CYPRESS HILLS LOCAL DEVELOPMENT CORPORATION

Cypress Hills/East New York
Brownfield Opportunity Area

Manufacturing Opportunity Analysis

January 2013

Pratt Center
for Community Development

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Prologue and Goals of the Study

From Cypress Hills Verde Summit I (October 22, 2011)

According to Cypress Hills/East New York residents, a good job is:

- "One that you can hold on to."
- "One that provides satisfaction, longevity, and comfort."
- "One that provides wages, growth, career advancement, and benefits. Not a dead-end job."
- "One that is near your home and one that benefits the community."
- "One that gives you satisfaction waking up every morning and that motivates you to work."

The Pratt Center for Community Development, on behalf of the Cypress Hills Local Development Corporation (CHLDC), gathered information to help to bring about the activation of goals identified during the community visioning process that was conducted in 2011 and 2012 as part of the Cypress Hills/East New York New York State Brownfield Opportunity Area Program (BOA) Step 2 study. Under the Brownfield Opportunity Areas (BOA) Program, the New York State Department of State (DOS) provides financial and technical assistance to municipalities and community-based organizations. Funding can be used to complete revitalization plans and implementation strategies for areas affected by the presence of brownfield sites, as well as site assessments for strategic sites.

Results of a community survey administered in 2011 to Cypress Hills' residents indicated that secure employment is a major concern. Area unemployment is high—over 11 percent, compared to the citywide rate of 9.2 percent. Job creation is associated with increased income, spending power, increased access to health insurance, access to more affordable housing, increased well-being, stability, and social mobility. The results of workshops conducted during the Cypress Hills Verde Summit in October 2011 and the

follow-up charrettes confirmed that CHLDC and community members want redevelopment planning to result in the creation of good, well-paying, and stable jobs. Community residents and CHLDC are also interested in workforce development that will connect residents to living wage, green jobs. CHLDC is interested in the redevelopment potential of strategic sites in the BOA study area, including currently M-zoned sites that have good potential for new or increased manufacturing development.

The goal of this study is to gain a full understanding of the type of manufacturing activities taking place in Cypress Hills and the surrounding areas; to identify key M-zoned sites for consideration of new M-use development; to identify the types of manufacturing businesses that are experiencing growth and that may be interested in locating in, relocating to or expanding in Cypress Hills along with the types of buildings and/or vacant lots that they are looking for (size, location, amenities) and the types of job placement, training, or education programs local residents need to take on these jobs. The analysis results in a set of recommendations that target businesses to attract to Cypress Hills, and creative expansion opportunities for existing businesses. The final product contains recommendations both for strategic sites and for general development in manufacturing areas.

I. Introduction and Summary

What drives the analysis is an intention to build on the community vision by: 1) building on existing manufacturing assets; 2) taking advantage of opportunities to link to regional and citywide networks, and; 3) creating competitive advantages to propel long term growth. The community vision articulated a need to build local employment opportunities that both provide solid wages and allow residents to thrive in place and build neighborhood stability.

The boundaries of the study area are drawn at three scales: the Cypress Hills BOA study area; the expanded BOA study area that more broadly includes the Cypress Hills/East New York neighborhood; and Brooklyn Community District 5. For investigation of workforce training programs and regional anchor institutions (local consumers of manufacturing products), the study area is broader—roughly a five-mile radius around Cypress Hills/East New York that includes JFK Airport, Brooklyn College, Long Island City, and Flushing. The analysis also includes more site-specific documentation of blocks, lots, and clusters that have the most immediate redevelopment potential, i.e., the EDC-controlled site on Atlantic Avenue.

This analysis employed data from ReferenceUSA, a commercial database that combines business-related census data and information from telephone calls placed to a statistically significant sampling of businesses across zip codes. The data is organized by North American Industrial Classification System (NAICS) codes and pulled for Cypress Hills/East New York zip codes 11207 and 11208. For wages, we used Bureau of Labor Statistics Quarterly Census on Employment and Wages. We also used census data from the decennial census and the American Community Survey administered every three years, and land use information from various City of New York and New York State agencies.

Supplemental information came from interviews with the Greater Jamaica Development Corporation, the Local Development Corporation of East New York, the Business Outreach Center Network, Brooklyn Workforce Innovations, the Economic Development Corporation of New York, Victoria Co-Packing, Farm to Table Co-Packers, Bad Ass Organics, and the Greenpoint Manufacturing and Design Center.

Additional material and insight came from Pratt Center leadership and staff Adam Friedman, Joan Byron, Vicki Weiner, Amy Anderson, Tanu Kumar, Josh Eichen and from prior Pratt Center reports, databases, and analyses. Pratt Center Fellows Ben Dodd, James Lloyd, Nicole Tarpey, Sarah Serpas and Pratt GIS Environmental Planner Jessie Braden provided additional support.

Generally, we found that a higher proportion of Cypress Hills/East New York residents work in manufacturing jobs then the City as a whole; 23.7 percent of the workforce as compared to 18.4 percent citywide. The key manufacturing sectors in Cypress Hills/East New York are: food, plastics and rubber, furniture, apparel, and fabricated metal. There is underutilized FAR in Cypress Hills/East New York M-zones, and a total of 189 industrial firms currently operating in zip codes 11207 and 11208.
There is a concentration of metal fabrication activities, a strong potential regional market for food-related industries including preparation and co-packing, and significant available FAR to both build new industrial buildings and adaptively re-use key existing buildings. The report's findings show that public incentives are currently available for manufacturing development, making the timing ripe for a community vision that supports manufacturing growth and development and CHLDC's organizational interest in building its industrial development capacity.

The following report substantiates strategic recommendations made to CHLDC:

Build a Food Ecosystem

Food production is the first sectorial target for economic development in the area. Despite the recession and a decline in overall manufacturing, food production has been fairly stable since 2007 and is now Brooklyn's largest manufacturing sector (Appleseed Consultants, 2012). Food and nutrition have also long been particular areas of interest for the community, illustrated by CHLDC's community-wide "Happiness" Survey, the long-standing East New York Farms! Farmers' Market (the oldest in Brooklyn), the prevalence of community gardens throughout East New York (Brooklyn's community garden capital), the wildly successful Cypress Hills Youth Market and subsidized-community supported agriculture (CSA) project, and capacity crowds at the Verde Summit. CHLDC has sought to foster connections among local agriculture, local food production and sourcing, job creation, and improved nutrition, creating the foundation for a food ecosystem.

A food ecosystem could work like this: organic eggs from El Jardin del Pueblo/The People's Garden (a community-created and operated urban agriculture project) are sold to Love Joy Sweet Treats, a local caterer and bakery business, which uses them to make cupcakes, homemade with whole ingredients. The locally-made cupcakes are transported to the new co-packing facility on Atlantic Avenue and attractively boxed with recyclable packaging materials and then shipped to citywide retail destinations. Locally-made cupcakes are also sold by a vendor at the new outdoor café at the new Fulton Street public market. Jobs for local residents are added at each juncture, and a commitment to wholesome eating and local sourcing is built into the system.

While full-service grocery stores are exceedingly hard to find in the neighborhood, and fast food outlets proliferate, Cypress Hills/East New York has in place several important food-related nodes. Its 13 bakeries, 12 frozen food and dry goods manufacturers, three urban farms including the long-standing, highly successful and innovative East New York Farms!, two farmers markets, a community-supported agriculture project, 43 community gardens, the PS/IS 89 hydroponic greenhouse, and finally, the newest addition, el Jardin del Pueblo/The People's Garden, a 5,300 square foot community-designed and operated urban farm, comprise a rich and growing inventory of food-related assets. Plans from the BOA and Verde solidly point in the direction of adding new food outlets, including a new public market on Fulton Street and a new full-service grocery store on Atlantic Avenue, at the Arlington Village site, a centrally located, 7.2-acre, currently underutilized, suspected brownfield. There are many assets to build upon. What's needed is capital and innovative partnering and programming.

Two sites—Chloe Foods and the EDC site, large-sized (over 203,000 square feet combined), adjacent sites on the eastern end of Atlantic Avenue—lend themselves to food-related industries. Specifically, we recommend co-packing and food preparation—both of which are manufacturing activities that match local skills, fit with the expressed desire to expand community food-related activities, can potentially connect residents economically to a food infrastructure system that can address high rates of obesity, diabetes, and heart disease, are a good match for existing built and vacant properties, and are suggested by our research of regional demand. Local economic analysts and businesses themselves report a citywide

shortage of co-packers, i.e. manufacturers who produce under contract for other businesses that retain responsibility for sales, financing and often distribution. CHLDC can capitalize on this opportunity. These are long-term recommendations. Interim steps toward their realization are outlined on page 39.

Promote and Green Metal Fabrication

Metal fabrication is another manufacturing sector that is relatively stable, is unusually concentrated in the study area, and merits targeted economic development strategies. Borough-wide, fabricated metal continues to account for over ten percent of Brooklyn's manufacturing jobs, and continues to pay well in comparison to other economic activities (Appleseed Consultants, 2012). Metal products are highly customized to fit the need of the specific order and market and consequently fit an urban manufacturing model that emphasizes high-value added products.

The presence of multiple metal fabricators in proximity (primarily along Liberty Avenue in the study area) in addition to high-profile local fabricators, such as Watermark Designs, suggest an opportunity to promote the cluster (externally) and develop the cluster (internally) through supply chain consolidation and sharing of resources/materials/labor. Cluster promotion can help pave the way toward "greening" the firms by making their operations and products safer for workers and residents in adjacent buildings. It also gives the companies a competitive advantage in a marketplace that is increasingly environmentally conscious.

There are a wide variety of incremental improvements that metal fabricators can make to begin to green their operations as well as demonstrate that such investments lead to reduced costs and expanded markets. As sophistication with sustainable practice grows, metal fabrication firms could pursue the creation of tailored Environmental Management Systems (a framework that allows businesses to create a core set of environmental goals, assess current practices in light of those goals, and create targets to reduce negative environmental impacts over time).[1] Cluster promotion may, over time, help shift local manufacturing uses away from the automotive market and toward metal fabrication in building products, a particularly important and competitive market in New York. Interim steps toward their realization are outlined on page 46.

[1] Last year Pratt Institute's GCPE and Pratt Center offered an Environmental Management System (EMS) class that had two metal working companies as clients and produced EMS plans for each company.

Partnerships and Advocacy

To move effectively on the recommendations within this report, CHLDC should enter into partnerships with local organizations that have years of experience working directly with manufacturers and developing real estate for manufacturing. The Local Development Corporation of East New York (LDC of ENY), the Industrial + Technology Assistance Corporation (ITAC), Pratt's Center for Sustainable Design Studies, and NYS's Pollution Prevention Institute are technical and financial resources to promote clusters and sustainable process. The Greenpoint Manufacturing and Design Center (GMDC), a non-profit industrial developer, is a prime candidate for manufacturing development co-ventures.

Finally, we recommend that CHLDC link arms with other local, citywide, and national organizations, such as the East Williamsburg Valley Industrial Development Corporation, the Brooklyn Navy Yard, the Pratt Center, and the newly-created Urban Manufacturing Alliance, who are advocating for the establishment of an industrial development fund for non-profit acquisition of industrial space; for adapting economic development tools such as Industrial Revenue Bonds to facilitate the rehabilitation of space by non-profit organizations for use as rental properties for manufacturers; and for coordinating land use and zoning policy with economic development investments and infrastructure.

II. Existing Conditions

Manufacturing Zones in the Study Area

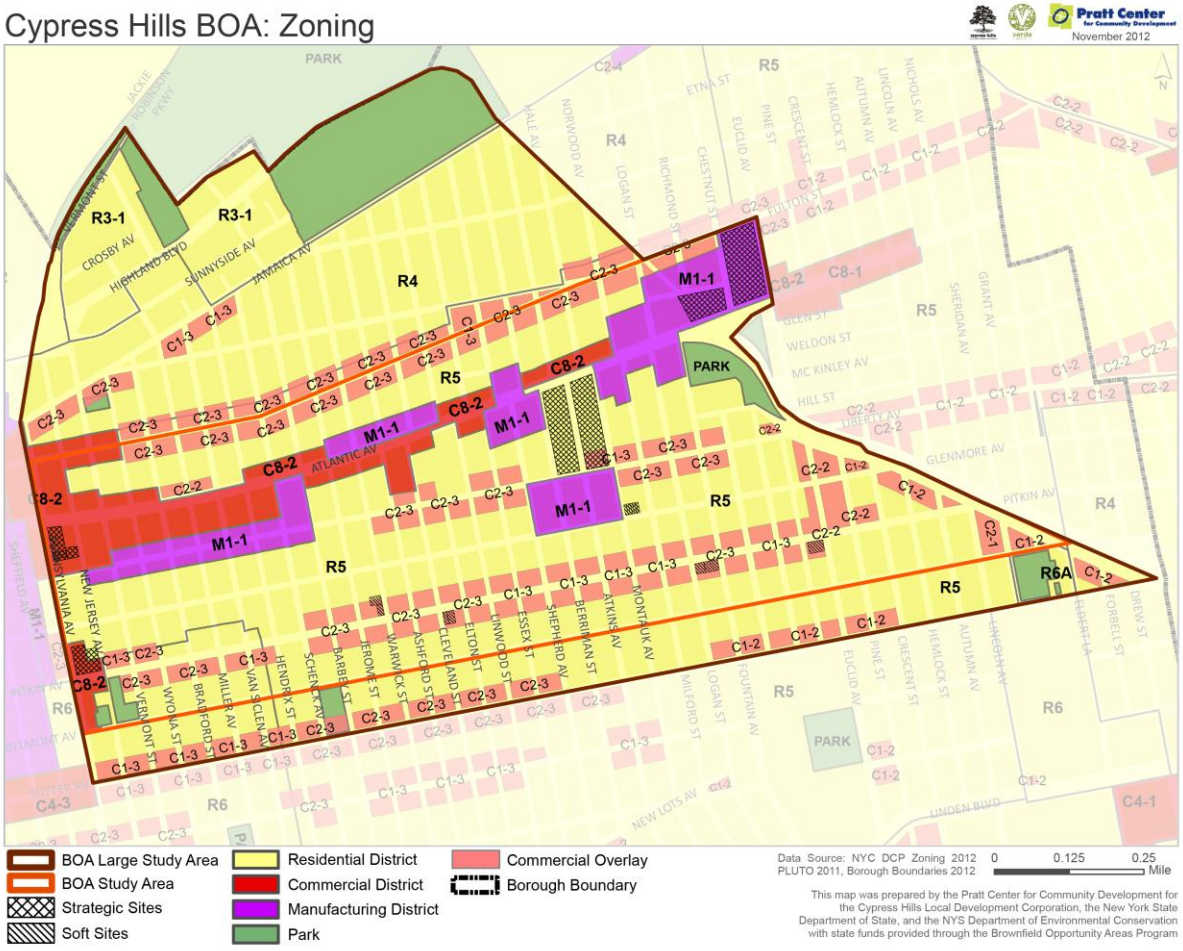
Areas zoned for manufacturing (M zones) in the Cypress Hills BOA study area are concentrated along Atlantic Avenue, with the densest cluster at the most eastern end of the study area in the blocks between Euclid Avenue and Milford Street.
(See Figure 1)

There are also M zones along Liberty Avenue between New Jersey Avenue and Barbey Street, and between Liberty and Glenmore Avenues bounded by Shepherd and Montauk Avenues. Considerably larger manufacturing districts are found to the west and south of the study area within the East New York Industrial Business Zone (IBZ) and the Flatlands Fairfield IBZ. **(See Figure 2)**

All of the M zones in Cypress Hills are M1-1, a district that carries a floor area ratio (FAR) of one and requires parking. Cypress Hills' M1-1 zones are high-performing districts and require that operations conform to regulations restricting dust, noise, vibration, sound, odors, etc. M-1 zones are frequently located next to residential zones, as is the case in Cypress Hills, giving the neighborhood a de facto mixed use character.

The study area also hosts a substantial C-8 district along Atlantic Avenue. C-8 districts bridge commercial and manufacturing uses. They allow uses such as repair shops, warehouses, and gas stations and primarily serve the automotive industry. There are many instances of manufacturing uses located outside of M zones—likely these non-conforming uses are businesses that were "grandfathered," or allowed to remain, when zoning was amended.

Figure 1 Cypress Hills Zoning Districts

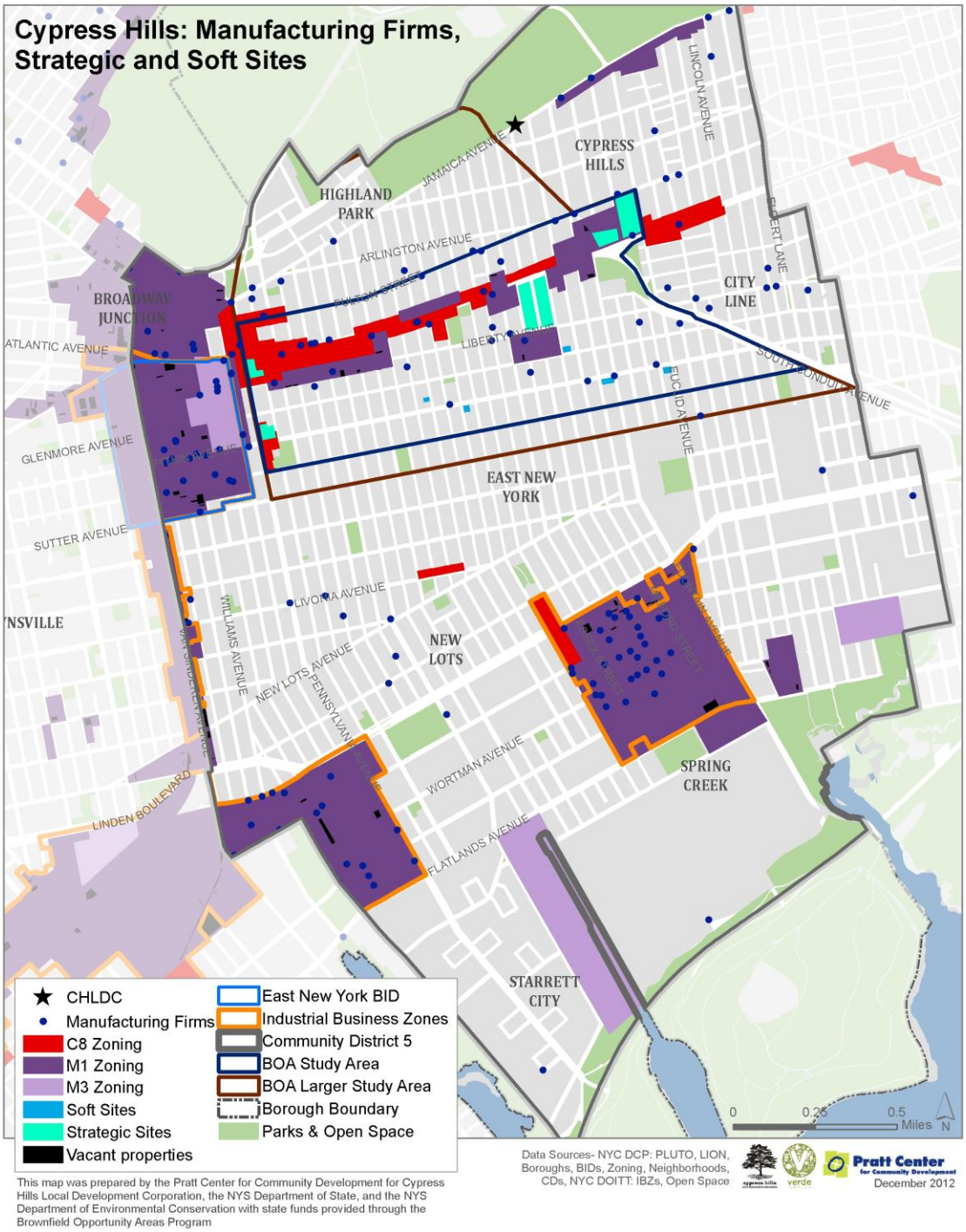


Locations of Manufacturing Uses in the Study Area

Of the 189 manufacturing and industrial firms located within areas corresponding to zip codes 11207 and 11208, 41 firms are located in the larger BOA study area, primarily along the three east-west axes of Fulton Street, Atlantic Avenue, and Liberty Avenue. Manufacturing uses are diverse and not all need to locate in M zones—as the map shows, many manufacturing/industrial firms operate in commercial zones **(see Figure 2).** Examples are warehouses and auto-related uses. A much higher concentration of manufacturing firms are located to the south and to the west, in the IBZs.

The Chloe Foods-EDC BOA strategic site combination lies within an M1-1 zone. One soft site, located on Pitkin Avenue between Fountain and Logan Streets, is adjacent to a manufacturer. However, this site does not represent expansion opportunity because it is not located in an M zone and therefore any new manufacturing assemblage would be required to conform to existing zoning, unless the property was to be granted relief from zoning through a variance request.

Figure 2 Cypress Hills Manufacturing Firms and BOA Strategic and Soft Sites



Vacant and Underutilized Manufacturing Land

There is little vacant land in Cypress Hills' M zones. The largest vacant site is the city-owned property on Atlantic Avenue and Chestnut Street. **(See Figure 3)** One strategic site—Chloe Foods, a former food-packing and distribution warehouse —is located in an M zone, is currently vacant and houses several fire-damaged buildings. The city-owned site located on Atlantic and Chestnut is the subject of a request for proposals recently issued by the Economic Development Corporation. Given the size of the site (81,175 square feet), there is the potential to add substantial numbers of manufacturing jobs.

The large site on Atlantic Avenue bounded by Logan and Fountain at 3196 Atlantic Avenue—now used for truck parking— contributes to an overall impression of blight on the block. One vacant site of significant size—30 Fountain Avenue—is located on Fountain Avenue south of Atlantic Avenue, in close proximity to the Chloe Food site (see detail in Appendix 1). Additionally, 201 Force Tube Avenue, another partially vacant site lies directly north of the EDC site. While it has potential for additional manufacturing use, there is some expression of community preference for additional greening of Force Tube Avenue. None of the soft sites are located in M zones. **(See Table 1).**

Figure 3 Manufacturing and C-8 Zones and Vacant and Underbuilt Properties

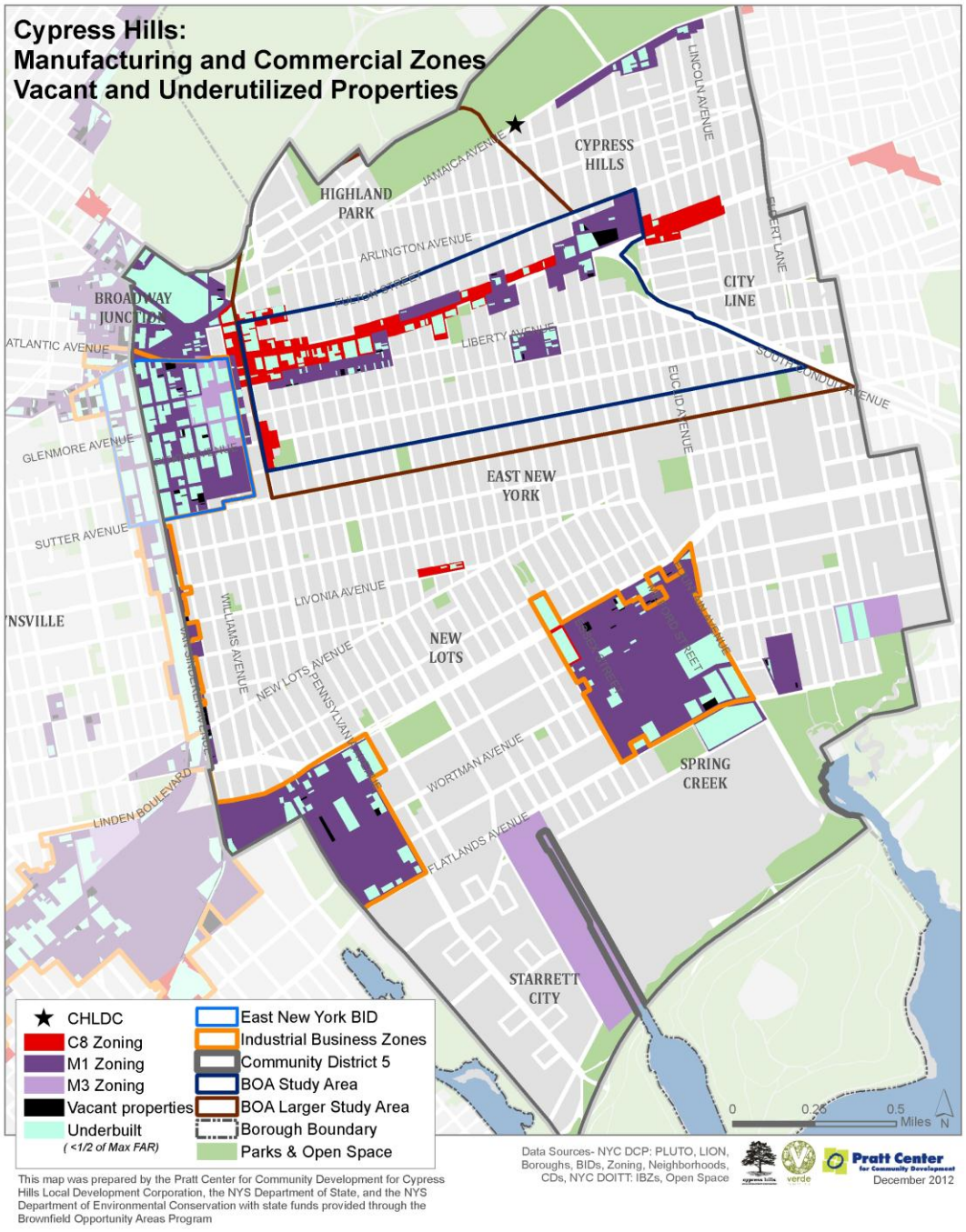


Table 1 Vacant M-Zoned Property in the Study Area

Block	Lot	Address	Owner Type	Owner Name	Lot Area	Lot Front	Lot Depth
4142	32	3269 ATLANTIC AVENUE	C	HOUSING PRESERVATION	81175	410	258
4140	1	(201) FORCE TUBE AVENUE	P	BERNARD, NEVILLE	5095	108.42	125
4154	61	(30) FOUNTAIN AVENUE		38 FOUNTAIN AVE. CORP	5000	50	100
4139	25	(49) DINSMORE PLACE	P	BREEN ITZHAK M	4302	77.67	133.58
3961	32	489 LIBERTY AVENUE	P	VERDUGOS GENERAL CONT	2850	28.5	100
3706	14	223 VERMONT STREET	C	HOUSING PRESERVATION	2650	25	106
3961	33	(487) LIBERTY AVENUE	P	VERDUGOS GENERAL CONT	2650	26.5	100
3989	32	803 GLENMORE AVENUE		KHAN, ZORIDA	2562	30.75	85
3957	4	207 ESSEX STREET		207 ESSEX CORP.	2500	25	100
3962	34	511 LIBERTY AVENUE	C	DCAS	2500	25	100
3964	2	213 SCHENCK AVENUE		1440 G PACIFIC RLTYCO	2500	25	100
3962	31	(519) LIBERTY AVENUE	P	PLAZA, CARMEN	2500	25	100
3977	19	502 LIBERTY AVENUE		SARDAR RIMON	2000	20	100
3977	20	504 LIBERTY AVENUE	P	AHTRAM CONSTRUCTION	2000	20	100
3977	21	510 LIBERTY AVENUE	P	WILLIAMS, MICHAEL	2000	20	100
3706	25	182 WYONA STREET	C	HOUSING PRESERVATION	1540	19.25	80
3978	24	282 HENDRIX STREET		CANO ADOLFO	1011	20.21	50
3978	23	280 HENDRIX STREET		CANO ADOLFO	894	20.38	50

As is the case with other M zones throughout the city, many M-zoned properties have underutilized floor area and could be rebuilt to a higher density. **Figure 4** illustrates the extent to which M-zoned properties are "underbuilt" according to allowable FAR. In many cases, there is significant opportunity for densification, particularly of the C-8 sites, up to 75 percent in some cases. Some sites are "overbuilt," while others have no buildings whatsoever.

However, it should be noted that this very blunt FAR map and analysis does not include consideration of individual lot configuration, building envelope, setbacks, room for mechanicals, yard requirements, or any of the other more technical zoning dimensions that result in decreases in usable FAR. More detailed analysis would be required to determine maximum allowably buildable FAR for any particular site or building. A handful of lots, for example, used by the Total Transportation Corporation on Atlantic and Dinsmore, have no buildings on the site even though the sites may be in active use for surface parking. Manufacturing uses such as parking and materials storage on non-enclosed lots can provide jobs but broadly speaking sustain fewer jobs than activities that are more production-related.

Figure 4 Manufacturing and Commercially Zoned Lots and Underutilized FAR

Re-Use And Densification of Existing Buildings

One potential redevelopment scenario is the reuse of existing buildings in M zones, as opposed to tear downs that would result in larger, newly constructed buildings. A re-use could involve a single user taking over an existing building and retrofitting it to suit their needs. Another scenario involves a new owner, prime tenant or third party (including a non-profit organization) acquiring and renovating the space for their own use and that of others. Finally, a more difficult co-op model promotes the sharing of an existing building wherein multiple tenants outfit space in a single building and share building responsibilities.

The record on building-sharing is mixed. The Greenpoint Manufacturing and Design Center (GMDC), for example, employs a model of acquiring manufacturing buildings, making general retrofits, and securing multiple tenants who have a proven record of financial stability (they do not incubate new businesses). GMDC tried and abandoned the practice of specifically tailoring space to a particular tenant, having found that building improvements that were specific to a particular type of manufacturer were problematic because they: a) limited GMDC's ability to rent the space on an ongoing basis if that original

tenant left, and; b) increased hard cost price per square foot substantially, to an extent that, subsequently, rents had to be set at rates prohibitive for targeted tenants. As a building owner dependent on rental income, GMDC does not invest in speculative outfitting of manufacturing buildings for manufacturing uses that have not matured to the point of profitability. Their real estate model is based on retrofitting existing space for companies that have reached a level of stability and maturity but have been displaced due to re-zonings, speculation, or practices such as land banking that hold manufacturing space off of the market in certain neighborhoods.

GMDC developed and reserved space in one of their buildings for a common area where woodworkers could share machinery and additional production space. However, the shared aspect was undermined when users found that the machinery was in such constant use that they wound up having to purchase their own, simply in order to make sure that they could keep up with orders. (Smith, 2013)

Some naturally occurring flexible-space/space sharing arrangements have worked out. Brooklyn Brine, a pickle manufacturer, successfully shared space with Mile End Deli in Gowanus, Brooklyn. The deli realized that they had excess floor area. Casual networking with Brine owners sparked the real estate relationship and Brine subleased from the Mile End until the deli moved expanded and moved to a larger building. Brine now rents the entire space in what might be characterized as a successful real estate incubation process. Other small food manufacturers in Gowanus are interested in duplicating this arrangement but as of yet no formal or informal infrastructure exists for small buildings. A recent study of 80 Gowanus businesses showed that 9 percent of renters sub-leased space and that 12 percent of owners lease part of their space. The former Pfizer building at 475 Marcy Avenue in Williamsburg is another example of building sharing. The 500,000 sf building was acquired by Acumen Capital. The building was used by Pfizer to produce pharmaceutical products and therefore the building was compliant with the highest FDA standards. Acumen has sought out and rented to high-tech, light manufacturers. Because the rooms in the building are well-equipped to high “cooking” standards, small-scale food manufacturers have flocked there and now 50 companies rent space in the building. Tenants are allowed to sub-lease space, with approval from Acumen.

The Brooklyn Navy Yard (BNY) is landlord to many types of different manufacturing and manufacturing-related businesses—over 275 in total. Most of their buildings have multiple tenants. The “shared” aspect is mostly determined by tenants themselves: woodworkers, for example, have self-clustered in particular buildings or portions of buildings in informal arrangements or more formal sub-leasing arrangements. They sometimes share machinery and sometimes purchase from other manufacturers in the Yard. It is not clear, though, whether the shared aspects would take place without a certain density threshold of related firms, or without the presence of multiple small production spaces in the same building or buildings in close proximity to one another.

In brief, the likelihood of building sharing of any type for the type of smaller manufacturers that increasingly characterize the sector in NYC—whether formal leasing, sub-leasing, informal sub-leasing, sharing of machinery in common space seems to rest on the efforts of active, forward-thinking building owners and/or existing tenants willing to share or sub-lease in relationships that will be mutually beneficial. The brief analysis below sets out to describe in preliminary terms those buildings in the study that harbor potential for re-use or sharing.

Selective Vacant/Underutilized Property Survey

A highly selective survey of vacant and/or underutilized properties was conducted by CHLDC in December, 2012. The survey was based in part on the findings of a 2008 Pratt Planning and Preservation Studio, which identified several buildings with potential for adaptive re-use. The sub-set of these buildings located in M zones comprised the list of properties to survey. Two additional properties now used for parking were suggested by CHLDC and Pratt Center staff. A full report of this survey is provided in Appendix 1. Highlights of the findings of the survey are summarized below.

Table 2: Vacant/Underutilized Property Survey Results

	22 Milford Street	**486 Liberty Avenue**	**2840 Atlantic Avenue**
Block, Lot	3976, 43	3708, 15	3964, 8
Date built	1930	1920	1914
Lot Area SF	5,000	10,000	30,550
Gross FAR SF	Likely 15,000	10,500	76,400
Lot frontage, depth	50, 100	100, 100	200.67, 176
Number of bldgs	1	1	5
Number of floors	3	3	3
Zoning	M1-1	M1-1	M1-1
Built FAR/Allowable	Likely 3/1	1.05/1	2.05/1
Owner	3144 Atlantic Avenue	Etha Littlejohn	2840 Atlantic Ave. Realty
Occupancy	Used for storage	Vacant	Used by Royal Plastics

22 Milford Street, between Atlantic and Liberty Avenues

The property is in use by Mobilia Furniture for storage. The property is not currently on the market. Interior conditions are unknown. Discussion with the property owner could provide more information about the potential for re-use of the building by production-related firms.

486 Liberty Avenue, corner of Miller Avenue

The building is vacant. Scaffolding surrounds the building along the sidewalk, however the permit expired on 04/07/2012 so it does not seem like any construction/renovation is taking place. The scaffolding was most likely erected by order of the city due to the poor condition of the building in order to protect pedestrians from falling debris. Part of the building may currently be used as storage because there is a relatively new looking garage door along the Liberty Avenue side of the building.

The property is owned by a former Cypress Hills resident and has been vacant for many years. The unique architecture of the building makes it a candidate for re-use by manufacturing tenants looking for historic buildings (such as those who flock to destinations such as Gowanus, Red Hook, and Long Island City), but because it has been vacant for so long, it is unclear what the interior conditions are, the state of the roof, and how much alteration would need to take place before tenants could move in. CHLDC contacted the property owner back in 2008 – she lives in North Carolina, is a representative of the church that formerly inhabited the building, and was unequivocally uninterested in selling at that point. Now that five years have passed, another go at the property owner is warranted given the unique character of the building and the extent to which revitalization of this particular property could help jumpstart broader reinvestment in the surrounding area.

2840 Atlantic Avenue, between Schenck Avenue and Barbey Street

Royal Plastic/Former Borden's Dairy site

The site is occupied by Royal Plastics. A representative from CHLDC met with the owner a few months ago and was told that they were using entire building (although it does not appear so) and that they were not interested in selling. It was not clear how much of the building was being utilized, the interior condition of the building, and whether the building's interior configuration lends itself to a building-sharing arrangement.

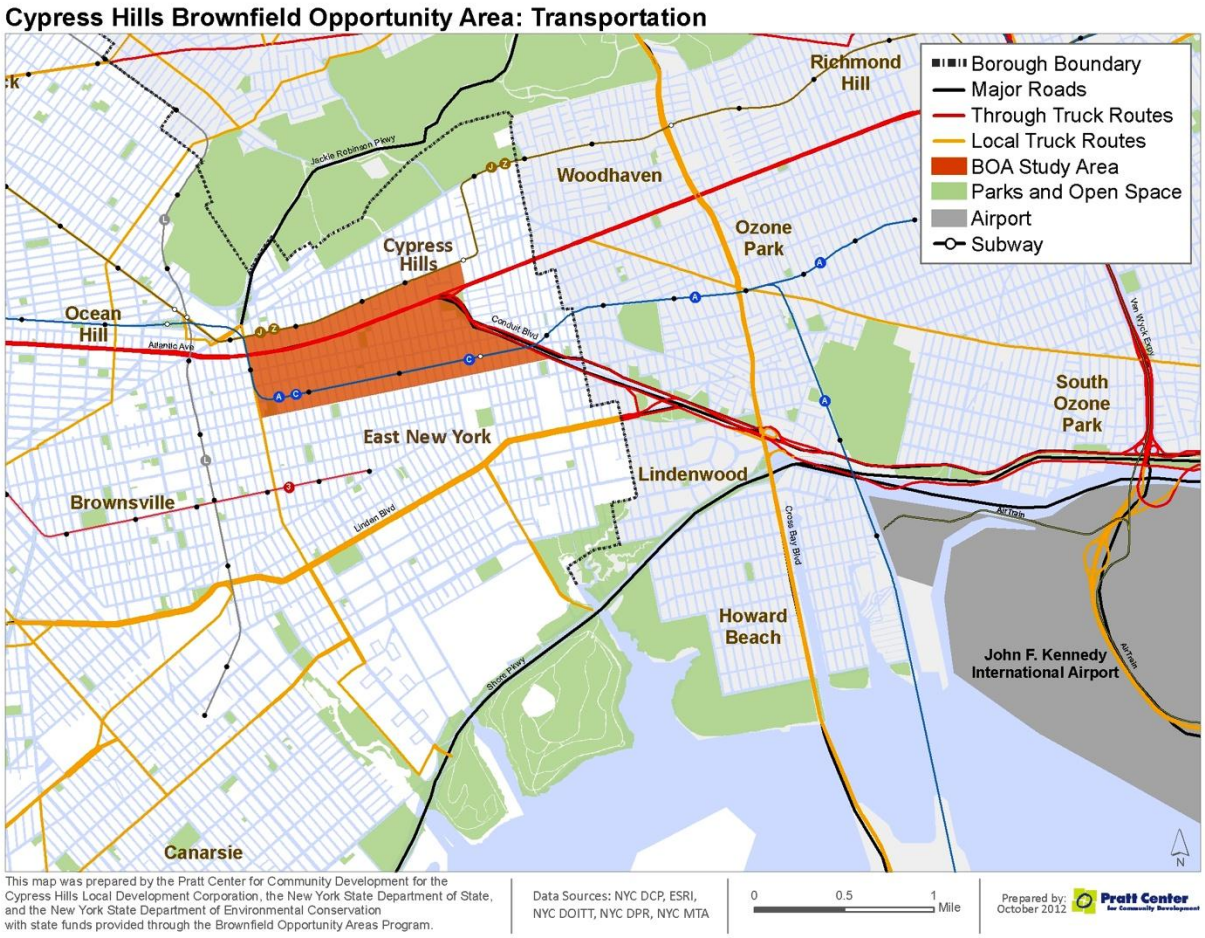
Further discussion to make the property owner aware of the BOA and other planning initiatives and to explore creative building-sharing arrangements which do not require new ownership may help spur more thinking about more intensive use of the building for production purposes. Given prior use of the site, the buildings may already have in place some of the infrastructure needed for food preparation such as rooms supplied with water, sinks, floor drains, and tiled walls. (Smith, 2013)

Transportation

The study area is served by both through and local truck routes, although it has no direct access to highways. However, the area is served by two parkways—the Jackie Robinson Parkway to the north and the Shore Parkway to the south that are not truck routes but provide easy access for workers and business owners who drive to their places of work in Cypress Hills. There are two subway lines that transect the study area—the J and Z to the north and the A and C to the south. It is also linked to Long Island and Queens by the LIRR. The area is directly connected to JFK Airport by truck routes along Conduit Boulevard. Atlantic Avenue, also a truck route, connects to the Van Wyck Expressway, which heads north into Queens and south to JFK. Vehicular traffic along Atlantic Avenue—a major arterial and alternate route to JFK—is frequently cited as a major concern for residents. Additional use of both Atlantic Avenue and Conduit Boulevard warrants a careful balance and accommodation of transportation needs among pedestrians, cyclists, motorists, and truckers and a prioritization of safety.

The strong transportation infrastructure serves not only employers and employees, but also clients seeking to visit businesses. Cypress Hills is a node in a regional network that connects Queens to Brooklyn, Long Island to Brooklyn (via Queens), north Brooklyn to south Brooklyn, and eastern parts of Brooklyn to central and western Brooklyn.

Figure 5 Cypress Hills Transportation Infrastructure



Cypress Hills Residents and Manufacturing Employment

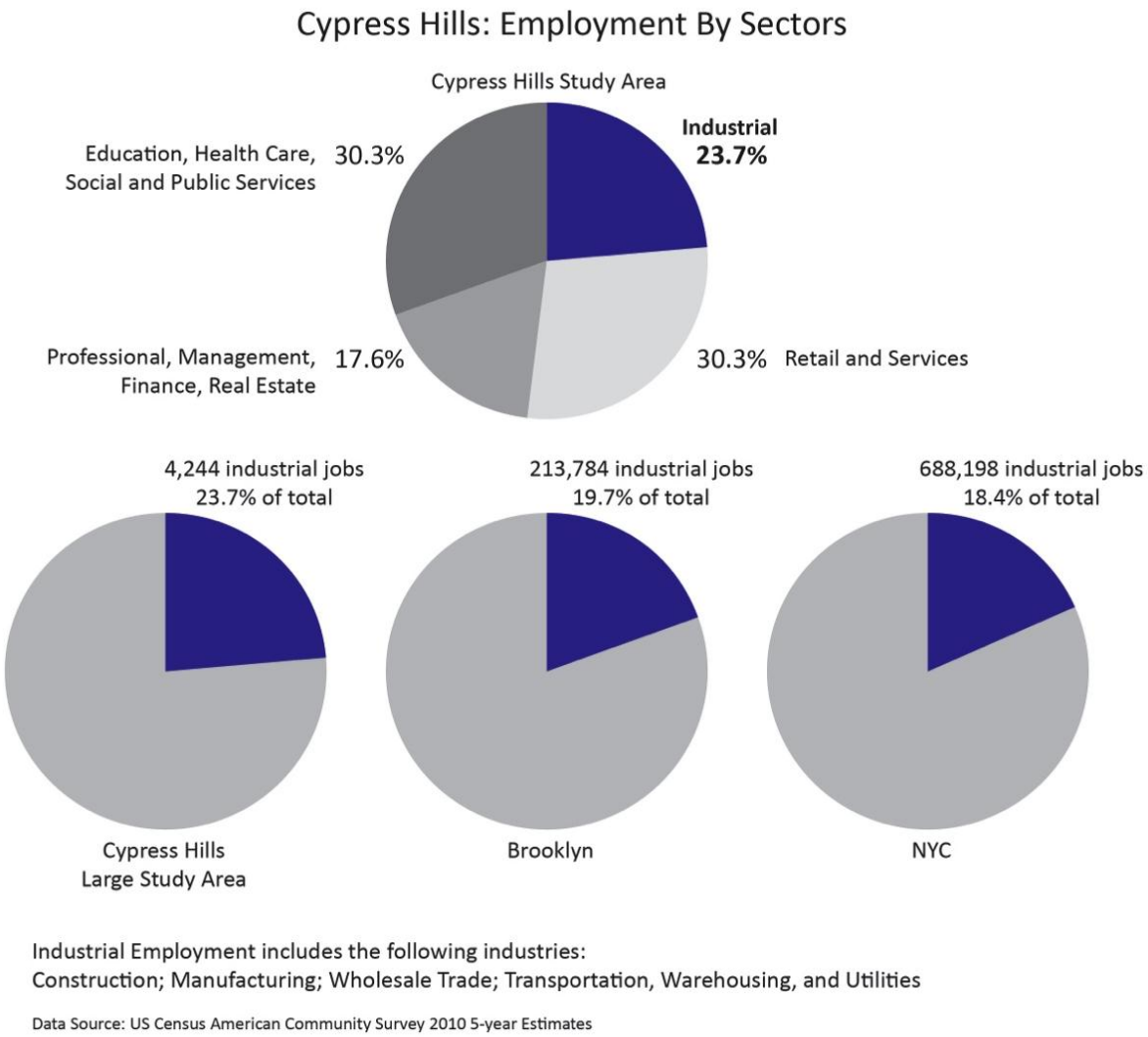
The proportion of Cypress Hills' residents working in industry, which includes manufacturing, is higher than in Brooklyn and higher than in the city as a whole. **(See Figure 6)** Historically in New York City and elsewhere, manufacturing jobs are considered to be a type of "gateway employment," providing opportunities for people who may experience high barriers to employment in other sectors. These barriers include a lack of skills, low educational attainment, limited English proficiency, prior incarceration, or some other type of barrier, such as discrimination on the basis of race, ethnicity, gender, religion, or sexual preference. (Shiffman, 2013)

Socioeconomic indicators in Cypress Hills/East New York paint a picture of a community categorically left out of the economy. Rates of educational attainment are low: 13.8 percent of CD 5 residents over age 25 had received a Bachelor's degree or higher, less than half the overall rate for Brooklyn of 29 percent. Seven percent of CD 5 youth are considered "college-ready," again, less than half the overall rate for Brooklyn of 17.8 percent. Twenty-eight percent of CD 5 residents live in poverty, in comparison to the

overall rate for Brooklyn of 21.2 percent. Nearly four out of every 1,000 residents in CD 5 is incarcerated, double that of Brooklyn as a whole at two out of every 1,000. (Brooklyn, 2012)

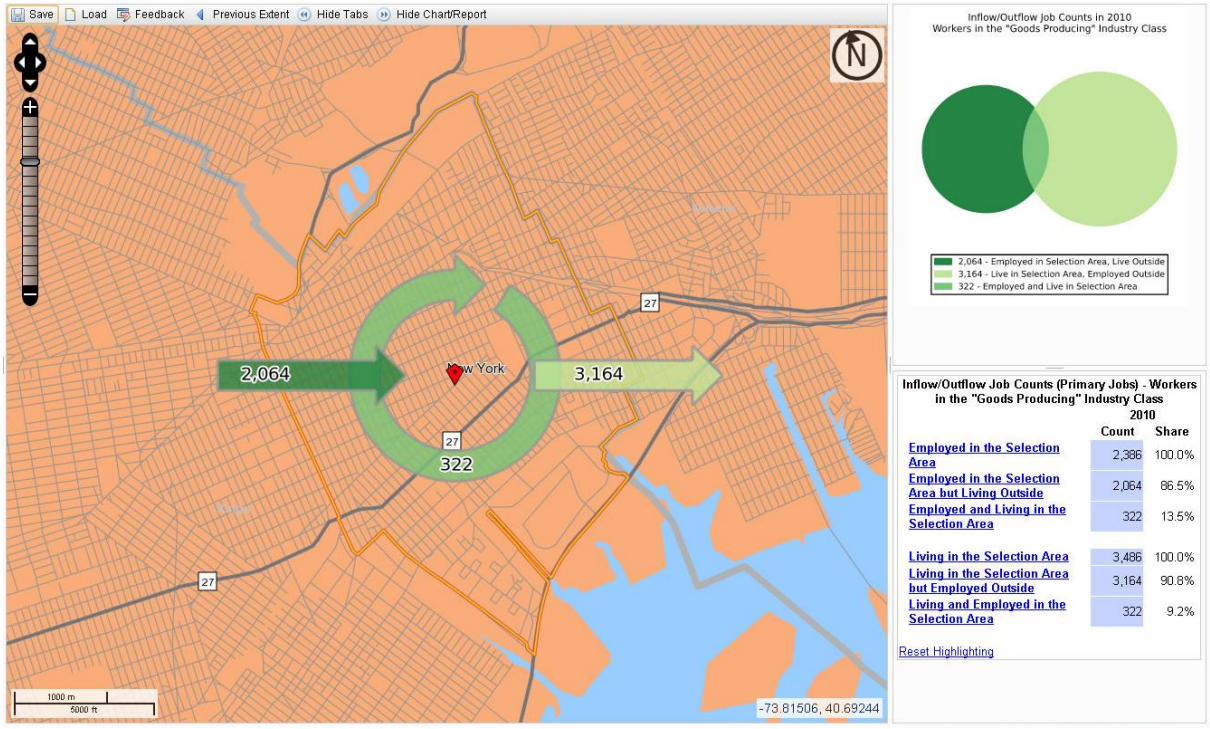
Manufacturing appears to be an important source of jobs and income for residents of the study area. Nearly 24 percent of residents work in manufacturing, wholesale trade, transportation, warehousing, and utilities, 5 percent more than in Brooklyn as a whole (19.7 percent) and a full third more than in all of NYC (18.4 percent).

Figure 6 Cypress Hills Employment by Sectors



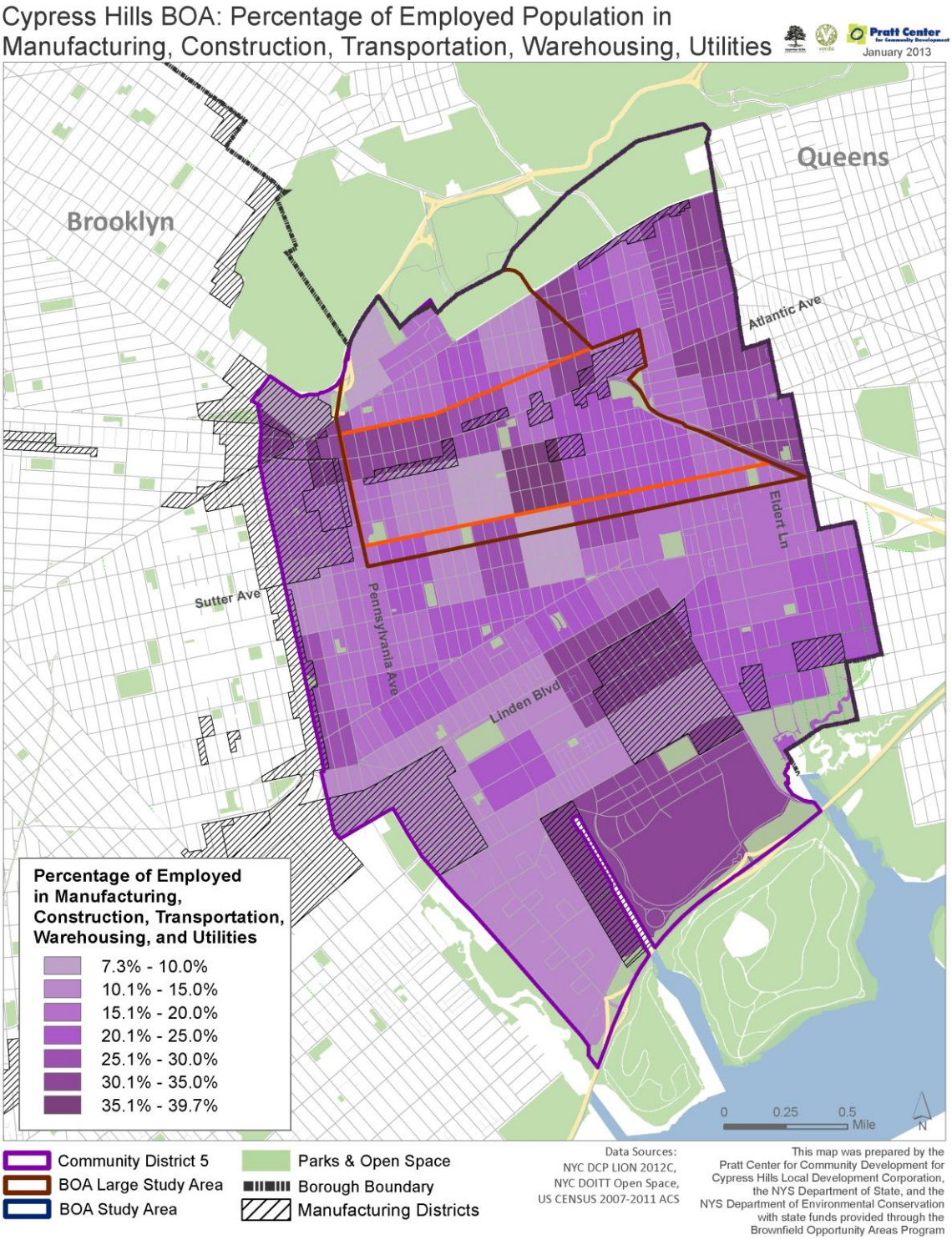
The data available on workers' residences and job location indicates that over 3,000 industrial workers in CD 5 leave the area for work, while 322 CD 5 residents both live and work in industrial jobs in CD 5 (about 7.5 percent). The concentration of residents living in census tracts in proximity to M zones suggests there is an experienced pool of manufacturing laborers in close proximity to a potential local job market. **(See Figure 8)** Local business service providers from the Brooklyn Outreach Center Network indicated that most area businesses hire locally, even if business owners themselves live outside the neighborhood and commute in. (Chu, 2012) There may be opportunity to better connect residents with experience in manufacturing to manufacturing jobs in the neighborhood, especially new jobs that might result from job creation in metal manufacturing and food-related industries.

Figure 7 Industrial Workers in CD 5: Inflow and Outflow



The total civilian workforce in CD 5 is 90,750. Of these, 4,279 people or five percent of the workforce is employed in manufacturing. **Figure 8** shows concentrations of study area residents working in the manufacturing, construction, transportation, warehousing, and utilities sector. High percentages in some portions of the study area show that high numbers of households are dependent on manufacturing jobs and that economic well-being of certain areas is closely tied to the manufacturing sector.

Figure 8 Concentrations of CH Residents Working in Industry

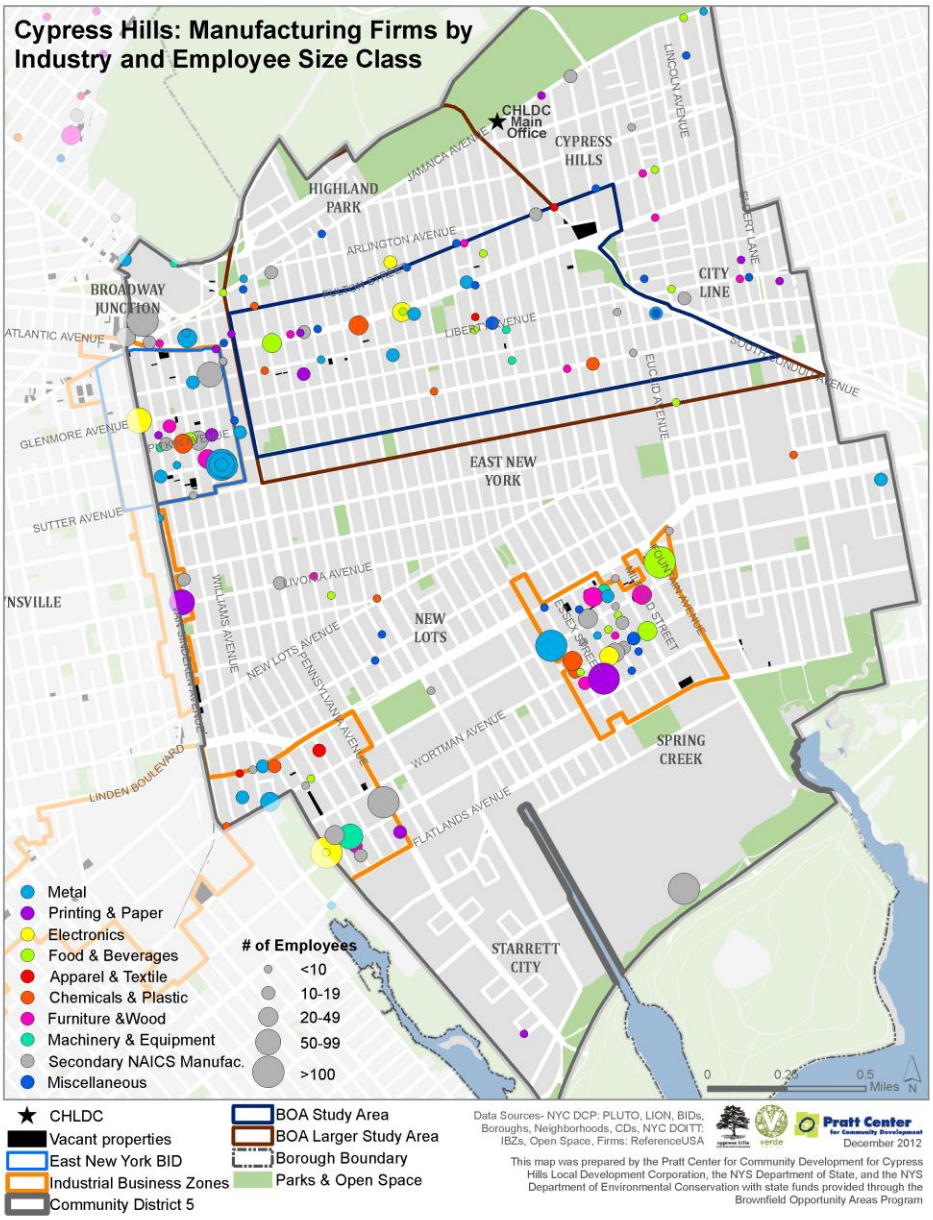


III. Manufacturing Snapshot

Sectors and Jobs

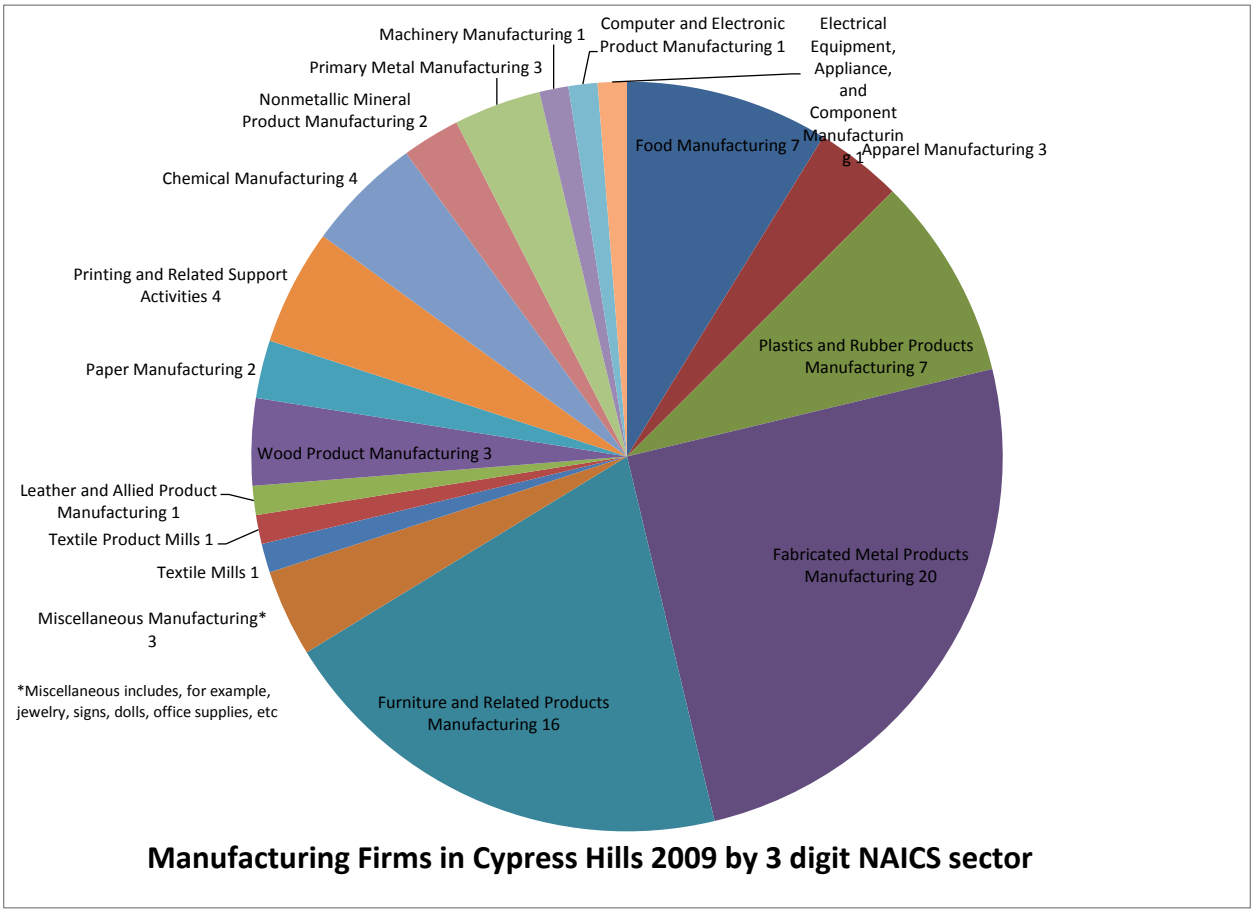
The total number of industrial (construction, manufacturing, wholesale trade, warehousing, transportation, and utilities) firms in the study area is 189. Total industrial employment in the Cypress Hills study area is 4,279, or 16 percent of CD5 workers. Firms on average employ about 23 people; the most frequent employment size is four.

Figure 9 Industrial Firms by Number of Employees per Firm and Firm Type



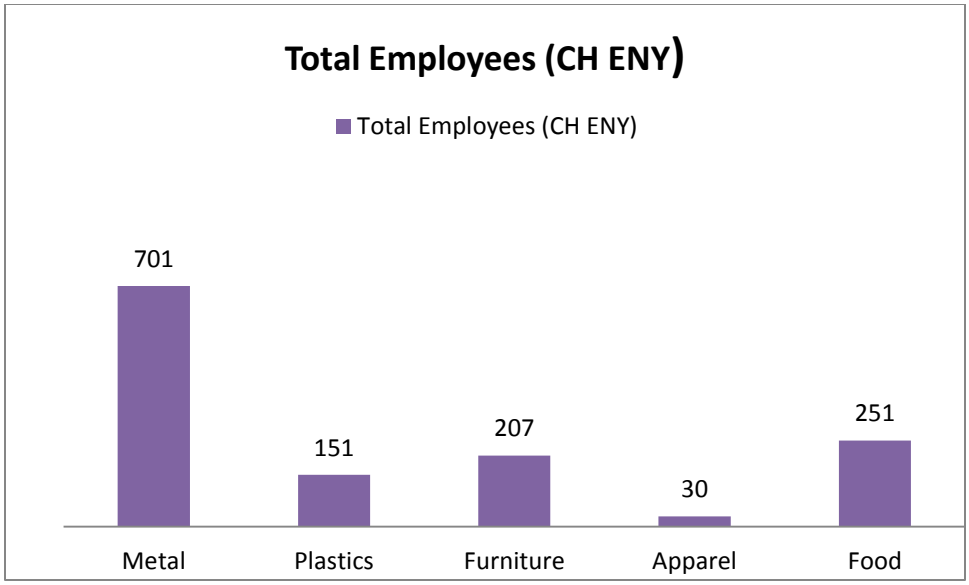
Key manufacturing sectors in terms of highest number of firms in Cypress Hills are food, plastics and rubber, furniture, fabricated metal, and apparel.

Figure 10 Number of Manufacturing Firms in Cypress Hills by Sector



The total number of employees in these firms is listed in **Figure 11**, below. Metal-related businesses employ a far greater number of employees than other firms: 701 or 16 percent of total manufacturing workers, in comparison to the next greatest number of manufacturing employment—food—at 251 jobs or six percent of total manufacturing workers.

Figure 11 Total Number of Employees in Top Five Cypress Hills/East New York Manufacturing Sectors



Metal manufacturing clusters along Atlantic and Liberty Avenues. Site visits revealed a greater incidence of these firms than public databases. There is also a cluster of metal fabrication firms in the nearby East New York Business Improvement District.

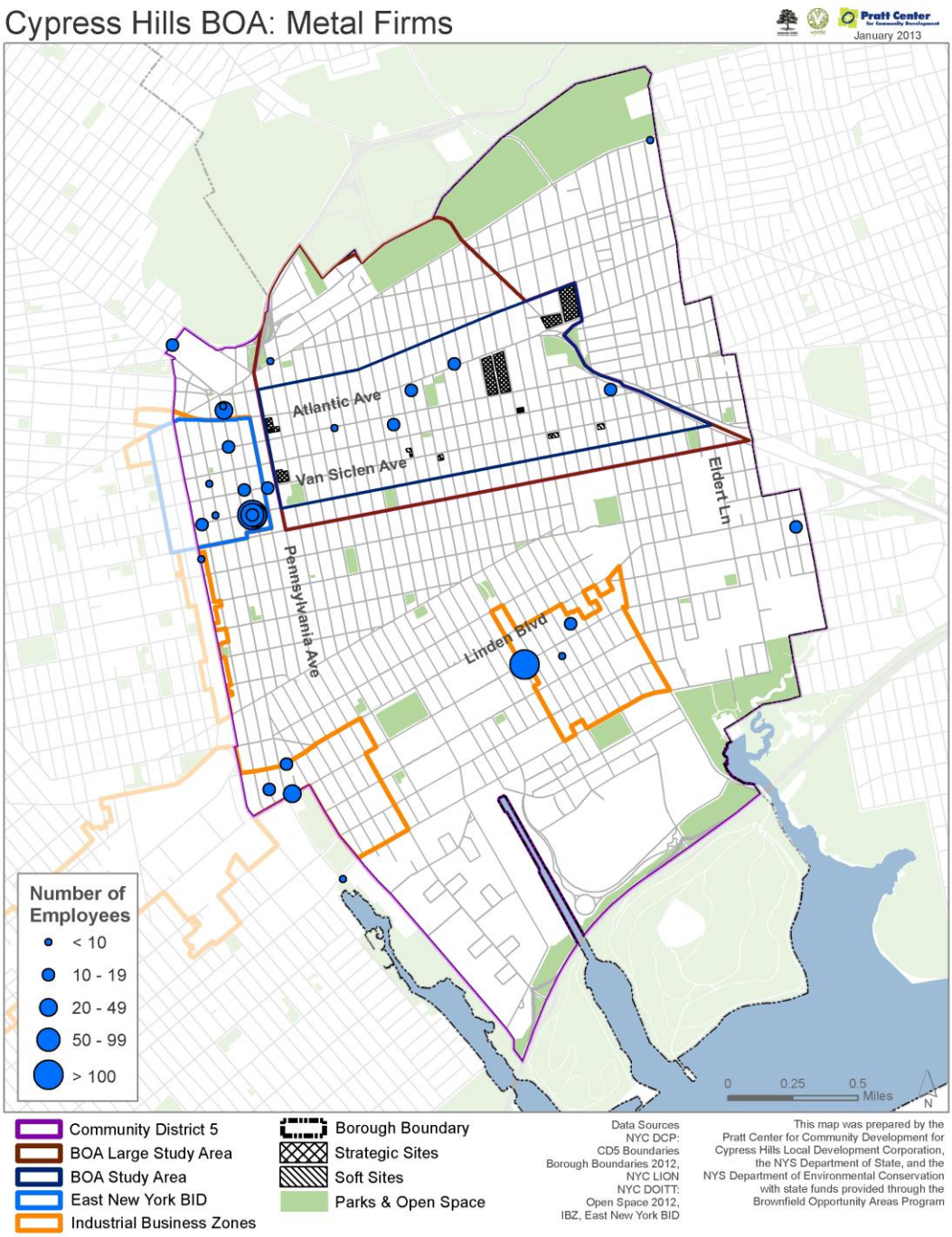
CHLDC representatives collected data on 200 lots in the study area on Liberty and Pitkin Avenues (2012). General findings were that most of the manufacturers deal with metal (6) in one-way or another, and there is a wide variety among firms in terms of footprint, revenue, number of employees, and years in business.

Table 3 Types of Light Manufacturing & Light Industry

Type of Manufacturing	Type of Manufacturer
Fabricated Metal Product Manufacturer	3
Paper Manufacturer	2
Plastics & Rubber Products Manufacturer	2
Metal Works/Welding	2
Non-Metallic Mineral Product Manufacturer	1
Metalworking Machinery Manufacturer	1
Carpenters/Custom Cabinets Manufacturers	1
Unknown	1
Total	13

The types of products being made varied from firm to firm. Examples include fabricated wire, ornamental metal, iron repair, metal plate work, custom architectural metal work, and metal cutting.

Figure 12 Metal-Related Firms in Cypress Hills



Sectors and Wages

Wages in the predominant Cypress Hills manufacturing sectors range from $661 per week for apparel to $1,046 for metal work. (Wage data is drawn from the Bureau of Labor and Statistics [BLS] for three-digit NAICS codes. Wages listed are pre-tax and include information for managerial and production workers.)

BLS databases do not include information on benefits. However, some data on non-monetary benefits for manufacturing employees is available from the recent survey of Brooklyn Navy Yard (BNY) tenants. Forty-one percent of BNY employers offer some type of non-monetary benefit. Of these, 40 percent offer health insurance.

Deeper knowledge about working conditions, benefits, job stability, and potential for growth can only be acquired through additional, on the ground surveying and interviewing of individual firms. The information gleaned from interviews with metal fabricators is by no means conclusive given the small sample size (two out of a possible eleven) (**see Appendix 2**), but could be somewhat illustrative. The two metal fabrication firms surveyed as part of this analysis both offer health insurance to all of their full-time employees. One firm required some college; another firm had no educational requirement. In one case, the employer required that workers had welding skills. Both employers required workers to speak English and one noted that they would like to require workers to speak Spanish as well. Neither firm had full-time employees from the neighborhood.

Of the food-related firms not located in the neighborhood and interviewed for background purposes, none required any special skills or level of educational attainment. Wages ranged between $8 and $20 per hour depending on the task. In the case of Bad Ass Organics, employees were hired through Opportunities for a Better Tomorrow, which works with disadvantaged youth and adults. (Organics, 2012)

Table 4 Average Weekly Wages in Top Five Cypress Hills Manufacturing Sectors

Sector	Total Employees (CH ENY)	Average Weekly Wage
Metal	701	$1,046
Plastics	151	$952
Food	251	$785
Furniture	207	$708
Apparel	30	$661

According to the May 2011 National Industry-Specific Occupational Employment and Wage Estimates, the national average annual wage for metal fabricators is $45,970. (Annual wages have been calculated by multiplying the hourly mean wage by a "year-round, full-time" hours figure of 2,080 hours.) For plastics, it is $39,350; for furniture, $36,950; for apparel, $33,840; and for food, $33,250.

IV. Local Opportunities

This study employs a framework based on principles of local sourcing. Local sourcing means local business to local business commerce, which can build the local employment base and increase local business profitability. Full understanding of business to business relationships in any given industry requires an in-depth analysis of supply chains that is beyond the scope of this report. However, in order to identify which regional institutions might become demand drives for manufacturing businesses in Cypress Hills/East New York, we mapped anchor institutions within a five-mile radius of the study area. **(See Figure 13)** (Figure 13 also includes the locations of local workforce development providers, discussed elsewhere in this section.) Other institutions in similar categories could be added to the map; however, we chose to include those within a five-mile radius to limit the data set.

Anchor institutions are those public and private facilities, such as universities, community colleges, museums, libraries, municipal enterprises, airports, hospitals, parks, performing arts centers and sports arenas that can contribute to the culture, economy and vitality of cities. Some receive public funding and therefore may be subject to terms that require them to do some degree of local sourcing. But anchor institutions represent "sticky capital" in cities, meaning that they are not footloose in the same way that a private company is and that they are likely to remain in the community. As a consequence, anchor institutions may have extra incentive to take a larger role in the revitalization of their host community. Cleveland, Ohio's "ed's and med's" economic revitalization approach targeted educational and health institutions and urged a cooperative model that directed the institutions' procurement and hiring practices to first and foremost consider how to generate positive local economic impacts.

In general, anchor institutions are those facilities that are large in terms of revenue spending, have discretion over spending, and have a sense of being vested in a community and are therefore willing to engage. Best practices to engage anchor institutions, according to the Initiative for a Competitive Inner City, are founded on collaboration triggered by a third party. (City) This is an implicit role for CHLDC, should the interest be there.

Additional interviews with leaders and administration officials at these anchor institutions would be required to assess the level of commitment to becoming a part of a plan for local economic revitalization. Armed with additional support from city agencies and elected officials to implement parts of the local planning initiatives, CHLDC representatives could use this information to approach the facilities identified here.

Figure 13 Regional Anchor Institutions and Workforce

Food and Food-Related Services

According to a recent unpublished report by Appleseed, employment in food products manufacturing has generally been stable since 2007. With 360 firms and an annual average of 5,431 jobs in 2011, food production is now Brooklyn's largest manufacturing industry, accounting for 28 percent of all manufacturing jobs. In 2011, annual earnings per worker in Brooklyn's food manufacturing sector averaged about $34,600. (Appleseed Consultants, 2012) Average annual wages in the food sector are slightly higher than median household income in CD5.

The local anchor institutions likely to generate demand for food products and services are:

- Morris L. Eisenstein Learning Center
- Brooklyn College
- Brookdale Hospital
- SUNY Downstate Medical Center
- Jamaica Hospital
- Gateway Mall
- JFK Airport
- United Community Centers
- East New York Farms

Food preparation is part of an established food network in New York City, with local manufacturers producing for large airline markets—Heavenly Kosher in Greenpoint, Brooklyn for example, produces kosher snacks for United Airlines, while the 110 employees at Long Island City's Bimmy's produce wraps and sandwiches for local airport food retail outlets. Educational institutions also generate high-demand for food related products, as do hospital and mall restaurants and cafeterias, and community centers.

Cypress Hills, by dint of efforts by CHLDC and other community organizations, is already well on its way toward building a rich and diverse inventory of "food assets." The inventory includes the PS/IS 89 hydroponic greenhouse, the el Jardin del Pueblo/The People's Garden, a 5,300 square foot community-designed and operated urban farm East New York Farms, two farmers markets, a CSA, 43 community gardens, and a large number of food entrepreneurs (who manufacture value added food products (e.g. hot sauce, ethnic foods, baked goods) at home or at commercial kitchens throughout the city for sale at local markets and private events. Additionally, CHLDC's Verde initiative has concentrated on bringing additional food resources and aspects of a food-based economy to Cypress Hills. Supporting value-added processes related to food production can help to build a network that connects fresh food, skills training, employment, entrepreneurship, manufacturing, packaging, and distribution to market—all within the Cypress Hills/East New York catchment area. That support can come in the form of everything from licensing and certification assistance to business incubation to food networking opportunities.

The continued building of the Cypress Hills food ecosystem is already part of the programmatic vision of the BOA. Recommendations for the creation of multiple food outlets, juice bars, cafés, a full-service large-scale grocery store at the Arlington Village site, and the public market on the Fulton Street side of the Chloe Food site are already in place and the search for funding and other resources for their implementation has begun. Bringing a manufacturing dimension to the Cypress Hills food ecosystem will build on existing market trends and create jobs for Cypress Hills residents. A full set of recommendations is outlined on page 39.

Metal Products and Repair

JFK is particularly likely to generate demand for specialty metal products relating to construction, repair, and maintenance of airport facilities. However, more research is needed to understand the supply chains used by JFK "on airport" businesses. Currently, it is difficult to break into business serving a JFK vendor. The prevailing sense is that airlines and affiliated firms require such highly specialized products that they are not willing to do business with a new firm, and generally speaking prefer to do business with firms that they already know. Additionally, there is no clear picture of how businesses at JFK do procurement (Werber, 2013). Clearly, as an anchor institution, JFK and related businesses could do much more to become an active partner in local economic development, yet it may be that this is far down the horizon.

A more promising market for metal products may be local contracting. According to Appleseed, Brooklyn's construction industry is likely to rebound once again in the next five to ten years. This is due to several factors: continued economic and population growth, a recovering housing market, and post-Sandy recovery. (Appleseed Consultants, 2012) With increased construction, contractors will be looking to source building-related products. One trend in particular may increase local sourcing: the move toward Leadership in Energy and Environmental Design (LEED) standards.

The New York construction market is progressively synchronizing with Leadership in Energy and Environmental Design (LEED) standards, which encourage that a certain portion of construction inputs be sourced locally, reducing the carbon footprint and energy usage relating to transportation. More architects, designers, and contractors are also attempting to "spec it green," an evolution that also relies on and benefits from local production. These two movements may mean ultimately a larger market for metal fabricators, such as those in Cypress Hills/East New York that are producing gates, fences, sheet metal, fittings, moldings, and other products used in the construction of buildings.

Industry service providers and advocacy groups are working to position NYC businesses to take advantage of this trend. For more than 15 years, Industrial + Technology Assistance Corporation (ITAC) has been helping NYC businesses reduce solid waste, increase recycling and improve their bottom line.

They encourage increased profitability for businesses by encouraging manufacturers to take advantage of the unique opportunities that going "green" affords them. ITAC reports that "becoming sustainable can lead directly to profitability through innovation, the development of new green products or services, and an enhanced corporate reputation. Last year, clients diverted more than 5,000 tons of waste and kept close to $800,000 in our local economy." (ITAC, 2012)

New York City, as elsewhere, is seeing an increased demand for green products by consumers. The trend has affected larger corporations, which in turn has affected supply chains. Suppliers are now demanding adherence to specific green standards because their contractors do. At the same time, companies are beginning to realize that reducing negative impacts on the environment often lowers manufacturing costs. Conserving energy, water or raw materials and reducing toxic chemicals is now making sense in the marketplace as the demand for green products fosters new products and opportunities for increased profits.

Local manufacturer Watermark Designs (located just outside the study area at 350 DeWitt Avenue) makes prize-winning plumbing, lighting, and bathroom accessories for the high-end residential and commercial market. They are committed to reducing the use of water and to environmentally-friendly production practices. Their business has flourished since they adopted a model of hand-crafting, use of high technology in design, and green business design. Watermark is one of twelve metal fabricators in the Made In NYC database that self-identifies as "green," meaning that they follow several practices to reduce the environmental footprint of their business or product. Green certification is one way to let contractors know that products made by the firm may add to LEED compliance.

Workforce Development

There are several workforce development programs within relatively easy commuting distance of Cypress Hills/East New York that serve both individuals and firms.

- Brooklyn Bureau of Community Service
- Brooklyn Chamber of Commerce
- CAMBA
- Center for Economic and Workforce Development
- Fifth Avenue Committee, Inc.
- The HOPE Program
- New York City College of Technology, Division of Continuing Education
- The Osborne Association
- Opportunities for a Better Tomorrow
- St Nicholas Neighborhood Preservation Corporation

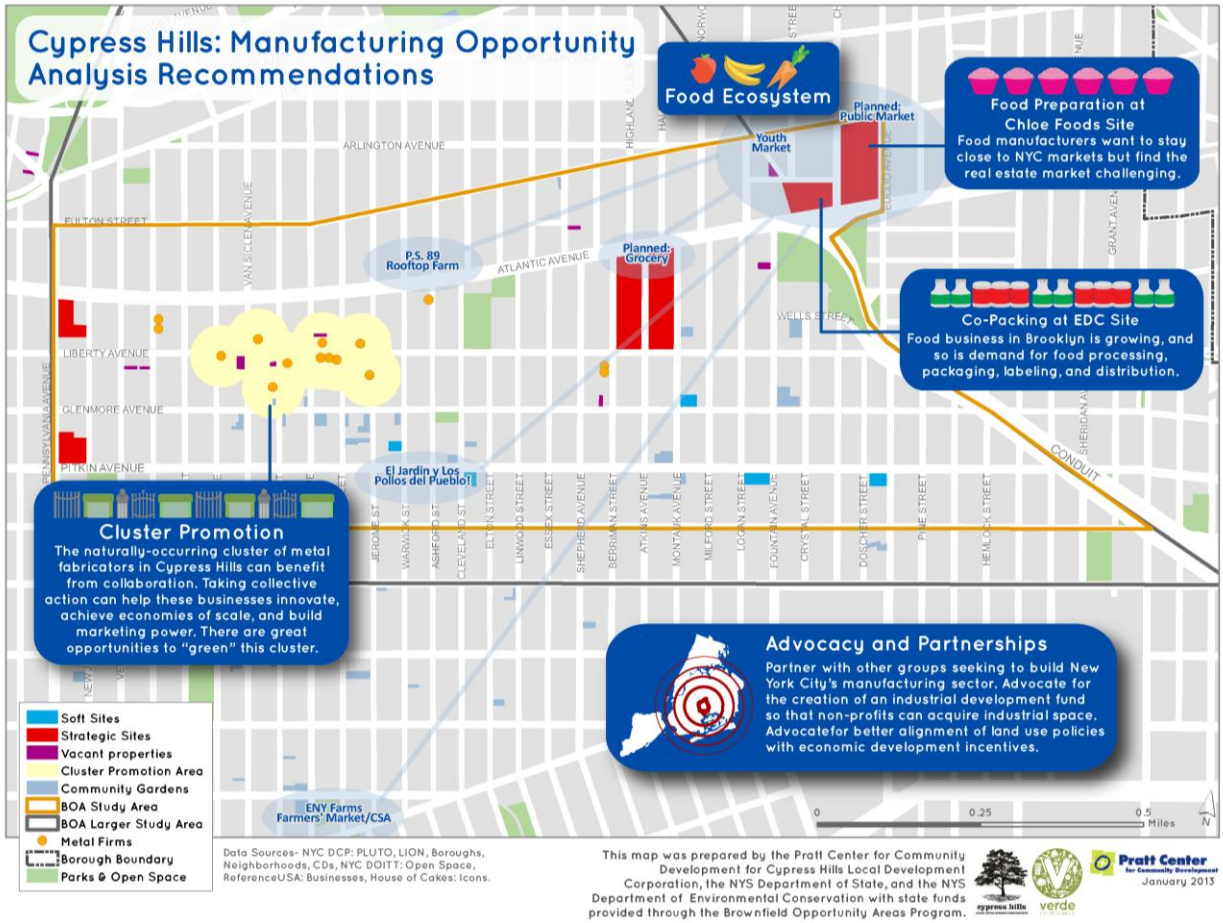
- CHLDC
- City Tech

Additionally, the Business Outreach Center Network (BOCNET) provides workforce development services to the nearby Industrial Business Zones. According to Kevin Chu, Industrial Business Account Manager at BOCNET, it is difficult to work with IBZ firms to provide training—job training is "hard to sell," because 30 percent of the costs of training must be absorbed by the firms. Additionally, as the current training programs require a 10-employee minimum and a guarantee of a 50 percent wage increase after training ends, many existing firms feel that they can afford neither the absence of workers for an extended period nor the financial commitment required to increase wages.

Brooklyn Workforce Innovations is currently working with the Brooklyn Navy Yard to identify needs for customized trainings and to improve the placement rates for BNY's job center, which seeks to place local job-seekers in BNY tenant businesses. Director Aaron Shiffman notes that there is "not a tremendous infrastructure" for manufacturing training. According to Shiffman, the programs that offer this type of training have sunk costs in specific types of technology, labs, computer systems, etc., and cannot keep up with the changing needs of industry. While the circumstances may change if the federal government truly invests in its commitment to increase U.S. manufacturing, currently there is little investment in training for manufacturers. Shiffman notes that the "literacy gap" is deeper than the "numeracy gap" in terms of training people to move into manufacturing jobs. While most jobs require that entry-level workers read at an 8th grade level, many applicants cannot read at a 5th grade level. And while training people basic numeracy skills can happen fairly quickly, mastering literacy takes much longer. (Shiffman, 2013)

Vocational high schools—poised to prepare young people for mid- to high-skill blue collar employment can play a key role in informing young people about careers in manufacturing. Two such high schools exist in Brooklyn Community District 5: Tech Transit High School, and H.W. Maxwell Technical High School. Building more links between these vocational high schools and manufacturers can help bridge the training gap and build careers for young people who need a variety of job opportunities.

V. Recommendations



Build the Cypress Hills Food Ecosystem

Food-related production is worth building a long-term strategy around. Even given the effects of the recession and a decline in overall manufacturing, food production has been fairly stable since 2007 and is now Brooklyn's largest manufacturing sector. (Appleseed Consultants, 2012) Purchasing by anchor institutions in the region is a potential driver of demand for this market and further research can be undertaken to understand how their supply chains could potentially bring them to procure from manufacturers in Cypress Hills/East New York. Capitalizing on the shortage of co-packing facilities in the region presents an additional growth opportunity.

Two sites—Chloe Foods and the EDC site—lend themselves to food-related industries. Specifically, we recommend co-packing and food preparation—both of which are manufacturing activities that match local skills, fit with the expressed desire to expand the community food-related activities, can potentially connect residents economically to a food infrastructure system that can address high rates of obesity, diabetes, and heart disease, are a good match for existing built and vacant properties, and are suggested by our research of regional demand.

Promote and Green Metal Fabrication

The second sectorial strategy targets local metal fabrication. Borough-wide, fabricated metal continues to account for over ten percent of the manufacturing jobs, and continues to pay well in comparison to other economic activities (Appleseed Consultants, 2012). Metal products are highly customized to fit the need of the specific order and the market, generally speaking, is local and regional.

The presence of multiple metal fabricators in proximity (primarily along Liberty Avenue in the study area) in addition to high-profile local fabricators such as Watermark Designs suggest an opportunity to promote the cluster (externally) and develop the cluster (internally) through supply chain consolidation and sharing of resources/materials/labor. Cluster promotion can help pave the way toward "greening" the firms and making their operations and products safer for workers and people in adjacent buildings and giving the companies a competitive advantage in a marketplace that is increasingly environmentally conscious. There are generally a wide variety of incremental improvements that metal fabricators can make to begin to green their operations as well as demonstrate that such investments lead to reduced costs and expanded markets. As sophistication with sustainable practice grows, metal fabrication firms could pursue the creation of tailored Environmental Management Systems (a framework that allows businesses to create a core set of environmental goals, assess current practices in light of those goals, and create targets to reduce negative environmental impacts over time).[2] Cluster promotion may, over time, help shift local manufacturing uses away from the automotive market and toward metal fabrication in building products, a particularly important and competitive market in New York.

Join Partnerships and Advocacy Efforts

To move effectively on the recommendations within this report, CHLDC should enter into partnerships with local and regional organizations that have greater experience working directly with manufacturers

[2] Last year Pratt Institute's GCPE and Pratt Center offered an EMS class that had two metal working companies as clients and produced EMS plans for each company.

and developing real estate for manufacturing. The LDC of ENY, ITAC, Pratt's Center for Sustainable Design Studies, and NYS's Pollution Prevention Institute are technical and financial resources to promote clusters and sustainable practices, and the Greenpoint Manufacturing and Design Center (GMDC) is a natural partner in any industrial development co-venture.

Finally, we recommend that CHLDC link arms with other local, citywide and national organizations, such as the East Williamsburg Valley Industrial Development Corporation, the Brooklyn Navy Yard, the Pratt Center, and the newly-created Urban Manufacturing Alliance, who are advocating for the establishment of an industrial development fund for non-profit acquisition of industrial space; for adapting economic development tools such as Industrial Revenue Bonds to facilitate the rehabilitation of space by non-profit organizations for use as rental properties for manufacturers; and for coordinating land use and zoning policy with economic development investments and infrastructure.

Targeted Sector and Site Recommendations

Co-Packing

Co-packing facilities perform a variety of services that add value to a product and often do so specifically for food. Services can range from food processing (like blending and pasteurizing), packaging (such as vacuum and bottle packing), labeling, fulfillment, and distribution. Some co-packers provide kitchen facilities, which have become de facto incubators for emerging food businesses and food entrepreneurs. Bad Ass Organics in Long Island City, for example, provides incubator kitchen space to 12 manufacturers, each with one to five employees. In NYC, co-packing facilities require M1 zoning. Co-packing businesses desired or required square footage is not clear: existing co-packers have spaces that range from 18,000 sf to 50,000 sf. Co-packing uses result in one job per each 1,000 sf. (Corporation N. E., 2011)

We recommend co-packing as a long-term strategy for CHLDC because it is a use that supports Brooklyn's growing food economy. As Cypress Hills' participation in the city's food economy increases, co-packing will become vital to its success because it supports start-up manufacturers. Co-packing also makes sense because, according to representatives from NYCEDC and other industrial experts, there is unmet demand for co-packing. (Corporation N. E., 2011) (Chu, 2012) We also recommend co-packing because there are low barriers to employment. Interviews with Kingston, NY-based Farm 2 Table and NYC-based Bad Ass Organics confirmed that co-packing production work requires no particular educational requirements or particular language fluency. Wages range between $8 and $20 per hour, depending on the position. (Organics, 2012)

While the recommendation for co-packing is not necessarily bound to any specific site, there is one high potential site: the EDC-controlled site on Atlantic between Chestnut and Dinsmore. The site has the requisite M-1 zoning, and any new building construction could be tailored to co-packing use. The currently-vacant site could lend itself to the construction of a building of up to 75,000 square feet. A warehouse-style building built here is also a good candidate for a rooftop farm, which could in turn provide fresh produce for food-related industry. GMDC's Humboldt Avenue building hosts a rooftop farm for Gotham Greens, a company that grows lettuce and basil for grocery

stores and restaurants. Gotham uses 15,000 sf of roof space, and is so successful that they are acquiring two additional rooftop farm spaces at 40,000 sf each. According to GMDC, the challenges are mainly in providing two means of egress to the roof, knowing and conforming to the zoning and building requirements, and working early on in the process with an architect who is familiar with the requirements. (Smith, 2013)

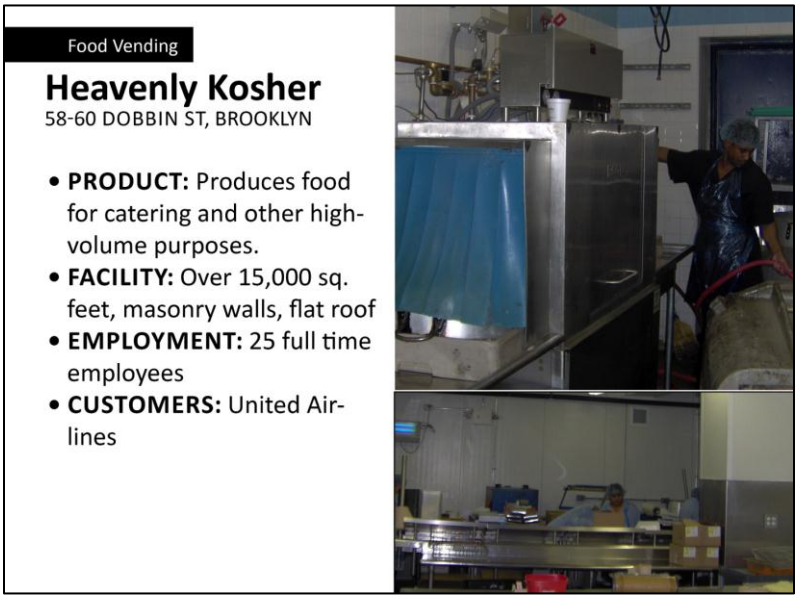
The co-packing recommendation accords with CHLDC's BOA recommendations for the EDC site. However, new construction on this site likely needs a substantial commitment from EDC to lure a company seeking to break into the NYC market, or a capital investment from the city to invest in the construction of a new facility for a existing NYC co-packer who wants to expand.

Next Steps for Co-Packing:

- Continue a dialogue with owner of 2840 Atlantic Avenue (the former Borden Dairy) to determine whether the building could be retrofitted for co-packing uses and whether the building owner is willing to engage with the community plan to create additional jobs. Look for key infrastructural elements: water access in multiple rooms; sinks; floor drains; and tiled walls.
- Respond to RFP for the EDC site to gain site control of the Chestnut-Dinsmore site. In the short term, the site could possibly be leased to a business like parking or storage that doesn't require a building. In the long term, pending improvements in the market and the success of overtures to NYC co-packers who want to expand or firms outside the city who want to locate here, construct a state-of-the-art facility that both suits local demand for co-packing services and provides kitchen space to incubate new businesses, i.e., food-related businesses emanating from East New York Farms.
- Work with DOS, EDC, and the Brooklyn Borough President's Office to identify sources for gap financing for the construction of the facility. The Internal Revenue Service issues Industrial Revenue Bonds that can be used for new construction. Other sources are the SBA 504 (a Small Business Administration Loan); SBA 7A (a loan guarantee); New Markets Tax Credits (issued by the US Treasury); Community Development Block Grants; and the Immigrant Investor Program (administered by private regional centers).

Food Preparation

Food preparation (also called food vending) is part of an established food network in New York City, with local manufacturers producing for large-scale customers such as airline markets—Heavenly Kosher in Greenpoint, Brooklyn, for example, produces kosher snacks for United Airlines (see below). Long Island City's Bimmy's produces wraps and sandwiches for local airport food retail outlets. Bimmy's started in Chelsea with a single retail shop in 1999. Now in LIC, almost entirely wholesale, the business employs 110 workers in two shifts. They make wraps, salads, and sandwiches that they distribute to airports, health food stores and coffee shops. Barriers to employment are low. Food preparation facilities require M-1 zoning.



As with the co-packing recommendation, the suggestion to encourage food preparation companies is not necessarily bound to any specific site. In the long term, if and when the legal issues that are likely to tie up the control of the former Chloe Food site are resolved and the site is remediated, there is potential to re-use the site at Atlantic between Euclid and Chestnut.

Next Steps for Food Preparation:

- Monitor proceedings on the bank-owned Chloe Food site and at the right time link interested developers to the possibility of acquiring the site.
- Engage in discussions with DOS, the Mayor's Office of Environmental Remediation, and EDC to identify financing sources for acquisition, demolition, and remediation.
- Work with the Department of Small Business Services to identify an operator for a food preparation business on the site.

Cluster Promotion

The 20 metal fabrication firms in Cypress Hills employ 701 people, or sixteen percent of the total number of manufacturing workers in the study area. Annual wages in this NAICS code group ($45,970) are higher than in other sectors present in the area: higher than median household income in CD 5 ($33, 657) and in Brooklyn ($43,755). Metal-related firms cluster primarily on Liberty Avenue, often next door to one another. There are also metal-related businesses on Atlantic Avenue and Pitkin Avenue. Metal fabrication is an important economic sector in NYC—one that supports and is supported by economic drivers for NYC—such as design, and in turn supports architecture, construction, and contracting.

Metal-Related Businesses on Liberty Avenue

More research should be done to uncover the extent to which these firms may already collaborate, but their volume of business is likely to increase if they adopt an agglomeration approach—cluster promotion. The promotion of the cluster results in better intra-sector operations, such as sharing services and equipment that ultimately lower costs, but also results in increased ability to enhance the profile of the businesses externally, to clients and government agencies.

A cluster is a geographical agglomeration of firms in the same or closely related subsectors that may benefit from collaboration and collective action. They can organize more effectively into strong and effective business associations; collaborate on employee training opportunities that result in specialized, high quality skills; and collaborate on the development of specialized technology. They can also organize on issues such as procurement that result in economies of scale and take collective action to make government support more effective. One major benefit is the ability to build marketing power and business promotion. (Mesopartners, 2011)

The promotion of a cluster in NYC has taken the form of the promotion of a district, for example, Manhattan's Diamond District and Fashion District. Both the Diamond District and Fashion District have operating BID's that do various promotional activities around their sectors. While a BID is less likely for CH metal fabricators, steps can be taken to help them deal with existing issues such as needs assessments and, in relation to sustainability improvements, working with businesses to create an Environmental Management System.

One concern raised by metal fabricators was that they faced competition from small, unlicensed businesses that had no overhead because they operate out of the back of a truck and may be sourcing from informal (read, illegal) vendors. Yet they are also candid about the fact that most metal fabricators start out this way and graduate to bigger space once they have a customer base. This suggests the need for inexpensive incubation space. On the flip side of the real estate issue, at least one fabricator would like to get larger space in the neighborhood but can't find anything suitable (under 15K sf) in the ENY IBZ. There is opportunity to help match fabricators to appropriately-sized space.

Greening the Cluster

Promoting sustainable business practices is an evolutionary process. It is unlikely that a company will jump from little environmental awareness to significant environment commitment without understanding the positive impact to their bottom line. A gradual process allows the company to make modest investment, reduce costs and expand markets, thereby realize the benefits of those investments and then be encouraged to pursue other, deeper environmental measures. There are a wide variety of steps that a metal working company can take to reduce its environmental footprint, culminating in relatively strict ISO (a series of quality standards developed by the International Organization for Standardization) or other third party certification. An easier, transitional approach would be to seek green identification through Made In NYC, which is a self-certified, voluntary process. Made in NYC is a marketing

Quotes about the Fashion District from *Making Midtown* (Space, 2012):

"The Garment District is vital to New York's Economy and the fashion industry. The district's garment factories provide thousands of working and middle class jobs and are a critical resource for fashion designers in creating new styles and launching new firms." – Making Midtown

"Proximity absolutely increases creativity – the District is this great lab for ideas" – Nanette Lepore, Making Midtown

"The proximity of factories and suppliers in the garment district gives designers competitive advantages versus working overseas, including speed, quality control, and – in some cases – lower costs."

- Making Midtown

initiative that creates a vehicle that incentivizes companies to green their operations and includes a growing list of manufacturers who have committed to producing in ways that reduce energy and environmental impacts. Some of the green features required for identification as a green product in the Made In NYC program include:

- Water efficiency
- Products made from significant amounts of recycled content
- Furniture made from reclaimed wood and steel
- Alternatives to highly toxic or ozone depleting substances
- Certified organic or sustainably harvested material content
- Materials re-use (5-10% of total materials recycled)
- Use of low emitting melamines and finishes
- Well-developed, environmentally responsible waste management system
- Over 75% recycled steel content
- Written environmental policy or commitment
- Use of renewable or clean energy.

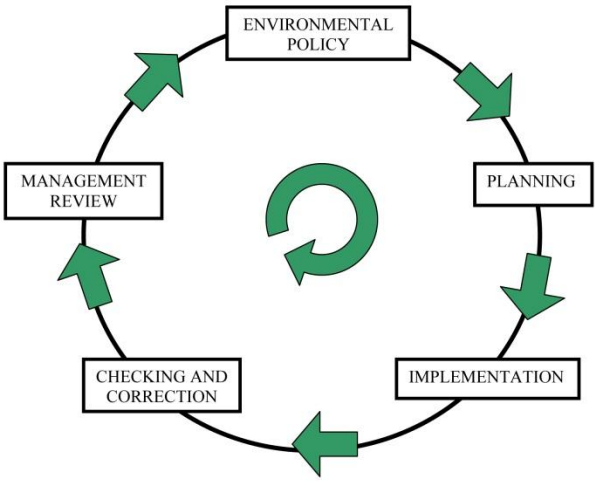
Adopting sustainable practices and the resulting green identification for metal fabricators would allow them to potentially overcome some of the stigma associated with metal manufacturing and perceptions that they are polluting businesses. Watermark Designs, for example, is certified as green because they produce highly water efficient bathroom showerheads and faucets. Greening reduces costs over time. The immediate result is improved sales via marketing to promote greening of production. According to sustainability experts at Pratt institute, the real impact of operation costs is five to seven years, although some firms report small but immediate decreases in their utility bills. Nineteen percent of the tenants in the Brooklyn Navy Yard identify and market themselves as green. Of those, 53 percent believe that it has increased sales.

Environmental Management System

Either working with Pratt Institute's Programs for Sustainable Planning and Development (PSPD) or a sustainable business service provider, Cypress Hills can initiate a process with local metal fabricators to create a tailored Environmental Management System (EMS) -- a framework that allows businesses to create a core set of environmental goals, assess current practices in light of those goals, and create targets to reduce negative environmental impacts over time. In the summer of 2012, PSPD's Green Business studio worked with two Brooklyn businesses—one a Gowanus-based metal fabricator—to help owners create a tailored EMS.

An environmental management system (EMS) helps to define a facility's environmental goals. The EMS can apply to the entire facility, or to only some aspects of the production process. Creating an EMS for any facility allows for more efficient use of materials, which can also lead to reduced production costs.

Additionally, establishing this framework can help improve communication among employees and supervisors about the production process. An EMS is meant to be a living document, and should be designed in a way that allows for adaptation with new technologies. Typically, the process followed in defining an EMS follows a "Plan, Do, Check, Act" model, shown in the diagram below, and continues to be an ongoing process that evolves with the company.



Source: NIEHS, www.niehs.nih.gov

The following thirteen steps are defined by the EPA in their "Guide to Developing an Environmental Management System for Metal Finishing Facilities":

1. **Define the scope of your facilities' EMS and assign responsibilities:** The "scope" of the EMS could be the entire facility or just operations. The EMS team will serve as the central creator of the EMS.
2. **Create your environmental policy statement:** This statement serves as the public face of the EMS, declaring to the company and the public the facility's commitment to environmental measures.
3. **Identify your facility's environmental aspects:** after reflecting on the production process, the EMS team identifies where the facility impacts or could potentially impacts the environment. These impacts can be as large as a possible chemical spill from stripping solutions or as small the use of plastic film to wrap materials.
4. **Identify relevant legal requirements:** such as compliance with the Clean Water Act or Clean Air Act.
5. **Determine your facility's significant environmental aspects:** after identifying the environmental impacts of the facility, the most significant SEAs (significant environment impacts) should be singled out.

6. **Set operational controls:** through best management practices, the management should provide various controls (such as action plans or work instructions) that ensure the environmental policy statement is carried out at all levels of operation.
7. **Set and pursue your goals and action plans:** New goals and action plans should be created in order to improve the environment performance of the facility.
8. **Set up an employee training program:** Employees should be informed of the EMS and the various SEAs involved with their work. Additionally, employees should be aware of what actions would be taken should the EMS requirements be broken.
9. **Create a communications strategy:** in order to foster smooth internal communication about EMS matters
10. **Set up documentation for your EMS:** a succinct EMS manual should describe the core elements of the EMS and how these various elements interact.
11. **Measure and record your performance:** in order to monitor improvements and ensure that equipment is working efficiently.
12. **Conduct audits and correct problems:** Since the EMS is meant to be a living document, occasional audits should be carried out to make sure the EMS is adequate for the facility.
13. **Management review:** Following an audit, the management should review the EMS, in order to answer the question "Is the system working?"

EMS cannot be created and carried out by just one person. Rather the entire facility needs to be involved in the process to ensure that the system works effectively. By taking these steps, a company can begin to monitor their energy efficiency, and work toward improving their production process.

Next Steps for Cluster Promotion

- CHLDC can adopt a role to bridge businesses in the study area and the LDC of ENY. As fabricators grow, CHLDC can assist them in conversations with the IBZ to suggest creative alternatives to leaving the neighborhood, such as building-sharing, that may not immediately be apparent. CHLDC can also work with others in the sector to encourage "back-of-the-truck" operators to move into space that is vacant. This looped real estate system becomes a de facto incubation of the metal fabrication sector.
- CHLDC can assist local fabricators to pursue the EMS concept. Discussions with Pratt or a green business service provider such as ITAC to make strategic plans can commence almost immediately. A product of any resulting effort could be an easy-to-read guide on how to make environmental improvements to metal finishing processes. Local manufacturer Watermark Design can be brought into the effort to discuss the bottom line benefits of going green.

The staff at the Pratt Center are more than willing to provide additional information to CHLDC about how to become involved in ongoing advocacy efforts or how to help reach out to businesses to promote their inclusion in the Made In NYC database.

List of Interviewees

(Information gleaned was organized according to strengths, weaknesses, opportunities, and threats to manufacturing retention/expansion and program goals)

Interviewee Affiliation Date	Strengths	Weaknesses	Opportunities	Threats
Chu, Kevin Business Opportunity Center Network 10/19/12		--Workforce dev. programs costly to employers --Little interest in ENY IBZ	--Food manufacturing is expanding in Brooklyn	
Shiffman, Aaron Brooklyn Workforce Innovations 01/09/13	--training programs in welding at Co-Op Tech and City Tech	--little public investment in training for manufacturing --"employer's market"—not going to hire someone who's never had a job before	--Would consider designing training program around food industry, given employer demand --BWI gets referrals word of mouth. Formerly incarcerated, esp. youth, is target, and many come from CH/ENY	--low literacy rates among applicants
Smith, Cassandra Greenpoint Manufacturing and Design 01/18/13	--GMDC has strong model for acquiring real estate --Can do innovative things, like build rooftop farm	--Must compete in private real estate market --Mfrs need space after they "graduate" from incubators—little available now --Can't build to suit food mfg since needs of each individual firm are so different	--Co-packing for smaller customers. As it stands, firms serve only larger. --Chamber of Commerce and SBS should promote clusters --Some businesses adopting greening measure out of need to reduce costs: using everything so they don't have to pay haulers to take it away. Becoming design-based effort.	
Werber, Richard Greater Jamaica Development Corporation 01/09/13	--warehousing and distribution are expanding --thinks mfg has potential BUT only if dynamic leadership is present --good training programs for commercial licensing of drivers --thinks large mfg spaces are a waste of time	--JFK vending difficult to break into --food production space sitting vacant --developers don't want to outfit mfg buildings without anchor tenants	--not a lot of BK hires at JFK—could be opportunity to encourage --progressive companies willing to take risks (to innovate, expand, etc.) --sees need for analysis of whether job training programs increase firm profitability	--in Jamaica, junkyards are major source of concern

Wilkins, Bill Local Development Corporation of East New York 10/18/12	--Mfg rents are low: average is $9.50 psf. --Some sectors growing: food, steel, transport	--Construction financing for new bldgs.is difficult; requires “spaghetti lending” which increases debt service --DOB is a problem	--Need training center for mfg skills but also soft skills --working with area high schools to encourage students to consider mfg careers	--Residential uses increasing in IBZ --Loss of Empire Zone (that covered CH/ENY) fractured local mfg planning strategy

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10. Smith, Cassandra. (2013, January 18). Senior Project Manager, GMDC. (E. Baron, Interviewer)
11. Werber, Richard. (2013, January 9). Director, Greater Jamaica Development Corporation. (E. Baron, Interviewer)

Appendix 1

Cypress Hills/East New York Vacant/Underutilized Property Survey (Jan 2, 2012) – Site Notes

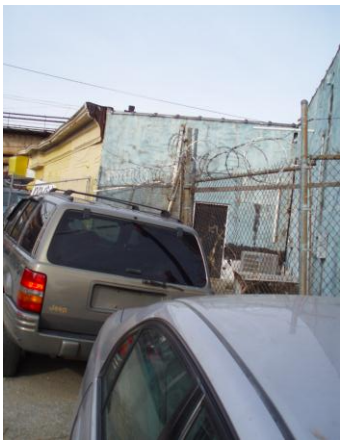
1) Force Tube Road, between Fulton Street and Dinsmore Place

Lot 1

Caption: Lot 1

Address: (201) Force Tube Road
Block: 4140 **Lot**: 1
Built: N/A
Lot Area Sq. Ft.: 5,095
Building Sq. Ft.: 0
Lot Frontage (ft.): 108.42 **Lot Depth (ft.):** 125
Number of Buildings: 0
Floors: 0
Zoning District: M1-1 and R5 (per NYCityMap)
Commercial Overlay: C2-3
Built FAR: N/A **Max Allowable FAR:** 1
Ownership: BERNARD, NEVILLE
Vacant: No

Lot 5



Caption: Lot 5

Address: (201) Force Tube Road
Block: 4140 **Lot**: 5
Built: N/A
Lot Area Sq. Ft.: 482
Gross Floor Area Sq. Ft.: 0
Lot Frontage (ft.): 45.17 **Lot Depth (ft.):** 36.75
Number of Buildings: 0
Floors: 0
Zoning District: M1-1 and R5 (per NYCityMap)
Commercial Overlay: C2-3
Built FAR: N/A **Max Allowable FAR:** 1
Ownership: IRM REALTY GROUP, LLC
Vacant: No

Current Land Use: This strip of Force Tube Road is closed to vehicle traffic. The road is in disrepair; some sections maintain the original asphalt and other parts are now a dirt/gravel road. The road itself seems to serve as parking lot for nearby shop employees, namely Tomala Muffler Tire Shop. Force Tube does not go through to Dinsmore Place; the (55) Dinsmore Place lot cuts the road off. When entering from Fulton Street, the buildings on the right side of Force Tube are the backsides of the residential homes along Logan Street. Residents use the closed section of Force Tube to access their garage. The left side of Force Tube road is where lots 1 and 5 are located.

Lot 1 is being used as a parking lot for trucks. Most of the trucks were unmarked, however there were a few that were from Embarque AA, a freight forwarding company located on 3433 Fulton Street, about nine blocks down Fulton. Aside from the closed section of Force Tube Road, this lot does not touch any other roads. The block internalizes it.

Lot 5 is very small and is fenced off. It appears to be connected to the 3180 Fulton Street property.

Caption: Close to traffic section of Force Tube Road, looking towards Fulton Street

Evidence of Construction: No
For Sale: No evidence i.e. for sale signs

Caption: 47 Dinsmore Place (left) and (55) Dinsmore Place (right)

Assessment: Lot 5 is not worth pursuing. Lot 1 would only be worth pursing if the 47 and (55) Dinsmore Place lots could be purchased as well, however a school bus/vehicle storage company is current using those sites.

2) Fountain Avenue, between Atlantic and Liberty Avenues

It is across the street from City Line Park/ East New York High School of Transit Technology.


Caption: Outside (left) and inside (right) of 30 Fountain Avenue

Address: 30 Fountain Avenue
Block: 4154 **Lot**: 61
Built: N/A
Lot Area Sq. Ft.: 5,000
Gross Floor Area Sq. Ft.: 0
Lot Frontage (ft.): 50 **Lot Depth (ft.):** 100
Number of Buildings: 0
Floors: 0
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: N/A **Max Allowable FAR:** 1
Ownership: 38 FOUNTAIN AVE. CORP
Vacant: No

Current Land Use: The site is currently being used as a storage lot for trailer trucks. It does not appear to be an active site as some of the trucks look like they have been there for a while.

The property lies between two residential properties, 28 Fountain Avenue to the north and 38 Fountain Avenue to the south. The owner of 38 Fountain Ave, Sergey Gryazev, may be the owner of 30 Fountain Avenue as according to NYCityMaps, the owner of 30 Fountain Avenue is 38 Fountain Ave. Corp. There is a large contractor/truck repair shop three buildings up the block called Dominick Vitucci. A lot of its equipment is parked on the street, giving the area a slight industrial feel.

Caption: 38 Fountain Avenue (left) and Dominick Vitucci contractor/truck repair shop (right)

Evidence of Construction: No
For Sale: No evidence i.e. for sale signs

Assessment: Could be a potential site for a light industrial use, however the presence of residential buildings on either side of the lot could make it difficult to develop.

3) Milford Street, between Atlantic and Liberty Avenues

Caption: 22 Milford Street

Address: 22 Milford Street
Block: 3976 **Lot**: 43
Built: 1930
Lot Area Sq. Ft.: 5,000
Gross Floor Area Sq. Ft.: 5,000 per NYCityMap, however I think it is closer to 15,000 sq. ft.
Lot Frontage (ft.): 50 **Lot Depth (ft.):** 100
Number of Buildings: 1
Floors: 3
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: 1 per NYCityMap; 3 per Justin's Estimate **Max Allowable FAR:** 1
Ownership: 3144 ATLANTIC AVENUE
Vacant: No

Current Land Use: I spoke with one of the owners of Mobilia Furniture (www.homefurnitureny.com), which is located next door to the north, and she told me that they own and use 22 Milford Street for storage. The building is not for sale.

The adjacent building to the south, 26 Milford Street, used to be an auto shop and may still be vacant per the owner of Mobilia. The building is zoned M1-1, is in a 2,500 sq. ft. lot, and is three Floors tall. The property owner is Key Capital Funding, who also owns the next two lots to the south (36 and 38 Milford Street). 36 Milford is zoned M1-1, lot size is 2,500 sq. ft., and it a residential townhouse. 38 Milford is

also zoned M1-1, is in a 7,500 sq. ft. lot, and is currently occupied by an auto shop called Brooklyn Auto Repair.

Caption: 26 Milford Street (red brick building)

Evidence of Construction: No
For Sale: No

Assessment: In use and is not for sale, thus is not available. Twenty-six Milford Street could be an option, however it might be too small.

4) Liberty Avenue, corner of Miller Avenue

Caption: 486 Liberty Avenue

Address: 486 Liberty Avenue
Block: 3708 **Lot**: 15
Built: 1920
Lot Area Sq. Ft.: 10,000
Gross Floor Area Sq. Ft.: 10,500
Lot Frontage (ft.): 100 **Lot Depth (ft.):** 100
Number of Buildings: 1
Floors: 3
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: 1.05 **Max Allowable FAR:** 1
Ownership: LITTLEJOHN, ETHA K
Vacant: Yes

Current Land Use: The building is vacant. There is scaffolding that surrounds the building along the sidewalk, however the permit expired on 04/07/2012 so it does not seem like any construction/renovation is taking place. Perhaps the scaffolding was constructed to protect pedestrians from falling debris. Part of the building may currently be used as storage because there is a relatively new looking garage door along the Liberty Avenue side of the building.

Caption: Work permit (left) and garage door on Liberty Avenue (right)

Evidence of Construction: No, except for old scaffolding around the building.
For Sale: No evidence i.e. for sale signs

Assessment: It is a beautiful building, however the layout of the building could make it difficult for industrial use.

5) Atlantic Avenue, between Schenck Avenue and Barbey Street

Royal Plastic/Former Borden's Dairy site

Caption: 2840 Atlantic Avenue

Address: 2840 Atlantic Avenue
Block: 3964 **Lot**: 8
Built: 1914
Lot Area Sq. Ft.: 30,550
Gross Floor Area Sq. Ft.: 76,400
Lot Frontage (ft.): 200.67 **Lot Depth (ft.):** 176
Number of Buildings: 5
Floors: 3
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: 2.05 **Max Allowable FAR:** 1
Ownership: 2840 ATLANTIC AVE REA
Vacant: No

Current Land Use: The site is occupied by Royal Plastics. Betsy met with the owner a few months ago and they told her that they were using entire building (although it did not appear to be) and that they were not interested in selling.

Caption: Royal Plastics sign

Evidence of Construction: No

For Sale: No evidence i.e. for sale signs

Assessment: In use and is not for sale, thus is not available.

6) Liberty Avenue, between Georgia Avenue and Sheffield Avenue

Former Piels Brewery

Caption: 107 Georgia Avenue along Sheffield Avenue

Address: 107 Georgia Avenue
Block: 3685 **Lot**: 1
Built: 1930
Lot Area Sq. Ft.: 21,250
Gross Floor Area Sq. Ft.: 26,000
Lot Frontage (ft.): 100 **Lot Depth (ft.):** 200
Number of Buildings: 3
Floors: 2
Zoning District: M3-2
Commercial Overlay: N/A
Built FAR: 1.22 **Max Allowable FAR:** 2
Ownership: JANA HOLDING CORP
Vacant: No

Current Land Use: The site is occupied by *Filta Clean Company* (www.filtaclean.com), a kitchen de-greasing and grease trap cleaning service organization, *Arthur F Brassington Co* (*Belton Industries Inc*), an air and gas filter manufacturers, and *Multi Display & Panel Corp*, a multi-panel display units and exhibit board manufacturer.

Caption: Sign of businesses operating on site (left) and Filta Clean van (right)

Evidence of Construction: No

For Sale: No evidence i.e. for sale signs

Assessment: In use, thus is not available.

7) Liberty Avenue, between Hendrix Avenue and Schenck Avenue

Former Universal Iron Work and Machine Shop and It's Cool To Recycle Corp. sites.

Caption: 546 Liberty Avenue (left, white and brown building) and 540 (right, orange/green door)

Address: 546 Liberty Avenue
Block: 3979 **Lot**: 13
Built: 1935
Lot Area Sq. Ft.: 4,500
Gross Floor Area Sq. Ft.: 4,416
Lot Frontage (ft.): 45 **Lot Depth (ft.):** 100
Number of Buildings: 1
Floors: 2
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: 0.98 **Max Allowable FAR:** 1
Ownership: CHETRAM MOOTIELALL
Vacant: Yes

Address: 540 Liberty Avenue
Block: 3979 **Lot**: 12
Built: N/A
Lot Area Sq. Ft.: 2,500

Gross Floor Area Sq. Ft.: N/A
Lot Frontage (ft.): 25 **Lot Depth (ft.):** 100
Number of Buildings: 1
Floors: 2
Zoning District: M1-1
Commercial Overlay: N/A
Built FAR: N/A **Max Allowable FAR:** 1
Ownership: CHETRAM MOOTIELALL
Vacant: Yes

Caption: For rent sign

Current Land Use: Universal Iron Work and Machine Shop and It's Cool To Recycle Corp. occupied these sites as recently as November 2012. 546 Liberty Avenue is a mixed-use site. It appears Universal Iron Works used the right side of the building, while the left side of the building is a commercial shop and above it are residences. It is not clear if the entire lot is for rent or only the right side. It's Cool To Recycle Corp. had occupied 540 Liberty Avenue and it appears the entire lot is now vacant.

Evidence of Construction: No
For Sale: No, but there are for rent signs up

Assessment: Might be worth further exploration to see if the owner is willing to sell, not rent, the two sites. One potential issue is that it looks like there are residents living in part of 546 Liberty Avenue.

Appendix 2

List of Metal Manufacturers to be Surveyed

Name of Business	Address	Surveyed	Notes	NAICS Code	SIC Code
Classic Iron Works	565 LIBERTY AVE	Yes	See survey and note sheet.	332323, Ornamental and Architectural Metal Work Manufacturing	344604, Ornamental Metal Work (Mfrs)
New Age Steel Products & Iron Works, Inc.	183 VAN SICLEN AVENUE	Yes	See survey and note sheet.	332323, Ornamental & Architectural Metal Work Mfg	344604, Ornamental Metal Work (Mfrs)
David Iron Works	141 WYONA STREET	No, but talked informally	See note sheet. Is closing his shop soon, did not want to fill out a survey but he was willing to chat with me as to why he is closing his businesses.	332323, Ornamental & Architectural Metal Work Mfg	344604, Ornamental Metal Work (Mfrs)
Eddy's Iron Work	580 LIBERTY AVENUE	No	Owner told me he was too busy this week, but I could try again next week.	811490, Other Household Goods Repair & Maintenance	769204, Ironwork
Oscar Gates & Iron Works Inc.	597 LIBERTY AVENUE	No	Gave Abdulla's business card to Ana, who is the owner (Oscar)'s assistant. I stopped by a day later and she told me she gave the card to Oscar and that he would check CHLDC's website later then contact either Abudulla or me if he is interested in participating. Ana was very nice. If I had more time and if I was able to meet Oscar in person, I think he would fill out the survey.	811490, Other Household Goods Repair & Maintenance	769204, Ironwork

J C & A Gates & Iron Works	492 LIBERTY AVENUE	No	Stopped by the shop four times and the owner/manager was never onsite. Employees did not speak much English, kept on telling me to comeback in the morning or at noon, which I did to no avail.	332618, Other Fabricated Wire Prod Manufacturing	349620, Gates-Manufacturers
Tri-State Metal Decking Inc.	594 GLENMORE AVENUE	No	Stop by four times, no one was ever on site. There was a sign on the door that said visitors should contact their main office on 366 Herzl street at 718-485-2200. Employees at auto shop next door told me that there is usually someone on site about 2-3 times a week.	332323, Ornamental and Architectural Metal Work Manufacturing	3446, Architectural and Ornamental Metal Work
J. Miguel Mejia Iron Works	3015 ATLANTIC AVENUE	No	Stopped by the shop four times and the owner/manager was never onsite. One employee who did not speak much English, kept on telling me to come back in the morning or at noon, which I did to no avail.	332323, Ornamental and Architectural Metal Work Manufacturing	344604, Ornamental Metal Work (Mfrs)
Nick's Iron Works Inc	147 WYONA STREET	No	Stopped by four times, twice the shop was closed, the other two times only one employee who was there, who told me to stop by later in the day to speak to the owner/manager, which I did, but the he was not there when I returned.	332323, Ornamental and Architectural Metal Work Manufacturing	344604, Ornamental Metal Work (Mfrs)
Liberty Steel Inc.	558 LIBERTY AVE	No	Each time I stopped by no one was on site. It appears the site is used more for materials and truck storage rather than a workshop.	332323, Ornamental and Architectural Metal Work Manufacturing	344604, Ornamental Metal Work (Mfrs)

Accurate Metal Supplies	100 BERGMAN STREET	No	Owner/manager told me he was not interested in participating in the survey. I asked if I could leave one behind, he still said no and closed the door on me.	333512, Metal Cutting Machine Tool Manufacturing	738972, Metal Cutting
Steel Express Inc.	220 ASHFORD STREET	No	No longer at this location. I emailed the owner, who still has a website, to try to find out where he relocated to but he would not tell me.	332323, Ornamental and Architectural Metal Work Manufacturing	344604, Ornamental Metal Work (Mfrs)
East New York Steel Products	3027 ATLANTIC AVENUE	No	NO LONER IN BUSINESS per an employee at J. Miguel Mejia Iron Works, the next door neighbor.	332312, Fabricated Structural Metal Manufacturing	344106, Steel-Structural (Mfrs)
National Steel Supply	576 LIBERTY AVENUE	No	NO LONGER IN BUSINESS. Per Yadir, the owner of New Age, National Steel was one of two the steel suppliers in the area. Now Eastern is the only one left.	423510, Metal Merchant Whls	505106, Steel-Distributors & Warehouses (Whls)

Appendix 3
Survey of Metal Manufacturers

CYPRESS HILLS LDC SURVEY OF LOCAL MANUFACTURERS

Company Name:
Primary Contact: **Title:**
Address:
Telephone: **Fax:**
Email (Primary Contact):

Confidentiality Commitment: *This survey is part of a study funded by grant from the NYS Department of State and administered by CHLDC. Individual company data will be kept confidential.*

I. BASIC COMPANY INFORMATION

1. **How would you generally describe what your business does?**
   _____
   _____

2. **What products does your business make?**
   _____
   _____

3. **How long has your company been in business? _____ years _____months**

4. **Is your business:** (*Check all that apply*)
   ☐ Minority owned ☐ Woman owned ☐ Neither

   4a. Are you formally registered as a Minority or Woman-Owned Business Enterprise with:
   (*Check all that apply*)
   ☐ Federal government ☐ State government ☐ City government ☐ I don't know ☐ No

5. **Do you own or lease your property?**
   ☐ Lease ☐ Own

6. **How many square feet? _____**
   6a. Monthly rent, if leasing _____

II. GEOGRAPHY AND LOCATIONAL DECISIONS

1. **How long has your company been at this location? _____ years _____months**

2. **How many prior locations did you have before moving here? _____**

3. **(If applicable) Is your current location:**

   Bigger
   Smaller
   About the same
   N/A
   } than your former location

4. **(If applicable) Is your current rent:**

   More
   Less
   About the same
   N/A
   } than your former rent

5. **(If applicable) Why did you leave your last location?**

   ☐ Rezoning/conversion
   ☐ Rent increase
   ☐ Space was too large
   ☐ Space was too small
   ☐ Building management
   ☐ Lease ended
   ☐ Other _____
   ☐ Crime

6. **How critical are these factors to the success and stability of your business?**

	Critical	Important	Somewhat	Not important	N/A
a. Industrial zoning					
b. Length of lease					
c. Size/pace of rent increases					
d. High ceilings					
e. Freight elevators					
f. Weight bearing floors					
g. Loading docks					
h. Affordable Rent					
i. Proximity to workforce					
j. Highway access					
k. Proximity to suppliers/service providers					
l. Proximity to clients					
m. Proximity to similar businesses					
n. Proximity to employee neighborhoods of residence					
o. Safety					
p. Presence of other businesses					
q. Truck Parking					
r. Other_____					

CYPRESS HILLS LOCAL DEVELOPMENT CORPORATION SURVEY OF MANUFACTURING BUSINESSES

9. Does your company buy or sell products or services from other businesses in Cypress Hills/East New York? *(Check all that apply)*

	Describe products/services	Dollar Value Estimate
☐ Buy		
☐ Sell		

10. Do you share any of the following services with other businesses in Cypress Hills/ENY?
(Check all that apply)

☐ Staff
☐ Equipment
☐ Materials
☐ Vehicles
☐ Waste/Trash Collection
☐ Work space
☐ Other_____
☐ None

11. Which of the following City agencies visit your business regularly?

	How often?
☐ Department of Buildings	_____
☐ Dept. of Environmental Protection	_____
☐ Department of Health	_____
☐ Fire Department	_____
☐ Other_____	_____

12. Do you anticipate your company's space needs changing in the next 3 – 5 years?

☐ I expect to need more space
☐ I expect to need less space
☐ I do not expect my company's space needs to change in the near future

12a. [If more] approximately how much more? _____ square feet

12b. [If more] do you plan to look for space in the neighborhood? ☐ Yes ☐ No

12c. If more space is not available in the neighborhood, would you (check all that apply):

☐ Leave the neighborhood
☐ Consolidate and remain in your current space
☐ Not sure

13. Do you anticipate relocating your business:

☐ In the next year
☐ In the next 2-5 years
☐ In the next 6-10 years
☐ I do not anticipate relocating my business

CYPRESS HILLS LOCAL DEVELOPMENT CORPORATION SURVEY OF MANUFACTURING BUSINESSES

III. MARKET INFORMATION

1. Who are your main customers?

- ☐ Other manufacturers
- ☐ Wholesalers or distributors
- ☐ Direct retail outlets
- ☐ Construction industry/contractors
- ☐ Architects or building engineers
- ☐ Individual consumers
- ☐ Other_____

2. What percentage of your product is sold (totaling 100%):

In Brooklyn _____ % In Queens _____ % Rest of New York City (Manhattan, Bronx, and Staten Island) _____ % In NJ, CT, and NYS _____ % Nationally _____ % Internationally _____ %

3. What are the main supplies and materials used in your business?

_____

_____

4. Where do you purchase most of these supplies and materials? In Brooklyn _____ % In Queens _____% Rest of New York City _____ % In NJ, CT, and NYS _____ % Nationally _____ % Internationally _____ %

5. Do you ever coordinate with other similar, local businesses on the following actions? Please mark with a Y (yes) or N (no).

Buying products in bulk ___
Buying services together ___
Marketing & advertising ___
Learning about/using technology ___
Sharing innovations, for example, new ways of making products ___
Dealing with government agencies ___
Dealing with community organizations, like the community board ___

If you answered no, would you consider coordinating with other companies if it made business sense?

_____

IV. EMPLOYEES

1. **How many employees does your company currently have?**
   Full time _____
   Part time _____

2. **What percentage of your employees live in Cypress Hills/East NY?**
   _____ %

3. **What level of education do you require your employees to have?**
   High school/GED degree _____
   Some college_____
   College degree_____
   No requirement_____

4. **Are there any special skills, or special training that your employees are required to have?**
   _____

5. **Are your employees required to speak English?** Yes ___ No___
   Spanish? Yes___ No ___

6. **Have you hired additional employees in the past eighteen months?**
   ☐ Yes #_____ ☐ No

7. **How many employees do you foresee adding in the next five years?**
   ☐ 1-5
   ☐ 6-10 ☐ I don't plan on hiring more
   ☐ 11-15

8. **Please note the number of your company's employees who fall into each of the annual wage ranges below; leave line blank if no employee falls into a given range.**

	$15,000-30,000	$30,001-40,000	$40,001-50,000	$50,001-60,000	$60,001-70,000	$70,001-85,000	$85,001-$100,000	More than $100,001
Managers (employee)								
Non-managers (full time employee)								

9. How much do part-time employees make per hour? $_____/hour

10. How many of your employees receive additional non-monetary benefits (health insurance, 401k, etc.)? *Indicate the number of employees receiving each benefit.*

	Full Time	Part Time
Health insurance		
Retirement		
Profit sharing		
Other		

11. How many people in your company commute by:

Walking/biking _____ Public transportation _____
Driving _____ Other _____

V. YOUR COMPANY AND THE ENVIRONMENT

1. **Please check all of the "green" practices you follow.**
   - ☐ Use minimum packaging
   - ☐ Purchase recycled paper
   - ☐ Use Soy/latex/corn/rubber-based ink
   - ☐ Use water-based finishes
   - ☐ Use volatile organic compound–free materials
   - ☐ Use wood from sustainable sources
   - ☐ Reuse materials *specify*_____
   - ☐ Recycle paper/cardboard
   - ☐ Recycle/recover/compost waste
   - ☐ Recycle water
   - ☐ Use energy efficient equipment or lighting
   - ☐ Purchase renewable energy credits
   - ☐ Other_____
   - ☐ None

2. **Have you considered changing your company's business practices in order to become more sustainable, i.e., take any of the steps listed above?**
   ☐ Yes ☐ No

3. **Do you market your company as "green" or environmentally sustainable?**
   ☐ Yes ☐ No

4. **If you market your company as green or environmentally sustainable, do you think this helps increase sales?**
   ☐ Yes ☐ No ☐ Not sure

VI. YOUR COMPANY AND THE FUTURE

1. What kinds of concerns, issues, or challenges do you think your business will face in the coming years?

_____
_____
_____