

## INFRASTRUCTURE FOR SMART GROWTH: THE SOUTH AMBOY TRANSIT VILLAGE

---

“In the same ways that hypertext removes the limitations of the printed page, the post-information age will remove the limitations of geography. Digital living will include less and less dependence upon being in a specific place at a specific time, and the transmission of space itself will start to become possible .....”

Nicholas Negroponte, *Being Digital* (1995)

“All of the problems of the city can be solved by the sufficient application of just one thing, and that thing is money.”

J.K. Galbraith<sup>1</sup>

### ***The Problem of Smart Growth***

Cities have historically occurred at the intersection of two physical spaces - the “commerce” space and the “home” space. In the early part of the twentieth century, a symbiotic relationship between these two spaces was the glue that held cities together. From the Second World War onward, technology and its attendant affordances have altered the tension between these two spaces. Gradually, most cities in North America have exploded into their constituent parts, first fueled by the proliferation of the personal automobile and highway infrastructure, and then by the availability of digital technology. It has been argued that consumer preferences have led to this separation, technology being simply the vehicle that makes it possible for society to exercise its options<sup>2</sup>. Most Americans today live in single-use environments, clearly separated from industry, entertainment, offices, retail, and in many cases even from other economically or otherwise “different” residential communities. Barring a few city centers, all non-residential activities also occur in highly specialized environments today - retail in “power centers”, offices in corporate office parks, warehousing and distribution in highly efficient “big box” developments, entertainment in theme parks, and so on.

---

<sup>1</sup> As quoted by David Gosling and Barry Maitland in their book *Concepts of Urban Design* (Academy Editions, London 1984).

<sup>2</sup> “The driver, as so many times before in this long history, is technology: this time information technology. But it will not drive, indeed never has driven, in any simple or determinist way: new technology shapes new opportunities, to create new industries and transform old ones, to present new ways of organizing firms or entire societies, to transform the potential for living; but it does not compel these changes..... There will be choices; and societies can influence those choices by conscious decision”. Peter Hall. *Cities in Civilization* (Pantheon Books, New York 1998).

In the wake of this separation are left cities of many shapes and sizes whose fiscal foundations have been shaken due to a fundamental change in the input-output relationship between services and revenue. Generally stated, cities have traditionally provided amenity for residents in the form of services and facilities by maintaining a land use balance between high-revenue-yielding *commerce space* and amenity-demanding *home space*. Naturally, a reduction in the proportion of land used for *commerce space* would result in either need for increased revenue from *home space* or reduced amenity for *home space*. Both scenarios result in a lower quality of life in the City. This phenomenon is confirmed by the experience of cities throughout the country, which leads to a logical conclusion that a critical mass of *commerce space* is necessary to make a city a good place to live in.

Larger cities like San Francisco, Baltimore and Philadelphia, to name a few, have been able to retain a critical mass of *commerce space* by capitalizing on their strategic regional location, substantial existing infrastructure assets, diversified interests, a relatively large population base that did not leave, and community amenities that continue to serve residents with minimum new investment.

Smaller cities have experienced a more cathartic change, typically due to their inability or lack of desire to retain their relatively low-grade commercial uses. Many have completely shed themselves of so-called “conflicting” land uses, and as a result have transformed themselves into bedroom communities. The less affluent of these are typically characterized by deteriorating residential areas, a devastated “main street”, and tracts of vacant or underutilized lands that were once occupied by revenue yielding *commerce space*. These cities have raised property taxes as high as their citizens and housing stock can bear in order to provide the services needed by residents. However, needs have exceeded revenue, and the quality of life of residents has suffered<sup>3</sup>. The challenge now is to restore fiscal balance at a municipal level, a task that has been virtually impossible in an environment of unlimited locational choices coupled with the relatively higher cost of building on land that has once been used<sup>4</sup>.

<sup>3</sup> By almost everyone's calculation, most low density, single family residential development does not pay for itself. The limited resources of local government are allocated to paying the large service costs associated with single-family residential development, and to the creation of new infrastructure rather than to maintaining existing infrastructure. *The Smart Growth Network* ([www.smartgrowth.org](http://www.smartgrowth.org)).

4

Development Cost Comparison		
Development Costs (per floor-area-ratio square foot)	Infill	Sprawl
LAND	\$15-20+	\$8-12
SITE PREPARATION	\$5-10+ (Toxics!)	\$5-10+ (Infrastructure!)

One among these cities is the City of South Amboy in central New Jersey (figure 1). Once a vibrant city of 100 square miles, it is today a one square mile, overwhelmingly residential community of about 9,000. Its entire waterfront, previously a busy port and manufacturing center, is today largely abandoned (figures 2 and 3), its hotels have vanished without a trace, and Broadway (the City’s main street) limps along on life-support, bolstered by facade programs and streetscape investments. As it is today, South Amboy does not figure on any site location “choice list”, consumer preferences and government policy diverting most new development to cheaper lands around the City (sprawl) rather than within it (infill)<sup>5</sup>.

Yet, recent public concern for the adverse side effects of sprawl and a desire for community life<sup>6</sup> is driving a change in government policy to favor development sites in such cities, a policy that is generally referred to as “Smart Growth”<sup>7</sup>. This contradiction in consumer preferences, against sprawl and for the freedom to choose the cheapest development format, when coupled with the independence from geographic locational criteria afforded by an information-based economy, has the potential to dramatically alter the redevelopment prospects of cities like South Amboy. Modern communication technology has made it possible for a wide variety of commercial/ business activities to

HARD COSTS: CONSTRUCTION (wood frame only)	\$60-65	\$45-55
PARKING (Infill-structured; sprawl-included above)	\$15-18	\$0
SOFT COSTS (40% of hard costs – includes permits, architectural fees/ engineering, etc.)	\$32-37	\$20-26
CONTINGENCY (5%)	\$6-7	\$4-5
SUBTOTAL	\$133-157	\$82-108
PROFIT (15%)	\$20-23	\$12-16
MARKETING	\$10-11	\$6-8
<b>TOTAL COST</b>	<b>\$163-191/s.f.</b>	<b>\$100-132/s.f.</b>

Source: *On The Ground, Vol. 1, No. 1, Fall 1994*

<sup>5</sup> “It is frequently argued that current patterns of growth and development in the United States are the results of consumer preferences. Consumer preferences, perhaps manifested by the sub-urbanization of jobs, lower land costs, and the desire for space, privacy, better schools, less bureaucratic governments and reduced crime, as well as shifts in the economy have driven much of the development in the last fifty years. However, government policies provide the framework in which consumer preferences are exercised. Many federal and local policies favor low density, discontinuous, auto-dependent, single use new development. These policies in many cases favored new development on the fringe of urban areas and disinvestment in existing communities. Combined with the effects of consumer preferences, development has been driven to the fringes of urban areas, a phenomenon commonly referred to as sprawl”. The Smart Growth Network ([www.smartgrowth.org](http://www.smartgrowth.org)).

<sup>6</sup> “A 1996 study by market research firm American Lives found that 70% of those surveyed preferred the concepts of New Urbanism – pedestrian orientation, community gathering places, and close-by shopping – as long as they could have privacy”. Melissa Herron, *Brave New World* (Builder, July 1998), page 110.

<sup>7</sup> Smart growth is a development concept that concerns itself with the relationship between location decisions and infrastructure investments, taxes, and other government decisions.

be conducted without regard to proximity to other commercial areas or distance from markets. The opportunity and challenge for cities like South Amboy is to attract these activities through development incentives that will give their vacant areas a competitive advantage over sprawl.

### ***Opportunity in South Amboy***

South Amboy began its independent history at the turn of the eighteenth century as South Amboy Township, stretching from present day Cranbury to Sayreville, after it broke free of the colonial East Jersey territory capital Perth Amboy. Its transportation roots were laid during its early era of autonomy as the city became the primary transfer point from ferry to coach between New York City and Philadelphia. Like many cities of the region, South Amboy's industrial growth, fueled by the railroads, was spurred by hard-working Irish and Polish immigrant families. Due its lack of fertile farmland the city boomed in the nineteenth century as a significant regional manufacturing center, producing terra cotta and pottery and as a major freight transfer point between the mainland and Manhattan. The railroad dominated South Amboy in the twentieth century as several passenger and freight lines overlapped through the city. Early on, it amplified the city's industrial presence as a shipping port; however, following industrial decline, the North Jersey Coast Line emerged as a major regional commuter rail line.

Over the past half century, South Amboy's transformation has mirrored that of many East Coast cities which have changed considerably due to industrial decline, proliferation of personal automobiles, and reduced dependence on geographic proximity between natural resources, markets, and neighborhoods. South Amboy's land area has reduced from 100 square miles to one square in 1999<sup>8</sup>. The majority of its formerly industrial areas are now either vacant or underutilized (representing over 30% of the City's land mass), its port is no longer active, and its population is dependent on neighboring communities for employment, retail, and recreational needs.

The exception in this trend of decline and changing economies is South Amboy's position as a post-industrial transportation center<sup>9</sup>. The City has evolved from being a rest stop in the journey between Philadelphia and New York to being a regional transfer point for commuters, almost 1000 of whom drive to the City every day, leave their cars in parking facilities near the train station, and take the train to Newark and New York.

---

<sup>8</sup> "South Amboy used to be much larger. It once extended southwest to where Cranbury is today, and south to the Monmouth County border, a sprawling township 18 miles long and 6 miles wide. Now it is one square mile. Monroe, Jamesburg Cranbury, Old Bridge, and Sayreville were all once part of South Amboy. Gradually those municipalities broke off in the mid-1800s, apparently with little objection from South Amboy's leaders. As South Amboy historian William Marshall tells it, it wasn't easy collecting taxes from those far-flung residents. And perhaps there was enough to worry about in the bustling city" George Francy, *Images of America: South Amboy* (Charleston, SC: Arcadia Publishing, 1998), page 7.

<sup>9</sup> "From just about anywhere in South Amboy, several times each day, you can hear the train whistle. It is one of the distinctive things about South Amboy. And the way that sound reaches through the whole city is representative of how the railroad, and transportation in general, have been key to the city's existence". George Francy, *Images of America: South Amboy* (Charleston, SC: Arcadia Publishing, 1998), page 7.

Building on this vital function, the City of South Amboy has prepared a plan to restore the balance between *commerce space* and *home space*, thereby reestablishing it as regional hub of urban life and a center of entertainment, retail commerce and information exchange. This plan, the South Amboy Transit Village Plan, by providing transportation infrastructure and development policy incentives to attract development away from sprawl and into its abandoned waterfront areas, provides the framework to implement the State of New Jersey’s recently enacted smart growth initiatives.

***The Transit Village Plan***

The South Amboy Transit Village Plan focuses on an area approximately ½--mile from the City’s commuter rail station, which is located on NJ TRANSIT’s North Jersey Coast Line corridor. The corridor bisects the City into two dramatically different areas – an established residential community laid out on a traditional grid-iron plan to the west of the rail corridor, and a generally abandoned industrial area between the rail corridor and Raritan Bay to the east (figure 4). The Transit Village Plan isolated 110 acres of this area (within ½-mile of the station) as the development site (figure 5), identified the infrastructure investments required to promote privately-financed development, established a development vision for the site, and recommended design, financing, and implementation phasing guidelines for its realization.

Specifically, the Transit Village Plan is comprised of an urban design framework (figure 6) and a land use strategy (figure 7) for the development site. The urban design framework has three components:

- Transportation infrastructure
- Development parcels, and
- Public open space requirements

**Transportation Infrastructure:**

Study and analysis of the development potential of the site revealed significant opportunities in the form of an existing pedestrian-friendly urban fabric that would support transit-oriented development, a local community that is supportive of transit-dependent growth, and availability of large tracts of land for development. The analysis, however, also revealed a critical need for improved access to the developable land from the regional highway system as well as an increase in the capacity and quality of existing rail transportation facilities. It was determined that a failure to satisfy these needs would strongly inhibit quality private development from occurring in South Amboy.

Consequently, the Transit Village Plan includes recommendations for the following transportation infrastructure incentives<sup>10</sup>:

---

<sup>10</sup>

Public Infrastructure Investment Estimates	Estimated Cost <i>(in millions)</i>
Regional and Site Access	\$ 18.4

- A new waterfront-access roadway that would more directly connect the site to NJ Turnpike and the Garden State Parkway (figure 8).
- A modern, multi-modal transportation center comprised of a new high-level platform, expanded commuter parking facilities, bus transfer area, ferry terminal, and associated access facilities (figure 9).
- Direct connections between the site and the City's existing residential areas, existing main street (Broadway), and the proposed transportation center.

**Development Parcels:**

The urban design framework subdivides the 110-acre development site into 11 parcels of varying size and use characteristics. The framework also establishes development targets for each parcel by taking into consideration the cost of public infrastructure investments proposed and the desired public-private investment ratio<sup>11</sup>:

- 1800-2400 new residents in over 1000 new residential units (figures 10 and 11).
- Over 12000 new permanent jobs in approximately 3 million square feet of new office space, and
- Retail, recreational, and open space amenities to serve the new development and existing residents of the City.

Design guidelines were formulated for internal roadways, open spaces, and building types. Key design considerations were development intensity, walkability, transit use, connection to existing city commercial resources, water views, and benefit to the community of South Amboy.

<i>(Overpass, Roadways and Rail Relocation)</i>	
Transportation Center	\$ 16.6
<i>(High Level Platform, Bus/Rail Terminal, Plaza, and Pedestrian Overpass)</i>	
Ferry & Marina	\$ 21.5
<i>(Marine and Building Improvements)</i>	
<b>Total:</b>	<b>\$ 56.5</b>

Source: Middlesex County Improvement Authority

11

<b>Private Development Investment Targets</b>	<b>Estimated Construction Cost (in millions)</b>
<i>Phase 1</i>	
Residential Development (1,200 units)	\$ 210
Office Development (600,000 s.f.)	\$ 210
Commercial Development (230,000 sf.)	\$ 20
<b>Subtotal:</b>	<b>\$ 440</b>
<i>Phase 2</i>	
Office Development (2.5 million s.f.)	\$ 800
<b>Subtotal:</b>	<b>\$ 800</b>
<b>Total:</b>	<b>\$ 1,240</b>

Source: Middlesex County Improvement Authority

### **Public Open Space Requirements:**

Consistent with the primary smart growth objective of improving the quality of life of residents, the urban design framework includes public open space requirements to serve the entire South Amboy community and the region. Key components of the proposed open space system include:

- A continuous waterfront walkway and open space along the Raritan Bay (figure 12).
- A transit plaza on Broadway to serve as the main entrance to the new transportation center and waterfront area.
- A gateway park as the regional vehicular entrance to the site and the City of South Amboy, and
- Public squares and pocket parks throughout the private development areas (figure 13).

### ***Partnerships for Implementation***

The key to the realization of any plan for change is financing and the Transit Village Plan is based on a collaborative public-private development structure, which assumes the following financing responsibilities:

- Infrastructure improvements through public financing (federal, state and local)
- Mixed-use development by private developers
- Multi-functional components such as the ferry terminal and marina jointly developed through partnerships between public and private sector entities.

Since the inception of the planning effort in 1996, the City of South Amboy has aggressively pursued partnerships with public and private entities. This approach has yielded rich dividends for the Transit Village site in the form of productive commitments from the Federal Government, NJ TRANSIT, the Middlesex County Improvement Authority, and private developers who have already begun to assemble land.

Elsewhere on the waterfront, the City has made significant progress towards realization of its vision for change. Several projects have been completed and others are underway. Some milestones in this process of change are:

- Raritan Bay Waterfront Park (1998): Comprises new public facilities on the waterfront including athletic fields, recreational trails and water access (figure 14).
- Shoregate Village (1998): The mid-rise condominium style housing development provides previously unavailable senior living options for South Amboy.
- O'Leary Boulevard (1998): Serving as the primary access road through the Waterfront Park, it connects the waterfront to Bordentown Avenue, a key regional connector.
- Broadway Revitalization Programs (initiated 1997, ongoing): The visual enhancement initiative provides \$10,000 facade improvement grants and new streetscape for Broadway (figure 15).
- New public high school and community library (1996, figure 16)
- TEA-21 earmark grant of \$14.5 million through FHWA and FTA (1998)

- Transit Village designation (1999)<sup>12</sup>: State of New Jersey program to help cities realize their growth goals by enhancing and expanding transportation facilities and restoring their roles as activity centers. South Amboy is one of five New Jersey communities identified as candidates for the program. Transit Village communities will be given priority consideration for funding from NJDOT's Local Aid for Centers program, the Transportation Enhancements program, and Bicycle and Pedestrian projects. Technical assistance and resources will be also be provided by NJDOT, NJ TRANSIT, and other state agencies.

### ***A Work in Progress***

The South Amboy Transit Village Plan is a work in progress – a first step in the process of changing the regional development status quo. It is a plan that will be implemented over a period of time – as infrastructure decisions and money become available and as the private development marketplace comprehends the opportunity and prepares an appropriate response to it.

Throughout the implementation process, the City will require the cooperation of many public entities and will be vulnerable to the vagaries of the marketplace which, left to its own devices, will drive development to sprawl. The Transit Village Plan and the collaborative implementation process which it has initiated will help the City to address the concerns and needs of its public and private development partners. The Plan provides the City with a powerful framework for development that is flexible enough to endure a long implementation period, yet capable of firmly directing growth to achieve the desired results (figure 17). It is a tool with which the City can capitalize on its potential and take advantage of information-age freedoms to coax development into “smart growth” patterns – redirecting sprawl, recycling land, and maximizing return on public investment.

---

<sup>12</sup> “... this program will create development and investment centered around passenger rail stations. In effect, we are returning these stations to their historical role: a place where growth, recreation, opportunity and access became one.” Governor of New Jersey Christie Whitman, March 4 1999.



Anish Kumar is a registered architect and member of the American Institute of Certified Planners with extensive experience on diverse projects ranging from architectural design to comprehensive master planning. With this multi-disciplined background his focus is in the area of development planning: creating frameworks for development actions or project elements to achieve overall design and development goals. This includes physical design concepts as well as policies and strategies for their achievement - identifying implementation responsibilities, strategic first steps and long-term phasing plans.

Mr. Kumar has directed many of WRT's major transportation infrastructure-related design and planning projects. This has included feasibility studies, station area plans, corridor plans, and design of transportation facilities (bus/rail/ highway/ferry). He is the author of the Urban Design Guidelines Handbook for NJ TRANSIT's HBLRTS system, which was recognized by the U.S. Department of Transportation and the National Endowment for the Arts with a top Honor Award in their 1995 Design for Transportation National Award program.

In addition to his responsibilities at Wallace Roberts & Todd, Mr. Kumar is a member of the Faculty of Architecture at Drexel University where he teaches the sixth year urban design studio and a two-part lecture/seminar in urban design and planning.