

# BUILDING GREEN

New Business Opportunities for NYC Manufacturers



Industrial & Technology Assistance Corporation (ITAC)  
and New York Industrial Retention Network (NYIRN)

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## **INTRODUCTION**

Increased green building construction is creating business opportunities for New York City manufacturers. Green buildings open new markets for products that minimize environmental impacts and decrease energy consumption. Now is the time for New York manufacturers to enter this market.

By emphasizing strategies such as water conservation, energy efficiency and the selection of materials and products that promote indoor air quality, green buildings foster a healthy living and working environment. The U.S. Green Building Council (USGBC), the premier national organization on green construction, has developed the Leadership in Energy and Environmental Design (LEED) standard for evaluating the “greenness” of a building. The ability to “score” and measure the degree to which a building meets the LEED standard has been a major influence in the growth of this market.

In New York City, there are over 30 planned LEED

green building projects. By one estimate, spending on green buildings is expected to top \$4 billion<sup>1</sup> over the next few years, accounting for one quarter of new construction costs.<sup>2</sup> However, the market for green buildings is much greater than just the five boroughs. LEED guidelines promote locally produced “green” materials. As a result, all planned LEED projects within 500 miles of New York City are potential clients for New York City manufacturers. In total, there are currently 577 green buildings planned within this 500-mile radius.

Beyond LEED, there are a number of other sustainable building standards driving the demand for green products. In Battery Park City, recently completed and planned projects will create over 1000 “green” residential units valued at more than a half billion dollars. The Enterprise Foundation’s Green Communities initiative is committing over \$250 million to develop low-income and affordable green housing in New York

1] Remarks by Comptroller William C. Thompson, Jr., High Performance Building Academy, The Graduate Center, CUNY, April 4, 2005.

2] New York City Building Congress, Construction Outlook 2005-2007, [www.buildingcongress.com](http://www.buildingcongress.com).

City. The Green Guide to Health Care is piloting green hospital design and several efforts are defining sustainable building guidelines for public school construction. Demand for green building products is growing nationally but local competitive advantages are lost beyond the 500-mile radius.

This report provides policy makers with information on the link between green buildings and new opportunities for New York City manufacturers based on research undertaken jointly by the New York Industrial Retention Network (NYIRN) and the Industrial and Technology Assistance Corporation (ITAC). NYIRN and ITAC undertook this effort based on their belief that green development would help New York manufacturers by expanding demand for their products, help all New York businesses by improving their overall competitiveness and create jobs for New York residents.

## **BACKGROUND INFORMATION**

High performance buildings comprise a significant share of all building development. The NYC Building Congress expects construction in NYC to maintain the 2005 level of almost \$20 billion over the next two years.<sup>3</sup> According to the US Green Building Council, the NYC pipeline for green buildings is worth over \$4 billion, or one quarter of the construction. Commercial real estate buildings and low-income residential buildings alike are being designed to incorporate green building strategies. Many of them are applying for LEED certification or will follow other sustainable building guidelines.

High performance buildings require products and materials that minimize the overall environmental impact of the project. New, innovative products from structural materials to interior furnishings are being created to answer the demand. Manufacturers are also reformulating their existing products to meet sustainable criteria.

The U.S. Green Building Council (USGBC) developed the LEED standard to facilitate green building

and to evaluate a project's commitment to green goals. Buildings earn LEED points by meeting or surpassing set standards in categories such as water efficiency, energy, materials and resources and indoor air quality. One of the LEED points promotes locally produced "green" materials, either manufactured or assembled within 500 miles of the project. Emphasizing locally produced products promotes local economies and reduces the cost and energy associated with transporting goods over long distances.

These requirements create exciting prospects for local manufacturers to reengineer existing products or develop new products to meet "green" building guidelines. New green building products will allow NYC manufactures to expand their markets, providing additional employment opportunities. While the number of manufacturing jobs has decreased dramatically over the past few decades due to competition with lower cost producers around the world, there is still an active manufacturing sector, particularly in wood and metal products. These sub-sectors are especially likely to benefit from increased demand of green building products.

Identifying opportunities to create manufacturing jobs is important for several reasons: Manufacturing pays, on average \$10,000 more a year than jobs in restaurants and retailing, sectors often cited for people lacking high levels of education.<sup>4</sup> Furthermore, 64% of the manufacturing workforce in New York City is immigrant and almost 84% are people of color.<sup>5</sup>

Unfortunately, the approximately 1,500 companies in New York City manufacturing products used in the construction and furnishing of buildings are not currently positioned to compete in this emerging green building marketplace. Many of the businesses are not aware of the trend, or if they are aware of it, are not convinced that it will last long enough for them to recover the costs of revamping their products and processes to meet environmental criteria. Finally, some firms that are interested in supplying this market lack resources, knowledge and/or technical capacity to respond appropriately.

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3] New York City Building Congress, Construction Outlook 2005-2007, [www.buildingcongress.com](http://www.buildingcongress.com)

4] New York State Department of Labor, 2004.

5] US Census, 2000.

## PROJECT METHODOLOGY

### NYIRN and ITAC conducted this study to help manufacturers:

1. Determine if the green building trend is a significant market opportunity or threat to their existing business;
2. If it is a significant threat or opportunity, evaluate whether or not their products can be reformulated to meet the market requirements;
3. If they need to adjust their products, identify and implement appropriate adjustments;
4. Once adjustments have been made, ensure the success of their adjusted products by educating manufacturers about how to position their products within this market.

This report focuses on opportunities for New York's woodworkers, metal fabricators, lighting manufacturers and other types of firms producing products that are critical to the development of a green building. This study did not focus on the impact green building may have on construction jobs, but rather the potential for increased employment resulting from greening the construction supply chain.

The first phase of the study sought to define future demand for green products and included:

- Conducting an online survey of both LEED certified professionals in the tri-state area and those professionals who had expressed an interest in being updated on activities of the NYC Chapter of the US Green Building Council. The online survey had 176 respondents<sup>6</sup>;
- Conducting in-depth interviews with several private and public sector architects, developers, construction project managers and other related professionals having experience with at least one green building project; and

- Conducting in-depth interviews with three local manufacturers who are already producing green products.

The second phase of the study will focus on the supply of green products including local manufacturers' knowledge of green manufacturing and their capacity to upgrade their operations. NYIRN and ITAC will reach out to the local industrial sector and survey businesses to ascertain their awareness, willingness and needs to compete in this market. The second phase of the report will include recommendations on what type of assistance (financial, technical, etc.) is needed to help transform the local manufacturing sector into a green manufacturing sector. NYIRN and ITAC will also work with the design community to educate them on the products available in New York City.

The findings and conclusions are divided into two sections. "A Guide for Manufacturers," is designed for New York City manufacturers who might benefit from entry into these markets and provides background information and questions and answers regarding green buildings. This section is for New York policy makers.

## FINDINGS FOR MANUFACTURERS

**There are several major conclusions for manufacturers. For more information on the findings for manufacturers, please see the companion document "A Guide for Manufacturers." In brief, the findings are:**

- **Green building is not a passing fad but represents a fundamental change in basic construction practices. Professionals in the field expect the trend to grow because it is producing strong returns for investors.**
- **The majority of New York City firms are not yet competing in this market because their products do not meet green criteria; firms have not invested**

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6] The 176 online survey respondents classified themselves as architects (49.4%), engineers (19.2%), construction managers (5.8%), consultants (5.8%) and general contractors (0.6%). Another 19.2% classified themselves as "other."

in product improvements; or, they are not marketing their products effectively in NYC.

- Strategies for “greening” products range from simple material substitutions to more complex process changes.
- Greening products will increasingly provide a competitive advantage. However, in this rapidly evolving green market, green criteria may become the industry standard and eventually be an absolute requirement. In addition, products must still compete on cost and quality.
- Local architects and construction professionals are generally unaware of the variety of goods produced in New York City but are interested in learning about local companies.

## FINDINGS FOR POLICY MAKERS

Several key findings emerged from the research for policy makers. In brief, the findings are:

- **The green building trend is growing and there is a window of opportunity for New York City manufacturing firms to enter this market before supply chain relationships are formalized.**
- **Being green is not enough: cost, quality and other traditional competitive criteria still apply. However, over time being green may become essential.**
- **While opportunity exists, manufacturers cannot make the transition alone. They will need planning, technology, marketing and other types of assistance.**
- **New York City manufacturers have a public relations problem: Buyers do not perceive that there are locally manufactured products that could meet their demands, and consequently do not seek them out.**
- **Manufacturers still need to be cost competitive. There is an important role government can play in assisting companies reduce operating costs.**

- **Green buildings will have a variety of additional benefits to the city from lower health care costs to a more attractive business and residential environment.**

## PROJECT FINDINGS

1. **The green building trend is growing and in order to capitalize on it, New York City manufacturing firms need to enter the market as soon as possible.**

The US Green Building Council expects a continued increase in green buildings in the New York Metropolitan area equaling \$4 billion in the near future. These projects include some very high-profile buildings such as the Hearst Headquarters on 57th Street to Citibank’s new office tower in Long Island City to smaller-scale developments such as the Fieldston School expansion in the Bronx and private homes across the city. Furthermore, the Department of Design and Construction (DDC) is involved in several projects incorporating their own green building guidelines and the Department of Housing Preservation and Development (HPD) will soon be incorporating LEED points as a competitive advantage in their Request for Proposals. New York City is also considering mandating green certification for some new public buildings, which would further increase the demand for local, green products. Early projections from the City Council indicate this legislation, if passed, would impact \$12 billion in new construction from 2006 to 2015.

While none of the professionals interviewed were able to concretely predict how much the market would grow in the near future, everyone was optimistic that the market would indeed develop further and almost everyone had at least one other green building in their pipeline.

Over 96% of survey respondents stated they expected the quantity of green building products their firms specify to either “increase significantly” or “increase somewhat” in the next three years. 26.3% of the respondents stated the “Commercial” sector is the fastest growing segment of the green building market in the New York Metropolitan area, closely followed by both “Institutional/Non-Profit” and “High-Rise Residential” (19.1% each) and “Govern-

ment” (18.4%). Furthermore, Only 1 respondent stated he/she expected the quantity to “decrease somewhat” and no respondents replied the quantity would “decrease significantly.”

In New York City alone, there are over 30 planned LEED projects. However, the market for green buildings is much greater for New York City companies than just developments within the five boroughs. All planned LEED projects within 500 miles of New York City are potential clients for New York City manufacturers as well. In total, there are currently 577 green buildings planned within this 500 mile radius (See map on back cover).

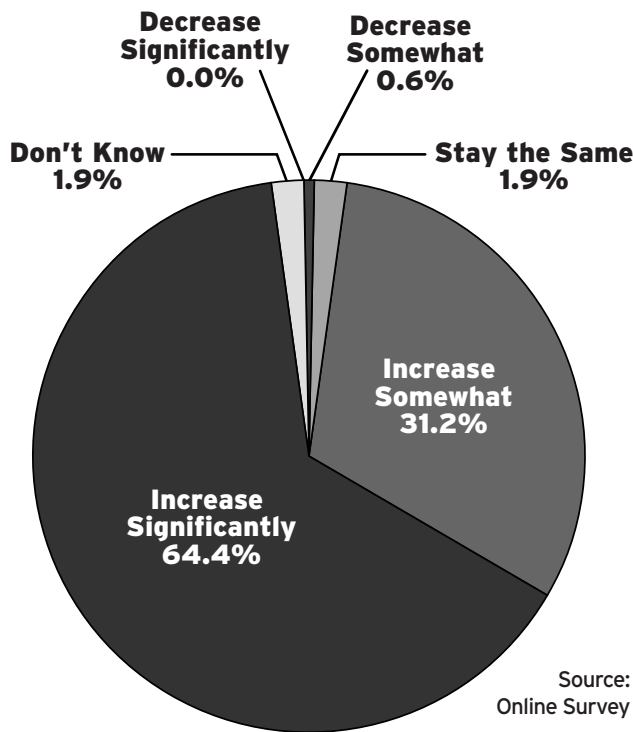
Tremendous variety exists among NYC manufacturers that produce building products. The market ranges from duct work metal fabricators to wood furniture makers to lighting fixture producers. However, currently, there are less than ten manufacturers in New York City that are making a green building product but there are over 1,500 manufacturers that could.

The only local building product used in the majority of green buildings already constructed, or in the process of being constructed, is concrete. Most concrete used in NYC uses fly ash as a main ingredient and therefore contains recycled content. According

“ Spending on green buildings is expected to top \$4 billion over the next few years, accounting for one quarter of new construction. ”

to survey respondents, approximately 50% of masonry/stonework and metal fabrication is also procured locally in these projects. For doors/windows, wood products, non-wood finishes and lighting, approximately 35-49% of the material specified was local. The lowest percentage of local material specified was in the category of interior finishes (29.5%). Wood products were most often obtained from within the 500 mile radius considered regional/local by the LEED standard, but outside of the NY Metro area. Products most likely to be procured outside the 500 mile radius include: doors/windows (43%), non-wood finishes (49%), interior furnishings (43%) and lighting (36%). Few products were sourced overseas.

As in many industries, the sourcing process for building materials is largely based on existing relationships between contractors, sub-contractors, distributors and manufacturers. However, the shift to green building products will create a window of opportunity when established relationships in the supply chain for building products will become more fluid. It is important for New York City firms to quickly make whatever transformations are necessary to start competing in this market and for New York policy makers to provide any necessary assistance before this window closes. Once green building products have penetrated the market, the relationships will solidify and it will be harder for new companies to enter the field.



**2. Being green is not enough: cost, quality and other traditional competitive criteria still apply. However, over time, being green may become essential.**

In most instances, architects, contractors and their clients will not pay more for a building product just be-

cause it is produced locally nor just because it is green. Locally produced products must compete based on quality, availability, esthetics and price. Only if locally produced products are perceived to be equal or superior will they enjoy a competitive advantage over products available outside of the 500-mile radius.

However, the green building market is evolving quickly and as more companies adopt green practices, the industry standard will evolve to require green features. New York companies can help shape and even set the standard, which will help assure their continued competitiveness. Conversely, the failure to evolve may become a barrier to competing even if the products are otherwise lower in price or superior in other qualities.

With increased global competition, finding ways to differentiate products is necessary. Most projects can obtain the LEED point for locally sourced materials within 500 miles through concrete and steel alone since these materials comprise such a large amount of the entire development.\* However, since the point is calculated based on the spending for the entire building, there is always the incentive to source as much as possible within the local region as budgets are apt to increase throughout construction.

The use of locally procured materials may become more important as green construction expands from new buildings to rehabilitation, which uses less locally manufactured concrete and must therefore use other products to meet LEED's local content goals. The most common LEED program to date has been for "New Construction." However, two new standards, one for "Existing Buildings" and one for "Commercial Interiors," were recently initiated. The amount of con-

**“ New York companies can help shape and even set industry standards, which will help assure their continued competitiveness. ”**

crete and steel used in rehabilitation will be less relative to these overall projects and a wider range of products will be required to meet the locally sourced materials points.

Manufacturers should not market their products solely on the basis of being green but should compete on cost and quality, and add their products' green properties as an additional benefit. The success of local green manufactures has occurred because they marketed their products as well designed, quality products first, and the green attributes as an added bonus. As discussed above, the emphasis on traditional cost and quality criteria may evolve to incorporate green features as basic competitive criteria.

### **3. While opportunity exists, manufacturers cannot make the transition alone.**

Most New York City manufactures are not aware of the market opportunities green buildings offer. NYIRN and ITAC, in partnership with the Apollo Alliance, the New York State Environmental Business Association and other interested organizations, will be reaching out to the local firms about this issue and providing them with the information in, "Building Green: A Guide for Manufacturers." This education process will demonstrate to the local firms that this is a trend worth investigating and help them determine how best to secure a foothold in the market. The second phase of the study will focus on the manufacturers' ability to enter the market and the types of assistance required.

The surveyed architects, developers and other potential buyers of locally manufactured green products identified obstacles inhibiting procurement of locally procured goods. One of the biggest challenges faced by purchasers is identifying local products that do not contain Volatile Organic Compounds (VOCs) or other toxic materials. The other is that local products are more expensive (see chart on next page).

According to the survey results, potential buyers also have multiple positive perceptions that could

\* To merit a LEED point for local sourced materials, a minimum of 20% of specified materials must be manufactured within 500 miles of the site. A second point can be obtained if 50% of the above 20% are materials extracted, harvested or recovered within 500 miles. For both points, it is the dollar value of the materials that is calculated.

help local manufacturers. Buyers feel that local products have been on the market long enough for them to feel comfortable with their purchase. Survey respondents also indicated that local products are available in a timely fashion and in the quantity needed. Finally, appropriate certifications and documentation is available for local materials to be used in their projects.

From conversations with leading architects in the green building field, one concern emerged regarding the use of “alpha products.” Alpha products are products that are new to the market and have not demonstrated their performance over a sufficient period of time. However, since many green buildings are using new products and new materials, the concern about “alpha products” is alleviated by purchasing products produced by a company that has a strong history of making similar, high-quality products. This provides another opportunity for existing New York City companies that choose to develop a new, green product line or tweak their existing lines to incorporate green criteria as opposed to a completely new start-up firm.

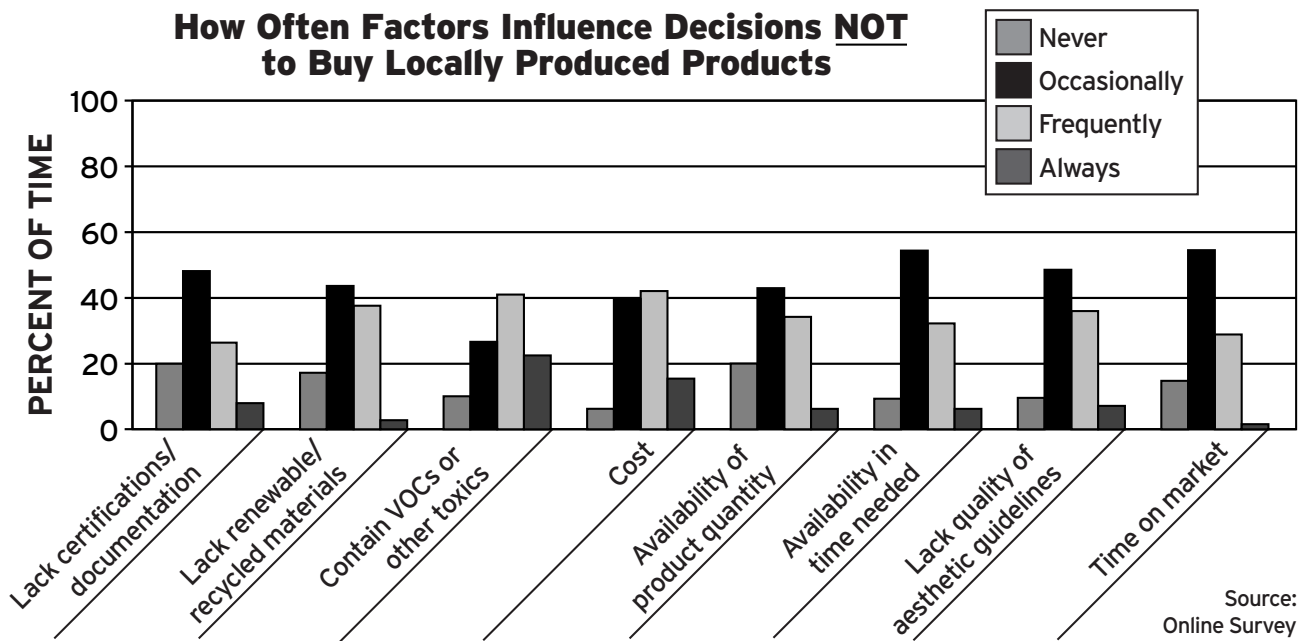
There was an overwhelming consensus from all the interviewed professionals that they wanted to source as many products locally as possible to ensure they obtained the LEED point for local products as the

“ There is an unfilled demand for locally produced ‘green’ wood products, glass and windows and lighting fixtures. NYC firms, with some transformations, could meet this demand with relative ease. ”

points are not calculated until the building is completed. While there is demand for a wide variety of local products, there are certain products that are currently harder to source in New York City. Survey respondents indicated an unfilled demand for locally produced sustainably harvested wood products (22%), glass/windows (11%) and lighting fixtures (6.6%).

Regardless of the location of the manufacturer, the primary concerns for architects and others procuring products are finding materials that include no or low toxics and/or are energy-efficient. These responses point to a real opportunity for local firms to start manufacturing products such as:

- Sustainably harvested wood products that use toxic-free veneers and adhesives, such as cabinets and other millwork



- Energy-efficient windows made of recycled glass
- Lighting fixtures that are energy-efficient and made of recycled and recyclable materials.

NYC firms currently produce similar products, and with some transformations, could meet this demand with relative ease.

The opportunity for local manufactures to “tweak” their products may be more difficult, however, due to the limited research and development capacity of most New York City manufacturers. 98% of all NYC manufacturers employ less than 100 people and 84% employ less than 25.<sup>7</sup> As a small business, many of them do not have the capacity to engage in their own research and development (R & D) or promotion compared to many of the larger manufacturers in other parts of the country.

In order to help level the playing field for NYC companies, there needs to be more government assistance to help small firms keep up with the changing marketplace. Assistance could include strategic planning, market research and R&D for green technologies and marketing support for green companies overall. Current City and State R&D programs usually require application processes that are too cumbersome for small businesses to pursue or are focused at the academic centers and not reaching the firms themselves. Better outreach is needed to funnel technical assistance to small manufacturers.

The exact type of assistance needed will be further explored in the second phase of the study.

#### **4. There is an urgent need to promote local manufacturers, especially the green ones.**

New York companies and policy makers face a public relations challenge to counter the perception that there is very little manufacturing in New York. None of the professionals interviewed stated they used New York City manufactured products in their buildings, although some realized they had after some further investigation. When asked, the most common

“ **There was a consensus among survey respondents that a single, trusted source such as a directory of green, local manufacturers is needed.** ”

response was, “I didn’t realize there were any green manufacturers in New York City.”

While there are only a handful of companies currently producing green building products, there is an urgent need to change this perception and start promoting New York companies’ capability to produce building related products. NYC firms tend to be small businesses with small marketing budgets and staffs. In contrast, the NYC architecture/design community is very large and it is difficult for smaller firms to penetrate the market in their own backyard. While one sales representative can adequately cover several states at once, it can take several representatives to cover NYC alone. This is evidenced by the multiple sales representatives located in NYC for national product manufacturers, such as Interface, Armstrong and Collins & Aikman, just to name a few.

Understanding how architects specify products is essential to a successful marketing campaign. According to the online survey, respondents find out about products and manufacturers in a number of ways, but the number one tool to generate brand awareness is the internet (79.5% of respondents). The next most useful tools are trade journals (65.4%), colleague referrals (60.9%), and building product directories (60.3%).

According to the interviewed professionals, the materials they wound up specifying most were ones which they had learned about through face to face interactions with manufacturers. Therefore, trade shows or a series of “lunch and learns” where architects and other design professionals could meet with a group of manufacturers would probably have a significant impact on the number of local products specified for green projects.

7] NYS Department of Labor, 2nd Quarter, 2004.

Promotion of local products aimed at both the public and private sector will encourage NYC businesses to start producing green products and help the design community to become more familiar with local firms. Increased use of DDC's high-performance guidelines, HPD's continued incorporation of LEED criteria in their RFPs and the passage of legislation that either encourages or mandates LEED certified public buildings will help foster a local green manufacturing sector.

**5. Lowering operating costs for local manufacturers will help them be cost competitive.**

Price will always be a significant influence on a prospective purchaser's decision to buy a particular product. This poses a challenge for manufacturers operating in New York's high-cost environment. However, there are many strategies policy makers can encourage to help lower operating costs for local firms.

First, one of the greatest challenges confronting local firms is the escalating price of real estate. As most businesses rent their space, they are especially vulnerable to real estate pressure caused by residential and commercial conversions and general gentrification. The City needs to establish new types of zoning tools that will help stabilize real estate costs. Greater stability will also create the type of environment that supports investment in the new equipment, marketing and research and development that is essential for companies to green their operations.

Second, energy costs continue to skyrocket in the City and for most manufacturers, energy is one of their highest expenses. The City's Energy Cost Savings Program (ECSP), the New York State Energy Research & Development Agency (NYSERDA) and other similar initiatives can help companies conserve energy and reduce their overall demand. Reducing

**“ Government can help firms compete by assisting in lowering operating costs. ”**

energy consumption will also help manufacturers establish their credentials as a green company. However, providing recommendations for energy conservation is a topic meriting its own report.

Finally, government investment in green infrastructure will help local manufacturers. For instance, investing in recycling facilities will increase the availability of recycled materials for local firms to use in their manufacturing processes. It will also offer them lower cost options for recycling their own waste. Empire State Development Corporation currently provides support for increasing recycled content in manufactured products, but very few companies are able to take advantage of the program because it is difficult to find secondary materials.

Opportunities also exist for government to assist in encouraging new business ventures. For example, there is a need for toxic-free, recycled-content, medium density fiberboard (MDF). New York City has a tremendous amount of waste wood that is currently not reclaimed in any valuable way. Creating a facility to recycle saw dust, wood pallets, etc. into a toxic-free MDF would fill a huge demand for this type of green building material.

The exact type of government assistance needed to help manufacturers transition will be explored in the second phase of the study.

**6. Green buildings have positive environmental impacts which benefit the city as a whole.**

Promoting and investing in a local green manufacturing sector will not only benefit the local industrial base but have a tremendous ripple affect on the rest of the City's economy. The decreased demand on the City's aging water and energy infrastructure will reduce the need for the City to invest in additional capital expenditures, thereby creating opportunity to fund other initiatives while improving the overall environment.

Green building practices encourage construction decisions to be influenced by longer-term operating and maintenance costs. This represents a real change in thinking that will have a significant financial impact. A simple example is the selection of

light bulbs. Light Emitting Diode (LED) bulbs are more expensive than incandescent or florescent bulbs but are also more energy efficient and last longer, requiring significantly less maintenance. Under a traditional model, incandescent bulbs would be chosen during construction, but green building evaluation strategies incorporating both capital and operating costs would favor LEDs because of lower life cycle costs.

Green building trends can also spur new industries, or at least new job skills in existing industries. For example, Chicago's green roof initiative has launched a new industry in landscape architecture and the products needed to support it. The increase in locally produced goods and constructed green buildings give rise to a need for a trained construction workforce. Some of the new technologies require installers to gain additional skills, especially for photovoltaics and cork flooring.

## **CONCLUSION**

There is tremendous momentum for green buildings today and there are opportunities for New York City manufacturers to gain market share for green products. While the link between green buildings and local manufacturers is embodied in green building guide-

“ **Green building trends can spur new industries, which may require new job skills.** ”

lines, New York policy makers have a role to play in nurturing a local, green manufacturing sector and making that link as strong as possible. For example, the Economic Development Corporation of New York City is currently devising a NYC specific supplement to LEED that would be better suited to New York's unique environment. One of the amendments under consideration is reducing the 500 mile radius. A smaller area from which to source materials would certainly aid local firms in competing for green building projects.

In the coming months, NYIRN and ITAC will be reaching out to the local manufacturing base to assess their capacity to start producing more efficient, environmentally friendly products and determine what type of assistance they need to do so. This research will be made publicly available.

New York City as a whole stands to gain from investing and promoting green buildings: in addition to spurring a green manufacturing sector, it will make the entire city more competitive, creating a healthier environment for its workers, businesses and residents.

## **GREEN MANUFACTURING AT WORK**

**GLOBUS CORK, a Bronx, NY based company, turned a traditional flooring product into a fashionable material using custom colors. Cork floor tiles are manufactured from post-industrial scrap and cork is considered rapidly renewable. Globus Cork tiles come in many different sizes, shapes and colors. The company sells directly to the public and through a limited number of retailers. Significant press coverage in design publications drives much of their business, high-lighting product aesthetics. The environmental attributes of the product are an “added-bonus”. This company has seen a 40% increase in sales each year for the past two years.**

## **ADDITIONAL RESOURCES**

**About NYIRN:** NYIRN is a city-wide economic development organization that promotes a diverse economy that provides employment and entrepreneurial opportunities for all New Yorkers by strengthening New York City's manufacturing sector, based on principles of economic and environmental justice and sustainability. For more information, contact Jen Roth at 212-404-6990 x12 or [jroth@nyirn.org](mailto:jroth@nyirn.org).

**About ITAC:** ITAC is a city-wide economic development organization that seeks to strengthen the economy of New York City by improving the performance of small to mid-sized firms that create or produce technical or manufactured products. For more information, contact Stefanie Feldman at 212-442-5219 or [sfeldman@itac.org](mailto:sfeldman@itac.org).

**About Made In NYC:** Made In NYC is a joint program between NYIRN, ITAC and the Manufacturers Association of New York City that encourages businesses to purchase goods made in New York City, stimulating demand and job growth in the manufacturing sector.

The program includes an online business to business

database ([www.madeinnyc.org](http://www.madeinnyc.org)) and a service to locate manufacturers not already listed on the website.

For more information about the decision making process for building products, the survey questionnaire and responses and the guide for manufacturers, go to: [www.madeinnyc.org](http://www.madeinnyc.org).

## **ACKNOWLEDGEMENTS:**

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Thank you to Wayne Tusa and the USGBC and all of our survey participants. Thank you to the Apollo Alliance for their guidance and for helping to drive sustainable development initiatives in New York City. Thank you to the New York State Environmental Business Association for their support. We appreciate everyone who took the time to educate us on green buildings. We value our case study companies for being market leaders and for sharing their experiences.

New York Industrial Retention Network



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# Planned LEED Projects Within 500 Miles of New York City

