

COST SEGREGATION INSIGHTS

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“A quality cost segregation study always accounts for the physical deterioration and functional obsolescence of assets”

PROPER COMPONENT DEPRECIATION OF ACQUIRED REAL PROPERTY

A proper understanding of the depreciation of building components and site improvements of acquired properties is key to developing a qualified cost segregation study and limiting unwanted audit exposure. The IRS Cost Segregation Audit Techniques Guide ([IRS Cost Segregation Audit Techniques Guide - Chapter 4 - Principal Elements of a Quality Cost Segregation Study and Report](#)) states that depreciation is properly handled by addressing physical deterioration and functional obsolescence.

Physical deterioration, also known as physical depreciation, is defined by the IRS as the gradual reduction in the value of property due to physical deterioration. Physical deterioration is always present when analyzing acquired properties. From the moment that a property is placed into service, deterioration begins. Physical deterioration can take place slowly in fair weather climates and/or lightly used property. It can also take place quickly in harsh weather climates and/or heavily used property.

Functional obsolescence is when a property can no longer adequately perform the function for which it was created. Though physical deterioration and functional obsolescence must ‘*always*’ be considered for each building and site improvement analyzed within a cost segregation study, functional obsolescence is rarely observed. Apartments, offices, hospitals, hotels, retail and other professional and residential facilities do not normally suffer from a lack of functionality over time. Some industrial, data and/or biochemical properties may suffer from technical functional obsolescence due to technological advances that take place within a specialized industry.

For example, let's assume identical carpeting is installed at two locations at the same time. One location is a small office with light floor traffic and the other location is an industrial environment with heavy floor traffic. We would expect the carpeting in the small office with light floor traffic to be in better condition after a three-year period than the carpeting in the industrial environment with heavy floor traffic.

Measuring Physical Deterioration

There are several different ways that physical deterioration can be measured. The most common way is through a physical age analysis. Physical age is defined as the age of the property since being placed into service. Physical age is determined through document review and/or a professional estimate. If a property is observed to be in better or worse physical condition than the physical age, an adjustment can be made to better represent the physical condition of the property. This adjustment to physical age based on observed physical deterioration is referred to as effective age.

In the example above, utilizing a nationally recognized source, we determine that the expected physical life, also referred to as normal useful life, of the of carpeting is seven years. For purposes of this example we will assume that the carpet went into service four years ago:

- If the wear & tear of the carpet looks to be 4-years old, based on our 7-year carpet life, the physical age equals effective age, and thus the carpet has a depreciated cost adjustment of 57.14% (4-years ÷ 7-years).
- If the wear & tear of the carpet looks to be 2-years old, based on our 7-year carpet life, the effective age is 2-years, and thus the carpet has a depreciated cost adjustment of 28.57% (2-years ÷ 7-years).
- If the wear & tear of the carpet looks to be 5 years old, based on our 7-year carpet life, the effective age is 5-years, and thus the carpet has a depreciated cost adjustment of 71.43% (5-years ÷ 7-years).

As shown above, the effective age adjustment, made through observed physical condition can have a significant effect on depreciated value of the carpet.

Without properly accounting for the physical deterioration of each building component, an improper allocation to the building components will take place. Long-lived property costs will likely be understated, while short-lived property costs will likely be overstated. The omission, or improper application of depreciation consideration, will produce a poorly prepared study and potentially increase audit exposure.

A Mini Cost Segregation Exercise

In an acquired property, there are numerous building components that need to be properly depreciated; far too many to detail in this short article. Let's look at a few different components to demonstrate the effect that proper depreciation has on a qualified cost segregation study.

In this exercise, we will consider an office building placed into service three years ago. All property is observed to have an effective age of three years and there is no functional obsolescence observed. We will consider two types of long-lived property as classified by the IRS and given a 39-year tax life (concrete slab flooring and ceramic tile flooring) and two types of short-lived property as classified by the IRS and given a 5-year tax life (vinyl tile flooring and carpet).

Table 1

| Description | Area (Square Feet) | Cost per Square Foot | Physical / | | |
|---|-----------------------|-------------------------|--------------------------|-------------------------------|---------------------|
| | | | Effective Age (Years) | Normal Useful Life (Years) | Tax Life (Years) |
| Concrete Slab Flooring | 100,000 | \$7.00 | 3 | 45 | 39 |
| Ceramic Tile Flooring (Restrooms) | 1,000 | \$14.50 | 3 | 35 | 39 |
| Vinyl Tile Flooring (Foyer & Reception) | 5,000 | \$5.50 | 3 | 10 | 5 |
| Carpet (Office) | 94,000 | \$4.50 | 3 | 7 | 5 |

The Effect of Physical Deterioration on a Cost Segregation Study

Let's perform our mini-study and see how costs are allocated when physical depreciation is not considered:

Table 2

| Description | Area (Square Feet) | Cost per Square Foot | Tax Life (Years) | Cost | Allocation |
|---|-----------------------|-------------------------|---------------------|------------------|-------------|
| Concrete Slab Flooring | 100,000 | \$7.00 | 39 | 700,000 | 60% |
| Ceramic Tile Flooring (Restrooms) | 1,000 | \$14.50 | 39 | 14,500 | 1% |
| Long-Lived Property | | | | 714,500 | 61% |
| Vinyl Tile Flooring (Foyer & Reception) | 5,000 | \$5.50 | 5 | 27,500 | 2% |
| Carpet (Office) | 94,000 | \$4.50 | 5 | 423,000 | 36% |
| Short-Lived Property | | | | 450,500 | 39% |
| GRAND TOTAL | | | | 1,165,000 | 100% |

The allocation of cost between long-lived and short-lived property is 61% and 39% respectively.

Now, let's perform our mini-study and see how costs are allocated when **physical depreciation** is considered:

Table 3

| Description | Area (Square Feet) | Cost per Square Foot | Physical / | | | Tax Life (Years) | Depreciated Cost | Cost Allocation |
|---|-----------------------|-------------------------|--------------------------|-------------------------------|----|---------------------|---------------------|--------------------|
| | | | Effective Age (Years) | Normal Useful Life (Years) | | | | |
| Concrete Slab Flooring | 100,000 | \$7.00 | 3 | 45 | 39 | 653,333 | 70% | |
| Ceramic Tile Flooring (Restrooms) | 1,000 | \$14.50 | 3 | 35 | 39 | 13,257 | 1% | |
| Long-Lived Property | | | | | | 666,590 | 72% | |
| Vinyl Tile Flooring (Foyer & Reception) | 5,000 | \$5.50 | 3 | 10 | 5 | 19,250 | 2% | |
| Carpet (Office) | 94,000 | \$4.50 | 3 | 7 | 5 | 241,714 | 26% | |
| Short-Lived Property | | | | | | 260,964 | 28% | |
| GRAND TOTAL | | | | | | 927,554 | 100% | |

The allocation of cost between long-lived and short-lived property, considering physical depreciation is 72% and 28% respectively.

This exercise highlights the shift in cost allocation between short and long-lived property after applying a depreciation factor. Long-lived property costs were understated by 11%, while short-lived property costs were overstated by 11% prior to considering depreciation.

Allocating to the Purchase Price

The final step, when performing a qualified cost segregation study, is to allocate (prorate) costs to the purchase price of the property; less the land, and other non-qualifying costs. After applying a purchase price adjustment factor to the depreciated cost, the property basis allocation will continue to distribute the property basis properly amongst the long-lived and short-lived property.

The table below presents an upward adjustment factor based on a \$1.5 million purchase price:

| Description | Depreciated Cost | Adjustment Factor | Property Basis | Property Basis Allocation |
|---|------------------|-------------------|------------------|---------------------------|
| Concrete Slab Flooring | 653,333 | 1.62 | 1,056,542 | 70.4% |
| Ceramic Tile Flooring (Restrooms) | 13,257 | 1.62 | 21,439 | 1.4% |
| Long-Lived Property | 666,590 | | 1,077,980 | 71.9% |
| Vinyl Tile Flooring (Foyer & Reception) | 19,250 | 1.62 | 31,130 | 2.1% |
| Carpet (Office) | 241,714 | 1.62 | 390,889 | 26.1% |
| Short-Lived Property | 260,964 | | 422,020 | 28.1% |
| GRAND TOTAL | 927,554 | | 1,500,000 | 100% |

The table below presents a downward adjustment factor based on a \$750,000 purchase price:

| Description | Depreciated Cost | Adjustment Factor | Property Basis | Property Basis Allocation |
|---|------------------|-------------------|----------------|---------------------------|
| Concrete Slab Flooring | 653,333 | 0.81 | 528,271 | 70.4% |
| Ceramic Tile Flooring (Restrooms) | 13,257 | 0.81 | 10,719 | 1.4% |
| Long-Lived Property | 666,590 | | 538,990 | 71.9% |
| Vinyl Tile Flooring (Foyer & Reception) | 19,250 | 0.81 | 15,565 | 2.1% |
| Carpet (Office) | 241,714 | 0.81 | 195,445 | 26.1% |
| Short-Lived Property | 260,964 | | 211,010 | 28.1% |
| GRAND TOTAL | 927,554 | | 750,000 | 100% |

Whether the final allocation to the property basis is an upward or downward shift, the physical depreciated allocation will always distribute the costs properly amongst the long-lived and short-lived property.

When it is time to engage a cost segregation professional for your next acquired property project, it would be advisable to ask: 'How do you account for physical depreciation in a cost segregation assignment?'

To learn more about how Porto Leone Consulting can work with you, please contact Walter O'Connell at 212.273.1143 x203 or WalterO@PLC-LLC.com.

ABOUT THE AUTHOR

Walter O'Connell is a Senior Consultant with Porto Leone Consulting, LLC ("PLC") and is responsible for managing cost segregation studies and tangible asset valuations. He has provided these services to clients in a variety of industries for over ten years.

Prior to joining PLC, Walter worked in the manufacturing and distribution sectors as an Inventory Control Manager for Newell Rubbermaid (NYSE:CHX) and Marcolin S.p.A.. While working as an Inventory Control Manager, Walter specialized in material requirements planning and manufacturing resource planning, in matters of national and international purchasing, the procurement of production equipment, plant and production design, cost allocation studies, and inventory accounting.

He has performed and managed cost segregation studies on hundreds of properties, including hotels, senior living facilities, manufacturing facilities, research & development facilities, office buildings, hospitals, and retail properties. Walter has experience in tangible asset valuations for tax, book, insurance placement, due diligence, and business planning purposes in the healthcare, hospitality, manufacturing, chemical, food processing, cable and telecommunications industries nationally.

Walter holds a Master of Arts degree in Economics from Montclair State University, Bachelor of Science degree in Finance and a Bachelor of Arts degree in Economics from Kean University. He is an Accredited Senior Appraiser ("ASA") with the American Society of Appraisers, a member of the Association of Production and Inventory Control Supervisors ("APICS"), and is an Accredited Senior Cost Segregation Professional ("SCSP") with the American Society of Cost Segregation Professionals ("ASCSP") and is a member of the American Economic Association.

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Our management team is comprised of professionals with diverse backgrounds and expertise. Many of our professionals originated from Big 4 Accounting Firms with a common goal to provide high quality, timely and cost effective valuation services to our clients.

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