

**DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT****24 CFR Part 972**

[Docket No. FR-4718-F-02]

RIN 2577-AC33

**Conversion of Developments From Public Housing Stock; Methodology for Comparing Costs of Public Housing and Tenant-Based Assistance****AGENCY:** Office of the Assistant Secretary for Public and Indian Housing, HUD.**ACTION:** Final rule.

**SUMMARY:** This final rule provides the cost methodology that public housing agencies (PHAs) are required to use under HUD's regulations governing required and voluntary conversion of public housing developments to tenant-based assistance. Both programs require PHAs, before undertaking any conversion activity, to compare the cost of providing tenant-based assistance with the cost of continuing to operate the development as public housing.

**DATES: Effective Date:** April 20, 2006.

**FOR FURTHER INFORMATION CONTACT:** Bessy Kong, Deputy Assistant Secretary for Policy, Program, and Legislative Initiatives, Department of Housing and Urban Development, Office of Public and Indian Housing, 451 Seventh Street, SW., Room 4116, Washington, DC 20410-5000; telephone (202) 708-0713 (this is not a toll-free telephone number). Persons with hearing or speech impairments may access this number via TTY by calling the toll-free Federal Information Relay Service at 1-800-877-8339.

**SUPPLEMENTARY INFORMATION:****I. Background**

On September 17, 2003, HUD published a proposed rule (68 FR 54624) to establish the cost methodology that public housing agencies (PHAs) must use under HUD's programs for the required and voluntary conversion of public housing developments to tenant-based assistance. The Quality Housing and Work Responsibility Act of 1998 (title V of the Fiscal Year 1999 HUD Appropriations Act; Pub. L. 105-276, approved October 21, 1998) (QHWRRA) authorized the two conversion programs. Both programs require that PHAs, before undertaking any conversion activity, compare the cost of providing tenant-based assistance with the cost of continuing to operate the development as public housing. The methodology would be codified as an

appendix to 24 CFR part 972, which contains the regulations for the required and voluntary conversion programs.

The required conversion program is authorized under section 537 of QHWRRA, which added a new section 33 to the United States Housing Act of 1937 (42 U.S.C. 1437 *et seq.*) (1937 Act). Section 33 requires PHAs to annually review their public housing inventory and identify distressed developments that must be removed from the public housing inventory. If it would be more expensive to modernize and operate a distressed development for its remaining useful life than to provide tenant-based assistance to all residents, or the PHA cannot assure the long-term viability of a distressed development, then it must develop and carry out a plan to remove the development from its public housing inventory and convert it to tenant-based assistance. The regulations for the required conversion program are located in subpart A of 24 CFR part 972.

The voluntary conversion program is authorized under section 533 of QHWRRA, which amended section 22 of the 1937 Act. As amended, section 22 authorizes PHAs to voluntarily convert a development to tenant-based assistance by removing the development or a portion of a development from its public housing inventory and providing for relocation of the residents or provision of tenant-based assistance to them. This action is permitted only when that change would be cost effective, principally benefits residents of the development and the surrounding area, and not have an adverse impact on the availability of affordable housing. The regulations for the voluntary program are located in subpart B of 24 CFR part 972.

In tandem with the September 17, 2003, proposed cost methodology rule, HUD released a Web-based cost comparison calculator that was posted on the HUD Web site (<http://www.hud.gov/offices/pih/costcalculator.cfm>) to aid PHAs in conducting the required cost comparisons. The downloadable spreadsheet calculator is designed to walk PHAs through the required calculations and comparisons and permits PHAs to enter the relevant data for their PHA and the development being assessed.

**II. This Final Rule; Significant Changes to September 17, 2003, Proposed Rule**

This final rule follows publication of the September 17, 2003, proposed rule and takes into consideration the public comments received on it. The most significant differences between this final

rule and the September 17, 2003, proposed rule are listed below. The changes, and HUD's rationale for making the revisions, are discussed more fully in section IV of this preamble:

*1. Remaining useful life time period.* The final rule establishes uniform time periods for estimating the remaining useful life of developments for the voluntary and required conversion programs. In addition to the physical condition of a property, there are three key assumptions that guide how PHAs prepare modernization estimates that affect remaining useful life and determine whether a 20, 30, or 40-year remaining useful life evaluation period will be used for the cost-test. When calculating the public housing revitalization, operating, and accrual costs for estimating the remaining useful life and viability of a development, PHAs will use a 30-year period if the level of modernization addresses all accumulated backlog needs and the planned redesign ensures long-term viability. If the modernization is equivalent to new construction or the renovation achieves as-new conditions, a 40-year remaining useful life test is used. When light or moderate rehabilitation is undertaken that does not cover all accumulated backlog, but it is compliant with the International Existing Building Codes (ICC) or Public Housing Modernization Standards in the absence of a local rehabilitation code, the 20-year remaining useful life evaluation period must be used. The final rule does not adopt the proposed 15-year evaluation period for voluntary conversions.

*2. Inclusion of net proceeds from the sale or lease of a property for voluntary conversions.* The final rule requires that a PHA include in the cost-test calculations the residual value (or net sales proceeds) from the sale or lease of a property that is to be voluntarily converted to tenant-based voucher assistance. The PHA will be required to hire an appraiser to estimate the market value of the property using the comparable sale, tax-assessment, or revenue-based appraisal methods. HUD will permit PHAs to incorporate the appraised market value or estimated amount of any residual value or net sales proceeds that would result from the sale or lease of the property in the cost-test. PHAs must incorporate this market or residual value estimate into the cost-test depending on whether a PHA will sell a property and pay for demolition and remediation costs to prepare the site for sale.

The market value of the property is determined using one or more of the

appraisal methods identified above to obtain an accurate estimate of the actual market value. The residual value is derived by calculating the estimated market value for the property based on the appraisal, minus any costs required for demolition and remediation.

Residual value must be incorporated into the cost-test instead of the actual market value only when any demolition, site remediation, and clearance costs that are necessary are covered by the selling PHA. The market value or estimated amount of any residual value or net sales proceeds that would result from the sale or lease of the property must be included in the cost-test as an additional cost (a foregone opportunity cost) of keeping the development as a public property, and it will be added to the public housing cost side of the ledger before a comparison is made to voucher costs.

As noted, this revision would apply solely to voluntary conversions. Demolition and remediation costs would now apply only in the computation of net residual value for voluntary conversion and would no longer be added to either the modernization or voucher costs for the public housing and voucher cost-comparison for voluntary or required conversion.

**3. Vacant units.** Under the cost-test, the vacancy adjustment factor is a 20 percent representation of long-term vacant units used to determine the total unit count used to estimate operating costs for a property. All funded occupied and vacant units are factored into the calculations to determine per-unit costs for respective developments. Using this vacancy adjustment factor, the cost-test distinguishes partially funded vacant units from fully funded vacant units. When calculating an estimate of operating costs per occupied unit, this final rule provides that 20 percent of long-term vacant units will be counted rather than 50 percent. This factor excludes only a limited 20 percent fraction of the unit costs associated with these partially funded vacant units instead of 50 percent. As development-level estimates become more accurate and as vacant units beyond 3 percent are not funded under the new operating fund formula, this provision will lose even its current minor impact.

**4. Payment standard used to calculate voucher costs for conversion determinations.** The final rule requires PHAs to use the payment standard of recent movers for the Fair Market Rent Area or sub-area for properties proposed for voluntary or required conversion to estimate voucher costs. HUD has revised

the cost-test factor used to calculate Housing Choice Voucher tenant-based assistance. This factor is used instead of the proposed rule requirement for a PHA to use the higher of the average cost (gross rents) for voucher units occupied by recent movers, or the applicable Section 8 payment standard to calculate the voucher costs required to provide housing assistance instead of public housing.

### III. Transition to Project-Based Accounting and Asset Management

On April 14, 2005, HUD published a proposed rule (70 FR 19858) to revise the Public Housing Operating Fund Program. This *proposed rule would require* PHAs to manage properties in their inventory in accordance with an asset management model, consistent with practices in the multifamily-assisted housing industry. Under this model, PHAs would be required to adopt project-based accounting and project-based budgeting and management practices that are essential components of asset management. Under an asset management approach, HUD and PHAs will work to improve efficiency in managing properties; assess the performance of properties; consider alternatives to preserve properties; make long-term decisions regarding re-investment of viable properties; or reposition assets of non-viable properties that are performing at a sub-par level.

Required and voluntary conversion assessments are two existing tools available for PHAs to assess the cost-effectiveness and viability of public housing properties by comparing voucher costs to the costs to continue operating a development. As HUD transforms its monitoring practices to a property-centric focus and the public housing program adopts property-based accounting, budgeting, and asset management practices, and as lessons are learned in regard to public housing properties that are converted to tenant-based assistance, it is likely the Department will need to revise the cost-test methodology in the future.

### IV. Discussion of Public Comments

The public comment period on the September 17, 2003, proposed rule closed on November 17, 2003. HUD received 14 public comments.

Comments were submitted by PHAs, a private citizen, a consulting firm, three of the main national organizations representing PHAs, and several national legal aid and low-income advocacy organizations. This section of the preamble presents a summary of the significant issues raised by the public

commenters and HUD's responses to these issues.

**Comment: Support for Internet cost calculator.** Several commenters wrote that the Internet calculator posted on HUD's Web site is very useful. They congratulated HUD on developing the spreadsheet calculator to help make conversion calculations easier.

**HUD Response.** HUD appreciates the comments received from PHAs regarding the usefulness of the spreadsheet calculator. HUD believes the cost methodology is a sound approach to determine the viability and ongoing useful life of public housing properties compared with providing vouchers in a local rental market. The methodology and associated spreadsheet calculator are tools developed to facilitate the comparisons of programmatic costs. The cost methodology and cost spreadsheet outline the methodology and procedures for PHAs to uniformly conduct conversion determinations using PHA-derived cost data to identify non-viable properties with costs that exceed vouchers.

**Comment: HUD should use a simplified cost test for small PHAs to determine cost-effectiveness of conversion.** Several commenters made this suggestion. The commenters wrote that the simplified test should be based on the housing construction cost limits applicable to the developments divided by an assumed useful life of the property (e.g., 50 years), multiplied by the project age in years to determine the presumed modernization cost. The commenters wrote that this methodology should recognize that a project has an ultimate life span without requiring the calculation of repair costs for all deficiencies.

**HUD Response.** HUD has not adopted the suggestion of these commenters. This suggestion does not adequately address the statutory intent of the cost methodology to assess the viability of properties based on the physical conditions of specific developments. HUD has developed the cost spreadsheet calculator to ease the administrative efforts of all PHAs. This cost-test and cost-calculator are designed for PHAs to accurately estimate public housing costs, including estimated revitalization (modernization) costs for properties based on the unique conditions and characteristics of individual properties instead of a one-size-fits-all approach as proposed by this commenter. HUD is applying an amortization life cycle of 30 years (with 20- or 40-year options) that is based upon an accrual model that assumes all new physical need is met annually and

that all or most of the accumulated backlog and redesign necessary for viability is also addressed.

*Comment: HUD should institute an annual review process, including a formal comment period to adjust the methodology periodically or when necessary.* The commenters wrote that this is necessary to legitimize the methodology and prevent it from being error prone and irrelevant over time.

**HUD Response.** HUD believes the cost methodology is a sound approach for PHAs to conduct conversion determinations. These cost comparisons use cost-data provided by PHAs in accordance with the unique conditions and characteristics of properties within a PHA's inventory and voucher costs in the local rental market. HUD believes this cost-test and calculator spreadsheet are accurate tools for PHAs to use to assess the viability of properties compared with vouchers and whether properties should be re-invested in or removed from the inventory in tandem with the HUD approval process.

No later than 5 years following the effective date of this final rule, HUD will review the cost test, to determine whether it is necessary to update or revise the methodology to reflect new policy or more up-to-date methodologies. Should HUD determine that revisions to the cost methodology are necessary, it will implement such changes through rulemaking, **Federal Register** notice, PIH notice, or other means, as it determines appropriate based on the specific nature of the changes.

*Comment: Adequate operating and capital funding would eliminate the need for the conversion programs.* One commenter wrote that conversion actions are an appropriate step to rid public housing of non-viable developments, while protecting developments that are viable in the long term. However, the commenter also wrote that limited appropriations to preserve public housing would increase the need for conversion. The commenter wrote that adequate operating and capital funding would eliminate the need for this cost-test and mandatory and voluntary conversions.

**HUD Response.** The purpose of the conversion programs is to enable PHAs to identify non-viable developments whose costs, relative to vouchers, merit permanent removal from the public housing inventory. The cost test determines the most cost-effective method for a particular property, either to modernize it or replace the property with housing vouchers. The comparison is necessary for proper selection of the

alternatives, regardless of the level of appropriation.

PHAs may supplement capital and operating funding by seeking state and local funding or private financing. PHAs are authorized to leverage additional resources under section 30 of the 1937 Act. These are additional financing options available for PHAs to modernize appropriate developments.

*Comment: The final rule should provide for construction of replacement developments after conversion.* One commenter recommended that the final rule should clarify that a PHA may build replacement housing following the removal of housing deemed to be distressed as a result of the cost test. Additionally, the commenter wrote that HUD should prohibit conversion if this replacement option is more cost-effective than conversion to tenant-based rental assistance.

**HUD Response.** Under the regulations for the required and voluntary conversion programs, PHAs are permitted to determine the most feasible and cost-effective options for providing relocation and permanent replacement housing for families impacted by the conversion and removal of developments from the inventory (see §§ 972.130 and 972.230). PHAs must provide such families with either a comparable assisted unit or a housing choice voucher. Further, under § 972.127 of the required conversion program, a PHA must identify and demonstrate that funding sources are available to revitalize a development. Section 972.218 of the voluntary conversion program regulations provide that a PHA must describe the future use of a property after conversion and may include the means and timetable to complete these activities.

The applicable sections of the required and voluntary conversion program regulations cited above demonstrate that PHAs are permitted to build replacement housing. However, the statutes authorizing the programs do not direct HUD to use this cost-test to assess whether or not it is cost-effective to rebuild replacement housing. Section 9 of the 1937 Act contains a provision indicating the limitations on new construction and building new public housing units. PHAs are only permitted to build new public housing units if they are mixed-finance developments that leverage significant financing and the PHA's total inventory will not exceed the number of units owned, operated, or assisted as of October 1, 1999, except if the new units to be built are cheaper than Section 8 for the useful life of the property for the same period of time (40 years or as determined under

the required conversion regulation). Further, these units must be built in accordance with the Total Development Cost (TDC) limits for the applicable jurisdiction. HUD does not believe it would be appropriate to restrict the authority of a PHA to determine how to provide replacement housing to impacted families because this cost-test was not intended to assess construction costs for building replacement housing.

*Comment: Support for the inclusion of net proceeds.* A commenter strongly encouraged HUD to include net proceeds in the cost-test.

**HUD Response.** Upon further consideration, HUD agrees with the commenter and has revised the rule accordingly for voluntary conversions. HUD believes that the inclusion of market or residual value will help to ensure that PHAs more fully consider the cost-effectiveness of voluntary conversions and whether such conversions are warranted. This final rule requires that a PHA include in the cost-test calculations the market or residual value (or net sales proceeds) from the sale or lease of a property that is to be voluntarily converted to tenant-based voucher assistance. The PHA will be required to hire an appraiser to estimate the market value of the property using the comparable sale, tax-assessment, or revenue-based appraisal methods. HUD will issue additional guidance on the required appraisals, including information regarding the HUD protocols for reviewing and assessing the accuracy of the appraisals.

The estimated amount of any market value, residual value, or net sales proceeds that would result from the sale or lease of the property must be included in the cost-test as an additional foregone opportunity cost of maintaining the property as public housing. The residual value is to be determined by calculating the estimated market value for the property based on the appraisal, minus any costs required for demolition or remediation deletion (with such costs capped at the sales value so that the residual value will not equal a negative amount).

This revision is consistent with the policies and procedures contained in Office of Management and Budget (OMB) Circular A-94, which provides guidance on conducting cost-effective analyses for determining the optimum use of Federal resources.

*Comment: Opposition to including net proceeds from the sale or lease of a development or land to offset voucher costs.* Several commenters on this issue objected to the inclusion of net proceeds; however, the reasons for this opposition varied. Several of the

commenters wrote that assessing net proceeds would be outside the scope of the cost test for determining the viability of public housing. One commenter wrote that if the market value of property were to be considered, it would be more appropriate to add this value to the voucher costs or deduct the value from public housing revitalization costs. Another commenter suggested that if net proceeds were included, they should be offset by the estimated remaining value of a development if the property is to be operated for an additional 20- or 30-year period.

**HUD Response.** HUD does not agree with the commenters. As noted above, this final rule requires that a PHA include in the cost-test calculations the market or residual value (or net sales proceeds) from the sale or lease of a property that is to be voluntarily converted to tenant-based assistance. HUD has determined that the inclusion of residual value will help to ensure that PHAs more fully consider the cost-effectiveness of voluntary conversions and whether such conversions are warranted.

**Comment:** *The cost methodology should provide for greater consideration of local community issues and other non-quantitative factors.* Several commenters suggested that certain qualitative, social, economic, and community factors should be considered by PHAs in making conversion decisions. The commenters wrote that HUD should consider the impact of a conversion on a community, including estimated changes in housing demand, rents, and neighborhood characteristics, such as the willingness of landlords to accept voucher holders. The commenters also wrote that the cost comparisons should be considered in reference to and consistent with PHA Plan and local planning processes.

**HUD Response.** HUD believes the conversion program planning requirements and HUD approval process address these concerns. HUD believes quantitative, non-financial, and social factors that impact the conversion of developments, residents, and the surrounding neighborhoods are adequately addressed in the regulations for the required and voluntary conversion programs. PHAs must consult with residents and develop relocation plans under both conversion programs. Families are provided relocation counseling and assistance to help them successfully relocate to other project-based units or to lease quality units.

Voluntary conversions are permitted and approved by HUD only if the conversion principally benefits

residents and does not adversely affect the availability of affordable housing in the community. When making a determination of whether a conversion principally benefits residents, the PHA, and the community, the PHA must consider such factors as the availability of landlords providing tenant-based assistance, as well as access to schools, jobs, and transportation.

Under the HUD review and approval process, PHAs are required to evaluate the supply of quality units compared with the number of voucher holders that will need rental units. PHAs must demonstrate that voucher holders will be able to successfully find affordable units in the local rental market. The voluntary conversion program regulations at § 972.218 require PHAs to analyze the local rental market conditions as part of a conversion assessment required for HUD approval of conversion plans. This analysis must include an assessment of the availability of decent and safe units that can be rented at or below the payment standard set for providing housing choice voucher assistance.

**Comment:** *For required conversions, the cost test should only be used to make a presumptive finding that conversion is cost-effective.* One commenter made this suggestion. The commenter wrote PHAs should be permitted to rebut the findings of the cost-test using direct or indirect financial and social cost information.

**HUD Response.** HUD has not made any changes to the rule based on this comment; however, § 972.127 of the required conversion regulations addresses the concerns of this commenter. Under the required conversion program, more than the cost-test is used by PHAs to identify distressed developments with more than 250 units that have excessive vacancy rates over a 3-year period and which are subject to required conversion determinations. Once a PHA identifies a distressed development with costs that exceed vouchers, the PHA is still able to demonstrate the long-term viability of a development and avoid mandatory removal. A PHA must meet four regulatory factors in order for a development to satisfy this long-term viability test. HUD believes the resident advisory board consultation and relocation requirements, in addition to the conversion and PHA planning and reporting requirements, which provide that the relocation plan must be consistent with the local Consolidated Plan and be made available for inspection prior to public hearings, work together to adequately ensure that PHA conversion plans are

meaningful and beneficial for the interests for a local community, as well as the Federal government.

**Comment:** *Post-conversion financing for rehabilitation.* Several PHAs submitting comments indicated an interest in removing developments from their inventory and applying for tax credits, site-based vouchers, or other financing to use equity and debt to cover debt service to rehabilitate properties.

**HUD Response.** HUD believes the regulations regarding HUD's review and approval of conversion assessments already address the concerns expressed by these commenters. Under § 972.218 of the voluntary conversion regulations, PHAs are permitted to remove non-viable developments with operating and revitalization costs that exceed vouchers. Properties are determined to be non-viable using a pre- and post-rehabilitation market analysis. These two market analyses are designed for PHAs and HUD to evaluate the feasibility of redeveloping and operating the property as public housing versus providing low-income, unassisted, or market rate housing. The conversion assessment must describe the planned future use of the converted developments, as well as the means and timeframes for completing these conversion and redevelopment activities. PHAs are required to identify available financing and describe the future use of properties proposed for conversion and redevelopment.

**Comment:** *HUD should award PHAs for leveraging financing for conversions.* One commenter made this suggestion. However, the commenter wrote that non-federal sources should not count against conversion through the cost-test methodology.

**HUD Response.** HUD declines to evaluate a PHA's efforts at leveraging financing for revitalization activities associated with voluntary or required conversion actions. HUD's approval relative to a PHA securing financing for revitalization activities is limited to the long-term viability test for required conversion (see § 972.139) and a description of the future use of a property for voluntary conversion (see §§ 972.218 and 972.224). HUD believes this level of review is adequate.

**Comment:** *HUD should allow PHAs the flexibility to use short- and long-term direct and indirect costs to demonstrate the appropriateness of voluntary conversion.* The commenters wrote that the proposed methodology's exclusion of local data and other relevant factors may lead to the denial of PHA requests for voluntary conversions that are cost-effective.

**HUD Response.** HUD disagrees with this comment. The required cost test calculations are derived from locally based cost data entered into the spreadsheet calculator by PHAs. The cost-test and review process permits HUD to consider local data on quantitative costs and other factors that affect the feasibility of a proposed conversion, such as: (1) The likelihood that impacted families would be successfully relocated; (2) the neighborhood's supply of affordable housing; and (3) whether the conversion primarily benefits residents of the impacted development and surrounding area. PHAs must demonstrate that impacted tenants are relocated or provided quality replacement housing assistance and that the local community's affordable housing supply will not be adversely impacted by the proposed conversion of a particular development (see § 972.224).

*Comment: HUD should issue guidance regarding how it will use appraisal results to approve the conversion proposals.* One commenter made this suggestion.

**HUD Response.** PIH is developing protocols regarding the review of appraisal results contained in conversion proposals. HUD will use these property appraisals to evaluate the pre- and post-rehabilitation market analyses for the property and to assess the feasibility of the proposed revitalization and redevelopment activities using the criteria necessary for HUD approval at § 972.224.

*Comment: Reference to national fire protection and safety code.* Two commenters suggested that the final rule should incorporate a reference to the Model Building Code ("Building Construction and Safety Code") in addition to the Public Housing Modernization Standards Handbook (7485.2) and the International Existing Building Code (ICC) 2003 Edition.

**HUD Response.** HUD has not revised the rule in response to these comments. The final rule continues to provide that, for purposes of the cost methodology, the viability of new housing construction or rehabilitation will be determined by reference to either the applicable local housing code or (in the absence of a local code) PIH Handbook 7485.2 or the ICC. The Department believes that these two housing codes are sufficient to ensure that housing meets acceptable viability standards, and that the change requested by the commenters is, therefore, unnecessary.

*Comment: Concerns regarding the use of a national inflation factor.* Several commenters wrote that the methodology incorrectly uses the national rate of

inflation to assess costs driven by local market conditions. The commenters wrote that this procedure both overstates and understates certain public housing and voucher costs and fails to derive the best estimate of the value of future public housing and voucher costs. The commenters wrote that cost increases for public housing and vouchers are tied to different HUD regulatory requirements and to cost changes in particular segments of the overall economy. For example, public housing operating costs (aside from utilities) are determined by a formula that increases estimated costs annually based primarily on a local inflation factor. The commenters presented varied options to address this perceived problem with the methodology, all of them focusing on the need to adjust the national inflation rate by local factors.

**HUD Response.** HUD has not made changes to the rule based on these recommendations. In accordance with OMB Circular A-94, the cost methodology uses the national inflation and real discount rates specified by OMB.

This net, present value method is a constant dollar method, which calculates the stream of public housing costs and voucher costs adjusted exponentially, for a fixed discount rate, by using initial year costs for vouchers and estimated public housing costs amortized over the remaining useful life of the development (20, 30, or 40 years). These cost streams are discounted using the OMB-specified real discount rate to account for program cost increases and decreases in the future to compare the net present value of both programs.

Future program costs are unknown and may fluctuate. Therefore, HUD believes it is appropriate to use national inflation measures to estimate future costs and account for program costs that may vary due to program differences and market dynamics. In response to the comments regarding understating and overstating certain public housing and voucher costs, HUD has adjusted the vacancy adjustment factor used to estimate public housing operating costs and basing the calculation of voucher costs on actual program costs as reflected in the Section 8 payment standard for the Fair Market Rent Area or sub-area.

*Comment: Adjustment of discount rates to calculate net present value.* Several commenters wrote that voucher rents are more market-driven and increase more rapidly than public housing rents that are supported by a grant formula allocation system. The commenters wrote that, over time, public housing rents are more stable and

affordable because they do not spike up when the market tightens. The commenters wrote the discount rates under this cost methodology should reflect these differences.

**HUD Response.** HUD believes the constant dollar method is appropriate to evaluate the stream of costs for both the public housing and voucher programs, considering that upward and downward cost fluctuations are possible in the future. HUD believes the net present value methodology is a sound method for making voluntary and required conversion determinations in tandem with the HUD review process. Under this constant dollar approach, the cost calculator determines the net present value of public housing compared with vouchers based on future cash flow projections for the respective programs.

Future program costs are unknown and may increase and decrease subject to market forces and other program or policy changes. For instance, even though payment standards (and other measures of voucher costs) rose more rapidly from 1999 to 2004 than underlying measures of Fair Market Rents (FMR) and average rental costs, this rate of increase is expected to be curtailed due to the budget reforms in the voucher program (particularly the transition to the dollar-based method for calculating voucher renewal costs). Within the current program parameters, HUD believes this will cause local PHAs to manage their program budgets more prudently. PHAs will adjust payment standards to more closely reflect local rental trends.

*Comment: Cost methodology should address future budget authority for tenant-based assistance.* Several commenters wrote that the cost methodology fails to address the future budget authority needed to provide tenant-based assistance to families residing in converted developments.

**HUD Response.** HUD has not revised the rule in response to these comments. The Department is committed to the successful implementation of the required and voluntary conversion programs. HUD will make necessary funding available for tenant-based assistance provided in connection with public housing conversions, consistent with congressionally appropriated amounts and HUD's other programmatic responsibilities.

*Comment: Operating cost estimates should be adjusted for outliers.* Several commenters wrote that the cost methodology should exclude projected operating cost data that is not statistically representative of a PHA's properties. The commenters wrote that PHAs might incur excessive non-

recurring expenditures for large properties that have undergone major rehabilitation, or have a small number of well-managed projects and several under-performing properties.

**HUD Response.** HUD has not made this change. Under the cost methodology, PHAs are permitted to use either the development-level or the PHA-level method to calculate operating costs. The PHA-level method is permitted when the PHA does not have accurate property-level operating cost information or a vacancy rate at or above 20 percent. To the extent accurate property or development-level operating cost data exists, PHAs should use this data to ensure that projected operating costs are tied to particular developments targeted for conversion. The asset-level approach and project-based accounting and budgeting requirements associated with the revised public housing operating fund program should accelerate the ability of PHAs to collect accurate and sound development-level data.

**Comment: Use of development-level method to estimate operating costs.** One commenter suggested that PHAs should be authorized to use development level costs or PHA-wide costs if accurate data is available.

**HUD Response.** HUD has not accepted this recommendation. However, HUD agrees with the commenter regarding the need to use development-level costs if accurate data is available. When a PHA has accurate and reliable operating cost data and the overall vacancy rate is less than 20 percent, then the development-based method must be used to determine the projected operating costs. The PHA-wide method is permitted only in the event a PHA does not have reliable cost data for a development or the property has a vacancy rate at or above 20 percent.

**Comment: Concerns regarding modernization estimates.** Several commenters wrote that in the cost methodology, use of the housing construction cost component of the total development cost limit for calculating modernization costs overestimates accruing capital needs for public housing developments. The commenters cited several studies in support of their position, including the 2000 HUD Capital Needs Study and the Harvard Public Housing Operating Cost Study. The commenters recommended that the methodology should contain a more realistic measure of accruing modernization needs for public housing that is consistent with HUD and independent estimates.

**HUD Response.** It is true that the physical-based accrual model used in

this final rule has higher costs than a financial model of accrual that includes partial funding by refinancing. In recognition that the accrual model assumes that each year a development's ongoing capital needs are met and in proposing a realistic estimate of modernization that meets accumulated backlog and such redesign needs as required to ensure viability, this rule is recognizing a 30-year amortization model as the norm with 20 years as a possibility when not all backlog need is met (but local code and viability standards are met) and 40 years is a possibility when accumulated backlog and necessary redesign bring the development to physical condition equivalent to new construction.

**Comment: Backlog capital repair costs should be excluded from the cost methodology.** One commenter wrote that, in light of limited appropriations for public housing capital funding that has not addressed a backlog in capital repairs, the cost comparison analysis for bringing developments up to a viable standard should not include the cost of long-term neglect.

**HUD Response.** HUD disagrees with this recommendation. The statutory purpose of the cost methodology and conversion determination procedures is to assess the viability and remaining useful life of public housing developments and, in the case of required conversion, to determine whether proposed modernization investments are cost effective. By amortizing these costs over a realistic time period, consistent with an accrual model that assumes all ongoing needs are met, the rule gives modernization the appropriate yearly and cumulative impact.

**Comment: HUD should increase the \$1,000 per unit relocation expense factor.** Several commenters wrote that this amount does not accurately estimate relocation and counseling expenses based on historic costs and local market conditions. The commenters wrote that HOPE VI data on relocation and counseling activities indicate that \$3,000 per household is a generally more accurate per-household cost for similar voucher relocation activities.

**HUD Response.** HUD believes that \$1,000 per unit is a reasonable benchmark for estimating relocation expenses. Under the existing policy, HUD permits a PHA to demonstrate if a higher relocation expense level is warranted based on local market conditions. HUD may approve a higher amount if justified by the PHA.

**Comment: The estimation of voucher costs must include the estimated**

*community impact, including changes in housing demand and availability of affordable housing and other neighborhood demographics.* One commenter made this suggestion.

**HUD Response.** HUD believes that quantitative, demographic, and social factors, such as access to schools, jobs, and transportation, are adequately addressed in the regulations for the required and voluntary conversion programs. PHAs are required to evaluate such factors when considering the impact of conversion on residents and the surrounding neighborhoods. PHAs must consult with residents and develop relocation plans under both conversion programs. Families must be provided relocation counseling and assistance to help them successfully relocate to other project-based units or use voucher assistance to lease a quality unit.

The voluntary conversion program regulations require that PHAs assess social and economic factors related to the conversion, including whether the conversion would adversely impact the affordable housing supply. PHAs must demonstrate that a conversion principally benefits residents and does not adversely impact the availability of affordable housing in the community. When determining whether a conversion principally benefits residents, the PHA, and the community, the PHA must consider such factors as the availability of landlords providing tenant-based assistance, as well as access to schools, jobs, and transportation.

In addition, PHAs must evaluate the supply of quality units compared with the number of voucher holders that will need rental units. PHAs must demonstrate that voucher holders will be able to successfully find affordable units in the local rental market. This evaluation of local rental market conditions is a part of the conversion assessment required for HUD approval of conversion plans. This analysis must include an assessment of the availability of decent and safe units that can be rented at or below the payment standard set for providing voucher assistance.

**Comment: HUD should ensure that converted properties are used to provide low-income housing.** One commenter wrote that the conversion program regulations do not provide guidance on the post-conversion sale of former public housing properties. The commenter wrote that if a converted property is developed as housing in the future, a portion should be reserved for low-income families.

**HUD Response.** Under both the required and voluntary conversion

programs, all residents living in impacted developments are provided relocation assistance to a comparable assisted unit or replacement housing assistance. Under the voluntary conversion program, in the event a PHA opts to not demolish a non-viable property that is removed from the inventory because the development's costs for its remaining useful life exceed the costs to provide vouchers during the same period, the low-income housing use restriction associated with the annual contributions contract is repealed. Under the HUD review and approval process, PHAs are required to describe the future use for the property, and resale proceeds must be used for low-income housing purposes as required by section 18 of the 1937 Act.

*Comment: The cost-methodology should require that PHAs conduct an impact assessment to identify the residual value of a converted development.* One commenter wrote that there are four possible activities to which converted properties will be subjected: (1) Demolition and remediation to secure the site; (2) demolition and remediation as a prelude to sale for redevelopment; (3) continued use of a property as affordable housing through retention or sale of the property to a local affordable housing provider; and (4) gradual conversion to market-rate housing. The commenter wrote that in the event any of the last three options are chosen, it is probable the property sale will result in a financial gain for the PHA.

*HUD Response.* For required conversions, residual value will not be included within the cost-test and an impact assessment is not needed because PHAs are already required to assess the local rental market and ensure there is an adequate supply of units for the relocation of families impacted by the removal of the property from inventory. Further, PHAs are required to estimate the market or residual value of a property in accordance with the proposed use, redevelopment, or sale.

Under the voluntary conversion approval process, HUD will review the proposed future use for the property, as well as the pre- and post-rehabilitation market analyses to determine the feasibility of the conversion. Additionally, PHAs must demonstrate the voluntary conversion is feasible by showing there is an adequate supply of rental units at or below the payment standard for impacted families to successfully "lease-up" using vouchers, and by showing that the conversion will not adversely impact the local supply of rental housing. These demonstrations

and approval procedures address the recommendations offered by this commenter.

HUD believes it is not feasible to include the unrealized residual property value of a property within the mandatory cost methodology. HUD is more interested in focusing the required conversion cost-test on assessing what are reasonable modernization costs to rehabilitate or redevelop a distressed property, more so than assessing the market value of a property and its impact on PHA decision-making in regard to exploring various asset management alternatives, including preservation, sale, demolition, or other re-capitalization strategies after its conversion and removal from the inventory.

*Comment: The final rule should not cap demolition, remediation, and relocation costs at 10 percent of the Total Development Cost limit.* The commenter wrote that this threshold should be based on real cost projections. The commenter wrote that demolition and remediation costs may be extensive and that in tight markets relocation costs will be higher than the allowable limit (under 10 percent).

*HUD Response.* HUD has not adopted this recommendation. HUD continues to believe that it is necessary to establish a reasonable limit on demolition, remediation, and relocation costs associated with preparing cost conversion estimates.

Based on a review of 2002 data from the HOPE VI program, average demolition costs are \$5,500 per unit. However, there are cases where per-unit demolition costs are higher due to the location, size, and type of development that is being demolished. Typically, demolition costs are higher in certain high-cost areas and for larger-scale complexes that require special demolition and remediation procedures due to their special infrastructure, deep basements, environmental hazards, or in close proximity to other buildings. Further, under the HOPE VI program, which contains extensive relocation requirements, relocation costs have averaged \$3,000 per unit, including supportive services. HUD expects relocation expenses to be less extensive under the voluntary and required conversion programs.

Based on HUD's experience with demolition in the overall public housing program, demolition, remediation, and relocation costs have typically been within the 10 percent of TDC threshold established by this final rule. However, in the event a property has extremely high demolition or remediation costs associated with a severe site hazard

within a development, the PHA should indicate this in its proposal for required or voluntary conversion. Demolition and remediation costs do not play a role in the cost-test for required conversion. Local rental market conditions and needs for remediation of environmental factors are issues that affect the feasibility of a conversion. These programmatic issues should be addressed within a conversion assessment and proposal.

*Comment: HUD should clarify the "remaining useful life" time period for public housing developments.* Several commenters wrote that the final rule should contain clearer guidance on "remaining useful life." One commenter suggested that HUD use a flat 30-year life for comparing public housing and voucher costs. The commenters wrote that other programs that involve preservation or triage decisions for multifamily-assisted properties provide statutory and regulatory determinations regarding the applicable "remaining useful life" period. The commenters wrote that in practice, any property could be maintained indefinitely if given large enough funding to cover maintenance and repair.

*HUD Response.* This final rule provides additional guidance regarding remaining useful life estimates to determine physical viability. The final rule retains the 20- and 30-year remaining useful life periods, but, if justified, the final rule permits extending the period to up to 40 years. There are two key assumptions built into the cost-test regarding the degree of modernization that may include redesign undertaken to preserve the viability of a property. For modernization that meets accumulated backlog and redesign needs that ensure viability, in tandem with accrual that meets yearly ongoing capital needs, HUD believes that 30 years is a useful starting point for the amortization period for the cost-test that determines whether reinvestment relative to public housing versus voucher costs is cost-effective, but if the modernization clearly brings the property to as-new condition in an easily maintained location, a 40-year amortization and remaining useful life period may be warranted. On the other hand, when the modernization falls short of meeting all backlog needs, though it meets many of these needs and also local code and viability standards, then a 20-year amortization period is more appropriate. Because of its realistic standards for accrual and modernization estimates and its addition of sales value to public housing costs in voluntary conversion, HUD has decided to eliminate the 15-

year time period for estimating remaining life under the voluntary conversion program.

*Comment: Concerns regarding the calculation of voucher costs.* Several commenters wrote that the proposed methodology appears to drive cost comparisons toward findings that public housing will be more expensive than providing voucher assistance. Other commenters wrote that the methodology results in distortions that understate public housing and overstate voucher costs. For example, some of the commenters wrote that the methodology incorrectly assumes the adequacy of the local rental market to absorb voucher holders from converted properties. Another commenter wrote that HUD should amend the cost methodology to include vacant units in the voucher cost calculations. One commenter wrote that HUD should exclude debt service from the calculation of voucher costs or add these to the cost of public housing. One commenter suggested that the methodology should consider the ongoing administrative fees a PHA earns from serving individual voucher families and the one-time fees earned for families to more accurately estimate administrative fees attributable to converting developments to vouchers.

*HUD Response.* The cost methodology already includes ongoing administrative costs as part of overall voucher costs, and the voucher cost-estimate factor has been adjusted to the payment standard a PHA establishes to project actual voucher costs in accordance with the local rental market. Aside from the revisions to the cost-test regarding the voucher and vacancy adjustment factor to project public housing operating costs, HUD has declined to make the other changes recommended by the comments. Some of the proposals are offsetting, and all are difficult to calculate. Moreover, HUD believes the final rule includes the appropriate adjustments and essential ingredients for a comprehensive cost comparison and will result in a balanced comparison of the cost of tenant-based assistance with the costs of continuing to operate developments as public housing.

## V. Findings and Certifications

### Impact on Small Entities

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial

number of small entities. For the following reasons, the undersigned certifies that this rule will not have a significant economic impact on a substantial number of small entities.

(1) *A substantial number of small entities will not be affected.* The entities that will be subject to this rule are PHAs that administer public housing. Under the definition of “small governmental jurisdiction” in section 601(5) of the RFA, the provisions of the RFA are applicable only to those PHAs that are part of a political jurisdiction with a population of under 50,000 persons. The number of entities potentially affected by this rule is therefore not substantial. Further, HUD anticipates that no more than 10 percent of all PHAs will be subject to the requirements of required conversion. Most PHAs with developments large enough to be subject to required conversion are located in larger political jurisdictions. This is a result of the statutory direction to identify units subject to the requirements based on the criteria established by the National Commission on Severely Distressed Public Housing, which focused on larger troubled agencies. For all other PHAs, conversion would be undertaken on a voluntary basis.

(2) *No Significant Economic Impact.* The conversion plan will involve a one-time cost, and this cost can vary from development to development, depending on the scope of the assessment, location of the property, and other factors. A mitigating factor concerning the cost for PHAs whose properties are potentially subject to the requirements of required conversion is that they may request assistance from HUD in conducting the required analyses in order to offset the costs. HUD has provided such assistance in the past and intends to continue to do so, if resources are available. Therefore, the cost burden on small entities is not likely to be great.

### Environmental Impact

This final rule involves external administrative or fiscal requirements or procedures that relate to the discretionary establishment of cost determinations and do not constitute a development decision affecting the physical condition of specific project areas or building sites. Accordingly, under 24 CFR 50.19(c)(6), this final rule is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4332).

### Federalism Impact

Executive Order 13132 (entitled “Federalism”) prohibits an agency from publishing any rule that has federalism implications if the rule either imposes substantial direct compliance costs on state and local governments and is not required by statute, or the rule preempts state law, unless the agency meets the consultation and funding requirements of section 6 of the executive order. This rule does not have federalism implications and will not impose substantial direct compliance costs on state and local governments nor preempt state law within the meaning of the executive order.

### Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1531–1538) establishes requirements for Federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments, and on the private sector. This rule does not impose any Federal mandates on any state, local, or tribal government, nor on the private sector, within the meaning of the UMRA.

### Regulatory Planning and Review

The Office of Management and Budget (OMB) reviewed this rule under Executive Order 12866 (entitled “Regulatory Planning and Review”). OMB determined that this rule is a “significant regulatory action” as defined in section 3(f) of the Order (although not an economically significant regulatory action, as provided under section 3(f)(1) of the Order). Any changes made to the rule subsequent to its submission to OMB are identified in the docket file, which is available for public inspection in the Regulations Division, Office of General Counsel, Department of Housing and Urban Development, 451 Seventh Street, SW, Room 10276, Washington, DC 20410–0500.

*Catalog of Federal Domestic Assistance Number:* The Catalog of Federal Domestic Assistance number for the program affected by this rule is 14.850.

### List of Subjects in 24 CFR Part 972

Grant programs—housing and community development, Low and moderate income housing, Public housing.

■ For the reasons discussed in the preamble, HUD amends title 24 of the Code of Federal Regulations as follows:

**PART 972—CONVERSION OF PUBLIC HOUSING TO TENANT-BASED ASSISTANCE**

■ 1. The authority citation for 24 CFR part 972 continues to read as follows:

**Authority:** 42 U.S.C. 1437t, 1437z-5, and 3535(d).

■ 2. Add an appendix to part 972 to read as follows:

**Appendix to Part 972—Methodology of Comparing Cost of Public Housing with the Cost of Tenant-Based Assistance****I. Public Housing-Net Present Value**

The costs used for public housing shall be those necessary to produce a viable development for its projected useful life. The estimated cost for the continued operation of the development as public housing shall be calculated as the sum of total operating cost, modernization cost, and costs to address accrual needs. Costs will be calculated at the property level on an annual basis covering a period of 30 years (with options for 20 or 40 years). All costs expected to occur in future years will be discounted, using an OMB-specified real discount rate provided on the OMB Web site at <http://www.whitehouse.gov/OMB/Budget>, for each year after the initial year. The sum of the discounted values for each year (net present value) for public housing will then be compared to the net present value of the stream of costs associated with housing vouchers.

Applicable information on discount rates may be found in Appendix C of OMB Circular A-94, "Guidelines and Discount Rates for Benefit Cost Analysis of Federal Programs," which is updated annually, and may be found on OMB's Web site at <http://www.whitehouse.gov/OMB>. All cost adjustments conducted pursuant to this cost methodology must be performed using the real discount rates provided on the OMB Web site at <http://www.whitehouse.gov/OMB/Budget>. HUD will also provide information on current rates, along with guidance and instructions for completing the cost comparisons on the HUD Homepage (<http://www.hud.gov>). The Homepage will also include a downloadable spreadsheet calculator that HUD has developed to assist PHAs in completing the assessments. The spreadsheet calculator is designed to walk housing agencies through the calculations and comparisons laid out in the appendix and allows housing agencies to enter relevant data for their PHA and the development being assessed. Results, including net present values, are generated based on these housing agency data.

**A. Operating Costs**

1. Any proposed revitalization or modernization plan must indicate how unusually high current operating expenses (e.g., security, supportive services, maintenance, tenant, and PHA-paid utilities) will be reduced as a result of post-revitalization changes in occupancy, density and building configuration, income mix, and management. The plan must make a realistic projection of overall operating costs per occupied unit in the revitalized or modernized development, by relating those operating costs to the expected occupancy rate, tenant composition, physical configuration, and management structure of the revitalized or modernized development. The projected costs should also address the comparable costs of buildings or developments whose siting, configuration, and tenant mix is similar to that of the revitalized or modernized public housing development.

2. The development's operating cost (including all overhead costs pro-rated to the development—including a Payment in Lieu of Taxes (P.I.L.O.T.) or some other comparable payment, and including utilities and utility allowances) shall be expressed as total operating costs per year. For example, if a development will have 375 units occupied by households and will have \$112,500 monthly non-utility costs (including pro-rated overhead costs and appropriate P.I.L.O.T.) and \$37,500 monthly utility costs paid by the PHA, and \$18,750 in monthly utility allowances that are deducted from tenant rental payments to the PHA because tenants paid some utility bills directly to the utility company, then the development's monthly operating cost is \$168,750 (or \$450 per unit per month) and its annual operating cost would be \$5,400 (\$450 times 12). Operating costs are assumed to begin in the initial year of the 30-year (or alternative period) calculation and will be incurred in each year thereafter.

3. In justifying the operating cost estimates as realistic, the plan should link the cost estimates to its assumptions about the level and rate of occupancy, the per-unit funding of modernization, any physical reconfiguration that will result from modernization, any planned changes in the surrounding neighborhood, and security costs. The plan should also show whether developments or buildings in viable condition in similar neighborhoods have achieved the income mix and occupancy rate projected for the revitalized or modernized development. The plan

should also show how the operating costs of the similar developments or buildings compare to the operating costs projected for the development.

4. In addition to presenting evidence that the operating costs of the revitalized or modernized development are plausible, when the projected initial year per-unit operating cost of the renovated development is lower than the current per unit cost by more than 10 percent, then the plan should detail how the revitalized development will achieve this reduction in costs. To determine the extent to which projected operating costs are lower than current operating costs, the current per-unit operating costs of the development will be estimated as follows:

a. If the development has reliable operating costs and if the overall vacancy rate is less than 20 percent, then the development-based method will be used to determine projected costs. The current costs will be divided by the sum of all occupied units and vacant units fully funded under the Operating Fund Program plus 20 percent of all units not fully funded under the Operating Fund Program. For instance, if the total monthly operating costs of the current development are \$168,750 and it has 325 occupied units and 50 vacant units not fully funded under the Operating Fund Program (or a 13 percent overall vacancy rate), then the \$2,250,000 is divided by 335—325 plus 20 percent of 50—to give a per unit figure of \$504 per unit month. By this example, the current costs per occupied unit are at least 10 percent higher (12 percent in this example) than the projected costs per occupied unit of \$450 for the revitalized development, and the reduction in costs would have to be detailed.

b. If the development currently lacks reliable cost data or has a vacancy rate of 20 percent or higher, then the PHA-wide method will be used to determine projected costs. First, the current per unit cost of the entire PHA will be computed, with total costs divided by the sum of all occupied units and vacant units fully funded under the Operating Fund Program plus 20 percent of all vacant units not fully funded under the Operating Fund Program. For example, if the PHA's operating cost is \$18 million, and the PHA has 4,000 units, of which 3,875 are occupied and 125 are vacant and not fully funded under the Operating Fund Program, then the PHA's vacancy adjusted operating cost is \$385 per unit per month—\$18,000,000 divided by the 3,825 (the sum of 3,800 occupied units and 20 percent of 125 vacant units) divided by 12 months. Second, this amount will be

multiplied by the ratio of the bedroom adjustment factor of the development to the bedroom adjustment factor of the PHA. The bedroom adjustment factor, which is based on national rent averages for units grouped by the number of bedrooms and which has been used by HUD to adjust for costs of units when the number of bedrooms vary, assigns to each unit the following factors: .70 for 0-bedroom units, .85 for 1-bedroom units, 1.0 for 2-bedroom units, 1.25 for 3-bedroom units, 1.40 for 4-bedroom units, 1.61 for 5-bedroom units, and 1.82 for 6 or more bedroom units. The bedroom adjustment factor is the unit-weighted average of the distribution. For instance, consider a development with 375 occupied units that had the following under an ACC contract: 200 two-bedroom units, 150 three-bedroom units, and 25 four-bedroom units. In that example, the bedroom adjustment factor would be  $1.127 - 200 \times 1.0$ , plus  $150 \times 1.25$ , plus  $25 \times 1.4$  with the sum divided by 375. Where necessary, HUD field offices will arrange for assistance in the calculation of the bedroom adjustment factors of the PHA and its affected developments.

c. As an example of estimating development operating costs from PHA-wide operating costs, suppose that the PHA had a total monthly operating cost per unit of \$385 and a bedroom adjustment factor of .928, and suppose that the development had a bedroom adjustment factor of 1.127. Then, the development's estimated current monthly operating cost per occupied unit would be \$467—or \$385 times 1.214 (the ratio of 1.127 to .928). By this example, the development's current operating costs of \$467 per unit per month are not more than 10 percent higher (3.8 percent in this example) than the projected costs of \$450 per unit per month and no additional justification of the cost reduction would be required.

#### *B. Modernization*

Under both the required and voluntary conversion programs, PHAs prepare modernization or capital repair estimates in accordance with the physical needs of the specific properties proposed for conversion. There are three key assumptions that guide how PHAs prepare modernization estimates that affect remaining useful life and determine whether the 20-, 30-, or discretionary 40-year remaining useful life evaluation period are used for the cost-test. When calculating public housing revitalization costs for a property, PHAs will use a 30-year period if the level of modernization addresses all accumulated backlog

needs and the planned redesign ensures long-term viability. For modernization equivalent to new construction or when the renovations restore a property to as-new physical conditions, a 40-year remaining useful life test is used. When light or moderate rehabilitation that does not address all accumulated backlog is undertaken, but it is compliant with the International Existing Building Codes (ICC) or Public Housing Modernization Standards in the absence of a local rehabilitation code, the 20-year remaining useful life evaluation period must be used.

Except for some voluntary conversion situations as explained in paragraph E below, the cost of modernization is, at a minimum, the initial revitalization cost to meet viability standards. In the absence of a local code, PHAs may refer to the Public Housing Modernization Standards Handbook (Handbook 7485.2) or the International Existing Building Codes (ICC) 2003 Edition. To justify a 40-year amortization cycle that increases the useful life period and time over which modernization costs are amortized, PHAs must demonstrate that the proposed modernization meets the applicable physical viability standards, but must also cover accumulated backlog and redesign that achieves as-new physical conditions to ensure long-term viability. To be a plausible estimate, modernization costs shall be justified by a newly created property-based needs assessment (a life-cycle physical needs assessments prepared in accordance with a PHA's Capital Fund annual or 5-year action plan and shall be able to be reconciled with standardized measures, such as components of the PHAs physical inspection and chronic vacancy due to physical condition and design. Modernization costs may be assumed to occur during years one through four, consistent with the level of work proposed and the PHA's proposed modernization schedule. For example, if the initial modernization outlay (excluding demolition costs) to meet viability standards is \$21,000,000 for 375 units, a PHA might incur costs in three equal increments of \$7,000,000 in years two, three, and four (based on the PHA's phased modernization plan). In comparing the net present value of public housing to voucher costs for required conversion, a 30-year amortization period will normally be used, except when revitalization would bring the property to as-new condition and a 40-year amortization would be justified. On the other hand, when the modernization falls short of meeting accumulated backlog and long-term

redesign needs, only a 20-year amortization period might be justified.

#### *C. Accrual*

Accrual projections estimate the ongoing replacement repair needs for public housing properties and building structures and systems required to maintain the physical viability of a property throughout its useful life as the lifecycle of building structures and systems expire. The cost of accrual (i.e., replacement needs) will be estimated with an algorithm that meets all ongoing capital needs based on systems that have predictable lifecycles. The algorithm starts with the area index of housing construction costs (HCC) that HUD publishes as a component of its TDC index series. Subtracted from this HCC figure is half the estimated modernization per unit, with a coefficient of .025 multiplied by the result to provide an annual accrual figure per unit. For example, suppose that the development after modernization will remain a walkup structure containing 200 two-bedroom, 150 three-bedroom, and 25 four-bedroom occupied units, and if HUD's HCC limit for the area is \$66,700 for two-bedroom walkup structures, \$93,000 for three-bedroom walkup structures, and \$108,400 for four-bedroom walkup structures. Then the unit-weighted HCC cost is \$80,000 per unit and .75 of that figure is \$60,000 per unit. Then, if the per unit cost of the modernization is \$56,000, the estimated annual cost of accrual per occupied unit is \$1,300. This is the result of multiplying .025 times \$52,000 (the weighted HCC of \$80,000) minus \$28,000 (half the per-unit modernization cost of \$56,000). The first year of total accrual for the development is \$487,500 (\$1,300 times 375 units) and should be assumed to begin in the year after modernization is complete. Accrual—like operating cost—is an annual expense and will occur in each year over the amortized period. Because the method assumes full physical renewal each year, this accrual method when combined with a modernization that meets past backlog and redesign needs justifies a 30- or 40-year amortization period, because the property is refreshed each year to as-new or almost as-new condition.

#### *D. Residual Value (Voluntary Conversion Only)*

Under the voluntary conversion program, PHAs are required to prepare market appraisals based on the "as-is" and post-rehabilitation condition of properties, assuming the buildings are operated as public or assisted,

unassisted, or market-rate housing. Section 972.218 requires PHAs to describe the future use for a property proposed for conversion and to describe the means and timetable to complete these activities. HUD will permit a PHA to enter the appraised market value of a property into the cost-test in Years 1 through 5 when a PHA anticipates selling a property or receiving income generated from the sale or lease of a property.

As a separate line item to be added to total public costs as a foregone opportunity cost, a PHA shall include in the voluntary cost-test calculations the appraised market or residual value (or net sales proceeds) from the sale or lease of a property that is to be voluntarily converted to tenant-based voucher assistance. The PHA must hire an appraiser to estimate the market value of the property using the comparable sale, tax-assessment, or revenue-based appraisal methods. PHAs are advised to select one or more of these appraisal methods to accurately determine the actual or potential market value of a property, particularly the comparable sales or revenue-based methods. The market or residual value is to be determined by calculating the estimated market value for the property based on the appraisal, minus any costs required for demolition and remediation. The residual value must be incorporated into the cost-test instead of the actual market value only when any demolition, site remediation, and clearance costs that are necessary are covered by the selling PHA. However, if the sum of the estimated per unit cost of demolition and remediation exceeds 10 percent of the average Total Development Cost (TDC) for the units, the lower of the PHA estimate or a figure based on 10 percent of TDC must be used. Suppose the estimated remediation and demolition costs necessary for conversion sale are \$7,000 per unit. Also, suppose the TDC limits are \$115,000 for a two-bedroom unit, \$161,000 for a three-bedroom unit, and \$184,000 for a four-bedroom unit. Then the average TDC of a development with 200 two-bedroom units, 150 three-bedroom units, and 25 four-bedroom units is \$138,000 (200 times \$115,000, plus 150 times \$161,000, plus 25 times \$184,000, the sum divided by 375) and 10 percent of TDC is \$13,800. In this example, the estimated \$7,000 per unit costs for demolition and remediation is less than 10 percent of TDC for the development, and the PHA estimate of \$7,000 is used. If estimated expenses had exceeded 10 percent of TDC (\$13,800 in this example), demolition

and remediation expenses must be capped at the lower amount.

#### *E. Accumulated Discounted Cost: Public Housing*

The overall cost for continuing to operate the development as public housing is the sum of the discounted values of the yearly stream of costs up for the amortization period, which can range from 20 to 30 to 40 years, depending on the extent of modernization relative to the current physical and redesign needs of the development. In calculating net present value for required conversion, the sum of all costs in each future year is discounted back to the current year using the OMB-specified real discount rate. For voluntary conversion, the discount rate is applied forward as a direct inflation factor. To assist PHAs in completing the net present value comparison and to ensure consistency in the calculations, HUD has developed a spreadsheet calculator that is available for downloading from the HUD Internet site. Using PHA data and property specific inputs (to be entered by the housing agency), the spreadsheet will discount costs as described above and will generate net present values for amortization periods of 20, 30, and 40 years.

#### **II. Tenant-Based Assistance**

The estimated cost of providing tenant-based assistance under Section 8 for all households in occupancy shall be calculated as the unit-weighted average of recent movers in the local area; plus the administrative fee for providing such vouchers; plus \$1,000 per unit (or a higher amount allowed by HUD) for relocation assistance costs, including counseling. However, if the sum of the estimated per unit cost of demolition, remediation, and relocation exceeds 10 percent of the average Total Development Cost (TDC) for the units, the lower of the PHA estimate or a figure based on 10 percent of TDC must be used.

For example, if the development has 200 occupied two-bedroom units, 150 occupied three-bedroom units, and 25 occupied four-bedroom units, and if the monthly payment standard for voucher units occupied by recent movers is \$550 for two-bedroom units, \$650 for three-bedroom units, and \$750 for four-bedroom units, the unit-weighted monthly payment standard is \$603.33. If the administrative fee comes to \$46 per unit, then the monthly per unit operating voucher costs are \$649.33, which rounds to an annual total of \$2,922,000 for 375 occupied units of the same bedroom size as those being

demolished in public housing. To these operating voucher costs, a first-year relocation is added on the voucher side. For per-unit relocation costs of \$1,000 per unit for relocation, then \$375,000 for 375 units is placed on the voucher cost side of the first year.

#### *Accumulated Discounted Cost: Vouchers*

The overall cost for vouchers is the sum of the discounted values of the yearly stream of costs up for the amortization period, which can range from 20 to 30 to 40 years, depending on the extent of modernization relative to the current physical and redesign needs of the development. The amortization period chosen is the one that was appropriate for discounting public housing costs. In calculating net present value for required conversion, the sum of all costs in each future year is discounted back to the current year using the OMB-specified real discount rate. For voluntary conversion, the discount rate is applied forward as a direct inflation factor.

To assist PHAs in completing the net present value comparison and to ensure consistency in the calculations, HUD has developed a spreadsheet calculator that will be available for downloading from the HUD Internet site.

#### **III. Results of the Example**

With the hypothetical data used in the examples, under an amortization period of 30 years, the discounted public housing costs under required conversion sums to \$69,633,225, and the discounted voucher cost under required conversions totals \$60,438,698. The ratio is 1.15, which means that public housing is 15 percent more costly than vouchers. With this amortization and this data, the PHA would be required to convert the development under the requirements of subpart A of this part, except in a situation where a PHA can demonstrate a distressed property that has failed the cost-test can be redeveloped by meeting each of the four factors that compose the long-term physical viability test to avoid removal from the inventory. With the same data, but a 40-year amortization period, public housing is still 11 percent costlier than vouchers, and with a 20-year amortization, public housing is 25 percent costlier than vouchers. In voluntary conversion, with the same hypothetical data, but a slightly different methodology (use of residual value as a public housing cost, inflating forward the discount numbers), the ratio of public housing costs to voucher costs would be 1.16 for the 20-year amortization period, 1.03 for the 30-year

amortization period, and .97 for the 20-year amortization period. Thus, in voluntary conversion, the appropriate amortization period would decide whether public housing is more costly or is slightly more costly, or less than vouchers. Under a 20-year amortization assumption and possibly under a 30-year amortization period, the PHA would have the option of preparing a conversion plan for the development under subpart B of this part. Different sets of data would yield different

conclusions for required and voluntary conversion determinations.

Dated: December 28, 2005.

**Orlando Cabrera,**

*Assistant Secretary for Public and Indian Housing.*

**Note:** The following sample pages will not be codified in the Code of Federal Regulations.

**Sample Pages from Spreadsheet Calculator**

As noted above in the preamble to this final rule, HUD has developed a

spreadsheet calculator to assist PHAs in the calculations and comparisons required for the conversion analysis. The spreadsheet calculator will be available for PHAs to download from the HUD Internet site (<http://www.hud.gov>). The following sample pages from the spreadsheet calculator illustrate the cost comparison methodology contained in this final rule.

**BILLING CODE 4210-67-P**

**NOTE: PLEASE FOLLOW INSTRUCTIONS ON THIS TAB  
BEFORE PROCEEDING TO THE COST COMPARISON CALCULATOR**

This spreadsheet contains macros that need to be enabled for the spreadsheet to have full functionality. Failure to enable the macros will result in the spreadsheet to function improperly. Follow these steps to enable the macros:

*You may see a "Security Warning" box when opening the file. If you see the "Security Warning" box, click on "Enable Macros."*

*If you do not see a "Security Warning" box when opening the file: Close the spreadsheet and change the security level setting. To change the security level in MS Excel, go to toolbar and click on Tools / Macro / Security. In the Security box, go to the "Security Level" tab and click on "Medium" then click OK. After changing the security level, open the spreadsheet again and follow the instruction above to enable macros.*

## Cost Comparison Spreadsheet Required and Voluntary Conversions under 24 CFR Part 972

### **IMPORTANT: PLEASE READ THE START TAB FIRST**

This spreadsheet is provided as a tool for public housing agencies conducting cost comparisons pursuant to 24 CFR Part 972, "Conversions of Public Housing to Tenant Based Assistance." The spreadsheet assists PHAs in comparing public housing costs to voucher costs using the methodology presented in the appendix to 24 CFR 972 for both Required Conversions (subpart A) and Voluntary Conversions (subpart B).

Spreadsheet cells shaded in green allow PHAs to enter information on the subject property's estimated market value, operating, modernization, and accrual costs, as well as information on voucher costs. A property's market or residual value is incorporated into the cost-test only for voluntary conversion determinations. Use the arrow keys to move from one cell to another. Enter numbers without commas and press "Enter" when you are done with each cell. Enter data only in the cells you need. Green cells may be left blank (you do not need to enter zeros). Cells shaded yellow contain formulas and cannot be changed.

The spreadsheet consists of seven tabs, including this introduction. To move from tab to tab, click on the tab name at the bottom of the screen.

**Tab 2 -- Public Housing Operating Cost.** At this tab, a PHA enters the projected operating costs for the revitalized property and also checks these costs for reasonableness by comparing them to current operating costs, using either the Development or the PHA-wide method.

**Tab 3 -- Public Housing Capital Cost.** At this tab, a PHA must indicate the degree of modernization necessary to keep a property viable based on the physical condition and repairs necessary to retain a viable property competitive in accordance with local, state, and Federal rehabilitation codes and its remaining useful life. A PHA will enter the anticipated costs of revitalization/modernization, relocation, and demolition (if any) and indicate the year in which costs are expected to be incurred based on a PHA's modernization plan for a property. Up to four years are permitted for this activity for the 30 and 40-year evaluation periods for required and voluntary determinations. If a PHA chooses to undertake light or moderate rehabilitation, a 20-year evaluation period must be used. PHAs will also enter data needed to estimate ongoing accrual costs and the estimated market or residual value for a property. The estimated market or residual value of a property must be included within these calculations as an addition to the public housing capital repair costs only for voluntary conversion determinations. This market value is calculated by PHAs who must hire an appraiser to determine the market value. The residual value for a property is determined by PHAs if demolition costs will be covered by a PHA.

Demolition and remediation costs are deducted from the estimated market value for a property to calculate any remaining residual value expected if a PHA were to sell a property proposed for conversion and removal from the inventory. However, under this cost-test, a property's market value is included within these capital costs whether or not a PHA intends to undertake a voluntary conversion and sell the proposed building or land.

**Tab 4 -- Voucher Cost.** At this tab, the PHA enters the average voucher cost (unit weighted average for the monthly payment standard for voucher units occupied by recent movers in the local area in accordance with the respective bedroom categories) and administrative fee in order to calculate annual Housing Choice Voucher (HCV) costs. PHAs will also estimate the relocation costs associated with a conversion.

**Tab 5 -- Cost Comparison.** At this tab, the PHA enters current OMB-specified discount rates found in Appendix C of OMB Circular A-94. These rates will be provided by HUD to PHAs by posting on the HUD website. Note that the rate used for 40-year evaluations is the same as for 30-year. Summary numbers are then presented from the previous tabs (e.g., first year operating cost, capital costs incurred in years 1 to 4, initial accrual, and voucher costs). Finally, the net present value of the costs is compared for Public Housing and Vouchers.

**Tab 6 -- Net Present Value Calculations for Required Conversions.** This tab shows the costs of each line item in each year as well as the discounted totals for public housing and vouchers. The discounted totals are summed for the relevant period (20, 30, or 40 years) to create the cost comparison results at TAB 5.

**Tab 7 -- New Budget Authority Calculations for Voluntary Conversions.** This tab shows the costs of each line item in each year, including the effects of inflation. The inflated costs are summed for the relevant period (20, 30, or 40 years) to create the cost comparison results at TAB 5.

## Public Housing Operating Cost

### 1. Calculation of Projected Operating Cost for the Revitalized Development

Enter the PHA's projected monthly costs for operating the development after revitalization or modernization in the green cells below. This estimate should reflect the costs of operating comparable developments and must be reasonable in light of the revitalization/modernization plan proposed.

- a. Non-utility costs (including pro-rated share of overhead costs)  
Utilities   
Utility Allowances   
Total Projected Monthly Operating Costs for Revitalized Development
- b. Total Number of Units in Revitalized Development
- c. Projected Monthly Operating Costs Per Unit
- d. Total Projected Annual Operating Costs

### 2. Reasonableness Tests

Projected operating costs must be shown to be reasonable. This test compares projected monthly per-unit costs (above) with the current operating costs of the property. If projected costs are more than 10% lower than current costs, a narrative description must be provided detailing how this reduction in costs will be achieved. Current operating costs are calculated using either the development-based method or the PHA-wide method. If the development has a current vacancy rate of less than 20% and there is reliable development-level data on operating costs, use the development-based method (A). If the development has a current vacancy rate of 20% or greater or there is no reliable development-level data available, use the PHA-wide method (B).

What is the current vacancy rate of the development?  
Is there reliable development-based data available?

Enter vacancy rate here:

Enter Yes or No here:

Method to be used:

Use PHA-Wide Method

Go to Section 2B (cell K50)

**2A. Development-Based Method**

A1 Total Current Operating Cost for the Development

\$2,250,000

**A2 Calculation of Vacancy-Adjusted Units for the Property (Enter the number of units of each type.)**

	Occupancy		Property Units - Current	
	Units	Adjustment	Units	Adjusted
# of Occupied units (x1)	325		325	
# of Vacant Fully Funded (x1)		0		0
# of Long-Term Vacant (x0.2)	50	10		
Total	375	335		

A3 Current Operating Costs Per Unit Per Month (PUM) ((A1/A2)/12)

\$560

**2B. PHA-Wide Method**

B1 Total Current Operating Cost for the Agency

\$18,000,000

**B2 Calculation of Vacancy-Adjusted Units for the PHA (Enter the number of units of each type.)**

	Occupancy		PHA Units	
	Units	Adjustment	Units	Adjusted
# of Occupied units (x1)	3,800		3,800	
# of Vacant Fully Funded (x1)		0		0
# of Long-Term Vacant (x0.2)	200	40		
Total	4,000	3,840		

B3 Current Operating Costs Per Unit Per Month (PUM) ((B1/B2)/12)

\$391

B4 Calculation of Bedroom Adjustment Factor (Enter the number of units of each type.)

Bedroom Adjustment	PHA Units		Property Units - Current	
	Units	Unit Cost Factor	Units	Unit Cost Factor
0 BR	0.7	500	350	0
1 BR	0.85	1400	1,190	0
2 BR	1	1600	1,600	200
3 BR	1.25	225	281	150
4 BR	1.4	75	105	25
5 BR	1.61	0	0	35
6 BR	1.82	0	0	0
Total		3800	3,526	423
Adjustment Factors		x	0.928	y
				1.127

B5 Overall Bedroom Adjustment Factor (y/x)

 1.214

B6 Current Monthly Operating Cost per Unit (B3\*B5)

 \$474

### 3. Comparison of Projected and Current Operating Costs (and Justification)

Projected Operating Costs (from Section 1)	<input type="text"/> \$450
Current Operating Cost	<input type="text"/> \$474
Percent difference	<input type="text"/> 5.4%

If current costs exceed the PHA's projection by more than 10 percent, the PHA must justify the use of the lower amount in the space below.

Not Applicable

## Public Housing Capital Cost

1 Type of Modernization (Select one option)

Light or Moderate Modernization (20 Yrs)  
 Addresses All Backlog (30 Yrs)  
 Equivalent to New Construction (40 Yrs)

2 Type of Conversion (Select one option)

Required  
 Voluntary

3 Initial Capital Costs (Enter costs over the appropriate time span.)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
a Modernization Cost	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$21,000,000
b Total Initial Capital Cost	\$0	\$7,000,000	\$7,000,000	\$7,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$21,000,000
c Total Number of Units in Revitalized Development	375										
d Capital Cost per Unit		\$56,000									

4 Accrual (Enter the applicable HCC limits below, along with the bedroom distribution for the revitalized development.)

	Detached/Semi-Detached	Row House	Walkup	Elevator
	# of Units	HCC Limit	# of Units	HCC Limit
0BR				
1BR			200	\$50,000
2BR			150	\$70,000
3BR			25	\$80,000
4BR				
5BR	0	\$0	375	\$22,500,000

a HCC, per unit average

b Total Number of Units in Revitalized Development

c 50% of Capital Cost per Unit

d Adjusted HCC (HCC (a) minus 50% of Capital Cost per Unit (c))

e Annual per Unit Accrual for 40 Year Replacement Cycle (Adjusted ACC (d) x 0.025)

f Annual Accrual after Modification (e x t)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
g Annual Accrual	\$0	\$0	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000

(Accrual begins in the year after modernization is complete.)

5 Opportunity Cost (If this is a voluntary conversion, enter the following costs)

a Demolition Cost Paid for by PHA	\$375,000
-----------------------------------	-----------

b Remediation Cost (If not in demo) Paid for by PHA

	Year 2	Year 3	Year 4	Year 5
c Market Value of Property	\$7,500,000			
d Residual Value	\$3,750,000			

## Voucher Cost

### Voucher Cost

Enter the number of units in the revitalized development by bedroom size and corresponding voucher costs per month.

Unit Size Post Revitalization	a # of Units	b Voucher Costs	c Units X Cost
0BR	0		\$0
1BR	0		\$0
2BR	200	\$550	\$110,000
3BR	150	\$650	\$97,500
4BR	25	\$750	\$18,750
5BR	0		\$0
	375		\$2226.250

d Monthly Voucher Cost Per Unit ( c / a )

e Monthly Section 8 Administrative Fee (per unit)

f Annual Voucher and Administrative Costs

g Per Unit Relocation Costs

h Total Relocation Costs

\$603
\$46.00

\$2,922,000
\$375,000

**Cost Comparisons****Assumptions**

	20 Year	30/40 Year
OMB Nominal Discount Rate	5.3%	5.2%
OMB Real Discount Rate	3.0%	3.0%
Useful Life (20, 30 or 40 Years)	30	

	Inflation Rate for the Selected Useful Life	Real Discount Rate for the Selected Useful Life
	2.14%	1.021

Units  
375

**Uninflated/Undiscounted Cost Summary**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Public Housing	\$2,025,000									
Annual Operating Cost	\$0	\$7,000,000	\$7,000,000	\$7,000,000	\$0	\$0	\$0	\$0	\$0	\$0
Capital Cost	\$0	\$0	\$0	\$0	\$0	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Annual Accrual after Modification										
Residual Value	\$3,750,000									

**Vouchers**

Annual Voucher and Administrative Costs  
Year 1 Relocation Costs

\$2,922,000
\$375,000

**PUM Cost Comparisons:****Net Present Value**

(Required Conversions Only)

\$895
\$900
-1%

New Budget Authority  
(Voluntary Conversion only)

\$895
\$900
-1%

**Final Result**

Public Housing Cost is less than Voucher Cost
---

## Required Conversion Calculation Net Present Value of the Stream of Costs

### Net Present Value of the Stream of Costs

Required Conversion Net Present Value:

Total	\$69,339,453
Per Unit	\$114,906
Per Unit Month	\$514

1.000000	0.970874	0.942996	0.915142	0.889487	0.862699	0.837484	0.813092	0.788499	0.766417	0.744694	0.722421	0.701360
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Retained Conversion Net Present Value	20 Year	30 Year	40 Year
\$1,000	\$1,000	\$1,000	\$1,000

Required Conversion Net Present Value DELTA:	20 Year	30 Year	40 Year
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Dollar      Percent  
\$74      14%

Public Housing	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28
Operating	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000
Initial Capital															
Acrued	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Residual															
<b>TOTAL</b>	<b>\$2,325,000</b>														
Discount Rates	0.680961	0.661118	0.641862	0.623167	0.605016	0.587395	0.570286	0.553676	0.537549	0.521893	0.506692	0.491934	0.477606	0.463655	0.450189
Discounted Costs	\$1,583,212	\$1,537,099	\$1,492,329	\$1,448,663	\$1,406,663	\$1,365,692	\$1,325,915	\$1,287,296	\$1,249,602	\$1,213,400	\$1,178,058	\$1,143,746	\$1,110,433	\$1,078,090	\$1,046,690

Voucher	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	
Voucher	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	
Relocation															
<b>TOTAL</b>	<b>\$2,922,000</b>														
Discount Rates	0.680961	0.661118	0.641862	0.623167	0.605016	0.587395	0.570286	0.553676	0.537549	0.521893	0.506692	0.491934	0.477606	0.463655	0.450189
Discounted Costs	\$1,989,740	\$1,931,786	\$1,875,521	\$1,820,894	\$1,767,688	\$1,716,367	\$1,666,376	\$1,617,641	\$1,570,719	\$1,524,970	\$1,480,553	\$1,437,430	\$1,395,563	\$1,354,916	\$1,315,452

Public Housing	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40
Operating	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000
Initial Capital Accrued	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
<b>TOTAL</b>	<b>\$2,325,000</b>											
Discount Rates	0.437077	0.424346	0.411987	0.399987	0.388337	0.377026	0.366045	0.355383	0.345032	0.334983	0.325226	0.315754
Discounted Costs	\$1,016,203	\$986,605	\$957,869	\$929,970	\$902,884	\$876,586	\$851,054	\$826,296	\$802,200	\$778,835	\$756,151	\$734,127

Voucher	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40
Voucher Relocation	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000
<b>TOTAL</b>	<b>\$2,922,000</b>											
Discount Rates	0.437077	0.424346	0.411987	0.399987	0.388337	0.377026	0.366045	0.355383	0.345032	0.334983	0.325226	0.315754
Discounted Costs	\$1,277,138	\$1,239,940	\$1,203,825	\$1,168,762	\$1,134,721	\$1,101,671	\$1,069,563	\$1,038,430	\$1,008,185	\$978,820	\$950,311	\$922,532

## Voluntary Conversion Calculation

## New Budget Authority

Public Housing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Operating	\$2,025,000	\$2,068,252	\$2,112,429	\$2,157,549	\$2,203,632	\$2,250,700	\$2,298,773	\$2,347,873	\$2,398,022	\$2,449,242	\$2,501,566	\$2,554,887	\$2,608,580	\$2,665,286
Initial Capital	\$0	\$7,149,515	\$7,302,223	\$7,458,192	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Accrued														
Residual														
<b>TOTAL</b>	<b>\$3,750,000</b>	<b>\$9,217,767</b>	<b>\$9,414,651</b>	<b>\$9,615,741</b>	<b>\$2,636,086</b>	<b>\$2,584,37</b>	<b>\$2,639,332</b>	<b>\$2,695,706</b>	<b>\$2,753,284</b>	<b>\$2,812,092</b>	<b>\$2,872,157</b>	<b>\$2,933,504</b>	<b>\$2,996,161</b>	<b>\$3,060,157</b>

Voucher	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Voucher	\$2,922,000	\$2,964,412	\$3,046,156	\$3,113,263	\$3,179,759	\$3,247,677	\$3,317,045	\$3,387,694	\$3,460,257	\$3,534,165	\$3,609,652	\$3,686,752	\$3,765,498	\$3,845,926
Relocation	\$375,000													
<b>TOTAL</b>	<b>\$3,297,000</b>	<b>\$2,984,412</b>	<b>\$3,048,156</b>	<b>\$3,113,263</b>	<b>\$3,179,759</b>	<b>\$3,247,677</b>	<b>\$3,317,045</b>	<b>\$3,387,694</b>	<b>\$3,460,257</b>	<b>\$3,534,165</b>	<b>\$3,609,652</b>	<b>\$3,686,752</b>	<b>\$3,765,498</b>	<b>\$3,845,926</b>

Inflation Factor	1,0214	1,0432	1,0656	1,0882	1,1115	1,1352	1,1594	1,1842	1,2085	1,2353	1,2617	1,2887	1,3162	
<b>TOTAL</b>	<b>1,000</b>	<b>1,0214</b>	<b>1,0432</b>	<b>1,0656</b>	<b>1,0882</b>	<b>1,1115</b>	<b>1,1352</b>	<b>1,1594</b>	<b>1,1842</b>	<b>1,2085</b>	<b>1,2353</b>	<b>1,2617</b>	<b>1,2887</b>	<b>1,3162</b>

## Voluntary Conversion New Budget Authority

## 20 Year

## 30 Year

## 40 Year

Public Housing PUM	\$895
Voucher PUM	\$900
Delta Dollar	\$5
Delta Percent	-1%

Public Housing		Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28
Operating	\$2,722,226	\$2,780,371	\$2,839,758	\$2,900,413	\$2,962,363	\$3,025,637	\$3,080,262	\$3,156,268	\$3,223,683	\$3,292,539	\$3,362,865	\$3,434,693	\$3,508,055	\$3,582,086	
Initial Capital Accrual	\$403,293	\$411,907	\$420,705	\$429,691	\$438,699	\$448,243	\$457,817	\$467,595	\$477,583	\$487,783	\$498,202	\$508,843	\$519,712	\$530,811	
<b>TOTAL</b>	<b>\$3,125,519</b>	<b>\$3,192,278</b>	<b>\$3,260,462</b>	<b>\$3,330,103</b>	<b>\$3,401,232</b>	<b>\$3,473,879</b>	<b>\$3,548,079</b>	<b>\$3,623,863</b>	<b>\$3,701,266</b>	<b>\$3,780,322</b>	<b>\$3,861,067</b>	<b>\$3,943,536</b>	<b>\$4,027,767</b>	<b>\$4,113,791</b>	
Inflection Factor	1.3443	1.3730	1.4023	1.4323	1.4629	1.4941	1.5261	1.5587	1.5919	1.6259	1.6607	1.6961	1.7324	1.7694	
Voucher		Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28
Voucher Relocation	\$3,928,072	\$4,011,972	\$4,097,665	\$4,185,188	\$4,274,580	\$4,365,882	\$4,459,134	\$4,554,378	\$4,651,656	\$4,751,011	\$4,852,489	\$4,956,135	\$5,061,994	\$5,170,114	
<b>TOTAL</b>	<b>\$3,928,072</b>	<b>\$4,011,972</b>	<b>\$4,097,665</b>	<b>\$4,185,188</b>	<b>\$4,274,580</b>	<b>\$4,365,882</b>	<b>\$4,459,134</b>	<b>\$4,554,378</b>	<b>\$4,651,656</b>	<b>\$4,751,011</b>	<b>\$4,852,489</b>	<b>\$4,956,135</b>	<b>\$5,061,994</b>	<b>\$5,170,114</b>	
Inflection Factor	1.3443	1.3730	1.4023	1.4323	1.4629	1.4941	1.5261	1.5587	1.5919	1.6259	1.6607	1.6961	1.7324	1.7694	

Public Housing	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40
Operating	\$3,659,514	\$3,737,679	\$3,817,513	\$3,899,052	\$3,982,332	\$4,067,392	\$4,154,268	\$4,243,000	\$4,333,627	\$4,426,190	\$4,520,730	\$4,617,290
Initial Capital Accrual	\$542,150	\$553,730	\$565,557	\$577,837	\$589,975	\$602,577	\$615,447	\$628,593	\$642,019	\$655,732	\$669,738	\$684,043
<b>TOTAL</b>	<b>\$4,201,665</b>	<b>\$4,291,409</b>	<b>\$4,382,070</b>	<b>\$4,476,889</b>	<b>\$4,572,308</b>	<b>\$4,669,969</b>	<b>\$4,769,715</b>	<b>\$4,871,593</b>	<b>\$4,975,646</b>	<b>\$5,081,922</b>	<b>\$5,190,488</b>	<b>\$5,301,333</b>
Inflation Factor	1.8072	1.8458	1.8852	1.9255	1.9666	2.0086	2.0516	2.0953	2.1401	2.1858	2.2325	2.2801
Voucher	Year 29	Year 30	Year 31	Year 32	Year 33	Year 34	Year 35	Year 36	Year 37	Year 38	Year 39	Year 40
Voucher	\$5,280,544	\$5,393,332	\$5,508,529	\$5,626,187	\$5,746,358	\$5,869,096	\$5,994,455	\$6,122,492	\$6,253,264	\$6,386,829	\$6,523,246	\$6,662,578
Relocation												
<b>TOTAL</b>	<b>\$5,280,544</b>	<b>\$5,393,332</b>	<b>\$5,508,529</b>	<b>\$5,626,187</b>	<b>\$5,746,358</b>	<b>\$5,869,096</b>	<b>\$5,994,455</b>	<b>\$6,122,492</b>	<b>\$6,253,264</b>	<b>\$6,386,829</b>	<b>\$6,523,246</b>	<b>\$6,662,578</b>
Inflation Factor	1.8072	1.8458	1.8852	1.9255	1.9666	2.0086	2.0516	2.0953	2.1401	2.1858	2.2325	2.2801