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The sustainability aspect of adaptive reuse

The demand for urban space is continuing to surge among this new generation of consumers. Developers and building owners are continuing to pursue adaptive reuse opportunities as a solution to meet this demand and give new life to an ever-increasing inventory of abandoned and obsolescent structures. The practice of adaptive reuse is not new, but as urban areas have seen a resurgence of interest and popularity, it has become necessary for developers, owners, and investors to consider this as a viable option in order to get a foothold in these areas. While adaptive reuse is an attractive option due in part to the fact that it is generally a faster more cost effective way to get a 'new' building up and running, it also offers significant opportunities for energy efficiency and sustainability measures.

Materials and Energy Output

Sometimes the building with the best opportunity to be considered "green" is one that

is already built. At the most basic level, adaptive reuse is the greatest example of the recycling culture. Materials like wood and metals can be preserved, energy and resources necessary to demolish the building, like manpower, fuels, and CO2 emissions, can be conserved and environmental disturbances can be avoided. In some cases, these materials may, be of a higher, more sustainable quality than those that would be used for new construction.

Operational Efficiency

Over time, buildings are subject to performance degradations, changes in use, malfunctions or other system issues. As a result, these systems experience deterioration in function, an inefficiency in operation or unacceptable thermal conditions, which can account for a significant amount of wasted energy consumption. Considering that many buildings being repurposed were built well before current energy efficiency codes were in place, sometimes simple fixes can restore the functionality and increase the energy savings with these large building systems. If you are retrofitting your building's infrastructure, a simple tune up to get your systems back up and running effectively can pay for itself in one year.

Easy Solutions with Quick Returns

Some quick and easy sustainability upgrades with great ROI for adaptive reuse projects include switching existing light fixtures out for energy efficient LED lighting, using optimizing/programmable building controls ceiling

fans or installing low-flow fixtures. Building envelopes can be retrofitted with building fabric, window shading/glazing or air tightening measures to greatly reduce the heating and cooling system demands.

Funding and Incentives

There are many sustainability incentives and funding opportunities available which can be utilized by developers, owners and investors. One funding source, dsireusa.org, lists over 2000 energy and sustainability grants, loans, and incentive programs by state and type, and also lists all of the regulatory policies for these improvements.

In the state of New Jersey, public utility company, PSE&G, has created its own energy efficiency program which will benefit a variety of building types and customers who otherwise might not make the investment in energy efficiency measures due solely to the fact that they cannot afford the up-front costs, or the wait for ROI.

The market demand for sustainably responsible space will continue to grow exponentially as more and more programs and incentives become available for developers and owners. Greater tenant retention, the ability to demand higher rental rates and greater return on assets and equity can all result from implementing sustainability measures in your adaptive reuse projects.

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