

**DWELLING PERCENT GOOD  
CDU RATING SYSTEM**

As houses grow older, they wear out; they become less desirable, less useful. This universal decline in value is called depreciation, and appraisers are required to determine the degree of this loss in each property they examine. If all houses deteriorated at the same rate, this decline in value would be a simple function of the age of the structure - a certain percentage per year. However, houses depreciate at varying rates depending on a score or so of variables.

Every building is acted upon by two value reducing forces. One tends to shorten its physical life; the other shortens its economic life. Both forces act concurrently, overlap, and affect each other. A new house, or any type of structure for that matter, has its greatest value at the moment of completion. Its expectancy of life - both physical and economic - is longest on the day the key is handed over by the builder. The building is then most desirable and most useful. The future benefits which the occupant may expect to enjoy are at the maximum. From that day forward, however, decay and wear and tear act to lessen the value of the structure by curtailing its remaining capacity for use.

At the same time the house is "wearing out ", it is also "going out of style". It is becoming less desirable. It is progressively becoming less useful, both from the effect of forces within the property (obsolescence), and outside of it as well (encroachment of undesirable influences such as less desirable property uses).

Neither physical decline nor functional loss are constant in their action. Deterioration is a relatively steady process offset periodically by maintenance. Worn-out elements of the building are repaired or replaced at intervals, depending upon the policy of the owner. Cheaper houses generally deteriorate faster than better ones. Obsolescence and encroachment may come slowly, or happen almost overnight. The forces which cause both deterioration and functional/economic depreciation may act and often do act simultaneously, but they are not necessarily related. A house may decline in physical condition, and yet throughout its entire life remain relatively functional.

Obviously enough, the age of a house remains an important factor in estimating accrued depreciation. A certain number of houses will receive "normal" maintenance and will experience "average" economic loss due to obsolescence and functional depreciation. These buildings will depreciate at an average rate as they grow older.

Other houses will lose value at lesser or more rapid rates. CDU Ratings provide a logical reasoning process, by means of which normal age depreciation may be modified according to the appraiser's best determination of the relative loss; of value in a structure, as compared with the average loss that might be expected. Thus, the age of a dwelling is an unreliable indicator of the degree of depreciation from its cost new. For houses depreciate not merely because they grow older - but because they wear out and become less desirable and less useful from a variety of causes.

To assist the appraiser in establishing the "CDU Ratings" of buildings, several simple classifications have been established. These classifications or ratings are entirely natural, and will fit the normal impressions of the appraiser as he examines a building. Following is a tabulation of CDU Ratings, with their accompanying definitions of the observed physical condition of the building, and its degree of desirability and usefulness for its age and for its type.

### **CDU RATING GUIDE**

CDU RATING OF DWELLING	DEFINITION
Excellent	Building is in perfect condition; very attractive and highly desirable
Very Good	Slight evidence of deterioration; still attractive and quite desirable.
Good	Minor deterioration visible; slightly less attractive and desirable, but useful.
Average	Normal wear and tear is apparent; average attractiveness and desirability.
Fair	Marked deterioration - but quite usable; rather unattractive and undesirable
Poor	Definite deterioration is obvious; definitely undesirable, and barely usable.
Very Poor	Condition approaches unsoundness; extremely undesirable and barely usable.
Unsound	Building is definitely unsound and practically unfit for use.

Age is reflected as an index of the normal deterioration and obsolescence in a structure which may be expected over the years. Condition represents a variable measure of the effects of maintenance and remodeling on a building. Desirability is a measure of the degree of appeal a particular building may have to prospective purchasers. Usefulness is a measure of the utility value of the structure for the purpose for which it may be used.

Percent good is defined as the resultant estimate of the diminishing value of an improvement, after subtracting the amount of estimated depreciation from the Replacement Cost New. For example, a structure which is estimated to be 45 percent depreciated as of a given time has a percent good of 55. Therefore, depreciation and percent good are complements of each other. Once the CDU

Rating of a building has been established through a consideration of its condition, desirability, and usefulness for its age and its type, reference to the Basic Percent Good Table will indicate the appropriate value percent remaining for a structure possessing these qualities, in the degree observed and noted by the appraiser.

The degree of deterioration and obsolescence, or loss of value from all causes, both within and without the property, is automatically taken into account. This is accomplished by means of a simple rating of the capabilities and qualities of the structure, in precisely the same terms as would a prospective purchaser. Sound valuation theory presupposes the existence of a prospective buyer with intelligence enough to compare the advantages and disadvantages of competing properties, and to rate the property he is examining according to its relative degree of desirability and usefulness.

### **APPLYING THE CDU SYSTEM**

To apply the CDU System, the appraiser rates each house according to his composite impression of its relative condition, desirability, and usefulness for its age and type. The following four actual cases illustrate this convenient and practical method of determining percent good in houses.

Case One: A fifteen-year-old single family residence situated in an attractive residential suburb of a typical American community. Grade "B" with two baths. Minor deterioration is visible: slightly less attractive and desirable than new, but useful. A qualified observer would rate this house above average on the CDU Rating System. Accordingly, our appraiser has assigned it a CDU Rating of "Good". Referring to the table, we find 80% Good would be appropriate.

Case Two: A one story frame house seven years old. Grade "C" or average quality construction: three bedrooms, one and one-half baths. Structure shows normal wear and tear and has average attractiveness and desirability. The appraiser's impression is, "for a seven-year-old Grade "C" house, this would be rated as Average." From the table we find 85% Good is indicated.

Case Three: This century-old Colonial style frame house is located in a New England seaport community; erected 1858. Grade "B" or good quality construction. Building has been extremely well maintained and completely modernized with central heating, electric lighting, and plumbing added. The structure is in good physical condition in spite of its age. Building is architecturally attractive and quite desirable. The appraiser's impression is, "for a very old house of Grade "B" quality', this is an Excellent one ". From the table 65% Good is indicated.

Case Four: A twenty-four-year-old single family residence of Grade "C" quality; one story and basement, frame construction; three bedrooms with bath. Structure has had normal maintenance and is average in physical condition. Within the past

two years, an elevated six-lane expressway passing over the adjoining lot has been erected. This encroachment has seriously detracted from the attractiveness and desirability of the property. Accordingly, the appraiser has assigned a CDU Rating of "Very Poor". From the table 40% Good is indicated.

**DWELLING PERCENT GOOD**

1. Rate the dwelling in terms of its overall condition, desirability, and usefulness.
2. Select the proper percent good relative to its actual age.

## COMMERCIAL/INDUSTRIAL PERCENT GOOD COMMON CAUSES OF OBSOLESCENCE

In the final analysis, an estimate of depreciation or value loss represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and his ability to exercise sound judgment in equating his observations to the proper monetary allowance to be deducted from the replacement cost new. The following tables have been provided as guidelines to assist the appraiser in arriving at the resultant estimate of the diminishing value of improvements after subtracting all forms of depreciation. Following is a listing of some of the most common sources of functional and economic obsolescence which should further assist him in arriving at a reasonable estimate of obsolescence.

### Common Causes of Functional Obsolescence

Poor ratio of land to building area.

Inadequate parking, and/or truck and Railroad loading and unloading facilities.

An appearance unattractive and inconsistent with present use and surrounding properties.

Poor proportion of office, rental, or manufacturing, and warehouse space.

Inadequate or unsuited utility space.

Limited use and excessive material and product handling costs caused by irregular and inefficient floor plans, varying floor elevations, inadequate clearance, and cut up interiors with small bays and excessive number of walls, posts and columns.

Multi-story design when single story would be more efficient and economical.

Excessive or deficient floor load capacity.

Insufficient and inadequate elevator Service.

Effects of corrosion created by manufacturing, processing, or storing of Chemicals.

Foundational and structural failures due to poor soil conditions, poor design, excessive loading, poor maintenance, excessive vibration of building and process equipment.

Inadequate power distribution, heating, ventilation, air condition, or lighting systems.

### Common Causes of Economic Obsolescence

Zoning laws and other governmental regulations which affect the usage and operation of the property.

Building code requirements which set current acceptable construction standards.

Market acceptability of the product or services for which the property was constructed or is currently used.

Profitability of the operation of the property and the justifiable investment which the business would support.

High maintenance costs resulting from mixed building constructions and/or the use of obsolete building materials.

Termination of the need for the property due to actual or probable changes in economic or social conditions.

**COMMERCIAL/INDUSTRIAL  
ECONOMIC LIFE GUIDELINES**

Economic life is an estimate of the normal life expectancy of a component. The following are some suggested guidelines for the average expected life of various commercial/industrial buildings and yard improvements.

<b>BUILDINGS</b>	<b>WOOD JOISTS</b>	<b>FIRE RESISTANT</b>	<b>FIRE PROOF</b>
Apartment	40	40	50
Apartment (High Rise)	--	40	50
Automobile Agency	33 <sup>1</sup> / <sub>3</sub>	40	40
Bowling Alley	30	40	40
Car Wash (Conventional)	30	40	40
Car Wash (Manual)	20	20	--
Fast Food Restaurants	30	30	30
Hotel	30	40	50
Industrial	33 <sup>1</sup> / <sub>3</sub>	40	50
Medical Center	40	50	50
Motel	30	33 <sup>1</sup> / <sub>3</sub>	40
Nursing Home	33 <sup>1</sup> / <sub>3</sub>	40	50
Office (Conventional)	40	40	60
Office {Institutional}	--	50	60
Pre-Engineered Build. (Heavy)	--	40	--
Pre-Engineered Build. (Med.)	--	35	--
Pre-Engineered Build. (Light)	30	30	--
Service Station	20	20	--
Shopping Center	33 <sup>1</sup> / <sub>3</sub>	40	50
Store	30	40	50
Theater	30	40	50
Truck Terminal	33 <sup>1</sup> / <sub>3</sub>	40	40
Warehouse	30	40	40

**YARD IMPROVEMENTS**

Asphalt Paving	12
Concrete Paving	20
Reinforced Concrete Platforms	35
Wood & Timber Platforms	25
Chain Link Fence	20
Masonry Fence	35
Wood Fence	15
Masonry Stacks	40
R R Siding	35
Steel Incinerators {Lined}	15
Concrete Reservoirs	30

**PERCENT GOOD SCHEDULES AND TABLES**

It is often advisable to develop schedules and tables to be used as a guide for the appraiser to determine value. The use of such tables is especially applicable in mass appraisals for tax equalization purposes where it is essential to establish and maintain uniformity. Percent Good tables, however, based on actual age alone are impractical. Remodeling, for instance, has the effect of prolonging the remaining life of a building, thus making its effective age considerably different than its actual age. Consideration must be given to all factors operating to influence the overall condition, desirability, and the degree of usefulness of each structure.

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**OTHER BUILDING AND YARD ITEM  
PERCENT GOOD GUIDELINES**

The appraisal of other buildings and yard improvements for both residential and agricultural properties is a difficult task. Other buildings and yard improvements are rarely purchased or sold separately from the balance of the property. The cost of construction of a swimming pool, which is built for the convenience and comfort of a property owner, will rarely add an equivalent amount to the market value of the property. The cost of construction of a farm outbuilding that can be justified by its contribution to the farming operation will again seldom add an equivalent amount to the market value of the property.

In effect, other buildings and yard improvements have value in direct proportion to their degree of utility or usefulness. This is an extension of the principle of contribution, which affirms that the value of any factor in production is dependent upon the amount which it contributes to the overall net return, irrespective of the cost of its construction. Any effective approach to the valuation of other buildings and yard improvements must reflect the action of investors. Informed farm owners and operators would not invest in buildings which could not pay for themselves by either maintaining or adding to the required level of productivity. Homeowners would not invest in swimming pools, detached garages, etc., which would not supply the degree of comfort and/or convenience they desire.

Five individual Percent Good Tables have been developed to assist the appraiser in valuing the various other building and yard improvements that are normally encountered. The following is a list of the five tables.

