APPENDIX A CYBER-PROFILE – PHYSICAL ANALYSIS

GENERAL COUNTY CHARACTERISTICS

URBAN DESIGN ISSUES

- 2.1 Activity Centers
- 2.2 Legibility and Imageability
- 2.3 Disconnections
- 2.4 Development Forces

CONCLUSION

The purpose of the Cyber-profile is to examine both the physical and virtual forces which have, are, and will continue to effect economic growth, quality of life, and the perceptual image of Hudson County. The document inventories the physical elements and systems at play, synthesizes the resultant trends, and points to critical relationships which will become the springboard for recommendations.

1.0 GENERAL COUNTY CHARACTERISTICS

"A highly imageable (apparent, legible, or visible) city in this peculiar sense would seem well formed, distinct, remarkable; it would invite the eye and the ear to greater attention and participation. The sensuous grasp upon such surroundings would not merely be simplified, but also extended and deepened. Such a city would be one that could be apprehended over time as a pattern of high continuity with many distinctive parts clearly interconnected." – Kevin Lynch, The Image of the City

According to Kevin Lynch's principles put forth in "The Image of the City," good city form is defined as a clearly readable and understandable place where each of its parts relate to an identifiable whole. As observed by Lynch in the 1950's, Jersey City's physical form does not adhere to this structured development pattern. In fact, the same can be said of all of Hudson County, as its dynamic urban patterns distribute a variety of uses and images across its cities. While this condition has sometimes been identified as a liability, Hudson County has sustained some of the most robust growth in the region over the past decade.

These contradictory behaviors make Hudson County a particularly fascinating piece of the New York City Metropolitan area. Its proximity to one of the world's largest markets has historically had a profound impact on the County's development patterns, neighborhood life, and image. As stated in the Hudson County Strategic Plan, the region is an 'urban complex', one that is characterized by unique physical conditions due to the intensity of Hudson County's geo-political position.

Due to its strategic position, Hudson County is subject to numerous development forces that reflect the County's global, regional, and local exposure. These forces are varied and flexible, creating an environment of constant social and economic transformation. Proximity to one of the worlds busiest airports and ports combined with an extensive network of telecommunications infrastructure has made Hudson County and its supporting uses an integral component of New York and New Jersey's economy as well as a key hub in the global economy. Multiple transportation networks connect Hudson County to the region and have made many portions of the County valuable for new development. A constant influx of new immigrants have consistently brought vitality to many neighborhoods offering unique services and commercial opportunities that remain a crucial component of the County's economy and continued success. Furthermore, the waterfront redevelopment activities tied to regional and global companies provide the most visible sign of the County's advantages for investment and growth. The resulting physical pattern is extremely varied and reflects the local advantages that various sites have with respect to infrastructure, location and adjacent uses.

Perched along the Palisades between Newark and New York City, Hudson County's physical image is malleable, changing dramatically from one area to another. It exhibits a mix of traditional urban neighborhoods from row-home to detached dwelling streetscapes, suburban style housing and strip commercial development, active industrial areas, high profile tourist amenities and Manhattan-style skyscrapers. This variety of physical characteristics is concentrated into a rather small geographic area creating a patchwork of diverse imagery, building scale, architectural style, and social diversity, whose pieces are often separated by the County's many physical boundaries.

These physical separations are typically created by the various transportation infrastructures which service the County. Highway overpasses, railroad grade-crossings, retaining walls, and high-traffic

arteries all contribute to the divided nature of the region. However, at the same time, it is this remarkable concentration of infrastructure (both transportation and digital) that has permitted rapid economic growth in specific sectors such as back office, regional headquarters, warehousing, distribution, and accompanying commercial and residential.

Despite the physical fragmentation, there are some clear patterns. The main concentration of local activity stretches along the center of the County as a spine from Bayonne to Union City following the palisades. In this zone we find the majority of traditional urban fabric in the form of neighborhoods, local commercial corridors, and community institutions (schools, churches, etc.). East of the palisades, along the Hudson River waterfront, the burgeoning global, national and regional office and residential nodes are taking advantage of underutilized land and views of the New York City skyline. West of the palisades adjacent to the Meadowlands and Newark, a concentration of auto-oriented commercial and truck-oriented industrial and distribution takes advantage of vehicular access routes like Highway 440, Routes 1 & 9, the NJ Turnpike, and the Pulaski Skyway.

Within this patterning of uses and images are highly identifiable landmarks that orient people within the County. One of Hudson County's most powerful and visible landmarks is that of the New York City skyline. Its looming presence is a daily reminder of its integral relationship to a burgeoning regional economy. Other distinct visual elements are scattered throughout the County in much the same way its commercial services and regional activity centers are deconcentrated inhibiting one, or even a few, distinct physical and social centers for the County.

Specifically, Hudson County's key physical characteristics are represented and shaped by the following:

- Multiple and varied activity centers that have further decentralized the County's traditional commercial and regional nodes.
- Readability and legibility of the County fabric.
- Dis-connectivity as evident through physical and social boundaries.
- Multiple development forces stemming from global, regional and local market influences.

The result is a unique physical environment characterized by marked contrasts in architectural style, physical condition, and density; the result of equally diverse collections of ethnicity, wealth, commercial services, education, etc.

2.0 URBAN DESIGN ISSUES

2.1 Activity Centers

Activity centers play a critical role in providing economies of scale and the necessary services that support the growth of both residential and office developments. As mentioned in the "Hudson County Cyberdistrict Feasibility Study Briefing Book" completed in the first phase of this study, new technologies can bring a range of services to these centers at a reduced cost and have long term benefits. However, each type of activity center necessitates a different strategy for integrating new technologies as each has different needs, markets, uses and relationships to the existing context.

This environment of multiple scales, infrastructures, and identities yields an urban region containing numerous activity centers. Unlike many traditional urban regions, where specific cities and towns have clearly defined, unique centers or central corridors, Hudson County has many different clusters and corridors of intense commercial and industrial activity often traversing political boundaries. It is common for a series of municipalities to share the same 'Main Street' (e.g. JFK Boulevard is a major commercial strip for North Bergen, Jersey City and Bayonne).

Considering the shared nature of and blurred boundaries between many Hudson County activity centers, this report organizes them generally by type rather than by place. A good example of the ambiguous roles these centers play is contained in Journal Square and Newport in Jersey City. While Journal Square has traditionally been referred to as Jersey City's central business district, recent office development along the "Gold Coast," is having an immense visual impact on the City as new high rise buildings take advantage of the tremendous views of the New York City skyline. This sort of image contradiction occurs throughout the County and is a signal that the role of 'center' in Hudson County must be reinterpreted.

2.1.1 Global Office

Commercial development along the Hudson waterfront, emanating from developments like Exchange Place, Newport, Liberty Harbor and the Hoboken Waterfront are having the most pronounced visual impact on the County. Capitalizing on the amenities the waterfront provides, these centers now contain new offices that are often one component of globally oriented corporations, residential units and some retail. Their location adjacent to public transportation including PATH (in some cases), light rail and ferry service provide a valuable amenity and lure for New York offices seeking lower rents and attractive office space. The majority of these centers have been created from the ground up over the past two decades and in many cases have tenuous relationships with surrounding neighborhoods and uses. Except for Newport which includes a large mall and other retail uses, many of these centers are not fully activated in the evening owing to their design and use. They are also well wired, capitalizing upon the expansion of the fiber network in the County. Representative examples include:

Port Imperial Liberty Harbor Hoboken Northern Waterfront Hoboken Southern Waterfront Newport Harborside Exchange Place Colgate

2.1.2 Regional Office and Warehousing

Secaucus, the western edge of North Bergen and Kearny reflect another type of activity center related to office uses and warehousing and distribution. As single use enclaves, these areas provide larger space for companies that need local distribution and back office space that serve the New York region. Unlike the global office spaces along the waterfront that are connected to a variety of transportation options, these centers are often solely connected to highways and limited bus services. The character, therefore, is one of large floor plate buildings with parking lots. There are typically limited supporting uses within walking distances and most employees are forced to drive to work as they are isolated from residential areas. The transportation cost advantage, however, greatly favors this area for these uses which plays an important role in New Jersey's economy.

In the last decade, these uses in Secaucus and North Bergen have spawned a new concentration of activity – television studios. Due to cost, location and the availability of large pieces of land, 5 television stations have operations in the area and another network has recently constructed a studio to film the show "Law and Order." Most of these uses incorporate satellite dishes for wireless access to technology necessary for their continued use.

Smaller regional industrial centers exist in Bayonne, Jersey City and northeastern Hoboken. These are linked to either highways or waterways and reflect the integrated nature of the County's past economy.

2.1.3 Regional Automobile Oriented Commercial

Along many of the highways and arterials that dissect the County are concentrations of auto-oriented 'strip' and 'big box' commercial centers that reflect retail market trends for larger stores that draw from a wider market area. These areas are typically located along the peripheries to accommodate the large buildings and extensive required parking to remain viable. In some cases, such as Route 440 and Passaic Avenue, these uses are in close proximity to dense, urban neighborhoods. Others remain firmly isolated and accessed only by arterials and highway exits. Representative examples include:

Route 440 in Jersey City, Tonnele Avenue in North Bergen, Bergenline Avenue in Union City, Mill Creek Mall and Route 3 in Secaucus, and, Passaic Avenue in Kearny.

2.1.4 Regional Commercial Center

Beyond the retail, office and industrial concentrations noted above, there are few commercial centers that reflect a traditional mix of new and old office buildings, associated retail and residential uses.

Created as Jersey City's business center, Journal Square continues to illustrate many of the problems typical of downtown business districts. While it is the geographic center of the City, it is poorly connected via city streets to other areas of the City. Newark Avenue and Montgomery Avenue, the main avenues connecting recent development Downtown to Journal Square are not direct links and JFK Boulevard and Bergen Avenue, the main north south connections to the Square, are continually congested. The construction of the transportation center has had a further negative effect taking buses off of the street and further pedestrian activity. However, while the area's retail activity has struggled, office vacancy remains low. The concentration of institutional offices (Journal Square is the location of the Hudson County seat) combined with its relationship to residential areas that Downtown centers do not have, presents many opportunities for the Journal Square area to act as a viable mixed use City center. Associated with adjacent areas like Bergen Square, the area's artificiality in creation can take a more convincing posture by utilizing the quality and varying scales of the older structures, addressing parking issues and retail potential, and reevaluating the PATH station and its role in the area's future development.

Adjacent to Exchange Place is the Grove Street commercial node that combines one high rise office structure with other city offices in Jersey City's City Hall and neighborhood commercial uses extending along Newark Avenue. While Grove Street does not have the scale of Exchange Place it contains an intensity through its retail component that is vital to the Downtown area. The Grove Street PATH station is the physical centerpiece to the area in location but is in need of improvements to instigate further economic activity. Both Newark Avenue and Christopher Columbus Drive represent significant opportunities to expand commercial services that are surrounded by well-established neighborhoods.

Hoboken represents another commercial center that combines older uses with new development.

Office uses, a transportation hub and a vibrant mixed-use corridor along Washington are the main components of the area. Unlike newer developments in Jersey City along the waterfront, this area is well connected to adjacent neighborhoods and integrated with a large, public open space along the waterfront.

2.1.5 Tourist Destinations

Tourist destinations such as Liberty State Park, Ellis Island, The Liberty Science Center and the Statue of Liberty further affirm Hudson County's global and national presence. These destinations have further reclaimed former industrial land for active waterfront uses, but remain contained along the waterfront served primarily by the NJ Turnpike and public transportation from New York City.

The Meadowlands Commission is looking into opportunities for eco-tourism within their area as well as new public facilities such as a golf course to attract more people to the region for leisure. These efforts will be further supported by the construction of the MetroStars stadium in Harrison due for completion in 2003.

Although tourism is not a major component to the County's economy, increased interest by government agencies and the high profile attraction that currently exist in the County forecast the opportunity to further support efforts that will further elevate the attractiveness of the County for a variety of uses. Current areas including the Statue of Liberty, Ellis Island, Liberty State Park and the Liberty Science Center are already recognized attractions and are the foundation for the County's tourist destinations.

2.1.6 Neighborhood Commercial

Supplementing the larger uses in the County are a series of neighborhood commercial corridors that contain a mixture of small stores, day care facilities and other services. The diversity that is exhibited across the County is an example of the various methods to retain viability in an age of increased competition and changing patterns of shopping. Corridors such as Bergenline Avenue in North Bergen and Union City as well as Central Avenue in Jersey City are thriving retail corridors with coordinated marketing efforts and events. Others have received a lot of public funding including the HUB project along MLK Boulevard in Jersey City. Many, including Park Avenue in West New York and Broadway in Bayonne contain a core of services but are struggling to find new ways of re-instilling their role as a true neighborhood center. Representative examples include:

Newark Ave, Jersey City
Bergenline Avenue, North Bergen and Union City
New York Avenue, North Bergen
Park Avenue, West New York and Weehawken
Kearny Avenue, Kearny
Frank E. Rodgers Boulevard, Harrison
Broadway, Bayonne
Washington Street, Hoboken
Central Avenue, Jersey City
Patterson Plank Road, Secaucus
Broadway, North Bergen
West Side Avenue, Jersey City
Bergen Avenue / Martin Luther King Drive, Jersey City

2.1.7 Emerging Centers

It is important to note that the existing centers may not fully describe the important spaces in the County where the application of new technologies is the most beneficial. New centers are emerging that should be considered. These include the Military Ocean Terminal redevelopment, the Harrison Redevelopment, and Liberty Harbor North to name a few prominent examples. In these cases, large redevelopments will be created from the ground up integrating new technologies as part of the overall services and marketing strategy. It will be important to evaluate the opportunities for using technology in specific ways to support these efforts.

Other critical examples include existing and future stations along the Hudson-Bergen Light Rail Transit System which is designed to improve transportation options and use within the County by providing enhanced access and connections to other transportation systems including park and ride lots, PATH stations, and ferries. These transfer points are opportunities for adding additional services to reinforce the importance of these assets and create stronger centers of services for the County's neighborhoods.

2.2 Legibility and Imageability

The disjointed experiences within our current metropolitan regions place a greater emphasis on image to further market an area's advantages in terms of quality of life. Faced with an expanding market and increasing competition, it is important to understand the collective imagery of a place through a combination of marketing images and perceptions as well as the physical image presented through a city's streets, plazas, buildings, and infrastructure.

Hudson County and its municipalities lack the sense of a whole that other cities like Philadelphia or New York City have captured. Its past reliance on the rail industry has provided the opportunity for re-birth with large tracts of land suitable for redevelopment. New architectural spaces, scales, and styles are evident throughout the County, further distinguishing existing images of historical neighborhoods and industrial spaces from images of an expanding global economy along the waterfront.

The varying development styles are partly in response to the County's physical image that is as complex as its network of movement systems. Different styles of development, including suburban strip malls, gated housing developments, industrial parks, and financial business cores, are all compacted in a tight urban framework. Composed of a dozen individual municipalities, there is no real street hierarchy with any one corridor serving as the ideological County-connector and activity focus for the County. Instead a series of highly traveled streets - Montgomery Street, JFK Boulevard, Communipaw Avenue, Bergenline Avenue, Kearny Avenue, Patterson Plank Road, Grand Avenue, Washington Street and Broadway- wind residents and visitors through the County. Some of these streets, like Bergenline Avenue, take on special importance in particular areas due to the active uses located along them that rarely physically continue from one end of the County to the other with the same intensity or type of development. While one of its most unique aspects, the fact that the County does not follow an organized or regularized development and street pattern does create problems in visualizing and rationally understanding the area and the location of its primary assets and services. As opposed to traditional cities where the locations of these primary assets are often readily apparent by landmark buildings or distinct district characteristics, street signs in Hudson County become a primary method for visualizing the environment.

As waterfront property has become available for redevelopment, developers have attempted to address the missing image and 'aura of prestige' necessary for high-end uses. As noted in the 1984 Jersey City Waterfront Master Plan, "each developer will be trying to create this aura on his own; at the same time, the City government will be using the combination of the proposed developments to show that the City has been turned around." In response, developers have marketed large scale developments in the image of other places ("Venice" & "Wall Street" for instance) or simply marketed endeavors as a "city within a city."

2.2.1 The Image of Infrastructure

An integral aspect in the image-making of these large scale developments was the use of telecommunication infrastructure as an active marketing tool – eg. "Silicon Valley East" (http://www.jcedc.org/). The use of the word "Silicon", combined with visible satellite dishes and other signs of a 'high-tech' environment exhibited in photographs and narratives on the internet, is a conscious effort to heighten the role of the existing infrastructure to support the growth of corporate uses. Regarded as "the low-cost provider of space" (Garbarine 1999), the infrastructure has spawned a back-office concentration in the County.

The telecommunications infrastructure is reflective of wider trends where the city's image is shaped by external forces. Unlike Philadelphia, where the city takes ownership of its infrastructure (Philadelphia International Airport, SEPTA) to define a singular urban area, Hudson County's infrastructure is largely owned and operated by outside entities (Newark International Airport, Amtrak, PATH). Despite the internal, divisive effects of infrastructure networks on urban areas, these regional and global connections are an active component in marketing and imaging a place. In this respect, the HBLRT represents an opportunity to provide a highly visible and local image that connects disparate portions of the County.

Originally, the highways served as one of the most valuable connections throughout the region and these connections were evident by their disruptive effect on the physical environment of Hudson County. While these regional connections have been greatly supplemented by public transportation, the perspective of the County from its highways to the uninformed visitor remains as it did when Kevin Lynch studied the City in the 1950s — "it has the appearance of a place to pass through rather than to live in." To the automobile passenger, Hudson County is primarily a system of highways that provide no indication to the physical form of the County's neighborhoods and amenities. Beyond street signs, these highways do not give cues as to where one is in the County and further frustrates a readable understanding of the context.

APPENDIX A
CYBERPROFILE - PHYSICAL ANALYSIS

2.2.2 Portals

Existing portals to Hudson County come in a multitude of forms, none of which fully utilize their potential for signaling the arrival into the area. Entering Hudson County from the north is unnoticeable as the urban form simply continues between Fairview and North Bergen. Other entry points from the west are potentially significant but only functional utilizing bridge crossings over the Passaic. These gateway portals are not unattractive; they simply do not signify the transition from one context to another.

Portals from highways require serious attention to mark the County at its transition points as well as the individual municipalities within it and welcome residents and visitors in a way that orients them to the area they are entering. Most indicative is the 14B Exit from the NJ Turnpike that tourists from all over the country use to visit Ellis Island, the Statue of Liberty and Liberty State Park. The disorienting entry does not only confuse visitors trying to find their way to the waterfront but presents them with images of underutilized land and industrial uses. The same is true of other entranceways that provide an initial image of industrial uses and do not provide any understanding of the assets and services in the area. In order for Hudson County to improve its image to the thousands that come to the County daily, the entry points need to be seriously considered with respect to their immediate surroundings including adjacent land use and style of development.

An opportunity to engage and orient residents and visitors to the important locations within the County is to define and mark these portals. As Hudson County is a collection of varying images depending upon the specific location, each portal should not only represent the County as a whole but the local context in which it is located. However, we should consider not only physical portals but social portals where access to services, training and community functions are available as well. The system of service provision is currently scattered throughout the County but provide opportunities to distinctly reinforce their physical location to lure additional users and expand services.

2.3 Disconnections

The interconnectedness and wide array of land uses in Hudson County illustrates, within a relatively small and dense physical area, a high level of fragmentation between and throughout the County's cities and districts. These barriers frustrate a clear reading of the County's form and isolate specific neighborhoods from supporting services. In addition, the difficulty encountered in navigating the County from one end to the other inhibits residents and visitors from utilizing larger city-wide amenities such as parks and specific commercial services. This is particularly problematic with respect to the County's lower-income residents. These individuals experience not only economic poverty but as important, a "poverty of connections," socially, physically and technologically. Many of the County's residents are tied to local, place-based services and relationships that do serve the full range of needs often required for living in the area. Further, this increases the logistical burdens on these individuals to accomplish basic daily tasks and "it works against people and institutions that may help them to access services, markets, knowledge, skills, resources and employment opportunities."

Within Hudson County's patchwork development pattern, three primary systems of physical barriers are evident: topography and natural features, corridors (such as highways and rail lines), and land use conflicts that divide continuous uses from one another and create separations in the urban fabric. It should be noted that other disconnections exist including a fragmentation of training programs and other services. As a review of physical conditions, these disconnections are not covered in this document but are covered in the Cyber Profile completed for the study.

2.3.1 Topography

Significant topographical features exist throughout Hudson County, often coinciding with real and perceived boundaries between neighborhoods. The Palisades are the most dominant feature, elevating much of the County's center above the waterfront areas from Jersey City northward to the County line. These changes in elevation provide numerous views of the rivers as well as the New York City skyline, but also distinctly separate areas of the County, reinforcing the north-south geometry. For instance, connections between Bergenline Avenue and Hoboken are difficult due to extreme changes in elevation. Even potential connections between Journal Square and Downtown Jersey City must address the topographical differences that facilitate the separation of the two areas. It is important to note, however, that these elevation changes serve as a key method for distinguishing and reading areas of the County.

2.3.2 Corridors

Hosting multiple transportation networks, Hudson County's corridors play a major role in separating larger areas from one another. The Pulaski Skyway, Routes 1&9, Route 3, Route 440 and the NJ Turnpike create strong barriers throughout the County that are often reinforced by the vacant land or industrial property that is adjacent to them. These highways often sever the County's most valuable public amenity, the waterfronts, from the majority of its residential population. In Jersey City for example, Route 440, a high speed, at-grade roadway, not only separates the Hackensack waterfront from the rest of the City but also divides Lincoln Park into two pieces.

Remaining active and inactive rail lines, have left physical barriers throughout the County. These rail lines are often combined with extreme changes in elevation. For instance, downtown Jersey City clearly represents its former industrial nature by the remaining vacant railways that are elevated above the adjacent residential areas. While these barriers are less obtrusive than others, they unnecessarily divide the Downtown residential fabric. Furthermore, the presence of the PATH rail line extending from Journal Square towards Downtown isolates remaining residential uses to the north adjacent to the county courthouse. Combined with the Conrail line running parallel to the NJ Turnpike, these barriers are formidable, distinctly separating Journal Square and surrounding services from Downtown. In other locations like West Side Avenue in North Bergen, the rail infrastructure and surrounding land provide a strong edge between residential areas and industrial development.

2.3.3 Land Use Conflicts

The fragmentation of Hudson County's urban fabric is also exhibited in its land use pattern. As the County was an industrial center, there remain large industrial uses mixed within the residential neighborhoods. These uses isolate blocks of housing and sever their connections to supporting commercial services. However, as the decline in manufacturing has decreased the viability of many industrial locations in urban areas, Hudson County currently exhibits a lot of vacant industrial property in addition to underutilized land. The majority of these inactive uses are concentrated around transportation corridors further strengthening their dividing nature and inhibiting pedestrian connections. In addition, smaller vacant and underutilized properties are prevalent in scattered locations within the neighborhoods challenging pedestrian connections, the viability of commercial corridors, and the marketability of the housing stock.

2.4 Development Forces

In creating a cyber-strategy for the County, our goal is to understand the forces and elements at work, and then to identify the potential opportunities they present. We believe that these opportunities are often found in manipulating the forces -- by amplifying, modifying or minimizing their effects. In other words, how can these elements be utilized in reshaping a future vision for Hudson County?

Below are specific descriptions of the key forces and elements that are acting on the County. These should be seen as a summary listing and represent strengths for the County to capitalize upon in the future.

2.4.1 Global Connections

The County is positioned within an intense network of global transportation and digital infrastructure. These connections have various arrival and departure locations within and adjacent to Hudson County as global flows of people, commerce, and information mingle with the local and regional environments. Once the terminus for freight between New York City and the mainland during the railroad era, Hudson County remains at the nexus of one of the busiest cargo transfer zones in the world. Just outside of the County, the Newark Airport and the Ports of Elizabeth and Newark are at the foundation of much of the area's prosperity. Newark Airport is the 13th busiest passenger airport and the 15th busiest cargo airport in the world. Further, the Port is one of the largest and most active in the Country.

Moffat & Nichols in their "PREPARING MODERN INTERMODAL FREIGHT INFRASTRUCTURE TO SUPPORT BROWNFIELD ECONOMIC REDEVELOPMENT" report for the New Jersey Transportation Planning Authority, expect a 7% increase in port traffic due to advantages brought by new technologies. The Portway Corridor, a truck only route designed to connect the Port to local freight lines, is one local expression of this anticipated increase in activity.

2.4.2 Transportation

The County's transportation system is varied and reflects the multiple roles the region plays at the global, regional local scales. An extensive regional system of highways and railways traverse Hudson County. This network completes global connections, is a major piece of the Northeast Corridor binding Boston to Washington, DC, and links the major destinations within the New York metropolitan region to Manhattan. Hudson County is the transportation threshold to New York as the highway system culminates at the Lincoln and Holland tunnels. The PATH subway system linking New York City to Newark and Hoboken has five station stops in the County: Harrison, Journal Square, Grove Street, Exchange Place and Newport City. [note: due to 9/11, the Exchange Place station is closed until reconstruction is completed under the World Trade Center, however, additional ferry service is taking the lead in providing transportation options for the residents and commuters to New York City]. NJ Transit regional rail service is available in Hoboken and in 2004 through the Secaucus Transfer development. Combined with the HBLRT and the existing NJ Transit bus system, the County serves as a hub for regional multi-modal connections.

The transportation system is one of the largest assets fueling growth of all kinds in the County. From office concentrations along the Hudson River that capitalize upon various transportation systems to distribution facilities that feed off of the highway access and proximity to freight, airport and port routes, it is the most often cited selling point to locating in the area. With the transportation systems acting as such a strong foundation for Hudson County's economy, any strategy relating to new technologies must address their efficiency and attractiveness in the County.

2.4.3 Telecommunications

The New York Metropolitan region has a long and progressive history in the development of digital communications infrastructure. In the 1980's, the Port Authority of New York and New Jersey developed one of the nation's first broad-band fiber networks, linking Manhattan to a satellite communications facility (The Teleport) on Staten Island. The Port Authority utilized its own transportation rights-of-way to route the fiber optic cable and connected the World Trade Center and the Teleport through a telecommunications hub in Journal Square located in Jersey City. Subsequently, the network has been expanded and made redundant making the region attractive to communications dependent businesses of all types from Princeton to Manhattan. A University of Florida study (Malecki 2000) ranks the greater New York City region as the best served urban center in the United States in terms of available bandwidth. The quality of the fiber optic infrastructure, proximity to other office centers and supporting services, has made Hudson County a competitive location for information based business activity.

Locally in Hudson County, concentration of broadband access includes the waterfront, between Jersey City's downtown and Journal Square and in Secaucus reinforcing the location of large employers that have located portions of their businesses such as back office, regional headquarters, and distribution within the County. Verizon, the incumbant local exchange carrier, has updated facilities and offers DSL service through the copper wiring infrastructure to a majority of the County. In addition, 4 of the 5 cable companies offer high-speed cable connections to the internet with the 5th in the planning stages of doing so. Thus, the County is extremely well-served with a number of competitive carriers and low costs to access the infrastructure. Only portions of Kearny, East Newark, southern Jersey City, Bayonne and the northern part of North Bergen do not offer the full range of services available through the various carriers but still contain adequate access to technology.

2.4.4 Waterfront

Consistent with much of the 'Gold Coast,' aptly named for its development potential relating to New York City, new development along the Hudson presents a powerful physical image. Based on an extension of the New York City office and financial market, new high-rise structures are strongly marking the edge of the County. Downtown neighborhoods have consistently served a mix residents, many of which come from New York City seeking lower rents. Recent high-rise and condominium residential development in Newport, Weehawken and Port Liberte and loft conversions in the arts district (WALDO) are no different, marketed toward a New York City residential market. Any view down Montgomery Avenue or Newark Avenue illustrates these structures' relationship clearly as their style and character combined with the immense scale of the New York City skyline in the background create an illusion of one seamless city. As the waterfront fully develops, the completed Hudson County Waterfront Walkway will support these developments by providing a strong regional public attraction along the water's edge.

An ongoing issue with regard to the waterfront development is summed up in a newspaper article a few years ago declaring Jersey City as "A Tale of Two Cities." This reflects the ongoing concerns of rapid and isolated development along the water that are not fully engaging the rest of the County either physically, socially or economically. As waterfront development continues to eat up available space, an upcoming issue and opportunity for the County includes spreading the development interest through other areas including western Jersey City, North Bergen and Harrison.

2.4.5 Immigration

A visible component of global trends is immigration. Hudson County has long been the recipient of large numbers of immigrants. These ethnicities often arrive in Hudson County and stay until they have the means to move elsewhere creating a continual problem with workforce training. At the same time, many portions of the County are activated by the presence of these people as they provide diversity and services unique to the County. Recent trends show large numbers of Cuban, Indian, Egyptian and Equadorian immigrants to name a few. One of the best known enclaves, "little India" in Jersey City, is an active physical space that exhibits signs of its own self support system whereby a trailer in a parking lot offers assistance in training and obtaining work and resdient visas. The overriding issue, however, is to keep these individuals in the County, regardless of their economic status, which means providing the quality of life amenities and community support that will further their independence and investment in the area.

2.4.6 Neighborhoods

Neighborhoods often form a key element of an area's identity and overall quality of life. Despite the County's history of rapid change, vital urban neighborhoods remain a crucial part of Hudson County. These communities (often composed of immigrant populations) provide important social support networks to their residents, and offer unique commercial activities. However, it is often the perceived quality of the County's neighborhoods that encourage many people to live elsewhere. Hoboken and portions of downtown Jersey City reflect a changing demographic whereby professionals working in Hudson County, Newark or New York are choosing these locations because of the existing amenities, the housing stock and cost. These trends plus the additional 'high-end' condominiums and rental construction along the waterfront that take advantage of the New York City views are having a positive impact on the development success of other amenities such as restaurants and shops.

Overall, the core neighborhoods in Hudson County are primarily located in a central band that stretches from Bayonne to Union City along the Palisades. These neighborhoods are an intense mixture of open space, residential, institutional, industrial and commercial uses that are distinctly separate from the waterfronts. Additional neighborhood fabric exists in two pockets – one in Secaucus and the other in East Newark, Kearny and Harrison stretching along the Passaic River. The neighborhood character within Hudson County is extremely diverse and dense. Hudson County is the densest County in New Jersey and one of the densest in the Country.

The historical character of these diverse neighborhoods was a mix of housing styles with pedestrian access to small parks or concentrations of neighborhood commercial services. Many of the small parks are still actively used but some are underutilized due to their location and condition. Traditionally, the neighborhood commercial areas throughout the County were represented by ground floor uses in 3 to 4-story structures with either office or residential uses on the upper floors. Recently, however, upper floors are often vacant and the commercial corridors that were once strong magnets for neighborhoods are increasingly struggling exhibiting neither the intensity nor adequate mix of uses to serve local residents. The effect of the regional centers' expansion of the County's commercial sector has decreased the amount and quality of neighborhood oriented commercial uses. This in turn has forced residents to travel farther for necessary services further taxing the existing

transportation system.

A continuing issue in the County's neighborhoods is that of affordable housing. Although some areas offer incentives for providing 20% affordable housing within new market-rate development along the water, not all developers take advantage of this and there still remains a dearth of housing opportunities for the County's lower income residents. The cost of land and the lack of available sites within established neighborhoods for new development further compounds the problems. Many of the County's more deteriorated areas are, therefore, are resources for these individuals and have a limited market value. But as the housing market continues to surge in the region, an approach to affordable and mixed-income housing development is a key issue that needs to be addressed.

2.4.7 Redevelopment Processes

Hudson County has long benefited from its lower costs of development compared with New York City. Land is cheaper, access to transportation is excellent and local and state incentives have furthered the decisions to locate components of business operations in the area. Some municipalities, however, benefit from more packages of incentives that is furthering their growth. For instance, PSE&G offers a 6-13% reduction in utility costs for specific areas which, in Hudson County, includes Weehawken, Hoboken and Jersey City. With the growing costs along the waterfront, the County has seen 'second order moves' of operations to other locations including the Meadowlands and Newark. This is one of the foundations for the Harrison Redevelopment Plan that includes 275 acres of proposed redevelopment with office, residential, entertainment and supporting uses.

One of the larger issues facing the redevelopment of the County's vacant land is environmental contamination. For years, these sites have remained vacant due to the additional cost in clean-up. However, through new, flexible State legislation and the award winning Hudson County Brownfields Pilot Program operated by the Hudson County Economic Development Commission, the issues associated with these sites are being addressed. Additionally, NJIT and the North Jersey Transportation Planning Authority are undergoing a study of Brownfields associated with the Port that seeks to further the initiatives in transferring environmentally contaminated sites into active and supporting uses.

Planning initiatives in the County are embedded within the myriad of state incentive programs such as the Urban Enterprise Zone, cross jurisdictional studies, and local efforts aimed at specific issues. Although many of the municipalities act independently in planning, some efforts and organizations are coordinated across municipal boundaries. The Hudson County Strategic Plan has pushed forward the 'Urban Complex' concept of coordinated services such as Fire and Emergency Services across jurisdictional lines. The Park Avenue Redevelopment Plan is a joint effort between West New York and Weehawken to revitalize the retail corridor. There is a new organization to address transportation needs along the waterfront and to New York City following 9/11. Additionally, the Meadowlands Development Commission has long overseen land use decision in portions of Kearny, Jersey City, North Bergen and Secaucus, with coordination among those municipalities. Understanding and organizing these efforts and relationships is critical to providing a firm template for the County's future.

Most of the local municipalities are actively engaged in local planning efforts. Through the State Local Redevelopment and Housing Law, redevelopment districts have been defined across the County to support revitalization efforts. Many of these designated districts are project specific however a few have gained more notoriety due to their scale and location. The Harrison Redevelopment Area and Bayonne's Military Ocean Terminal Redevelopment Area reflect the largest concentrations of potential mixed-use development over the next decade. The opening of these large tracts of land for redevelopment with active support from local, County and State governments will have enormous impacts on the County's future.

3.0 Conclusion

Not unlike Kevin Lynch's conclusions about Jersey City of a half century ago, our analysis of Hudson County reveals a place of intensity, diversity, and movement. While one reading of this environment may point to disorientation, another perspective observed from these same characteristics reveals a place of remarkable resilience and flexibility. It is in these traits, in tandem with a highly favorable geographic position, that the County possesses great promise to capitalize on the opportunities of the global information age.

The intention of the Cyberprofile is to lay the groundwork for the recommendations and design phase of the larger study. The conclusions of the study will provide a framework through which the County can navigate the complex influences that impact urban areas in the digital age. As a template, the framework will help to identify smart, visionary, and realistic strategies for social and economic development which are able to bridge the typical separation between physical and virtual concerns. Our 'reading' of Hudson County as a uniquely diverse region dedicated to the movement of goods, people and information via state-of-the-art infrastructure will help to focus this discussion and future recommendations.