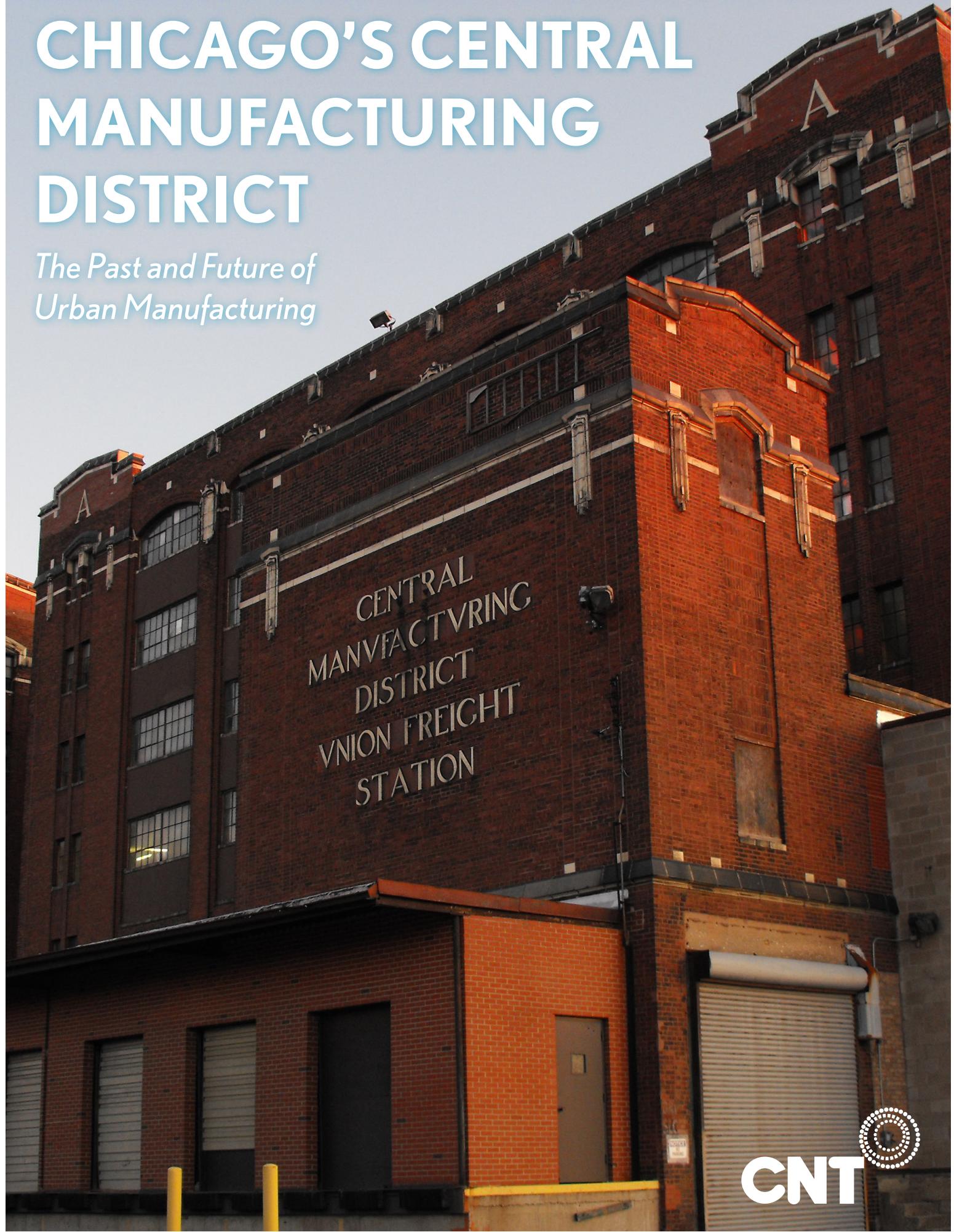


# CHICAGO'S CENTRAL MANUFACTURING DISTRICT

*The Past and Future of  
Urban Manufacturing*



## **CONTENTS**

- 1   Introduction**
- 2   The CMD Opportunity**
- 3   Manufacturing: Chicago's Past/Present/Future?**
- 6   Designing for Sustainability: The Industrial EcoDistrict**
- 10   Could the Vision Work at CMD?**
- 12   Revisiting the Vision: Manufacturing Options for the CMD**
- 15   Next Steps: Reviving the CMD**
- 16   Recommendations: Supporting Chicago Manufacturing**
- 18   Appendices**

# **Chicago's Central Manufacturing District**

## The Past and Future of Urban Manufacturing

**PREPARED BY  
THE CENTER FOR NEIGHBORHOOD TECHNOLOGY**

**THIS REPORT HAS BEEN MADE POSSIBLE BY  
FUND CHANGE AND AN ANONYMOUS DONOR**

**MAY 2016**

*Cover photo by darius norvilas, Flickr/Creative Commons*

A massive complex on Chicago's near South Side embodies a significant piece of Chicago's (and the nation's) industrial history.

**CAN IT NOW PLAY A SIGNIFICANT ROLE  
IN CHICAGO'S ECONOMIC FUTURE -  
AND BECOME A MODEL FOR INDUSTRIAL  
REDEVELOPMENT NATIONWIDE?**



# INTRODUCTION

Anchored by its landmark 12-story clock tower on Pershing Road, Chicago's Central Manufacturing District (CMD) was the first planned manufacturing district in the United States. A century ago, 252 firms operated in its huge six-story buildings. Tenants ranged from small manufacturers to big names like Wrigley, Ford, United (Rexall) Drug, Pullman, and Westinghouse Electric. With outstanding rail connections and a broad variety of shared services, the CMD became one of the largest industrial parks in the world.

Today, the CMD stands largely empty. City departments use a few floors to store old parade floats and voting machines. The huge rooms and high ceilings echo with memories of Chicago's past as a manufacturing powerhouse.

But the site retains many of its original advantages: central location, solid construction, nearby rail connections, plus modern essentials like proximity to expressways and robust fiber optic capacity.

And it's exactly the kind of site that developers are increasingly repurposing into thriving centers of urban life and economic activity.

- **COULD THE CMD HAVE SUCH A FUTURE?**
- **COULD THAT FUTURE BUILD ON ITS ORIGINAL CORE PURPOSE, MANUFACTURING?**
- **COULD A REVIVED, MANUFACTURING-FOCUSED CMD INCORPORATE SUSTAINABLE DESIGN AND OPERATIONS FROM DAY ONE?**
- **COULD THE CMD PROVIDE A TEST CASE OF "SUSTAINABLE MANUFACTURING" AS A STRATEGY TO REVITALIZE URBAN ECONOMIES, ESPECIALLY IN TRADITIONALLY INDUSTRIAL CITIES LIKE CHICAGO?**



Photo: dariusnorvillas/Flickr/Creative Commons

To explore those questions, the Center for Neighborhood Technology convened 28 Chicago leaders and thinkers in a daylong charrette in November 2015. The conversation began with this vision:

**TO REVITALIZE THE HISTORIC CENTRAL MANUFACTURING DISTRICT AS A 21<sup>ST</sup> CENTURY VERTICAL, GREEN, AND URBAN INDUSTRIAL PARK THAT BENEFITS FROM ITS CENTRAL CHICAGO LOCATION, A DENSE NETWORK OF RELATED FIRMS, AND TRANSPORTATION COST SAVINGS FROM ON-SITE RAIL-BASED FREIGHT HANDLING.**

This report builds on the insights from that conversation, as well as broader reflections on the possibilities embodied in the vision and the CMD's capacity to offer shared services and logistics that can be especially advantageous to small and mid-size firms looking to build their markets.

# THE CMD OPPORTUNITY

The Central Manufacturing District dates back to 1905, when Frederick Henry Prince, an East Coast investor, was looking for ways to expand the operations of his Chicago Junction Railroad, which served the nearby Union Stock Yard. Prince built a 265-acre industrial park between 35<sup>th</sup> and 39<sup>th</sup> Street (Pershing Road), bounded by Morgan on the east and Ashland on the west. Ten years later he added 90 acres on the south side of Pershing Road, creating a cluster of industrial buildings and the district's iconic clock tower.<sup>1</sup>

CMD was the first planned manufacturing district in the United States. In its prime it had a mix of light industrial, heavy industrial, and warehouse/distribution companies. By 1915, some two hundred firms were located there, which, combined with the stockyards, employed some 40,000 people. Freight consolidation services, an onsite rail terminal, and rail lines running directly between and into buildings guaranteed even the smallest firms affordable, same-day

shipping. The site offered combined, district-based heat, power, and other utilities. With banking, business incubator services, maintenance and upkeep all part of the deal, the CMD became one of the largest industrial parks in the world.

Today many of the CMD buildings are empty, and they are no longer connected to the adjacent rail yard. The building at 1869 West Pershing Road provides back office and warehouse space for City of Chicago departments, and the City owns an adjacent building with approximately 500,000 sq. ft. Another 513,895 sq. ft. multi-story industrial building at 2055-2101 West Pershing Road is on the market.

The Chicago Manufacturing District owes its start to a visionary businessman at the beginning of the 20<sup>th</sup> century. Exploring a potential 21<sup>st</sup> century vision for the space – and, more broadly, for the city from which it takes its name – provided the focus for the charrette, and for this report.

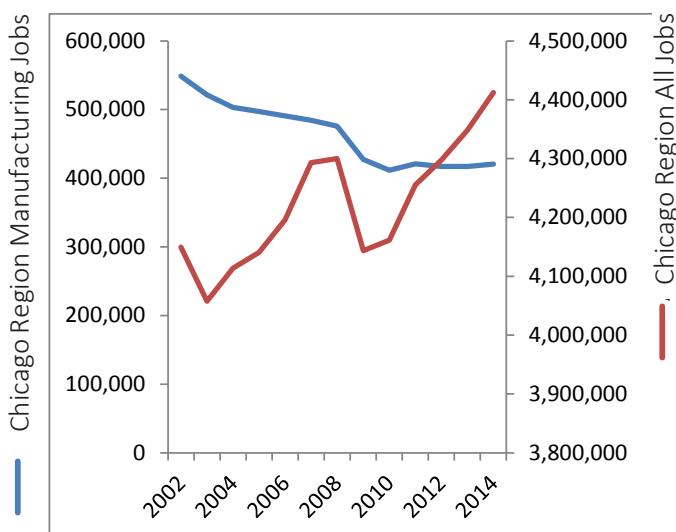


1. On the site's history, see: Clinton E. Stockwell, The Electronic Encyclopedia of Chicago, Central Manufacturing District, Chicago Historical Society, 2005. <http://www.encyclopedia.chicagohistory.org/pages/785.html>. Cutler, Irving. Chicago: Metropolis of the Mid-Continent. 1982. Mayer, Harold M., and Richard C. Wade. Chicago: Growth of a Metropolis. 1969. Pacyna, Dominic A., and Ellen Skerrett. Chicago, City of Neighborhoods: Histories and Tours. 1986. City of Chicago, Department of Zoning and Land Use Planning, Landmark Designation Report, Spiegel Administration Building 1038 West 35th Street Preliminary and Final Landmark Recommendation adopted by the Commission on Chicago Landmarks, November 4, 2010, [http://www.cityofchicago.org/dam/city/depts/zlup/Historic\\_Preservation/Publications/Spiegel\\_Administration\\_Bldg.pdf](http://www.cityofchicago.org/dam/city/depts/zlup/Historic_Preservation/Publications/Spiegel_Administration_Bldg.pdf). Preservation Chicago, The 2014 Chicago 7 Most Threatened...Central Manufacturing District 1961 W. Pershing Road, 2014. [www.preservationchicago.org/Chicago7\\_2014\\_CMD.pdf](http://www.preservationchicago.org/Chicago7_2014_CMD.pdf).

# MANUFACTURING: CHICAGO'S PAST/PRESENT/FUTURE?

During much of the last century, the Central Manufacturing District was a thriving part of Chicago's huge manufacturing sector. In 1930, the five-country Chicago industrial area was the second largest manufacturing center in the U.S., behind only New York. Chicago's manufacturing output per capita, as well as the proportion of its labor force that worked in factories, outdid New York.<sup>2</sup> Well into the century, manufacturing was a huge mainstay of Chicago's economy. In 1967, the sector employed 1.1 million people, out of 17.9 million nationwide.

From that point, however, driven by globalization and other complex factors, a steady decline began both in Chicago and, less consistently, nationally. The local fall-off has been especially acute since the turn of this century: from 550,000 manufacturing jobs in 2002 to 420,000 in 2014 in the 14-county Chicago region—a 23 percent decline.<sup>3</sup>



Still, despite the decline, the Chicago region remains a major center of American manufacturing, second only to Los Angeles.<sup>4</sup> Chicago manufacturing jobs pay wages about 11 percent above the national average, and about 16 percent higher than average jobs in the Chicago area.<sup>5</sup> In the historic manufacturing district where CMD is located, over 6,000 people work in manufacturing, about 35 percent of local employment.<sup>6</sup>

The last few years have seen modest signs that manufacturing is making a comeback nationally. The resurgence is, in part, due to economics, as wages in other countries rise. Companies like General Electric have begun to move away from outsourcing in favor of “onshoring,” which offers opportunities to integrate production and design and minimize delivery times.<sup>7</sup> By one estimate, this trend has created some 240,000 U.S. manufacturing jobs over the last six years.<sup>8</sup>

Some of the new interest in manufacturing is driven by the enormous creativity in the tech sector and spinoffs into other parts of the economy, including advanced manufacturing. Locally, World Business Chicago identifies advanced manufacturing as a top “transformative strategy” for Chicago. A new Digital Manufacturing and Design Incubation Institute (DMDII) is being operated by a local consortium, with federal and local funding.<sup>9</sup> The resurgence also reflects a reaction against globalization in favor of encouraging entrepreneurship, local startups, and small-scale manufacturing.<sup>10</sup>

Beyond the startup stage, small firms seeking to become larger face a problem of scale. Take for example transportation inputs and outputs: the cheapest method of shipping longer distances is by rail, but large (Class I) railroads will not ship less than entire carloads of freight. An efficient way of handling less-than-carload shipping was invented and refined at the Central Manufacturing District

2. [Encyclopedia.chicagohistory.org](http://encyclopedia.chicagohistory.org)

3. U.S. Census, Longitudinal Employer-Household Dynamics, OnTheMap, <http://onthemap.ces.census.gov/> Accessed March 2016.

4. BLS November 2015.

5. [http://urbaneconomy.org/sites/default/files/CUED\\_Locating\\_Chicago\\_Manufacturing\\_Feb2013.pdf](http://urbaneconomy.org/sites/default/files/CUED_Locating_Chicago_Manufacturing_Feb2013.pdf)

6. <http://onthemap.ces.census.gov/>

7. <http://www.theatlantic.com/magazine/archive/2012/12/the-insourcing-boom/309166/>

8. <http://www.mfgnewsweb.com/archives/4/46116/General-Editorials-mar16/Reshoring-Plus-FDI-Remained-Strong-in-2015.aspx>

9. <http://www.worldbusinesschicago.com/dmddii/>

10. <http://www.nlc.org/Documents/Find%20City%20Solutions/Research%20Innovation/Economic%20Development/Maker%20Movement%20Report/Maker%20Movement%20Report%20final.pdf>

in its heyday. Finding innovative ways to move smaller quantities of goods more cheaply today could benefit small and mid-sized firms. The cost impact could be significant: Large manufacturers shipping full-railcar loads pay as little as 3 percent of sales for shipping, while the smallest firms pay as much as 14 percent, well above the national average of 6-9 percent.<sup>11</sup>

Because they cannot fill a full railcar-load, small and medium-sized firms manufacturing finished products (as opposed to commodities) ship either by truck or by air. Experiments with alternative services to lower shipping costs include Cargomatic.com and Zipments.com, both in effect “truck sharing” services. The risk associated with insufficient sales demand to justify capital investment is high unless a more affordable method of reaching coastal ports is provided. Technologies to support such shipping exist, but are generally sold as components, not integrated services. Some methods of truck and rail-based consolidation could provide a new stream of revenue to the railroads and an important cost savings to small businesses.

For similar reasons of scale and shared efficiencies, many of these businesses, rather than build their own facilities, prefer to share space. They’re especially attracted to spaces in urban neighborhoods, with good transportation and proximity to urban amenities that attract young workers. Tenants leaving Chicago’s Fulton Carroll Incubator, for example, often find space in the nearby Brighton Park area.<sup>12</sup>

Shared space for manufacturing is even more feasible in an era when manufacturing may not need as much space. There is no real “standard” for labor intensity, and there’s much that is unknown about modern workspace needs. Traditionally, manufacturing has needed at least 500 square feet of space per employee versus 200 for offices;<sup>13</sup> but smaller producers and more modern and disaggregated job shops (e.g. model shops, printed circuit manufacturers, custom fabricators) have space requirements per employee comparable to retail. The same could be said about food manufacturing start-ups.

Such trends suggest a possible direction for the CMD.

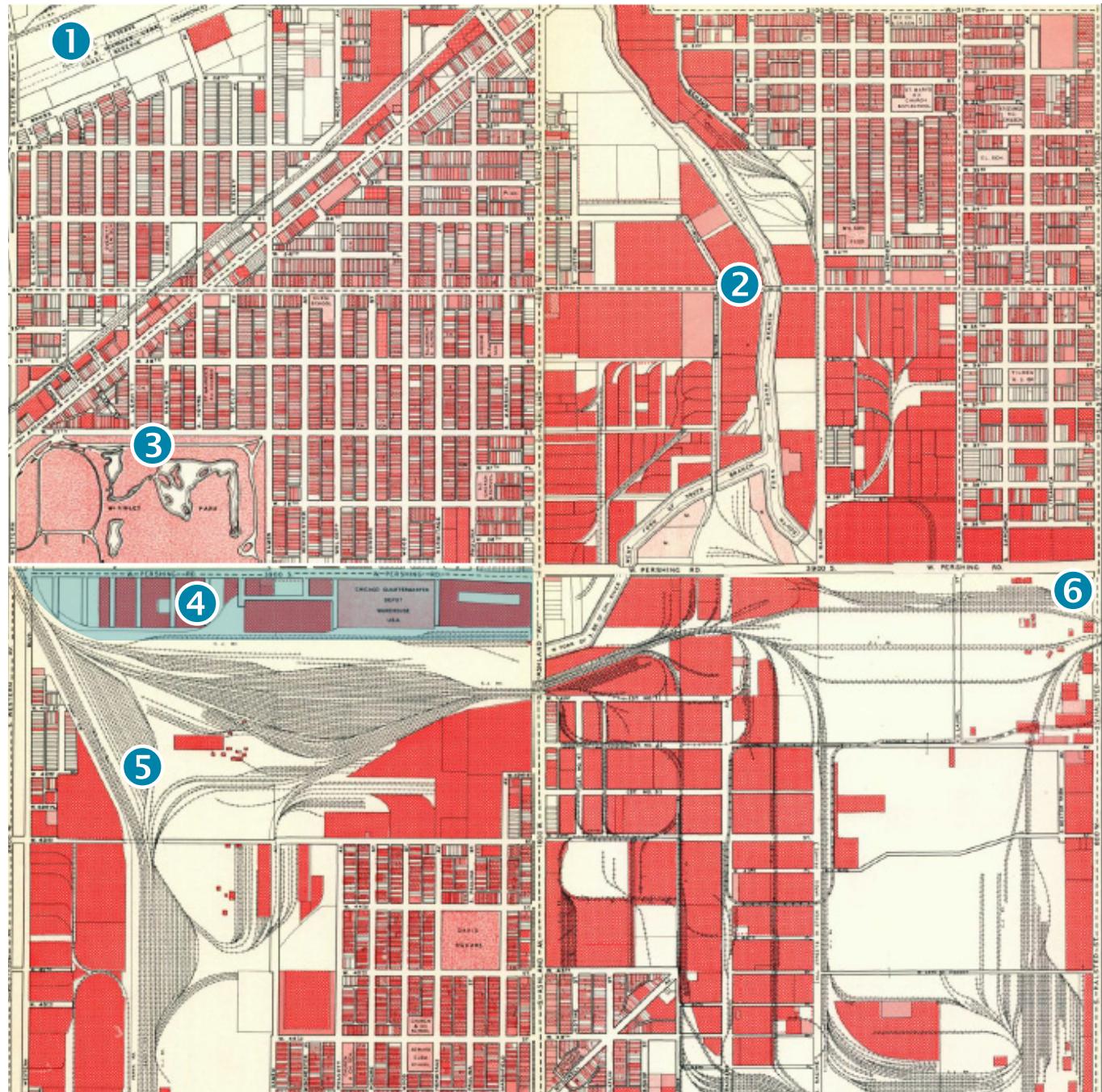
Photo: CMD Magazine, March 1959



Historic view of the CMD showing the extensive rail use to the south.

11. CNT analysis of Transportation Satellite Accounts from U.S. Department of Transportation, Bureau of Transportation Statistics and U.S. Department of Commerce, Bureau of Economic Analysis

12. Personal communication from Industrial Council of Nearwest Chicago, incubator operator.  
13. <http://www.usgbc.org/Docs/Archive/General/Docs4111.pdf>



**1** Ship and Sanitary Canal

**2** CMD East

**3** McKinley Park

**4** CMD Pershing Road (shaded)

**5** CJ Railroad Yards

**6** Union Stockyards

# DESIGNING FOR SUSTAINABILITY: THE INDUSTRIAL ECODISTRICT

CNT's vision for the CMD draws on the facility's manufacturing past, redesigned to ensure sustainability for the future. Sustainable facilities for the 21<sup>st</sup> century must build in efficiencies that reduce inputs – materials, water, energy – and harmful outputs, including both pollution and the carbon emissions that cause climate change. Green buildings are being widely adopted as a strategy to achieve sustainability. CNT aims to take that one step further, to the district level, with the concept of EcoDistricts.

EcoDistricts link energy, transportation, water, and land use in an integrated, efficient resource system. They minimize waste by bundling multiple functions and services together, for multiple tenants. Unlike, for example, conventional electricity plants that discharge waste heat, with sometimes harmful ecological effects, EcoDistricts can capture that heat for building conditioning and manufacturing processes. Moreover, district-scale infrastructure is better able to withstand disruptions and disasters, enabling whole blocks to achieve resiliency in a green and cost-effective way.

The EcoDistrict model has been promoted nationally by EcoDistricts.org. To date, the concept has more often been applied to building residential and commercial capacity, rather than manufacturing. CNT, which serves as an advisor in this effort, has been advocating for equitable access to energy and resources and adopting the strategy to achieve neighborhood-scale sustainable development for low- and moderate-income communities.

The CMD offers a unique opportunity to consider an Industrial EcoDistrict strategy, adapting the concept to serve manufacturing and related sectors. Manufacturing has historically been viewed as “dirty industry,” but modern technologies are changing that, as small-scale producers – and even some bigger firms – adopt new technologies with a far smaller footprint. An Industrial EcoDistrict would house multiple manufacturers in a single district, with built-in shared efficiencies and an integrated infrastructure system that combines renewable energy, energy efficiency, non-automobile mobility, business development, and sustainable water management all in one place.

Such an approach is consistent with the strategy advanced recently by business and academic leaders in the President's Council of Advisors on Science and Technology. In their report “Technology and the Future of Cities,” these experts advocate a district approach to using technology to strengthen urban economies, modernize infrastructure, and improve the quality of life.<sup>14</sup>

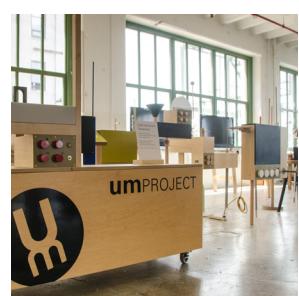
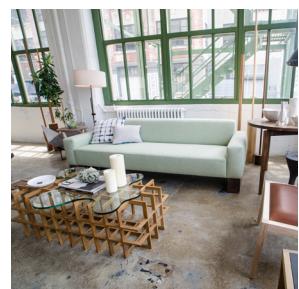
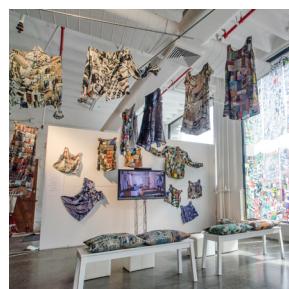
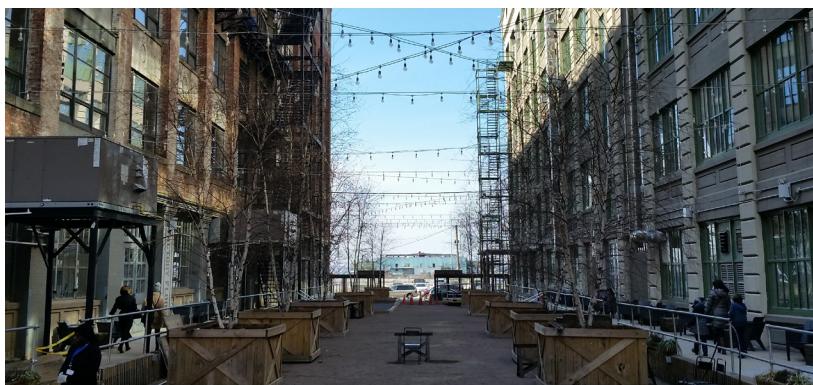
CNT envisions an industrial future for the Central Manufacturing District designed around the concept of the Industrial EcoDistrict. In this vision, multiple manufacturers and related industries would locate at the CMD, taking advantage of shared services and regional-scale utilities. This model – and the site's inherent advantages of space, location, and rail access – could make Chicago's CMD once again a local industrial powerhouse, and a model nationally.

## ST. ELIZABETH'S Congress Heights, Washington, DC



Formerly occupied by St. Elizabeth's Hospital, this 350-acre campus is adjacent to Congress Heights, a predominantly African-American low- to middle-income neighborhood in the nation's capital. The District of Columbia is working to redevelop St. Elizabeth's East into a vibrant mixed-use campus featuring an “Innovation Hub”, taking advantage of nearby universities, technology businesses and technology-focused amenities. The site will soon be home to the R.I.S.E. (Relate, Innovate, Stimulate, Elevate) Demonstration Center with flexible meeting, tech and demonstration space.

14. [https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast\\_cities\\_report\\_\\_\\_final\\_3\\_2016.pdf](https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_cities_report___final_3_2016.pdf)



## INDUSTRY CITY

Brooklyn, NY

Like the CMD, Industry City was a monumental intermodal complex built around the turn of the last century. With six million square feet located in Sunset Park, Brooklyn, Industry City housed many firms (including Topps Baseball Cards) during New York's manufacturing heyday, before falling on hard times. Today, Industry City is being refashioned as a "a dynamic 21<sup>st</sup> Century innovation and manufacturing community, one that balances existing manufacturing tenants with those centered on creative and innovation economy fields." Similar buildings in the area, like Liberty View Industrial Plaza and the Brooklyn Army Terminal, are experiencing their own manufacturing-based renaissance.



## ONE HUNDRED HOOPER

San Francisco, CA

Located near railroad lines and historically housing lumber yards and other light industrial uses, One Hundred Hooper today is being organized along a different vision: a "LEED Gold Certified mixed-use commercial project offering over 400,000 rentable square feet ... at the intersection of techforward office and innovative local manufacturing."<sup>15</sup>

15. <http://hundredhooper.com/> Accessed December 2015



## FULTON CARROLL CENTER

Chicago, IL

Created by a community development group under a federal grant in 1980, Fulton Carroll Center was one of the first business incubators in the nation. Housed in a factory building that once made plumbing components, the Industrial Council of Nearwest Chicago (ICNC) incubator provides space and business assistance to over 120 small business tenants in its 416,000 square-foot facility. The Hatchery, a collaboration between ICNC and Accion Chicago, provides education, capital, and support to Chicago-area food entrepreneurs.

# COULD THE VISION WORK AT CMD?



To explore this vision, in November 2015 CNT convened 28 leaders in related fields: community development, industrial real estate, freight handling, manufacturing incubation, workforce development, urban and regional planning.<sup>16</sup> Participants began by touring 1869 West Pershing Road as an example of the buildings in the area, then reconvened to explore the possibilities for the CMD as a whole.

In small group brainstorming sessions and larger sessions, participants identified several strengths of the CMD for repurposing.

- **CENTRAL LOCATION** in the Chicago area, five miles from the burgeoning South and West Loop areas, in the heart of a major, diverse metropolitan market.
- **LARGE, VACANT SPACES** which could accommodate multiple firms and offer potential advantages from collocation, ranging from shared basic services to supply chain and combined shipping options.
- **PROXIMITY TO MAJOR TRANSPORTATION OPTIONS**, including two intermodal rail yards, the south branch of the Chicago River, Interstate 55, Midway Airport, the CTA Orange Line, and potentially the Ashland Bus Rapid Transit.
- **ROBUST FIBER-OPTIC CAPACITY**, due to location near rail lines.
- **SOLID, SECURE CONSTRUCTION**.
- **AREA'S LONGSTANDING MANUFACTURING HISTORY** minimizes NIMBY problems.

Participants debated whether one historic advantage of the CMD, its proximity to rail, is in fact critical to its future. Rail connections directly into buildings, once a major site feature, have been removed and could be costly to restore. Large-scale manufacturers, who would be most likely to use whole-car shipping, are unlikely to relocate here (and are not the target in this vision). Small manufacturers often ship by FedEx, UPS, or other truck-based services (and drones are being discussed as a potential option for the future). Participants argued that in time the rail features of the site could possibly be reconnected and become an asset for occupants, especially if rail service could offer less than car-load shipping; but in the initial stages of redevelopment the rail connections are less of a priority.



16. See appendix for attendees.



Participants also identified challenges (some of them the flipside of advantages) that any planned redevelopment at this site could face.

- **CONSTRUCTION COSTS:** Although the buildings are extremely solid, low ceilings and ubiquitous support posts could make the spaces obsolete for some uses. In addition, significant investments would be needed to rework site infrastructure along more sustainable lines, as envisioned in the EcoDistrict concept. Expensive remodeling costs could make the site uncompetitive with new construction elsewhere.
- **LARGE SIZE** itself could be a barrier to development. Participants noted that the old Main Chicago Post Office, with 2.5 million square feet on West Van Buren Street, remains vacant.
- **COMMUTER TRANSPORTATION OPTIONS** are not optimal. The Orange Line station at 35<sup>th</sup> Street is about a mile from the CMD, and the current site has minimal parking. Options for improving transportation include construction of a new Orange Line station along the western edge of the CMD, extension of the Ashland BRT, creation of a circulator service to connect to the Orange line, and addition of Divvy bike-sharing stations.

In addition to these site-specific concerns, participants also discussed broader challenges to implementing a redevelopment of this nature and scale in Chicago. Some expressed skepticism about whether manufacturing can

in fact make a comeback here, given the dramatic declines since 2000 alone; others questioned how strong is the City's commitment to manufacturing as part of its redevelopment vision.<sup>17</sup> Several raised the usual zoning and other complications involved in doing business with the City.

One issue identified by several participants is the need for a trained workforce. Some noted that manufacturers across the country are facing critical shortages in skilled manufacturing trades.<sup>18</sup> Brand-new fields, like advanced manufacturing, come with their own training needs. Others suggested that, if the project is to be a true neighborhood redevelopment catalyst and provide jobs for local residents, local residents will most likely need training to take those jobs. This is not the space for extended discussion of Chicago's workforce needs. But the discussion led several participants to suggest that a training component, tied to onsite jobs, be included in the redevelopment vision.

Participants also discussed the potential that redevelopment could spur gentrification. However, industrial redevelopment, as envisaged here, does not generally lead to gentrification, and could in fact help stabilize the neighborhood's historic role as a home for manufacturing workers. If on the other hand the buildings lie empty and are eventually converted to lofts and commercial space, gentrification could become a real threat.

17. On the manufacturing vision, see [http://www.cityofchicago.org/content/dam/city/depts/zlup/Sustainable\\_Development/Publications/Chicago\\_Sustainable\\_Industries/Final\\_CSI\\_Post\\_Commission\\_Edits\\_web\\_V1.pdf](http://www.cityofchicago.org/content/dam/city/depts/zlup/Sustainable_Development/Publications/Chicago_Sustainable_Industries/Final_CSI_Post_Commission_Edits_web_V1.pdf)

18. <http://www.themanufacturinginstitute.org/~media/827DBC76533942679A15EF7067A704CD.ashx>

# REVISITING THE VISION: MANUFACTURING OPTIONS FOR THE CMD

Out of these conversations emerged a new vision:

**TO REVITALIZE THE HISTORIC CENTRAL MANUFACTURING DISTRICT AS A 21<sup>ST</sup> CENTURY VERTICAL, GREEN, AND URBAN INDUSTRIAL PARK ORGANIZED AROUND A DENSE NETWORK OF RELATED FIRMS IN ONE INDUSTRY, AND POSSIBLY INCLUDING:**

- **INCUBATOR AND/OR POST-INCUBATOR SMALL AND MID-SIZED SPACES**
- **SHARED SUPPLY CHAINS, FREIGHT CONSOLIDATION, AND SHIPPING**
- **SHARED RESEARCH FACILITIES**
- **ON-SITE TRAINING**

Several potential sectoral options surfaced as concrete possibilities.



## Food

Food processing and related industries have long been a mainstay of Chicago's industrial economy. Chicago's location and strong transportation links to major agricultural areas remains a major advantage, as is the fact that the Chicago area market contains an estimated 9.5 million people; the average household spends just under \$7,000 a year on food.<sup>19</sup> The diversity of the population creates demand for ethnic and specialty foods, and recent years have seen growing demand for fresh, locally produced food, as evidenced by the growth of farmers markets. Small and mid-sized companies dedicated to meeting these needs could collocate at the CMD and potentially get the benefits of shared supply chains, storage, and shipping. Such an option could complement the Hatchery, a food business incubator being launched by the Industrial Council of Nearwest Chicago and Accion Chicago.<sup>20</sup> Another model is the food hub, which serves as aggregator, processor, and distributor of locally produced food and provides technical support to local growers. An example is Red Tomato, in Massachusetts, which connects local farms to wholesale distributors who provide fresh produce to grocery stores, restaurants, schools and colleges across the Northeast.<sup>21</sup>

Participants identified several specific options related to food:

- **BAKERIES**, which could share delivery of supplies (e.g., flour, oil) while meeting ethnic and specialty markets. An onsite training program for bakers could be developed in conjunction with local community colleges or private colleges, like Kendall, which offer such programs.
- **SOYBEAN PROCESSING**: Illinois farmers produce 548 million bushels of soybeans annually, half of which is exported.<sup>22</sup> The CMD could provide onsite storage and processing into oil and other products. Doing so would capture more of the economic activity for Illinois, and reduce the emissions (and costs) of transporting this valuable crop as raw material.

19. Consumer Expenditure Survey, 2014-2015.

20. <https://www.industrialcouncil.com/hatchery.html>

21. <http://www.redtomato.org/>; see also Chicago Industrial Submarket Narratives 4Q 2015

22. <http://www.soybeansforillinois.org/>

## Materials Recovery Facility

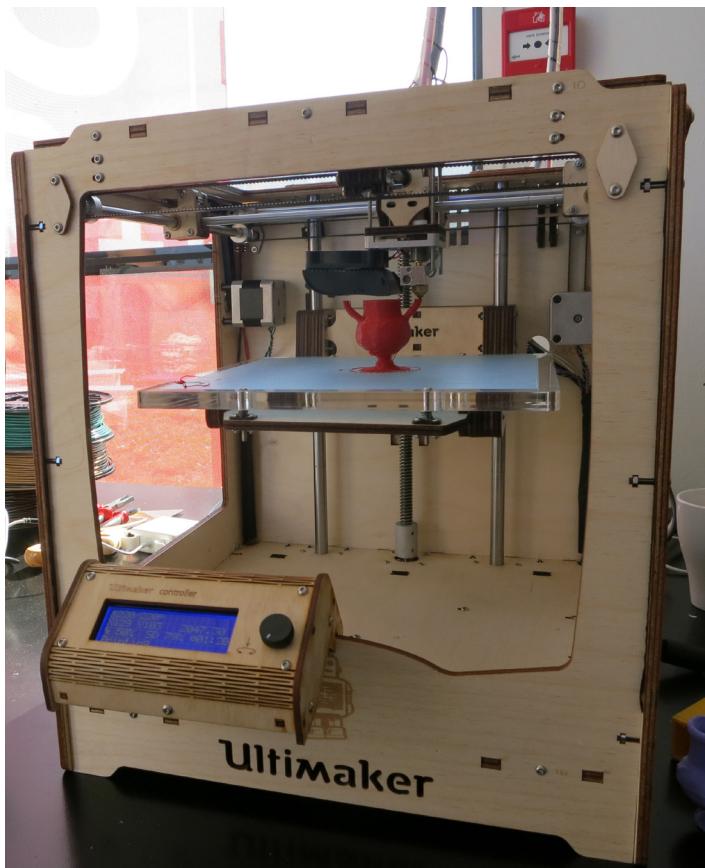
As a major metropolitan area, Chicago generates hundreds of thousands of tons of recyclable material each year. Much of this is exported to China and other countries for processing. The CMD could provide storage and processing for such items as electronics, tires, and paper, and attract manufacturers to use the material, thus creating higher value-added businesses and job opportunities for Chicago's economy.

## Other Manufacturing Options

Participants identified two other potential manufacturing options as worth exploring:

- Additive manufacturing (3-D printing), taking advantage of the area's robust fiber-optic capability
- Resin molding, especially for producing automotive components

Photo: Mirko Tobias Schäfer, Flickr/Creative Commons



## Training

Several participants mentioned workforce training as an important need that could be served at the CMD. Such a facility could offer skills for neighborhood residents and help boost the economic potential of Chicago's workforce overall. Given current federal interest in work-based training programs, onsite training components for any of the manufacturing options could potentially attract federal support under the Workforce Innovation and Opportunity Act or other programs. Another option, given the area's extensive rail infrastructure, would be training for transportation-related jobs.

Photo: Province of British Columbia, flickr/Creative Commons



## MOVING THE VISION FORWARD

There is a real opportunity to create a transformational hub of makers and innovation for Chicago at the Central Manufacturing District. But this opportunity will not last forever. The pressure on urban real estate is significant, and if action is not taken the buildings will likely go towards activities that are less productive for the neighborhood and the region. To that end, we have developed the following recommendations and next steps for the CMD and for supporting manufacturing in Chicago more generally.



# NEXT STEPS: REVIVING THE CMD

The city and partners can take steps to catalyze action at the site and remove some of the barriers to the use of the CMD as a modern manufacturing hub.

## **POSITION THE PERSHING ROAD FACILITIES AS A “FOOD HUB.”**

As described in the 2012 study, “Building Successful Food Hubs: A Business Planning Guide for Aggregating and Processing Local Food in Illinois,” by the Illinois Department of Commerce and Economic Opportunity, there is a growing demand for higher quality food, and an apparent willingness to pay for it.

- The CMD redevelopment could be structured as food-based industrial park/EcoDistrict, with “successional” logic. In this scenario, start-up firms will occupy incubator space in one or more of the Pershing Road facilities; start-ups will have guaranteed access to expansion space as that makes sense within those facilities, and if desired, to expansion space elsewhere within the larger CMD (Ashland-Western, Pershing-47<sup>th</sup>, 260 acres total).
- Major food distributors (e.g. US Foods, Sysco) and producers can be attracted to expand and/or relocate at the CMD. A coordinated city-county-state financial assistance and regulatory streamlining service could be conditioned on meeting equity and sustainability performance outcomes.

## **CREATE A DESIGN/BUILD COMPETITION OR “RIGHT TO DEVELOP” AWARD.**

Set out criteria for use of the buildings and adjacent land, including high quality jobs for neighborhood residents and a low-carbon footprint, and solicit proposals. As a carrot, the city could offer a low lease or sale price in exchange for a share of the profits of the selected venture. The city could also offer attractive financing for the occupants of the building, and/or regulatory streamlining conditioned on meeting specific performance outcomes. The NY Prize, a \$40 million design competition for community micro-grids by the New York State Energy Research and Development Authority, is a good model of such a competition in the area of energy systems.<sup>23</sup>

## **USE WORKFORCE DEVELOPMENT IMPERATIVE AS AN**

**INVESTMENT GENERATOR.** There is almost universal consensus that a key limiting factor in manufacturing success is workforce quality. Resources are available to support workforce development initiatives. But perhaps what’s been lacking is a grander vision for this. Historically, the Washburne Trade School along with associated vocational education, operated jointly by employers and unions, provided Chicago with a competitive advantage. CPS recently announced plans to create a new building trades program at Dunbar High School; the CMD could become a similar site for training for trades related to food manufacturing, logistics and distribution. Framing it thus would make it eligible for more investment than would be garnered by a training facility alone. Another option would be training for shipping and logistics, to address shortages of skilled truck drivers, materials equipment handlers and locomotive engineers. CNT in conjunction with workforce developer OAI and the South Suburban Mayors and Managers developed such a pilot program successfully over the past five years with a consortium of three community colleges in the south suburbs.

## **ELIMINATE THE “TRANSIT DESERT” EFFECT IN THE IMMEDIATE AREA.**

This would involve securing resources for a new Orange Line station at the CMD (the Orange Line passes over the western end of the CMD currently without stopping), expanding the frequency of long-haul CTA bus service on Ashland, Western, 47<sup>th</sup> and Pershing, and developing localized circulation services to connect within and between the CMD and the adjacent Stockyards Manufacturing District.

## **DEMONSTRATE THE SITE’S POTENTIAL IN THE NEAR-TERM.**

To jumpstart the revitalization of the CMD the city should focus on two near-term strategies:

- Activating the space, along the lines of a pop-up maker space and market, would help visitors and entrepreneurs envision the site’s opportunities as they come for events.
- A short-term, low-cost lease of a share of the space for an expansion of ICNC’s Fulton-Carroll incubator would be another such demonstration.

23. <http://www.nyserda.ny.gov/All-Programs/Programs/NY-Prize>

# RECOMMENDATIONS:

## SUPPORTING CHICAGO MANUFACTURING

### Spur Investment

#### **CREATE AN ENTITY FOR VISION AND INVESTMENT STRATEGY.**

CNT's scan of Industrial EcoDistrict opportunities in Chicago has revealed a need for an organizing entity to facilitate and coordinate a modern, green reindustrialization of Chicago. New York City's Economic Development Corporation has played such a role in that city, such as with its Sunset Park Vision Plan, which laid out both the vision and investment strategy for a green industrial district. This vision and investment strategy should:

- Estimate the benefits of possible assistance from the City of Chicago and/or Cook County through a Planning Manufacturing District designation, and disclose that in a market-recognizable fashion (e.g., as the value in dollars per square feet of purchase price).
- Develop a scorecard on the benefits of large area industrial tract re-use under different use scenarios. Industrial uses pay the highest rate of any property classification in Cook County. While this is often painted as an impediment, in an industrial park (multi-tenant, common services) scenario, this may rise above the threshold in a "tax yield return on investment" screen. While some "manufacturing" uses are not labor intensive (because processes employ robotics or because the land is used for warehousing and distribution), many uses are very labor intensive and, even under modern practice, resemble office-like functions.
- Use performance measures to prioritize industrial redevelopment and/or industrial clustering. Public agencies that score infrastructure investments should take local economic impacts into account. CNT's studies (2012) of state and Metropolitan Planning Organization practice show a bias toward "throughput" (e.g. traffic speeds and volumes, national accessibility, system condition—the kind of measures generally reflected in the "fix the crumbling infrastructure" trope) and short-term construction job impacts. Generally missing is consideration of local economic impacts such as tax yield intensity, long-term job creation, cost of living and cost of business effects, and supply chain support.



Photo: Michigan Municipal League (MML), Flickr/Creative Commons

**CREATE A FINANCING TOOL.** An EcoDistrict, micro-grid, combined heat and power, or green zone type strategy can provide significant savings through efficient, multi-resource infrastructure, but can be quite capital-intensive. One model that may help secure capital for Industrial EcoDistricts at the CMD and more broadly would be the creation of an investment fund oriented at this particular market. A financing strategy was worked out for the Reinvent Phoenix Sustainable Communities initiative by CNT and PlaceMakers. It proposed financing predevelopment costs for affordable housing through third-party off-balance-sheet financing. This has been done successfully for Transit Oriented Development in the San Francisco Bay Area with catalyst funding from the Metropolitan Transportation Commission, matched by bank, CDFI and foundation resources:

"The \$50 million Bay Area Transit-Oriented Affordable Housing (TOAH) Fund provides financing for the development of affordable housing and other vital community services near transit lines throughout the Bay Area. Through the Fund, developers can access flexible, affordable capital to purchase or improve available property near transit lines for the development of affordable housing, retail space and other critical services, such as child care centers, fresh food outlets and health clinics."<sup>24</sup>

24 Bay Area TOAH Fund, <http://bayareatod.com/>

In Phoenix, CNT proposed a method for doing this at a scale sufficient to build out the necessary infrastructure for mixed use development surrounding two light rail stations with residential, commercial, institutional and industrial uses. Joint financing would be provided through a third-party pre-development entity, with capital costs to be shared by public, utility and private financing, and capital repayment delayed until buildout occurs, managed through a special service district.

Other schemes have been developed to implement EcoDistrict-type financing, notably in campus-like settings through affiliated service corporations, or through multi-employer networks in the case of last-mile and circulation-type transportation services, respectively. Barriers to providing alternative utility-type services and corresponding solutions need to be overcome for Chicago, Cook County and Illinois generally. An “industrial TIF” could provide advantages to developers, occupants, and local governments.

**MINIMIZE RESOURCE USE INTENSITY AND COSTS.** Specify innovative and “leaner” infrastructure for industrial park redevelopment:

- Strategies such as green infrastructure for stormwater management (as opposed to industrial strength sewer expansion), building and systems efficiencies combined with peak demand reduction (as opposed to expanded distribution systems and generation), and improved last-mile transit access (as opposed to expanding parking) can save up to 80 percent of front-end capital expenditures and more in operating outlays.
- To pursue these, it’s important to modify requirements in building and zoning codes that are unnecessarily biased toward larger capacity infrastructure and disadvantage central cities compared to suburban and rural locations.
- Also important is to identify incentives for pursuing such innovations to implementation stage. These can include utility incentives from Commonwealth Edison and Peoples Gas or low-interest loans from the Clean Water Revolving Fund operated by Illinois EPA. The reduced transportation demand created by clustering jobs near

housing and providing transportation alternatives could qualify for support under various funding systems used by Illinois DOT, USDOT, and the Chicago Metropolitan Agency for Planning.

**REDUCE SHIPPING COSTS FOR SMALL MANUFACTURERS.**

Lower the cost of long-distance shipping through a specialized service for small shipment consolidation. A partnership to provide a demonstration of this innovation and develop such a service should be seriously considered in Chicago. Potential collaborators include short line railroads, Class I railroads with a stated interest in manufacturing segments such as Norfolk Southern and CSX, Class I railroads with nearby large-scale intermodal freight yard capacity such as BNSF and NS, and developers seeking re-entry into an urban industrial park market.

The CMD is just one site of many that can provide the foundation for the resurgence of manufacturing in Chicago with accessible, high-quality jobs. These recommendations would benefit both the CMD and manufacturing more generally in Chicago.

## Conclusion

Full-scale realization of an Industrial EcoDistrict at the CMD and the renaissance of manufacturing in Chicago require innovation in the areas of capital access, management and governance. Government, business, nonprofit institutions, and neighborhood residents all have a role to play, and will all benefit from a CMD full of green, accessible jobs.

# APPENDICES

## CENTRAL MANUFACTURING DISTRICT CHARRETTE PARTICIPANTS

David Baum, Baum Realty

Frank Beal, Civic Consulting Alliance

Scott Bernstein, CNT

Kara Breems, Department of Planning and Development, City of Chicago

David Caruso, Coyote

David Chandler, CNT

Craig Chico, Back of the Yards Neighborhood Council

Steve DeBretto, Industrial Council of Nearwest Chicago, sponsor of the Fulton Carroll Incubator

Ogbeni Ekhomu, CNT

Calvin Flowers, Chicago Inventors and Innovators

Peter Gilbertson, Anacostia and Pacific

Reggie Greenwood, South Suburban Mayors and Managers Association

Jacky Grimshaw, CNT

Ric Gudell, Illinois Manufacturing Foundation

Hannah Jones, Industrial Council of Nearwest Chicago

Jen McGraw, CNT

Liz Miller, CNT

Mary O'Connell, Mary O'Connell Communications / CNT Board of Directors

Paul O'Connor, Skidmore Owings Merrill

Libby Ogard, Prime Focus LLC

Bina Patel, Saathi Impact Consulting / CNT Board of Directors

Stephen Perkins, CNT

Edgar Ramirez, Chicago Commons / CNT Board of Directors

Adam Roth, NAI Hiffman

Herb Smith, Norfolk Southern

Jack Swenson, LISC

James Wilson, Cook County Bureau of Economic Development

## **ABOUT CNT**

CNT aims to streamline and accelerate the adoption of cutting-edge EcoDistrict approaches to adopting green resources and facilitating sustainable economic development in Chicago.

As an award-winning innovations laboratory for urban sustainability, the Center for Neighborhood Technology (CNT) is dedicated to taking on big challenges, starting in small places. CNT helps make neighborhoods, cities, and regions work better, for everyone.

Visit [www.cnt.org](http://www.cnt.org) for more information.

## **ACKNOWLEDGEMENTS**

This report was written by Mary O'Connell, Jen McGraw, Scott Bernstein, and Stephen Perkins. It was copy edited by Liz Miller and designed by Kathrine Nichols.

CNT's Chicago EcoDistrict project is made possible by Fund Change and an anonymous donor. CNT is grateful for time and effort of the CMD Charrette participants.

**CNT 773 278 4800 [info@cnt.org](mailto:info@cnt.org)**