

## Grant Review

### Abstract

UrbForM is a privately owned franchise within the city which creates local “green” collar jobs. In Chicago, the franchise would be represented through 23 modules of over 6000 acres each. Each module would be run by a franchise owner and four employees. Chicago’s urban forest would reap the benefits of increase tree cover and improved tree quality via the vested interest of the franchises.

UrbForM’s primary functions are to enhance the urban tree canopy, promote urban aesthetics and higher tree maintenance as well as augment urban environmental conditions. In addition, UrbForM creates more job opportunities while at the same time reducing city-wide expenses. UrbForM creates a comprehensive business model for the management of urban forests with a focus on:

- Environmental integrity
- Community enhancement
- Job opportunities

UrbForM contributes to the social amenities that trees provide to the urban condition by creating a public-private partnership for the management of urban canopies. Management is UrbForM’s mandate, Harvesting is its revenue and Replanting is its responsibility. UrbForM holds their responsibility to be harvesting urban trees and converting them to viable products, ensuring maintenance of trees in designated zones and planting new trees and transplanting them from tree farms.

### Proposal narrative

#### ***Introduction***

UrbForM is based off research conducted at IIT’s Stuart School of Business under the direction of John Paul Kusz and John Durbrow, who are serving UrbForM as faculty advisors, and the experience of an existing company, Urban Forest Products, which takes city hardwood, processes it, and sends it into market. In the direction we have gone, the

customer in our case would become the City of Chicago and its citizens. Currently the urban forest is seen only as red on the City of Chicago's annual budget. As long as the bottom line remained black, the trees would be taken care of at present state. The instability of city revenue means that at any given time the future of the urban forest is question. Additionally, over the past thirty years the city has taken steps to make use of its pruning and storm damage waste via mulching of small debris and selling off larger logs.

This program has expanded to six sites throughout the city which process this wood for an average return of less than \$200,000 annually. Considering the estimated value of Chicago's Urban Forest is 2 Billion dollars, the returns seem a bit lacking. As a community asset urban trees provide citizens with a cooler, cleaner, and healthier urban environment. Additionally, higher urban tree densities coordinate with higher property value, safer neighborhoods and a more livable city. As Urban Forestry is currently conducted not enough trees are being added to the forest and the existing trees are not getting properly pruned each year. Especially with respect to global climate change, the health of our Urban Forest is directly proportional to the health of our city.

Currently few cities in America engage Urban Forestry with any more commitment than Chicago. Our political climate has allowed for enough emphasis to be placed on all things green that funding is continued by way of taxpayer contribution. This is still seen by many as a drain upon the city. As a current processor of Chicago's urban wood, Urban Forest Products is a small sawmill that processes, to capacity, a very small portion of Chicago's Urban Forest output. The central problem UFP faces is lack of market. Probably the largest stumbling block in this regard is critical mass. UFP is producing a top quality product, but since there is not enough to be ever present in the market its exposure is limited.

The goal of UrbForM is to create an operational and business model for Urban Forestry Management. Presently, the future of Chicago's urban forest is in question. While few refute the claim that trees are good for our community, allocating the resources to properly maintain or even expand our urban forest remains beyond our grasp. Our business seeks to make the urban forest a viable commodity in addition to its status as an asset. This would include examining the problem as a closed loop process as well

as the sustainable harvest potential of the urban forest. We have a business model that increases the number of trees within the city, turns the revenue loss of tree maintenance into a revenue gain, and creates a self sustaining model.

### ***Benefits of UrbForM***

UrbForM benefits three main fronts: citizens, businesses and the city as a whole.

- **Citizens**
  - Increase in property value
  - Better looking neighborhoods
  - Carbon dioxide scrubbers
  - Shade for backyards
  - Cooling cost reduction on buildings
  - Natural Rain Water Sequester
- **Businesses**
  - Link between trees and sales
  - Property value increase
  - Carbon credits
  - Carbon dioxide scrubbers
  - Cooling cost reductions on structures
- **City**
  - Net cost balance or reduction
  - Fewer employees on payroll
  - Carbon dioxide scrubbers
  - Reduction in “heat island effect”
  - Possible community service workplace

### ***Progression history and context***

To date, UrbForM has created an operational and business model for Urban Forestry Management in the City of Chicago. This created model is replicable for all major urban settings. Extensive map research was done for the city of Chicago to determine tree placement and potential module divisions. The Module definition was

created to be such that it would contain a self sustaining sawmill component as well as a forest management component. It was determined that 125 people could each bring \$100,000 in revenue each year excluding benefits through potential profits of this wood. There would be 23 Modules in the city with 5 employees and a main warehouse would have 7 employees. 6087 acres would be needed for each module. Using a mathematical equation created by one of the UrbForM members, it was determined that \$243,281 could be the revenue generated per module.

### ***Team***

The current team members of UrbForM are Justin Olson, Martin Cooper, Frank Carello, Melissa Gandhi, Abin Koshy, Jennifer Palma, Jason Kloeping, Jong Mu Song, Jong Hwa Song, Yak Yong Chung, Sung Koo Kang, Yewon Lee, Hee Chan Shin and Bradley Weston. The advisors UrbForM operates under are John Dubrow and John Paul Kusz. Each team member serves a valuable role in creating and jump-starting UrbForM's visions. Justin Olson and Martin Cooper are the leaders and managers of the overall project. Olson in addition is the lead on the module team and Cooper heads the lead on deliverables. Another subsection of UrbForM is researching mapping locations in Chicago. Given its large scope, we have several team members on this subsection. Those individuals are Hee Chan Shin, Yewon Lee, Sung Koo Kang, Yak Yong Chung and Jennifer Palma. Frank Carello conducted an in-depth research analysis of other case studies in existence to see similar organizations structuring and viability. Jason Kloeping also carried out research for the benefit of UrbForM by determining governing agency benefits. Bradley Westen, in collaboration with Justin Olson, determined the programming of the module as well as module prototyping. Melissa Gandhi took an in-depth look at the current market outlook for such products and services. In addition, Gandhi acted as the lead on the social aspect to UrbForM's objectives. Lastly, Abin Koshy created process cycle animations in addition to creating a multi-media documentary about the inner-pinning of UrbForM.

### ***Work plans and outcomes***

The optimal outcome for UrbForM and its creators is to impart knowledge on proper tree maintenance & management as well as educate the city on how to financial augment the urban community. Through the process of providing strict, formal training to UrbForM employees, all those involved with the project will gain a much stronger understanding of how to increase city resources and prove to be more fiscally sound. At the end of the grant period, UrbForM will have made its first module and would be operating for a division of Chicago. If successful, more modules will be created to make a greater impact for the city. This project will succeed because it is taking resources that are already out there and simply enhancing its performance to benefit the city in three visible fronts (financially, socially and aesthetically).

### ***Evaluation of UrbForM***

When UrbForM carries out its goal, there will be visible changes in the urban setting. There will be an increase in the aggregate number of trees within Chicago's urban forest. The trees will be more valuable throughout their lifespan because UrbForM would have provided active management and maintenance of the trees. In addition, urban wood would be harvested in a sustainable manner. This sustainability would have occurred on three levels: economically, environmentally and socially. In an economic setting, the models would have produced consistently positive results in terms of cash revenue. Environmentally, the net result of trees would not only increase yearly but also be placed in better locations. Lastly, socially, the urban forest would contribute to the social wellbeing of Chicago public school children and young adults. There would be increase awareness about tree education and practical usages available.

<b><u>Expense Category</u></b>	<b><u>Amount</u></b>	<b><u>Percent of Total</u></b>
<b>Equipment</b> (Describe <b>briefly</b> below in Justifications area.)	-	0.00%
<b>Materials &amp; Supplies</b> (Describe <b>briefly</b> below in Justifications area.)	-	0.00%
<b>Student Stipend(s)</b> - <i>May not exceed \$3,000 per student or \$7,500 total</i>	7,500	2.56%
<b>Faculty Stipend(s)</b> - <i>May not exceed \$5,000</i>	5,000	1.71%
<b>Travel Expenses</b> (Describe <b>specifically</b> below in Justifications area - re: # of trips and # of people traveling.)	2,000	0.68%
<b>Prototyping</b>	278,000	95.04%
<b>Consulting</b>	-	0.00%
<b>Other Expenses</b> (Describe <b>very specifically</b> below in Justifications area.)	-	0.00%
<b>Total</b>	292,500	<b>100.00%</b>

**Justification:** Prototyping- Cost of equipment of prototype mill