselves to be in full compliance after pre-construction reviews, only to find themselves needing to implement additional or changed requirements imposed by the fire marshal or building code officials at the end of construction.	Massachusetts: This state has worked to prevent, identify, and resolve conflicting and duplicative regulations related to building construction and rehab. Amongst other actions, a state regulatory review board was established	Consisting of representatives from state agencies and others, the Massachusetts regulatory review body has worked to resolve regulatory conflicts and duplications during the code implementation process. (See also Massachusetts example of "education of code officials.")
Allow sensitive treatment of historic buildings (see also "Apply flexible administration")	Treating historic buildings with special and flexible code consideration will help promote the rehab of historic structures. (See Strategy Guide II, sections C and H for further details.)	New Jersey: This state's Smart Code includes special provisions applicable to structures that meet the standards for historic buildings established by the U.S. Secretary of the Interior. It allows for the use of replica materials, establishes special provisions for historic buildings used as museums, and identifies building elements that may meet relaxed code requirements to preserve the integrity of a historic structure. Section 6.32 of the New Jersey Smart Code permits owners of historical structures to use "an alternative to compliance with specific provisions of this subcode" by submitting requests "for variations in writing." A variation may be granted "where no feasible alternative to the strict requirements of the subcode exists." The New Jersey subcode also allows special provisions for historic buildings "undergoing repair, renovation, alteration, restoration or	The New Jersey code encourages the rehab of historic structures by allowing for and encouraging many variances and compliance alternatives for these structures.

Strategy	Description	Example	Evaluation/ Comments
Allow sensitive treatment of historic buildings (see also "Apply flexible administration") (continued)	See above description.	reconstruction." It then lists twelve alternate compliance alternatives for topics ranging from exterior walls to stairways (see NJAC 5.23-6.33 for full text). Massachusetts: Rehab of historic buildings is	This Massachusetts code provision encourages
		separately governed by Section 635 of the Massachusetts Building Code (MBC). Under this section, exceptions to the state building code are allowed for certain features that contribute to a property's historic distinctiveness.	rehab by exempting more historic buildings from standard requirements.
		Section 635 also expanded the definition of historic buildings to include those properties in locally designated historic districts as well as any building not yet on the National Register of Historic Places but individually eligible for inclusion in it.	
		Seattle, WA: Section 3403.8 of Seattle's Building Code allows building officials to modify requirements of structures designated as historical or cultural landmarks. This gives more flexibility when attempting to adhere to the code. Other Examples: see Resource Guide, section H for details.	In Seattle, historic preservationists have reported that building officials do in fact modify the nominal requirements of the building code to further the rehab of landmark buildings. The city administration, which has been particularly prohousing, has encouraged municipal officials to flexibly administer the city's building code.
Educate code officials	Continued education fosters knowledgeable and flexible code administration.	Massachusetts: State law requires continuing education for building code officials under the auspices of the Massachusetts Board of Building Regulations and Standards (MBBRS). MBBRS offers professional training seminars in different state locations.	The Massachusetts and New Jersey training programs are important for well-informed code enforcement.

Strategy Guide—Best Practices II. A. Building Code

Strategy	Description	Example	Evaluation/ Comments
Educate code officials (continued)	See above description.	In 2000, Massachusetts planned an expanded state- funded program that included training for local building and fire prevention officials; local plumbing, gas, electrical, and health inspectors; builders; and developers. Such a program included training that would minimize the misinterpretation of state codes. Some of the training is designed to encourage the joint participation of local building and fire prevention officials; local plumbing, gas, electric, and health inspectors; state regulators; and representatives from the residential development industry. New Jersey: New Jersey code officials receive extensive training and are licensed by the state.	The building industry could do more to support the training cause by lobbying to expand the scope and budget of these training programs.
Preliminary meetings with building code officials	To avoid future problems, developers should meet with building code officials <i>before</i> the rehab begins to resolve any ambiguities.	Individuals wishing to be certified must complete training in 1 of 5 areas of specialty. Massachusetts: In this state, it is up to the owner to provide the building department with the information necessary to determine the present condition of the building and the types of changes desired and anticipated as part of the rehab project.	Developers in Massachusetts contend that these preliminary meetings are especially helpful in clearing up many problems related to building code compliance.
		The building department may choose to visit the existing building to confirm the conditions noted in the investigation and evaluation report, but a site visit is unusual.	This seems to be the case especially in many smaller cities and towns, where there often exists a lack of depth and experience within the local building department.
		The presentation of this investigation and evaluation by the owner is often done as part of a preliminary meeting with the building department. At the preliminary meeting, issues are discussed informally. It is recognized that such meetings are an important first step in the process.	

Strategy Guide—Best Practices II. B. Minimum Housing Standards (MHS)

Strategy	Description	Example	Evaluation/ Comments
Provide flexible MHS enforcement	Flexible MHS enforcement can foster selective rehab and can maximize the useful remaining economic life (REL) of existing building components. Keep or repair (as opposed to replacing) a roof, windows, electric and plumbing systems having an REL of at least moderate duration (i.e., five to ten years). Also an original roof or window may be more attractive than its replacement.	Miami, FL: Little Haiti Housing Association (LHHA) prefers to keep the existing windows and make only necessary repairs. In a house with jalousie windows, common in Little Haiti, LHHA prefers to replace glazing and window operators as needed. For the 10 to 15 windows in a typical Little Haiti single-family detached home, the above-cited repairs would cost about \$1,000 in total. Replacing windows in South Florida is no simple matter in the wake of Hurricane Andrew, where much window damage was sustained. In the aftermath of that storm, window standards were upgraded. The new requirements mandate that engineers must first do wind-load calculations, taking into account the building's footprint, peak, height of eaves, zones (e.g., windows at the corner of a house are more vulnerable to damage), and other measures. The wind-load calculation determines the type of window to be purchased with respect to its impact resistance, need for hurricane shutters, and other material characteristics. Further, before the windows are installed, a permit has to be pulled and the installation inspected. This gamut of window-replacement activities is quite costly. LHHA estimates that its expenses for the purchase and installation of the 10 to 15 windows in a typical Little Haiti single-family detached home are \$3,000 to \$4,500—as against the \$1,000 for the selective rehab of the existing windows.	Flexible MHS enhancement maximizes the cost efficiency of rehab because it capitalizes on the utility of existing building systems. However, selective repair, as opposed to wholesale replacement, is demanding on construction skills and care must be taken that adequate financial resources are available when future replacement of systems is necessary.

Strategy	Description	Example	Evaluation
Provide guidance on historically appropriate rehab	See strategy.	National – Secretary of Interior Standards (SIS): These standards provide basic principles and guidance. Determine why a historic building is significant and identify its character-defining features. Minimize alterations: retain historic finishes, features, and spaces to the maximum extent possible. Repair existing features rather than replace them. Do not undertake treatments that irreversibly damage, alter, or destroy significant historic fabric. When constructing a new addition, distinguish between old and new. The SIS place a high premium on retaining and reusing significant historic fabric, and on reusing existing materials rather than inserting new features and finishes.	Evaluation The Secretary of Interior Standards provide a basic and useful guide to historically appropriate rehab.
		 What follows is a summary and brief discussion of the major concepts contained in the SIS: 1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment. 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided. 3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken. 4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved. 5. Distinctive features finishes, and construction 	

Strategy	Description	Example	Evaluation
Provide guidance on historically appropriate rehab (continued)	See strategy.	techniques or examples of craftsmanship that characterize a historic property shall be preserved. 6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence. 7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible. 8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken. 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment. 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.	

Strategy	Description	Example	Evaluation
Provide guidance on historically appropriate rehab (continued)	See strategy.	Lewiston, ME: Lewiston created the Lewiston Historic Preservation Design manual, an illustrated guide of preservation codes and ordinances to assist in design deliberations and to provide the information needed for owners of historic properties to retain the historic integrity of their properties. Using a Community Development Block Grant and National Park Service funds to produce the manual, the city hired an experienced consultant who used local examples, and over 200 figures and photographs. The city then widely distributed the publication to members of the Planning Board, City Council, Historic Preservation Review Board, Lewiston Historic Commission, and Maine Historic Preservation Commission, to city staff, owners of historically-designated properties within the city of Lewiston, and participants at a government workshop. Copies were placed in locations around the city such as libraries, schools, the chamber of commerce, and the historic society.	The Lewiston Historic Preservation Design Manual has enhanced the city's ability to administer its historic preservation ordinance and has made the process much more user friendly. It helped educate both the public and private citizens in historic preservation principles, and encouraged a preservation ethic.
		Pioneer Valley, MA: The Pioneer Valley Planning Commission (PVPC) in Western Massachusetts has published a guide to help property owners understand what it means to own a historic building. PVPC's Community Development Department works to help homeowners adhere to the Secretary of the Interior's Standards (SIS) for Rehabilitation of historic buildings. Because the housing rehab program is most active in rural towns with populations of 10,000 or less, hiring technical staff to work with owners individually was not feasible. Instead, the Commission and the Massachusetts Department of Housing and Community Development funded the preparation of a Guide to Historic Housing Rehabilitation to provide this information to homeowners through local historical commissions, building inspectors, and town selectboards.	The 14-page PVPC booklet answers 10 of the most important questions owners ask when their houses are designated as historic. From vinyl siding and replacement windows to deleading of interior trim and choosing exterior paint colors, the text explains how the Secretary of the Interior's Standards (SIS) may apply to their homes. Included are illustrations of quality examples as well as unacceptable practices. This successful guide is generating awareness among the region that vernacular housing is equally deserving of preservation and can have as much historic value as the grandest properties in a community. The PVPC guide has triggered new pride for individual homeowners and

Strategy	Description	Example	Evaluation
Provide guidance on	See strategy.	_	enabled interested owners to become
historically		Seattle, WA: Preservation practitioners in this city	advocates for their properties while rehab
appropriate rehab		recommend that the National Park Service (NPS) and	work occurs.
(continued)		State Historic Preservation Offices (SHPOs) should	
		publish Historic Rehabilitation Tax Credit (HTC) case	
		studies. The case studies should be "in-depth resources	
		for interpretation of standards with an honest discussion	
		of 'gray areas', such as windows."	
		The NPS should issue "interpretations" of HTC	
		standards, much like the Internal Revenue Service	
		issues private letter rulings. An example might be "that	
		if 50 percent of the original windows have been	
		replaced and if all the sash connections are deteriorated,	
		then windows can be replaced rather than repaired."	
		Currently, the regulatory framework is more ambiguous	
		(e.g., it is preferable to repair rather than to replace	
		historic windows) and the proposed NPS	
		"interpretations" would clarify matters.	
Allow for flexibility	See strategy.	National – ACHP Statement: To better enable	The ACHP statement aims to balance and
and broader context		affordable-housing construction that abided by the	synthesize preservation and housing
when rehabilitating		Secretary of the Interior Standards, the Advisory	affordability.
historic affordable		Council on Historic Preservation (ACHP) issued a June	
housing		26, 1995 a Policy Statement on Affordable Housing	
		and Historic Preservation (hereinafter the Statement).	
		The Statement underscored the need to better	
		coordinate the objectives and activities of the	
		preservation and housing communities.	
		To further the reconciliation, the Statement underscored	
		that as a matter of policy, the ACHP "seeks to promote	
		a new, flexible approach toward affordable housing and	
		historic preservation." To that end, the Statement	
		included ten principles (detailed below). State Historic	
		Preservation Officers (SHPOs), federal and state	
		agencies, and local governments involved in the	
Allow for flexibility	See strategy.	administration of the Section 106 review process	

Strategy	Description	Example	Evaluation
and broader context when rehabilitating historic affordable housing (continued)		(triggered when a federal undertaking may affect a resource on, or eligible for, National Register of Historic Places) for affordable-housing projects funded or assisted by federal agencies were encouraged in the Statement to use the principles as a framework for Section 106 consultation and local historic preservation planning.	
		 The ten principles included the following: Emphasize consensus building. Section 106 reviews for affordable housing projects should place principle emphasis on broad-based consensus reflecting the interests, desires, and values of affected communities. Elicit local views. Identification of historic properties and evaluation of their eligibility for the National Register for Historic Places should include discussions with the local community and neighborhood residents to ensure that their views concerning architectural and historic significance and traditional and cultural values receive full consideration by the SHPO and others. Focus on the broader community. When assessing	
Allow for flexibility	See strategy.	the effects of affordable-housing projects on historic properties, consultation should focus not just on individual buildings which may contribute to a historic district but on the overall historic preservation potentials of the broader community. Historic preservation issues should be related to social and economic development, housing, safety, and programmatic issues integral to community viability. 4. Adhere to the Secretary's Standards when feasible. Plans and specifications for rehab, new construction, and abatement of hazardous conditions associated with affordable-housing	

Strategy	Description	Example	Evaluation
and broader context		projects should adhere to the recommended	
when rehabilitating		approaches in the Secretary of the Interior's	
historic affordable		Standards for Rehabilitation and Guidelines for	
housing (continued)		Rehabilitation of Historic Buildings, when	
		<i>feasible</i> . Where economic or design constraints	
		preclude application of the Standards, consulting	
		parties may develop alternative design guidelines	
		tailored to the district or neighborhood to preserve	
		historic materials and spaces.	
		5. Include adequate background documentation.	
		Proposals for nonemergency demolitions of	
		historic properties should include adequate	
		background documentation.	
		6. Emphasize exterior treatments. The Section 106	
		review process for affordable-housing rehab	
		projects and abatement of hazardous conditions	
		should emphasize the treatment of <i>exteriors</i> and	
		be limited to significant interior features and	
		spaces that contribute to the property's eligibility	
		for the National Register.	
		7. Coordinate with other reviews. Where	
		appropriate, Section 106 reviews for affordable-	
		housing projects should be conducted in	
		conjunction with the historic rehab tax credit and	
		other state and local administrative reviews to	
		ensure consistency of reviews and to minimize	
		delays.	
		8. Avoid archaeological investigation.	
		Archaeological investigations should not be	
		required for affordable-housing projects, which	
		are limited to rehab and require minimal ground	
		disturbance activities.	
		9. <i>Develop programmatic approaches</i> . Governments	
		are encouraged to develop programmatic	
		agreements that promote creative solutions to	
		implement affordable-housing projects and to	

Strategy	Description	Example	Evaluation
Allow for flexibility	See strategy.	streamline Section 106 reviews through the	
and broader context		exemption of categories of routine activities; the	
when rehabilitating		adoption of "treatment and design protocols" for	
historic affordable		rehab and infill new construction; and the	
housing (continued)		delegation of Section 106 reviews to qualified	
		preservation professionals employed by the local	
		community.	
		10. Empower local officials. Certified local	
		governments and/or communities that employ	
		qualified preservation professionals should be	
		allowed to conduct Section 106 reviews on behalf	
		of the Council and/or the SHPO for affordable-	
		housing projects.	
		Atlanta, GA: In Atlanta's Martin Luther King (MLK)	
		Jr. National Historic Site and Preservation district,	
		flexible design guidelines encourage preservation of the	
		historic character of buildings while enabling owners to	
		contain the costs of rehab.	
		The MI V In National Historia Cite and Decomposition	The MI V weighborhood angelCo evidelines
		The MLK Jr. National Historic Site and Preservation	The MLK neighborhood-specific guidelines
		District in Atlanta is listed on the National Register of	provide clear images and descriptions of
		Historic Places and designed as a local historic district.	preferred preservation practices, detail options for rehab of individual structures, and
		The flexible design guidelines were established	l · · · · · · · · · · · · · · · · · · ·
		specifically for this historically significant African-	describe their visual impact on the historic
		American neighborhood located immediately east of downtown Atlanta. The Historic District Development	character of the buildings and the streetscape. Included is a clear glossary that helps
		Corporation (HDDC) and the Atlanta Urban Design	individuals understand the complex language
		Commission created the local rehab guidelines in	of historic rehab. There has been a resounding
		response to a policy on Affordable Housing and	positive impact on the neighborhood as a
		Historic Preservation adopted in 1995 by the ACHP	whole.
		(see prior description in this section). The local	whole.
		guidelines encouraged the preservation of historic	
		houses by describing rehab approaches that are	
		economical for the affordable housing market, yet do	
		not sacrifice the overall historic character of the district.	

Strategy	Description	Example	Evaluation
Allow for flexibility and broader context when rehabilitation historic affordable housing (continued)	See strategy.		
Effect early and ongoing contact with the multiple agencies regulating the rehab of historic properties	See strategy.	Seattle, WA: Rehab professionals recommend that the rehab team should meet early on with the State Historic Preservation Office (SHPO) and the National Park Service (NPS) to informally discuss the renovations that are contemplated. This meeting should take place as early as possible, and before submission of part 2 of the Historic Tax Credit (HTC) paperwork.	As with building and other regulations affecting rehab, early and ongoing contact with regulators can avoid later problems.
Historic preservation (and housing) commissions should be adequately staffed, given appropriate resources, and should meet in a timely fashion	See strategy.	Vermont: The Vermont Housing and Conservation Board has hired a cadre of preservationists with affordable housing experience.	Too many historic and housing commissions are inadequately staffed and in other ways lack sufficient resources. This impedes appropriate administration (see also "build partnerships" in this section).
Enhance the application of federal historic rehabilitation tax credits (HTC) and provide state HTCs	See strategy.	See Resource Guide, sections B, C, and D and Volume II for details.	See referenced sections.
Provide financial incentives	Financial incentive – not limited to tax credits already addressed in this section – can be specifically targeted to the rehab of older and historic properties for affordable housing.	Des Moines, IA – The Iowa Finance Authority and the Federal Home Loan Bank of Des Moines in partnership with the statewide Main Street program (Main Street Iowa) are providing capital in the form of low-interest loans for the rehab of historic properties in Main Street commercial districts. The upper floors of these small businesses are being converted to residential units for lease—filling a key missing revitalization link to create	The Iowa program has made numerous loans of which more than half were in towns with populations less than 5,000. Fifty percent of the renovated units are serving low- and moderate-income households—while furthering revitalization in rural downtowns.

Strategy	Description	Example	Evaluation
Provide financial incentives (continued)		living downtowns. St. Paul, MN—The local preservation group—Historic Saint Paul—and a housing developer—Community	
		Housing Services, a Neighborhood Reinvestment affiliate—are forming a partnership with the help of the National Trust for Historic Preservation's to combine a loan from the Trust with capital resources from Neighborhood Reinvestment and local CDBG and HOME funds to leverage additional capital from conventional lenders, such as banks. The resulting pool of funds will help low-income homeowners to stabilize and rehab qualified homes in historic districts.	
Provide property tax incentives for historic properties	See strategy.	See Strategy Guide, section III.B and Resource Guide, section E for details.	See referenced sections.
Provide building code flexibility when renovating historic properties	See strategy.	See Strategy Guide, sections II. A and II. H and Resource Guide, section H for details.	See referenced sections.
Build partnerships	Strategic partnerships among CDCs, housing developers, preservation groups, and lenders provide important "cross fertilization" necessary to break down barriers between fields.	Junction City, KS – Homestead Affordable Housing partnered with the Geary County Historical Society to convert the historic Bartell Hotel into a mixture of first floor retail and upper floor housing for low- and moderate-income households. Macon, GA – The local Habitat for Humanity chapter is partnering with the local preservation group – Historic Macon Foundation – to review the designs of each new Habitat home to be built ensuring that they are historically sensitive.	The Junction City project was successfully completed providing a base for this affordable housing developer to do more historic rehabs and the preservation group to be actively involved in affordable housing development. The Macon partnership has been successful proving that even the simplest designs can be adjusted to be sensitive to the characteristics of historic communities.

Strategy	Description	Example	Evaluation
Build partnerships (continued)		Gainesville, FL – The redevelopment agency for the city is partnering with the historic commission to rehab and sell homes to mixed-income families in a historic district that is currently very low-income and an unstable neighborhood. See also "use of layered fundraising" in Strategy Guide, section I.D for other examples of cooperation between preservation and affordable housing advocates.	The Gainesville program is just now getting off the ground and outcomes will be forthcoming. It is hoped that with success an adjacent neighborhood will apply for historic certification and undergo a similar transformation.

Strategy	Description	Example	Evaluation/ Comments
Provide lead paint focused programs	Because of the complexity of lead paint regulations and remediation, a focused program on this subject can be useful.	St. Paul, MN: The St. Paul Ramsey County (SPRC) Lead Hazard Reduction Program (hereafter LHRP) is managed through the SPRC Health Department and includes staff from the health, housing, and rehab departments. The program is funded with budget allocations from the city/county plus grants from state and federal sources, the largest of which is HUD's Lead Hazard Control Grant Program. LHRP provides lead hazard assessment services to different St. Paul agencies, including CDCs and public housing authorities. Groups conducting housing rehab sign up for risk assessment and clearance services from LHRP. When the LHRP completes a risk assessment on a property that is a good candidate to be enrolled in the program, the property is flagged. If the developer is interested in enrolling the property, LHRP does not charge a fee for the risk assessment, provides free clearance testing at the end of the project, and grants \$2,000 to support lead hazard control work. Many private rehab organizations in St. Paul are referred to the Lead Hazard Reduction Program (LHRP) as a resource for their projects.	St. Paul, MN: By participating in a program such as LHRP, rehab entities can save costs by not having to pay private companies for inspection, risk assessment, and clearance services. Owners benefit even when they are not enrolled in the program. They still can get exceptionally qualified risk assessors and clearance technicians at a very competitive rate. A typical rate for lead hazard risk assessment from a private St. Paul company is \$525-\$585, while the LHRP program averages only \$325. Any profits made by the program go into a county fund that can be accessed when lowincome property owners cannot afford to pay for even the modest-priced LHRP services. The LHRP is an exemplary example of a specially targeted program to deal with the challenge of lead-paint (see below for specific LHRP activities).
Coordinate regulatory agencies	Housing and rehab groups are not always aware of the health risks that are the basis for lead-based paint rules and regulations. In addition, health department personnel are often unfamiliar with housing procedures	St. Paul, MN: In selecting staff for the new lead program, the St. Paul Health Department included environmental health inspectors from the housing department, public health nurses from the health department, and rehab directors.	Developing a cooperative relationship between health, housing, and rehab groups is not a minor undertaking, especially in communities with large bureaucracies. However, as illustrated in St. Paul, coordination remains an essential component of success.

Strategy	Description	Example	Evaluation/ Comments
	and paperwork. In order to address lead hazards effectively, the different entities need to work together.	By including individuals sensitive to the agendas and cultures of the different agencies, the Lead Hazard Reduction Program created an atmosphere of cooperation rather than contention. When lead-related problems arose in a rehab project, lead program staff could address the issue themselves or quickly identify the correct agency to contact. LHRP staff people are continuously accessible to help with questions and problems related to the new regulations and other lead-paint hazard issues. Of further benefit to reducing regulatory conflict was the state of Minnesota adopting lead abatement laws consistent with those of the federal EPA.	
Provide education	As lead regulations are ever-evolving and in essence very complex, education on the subject is crucial.	St. Paul, MN: From the beginning, the St. Paul Lead Hazard Reduction Program (LHRP) recognized that the HUD regulations taken as a whole could be overwhelming. LHRP therefore made itself an important vehicle for conveying and communicating the requirements of the new HUD lead paint regulations to private rehab entities. Information was tailored for the different groups involved in the rehab process (developers, contractors, property owners) to help them understand the parts of the new regulations relevant to them. EPA: In an effort to help control and combat lead-paint hazards, the federal EPA has developed a training course which provides simple strategies	Making requirements as clear as possible to those participating in the lead abatement rehab process will go a long way in helping ensure that the requirements are met.

Strategy	Description	Example	Evaluation/ Comments
Provide education (continued)	See above description	to reduce or eliminate the creation of hazards during rehab activities that disturb lead paint. The course is intended to serve as the model training curriculum for any future regulations. The EPA encourages states and other local	
		organizations to adapt the training, if necessary, to meet their specific needs and address local requirements.	
		Richmond, CA: Project "Richmond's Efforts to Abate Lead" (REAL) expanded its efforts to provide implementation assistance to its partners. Project REAL sent newsletters to Section 8 property owners to advise them of the new lead paint requirements and to introduce Project REAL and its services. Numerous Section 8 landlords undertook lead hazard reduction work with the assistance of Project REAL.	
		Project REAL facilitated a week long "Lead Awareness Series" to address the implementation of the new regulations. The workshops targeted many segments of the community at various sessions: property owners, realtors/property management companies, parents, and health and day care providers.	

Strategy	Description	Example	Evaluation/ Comments
Increase number of	The new HUD lead paint rule requires	St. Paul, MN: The city of St. Paul responded	This strategy has proved to be an important
specialized trades	developers to use certified contractors	early to this need for specialized trades people by	step in fostering rehab. In LHRP, nineteen of
people	and workers for their lead hazard	providing free lead abatement contractor	twenty-three contractors initially enrolled
	control work.	training—before the onset of the new regulations.	completed the course, providing a solid
		This training was provided by an approved	foundation of qualified lead abatement
		training agency.	supervisors for St. Paul.
		Encouraging contractors that already are working	
		with a rehab group to become lead paint certified	
		expands the pool of qualified workers in the city,	
		and allows organizations to continue to use	
		contractors that they are comfortable with.	
		Classes in St. Paul were structured to make it easy	
		for workers to attend. What are normally one day	
		courses were offered over two days in St. Paul,	
		from 3-6:30 PM. This allowed most workers to	
		attend without losing any significant wages.	
		This action was extremely important because	
		rehab entities in St. Paul said they typically did	
		not have the means to find the specialized workers	
		that they needed.	
		Richmond, CA: Project "Richmond's Effort To	
		Abate Lead," built a solid local contractor/worker	
		base by training thirty-one local contractors (most	
		of whom were already on the bid list of various	
		housing programs), as lead supervisors or	
		monitors. Staff from partner agencies were trained	
		as lead inspector/assessors, project designers, and	
		monitors. In addition, forty-three lead workers	
		were trained in conjunction with the City of	
		Richmond's brownfield's job training program.	
		This youth training program prepares students to	
		conduct construction using environmentally sound	

Strategy	Description	Example	Evaluation/ Comments
Increase number of specialized trades people (continued) Assuage liability	Such action may address the problems	work practices. Not only do they receive comprehensive construction training, but they receive environmental training (e.g., lead and asbestos), as well. Graduates of the training program are granted automatic union membership. Most of these workers are now working on integrated lead and housing rehab projects. St. Paul, MN: Lead Paint Hazard Reduction	Increased understanding of the HUD lead
Assuage hability concerns	detailed below: Lack of insurance may encourage some owners to illegally refuse to rent to families with young children in order to avoid potential lawsuits.	Program diminished tenants' inclination to take legal actions and increased the comfort level of rehab entities doing renovation.	regulations has helped ease St. Paul property owner concerns about liability issues resulting from lead hazard control work during rehab. However, this still does not address the difficulty that many owners have in obtaining insurance if they so wish. To fully address this problem, the ease of which owners can obtain liability coverage must significantly increase.
Provide subsidies and other assistance as needed	See strategy.	New Jersey: The Department of Community Affairs (DCA), Division of Housing and Community Resources administers the Lead- Based Paint Abatement Program (LBPAP) with funds from the U.S. Department of Housing and Urban Development. The funds are designed to create affordable housing units that are free from code violations and safe from lead-based paint. The DCA program also provides education to	Funding is extremely important to meet the lead-based paint requirements.

Strategy	Description	Example	Evaluation/ Comments
Provide subsidies and	See strategy.	property owners, tenants, and homeowners on	
other assistance as		how to maintain lead-safe housing.	
needed (continued)		Trenton, NJ: Costs for lead abatement soared too high for Isles, Inc., a local non-profit. Isles, however, was able to shift funding sources and successfully apply for the Low Income Housing Tax Credits. This additional money allowed Isles to complete the lead treatment and, ultimately, the rehab project.	
		Portsmouth, NH: Portsmouth's Community Development Block Grant Program funded six grants for lead-based paint abatement. Richmond, CA: Project "Richmond's Efforts to Abate Lead" (REAL) set up a free "resource bank" for all of its partners and affiliates offering XRF machines, HEPA vacuums, and assistance from trained staff.	The Portsmouth Community Development Block Grant Program provided flexible financing for many individual community needs, including the lead-based paint abatement initiative.
		Connecticut: A state study recommended that Connecticut should provide financial incentives to encourage property owners to eliminate lead hazards.	

Strategy Guide—Best Practices II. E. Asbestos Abatement

Strategy	Description	Example	Evaluation/ Comments
Coordinate regulatory agencies	When friable asbestos is present, a developer will need to work with the local oversight agency or the EPA regional office, OSHA or its delegated local agency, and a local accredited contractor to remove or encapsulate the asbestos. As such, coordinated regulation is helpful.	New Haven, CT: New Haven Neighborhood Housing Services worked cooperatively with the New Haven health department and other agencies regarding asbestos. This nonprofit would typically encapsulate asbestos where it was found undisturbed, so full asbestos removal was not usually required.	
Provide financial assistance as needed	See strategy.	Los Angeles, CA: Costs for asbestos abatement can vary from \$387 per existing unit (roof and floors only) to \$4,952 per unit (roof, floors, fly sheet, plaster). The higher amount could discourage rehab so rehab entities sought various financial aids to enable the more expensive abatement.	

Strategy Guide—Best Practices II. F. Radon Regulations

Strategy	Description	Example	Evaluation/ Comments
Provide education	See strategy.	National: The EPA provides information and technical assistance regarding radon to homebuyers and sellers, as well home inspectors (in conjunction with the American Society of Home Inspectors (ASHI)). The EPA's Home Buyer's and Seller's Guide to Radon (www.epa.gov/radon/pubs/hmbyguidesp.html). includes information on the 1998 National Academy of Sciences radon report and other useful data (e.g. indoor air quality information and documents); The American Society of Home Inspectors (ASHI), in cooperation with the EPA developed the Radon Mitigation System Inspection Checklist. The Checklist promotes radon awareness, testing, and mitigation. There are no federal regulations for rehab concerning radon. However, in January 2004, HUD informed Federal Housing Administration (FHA) mortgagees that its home inspection form (HUD 92564-CN) had been revised to include information on radon in indoor air. It reiterates the EPA and U.S. Surgeon General testing recommendations and refers readers to EPA's 1-800-SOS-Radon hotline. HUD did not mandate a radon test for FHA insurance eligibility, however, use of "For Your Protection: Get a Home Inspections" remains mandatory. The home inspection form is also mandatory for all FHA insured mortgages. Homebuyers must sign the form before or at the time a sales contract is executed.	Radon is the second leading cause of lung cancer in the United States today. Given that radon is a serious health hazard that is easily addressable, radon testing and mitigation should be encouraged more in affordable housing rehab projects

Strategy Guide—Best Practices II. F. Radon Regulations

203(k) mortgage.	Provide funding and subsidies as needed	See strategy.	National: The Department of Housing and Urban Development (HUD) has made an effort to support the financing of radon mitigation measures. For instance, the HUD Section 203(k) mortgage program allows homebuyers to finance the purchase and repair or improvement of a home using a single mortgage loan. Reducing radon levels in a home is an improvement that can be financed through a 203(k) mortgage.	
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Strategy Guide—Best Practices II. G. Energy Efficiency

Strategy	Description	Example	Evaluation/Comments
Provide education and technical assistance	Education will increase the likelihood that energy efficiency is viewed more favorably and effected more readily by rehab entities.	Illinois: The Energy Efficient Affordable Housing Initiative (EEAH) works to educate developers about the significant cost savings that can be achieved through energy efficient improvements. The EEAH also provides technical assistance. For instance, nonprofit development agencies in Illinois had cited resistance on the part of contractors and architects as one of the biggest obstacles to achieving their energy efficiency goals. A EEAH consultant was therefore made available to assist nonprofit developers in generating the energy specifications for their projects and in dealing with architects and contractors skeptical about the viability of energy efficiency measures.	EEAH-provided technical assistance demonstrated that energy efficiency could be practically effected in affordable housing rehab.
Coordinate regulatory agencies.	Problems arise when there is poor communication between different sectors of government concerned with energy efficiency.	Illinois: Builders and developers in Illinois who submit rehab applications without an energy efficient component are urged by state agencies to apply to the Energy Efficient Affordable Housing (EEAH) initiative. EEAH also works to coordinate energy regulatory enforcement. EEAH-type actions can avoid problems found nationally. For instance, many state regulations, as well as some HUD guidance documents, continue to reference HUD's 24 CFR 39 (established formal regulatory standards for cost-effective energy conservation) even though this HUD standard is no longer in existence, having been rescinded in 1995.	Coordinating institutional consistency will aid future operations. By clarifying exactly what the regulations are and are not, developers will have a better idea as to what is expected from them in terms of energy efficiency.

Strategy Guide—Best Practices II. G. Energy Efficiency

Provide	See strategy.	<i>Illinois</i> : Illinois offers grants to nonprofit housing	The Illinois project was successful in encouraging
subsidies as		developers under its Energy Efficient Affordable	investment in energy efficiency.
needed		Housing (EEAH) program. Grants cover costs of	
		energy upgrading measures, such as insulation, air	
		sealing, and high-efficiency heating equipment.	
		EEAH was originally funded from monies obtained	
		from a 1983 settlement with petroleum companies.	
		In 1997, funding of the program was continued	
		through an energy efficiency trust fund established	
		by the state in Public Act 90-561.	

Strategy	Description	Example	Evaluation/ Comments
Consolidate codes and regulations	Bring together in an easy to use form the many regulations affecting accessibility. (See Resource Guide, section F for details.)	Chicago, IL: In 1992, Mayor Daley established the Mayor's Office for People with Disabilities (MOPD). MOPD, an advocate for people with disabilities, is charged with enforcing laws that affect many aspects of the work of other public agencies as well as the private sector.	Chicago has the typical barriers to accessible rehab: buildings with narrow corridors with little maneuvering room for wheelchairs, three story non-elevator buildings, elevator buildings with small cabs, above grade entrances, and small bathrooms and tight configurations in general.
		An early MOPD problem was inconsistency in accessibility application and interpretation. MOPD thought that a city ordinance incorporating all of the applicable accessibility laws and regulations into the Chicago Building Code would help. This change consolidated all the federal and state requirements that govern accessibility into the Chicago's Building Code.	The State of Illinois Accessibility Code (IAC) is more stringent in many cases than the federal regulations. The format of the state code is not consistent with federal guidelines. (IAC is organized by types of buildings, while the federal ADA starts with requirements for types of spaces and then details some specific building types that are not even the same as those discussed in the IAC.)
		The new code blends the Illinois Accessibility Code (IAC), Fair Housing Accessibility Guidelines, Americans with Disabilities Act Accessibility Guidelines (ADAAG), Uniform Federal Accessibility Standards (UFAS), and the model building codes. Systematic changes by the MOPD helped create a clear, concise, and predictable review process to aid in compliance with legislative directives. The new ordinance is referred to by its Chapter location (11) in the Chicago Building Code, which conforms with the International Building Code.	The establishment of the Chicago's new code helped minimize the problems caused by these contradictions. With the consolidated Chicago code, no longer did architects and developers have to sift through four or five documents attempting to compare their requirements to determine what regulations applied to their projects. Compliance with the city code would provide safe harbor for fulfilling the requirements for all federal (and state) accessibility regulations.
		California: An effort is underway to clarify language and update the regulations regarding accessibility. The effort is a joint project of the California Department of Housing and Community Development and the Division of the State Architect (DSA). The code overhaul includes reformatting and restructuring, language	The formation of the Chicago code benefited from a Mayor's Office of People with Disabilities (MOPD) task force to negotiate and create a workable ordinance. The team comprised all the major organizations that had an overall vested interest in the outcome: private homebuilders, commercial developers, not for profit developers, disability advocates, city agencies, and architects.

Strategy	Description	Example	Evaluation/ Comments
Consolidate codes and regulations (continued)		clarification, and revisions as necessary.	About 12-15 people attended meetings regularly for two years. Establishing codes dealing with accessibility that includes input from all interested parties enhances the chances of developing workable regulations and avoiding lawsuits.
Improve regulatory coordination and competence	This reduces costly time delays and ambiguous or contradictory interpretations.	Chicago, IL: In its responsibility to increase accessibility of the physical environment in housing rehab, the Chicago Mayor's Office of People with Disabilities (MOPD) interacts with its sister agencies: the Department of Planning and Development, the Department of Housing (DOH), the Chicago Housing Authority (CHA), the Department of Buildings, and the private and not for profit housing developers. MOPD has professionals with strong technical skills and training in the consistent application of accessibility laws. They work with affordable housing and other developers to insure uniform and swift project review and technical assistance.	For any new program to work, all involved entities must be properly coordinated. Chicago's MOPD has shown that an increase in the level of cooperation between agencies can vastly improve the regulatory process. Enhancing professional and technical skills helped foster accessibility compliance in Chicago. Architects and developers can expect competent technical assistance and consistent interpretation of the code.
		Philadelphia, PA: The city of Philadelphia set up an independent Accessibility Advisory Board with ten statutory members that meets once a month and reviews between six and fifteen projects each session.	Over the years, the Philadelphia Board has developed expertise and, with a track record of only two disputed outcomes, appears to be making reasoned decisions.
Establish personal, early- on contact	Early-on and personal contact with interested parties is likely to reduce the problems encountered with large bureaucracies.	Chicago, IL: What distinguishes Chicago's accessibility review process from the standard building code process is that staff works "face to face" with developers and architects through the design process. Developers and architects are encouraged to come and have an initial discussion at schematic design or even earlier, and to return as the project design develops.	Veterans of the Chicago process have remarked that the personal and early-on help saves enormous amounts of time and misunderstandings, especially when compared to the usual process of submittals and comments.

Strategy	Description	Example	Evaluation/ Comments
Provide education on and outreach concerning accessibility (See Resource Guide, section F for in- depth descriptions of national laws applicable to	See strategy.	Chicago, IL: MOPD promoted understanding of accessibility as a civil rights issue and included education and relevant training. Philadelphia, PA: The Philadelphia Office of Housing and Community Development (OHCD) set up a Housing and Disability Technical Assistance Program (TAP). TAP's goal is to educate, inform, and provide technical assistance about accessible housing and other topics aimed at all interested organizations and individuals.	The MOPD has succeeded in becoming the most predictable and user-friendly part of the permitting process in Chicago.
accessibility)		California: California maintains an extensive website that offers instant access to statutes, regulations, and policies on accessibility and universal design. A comprehensive checklist for design and plan review covers minimum requirements as well as recommendations for best practices in design solutions.	California's maintaining of a website listing all pertinent accessibility regulations has improved the ease with which housing developers can acquire information.
Provide leadership	Strong leadership can go a long way in ensuring that a program is successful.	Chicago, IL: The mayor and the Commissioner of the MOPD provided strong leadership by setting goals and inviting all interested parties to participate in crafting the legislation. Mayor Daley stated that he wanted Chicago to be the "most accessible city in the world," and then empowered the MOPD to make this happen.	The mayor and the MOPD exhibited strong leadership. They understood that accessibility policy cannot succeed without systemic cooperation and an unwavering, determined message.
Provide subsidies as needed.	Offering funding to help offset the cost of providing accessibility in rehab housing will help overcome financial barriers.	San Diego, CA: The city of San Diego is participating in a program funded by the state of California to promote site accessibility in rental properties. "Exterior Accessibility for Renters" is a pilot grant program available to properties with vacancies or those where a person with a disability is living. A subsidy (that is able to be layered with	Providing resources can foster accessible rehab.

Strategy	Description	Example	Evaluation/ Comments
Provide subsidies as needed (continued)	See above description.	other aids) can be used specifically to make public outdoor areas accessible. San Diego participates in a second program. HOME funds of up to \$15,000 per unit can be layered onto other financing. The grant funds must be used to create accessibility, and they carry fifteen year rent restrictions. The latter provision helps to insure that units will be available to	
		people with disabilities who experience higher rates of poverty than the population as a whole.	
Special treatment of historic properties	Historic properties are distinguished by features, materials, spaces, and spatial relationships that contribute to their historic character. These elements may pose barriers to persons with disabilities, particularly wheelchair users. Projects with historic significance are subject to Secretary of the Interior Standards (Strategy Guide, section II.C), which are not always compatible with the local accessibility requirements.	The Americans with Disabilities Act (ADA - 1990) recommends a three-step approach to identify and implement accessibility modifications that will protect the integrity and historic character of historic properties: 1) Review the historical significance of the property and identify character-defining features: review of the written documentation should always be supplemented with a physical investigation to identify which character-defining features and spaces must be protected whenever any changes are anticipated. 2) Assess the property's existing and required level of accessibility: a building survey will provide a thorough evaluation of a property's accessibility. Simple audits can be completed by property owners using readily available checklists in order to assess barriers to accessibility on the property. 3) Evaluate accessibility options within a preservation context: solutions should provide the greatest amount of accessibility without threatening or destroying those	There may be a challenge of preserving the historic fabric while fostering access and the ADA and MOPD responses point to the need to flexible and case-specific solutions.

Strategy	Description	Example	Evaluation/ Comments
		materials and features that make a property	
Special treatment		significant.	
of historic			
properties		ADA indicates specific methods for making	
(continued)		accessible the building site, entrances, doors,	
		movement through the building, building	
		amenities, and the landscape. It also encourages the consideration of a new addition as an	
		accessibility solution.	
		accessionity solution.	
		In general, when historic properties are altered,	
		they should be made as accessible as possible.	
		However, if an owner or a project team believes	
		that certain modifications would threaten or	
		destroy the significance of the property, the State	
		Historic Preservation Officer should be consulted	
		to determine whether or not any special	
		accessibility provision may be used.	
		all v o the test was	
		Chicago, IL: On historic projects, MOPD now	
		works collaboratively with the Chicago	
		Department of Planning and Development and the	
		Landmarks Commission to determine accessibility provisions.	
		provisions.	

Strategy Guide—Best Practices II. I. Davis-Bacon Wage Requirements

Strategy	Description	Example	Evaluation/ Comments
Increase "trigger" threshold	Davis-Bacon requirements will diminish if the threshold at which it is applied is reduced.	CDBG projects of eight units or more are subject to Davis-Bacon; for HOME projects, however, the figure is twelve units or more. The disproportionate burden on smaller CDBG projects could be lifted if more residential projects were exempt by raising the threshold to the HOME level (i.e., twelve units).	Raising the threshold number of units that trigger Davis-Bacon can keep labor costs down.
Engage union workers and contractors	Good union relationships and an atmosphere that supports negotiation are crucial.	Some developers have been successful in negotiating changes in worker rules and the use of apprentices to reduce labor costs. A Chicago not for profit developer has successfully used apprentices and was able to lower its rough carpentry labor costs by 10-20 percent.	The ability to negotiate these terms largely depends on the local construction market, the circumstances of a particular construction project, the union training cycles, and other varying conditions.
		California: California enacted a Prevailing Wage law in January 2004 that affects many projects, including those currently regulated by Davis-Bacon requirements. A series of discussions are resulting in a nascent alliance between affordable housing developers and the building trades. It is hoped that these discussions will result in union participation in multifamily residential work and a system for setting reasonable rates.	California hopes that by engaging the unions and bringing more contractors back to do work in the residential market, it will begin to increase the pool of available contractors as well as build a new constituency for affordable housing.
Provide current and accurate wage scales	See strategy	Current and accurate data are especially important in rehab situations. Rehab projects tend to be more complex and may need work from specialty trades that have no posted rates. As another example, if union contractors are largely out of the residential market, there is no residential wage rate. As a result, prevailing wage jobs could default to the commercial wage rate and trigger expensive Davis-Bacon requirements.	Accurate information about wage rate and wage setting is essential. If such data are not provided officially, a developer has a right to declare a wage rate after conducing a representative survey.

Strategy	Description	Examples	Evaluation/Comments
Effect selective rehab (See also Strategy Guide, section II.B)	Successful affordable rehab entails fixing what is fixable, replacing what is broken, and adding only what is necessary for reducing costs for energy, maintenance, and operation. Instead of blindly replacing every component, each building system should be analyzed as to its condition and to maximize useful repairs for a continuing useful life.	Avoid Work items Each item of the specifications should be reviewed for unnecessary work items. Doing this, Jubilee West Housing Corp. in Oakland, California, found that its rehab consultant had spend \$2,000 in one apartment by specifying new closets that weren't needed. Don't change floorplans A housing group in Colorado received a design from its architect calling for extensive demolition and rearrangement of partitions. That rearrangement can often be avoided.	Selective rehab requires expertise in deciding what to retain and skills for effecting repairs. Additionally, doing selective rehab may simply defer the cost of renovation into the future—without the guarantee that requisite funds will be available. Further, deteriorated buildings often require more than selective rehab.
		Protect good components A Detroit group, Church of the Messiah Housing Corp., removed tubs, lavatories, and radiators to a cheap warehouse while awaiting financing of a 36- unit rehab. It cost \$100 an apartment—\$800 less than it would have cost to buy new materials. It also foiled vandals and thieves who would have damaged and stripped the building during construction.	Prior to the Pittsburgh Denny Row project, the
		Pittsburgh, PA: The Allegheny West Civic Council, Inc. (AWCC) faced a conundrum with Denny Row, a collection of imposing three-story row houses that were in poor condition after 15 years of vacancy and vandalism. Despite this neglect, the houses still contained original interior architectural elements such as plaster crown moldings, oak staircases, and wood details. AWCC devised a unique approach, fully restoring only the exteriors of the houses (porches, brickwork, windows, roofs) as well as sidewalks and street trees. After the renovation, the shells had considerable curb appeal and sold for \$30,000 to \$40,000. The homebuyers then	only sale in 15 years in the 900 block of West North Avenue had been for tax delinquency, and 14 of 19 houses were vacant. Today, there remain only two vacant houses. Homeownership has increased from 2 houses to 11 houses, and sale prices have increased from \$10,000 at tax sale to \$160,000 on the open market. City real estate tax revenue has increased by \$50,000 annually, street traffic is slower, and litter is reduced. In addition, two of the new residents have served on the AWCC board of directors.

Strategy	Description	Examples	Evaluation/Comments
Effect selective	See above description.	rehabilitated the interiors themselves or hired private	
rehab		contractors.	
(continued)			
Adopt "Smart	"Smart Codes" is the term used to	"Smart Codes" are being developed with increasing	A major reform that can realize significant cost
Codes"	describe building and construction	frequency in states and local jurisdictions across the	savings.
(See also	codes that encourage the alteration and	country: New Jersey, Maryland, Minnesota, and	
Strategy Guide,	reuse of existing buildings. "Smart	Rhode Island; Wilmington, Delaware; Wichita,	"Smart codes" require training of code officials.
section II.A and	Codes" were developed because the	Kansas and others. The above-cited smart codes can	
Resource	building regulatory system in the U.S.,	improve the rate of reuse of existing buildings.	
Guide, section	including building codes, may be a		
H)	significant impediment to investments	Also of note is HUD's Nationally Applicable	
	in the alteration and reuse of existing	Recommended Rehabilitation Provisions, or	
	buildings. This led to a complete	NARRP. The NARRP set out to adapt the	
	rethinking of how existing buildings	innovations and principles of the New Jersey	
	should be regulated.	Rehabilitation Subcode into a model rehabilitation	
		code that could be used by other states and local	
		jurisdictions.	
Foster	Innovative rehab technologies could	Examples of innovative materials and products	While it is clearly advantageous to capitalize on
innovative	secure three benefits: cost (lower	applicable to rehab by building component category	innovation, the rehab industry may resist change
rehab	capital costs, lower maintenance costs),	include (See also Resource Guide, section I):	to new materials and procedures.
technologies	time (less time to manufacture,	a. a	
	assemble, install, and longer service	Site — Conductive concrete; hill-climber lift.	
	life), and quality (improved appearance,	Foundations — Footing forms/drains/radon vents;	
	greater durability, higher level of	Building Envelope — Reinforced hollow brick	
	performance).	masonry; Miraflex insulation; Housewrap.	
		Electrical — Compact fluorescent lamps; halogen	
		lamps; lighting controls.	
		Plumbing and HVAC — Alternatives to HCFC 22;	
		natural gas refrigeration systems; ductless air	
		conditioners; better controls.	
		Interior Finishes — Flexible gypsum wallboard;	
		floating wood floor.	
		Several forums for new building technologies have	
		already appeared. Many manufacturers, design	
		professionals, and builders currently refer to the	

Strategy	Description	Examples	Evaluation/Comments
Foster innovative	See above description.	following organizations for updates:	
rehabilitation technologies (continued)		www.toolbase.org—The Home Building Industry's Technical Information Resource includes tips, tools, and technologies.	
		www.pathnet.org—Partnership for Advancing Technology in Housing "looks at the issues and barriers related to technology development in the housing industry, and strives for viable cost-effective solutions."	
		www.nahbrc.org—The National Association of Home Builders Research Center is dedicated to advancing housing technologies and creating liaisons. The NAHBRC provides technical and contractual services.	
		www.buildinggreen.com—provides articles and a large index of environmentally preferable building products.	
		www.buildingtradesdir.com—provides a list of producers, manufacturers and businesses.	
		www.cicacenter.org—provides solutions for complying with EPA and state environmental laws.	
		www.energystar.gov—lists of government-backed energy-efficient products.	
Deconstruction	Effect deconstruction and salvage as opposed to traditional demolition.	The Center for Construction and Environment at the University of Florida examined the cost-effectiveness of deconstruction and salvage when compared to traditional demolition in 6 one- and two-story woodframed residential houses. It found that	An environmentally ("green") supportive policy that potentially may offer cost savings

Strategy	Description	Examples	Evaluation/Comments
		deconstruction offered significant cost advantages relative to demolition.	
Open building strategy	An innovative strategy for the conversion of obsolete office buildings to residential use, including a new way of outfitting residential units by means of fit-out packages. A fit-out package allows the rapid installation of partitions, heating, and air conditioning, kitchen and bath equipment, and finishes with all the piping, wiring, and ductwork related to this equipment. Installation is done per unit according to the floor plan selected for that specific unit.	Detriot, MI: An open building system strategy was applied in an existing historic office building structure in Detroit, the Kales Building, designed in 1924 by the famous architect Albert Kahn as the Kresge Company offices. The building is being converted into 108 residential units.	While not widespread, this strategy offers cost and other advantages. For example, the "fit-out approach" (see description) offers an individualized approach to large residential conversion or new projects. Second, it is also expected to be economically competitive compared to existing strategies of outfitting dwelling units, while offering much needed decision flexibility and quality control. It combines a improved decision flexibility and individuality with more consistent production. Professor Steven Kendall of Ball State University has conducted extensive important research of open building systems.
Utilize in-house work crews when necessary	The use of in-house crews can help keep costs down.	Miami, FL: The Little Haiti Housing Association (LHAA) is not large enough to be able to employ a subcontractor for jobs. Consequently, LHHA has opted for an in-house work crew. Another reason for this approach is perceived quality-control benefits. Explains LHHA's construction manager: "With new construction, work quality is less open to debate. With rehab, that is not the case. A sub will say, 'It is the best I can do given that the floors are uneven or the walls are out of plumb.' With your own crew, you know your workers and can better control quality."	The downside of an in-house crew is the pressure of maintaining a steady flow of work to keep the crew occupied. Given the ebbs and flows of LHHA's housing activity, during which delays in property acquisition, closings, and the like can lessen the immediate demand for construction, keeping LHHA's construction crew efficiently at work is often challenging.
Confronting inexperience	Entities effecting rehab may be builders with little experience and even less capital. For low-income housing, owners themselves may be the contractors—and may rely on volunteer workers or inexpensive labor. It is	The following solutions are viable for various reasons; either they are: inexpensive, easily done by inexperienced workers, commonly available, inexpensive, or environmentally friendly.	See also Resource Guide, section I, Resource Materials Construction Practices, and Technologies for Rehab.

Strategy	Description	Examples	Evaluation/Comments
Confronting	necessary to find technologies that are	Foundation—Repairs: GreenBuilding approved	
inexperience	easy to understand and install.	products such as Emaco T415 and T430 which are	
(continued)		concrete repair mortars with high fly ash content,	
		known for its low maintenance and durability. Also,	
		quick seals like Aquafin-IC Crystalline Waterproof-	
		ing and Xypex Concentrate for small cracks are easy	
		to do and come in tubes.	
		Envelope—Roofing: A new environmental option is	
		recycled tire/rubber roofs that have the appearance of	
		slate, wood shake, or terra cotta tile. They come in a	
		variety of colors and with a 50-year warranty if done	
		by certified roofers.	
		<i>Electrical—Wiring</i> : The least invasive solution is to	
		rewire through surface-mounted channels, baseboard	
		raceways, and in channels under wainscoting or	
		baseboards. There are several types of wiring avail-	
		able (e.g., Romex, BX, EMT conduit). Aluminum	
		conduit, and Galvanized conduit.	
		<i>Plumbing—Replacement</i> : Flexible polybutylene	
		piping is the best option; it is easier to fish through	
		walls and comes with slip-on end fittings. There are	
		also short-run flexible copper with fiberglass	
		insulation options for use in places where	
		polybutylene is not allowed.	
		Heating/Cooling—Equipment: Based on the size of	
		the space and the level of building insulation,	
		window units and space heaters are easiest to install.	
		Look for Energystar products in order to find brands	
		that are most energy efficient and do not use CFCs.	
		Hazardous Materials—Lead: There are several levels	
		of abatement:	
		1. Buy a mask and scrape off the lead paint,	
		2. Do a paint-over with an Elastomeric	
		Thermoplastic Co-Polymer, or	
		3. Remove with green technologies: Peel Away 6,	
		Peel Away 7, and Piranah I Paint Stripper.	

Strategy Guide—Best Practices III. A. Rent Control

Strategy	Description	Example	Evaluation/Comments
Allow reasonable rent increases to cover rising operating costs and rehab outlays.	If rent control is deemed necessary, it should not discourage rehab. As defined by Gilderbloom and Applebaum (1988), "moderate controls" allow for increases in rent with improvements. These stand in contrast to "restrictive controls" which do not permit an increase of rent with improvements.	Oakland and San Jose: In a 1987 study (O'Connor), Oakland and San Jose were declared to have moderate rent control as opposed to restrictive controls in Berkeley, CA. For instance, Berkeley had a lengthy amortization period for capital improvements and was extremely reluctant to grant individual adjustments for hardship expenses.	Few jurisdictions have rent controls in the United States. If such regulation is deemed necessary it should be of a moderate as opposed to restrictive control.

Strategy Guide—Best Practices III. B. Property Tax Incentives (Historic Property Examples)

Strategy	Description	Example	Evaluation/Comments
Tax exemption and/or reduction	Exemption/reduction measures grant full (with an exemption) or partial (with a reduction) property-tax relief to certain owners/types of landmark buildings. (See Resource Guide, section E for further details and examples.)	Alabama: There exists a statewide program for historic commercial properties in which properties, for tax purposes, are assessed at only 10% of their appraised values (vs. 20% for non-historic properties). There is no time limit on this practice.	A most generous program that provides tax relief in the absence of rehab. Further, if a tax exemption or reduction program is in place for historic properties, owners have strong incentive to designate their properties as historic.
Rehab refund	A rehab refund program reduces existing (pre-rehab) property taxes if a landmark property is renovated. (See Resource Guide, section E for further details and examples.)	New Mexico: "Local city, county and school property taxes assessed against the propertyshall be reduced by the amount expended for restoration, preservation and maintenance each year." Expenses incurred in one year may be carried forward for tax purposes for up to ten years.	These programs provide very significant tax relief for renovated historic buildings, thereby encouraging rehab because there is a tax reduction if a property is improved.
Rehab assessment / abatement	With a rehab assessment program, there can be no upward reassessment of renovated landmark properties. In an abatement program, there can only be partial upward reassessment of renovated landmark properties. Many times, these practices are combined to formulate a single program. (See Resource Guide, section E for further details and examples.)	Georgia: If rehab increases a property's market value by 50% (if owner-occupied residential), 75% (if mixed use), or 100% (if commercial), there is an eight-year freeze on property taxes with a two-year phase-out and property taxes returning to normal in the tenth year. Georgia also permits local governments with preservation ordinances to exercise "local option" and provide property tax freezes on income-producing landmark historic structures. Three jurisdictions have adopted this program: Athens, Atlanta, and Cobb County. Illinois: Owner-occupants of condos, co-ops, multi-unit properties (up to 6 units), and single-family residential homes qualify for eleven years of tax abatement. This is contingent on a minimum rehab investment of 25% of the property's market value. About 2,000 projects have been approved since the program began in 1983.	While not as generous as a rehab refund, these programs encourage rehab by providing tax relief for renovated historic buildings.

Strategy Guide—Best Practices III. B. Property Tax Incentives (Historic Property Examples)

Strategy	Description	Example	Evaluation/Comments
Rehab assessment / abatement (continued)	See above description.	The program is statewide for owner-occupied residential properties and mandatory for all taxing districts, including municipalities, school districts, and airport authorities unless they opt out. National Register or locally designated properties qualify. National Park Service standards apply. The program also exists as a local option for commercial properties.	
		New York: There exists a local option for real property tax exemption for improvement to historic properties. The program consists of a five-year freeze followed by a five-year phase-in at a rate of 20% a year.	
		Virginia: Substantial improvements on buildings at least fifteen years old may be exempted from property tax assessments for up to fifteen years. The program exists as a local option.	
		South Carolina: Nationally or locally designated properties qualify for a tax-reduction program triggered by a minimum investment of 50% of a building's appraised value over two years.	
Assessment to reflect encumbrances	A program mandating an assessment to reflect encumbrances ensures that an assessment of landmark properties reflects their landmark status and/or the presence of an historic easement.	Connecticut: Owners of lands with easements promoting historic preservation are entitled to revaluation to reflect the existence of such encumbrances. The owner must file a written application to the Board of Assessors of the municipality.	By allowing the assessment to reflect encumbrances, property tax requirements are more realistic and help foster the upkeep of historic properties.

Strategy Guide—Best Practices III. B. Property Tax Incentives (Historic Property Examples)

Strategy	Description	Example	Evaluation/Comments
Assessment to reflect encumbrances (continued)	See above description.	Colorado: For properties on the state register of historic properties, no value shall be added "to the valuation for assessment" and the properties shall be assessed "with due regard to the restricted uses to which the property may be devoted." Georgia: Provisions apply to properties with facade or conservation easements located within an officially designated historic district. A tax provision allows the recording of an easement that constitutes "notice to the board of tax assessorsand shall entitle the owner to a revaluation of the encumbered real property."	
Assessment at current use	A program mandating assessment at current use ensures that landmark properties are to be assessed at their current use—instead of highest and best use.	Washington: Historic properties may be taxed according to their current, rather than "highest and best" use. District of Columbia: For properties designated as historic landmarks, the owner must sign a twenty-year covenant guaranteeing the property's maintenance and preservation. If this is done, then assessment at the current use should be used if that value is lower than fair market value. Nevada: For land upon which designated historic sites are located, an owner can obtain an assessment at 35 percent of its full cash value. To do so, an owner must apply to the county assessor. Then, public hearings by local governing bodies are conducted to weigh costs in lost revenue versus historic benefits.	By allowing assessment at current use, property tax requirements are more realistic and foster the upkeep of historic properties.