

## **GREEN MORTGAGE BACKED SECURITY (MBS) POOLS BUILDING STANDARDS' REQUIREMENTS**

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### **CRITERIA**

The building industry has been regulated by voluntary consensus standards since 1898 when the industry standardized building heating and cooling requirements to prevent exploding boilers. As such, there is no dominant government regulatory role. The use of voluntary consensus standards has been codified in the Federal Technology Transfer Act whereby the federal government defers to consensus standards before initiating rulemaking. These standards cover the tensile strength of steel, compaction of backfill, hardness of cement and concrete, and environmental features among hundreds of other building requirements.

The building industry, government building codes, government agencies, and the capital markets all require consensus standards to limit technical, scientific, financial and political risk and uncertainty and protect public health and welfare. Sustainable and green standards must meet this test to be 1) effective in the market, and 2) eligible for government and capital market adoption to reduce risk and create value.

Consensus green building standards for public and/or private construction have been adopted by 21 federal government agencies, 12 states, and over 45 municipalities. Their rigorous approval process as set forth by the American National Standards Institute ensures the aforementioned benefits.

### **PRECEDENT**

The foremost consensus standards currently required by the capital markets are the Phase 1 Environmental Site Assessment and the Property Condition Assessment (PCA). These standards were developed under the leadership of Market Transformation to Sustainability (MTS) officials in ASTM, the world's largest standards setting entity.

The Phase 1 is a consensus standard that has been used by the capital markets to protect owners and secured creditors from environmental cleanup liability. The Phase 1 was adopted by the capital markets 15 years ago and is required for all assets within CMBS pools. Several years after adopting the Phase 1, Standard & Poors requested ASTM develop the PCA to reduce the risk of building failures, and then mandated its use for all assets underlying CMBS pools.

### **CERTIFIED GREEN MBS POOLS**

Green MBS pools should comprise buildings certified to consensus standards given the above precedent for the capital markets and governments to reduce risk and create value.

Critical market pressures including rising conventional energy costs, lower operating costs, and climate change have accelerated a rapidly growing green building market. Increasing support continues by government, building owners, the design and construction community, and financial institutions including leading investment banks because these entities have assigned greater value to green buildings.

CitiGroup and MTS officially requested Standard and Poor's participation in initiating Green MBS based on the *Green Building Industry Value Rating System*® which demonstrates both risk reduction and value creation for certified green buildings. This activity was then expanded to additional investment bankers, CMBS investors, and lenders.

All three of the consensus standard certifications detailed below cover both commercial and residential buildings and are applicable criteria for Green MBS. The use of these certifications was ratified at the Green and ENERGY STAR Building Finance Summit conducted by MTS in December 2005 in NYC where over \$100 billion in real estate investment was represented including leading MBS originators.

**RECOMMENDED STANDARDS FOR GREEN MBS**

**LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN (LEED):** LEED is a transparent consensus standard requiring independent certification by the US Green Building Council. It is the leading green building standard in the world with substantial market support. MTS officials developed the consensus process for LEED and secured its approval as a consensus standard.

**ENERGY STAR:** EPA's ENERGY STAR for buildings is also a consensus standard approved by the federal government; buildings are independently certified to this standard. ENERGY STAR has the greatest number of certified buildings among these three standards with over 22,000 buildings in its database which are benchmarked against their peer group.

**CARBON NEUTRAL:** MTS developed this approved consensus standard with the support of the American Institute of Architects and the US Conference of Mayors. Carbon Neutral Buildings use energy efficiency and green power, and require legally binding certification. This certification is very amenable to high volume MBS needs as certifications are completed by licensed architects and engineers as opposed to a single certification entity. Once certified, buildings are independently audited for compliance.

Given the capital markets and rating agencies' requirement for consensus standards to verify that an underlying asset qualifies for MBS issuance, Green MBS pools should have the following four data points attached to the underwriting information:

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|--|---|
| <b>1. LEED Certification</b>           | Yes / No                                    |
| <b>2. LEED Level</b>                   | None / Certified / Silver / Gold / Platinum |
| <b>3. Energy Star Certification</b>    | Yes / No                                    |
| <b>4. Carbon Neutral Certification</b> | Yes / No                                    |

**ADVANTAGES**

Based on the three standards above, originators and investors can determine the relative dollar and/or SF amount of certified green buildings in any MBS pool. This information in addition to underwriting criteria can be used for investment decisions. Certification ensures compliance to these Standards and allows reliance that the standard requirements are achieved along with the concomitant risk reduction and value creation.

In addition, originators may capitalize on green buildings by developing new products that further carve up MBS pools based on attributing green building cash flows to certain securities.

**SCREEN FOR POOLS WITH LESS THAN 100% CERTIFIED GREEN BUILDINGS**

Green MBS have the greatest value when 100% of the mortgages comprising the pools are secured by certified green buildings. Further, this approach leaves no question as to compliance with the Federal Trade Commission Environmental Marketing Guides governing accurate green building communications, and market credibility including with the environmental community.

However, there may be bona fide reasons why 100% of the mortgages in pools are not from certified green buildings, primarily due to the current market condition of a relatively small but fast growing supply of certified green buildings and to a lesser extent the certification timeliness of LEED. Efforts to increase an originator's access to a greater supply of green mortgages provide opportunities to develop marketing programs within an investment bank's lending group targeting certified green buildings.

To the extent that initial pools cannot be 100% filled by buildings certified to green consensus standards, selecting mortgages that demonstrate one or more environmentally-beneficial criteria provide the opportunity to round out a Green MBS issuance. In this situation, originators should employ a simple "environmental screen" to non-certified buildings when rounding out the MBS pool. For reasons stated above we strongly recommend that no Green MBS be issued simply based on the screen alone and include a critical mass of LEED and Energy Star certified assets.

A recent survey by the Responsible Property Investment Project, a joint initiative of the Boston College Institute for Responsible Investing and the University of Arizona, implemented a Delphi Ranking Process for roughly 60 green asset features appealing to the socially responsible investment community.

The screen below consisting of nine (9) criteria is suggested for non-certified buildings – assets should be able to demonstrate achievement of one or more of these criteria. The screen is easily implemented and uses select locational factors, green building features, and well-recognized indicators of higher real estate and environmental value including several of those identified by the Property Investment Project.

Tracking and transparently communicating these characteristics guide investors when analyzing pools for these environmental features.

### **ENVIRONMENTAL SCREEN FOR ROUNDING OUT GREEN MBS POOLS**

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|---|--|
| <b>1. Transit-Oriented Development</b>      | Assets located within ½ mile of a subway stop, commuter train stop, or a bus transfer station. This criterion increases productivity, saves energy and associated transportation costs, and reduces climate risk.  |
| <b>2. Brownfield Redevelopment</b>          | Assets located on a recently remediated brownfield site; a review of the mandatory Phase I environmental site assessment required by CMBS determines eligibility. The Phase I will state that there was contamination and the urban location and thus the property is a brownfield.<br><br>Atlantic Station in Atlanta, GA and Potomac Yards in Arlington, VA qualify. This criterion promotes urban redevelopment, saves energy and associated costs, and encourages environmental cleanup. |
| <b>3. Mixed-Use Town Center Development</b> | These include assets in a mixed-use, transit-oriented fashion and thereby reduce auto trip generation, save energy, and increase productivity. Examples include Santana Row in San Jose, CA; Pentagon Row in Crystal City, VA; Pasadena City Center, in Pasadena, CA and other mixed-use residential/retail centers.   |

- 4. Urban Redevelopment**

Office / Retail / Multifamily projects on sites that have been redeveloped within the urban core save resources and reduce pollution:

  - Projects located inside SMSA interstate beltway
  - Transit orientation
  - Buildings that have recently been upgraded from Class B/C to Class A
  
- 5. EPA Energy Star Score**

It is recommended that the originator disclose the Energy Star score for all buildings in the MBS pool utilizing the EPA Portfolio Manager tool available online (easy to implement).

A score above the median of 50 is preferred because energy efficiency is an accurate measure of added value and reduced risk from lower operating costs, and protects against energy price volatility.
  
- 6. Onsite Stormwater Management**

Buildings with greywater systems, underground cisterns for water capture and reuse, and/or landscaping features that maintain and treat water onsite should be noted.

Ideally, these features will be coupled with other water consumption reducing features and energy efficient features that reduce operating costs and protect the environment. This criteria is favorable for buildings subject to stormwater permitting.
  
- 7. Green / Energy Efficient Roofs**

Including assets with green roofs or roofs utilizing Energy Star roofing systems which reduce energy loads and save operating costs. Green roofs reduce water runoff which is favorable for buildings subject to stormwater permitting.
  
- 8. Historic Renovation**

Any building that is on the historic register or has received historic tax credits as part of a rehab project.
  
- 9. Onsite Green-e Power**

Green-e includes onsite solar, wind, hot or cold geothermal which can substantially reduce operating costs and protect against conventional energy price volatility, supply interruptions, and climate change risk. For example, One Bryant Park in New York City achieves more than 50% of its energy needs from onsite green-e power.