SECTION II: RESEARCH
Industrial Manchester, approximately one-half mile south of Downtown Richmond, has many desirable assets to become an up-and-coming neighborhood in Richmond. For example, its proximity to downtown, its amazing views of the river, its industrial heritage and the presence of some significant historic structures all give Industrial Manchester the potential to be an up-and-coming neighborhood. Together with these assets, however, there are challenges needing to be addressed so the neighborhood can take advantage of its full potential.

Over the last decade, the Industrial Manchester area has experienced some positive changes; developers have started investing in old industrial buildings and transforming them into residential or commercial use, taking advantage of the historic tax credit incentive turning today’s area into a mixed-use community with industry, housing and offices side-by-side. The vision for development in Industrial Manchester builds on this established pattern, stressing its mixed-use character, its strategic location and its history.

Although historic tax credits have fostered reinvestment in Industrial Manchester, they have also limited developer initiatives of engaging industrial buildings to the public realm. This issue is unique to historic preservation efforts, but the goal of residential and commercial projects on industrial buildings should be the preservation of the basic historical integrity of the structure while allowing the freedom to change, in order to accommodate the needs of the current business and contribute to animate streets (Tyler 2009).

While no specific plan for Industrial Manchester has been created in the past by the City of Richmond, revitalization is an ongoing initiative and at the forefront of the minds of residents, stakeholders and local authorities. For instance, The Old Manchester Neighborhood plan adopted in 1996 focuses on the Old Manchester area to the south of Commerce Road, excluding the Industrial Manchester area. In 2009 and 2011 the City of Richmond created two plans in which Industrial Manchester has been included either as part of Downtown or part of the Riverfront. Despite the benefits brought by the two plans to Industrial Manchester, the City of Richmond’s authorities have recognized a need of a plan exclusively for this area, since Industrial Manchester is still lacking a sense of place and is still dealing with persistent issues such as limited access to the River, high percentage of vacant lots, absence of community gathering spaces, deficiency of open public spaces, lack of street activity and the perception of crime.

It is important to note that although the economic role of Industrial Manchester as a center of economic trade has been diminished by competition of the north side of the James River and the Kanawha Canal, Industrial Manchester continues to have an active industrial base with major manufacturers in the area. The movement of these major entities out of the area is a relatively recent phenomenon and even so, there are still many industrial uses present.
The Neighborhood

In order to better research, analyze and interpret the information collected for the purpose of this project and the key questions above (at neighborhood level) it is important to have a clear understanding of possible implications such as:

- Demographics
- Zoning
- Land use
- Desirable views, vistas and topography

Demographics

The following key demographic areas have been emphasized: population trends (comparison between nation, state, metropolitan statistical area—MSA, city and downtown), population by district, age distribution, income and education.

Downtown Population

The information in Figure 9 provides a snapshot of the Downtown area in which most of the study area is included. This table shows the population growth rates from 1990 to 2010 using Census Bureau data. Between 1990 and 2000 the population grew steadily in all areas except for the City of Richmond, which lost in population during this period of time. However, between 2000 and 2010, all the areas increased in population. The Downtown area has grown substantially from 2000 to 2010 (67.5%), having the highest growth rate compared to the other areas. This positive change represents an opportunity on the future development for Downtown districts which includes Industrial Manchester.

**Figure 9: Table of Comparison of Downtown Richmond Population in 1990, 2000 and 2010**

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>Total Change 1990-2010 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>248,709,873</td>
<td>281,421,906</td>
<td>308,745,538</td>
<td>24.1%</td>
</tr>
<tr>
<td>Virginia</td>
<td>6,187,358</td>
<td>7,078,515</td>
<td>8,001,024</td>
<td>29.3%</td>
</tr>
<tr>
<td>Richmond MSA</td>
<td>949,244</td>
<td>1,096,957</td>
<td>1,258,251</td>
<td>32.6%</td>
</tr>
<tr>
<td>City of Richmond</td>
<td>203,749</td>
<td>197,790</td>
<td>204,214</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Downtown Richmond</strong></td>
<td><strong>6,001</strong></td>
<td><strong>6,117</strong></td>
<td><strong>10,244</strong></td>
<td><strong>70.7%</strong></td>
</tr>
<tr>
<td>Industrial Manchester</td>
<td>--</td>
<td>102</td>
<td>528</td>
<td>418%</td>
</tr>
</tbody>
</table>

*U.S. Decennial Census 1990, 2000 and 2010*
Comparison of Downtown Population by District

Industrial Manchester is one of three least populous districts of Downtown Richmond. However, it is important to note from 2000 to 2010 the Industrial Manchester district has increased in population by 418% (See Appendix B for details). The development of industrial buildings into residential or office uses has contributed to increased population in areas such as Industrial Manchester, Shockoe Bottom, the Riverfront and Monroe Ward. However, this development has been largely driven by incentives found in the historic rehabilitation tax credit programs tied to a limited building stock. This data suggests the need for new forms of incentives for planning and development.

Figure 10: Chart of Comparison of Downtown Population by District

U.S. Decennial Census 2000 and 2010
Industrial Manchester Population by Age

While the majority of the Downtown population is between the ages of 18 and 24 (37%) and between the ages of 25 to 34 (27%), a majority of this young population is concentrated in Shockoe Bottom and Monroe Ward (see Appendix B for details). Figure 11, shows the majority of the population for Industrial Manchester is working class from 25 to 64 (54%). This could reveal that people living in Industrial Manchester reside there because it is close to commute to downtown for their jobs or for studying purpose. Figure 11 also reflects the low percentage of children living in Industrial Manchester. Lack of amenities to accommodate children and lack of schools and childcare in the area contribute to the lack of families in Industrial Manchester. This finding clearly reveals the inability of the district to attract families with young children.

Education and Income by Census tract

Education level reflects the quality of the workforce and availability of workers with a specific level of formal education. The ability not only to attract but also retain a highly educated population is a major challenge of any competitive metropolitan area. The Census Tract 610 covers Industrial Manchester; this Census Tract also covers the Manchester residential area to the southwest of Industrial Manchester.
The following observations have been made in reference to this tract:

Figure 12 illustrates the percentage of adult population (age 25 and older) by level of education. As of 2010, 24.9% of Manchester's adult population possessed a bachelor's degree or higher. This is actually close to the national average, which is 27.7% (U.S. Census Bureau). It is important to note, however, this number included students living temporarily in Industrial Manchester while studying at Virginia Commonwealth University (VCU).

**Median Earnings**

Education level is directly related to an individual's potential wages and provides context for understanding the study area's economic situation and the impact on its residents. The table below compares the annual median earning between the U.S., the State, the MSA, the City, the Downtown, and Census Tract 610 (Manchester). Interestingly, while the percentage of people with higher education in Manchester is similar to the U.S., income levels were noticeably different. The annual income for Manchester is approximately $24,472 compared with the nation’s median income of $51,914. Again, these numbers could be driven by students with temporarily low incomes, not necessarily reflecting lifestyles or future income potential of the area. In addition, a large majority of households who lived in the Industrial Manchester are renters (i.e., there are 329 renter-occupied housing units and 6 owner-occupied housing units).

**Figure 13: Table of Comparison of Median Income**

<table>
<thead>
<tr>
<th>Location</th>
<th>Median Income (2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>$51,914</td>
</tr>
<tr>
<td>Virginia</td>
<td>$61,406</td>
</tr>
<tr>
<td>Richmond Metropolitan Area</td>
<td>$57,543</td>
</tr>
<tr>
<td>City of Richmond</td>
<td>$38,266</td>
</tr>
<tr>
<td>Downtown Richmond</td>
<td>$33,203</td>
</tr>
<tr>
<td>Census Tract 610</td>
<td>$24,472</td>
</tr>
</tbody>
</table>

*U.S. Decennial Census 1990, 2000, and 2010*
Zoning

To begin implementation of *The Richmond Downtown Plan (2009)*, while supporting ongoing revitalization and reducing the need for applicant-driven rezoning, Manchester went through a rezoning process starting in 2009. This rezoning effort was the first time any kind of form-based zoning was attempted in Richmond, with criteria for urban design elements like fenestration. Although the end result was largely watered-down and arguably not truly form-based, it is still notable for Richmond. Industrial Manchester Urban Design Framework is continuing the legacy and intent of that rezoning.

The new zoning categories of Industrial Manchester allow for a more mixed-use development. The new RF-2 (Riverfront District), which allows tall buildings with a maximum of 13 stories, represents the opportunity to increase density in order to improve the infrastructure and create amenities such as open and public spaces to make the area attractive to residents, workers, visitors and families with children (the primary concerns of client and residents). Also, the high number of vacant buildings and vacant parcels represents an opportunity to align infill development to meet sustainable goals. Figure 14 shows the largest single study area zoning category is B-7 (Mix-Use Business District) followed by B-6 (Mixed-Use Business District) and B-5 (Central Business District) while RF-2 is concentrated in the northern part of Manchester. To the south of Maury Street zoning has kept its original category which is M-2 (Heavy Industrial District) and some industrial businesses such as Petro Supply Inc., Richmond Pressed Metal Works, Citgo Terminal and the Waste and Water Treatment Facility are located here.

Brief descriptions of existing zoning districts are as follows:

**Riverfront District (RF-1):**

- Modest-scale planned mixed-use development in a manner that will protect prominent views of the James River from public spaces and encourage public and private use of access to the riverfront.
- No building or combination of multiple buildings, whether such buildings are on the same lot or on multiple lots within the same development site, shall exceed a total dimension of 300 linear feet of street frontage.
- *Maximum height.* No building shall exceed six stories in height.
- *Minimum height.* No building shall be less than two stories in height.

**Riverfront District (RF-2):**

- Medium-scale planned mixed-use development.
- No building or combination of multiple buildings, whether such buildings are on the same lot or on multiple lots within the same development site, shall exceed a total dimension of 300 linear feet of street frontage.
- **Maximum height.** No building shall exceed 13 stories in height.
- **Minimum height.** No less than two stories.

**Central Business District (B-5):**
- Permitted principal uses include dwellings, offices and commercial uses such as art galleries, restaurants and dry cleaners.
- **Maximum height.** No building shall exceed five stories in height.
- **Minimum height.** Every main building shall have a minimum height of no less than two stories.
- Story height shall be no less than ten feet and no greater than 15 feet.

**Mixed-Use Business District (B-6):**
- **Maximum height in general.** No building shall exceed four stories in height. Exceptions may be considered in special cases.
- **Minimum height.** Every main building hereafter constructed shall have a minimum height of no less than two stories.

**Mixed-Use Business District (B-7):** Intended to promote enhancement of the character of mixed-use areas that are undergoing revitalization and adaptive reuse.
- **Maximum height in general.** No building shall exceed five stories in height.

**Heavy Industrial District (M-2):** This district permits many intense uses that are not allowed in any other zoning districts within the City of Richmond.
While rezoning of Industrial Manchester permits a mixed-use neighborhood, there is still the need to set up requirements to provide a public pass-through within a certain distance of a public ROW, breaking up a large industrial block into pedestrian-friendly dimensions. According to stakeholders this dimension cannot be arbitrary and it needs to be an illustrative tool to show developers where this break could potentially go. For instance, new development on large parcels on long blocks should include new publicly-accessible mid-block alleys of 20 feet at least.

While the architectural texture of old brick industrial buildings are attractive for some businesses seeking workspaces with more character than many contemporary office buildings offer, there is of course a finite supply of such historic buildings. However, there are basic physical features of these old industrial buildings that should be noted and applied to new buildings (such as open flexible interior spaces). It is important to find out what are those architectural features that reinforce existing character of Industrial Manchester and blend them with new features (that do not currently exist) to create an attractive neighborhood. The new Industrial Manchester can be a dynamic blend of historic preservation and new construction.

For additional information on the City of Richmond Zoning Code, see: www.richmond.gov.com/planninganddevelopmentreview/documents/ZoningOrdinance.pdf.

**Land Use**

The current fabric of the Industrial Manchester Neighborhood reflects its diverse history. Industrial buildings, housing units, offices and social institutions are located side-by-side and sometimes even in the same building with no single use predominating. *The Manchester Area Transportation and Land Use Study* is one of the latest documents the City of Richmond has created for the Industrial Manchester Neighborhood. This document shows a Proposed Land Use developed during the April 2013 community design workshop and its concept supports the mixed-use character of the neighborhood. Also, this proposed land use aligned current re-zoning of Industrial Manchester and seems to follow the current growth pattern of the neighborhood.

There are six categories of land uses proposed in *The Manchester Area Transportation and Land Use Study*:

**Civic (CIV):** The intersection of Hull Street and Commerce Road and the two blocks in front of the Manchester General District Court. While Commerce Road divides Manchester into the residential area and the mixed-use area, having a civic area in between will create a common ground.

**Commercial (COMM):** Maury Street and 4th Street. These two streets have a direct connection to interstate 95; locating uses such as gas, grocery and convenience stores in this intersection offers travelers a stop for commercial necessities.
High-Density Mixed-Use (HDMU): Semmes Avenue and part of 7th Street (the entrance to the Manchester Bridge). This proposed land use encourages more office development along Semmes Avenue and reinforces efforts to continue the growth of northern Manchester businesses.

Medium-Density Mixed-Use (MDMU): Hull Street, the blocks between 6th and 7th and the southeastern leg of Commerce Road. This allows the renovation of existing buildings.

High-Density Residential (HDR): The northern area of Industrial Manchester. Having the high-density residential land adjacent to high-density mixed-use assumes that a new downtown area in Industrial Manchester will evolve.

Medium-Density Residential (MDR): Intended to allow various types of residential development.

Figure 15: Latest Proposed Land use for the Study Area

Source: Manchester Area Transportation and Land Use Study (2013)
Desirable Views and Vistas

Figure 16: Desirable Views and Vistas
Notice the land drops down dramatically toward the James River until it reaches 6th Street. The Reynolds South site is strategically located in this topography change. This dramatic change on elevation can be an opportunity to create a series of terraces to have a natural amphitheater with downtown as a scenery while enhancing the edge (boundary) of the area.

Note: Every topography line in this model represents 10’. 
The Public Open Space

“Public spaces are favorite places to meet, talk, sit, look, relax, play, stroll, flirt, eat, drink, smoke, people watch, read, soak in sunshine and feel part of a broader whole” (www.pps.org).

Aside from the Riverfront area as a future public park along the James River, Industrial Manchester currently lacks public open spaces. One of the primary objectives of this plan is to suggest a network of open spaces to serve the Industrial Manchester existing and anticipated population. Latest planning effort, the Manchester Area Transportation and Land Use Study (2013), recommends the acquisition of specific blocks for a civic open space (two adjacent blocks to the Manchester Court) as a long-term goal (refer to Figure 15, for latest proposed land use for the study area). The Industrial Manchester Urban Design Framework seeks to further define and offer potential solutions to provide the neighborhood with open spaces.

This section analyzes one of the most important Industrial Manchester open spaces, the streets:

- Street character
- Distinctive elements of the study area: Kevin Lynch map

Figure 18: Riverfront Plan Proposal (2012). “It is imperative to reincorporate the Reynolds blocks back into the Manchester street grid by reopening closed streets to full access.”
Street Character

“Streets are not just for movement, but for slowing down to socialize and take in the rhythms of the city” (Central Corridor Plan 2013).

The industrial history of Industrial Manchester has resulted in major streets designed primarily to move railcars, automobiles and trucks through the district. The existing street network is comprised of a grid of one-way and two-way streets with three major roads: (1) Hull Street (allows entry to Industrial Manchester through the Mayo Bridge); (2) Commerce Road (allows entry to industrial Manchester through the Manchester Bridge); and (3) Maury Street (allows entry to Industrial Manchester through Interstate 95) while the narrower, minor streets typically serve local needs.

Commerce Rd. and Maury St. (boundaries of Industrial Manchester) separate Industrial Manchester from adjacent neighborhoods because they lack social spaces for interaction and exchange.

After field trips and conversations with the client and residents of Industrial Manchester, it is concluded that 6th street has the distinction of being the only street cutting all the way across the Industrial Manchester area. 6th Street also has the unique potential of connecting the neighborhood with its riverfront (north area of the riverfront). Meanwhile, 7th street has developed into a mixed-use street with very attractive local small businesses. 7th street has a great pedestrian feeling due to its great sense of enclosure. 6th and 7th streets have become starting points for changes in Industrial Manchester.

For that reason, discussion in this document centers on identifying streets that local residents are already using because they have found them to be safe, useful and comfortable. “By studying existing conditions we can see where streets are most ready or most needed to support pedestrian life and focus there”. As Jeff Specks (2013) argues with the concept of “Urban Triage,” these are the winner streets in which planners should focus first. By taking the momentum created by recent re-development in the north portion of 7th Street, this document will focus in this area, reinforcing its success. As Speck said, “this technique of Urban Triage may seem mercenary and unfair, but it results in money being spent wisely.”
For purposes of this study, other than the highway, streets are classified as follows (this classification has been made having the South Lake Union Urban Design Framework 2010 as a model):

**Boulevards:** (Commerce Road and Maury Street) Streets of grand scale or importance; usually commercial corridors with relatively high density. Medians may be appropriate to cross on these wide boulevards.

**Corridors:** (Hull Street) This portion of the Hull Street corridor has many small, locally-owned stores and concentrates retail activity at major intersections. Industrial structures in the corridor serve primarily light industrial uses. There is the opportunity to integrate a multimodal transportation equalizing the priority of all forms of transportation.

**Mixed-Used Streets:** (7th St) are streets with a mix of commercial, residential and business at local level, containing less traffic volume than the boulevards and corridors. Recommendations should include the provision of streetscape elements such as wide sidewalks, lighting, trees, bike racks, benches, etc. There is great chance to pattern a series of open spaces on the “missing teeth” of these streets as an important element in shaping future development. These streets may contain transit, but may not be primary routes.

**Festival Streets:** (north section of 3rd and 2nd Streets currently used for the Earth Day Festival) are flexible use streets that are easy to close for specific time periods. Recommendations need to emphasize the idea of closing these streets to traffic, transforming them from road to open space.

**River Connectors and Neighborhood Streets:** (6th, 5th, and 4th Streets) are standard local access streets with low traffic volumes.
Distinctive Elements of the Study Area
(Kevin Lynch Map)
Kevin Lynch’s understanding of the role of streets has had a tremendous impact on the evolution of wayfinding design. Lasting mental images of the city are dependent on the legibility of the urban fabric and clarity of five spatial-organizing features (www.restreets.org/wayfinding): Paths, edges, districts, nodes and landmarks. By manipulating these elements, it is possible to alter image ability to provide a unifying theme, or to protect assets, in the study area.

Paths are channels along which observers travel or move - streets, walkways, canals, etc. Primary paths within the study area are: 7th Street and Hull Street. Identification of the paths in the neighborhoods is important since they help to organized or prioritize urban design strategies.

Edges are linear elements either not used or considered by observers as paths. They usually are the boundaries between areas. The major edges in the study area are: Commerce Road, Maury Street, the railroad tracks located between the Riverfront and the Industrial Manchester Neighborhood, the Manchester Floodwall and the James River.

Districts are medium to large sections of a city with a common character or identity. Industrial Manchester is divided into sub-area districts based on physical characteristics such as density, uses and activities.

Nodes are point references. They are typically strategic points in the urban fabric that observers can travel to and from. According to Lynch nodes are possible “junctions, places of a break in transportation, across or convergence or paths, moments of shift from one structure to another.” They can also be concentrations of any type, or strategic spots. Nodes in our study area can be divided into major and minor nodes. Major nodes are street intersections that hold heavy traffic and present traffic signals. Minor nodes on the other hand, are not signalized.
Landmarks are other types of reference points typically easy to identify. In contrast to nodes, these are external to the observer and create a local contrast with the surrounding area. The following buildings can be considered as landmarks within Industrial Manchester: Old Dominion Railway Museum, Manchester Courthouse, Sun Trust, Legend Brewing Co., the Corrugated Box Building and the Plant Zero Gallery.

The Architectural

“The architectural expression of new infill development should reference the rich historic context … speaking to the present without discarding the past, creating the next generation of landmark structures and neighborhood places...” (Richmond Riverfront Plan 2012).

In shaping future growth, we must consider architectural design principles and rules that will enhance the existing landscape and also add new elements that reinforce existing patterns and positive qualities of a place, in order to provide the neighborhood with a unique identity and character.

This section refers to the physical configuration of individual buildings as well as its combined effect:

- Figure ground
- Identification of design features
- Current development trends

Figure Ground

Figure ground drawings are used to show the relationship between buildings and voids. The black color represents buildings and all open spaces are left white. Looking at the figure ground of Industrial Manchester the following observations were made:

- Huge gap (vacant parcels) in the center and south of Industrial Manchester.
- Streets containing most of the buildings are: Decatur St. (west to east), Stockton St. (west to east), 6th Street (north to south) and
7th Street (north to south).

- Nodes that are very well defined are the intersections of: Decatur and 3rd Streets, Decatur and 4th Street, Porter and 7th Streets and Hull and 3rd Streets.

### Identification of Design Features

#### Building Design (massing, scale, proportion, rhythm and materials)

- Buildings are separate and set within small, regular and rectangular city blocks (blocks are 380’ x 300’ approximately).
- Setbacks from the street are narrow or flush with the street in most of the cases, as industrial uses have traditionally maximized building footprints on parcels.
- Buildings are generally low-rise (two to five stories).
- Most doors and windows face the street; although some historic buildings have closed some doors and windows in order to accommodate current housing demand (refer to Figure 23 and 23.1).
- Lack of elements (streetscape and pedestrian amenities) that connect buildings, missing the sense of unity.
- Most of the industrial buildings have preserved their natural brick material and color.
- Newer commercial and residential construction (the west side of Commerce Road) does not reinforce the character of the historic industrial buildings.

#### Design Elements (street views and movement, enclosure/exposure)

- Since the blocks are relatively small, the street is visually dynamic, and it gives the sense of movement. However, there is limited visual street hierarchy and focal points giving pedestrians a reason to stop.

*Figure 23 and 23.1 (top and middle): Building on Decatur St. has closed some doors to accommodate current residential use.*
*Figure 24 (bottom): Newer residential construction on the West side of Commerce Road, occupying an entire city block, does not reinforce the character of Industrial Manchester.*
*Source: www.Styleweekly.com*
Industrial Manchester Current Development Trends

Following are some of new buildings in the study area:

- Reynolds South Office and Residential Building on:
  E. 7th street at Porter Street.
- Reynolds South Apartments on:
  Hull Street and 6th St.
- Hatcher Tobacco Flats on 101 W. Commerce Road

Figure 25: Current Development Trends
List of Assets and Challenges

Assets
- Diverse uses
- Numerous undeveloped or underdeveloped sites: Surface parking and single-story commercial buildings
- Good existing connection to the local and regional street network
- Proximity to Downtown Richmond
- Bridges offer a unique setting of connectivity
- Public transportation (GRTC)
- Adjacent to the James River
- Elevated topography
- Industrial heritage provides a fabric of diverse buildings making the area unique
- Regular grid pattern (which makes destinations easy to reach)

Challenges
- Lack of a sense of place
- Lack of public spaces of any type: active or passive recreation
- Lack of outdoor spaces for outdoor dining and relaxing
- Lack of community events
- Uncoordinated development (consequently, inappropriate new development)
- Poor conditions of the streets
- Lack of streetscape
- Commerce Road is a physical barrier for pedestrians and divides the district
- Parking requirements are impeding development (long-term lease parcels)
- Too much surface parking
- Lacking visual and physical connection to the river