Role of Small-Scale Manufacturers and Makers in Fremont

Department of Economic Development
City of Fremont, CA
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Call to Action

Makers & Manufacturers in Fremont

Small-Scale Manufacturing

All types of small businesses producing tangible goods. This includes businesses in textile, hardware, wood, metal, 3D printing, prototyping, consumer product design, film production, breweries and distilleries, and local food production and packaging. The businesses may be consumer-facing or be in the supply chain to other businesses.

Why?

- Street Front Vitality
- Economic Resilience
- Buy Local Purchasing Power

Call to Action

#1 Identify

#2 Convene

#3 Connect

#4 Support

#5 Plan

- Scale and Repeat -

Create a weird, cool, competitive & economically resilient community

Small-scale manufacturing businesses are a key asset for Fremont today and in the future. The City and its leadership should set out goals to include and promote this business sector - as part of its placemaking plans to create a vibrant and fun Downtown, and as part of its larger economic development goals to create a resilient and inclusive economy for the future.

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1. Introduction

The City of Fremont selected Recast City LLC to lead a local one-day workshop on the potential role small-scale producers can serve to strengthen the economic vitality and walkability of the Downtown Initiative and the Warm Springs Innovation District. This memo is a summary of the community meeting and on-site interviews. The memo includes a short list of recommendations to kick start support for local small-scale production businesses and to connect these businesses with development in the new Downtown and Innovation District. The recommendations are a **Call to Action** for the City and private sector to come together and accomplish its goal to create a weird, cool, competitive and economically resilient community.

The goals of the project are to:

- Engage business owners and real estate developers directly to build their support for action in Fremont related to small-scale manufacturing;
- Understand the primary barriers and opportunities for the small-scale manufacturing and maker industries based in Fremont or owned by Fremont residents; and,
- Understand major ways the target businesses can contribute to Downtown development and the Innovation District.

The onsite visit was held August 17, 2016. Recast City met with local producers, community leaders and members of the real estate sector during the visit. The visit consisted of a community meeting in the morning aimed at local real estate professionals and producers, and then a series of one-on-one meetings with local small-scale manufacturers in their place of business.

The intent of the community meeting and interviews was to meet with local business and community leaders and to provide the City of Fremont with a set of initial steps to retain and attract more small-scale manufacturing businesses. The recommended steps focus on ways to support the diverse, local small-scale manufacturing businesses through economic development programming and placemaking in the new Downtown and Innovation District.

2. National Context

Demand is growing nation-wide to bring downtown-friendly production land uses back into our cities. Local manufacturing is on the rise and small-scale production is cleaner and quieter than ever before. Communities that recognize this demand and harness it will make a key step to diversify local real estate markets and the employment base.

Small-scale manufacturing

This is the umbrella term. It includes all types of small businesses producing tangible goods. This includes businesses producing goods in textile, hardware, wood, metal, 3D printing, and food. This also includes hardware prototyping, consumer product design and prototyping, film production, breweries and distilleries, and local food production and packaging. The businesses may be consumer-facing or provide materials to other businesses.

As Fremont knows well, manufacturing is a key asset to the local job base.

- For every $1 in manufacturing revenue, communities receive $1.34 in output to other sectors.
- The direct and indirect expenditures support 1.6 jobs in the surrounding community for every manufacturing job.
- Craft entrepreneurship is on the rise, and a key part of small-scale production. Over 20 million products are currently sold on Etsy. Sales on the site grew from just over $300 million in 2010 to over $1.9 billion in 2014. While only 10 percent of the sellers are full-time businesses, Etsy's expansion into the wholesale market and connecting designers with contract manufacturers will bring more people into the full-time production business.

Cities benefit in a number of ways when they bring small production businesses and jobs into downtown, incorporate them into the local districts, and retain them within the community:

Downtown is an Amenity: Small-scale producers and manufacturers attract people to downtown who want to be a part of the Maker community and support locally made products. Events to showcase new products, and workshops on business development techniques, can help bring people together. This strengthens the community of producers and promotes it as an employment avenue to more neighbors. These events bring people together and can help to create a vibrant street life that attracts people to downtown on a more regular basis.

Fremont's new Downtown could be distinct from nearby communities if it incorporates small producers as part of the "brand" of the new Downtown and exemplify the weirdification of the City.

Economic resiliency: Cities with a diverse set of small businesses can weather market changes more successfully and are less likely to lose their growing businesses to other cities or countries. Many cities are working on "economic gardening" – the concept of growing the size and scale of existing local businesses – because these owners are most likely to stay in town.

Fremont is home to many small producers who are long-term local residents. These small businesses (with 30 or fewer employees) want to scale and stay local. They are an enormous asset for Fremont's long-term economic and real estate stability.

Power of the Local Market: The growing movement of Buy Local is spreading across the U.S. and providing producers with strong local markets alongside access to a global market through the internet. Organizations like CincyMade, work to strengthen the community of local producers and help them bring their products to market. More people are gravitating towards unique and custom products on sites like Etsy, to pop-up holiday markets, or e-commerce platforms like Huckberry. The local market is growing in power and the dollars spent in it are growing. Domestic designers increasingly look for domestic contract manufacturers to do small batch runs of custom products.

Fremont's producers are already major successes in the local market, with one food producer selling to 100 restaurants and 300 retailers. Fremont can serve as a key promoter and connector for these local businesses as they scale.

Fremont is positioned to reap the benefits of the small-scale manufacturing sector to strengthen its industrial business base, reinforce goals for the Downtown and Innovation District, and build a strong pipeline of businesses to grow locally.

3. Context in Fremont

Fremont is home to a strong small-scale manufacturing sector. These businesses are established, serious businesses producing tangible goods – predominantly for wholesale. The businesses are based in Fremont because the owners live in the community and have access to affordable production space in town.

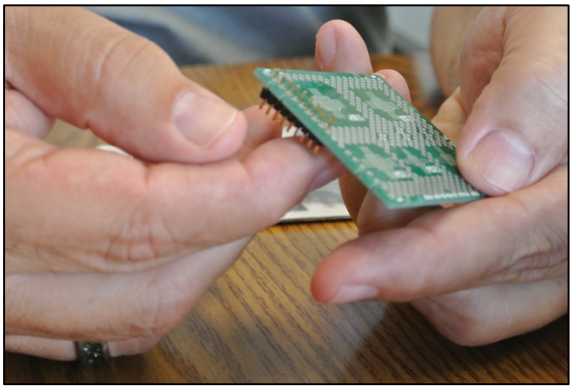
These companies are overwhelmingly ones with proven business models making a profit. They are businesses thriving on lean and organic growth with little or no outside investment. Many businesses are led or founded by engineers who left major corporations and started their own family business for quality of life reasons. These businesses employ other local residents and are firmly rooted in the community.

Who are these companies in Fremont?

A few examples:

ZeeFoods was established in 2003 by a local engineer. The business produces Indian flavored ice cream for the wholesale market and purchases its supplies from local businesses. The

business employs 15 local residents and occupies 7,500 square feet of industrial space. The owners, a local family, would like to expand to a 10,000-20,000 square foot space and open a retail ice cream shop adjacent to its wholesale production space (something popular in many markets now) so patrons can see the ice cream being made.



SchmartBoard is a local tech hardware company. Also established by a team of local engineers, this company started up in 2005. It has 5 employees, occupies about 2,000 square feet, and creates custom computer boards for hobbyists and hardware prototyping. They fabricate their boards in China, Korea and Taiwan. The company has two U.S. patents to make soldering mistake-proof on small chips. They sell the boards both wholesale and retail through online markets, and are interested in connecting with regional partners to create new custom board types for other needs. They already partner internationally to produce and design new products based on their patented chips.

Das Brew is a local brewery that started in 2009. They occupy 3,000 square feet and are quickly expanding. They have 10 employees, and sell their product both wholesale and at their beer garden. They are a family business created by a local engineer. The business hosts events at the brewery and brings people together onsite. They plan to scale and will need more space and more power (gas or electric) for larger brewing kettles soon.

This is just a small sampling of the types of small-scale production businesses in Fremont.

What are the opportunities and challenges for small-scale manufacturing in Fremont?

Recast City collected input from the community through the morning workshop with the real estate sector representatives and from the one-on-one interviews with local business owners. People noted key local assets that help to attract and retain small-scale production businesses in town:

- Fremont is in a central location both by car and transit
- Different neighborhoods have space for small production businesses to scale as they grow – from small to large footprint all within Fremont

- Fremont is home to a diverse population with a diverse set of skills
- City government is open to new ideas and works with the business community, including the economic development team working with the Chamber and other private sector interests
- Innovation is the norm in Fremont because of its engineering base
- The City and its businesses collaborate well across Bay Area jurisdictions
- There is an established maker community
- Fremont is home to many supply chain businesses that can support scaling of smaller manufacturing businesses
- Internet sales allow local businesses to create new revenue sources to sell both locally and to national/international markets
- Fremont is close to many strong community colleges and regional occupation programs, and can connect skilled labor to growing small production businesses
- A number of locations/neighborhoods could be home to a collection of retail+production spaces (where customers can both buy the product and see the production happen onsite) to bring people together and build up neighborhood vibrancy

A number of challenges also came up in discussions with both the real estate community and the small businesses. The challenges fall into three main categories: outreach and support, real estate and buildings, and local branding.

1. Outreach & Support

- Difficult to identify local small-scale producers, especially home-based businesses, and earn their trust to provide support
- Businesses are finding limited financing available for capital expansion in the small production sector

2. Real Estate and Buildings

- Industrial lease rates are going up near BART and Downtown – this may price businesses out of target areas
- Fremont does not contain too many older buildings for reuse
- High demand for housing means that real estate developers do not want to consider lower revenue options, like retail+production tenants, because they see it as a trade-off in revenue, not a branding opportunity to market a unique place

- The City lost redevelopment as a tool and would benefit from a new tool for P3's
- Fremont lacks a public makerspace and other small production business incubator infrastructure
- Zoning may be in the way for retail+production to move into commercial districts – should be examined

3. Local Brand

- Millennials in the region want an urban center and Fremont needs to attract and keep them
- People are looking for a Bay Area brand, not necessarily a Fremont brand
- Fremont's stated goals are to "weirdify" new development and this opportunity will likely be missed without integration of local producers

What distinguishes Fremont?

Grow Local: Fremont is home to many different sizes of industrial space and mixed-use projects in the pipeline. This means that businesses should be able to find cheap, small space to launch and then grow into larger, more established locations over time – all while staying within the City. This capacity for businesses to incubate and scale in Fremont is a competitive edge as compared to other surrounding jurisdictions. The City will need to look at where these spaces are available, potentially connect smaller businesses to target locations so that they can support each other, and pay attention to lease rate changes as BART and new development come in.

Retail+Production: A number of participants noted the great potential for Fremont to create a public-private partnership with the real estate community to bring retail+production space to the edge of the new Downtown or the Innovation District. This tenant type could provide significant benefits to both local economic development as well as real estate and market resilience. Customers come to see the production take place and then stay to visit surrounding businesses. These retail+production spaces help to create a vibrancy in a retail area that is different from just shops or restaurants. They will also contribute to Fremont's goal of "weirdification" and could make either the Downtown or the Innovation District truly stand out in the Bay Area for this cool factor.

4. Call to Action

Fremont set out a clear and strong goal to use development in the Downtown Initiative and Warm Springs Innovation District to become more competitive within the region and to pursue a "weirdification" strategy to attract highly talented Millennials to the City. Plain mixed-use development in these target development areas will not be enough. Generic buildings with ground floor retail of national chains and apartments above are rampant throughout the region. Fremont has a unique opportunity to purposefully integrate its cool local businesses into the new development areas and create an authentically Fremont-cool place.

> *The opportunity to create unique neighborhood centers will not last. Now is the time for the City to get engaged, take action, and ensure that the new Downtown and Innovation District truly stand out.*

These businesses can bring the weird and authentic character of Fremont into the limelight while also building a more resilient local economy. Community support can help to build up the pipeline of scalable businesses within the local economy. These businesses will help to make Fremont more resilient in the face of the next recession, and will build up local capacity to create more locally owned businesses.

No action will be lost opportunity. Real estate developers in other markets, including San Francisco and Washington, D.C., already pursue projects differently in order to include small production businesses in the ground floor. They know that this is their competitive edge in the market to create a cool place.

Now is the time for Fremont to take its first steps to organize and engage the small-scale manufacturing business sector so that it becomes a strong pillar of the community and helps Fremont achieve its goals.

The steps below are a guide to help the Fremont community strengthen and grow its small-scale manufacturing sector, and integrate it into development opportunities in the Downtown and Innovation District. These steps are intended to be iterative: as more businesses are identified, more actions can be taken with them, and plans for the future can become more expansive. The City can begin in a fairly informal way with a core group of identified businesses and create more formal systems as the business community grows.

Step 1: Identify

Fremont should reach out to existing small-scale manufacturing businesses to build a comprehensive list of this sector. These businesses often fall below the radar of any existing programs because they are small teams and do not have time for general Chamber of Commerce events. These businesses might be leasing space, sharing space or produce their goods from home. Fremont should focus on businesses that are 30 people or fewer in this outreach, include sole proprietorships, and look across materials to include textiles (fashion),

hardware prototyping, wood, metal, and food production – all businesses that produce tangible goods for retail or wholesale markets. SFMade is a great example where the City provides some funding for a third party entity to identify and organize local small-scale manufacturing businesses. Other cities are following this lead, like MadeinDC which receives a grant from DC's Department of Small and Local Business Development.

Outreach to identify these businesses will need to be creative. Some outreach may need to occur through word of mouth – ask each business to recommend two more to include in outreach activities. For instance, the staff already began to reach out to Danette O'Neill Designs, Chocolate Angel Creations and Worth Coffee Rosters. Each of these businesses can recommend others.

Fremont should also use its existing civic infrastructure to reach these businesses. This includes:

- Fremont's newsletter
- Faith and ethnic organizations' events, emails and announcement boards
- Existing fairs, festivals and retail market events (fashion, jewelry, farmers' markets) in the surrounding region
- Fremont Resource Center (FRC)

Fremont should offer basic economic development services to these business owners, or provide small business financing information as a way to attract businesses to sign up, similar to the work it does for other local businesses already. Fremont could also offer one-stop shop support or help with marketing and promotion as a way to spur businesses to sign up.

Fremont should compile information regarding these businesses to include at minimum – business name, year established, number of employees (FT and PT), square footage of lease, primary products, plans to scale, and capital expansion/financing needs. The information should be consistent with other local economic development surveys.

Step 2: Convene

Fremont should convene this sector to better understand their needs both for economic development resources and for future real estate plans. These businesses will benefit from support to build a cohort of similarly sized companies. They can learn from each other and find mentors within the community as they scale. This model is similar to one used in the tech community and documented in the book, Startup Communities.

Fremont may convene this audience through Meet-Up events that bring in investors interested in small-scale manufacturing or mentors who successfully scaled over the past 5-10 years. Fremont may bring in experts on branding for products or wholesale distributors to provide advice on scaling at the right pace. Experts who currently work with SFMade, SeattleMade

and other West Coast organizations may be able to participate in events in Fremont to expand their outreach.

Business owners will find it difficult to leave their small staff for any kind of event, so these convenings must be high quality and focused for the audience. Fremont may choose to create an advisory board of small-scale manufacturing business owners to advise the City on this engagement, and to provide input on City policies as they are developed.

Step 3: Connect

Fremont should connect these small-scale manufacturing businesses with local resources ranging from tenant space, to supply chain providers, to institutional clients, mentors and skilled local workforce. This is similar to the work already done to date by the Economic Development Department (meeting with over 40 businesses a year), but can be targeted to the needs of the production sector. By serving in this connector role, Fremont can earn the trust of the small businesses and help them stay and grow.

Many of these businesses use word of mouth to find their industrial space. Fremont can create a "place finder" system for small-scale producers to locate in target neighborhoods or in target buildings to create a collection of these businesses within the City. Property owners rarely know of this tenant type and may not know how to recruit these types of businesses into available space. The City can make the connections informally – like happy hours for property owners and business owners – or more formally – listing available space online and promoting it to local businesses. SFMade has a program called PlaceMade that helps small manufacturers find space in San Francisco. If the City engages in tenant space needs, then it should ensure that small- and medium-sized businesses have space to scale within the City.

Fremont could expand its work to connect small-scale manufacturers with local clients, mentors and supply chain vendors. This kind of work is already being led by the Department of Economic Development but could be expanded. The City could host a day for local institutions to meet with local producers to help promote wholesale relationships within the community. The City can also host a job fair to connect local education institutions with small producers looking for skilled employees.

Step 4: Fund

Fremont should pull together all the ways it can help small-scale manufacturers access capital to scale. Various loans are available from state and federal small business authorities. Some jurisdictions create funds or revolving loan programs out of discretionary funds or use federal community development block grant (CDBG) funds to support scaling of local production businesses. For instance, the City of Seattle partners with a local investment entity to create a Seattle Made Fund that provides 0% interest loans to grow local production businesses.

Local funds can also be used to invest in needed infrastructure to continue to incubate the local production economy. Indianapolis invested $1.5 million of its CDBG funds in a public-private partnership with a local Community Development Corporation to create a makerspace that provides workforce development training and opens up tools to public membership to foster more business development.

Fremont may decide that picking the location for a collection of retail+production businesses is most important to its long-term strategy. New market tax credits may assist in the financing of this type of development for affordable workspace. Funds could also be directed at defraying the cost of leases in target locations – similar to housing vouchers to help make housing affordable to more households, or use zoning tools or City proffer discussions to request space set aside for local production businesses.

Step 5: Plan

Fremont also needs to plan ahead. Development is happening in Fremont and industrial properties will change quickly as neighborhood centers become cool. Fremont should look at proposed development in the new Downtown and the Innovation District and figure out how small-scale manufacturing fits in with the pipeline of growth before the opportunity is lost.

Some questions to consider:

- Should retail+production space be a part of the new Downtown or Innovation District?
- If yes, how does the City help keep some space affordable to these tenants?
- If not, where is the right place for these businesses?
- How can the City harness the energy around local production business to create great foot-traffic for other retail businesses?
- How can the production businesses compliment the other local businesses to make Fremont unique?
- Is there City-owned property that can be used to partner with a developer on mixed-use development that includes some ground floor retail+production space in a target location?

The City should take a close look at zoning code definitions during its rewrite process. The definitions for allowable industrial uses are important and will decide whether or not each industrial building must be in its own oasis of land or can be built to create a neighborhood. Recast City provided comments on the draft zoning code, which are included in Appendix A below. Additionally, some communities like Nashville and Indianapolis now include a land use definition for Artisan Manufacturing, and allow the use in mixed-use and commercial development. Fremont should consider this addition as well. Nashville's Artisan Manufacturing Ordinance is included in Appendix B.

5. Conclusion

Small-scale manufacturing businesses are growing in Fremont. They are doing it on their own and building their own mentor network. How much more could they scale if they could connect with other small producers in Fremont? How much more could they grow if they could diversify their revenue to include foot traffic retail as well? How much more successful and resilient can Fremont's new Downtown and Innovation District be over the next 20 or 30 years if these types of local businesses have a home in the new development?

The City of Fremont should consider future exploration of these questions. Projects that will help Fremont better understand this sector include:

- Demand analysis of small-scale manufacturing so that the City and private developers understand how much and what types of space are needed for this sector.
- Local, state and federal funding strategies for both real estate opportunities and additional economic development support.
- Developer coalition discussions to determine how these producers can be brought into the Downtown and Innovation District development projects.
- Real estate property analysis to determine where existing buildings might be targeted for a group of small production businesses.
- Analysis for a makerspace or incubator hub to support local production business growth through the Fremont pipeline.

The small-scale manufacturing businesses are a key asset for Fremont today and in the future. The City and its leadership – both in the public and private sector – should set out goals to include and promote this business sector as part of its placemaking plans to create a vibrant and fun Downtown and as part of its economic development goals to create a resilient and inclusive economy for the future.

Appendix A: Industrial Zoning Code Feedback

To: **Kelly Kline, Economic Development Director, Fremont, CA**
From: **Ilana Preuss, Recast City**
Re: **Feedback on Draft Industrial Zoning for Fremont, CA**
Date: **June 6, 2016**

The City of Fremont selected Recast City LLC to review the new draft language for the city's industrial zoning code. The goal of this review is to provide feedback that ensures the new language supports maker industries, integrates small-scale manufacturing businesses into future redevelopment plans, defines different industrial zone uses effectively to support economic development and allows the industrial zone to support strong neighborhood placemaking where appropriate.

Smaller manufacturing businesses serve a key role to create great neighborhoods. When the businesses and buildings are close together they help to create a neighborhood feel. Many of the manufacturing uses are clean and quiet and will fit well within a district together.

Overall Feedback

- Definitions for new uses, such as cowork space and maker space, are clear. The maker space definition will allow both public access maker spaces as well as shared kitchen/textile or other tool shops for small businesses to share.

- Industrial Districts zones are written for a suburban context of industrial parks, not for a mixed-use environment. The development requirements will not support placemaking where people will gather.

- The City should develop concepts for the design of these zones at build-out and consider which ones should be more urban in design and which ones should remain as suburban industrial parks.

- The Service Industrial zone (I-S) is likely to be filled with tech or other office tenants, and not contain any small manufacturing, based on permitted (P) vs zoning administrator (Z) use approval in the draft table. The tech tenants can pay higher leases and will likely out bid potential maker industries or small producers for the same spaces, especially if the small producers cannot occupy the space by-right.

- The City should include the definitions and uses that fall into artisan shops and small production/manufacturing into the City's commercial zones, downtown, and the innovation district to bring a diversity of tenants into these neighborhoods.

Details - Zoning Text Amendments

Building and Site Standards – 18.50.030

- Setback requirements are suburban in scale. Buildings with 25-foot front and side yard minimums will not create a walkable environment. These requirements describe an industrial park separated from other uses and create space between the park's tenant buildings.

  Some areas, especially near the Innovation Center, should be encouraged to build more neighborhood-like development. Properties near BART or in designated neighborhood centers could have zero front and side yard setback requirements, but have design criteria for small neighborhood centers or TOD.

- Floor Area Ratio (FAR) maximums of 0.35 also encourages suburban-type development. Higher value locations, near BART or the Innovation Center, may benefit from multi-floor manufacturing buildings and higher FAR. The staff could determine the type of buildings that best fit the neighborhood and create the FAR based on this outcome. The I-T zone allows 0.35 FAR except 0.45 for general warehouse and manufacturing. This definition is not clear.

Performance Standards – 18.50.040

- Aesthetics – The draft standard states that no assembly process can be easily visible to public view. Consider striking this assembly process requirement from this section. Many small producers add vibrancy to an area because clients and visitors can view the production process. The viewing process can become a neighborhood amenity.

Development Standards – 18.50.050

- Landscaping and screening requirements are appropriate for an industrial park, and will be a detriment to any placemaking efforts. Six-foot masonry walls and roadway screening will separate buildings and cut them off from each other.

  Areas targeted for placemaking should not have these requirements. Large canopy trees could be required at the street edge to shade local sidewalks. Wall requirements between properties should be waved.

- Parking and loading facilities require all parking to be at least 25-feet from the street right-of-way. This pushes development far back onto the property and does not provide any credits for on-street parking or shared parking facilities. Parking could be required on the back or alley side of a property in more neighborhood-type development.

- Conditional use permits for small retail uses do not have a clear definition. This description may require the retail use to be directly connected to the manufacturing business onsite. It also needs a size definition and description for "complimentary use." Accessory retail could be limited by a percent of the total square footage of the business.

Definitions – 18.25

- Co-working space definition is clear.

- Maker Space definition is strong, but the statement "not for mass production" is not clear.

- Consider adding a definition for artisan and craft shops (listed in the Draft Industrial Use Table V2) unless this use type is defined elsewhere in Fremont zoning. The scale of the business and its square footage needs may be the easiest way to define these businesses. Consider artisan and craft shops as those requiring 2,000 square feet or less for business.

- Consider adding a definition for small production/manufacturing. This is not artisan production, but slightly larger and defined by its scale. The definition should be based on the scale of the buildings in the I-S or I-T zone. For instance, a 5,000 square foot small production space for custom electronic components might be appropriate in the I-S or I-T zone, where a 50,000 square foot facility would not support the design and development of that zone.

  Note: *The appropriate scale for artisan shops and small production business square footage must be determined by the City staff. These numbers are based on experience in other cities, but must be tailored to the scale of buildings in the industrial zones and the type of development the City would like to see in these areas.*

Development Impact Fee

- The definition applies a warehouse density metric (similar to the storage of goods and materials) that may apply to some manufacturing, pending the type of production taking place on site. This should be reviewed.

Details - Use Table

The Draft Industrial Use Table V2 should focus on how to make the ideal uses permissible by-right in the appropriate industrial zone. The current list seems to predominantly focus on preventing negative impacts – which is important – but does not approach the uses from the perspective of neighborhood building. The current table requires many good neighborhood uses to seek zoning administrator approval.

For instance, small-scale and maker industries who work in metal, furniture, jewelry, leather, electronics or food production could be perfect contributors to the I-S and I-T zones, especially near the Innovation Center and within a mile of the planned downtown. Can these uses be permitted by-right in target I-S and I-T locations?

The staff should review the industrial zones based on how development should look at the end of the process. Is the community aiming for a neighborhood feel or an industrial office park look? Where is each type of development appropriate? How can the City get more economic development benefit from being more precise about what type of building and use goes in each location? Is building scale more important than use? If so, what is the best way to ensure that scale and design using the City's existing tools?

Some changes the staff should consider regarding the permitted uses:

- Why are elementary and secondary schools allowed? If the community needs space for schools, it will benefit from designating a site versus leaving this option open. This could use up a lot of industrial property. Additionally, schools should be located within residential neighborhoods so that students can walk to the site.

- Consider separating tech and trade school uses from business, computer and management training in the use table. Allow tech and trade schools as a Permitted use and integrate it into the Innovation District and its surrounding industrial zones. Retain the Zoning administrator approval for business, computer and management training sites.

- Consider allowing breweries and distilleries as a Permitted use in I-S and I-T, and not require Zoning administrator approval. Consider setting a maximum percent of square footage for tasting rooms in these zones.

- Consider allowing small production/manufacturing facilities as Permitted use in I-S and I-T, especially within a mile of BART or the Innovation Zone. One way to achieve this is to set a maximum square footage for these uses in the close-in zones. The goal of this concept is to increase the diversity of uses in these locations that work well in small footprint buildings. This will help to create an interesting place to walk and do business within the zone. For instance, uses may be Permitted in I-S and I-T if the use is in 5,000 square feet or less, while uses using more than 5,000 square feet would remain as listed in the table to require Zoning administrator approval or not be allowed in the zone.

  Uses to review for inclusion in I-S and I-T based on square footage include:
  - Computer and electronics product manufacturing
  - Bread and bakery product manufacturing
  - Fruit and vegetable preserving and specialty foods
  - Furniture and related products
  - Leather without tanning and finishing
  - Jewelry and candles
  - Printing and related activities
  - Textile product assembly

Appendix B: Artisan Manufacturing

Nashville, TN Artisan Manufacturing definition:

Manufacturing, Artisan mean the shared or individual use of hand-tools, mechanical tools and electronic tools for the manufacture of finished products or parts including design, processing, fabrication, assembly, treatment, and packaging of products; as well as the incidental storage, sales and distribution of such products. Typical artisan manufacturing uses include, but are not limited to: electronic goods, food and bakery products; non-alcoholic beverages; printmaking; household appliances; leather products; jewelry and clothing/apparel; metal work; furniture; glass or ceramic production; paper manufacturing.

The ordinance can be found at:
http://www.nashville.gov/mc/ordinances/term_2011_2015/bl2015_1121.pdf