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#### **Publication Date**

2000-09-01

# THE BLUE LINE BLUES: WHY THE VISION OF TRANSIT VILLAGE MAY NOT MATERIALIZE DESPITE IMPRESSIVE GROWTH IN TRANSIT RIDERSHIP

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# THE BLUE LINE BLUES: WHY THE VISION OF TRANSIT VILLAGE MAY NOT MATERIALIZE DESPITE IMPRESSIVE GROWTH IN TRANSIT RIDERSHIP<sup>1</sup>

#### **Abstract**

The paper examines the Blue Line corridor, a 22-mile rail transportation route that connects downtown Los Angeles to downtown Long Beach. The line passes through some of the most neglected and poor communities in Los Angeles County. Despite initial rhetoric by rail advocates and local politicians the line has not succeeded in improving the economic environment of adjacent communities. In this paper we use the Blue Line as a case study in an effort to understand the real and perceived barriers to growth around inner city station areas. Based on information gathered through a series of interviews with politicians, planners, community leaders, and transportation experts, and site analysis data from extensive field work we identify the "missing antecedents" for neighborhood development around inner city station areas.

#### Introduction

There is considerable enthusiasm today among some planners, designers, and citizen activists for a transit oriented transformation in urban form. Images of "transit oriented development" (TOD) (Kelbaugh, 1989; Calthorpe, 1990, 1992; Katz, 1994, Bernick and Cervero, 1997) are a part and parcel of the "new urbanist" vision. They are seen as a way of mitigating the ubiquity of sprawl, of making future development sustainable, and as a strategy of "smart growth." Transit oriented developments are usually construed as mixed-use communities within a 2,000-feet walking distance from a station stop. The design and layout emphasize a pedestrian-oriented environment and use of public transportation. Residential, retail, office, open space and public uses are arranged in comfortable proximity, making it possible for residents and workers to travel by transit, bicycle or foot (Calthorpe, 1993). Such development is often described as a "transit village," where a core commercial area surrounding the transit stop provides space for offices and retail (Bernick and Cervero, 1997). This vision is about an alternative way of life supported by a higher density, pedestrian-friendly, and transit-contingent urban environment. Many new urbanist ideas are expressed as planned new

communities at the metropolitan edge, while others involve inner city spaces that can be retrofitted to metamorphose into a transit village around a light rail station (Calthorpe, 1993; Katz, 1994). What is missing from such proposals is a discussion of how such transformations may be possible in the existing urban contexts. What indeed are the necessary antecedents -- economic, environmental, institutional, and political – for such transit neighborhood development in the inner cities?

Our aim in this paper is to explore and identify these antecedents. Because urban design should involve more than just visions and images; it must also develop a script for their implementation. In order to write this script an understanding of the antecedents is crucial. Our observations here are based on a study of the Blue Line corridor, a 22-mile light rail system that connects downtown Los Angeles to downtown Long Beach, using an existing railroad track. The line passes through some of the most neglected and poor communities in the Los Angeles County, and through large segments of industrial land. While the ridership has increased dramatically in the last nine years, since the line opened, very little development has taken place in the immediate vicinity of the stations, or in the larger communities where they are located. Conventional wisdom suggests that it takes some years for investors to recognize any opportunities created by a rail line and for land markets to respond to these opportunities. As the Blue Line is just entering its tenth year of operation, it is a good time to take stock and assess its impact on its immediate communities and station neighborhoods.

We take the position, and indeed demonstrate in this paper, that formidable social, economic, and institutional barriers may continue to frustrate the urban design visions of transit villages. As we know, many of the obstacles are rooted in the segregated social ecology of American cities. Inner city neighborhoods have suffered from a long history of disinvestment and neglect. Fear of crime, drugs, gangs, and violence dominates public perception today. We ask the obvious question: Is there a future for "transit villages" along the inner city transit corridors? And, what would it take to make these transit corridors become an asset for the community, and promote growth and development around inner city stations, in the face of such structural problems?

A brief disclaimer is in order here: The intent of this paper is not to critique specific design concepts for TOD's, or the larger new urbanist ideology that nurtures such design. Nor do we intend to launch another diatribe against light rail transit development, even though our arguments are based on a case study of a light rail corridor.

In this paper we begin with the premise that given the centrifugal tendencies of metropolitan form, where highways and freeways continue to be the principal determinants of land use, a transit line alone may not be able to stimulate expected development unless certain antecedents or pre-conditions are already in place. Previous studies that have examined the effect of rail transit on urban development have already suggested as much. The following review summarizes these studies:

#### Effects of Rail Transit on Urban Form: A Literature Review

In a very well known and often quoted work Knight and Trygg (1977) refuted the premise that a new rapid transit system would necessarily stimulate new development and revitalize an area. They argued that for substantial land use impacts to occur in the vicinity of a railway station four factors need to exist simultaneously: 1) local government policies supportive of development; 2) a growing regional economy; 3) availability of developable land around stations; and 4) positive physical characteristics of the station area (good location, compatible land uses, etc.). Focusing specifically on the effect of light rail systems on the economy of three cities (San Diego, Calgary, and Edmonton) Gomez-Ibanez (1985) reported that merchants and developers located near the transit line found it to be a rather "unimportant factor for business activity or development decisions." He argued that for a rail system to produce significant development around station areas three conditions need to be met: 1) the rail system produces a significant improvement in transportation service quality and accessibility; 2) the metropolitan area is growing; and 3) there is supportive local zoning (Gomez-Ibanez, 1985, p. 349). In a comprehensive study of light rail transit systems in the US and Canada Cervero (1984) concluded that the economic stimulus of light rail on urban form can be moderately high when accompanied by a strong regional economy, a pro-development policy orientation and other complementary

forces. More specifically he mentioned zoning, taxation, joint development incentives, and the existence of some disincentives for automobile ridership as particularly important for development around stations. Also physical improvements that enhance aesthetics and pedestrian access and create a hospitable station setting were deemed significant. In a study of the impacts of urban rail transit on local real estate markets in two of the fastest growing cities in the U.S. in the 1980's, Atlanta and Washington DC, Cervero and Landis (1993) found that the rail systems while having a positive impact on station real estate markets, they nevertheless had not had "the strong imprint on urban form that their predecessors did a century or so ago." The positive real estate impacts included higher rents, lower vacancy rates, and higher densities in office buildings around station areas (Cervero, 1994).

Most studies have shown that the clustering of new development occurs in the vicinity of downtown stations. In assessing the BART experience in San Francisco Webber (1979) reported a clear concentration of new development around stations in downtown, but could not conclude with confidence that this was a direct outcome of rail development. In general, there seems to be a consensus among researchers that, if all the right conditions are in place, rail transit will have a positive influence on development around downtown stations. This conclusion, however, could not been drawn for stations outside the Central Business District (Altshuler, 1979).

All relevant studies have stressed the importance of supportive public policies and public sector participation in station development. Joint development of public rapid transit facilities and private real estate projects has been a policy option discussed quite extensively in the last decade. Nevertheless, only a small number of joint development projects have been built around light-rail systems.<sup>3</sup> The best joint development projects are those that encourage greater transit usage, create more interesting station environments, and reinforce other planning and development goals (Cervero, Hall, and Landis, 1992). Coordination is very important when many public agencies are involved (Landis, Cervero, and Hall, 1991). Yet typically a transit agency is not likely to have the authority or resources to obtain all these necessary antecedents, and is most

likely to be preoccupied with the exigencies of expanding the system network. Minimization of capital cost becomes the overall priority for most transit agencies. This creates a fundamental paradox in the urban restructuring aims of rail transit development. The experience of the Blue Line corridor in Los Angeles exemplifies this paradox.

In the following sections we begin with a brief background of the politics of the Blue Line planning, followed by a short description of the corridor. We document the nature of change along the corridor by reviewing the pace and impact of development around selected stations, and by interviewing community leaders and experts on the effects of a light rail line on inner city communities.

#### The Blue Line Corridor: Background

Like many growing urban centers around the United States in the 1980s, Los Angeles County turned to rail as the major transit solution to address the problem of an already overburdened freeway infrastructure. The Blue Line was the very first segment of the county's rail system; several other lines have opened since then or remain in the planning stages.

The Blue Line passes through some of the most depressed and neglected neighborhoods of Los Angeles County, that have suffered from poverty, abandonment and deterioration of their physical infrastructure. As shown in Figure 1, eleven stations of the line are in areas where 35% of households are under the poverty level; in four other station areas 25-34% of the households are under the poverty level. The 1992 riots brought these chronic problems to a sharper focus. The damages from the riots exacerbated the sense of decline present in many neighborhoods around stations. Figure 2 shows the Blue Line alignment in the context of riot damages.

When the Blue Line was still at a conceptual stage of development rail advocates often emphasized the various benefits -- in addition to increased access and mobility – that the line would bring to these depressed communities. The line's importance in creating employment opportunities for residents of adjacent neighborhoods was stressed. The light rail was perceived as a stimulus for economic development, physical

and civic improvement.<sup>4</sup> As the then chairman of the Metropolitan Transit Authority (MTA) Richard Alattore boasted: "Not only is [rail development] the only game in town right now, but it's certainly going to be the only game for years to come. It's going to be the engine that drives the community out of the economic doldrums" (in Diaz and Ohland, 1994, p.18).

It is interesting to note that this rhetoric of economic development was not unique to the Blue Line.

As Altshuler (1979) reports:

As recognition has grown among urban transportation professionals in recent years that transit improvements are unlikely to save much energy, to yield substantial air quality benefits, or to relieve congestion noticeably, advocates of new rapid transit systems have placed increasing emphasis on their potential roles as instruments of "central city revitalization" (p. 396).

To be sure the Blue Line was an opportunistic transit investment. It utilized existing, but largely unused tracks of an earlier rail system to minimize costs. Cervero (1984) has reported that this trend to align new light rail systems along abandoned rail corridors is quite common among transportation agencies committed to minimizing costs as opposed to enhancing the urban development potential of the transportation system. Desirable land use and urban form characteristics, population concentrations, and socio-economic factors were not a major consideration in locating the Blue Line and its stations. Nor did the planners consider the prerequisites needed to induce development along the corridor. Ostensibly the physical presence of the light rail was considered sufficient in itself to attract private development. The Blue Line now starts its tenth year of operation, yet the evidence suggests that its effect on the economy of the depressed neighborhoods that surround it has been marginal at best.

#### **Corridor Characteristics**

For the demographic analysis of this study we considered the strip of land whose perimeters are defined by the census tracts traversed by the light rail line (see Figure 3). This corridor includes 93 census tracts with a total population of 513,784 according to the 1990 census. For the station analysis we focused on

a half mile by a half mile square area with the station at the center (see Figure 4), since most experts agree that this is the primary "sphere of influence" of a light rail system as well as the maximum distance that most passengers are willing to walk to reach a destination<sup>5</sup>.

As to be expected of an inner city corridor, the Blue Line is not a monolithic entity. It has considerable variations in land use and population characteristics. It passes through four different political jurisdictions -- Los Angeles, Compton, Long Beach, and unincorporated areas within the County of Los Angeles -- and is affected by a complex mosaic of programs and project boundaries. The zoning around the Blue Line is a composite of ordinances and the general plan intents of several jurisdictions. Composition and distribution of land use is different in the core and the frame of downtown, to use Horwood and Boyce's (1959) categories. Generally, the uses of land along the Blue Line corridor within the "core" downtown area can be broadly defined as office/retail with occasional residential development. The official zoning designation of this area, however, is "light industrial." In the downtown "frame" zoning is typically light industrial, which includes such light manufacturing as the "sweat shops" of the apparel industry and a wide assortment of storage, wholesale, repair and assembly yards. One finds only odd pockets of residential use scattered throughout an otherwise predominantly industrial district. The east side of the line is zoned "heavy industrial' immediately south of Slauson Blvd. But, beyond a thin strip adjacent to the line the use of land is mainly low density residential, characterized by a predominance of single-family detached homes. From Florence to Imperial stations the land is zoned as "multi-family residential," while the industrial zoning expands on both sides of the line in Compton. In the northern part of Long Beach the line cuts through established residential neighborhoods. But along Long Beach Blvd. zoning becomes mainly commercial with some institutional uses.

Population density is higher in parts of the downtown fringes, parts of South-Central and downtown Long Beach. Other segments of the corridor have very low population density. The racial composition of the resident population is typical of Southern California inner city areas. The area also reflects the regional

dynamics of population change. The proportion of white population along the corridor is significantly lower than the county-wide norm. Latinos are the growing ethnic group; in most census tracts they represent the plurality, if not the majority. The corridor today is very much a part of what a <u>Los Angeles Daily News</u> article describes as "Nuevo Los Angeles" -- the new Los Angeles of the immigrant population, a phenomenon that led Rieff (1991) to call the city "the capital of the Third World."

The widespread poverty of the corridor is reflected in the fact that of the 93 census tracts, only three-all around the Wardlow station in Long Beach--exceed the County median household income (\$34,965 in 1990). The median household income is under \$20,000 for most of the South-Central, with several census tracts reporting less than \$10,000.

#### **Effects of Blue Line on Development around Stations**

The Blue Line is a successful transit project if we only take into account ridership figures. In the nine years of its operation the line has more than doubled its patronage (Table 1). The Blue Line has been able to capture a share of the trips that originate from or end at the two major employment centers that lie at its two ends (downtown Los Angeles and downtown Long Beach). But has the line worked as a catalyst in promoting positive change and development in the inner city station areas that align its corridor?

As a major public investment and infrastructure a transit line is often expected to have some impacts on the corridor in general and on the immediate vicinity of the stations in particular. In this study we sought to identify the visible impacts of the Blue Line on inner city station neighborhoods. We conducted extensive windshield surveys to identify the overall condition of the urban landscape of inner city station neighborhoods. We also collected data on building permits issued within a half-mile distance from these stations. We selected eight case studies for analysis: Slauson, Florence, 103rd, Compton, Willow, PCH, Transit Mall and Pacific (see Figures 3 and 4)<sup>6</sup>. None of the stations selected were in the vicinity of downtown Los Angeles because we were particularly interested in examining the effects of the line on inner city station areas.

#### **Visual Condition:**

Today, nine years after the opening of the Blue Line the physical context of its corridor is derelict and forbidding, characterized by a critical absence of adequate facilities and services (Photograph 1). Banerjee and Baer (1984) attribute negative evaluations of a neighborhood to perceptions of "setting deprivation" (absence of desirable amenities--parks, shops, libraries, hospitals, pharmacies, supermarkets, etc.--in the neighborhood) and "setting aggravation" (presence of undesirable elements<sup>7</sup>--liquor stores, billboards, "hot-sheet" motels, overhead transmission lines, etc.). Inner city station neighborhoods along the Blue Line seem to suffer from both setting aggravation and setting deprivation (Photograph 2). Even though there is some variation from station to station regarding their distance to neighborhood amenities, the quarter mile radius is entirely devoid of any private or public facilities or services that constitute the everyday landscape of a market economy and offer the consumption, recreation, and social interaction choices associated with the sense of quality of life.<sup>8</sup> These station neighborhoods are the typical "placeless" (Relph, 1976) and forsaken corners of the inner core of the Los Angeles metropolitan area. Gertrude Stein's cutting line about the lack of "there" in Oakland is even more appropriate to the Blue Line corridor (Loukaitou-Sideris and Banerjee, 1996). During the past nine years there has been almost no visible improvement or development in the inner city neighborhoods around stations. The New Urbanists' vision of vibrant station neighborhoods with a mix of residential and commercial services remains unrealized here.

#### Pace and Value of Development

To complement and validate the findings of the "subjective" windshield survey we examined building permit data within the case study areas (a half mile by a half mile square with the station at the center) <sup>9</sup>. Using 1990 as the benchmark year when the Blue Line began operation, we collected data for three years prior and eight years after the opening of the Blue Line. To control for other variables affecting development (state of the regional economy, inflation, etc.) we compared for the same eleven years building permit values within

the case study areas to those encountered in the larger community or jurisdiction where the particular station was located<sup>10</sup> (Figure 4).

Figure 5 shows the building permit activities for the city of Long Beach and for the city's Blue Line stations<sup>11</sup>. It seems that from 1988-1990 the sluggish regional economy has impacted development in the city of Long Beach and around the designated station areas. But in 1990-1991 (Blue Line's first year of operation), while the city witnessed a dramatic decline in the total dollar value of building permits, the station neighborhoods saw a notable increase. This seemingly positive finding, however, is attributed to the construction of one building (a parking structure) in one station area (Willow station) (compare Figures 5 and 6). By 1992 the value of permits in the station areas had fallen way behind the pre-Blue Line era (years 1988-1990). Both the city and its station areas saw a further decline in 1992-1993, the year of the Los Angeles civil unrest. As can be seen in Figure 2, a quite high concentration of damaged properties was in the close vicinity of the Blue Line. During 1992 and 1993 very little building or renovation activity occurred around the stations. In the last three years building activity around the station areas has fallen dramatically, despite the robustness of the California economy. In contrast, building activity in the city of Long Beach is on the rise since 1997.

The dollar volumes of building permits for the city of Compton as a whole and that within the half mile radius from the Compton station show a dramatic decline (Figure 7). Here, the city was not able to give us data from the pre-Blue Line years. Like in Long Beach, the Compton station area witnessed a spur of development in the first year of line's operation (1990-1991. The next few years show an even number of ups and downs until 1994. Then development ceases completely around the station area in Compton.

In the South Central station neighborhoods, and despite our earlier report of appreciating property values, the building permit activities have been extremely limited. In the Slauson station only three addresses have received building permits that barely exceed \$100,000 since the opening of the Blue Line. No new physical development has happened there in a long time, before or after the opening of the station. In the

Florence station there has been some activity in 1992 that involved the repair of structures damaged from the riots. Only one new commercial building has been erected in the station area since the opening of the line. The situation looks more positive around the 103rd/Watts station, where some residential developments appeared in the first year of the line's operation, largely due to the efforts of the local redevelopment agency. Still the annual cumulative value of permits around this station area hardly exceeds \$100,000 (Figure 8). Most of these permits are for minor changes, renovations, and repairs of existing structures.

#### **Expert and Community Views: Constraints for Development around Blue Line Stations**

To understand the real and perceived barriers to growth and development around inner city stations, we interviewed public officials, as well as representatives from community groups and non-profit developers. More specifically, to get the public policy response to the Blue Line, we interviewed representatives of local governments, planning departments and redevelopment agencies of jurisdictions abutting the Blue Line and planners of metropolitan transportation authorities. We also interviewed community leaders and directors of neighborhood-based non-profits, active in the South-Central, such as the Vernon Slauson Community Development, the Dunbar Association, and the Esperanza Community Housing Corporation. 12

Our interviewees spoke of several obstacles, some institutional, some structural. We have classified their responses into four major categories of problems whose combined presence has halted development and positive change around inner city stations.

a. <u>Planning Problems</u>. One recurring theme in the interviews had to do with the politics of planning in a very large and fragmented metropolitan region. Some respondents felt that long range planning, especially at a regional scale, was compromised for the sake of political exigencies. As one planner bemoaned: "Public transportation is a long range project, but people in government like to be able to cut a ribbon every one or two months." Another planner observed: "Building a transit line should be part of a broader public policy, coordinated by a regional planning authority. We are doing it absolutely backwards because we cannot organize it that way. You have 15 districts and a mayor, five supervisors, many cities and

no regional planning authority... It comes down to being opportunistic and trying to compete for federal dollars, as opposed to letting some other city get it. So you build hardware without a plan". Although the Blue Line was not funded by federal money, future federal funding was at stake. Construction of the line was urgently needed to break the long impasse over transit development in Los Angeles, and make the region a legitimate candidate for federal funds. Expediency and minimum cost dictated the Blue Line alignment.

Some community leaders argued that the lack of coordination between the different responsible agencies also stymied opportunities for development. Some felt that there was a clear lack of creativity and vision in seizing new opportunities. The response of some jurisdictions along the corridor was parochial and self-serving. A former Long Beach city council member argued: "I think all the cities along the 22 miles should have been working aggressively to take all their redevelopment agencies, all their planning departments and make them conscious of transportation and those benefits derived from it. The tragedy is that while we were putting in the spine of the system there wasn't enough thought given to 'what would you like to see when it is all done.' Not just a bunch of lines going to different places. But how do you look at it as a system. How do we link up a dial-a-ride or the local bus service to the Blue Line, where do we locate a new educational institution, where do we want to encourage employment centers?"

Community representatives criticized the specific access problems resulting from inadequate planning. The absence of parking lots and park-and-ride facilities in the inner city stations was mentioned as a major fault of the system. Interestingly, the existence of major parking lots around stations, has often been considered as a deterrent to the intensification of land development. Nevertheless, community leaders in South Central felt that the lack of parking was a major disadvantage. Currently inner city residents who own a car and want to use the line can only park 6-10 blocks away from the station. The lack of coordination with other modes of transportation decreases access to the Blue Line. For most people it is cheaper to take the bus than the train, because it is more direct and they do not have to walk as far to reach a bus stop.

- b. <u>Physical / Environmental Problems.</u> Community leaders spoke of the abundance of industrial and often contaminated sites along the Blue Line, and the incompatibility of land uses, where housing is interspersed within large industrial districts. They argued that much of the land in the corridor was simply not fit for new housing or neighborhood development. A planner from a non-profit organization said: "In many station areas the air smells. This is not where you want to raise your kids. There are homes surrounded by industrial uses and kids playing on the streets, and the streets look pretty bad.
- c. Social/Structural Problems. The negative image of the inner city remains a major deterrent to market response. The social and structural obstacles that beset many inner city communities --chronic poverty, unemployment and underemployment, crime, and the like -- continue to define the image of inner city neighborhoods. A deteriorated housing stock and slum housing further contribute to the stigma. As the director of a community development organization argued: "You have so much community deterioration, you've got income levels that are so low that I don't know what kind of business would be attracted to make an investment in that kind of community without sufficient infrastructure, safety, and financial incentives."

  Comparing inner cities to wealthier communities that can successfully mobilize and demand more resources from local governments, he pointed to the unstable nature and transitional character of many inner city neighborhoods which are populated by minorities and recent immigrants: "It makes a difference when you have an organized group of people. Because this is such a transitional, unstable community right now, it is kind of hard to get people to come to meetings and voice their opinions and make clear that they want to see x, y, or z happening..
- d. <u>Economic Problems</u>. Planners and community groups were divided in their assessment of the economic problems that have hindered development around Blue Line stations. Planners were concerned about the dramatic decrease in the federal funding of transportation projects. Community groups, on the other hand, spoke of the high land costs that frustrate their efforts to build affordable housing. The director of a non-profit organization wondered: "*The land cost out here* [along Central Avenue in South-Central Los

Angeles] is incredible, about one million per acre. Why are the prices so high, when it is supposed to be a bad community and nothing is being built?" In fact, some attributed the high land prices to the presence of the Blue Line. The director of a community development organization observed: "The land cost goes up every time someone does something like the Blue Line and doesn't plan for adjacent development. Because the people that own the land think that its value is more than it actually is, which limits the potential for development at reasonable cost."

Community groups also spoke of the negative effect of construction on local business. Many respondents claimed that some businesses had to close and were not able to re-open after the end of construction. One of the most serious barriers to development, according to community groups, was the lack of economic incentives, low-interest loans to developers and non-profits and business subsidies (in the form of reduced rents for an initial period) for businesses to induce them to locate around stations. Such arguments were best summarized by the director of a community development organization: "We really need to do more to protect people's investment, to assist small businesses to make it work. There need to be deeper subsidies for joint development to work in poor communities. In this type of economy it is important to give subsidies; they do make a difference. The type of businesses you can attract along inner city lines are small mom-and-pop shops, newsstands, donut shops, mini markets. But these are the ones that need help till they get established. If we can afford to give subsidies for ridership for people to just come through our community, we ought to be able to give subsidies for people to do business in our community. Business subsidies can have a further benefit because they create local jobs.

Table 2 summarizes the constraints to development around Blue Line stations as revealed in our interviews.

#### Expert Views on the Challenges for Inner City TODs: The Results of A Supplementary Delphi Survey

To assess the problems and prospects of TODs around inner city stations we decided to conduct a Delphi survey. <sup>13</sup> A panel of twenty-five TOD experts participated in a three-round Policy Delphi. <sup>14</sup> Experts

were drawn from different geographical regions in the US, and represented 1) the academia; 2) the public sector; 3) the private sector; and 4) the non-profit sector<sup>15</sup>. They all had major experience with TOD either from a research or professional perspective. Many of the experts have been directly involved in TOD around the country. For this paper two of the Delphi questions were particularly relevant: 1) what are the most important preconditions for successful TOD in the inner city? 2) what are the most important barriers to inner city development? The experts found that the most important pre-condition for successful inner city TOD is the existence of a pro-active planning department or redevelopment agency that supports TOD, offers regulatory assistance, implements land use controls, and streamlines the permitting process. Of almost equal significance, argued the experts, are local government support and financial participation and commitment for TOD. Public-private partnerships with both partners knowledgeable about their roles were also deemed a very important pre-condition, as well as community support for the basic characteristics of TOD development (e.g higher densities, mixed use, pedestrian-friendly streetscape).

However, the experts were quick to define the many barriers to inner city development. These include (in order of importance):

- Disinterest of the private sector and unwillingness to invest in inner city areas because of perceived risks.
- Absence of a market demand for inner-city space within the range of costs at which it is possible to
  develop around stations. In other words, poor inner city residents find TOD developments too costly,
  while there is a lack of interest from the middle class to live in the inner city.
- 3. Competitive disadvantage of inner city areas and difficulty to compete for development dollars.
- **4.** Pre-conceived prejudices such as negative image, perception of low-wealth-low potential, and racial tensions.
- 5. Lack of financing and redlining by financial institutions.

We see the failure of the Blue Line to realize its promises for economic development as a combination of these barriers, but also a clear lack of pre-conditions, as defined by the Delphi experts. In the next section we will outline the missing antecedents that have hindered positive change in the station neighborhoods of the Blue Line.

#### The Blue Line Blues: Missing Antecedents for Economic Development

We began this study by asking a general question: Can form follow transit? Although spun off the well-known adage "form follows function." the question was not meant to be rhetorical. Specifically, we wanted to know if, nine years after its inauguration, the Blue Line has induced any positive change in the vicinity of its stations. At the end of our study we concluded, reluctantly, albeit tentatively, that it has not. Reluctantly, because the presumption of transit induced development, that is so deeply rooted in many planners' vision of ideal community form, and in the legacy of street car suburbs, does not seem to hold in the case of inner city neighborhoods (Loukaitou-Sideris and Banerjee, 1996). Tentatively, because there is always a possibility that given appropriate antecedents and changes in economic circumstances and public policy, transformations in form still could occur in the future. We would argue, however, that the "Blue Line Blues" - the unrealized promises of the Blue Line corridor — is a clear case of lacking pre-conditions, or else, missing antecedents for community and economic development necessary for the restructuring of urban form. These antecedents, or lack thereof, are the following:

1. The Back Door Location. The tracks of the Blue Line run through one of the most nondescript, non-place, non-functional strips of land in the Los Angeles County, totally forsaken and forbidding in appearance. As reported previously in our literature review, a station site has to have positive physical characteristics prior to the installation of a transit line (Knight and Trygg, 1977). Most of the Blue Line corridor passes through what looks like the industrial backlot of metropolitan Los Angeles. The right of way is an edge, a formidable barrier that touches the back, rather than the front or the center of the adjacent

communities. Although improving access and mobility of the inner city poor was very much a part of the rhetoric of Blue Line planning, the line was not planned to serve these communities.

The Blue Line planning was driven by the exigencies of transit development in Los Angeles. It was a symbolic "flag-planting," meant to break the impasse over mass transit development. To be expeditious it avoided all the existing centers and corridors of populated areas -- the front doors of the communities - with the exception of two terminal business centers of downtown Los Angeles and Long Beach. Essentially the line bypassed one of the most fundamental antecedents of transit development -- people and activities.

- 2. <u>Missing Density Gradients</u>. Typically stations are located where there is an existing node of population and activities. In the Blue Line corridor population density gradients are often counter-intuitive -- i.e. population density declines near the station, and increases as one moves away from the line. The concavity of density gradient is again a testimony of the "back door" nature of the Blue Line. Absence of density is another missing antecedent to successful station area development.
- 3. <u>Inaccessible Stations</u>. It follows from the malapropos nature of the corridor that the stations do not serve the community well. It is a major effort for most people in the inner city to avail themselves of the services of the Blue Line. There is very little feeder bus or shuttle service that connects the stations to the "front door" of the adjacent neighborhoods. Furthermore the stations in the inner city locations are not equipped with park and ride lots. Moreover, many of the Blue Line stations are accessible only by car, but absence of parking makes even that option not particularly viable. Station accessibility, another antecedent to development is absent or poor from the standpoint of inner city neighborhoods.
- 4. <u>Pedestrian-Unfriendly Station Location</u>. In addition to poor access, the location of stations and the improvements have not been particularly friendly toward pedestrians. Station platforms seem to be located without particular attention to the immediate urban fabric. As a result, pedestrians are often in conflict with vehicular or light rail traffic. Pedestrian access often requires lengthy detour. Interface with other transportation modes is sometimes not properly resolved. Pedestrian amenities or landscaping are few and far

between. Mel Webber (1979, p.125) has once noted that "the time spent inside vehicles is judged to be far less onerous than the time spent walking, waiting, and transferring, by a factor of up to three or four times. For commuters waiting on platforms, the factor may be as high as ten times." User friendliness and context-responsive station design add to the overall appeal of the transit system. Absence of these elements is another aspect of missing antecedents.

- 6. Landscape of Deprivation and the "Broken Window" Syndrome: It is apparent that most of the desired neighborhood elements -- parks, playgrounds, convenience stores, specialty shops and the like--are conspicuously absent from station areas. Setting aggravation and deprivation (cf. Banerjee and Baer, 1984) are endemic in the derelict landscape of "neglected neighborhoods." Crime researchers have demonstrated how signs of dereliction and "incivilities" -- such a litter, graffiti, exterior dilapidation, and the like -contribute to a higher incidence of crime (Perkins et al., 1993). Looking specifically at transit stops researchers have shown the relationship between adverse environmental conditions and criminal activity (Loukaitou-Sideris, 1999; Levine and Wachs, 1985; Levine, Wachs, and Shirazi, 1986). This latter phenomenon has been discussed by both criminologists (Skogan, 1990; Ellickson, 1994) and urbanologists (Jacobs, 1961). This relationship is central to the well-known "broken window" thesis popularized by Wilson and Kelling (1982). A broken window left unrepaired sends a signal that social control (and perhaps a sense of ownership) is attenuated in that area, and sensing that no one is in control, potential criminals are apt to prey on the locality. The immediate environment of the Blue Line corridor is full of broken windows, both literally and metaphorically. Abandoned industrial structures, boarded up doors and windows, broken porches and cracked sidewalks, uncollected trash and litter, preponderance of graffiti and vandalism are commonplace and scattered throughout the Blue Line service area. The quality of the built environment continues to remain a missing antecedent.
- 6. <u>The Land Cost Paradox</u>. A curious paradox about the inner city neighborhoods is that the land cost remains quite high there. Community-based non-profit housing groups find it extremely difficult to

acquire sites at the price appropriate for the economics of affordable housing. It appears that the absence of market response can be partly explained by the high land costs.

- 7. Regulatory Barriers. Many studies have argued that appropriate local government policies, supportive zoning and effective planning implementation tools have to be in place for development to happen around rail stations (Knight and Trygg, 1977; Cervero, 1984; Gomez-Ibanez, 1985; Willson and Anderson, 1993; Cervero and Landis, 1993; Bernick and Cervero, 1997). But in the case of the Blue Line antiquated zoning and subdivision regulations, and the permitting process, add significantly to the cost of construction. There are no lower parking requirements for affordable or transit-oriented housing in the inner city, even though car ownership rates are lower because of income limitations and transit dependency. As studies have shown, parking spaces are underutilized in affordable housing developments (Ehrlich, 1993). Although cities in the Los Angeles metropolitan area are in the process of rewriting their zoning ordinance to accommodate mixed-use development (housing above street level commercial uses, for example) and lower minimum parking requirements, or streamlining the permit process, progress has been slow at best.
- 8. <u>Lack of Institutional Commitment</u>. One of the most important antecedents of transit related development is political and institutional commitment toward restructuring urban form around transit corridors. Yet, it has been totally absent in the case of the Blue Line, thus vitiating opportunities for such development. This has been particularly a problem in the case of the Blue Line alignment, which passes through several local jurisdictions and unincorporated areas of the County of Los Angeles. At the planning stage, many localities have either resisted the development of the line, or attempted to barter their support for local gains or parochial interests. Initiatives by localities to develop the transit station areas have been lukewarm at best, even though some have designated segments of transit corridors or station neighborhoods as redevelopment areas. Joint development opportunities languished as the MTA did not aggressively pursue land acquisition around station areas.<sup>16</sup>

- 9. Absence of Critical Mass. As a result of a lack of critical mass of authority, intentions, policies, plans, and programs, a political will was totally missing from the physical arena of the Blue Line. Disjointed efforts had not created the much-needed priming effect. Development around Blue Line stations languished as a result.
- 10. Lack of Community Involvement and Participation. It was very clear from our interviews that community leaders were the real experts on what was going on in their neighborhoods and had a lot of insights to offer about the needs of inner city residents and the constraints and potentials of development in their communities. But they were not involved in the planning stages of the Blue Line and this lack of participation in the process was one more important missing antecedent.

#### **Epilogue**

The Blue Line has been now in operation for nine years, long enough for the market to respond to this transportation investment and for land use impacts to occur around station areas (Cervero and Landis, 1993). Our study found, however, that the line has not had any major positive effect on development around inner city stations. Based on our analysis of missing antecedents we do not anticipate that the line will bring about major positive change in its surrounding communities.

Our conclusions, while pessimistic, are also tentative. While the Blue Line was plagued by a combination of four different types of problems, other inner city alignments may score better if certain preconditions—or antecedents— are in place. Growth and development around station areas does not happen by the mere presence of the transportation network. There is a need for advanced planning and coordination of land use and transportation, collaboration of all the different actors involved in the development process, community involvement, sound economic policies that offer incentives to the private and non-profit sectors, and subsidies to businesses to build or locate near transit stations. In inner city areas, in particular, where structural problems of poverty, unemployment and crime menace communities the public sector is particularly crucial in stimulating development. So far institutional efforts to help inner city communities have been

lukewarm at best. The transit industry has traditionally focused in serving the commuting needs of its more affluent patrons (Altshuler, 1979). Clearly experience has shown that a transit line can not be the solution to all problems that plague the American inner city, but it may have some potential to be used as a tool for recovery. However, for an inner city line to have a "fighting chance" to generate positive change a number of things are required:

- Regional thinking that treats the transportation network not as a mere connection of two centers, but as
  a linkage to various communities that are on either side of the line.
- Reevaluation of the "assets" of a line (proximity to possible Empowerment and Enterprise Zones, joint
  development potential, existence of various non-profit groups and community development
  corporations that are present in the inner city and want to develop affordable housing).
- Community involvement where citizens reveal their communities' needs and demand action from the planners and politicians.
- Strong economic incentives and public sector involvement and commitment.
- A public agency that takes the lead and coordinates all other agencies and actors. A transportation agency could possible take the lead role, but only if it views its "prime objective" not simply as building as many rail lines as possible, but as facilitating development, growth and positive change.

#### **Endnotes**

This study is part of a larger study that was supported by the Division of New Technology, Materials and Research of the California Department of Transportation (CALTRANS) that sought a systematic documentation of the impact and effects of the Blue Line on the urban form and economy of adjoining communities, and proposed economic development and land use strategies and design guidelines for station neighborhoods. Former graduate students Laura Aldrete, Mary Jane Breinholt, Gang Chen, Liette Gilbert, Ray Gomez, Leilani Johnson, Hiro Iseki, William Thurlow, Caroline Lavoie, and Robert Manford assisted in the research.

<sup>&</sup>lt;sup>2</sup> These are also some of the basic tenets of the New Urbanism.

<sup>&</sup>lt;sup>3</sup> Landis, Cervero, and Hall (1991) reported that by 1991 only 5% of joint development projects were built around light rail stations.

<sup>&</sup>lt;sup>4</sup> Nick Patsaouras who was an MTA board member and a mayoral candidate in 1992 described in his campaign pamphlet "The Patsaouras Plan: A Shared Vision ... A New Los Angeles" how transportation could

be used to "unghettoize affordable housing ... embellish boulevards as linear botanical gardens...link up diverse cultural settings...enhance tourism, as well as provide good jobs, safe neighborhoods, secure property values, clean air and water, schools, shops, parks, playgrounds, daycare and social services all within walking distance."

- <sup>5</sup> The Land Use/Transportation Policy of the city of Los Angeles distinguishes between a "Primary Influence Area" of 1/4-mile radius from the transit station, and a "Secondary Influence Area" that serves as an area of transition and extends to a 1/2-mile radius from the transit station (City of Los Angeles Department of City Planning, 1993).
- <sup>6</sup> The case studies were selected after a cluster analysis of all 22 stations that took under consideration their land uses, residential density, condition of building stock, existence of public amenities, level of blight (based on housing abandonment, litter on streets and lots, graffiti, vacancy rates, etc.)
- <sup>7</sup> Negative elements are those that are perceived as contributing to a bad reputation, environmental hazard, or danger in the neighborhood.
- <sup>8</sup> A ULI study (1993) found only fourteen banks and five savings and loan institutions in the combined South-Central and South-East community plan areas, which include more than half a million people. Street front check-cashing establishments, on the other hand, are quite numerous.
- <sup>9</sup> The building permit data were difficult to obtain since they were not available in a readily accessible format. We have included only permits that exceeded \$50,000 in value. The way that the data were processed and were available varied greatly among localities. In the case of the city of Long Beach permit data are computerized and can be obtained with relative ease. The city of Compton, being a small city, does not have computerized data or readily accessible files. The city of Los Angeles--given its size-- has a hierarchically organized data system. Significant adjustments had to be made for Los Angeles and Compton to render the data comparable. For example, for Compton -- given their raw data -- we chose to take a sample of the permit data. The months of November, February, April, and July were chosen to represent the seasons of Fall, Winter, Spring and Summer respectively, and the total for the year was multiplied by a factor of three. In the case of Los Angeles, a windshield survey was conducted to identify the structures that were either newly constructed or going through some repair and rehabilitation. The building permits data for those properties was then obtained from the city of Los Angeles.
- <sup>10</sup> For the Long Beach and Compton stations we considered the cities of Long Beach and Compton respectively as the wider areas for comparison. For the South-Central stations we considered the area composed of the South-East Planning Districts as the appropriate area for comparison.
- <sup>11</sup> Figure 5 shows aggregated building permit data for the four station neighborhoods in Long Beach which we used as case studies. Because of the proximity of the Blue Line stations in this city the 1/2 mile station neighborhoods around the selected stations were often overlapping.
- <sup>12</sup> In all 14 people were interviewed. Interviews were semi-structured. We followed a basic protocol and identified the major themes of our discussion with our interviewees. Our subjects were asked a common set of basic questions, but they were encouraged to elaborate and expand a question if we felt it was necessary. All interviews were taped and later transcribed for better accuracy. Some of the people interviewed requested anonymity and we feel obliged to keep their names and institutional affiliations anonymous.

- <sup>13</sup> The Delphi technique was first developed at the RAND Corporation in the 1950s. As Linstone and Turoff (1975, 3) explain, "it is a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem." A series of questionnaires, interspersed with feedback derived from the respondents, is given to a panel of experts. The technique places emphasis on consensus based on informed and improved judgement, feedback and exchange of views among the experts (Herrick Cramer, 1991).
- A variation of the technique is the Policy Delphi, which does not attempt to reach consensus among the experts, but "to define a range of answers or alternatives to a current or anticipated policy problem" (Strauss and Zeiger, 1975, 253). A Policy Delphi may not necessarily produce consensus, but nevertheless comprises "pooled judgement that has validity" believed to be greater than that of any individual" (Scheele, 1975, 57). In our Policy Delphi we gave open-ended questions to our panel of experts in the first round. During the second round the results of the first round were summarized and given back to the panel, who were asked to reassess their answers in light of the responses of the whole group. During the second round experts were also asked to rank order the ten most important responses for each of the four statements. During the third round responses with very low scores were eliminated. Experts were given the remaining responses with their associated scores, and were asked to vote one more time, selecting and ranking the five most important responses per question.
- <sup>15</sup> The following experts participated in the Delphi survey: Michael Bernick (Lofton, DeLancie and Nelson), Marlon Boarnet (University of California, Irvine), Carlos Castellanos (Spanish Speaking Unity Council), Betty Deaken (University of California, Berkeley), Robert Dunphy (Urban Land Institute), Doug Farr (Farr Associates Architecture and Urban Design), Todd Fontanella (Office of Housing and Community Development, city of Somerville), Karen Heit (Los Angeles Metropolitan Transportation Authority), Anish Kumar (Wallace, Roberts, and Todd), John Landis (University of California, Berkeley), Nancy Leavy (Neighborhood Capital Budget Group), Terry Mergerum (Sedway Group), Alvin McNeal (Washington Metropolitan Area Transit Authority), Val Menoti (Pittman and Hanes Associates), Susan Moses (Cambridge Systematics Inc.), George Ray (American Stores Properties), Jonathan Richmond (Harvard University, Taubman Center for State and Local Governments), Doug Shoemaker (Mission Housing Development Corporation), Tom Shrout (Citizens for Modern Transit), Sara Smith (Bi-State Development Agency, St. Louis), Matt Taecker (Calthorpe Associates), Martin Wachs (University of California Tranportation Center), Melvin Webber (University of California, Berkeley), Phil Whitemore (Metro Transportation Department, Portland), Rich Willson (Cal Poly Pomona).
- The total amount of land available for joint development under the auspices of MTA amounted to only 30.78 acres in six station sites. Half of this land was located in only one station site. Of the six sites, only one was available near an inner city station. Although MTA joint development staff and some of the board members had strong commitment toward joint development, financial constraints and the political exigency have kept it at a minimum.

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TABLE 1: HISTORICAL ANNUAL MTA BLUE LINE PATRONAGE

Fiscal Year	Avg wkday	Avg. Sat.	Avg. Sun.	No. of	No. of	No of	Total
	boardings	boardings	boardings	wkdays	Saturdays	Sundays	boardings
1991	20,291	18,593	21,754	253	53	59	7,402,538
1992	34,242	25,408	21,030	256	52	58	11,306,908
1993	36,553	24,754	20,503	256	51	58	11,809,196
1994	36,610	24,267	20,879	258	50	57	11,848,833
1995	39,619	26,257	22,608	255	52	58	12,779,473
1996	44,447	31,535	25,879	254	53	59	14,487,754
1997	50,122	36,344	25,729	255	52	58	16,163,280
1998	51,142	36,347	27,035	255	52	58	16,499,284

Source: Los Angeles Metropolitan Transportation Authority

TABLE 2: CONSTRAINTS TO DEVELOPMENT AROUND BLUE LINE STATIONS

PLANNING PROBLEMS	PHYSICAL/ ENVIRONMENTAL PROBLEMS	SOCIAL/ STRUCTURAL PROBLEMS	ECONOMIC PROBLEMS
Lack of advanced planning, vision, leadership, creativity	Incompatible land uses	Negative image because of poverty, crime, unemployment	Decrease in federal funding
Lack of regional planning	Building stock deterioration	Transitional, unstable community	Lack of economic incentives
Lack of interagency coordination	Toxic contamination	Lack of community power	High land costs
Lack of transportation connections			Negative effect of construction on local businesses
Inadequacy of parking facilities and transit services			

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