

(Host): Michigan has more than its fair share of abandoned buildings. Detroit is one of the most significant examples.

Hundreds of millions of dollars are being spent in demolition. But what if we had a plan for the end of a building's life from the very beginning.

What if abandonment didn't just shift the cost to taxpayers?

Our latest contributor to The Next Idea, is studying this problem of abandoned buildings, and working to find solutions.

Rex LaMore is Director of the Michigan State University Center for Community and Economic Development.

You recently got a US Department of Commerce grant to work on this problem in Muskegon. Why Muskegon, why that city?

(Rex): The interest in Muskegon of course is the potential to use the port as an economic growth engine for the region and to create jobs around the deconstruction sector by gathering the debris from many of the great cities along the Great Lakes shoreline, and then bringing that to Muskegon and then utilizing that port to create jobs, and see if there might be reuses for this material.

(Host): So, will you or will you not be dealing with the three thousand abandoned buildings in Muskegon?

(Rex): Yes, they are certainly within the catchment area, right there within the neighborhood. So, yes, those three thousand structures will be a part of our catchment, but we'll also be looking at materials from Chicago, Toledo, Cleveland, Detroit, Milwaukee, some of the other Great Lakes areas, to see again the feasibility of shipping large amounts of this material to make it economically feasible to the Muskegon Port.

(Host): Now you talk about deconstruction instead of demolition; there's a cost to that, is it practical?

(Rex): Well, right now, the economic incentives around demolition and material reuse is fairly low. We're particularly interested in what we're calling the "high volume, low value" material. If you think of what happens with an abandoned structure, a residential structure, principally the first night it's abandoned, the scrappers come in and will extract some of the more valuable materials; the copper, and other useful elements. The second skim, will take out the artifacts, any architecturally valuable lumber, interesting wood, cabinets, staircases. And in the third skim, this is the material that is generally high-volume, low-value; this would be the wood siding, the roofing, the linoleum flooring, the interior walls. This material generally gets demolished and shipped off to a landfill. And that's the cheapest and fastest way to do it. So now we're looking at, well, rather than filling up our landfills, because a considerable amount of this material ends up in landfills - are there other ways that we might repurpose this material. And so that's really, we're looking at that third skim, that high-volume, low value material, to see if that might be transported over to Muskegon, and then sorted, reused and repurposed there.

(Host): That seems challenging because some of these older buildings have lead paint, maybe asbestos. Is there gonna be any value there? How do you figure that out?

(Rex): Yep, that's part of the research that needs to occur, and yes, some of the material is dangerous material in that it contains lead paint or it has asbestos remains from insulation, and so part of the handling of that material will be an important element of determining if this is a feasible process. And again, right now that's ending up in landfills, and again that's probably not the best use for it either.

(Host): I wanna talk to you about the problem of blight in general; I mean, when the building is abandoned, it quickly becomes an eyesore, it lowers the property values nearby, it means property tax revenue goes down, it hurts local governments and schools, it decreases the quality of life for people in the city, I mean nobody likes living in a neighborhood of abandoned houses and buildings. So why hasn't this been studied to a greater degree than it is right now?

(Rex): We have a current paradigm that allows private landowners to essentially abandon their property; individuals and corporations, to walk away from any responsibility for the cleanup of that, and then the public sector, many of which local governments who are extremely financially strapped, or the federal government then comes in and cleans up that property, and that takes quite a bit of time and quite a bit of money. So we really need to think differently about structures having a life cycle, so that at the beginning of planning, design, construction, use, reuse, and finally deconstruction, we'll think about buildings having life cycles. So it'll be a period of time where we incorporate this idea of a building lifecycle in the process, and then the second element of it is, ending this abandonment where the private sector is able to burden the public sector with the cost of cleanup, and the eventual demolition, deconstruction of the material. So we've been looking, in this science of Domicology, we're calling it the study of abandoned structures...

(Host): I'm sorry, what was that term again?

(Rex): Domicology. The study of abandoned structures, policies, and practices that result in abandonment, and ways that we can mitigate the negative social, environmental, and economic implications of that.

(Host): Is that a new term? I've never heard that before.

(Rex): Yes. Yes, it is a term that we've coined, that we believe captures the depth of research that can occur along this topic. So if you think about, again, the policy issues; how would we collect financial resources at the construction of a new structure, such that at the end of the useful life of that structure, there would be financial resources to deconstruct it.

(Host): Right, I understand one of the things you're talking about is requiring a bond or insurance to be in place when a building is built, and then there will be funds when it needs to be torn down. How would that work? Especially with housing and building construction just recovering, how likely is it that there would be buy-in for something like that?

(Rex): Currently, the State of Michigan permits local governments to place a bond on specific structures that present a clear public health and safety hazard. For example, cell towers, and electric-generating windmills, they require the developers of those structures to purchase a bond at the point of construction so at the end of life of that structure, we don't have cell towers or windmills tipping over and causing harm to other structures or people. And so there's already precedent in law, where we require, again, the private owner to secure deconstruction of that property. So, the idea of extending that bonding authority to other structures who also present a health and safety hazard, as you

mentioned, blighted structures reduce the economic value of surrounding properties, present health and safety issues related to that neighborhood. The second idea that we've been pursuing is the possibility, and this would apply to new construction, a third-party insurance policy; could you require that on new construction, such that over the life of that structure, they would collect a premium, so that at the end of the useful life of that structure there would be sufficient private sector resources to deconstruct that property. Now if you think about that, if you think about, you're going to be responsible for taking the property apart at the end of its useful life, you're going to build it differently. For example, you're going to use screws rather than glue, just allows you to maximize the resource extraction out of that. So, it'll effect the design of the structure, it'll effect the possible reuse of it, and possible reuse. So this will take a series of policy conversations; Domicology is a long-term science, it's going to require some consideration. Right now, the way the system is working, private sector use, abandonment, public-sector cost associated with demolition. And that results in substantial health and safety and environmental challenges that we can think differently about in the future, so our grandchildren aren't dealing with this system of abandonment like we are.

(Host): So, we've talked about a lot here. What are the first steps in Muskegon? How do you begin?

(Rex): First step is to really estimate the volume of material that might be available, the nature of the material, the shipping cost of material to Muskegon of course, the potential reuse of that, and we've been looking at European industries. Europeans have a very different approach to structures because of their limited land availability, and they also require new construction to have a certain percentage of previously-used materials in it, so there's a market for the reuse of these materials from a structure. We've been looking at industries in Europe that have track-record in utilizing wood, linoleum, asphalt shingles, seeing what kind of labor needs they have, what their economic factors are, seeing if they might have a potential to relocate here in Michigan, Muskegon in specific, employ the workforce in Muskegon, utilize the industrial infrastructure in that part of our state. And then we'll make our determination with input from our colleagues in the west side of the state; is this a feasible strategy or not?

(Host): Rex LaMore is the Director of the Michigan State University Center for Community and Economic Development, and we've been talking about recycling and repurposing building materials as part of the solution to dealing with the blight of abandoned buildings. Thanks very much.

(Rex): You're welcome, and thank you for the opportunity to discuss this.