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Views of the Street

Using Community Surveys and Focus Groups to Inform Context-Sensitive Design

Carolyn McAndrews, Josefina Flórez, and Elizabeth Deakin

Urban transportation planners need community involvement to design the urban transportation system for its users and for those who experience its spillovers and externalities, positive and negative. The people in the urban transportation system include travelers, residents of nearby neighborhoods, transit service providers, and others. These groups often overlap. This paper discusses methods and findings from an effort to involve residents in the planning for the redesign and revitalization of San Pablo Avenue, an urban arterial running along the eastern edge of the San Francisco Bay, California. The viewpoints of residents of neighborhoods of Oakland, Emeryville, Berkeley, Albany, Richmond, and El Cerrito, California, the six cities along the southern portion of the avenue, were gathered through resident surveys and focus groups. These residents experience the avenue as travelers and also as their neighbors, whose everyday lives are influenced by activities on the street. Resident surveys and focus groups show that even on a major arterial serving multiple jurisdictions, local residents account for a major share of shopping and personal business along the arterial, and local trips are a major portion of the pedestrian traffic, transit ridership, and auto use in the corridor. Further, residents have intimate knowledge of the way the street functions and malfunctions and can offer useful suggestions for street redesign, operational improvements, land use changes, and related social programs. The paper shows that context-sensitive design needs to respond not only to the physical environment but also to social and economic conditions, including neighborhood concerns and aspirations.

Urban transportation planners need community involvement to design the urban transportation system for its users and for those who experience its spillovers and externalities, positive and negative. The people in the urban transportation system include travelers, residents of nearby neighborhoods, transit service providers, and others. This paper discusses methods and findings from an effort to involve residents in the planning for the redesign and revitalization of San Pablo Avenue, an urban arterial running along the eastern edge of the San Francisco Bay, California. The viewpoints of residents of neighborhoods of Oakland, Emeryville, Berkeley, Albany, Richmond, and

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El Cerrito, the six cities along the southern portion of the avenue, were gathered through resident surveys and focus groups.

The public involvement efforts were part of a larger research project to identify needed and desired changes to transportation facilities, services, and policies along San Pablo Avenue. The scope of the larger project included gathering information from stakeholders in the community, including local merchants and residents, as well as from transit riders and bicyclists who travel along the corridor. The larger study analyzed bus transit service and equity, the history and identity of the corridor, and institutional issues as well as other issues. The methods and findings from only the residential survey and focus groups study are discussed here.

The San Pablo Avenue case study is part of an ongoing effort at the University of California, Berkeley (UC Berkeley), to develop improved planning and design approaches for the multiuse urban arterial, a common street type in cities and older suburbs across the United States. Multiuse arterials at once serve local and through traffic, bus and sometimes rail transit, shoppers, workers, and residents. Balancing the needs of the various user groups and modes presents an ongoing challenge and requires a multimodal approach that integrates land use and transportation planning and addresses social, economic, and environmental issues. Context-sensitive design must address not only the physical aspects of the street but a far broader context.

In the paper, both methods—the use of field observations, data analysis, and stakeholder interviews to inform the design of community surveys and focus groups, and findings from the community involvement efforts—are discussed. The community findings contrast with previous assumptions made by professionals planning portions of the street and suggest important new directions for change.

BACKGROUND AND MOTIVATION

San Pablo Avenue is a historic highway, an urban arterial, a local "main street," a run-down strip, and a corridor that pulls discrete neighborhoods together in series. San Pablo Avenue carries 20,000 to more than 30,000 motor vehicles a day (varying by location) on its four traffic lanes. One rail transit station is located directly on San Pablo Avenue, and two others are within sight, two or three blocks east. Bus rapid transit has been implemented along most of the avenue's length, and numerous local bus lines serve sections of the street. Sidewalks line the avenue, and in a few locations pedestrian traffic is heavy. Truck traffic is also heavy in some areas, but field work suggests that most of these trucks are small delivery trucks. Truck traffic was not an issue that was raised by the community.

The arterial passes through two counties and 11 cities along its 15-mi alignment, which stretches from downtown Oakland at the

southern terminus to the Carquinez Bridge to the north. The southern urban portion of San Pablo Avenue, the subject of this study, is also designated SR-123, and the California Department of Transportation (Caltrans) is responsible for its design, maintenance, and use. The San Pablo Avenue study section transects residential and industrial neighborhoods that bring to mind images from a palimpsest of transportation history: a Greyhound bus terminal, old rail spurs from the port, gas stations, 1950s drive-ins, and sometimes wide, grassy medians with street trees.

In the six-city study area, residents are of every racial and ethnic group in the region and range from low income to middle class. Some areas along the avenue are fighting decline, others are gentrifying. Land uses are varied, with apartments and retail stores lining the sidewalk in some districts and big-box retail, auto sales, parking lots and cleared parcels along other stretches of the road. The street also includes nodes of more intense development that usually appear at intersections with other urban arterials. The economic functions of these nodes have changed over the years, but they all have been centers of community activity since the growth of each city—from the mid- to late 1800s in Oakland, Emeryville, and Berkeley to the 1940s, 1950s, and 1960s in more suburban Richmond, Albany, and El Cerrito. Current activities on the avenue include catching buses, passing through in automobiles to access the highway, walking to school or a branch of the city library, shopping in small stores and larger retail establishments, eating and drinking in cafes and small locally owned restaurants, having drinks at the pub, playing cards at the casino, or passing time on the street.

The changing land uses along San Pablo Avenue reflect its changing use as a transportation facility. Once a stagecoach and horsecar route dotted with homes in the mid-1800s, San Pablo Avenue became an industrial rail route at the beginning of the 20th century. The avenue was again transformed before World War II, when it became part of the coast-to-coast Lincoln Highway (US-40). Hotels, motels, and gas stations catering to through traffic developed during this period. The avenue's functions soon changed again when I-80, less than half a mile to the west, was constructed in the 1960s. As through traffic shifted to the new freeway, retail and commercial uses along the avenue declined (1).

DECISION MAKING AND SAN PABLO AVENUE

Since San Pablo Avenue's decline, local officials and planners have worked toward revitalization of the avenue. Meanwhile, regional and state transportation planners have begun to address transportation issues along the corridor. In the late 1990s, the East Bay SMART Corridors project, a joint planning effort including the Alameda Congestion Management Agency, California Department of Transportation, regional transit agencies, and local planners, installed new signal equipment and coordinated signal timing along the corridor, making much headway in bridging institutional and jurisdictional separations. The new signal equipment allowed AC Transit to introduce a limited-stop "rapid" bus service along the corridor with signal priority available to buses should they fall behind schedule. Transit ridership has substantially increased along the corridor in response to the greatly improved level of service (2).

Still, ongoing problems made it clear that more planning work was needed. In 2004, the state assemblywoman through whose district San Pablo Avenue passes created a working group of city mayors to coordinate revitalization efforts along the avenue. Representatives from each city's staff and from Caltrans, local transit agencies, Metropoli-

tan Transportation Commission, Association of Bay Area Governments, and county congestion management agencies participated. The working group set out to address multimodal traffic and travel on the corridor; the physical condition, design, and landscaping of the street and sidewalks; development, affordability, and redevelopment policies; smart growth strategies, zoning codes, and parking policies; merchant and property owner views about the avenue; developer perspectives and other stakeholder interests; and the underlying institutional factors that determine urban development on the avenue. The study team provided technical support to the working group, and the surveys and focus groups presented in this paper were designed to help inform this ongoing planning process.

The working group received a lot of public input. Information from the community, including information from the focus groups, created a counterbalance to the strict transportation focus that had accompanied much of the prior work on San Pablo Avenue. Elected officials were responsive to the qualitative methods that were used to get community input—even more so than to the quantitative methods. Thus, community involvement was integrated into decision making on San Pablo Avenue through the working group.

METHODOLOGY: DESIGN AND IMPLEMENTATION OF RESIDENT SURVEY AND FOCUS GROUPS

The study team began by looking at the physical, social, and economic characteristics of San Pablo Avenue through field work. The team observed traffic conditions, conducted floating car studies, counted pedestrians and bicycles at key locations, visited shops and restaurants, interviewed merchants, shoppers, and residents, counted and surveyed transit users, and assessed travel origin-destination patterns by mode. Simultaneously the team interviewed planners for the area, surveyed developers, reviewed the planning and social history of the area, and analyzed current plans and zoning ordinances (3).

The reviews and analyses identified a number of conflicts as well as some important opportunities. For example, it was learned that despite new signal equipment along the avenue, buses still experienced delays at numerous traffic signals and their travel time remained considerably slower than that of cars (4). Transit onboard studies nevertheless found many longer trips (e.g., between Berkeley and downtown Oakland) (3). It was determined through car-following studies that despite the characterization of San Pablo Avenue as a 15-mi corridor, most car trips along the avenue were quite short, with many only a few blocks long and most under 3 mi, even during the peak period. Pedestrians were observed to have difficulty crossing the avenue at unsignalized intersections without a median; speeding also was prevalent in those stretches. Where medians were present, speeds dropped but pedestrian crossings were less conflictual. Bicyclists used the avenue, but frequently rode (illegally) on sidewalks rather than on the street itself; through interviews it was determined that most of these cyclists were on San Pablo Avenue because they were heading for a destination there (3, 5, 6).

Further, despite plans calling for infill and mixed-use development, many communities had retained high parking requirements that, combined with the small lots along much of the avenue, made new development hard to achieve. Outside the core of the Emeryville redevelopment area, developers were unsure that there was community support for their projects, and most were unwilling to commit to a major project without it (6).

This background information was used to design a community survey to help determine residents' use of San Pablo Avenue and their perspectives on what should be changed and what should be retained. The survey consisted of 31 multiple-choice and open-ended questions designed to elicit information on residents' views of San Pablo Avenue. It was formatted to fit on the front and back of one sheet and was accompanied by a cover letter explaining the purpose of the survey and its intended use.

A sample was drawn from Oakland, Emeryville, Berkeley, Albany, Richmond, and El Cerrito neighborhoods along San Pablo Avenue as follows. First, 19 census tracts along San Pablo Avenue were identified (see Figure 1). According to 2000 census data, there are 27,126 households in these 19 tracts with a total population of 59,168. Then a sample of blocks from each census tract was drawn, this resulted in a set of blocks that overlapped with, shared an edge with, or were one, two, or three blocks away from, San Pablo Avenue. The total number of households within these blocks was approximately 1,800, or about 6.6% of the total households in the area. The

distribution of housing types (single family, duplex, apartment, or condo) in the sampled blocks closely represented the overall housing type distribution for the area.

The survey was designed to be distributed door-to-door by teams of undergraduate students enrolled in a studio course on San Pablo Avenue. Student teams were instructed to survey an adult member of every residence on each sampled block either through an in-person interview or by leaving a survey, cover letter, and postage-paid reply envelope for the resident. A senior member of the research team supervised each group. To ensure student safety, surveyors were instructed to remain in a public space visible from the street at all times. If no adult was available to complete the survey and mailboxes were not available outdoors or in a public lobby visible from the street, the surveyors skipped the address. For the most part, the skipped addresses were at small apartment complexes where some units were on upper floors or in back-of-lot buildings and mailboxes were not readily available for survey drop-off. In a few cases the surveyors skipped single-family dwellings when the houses were built

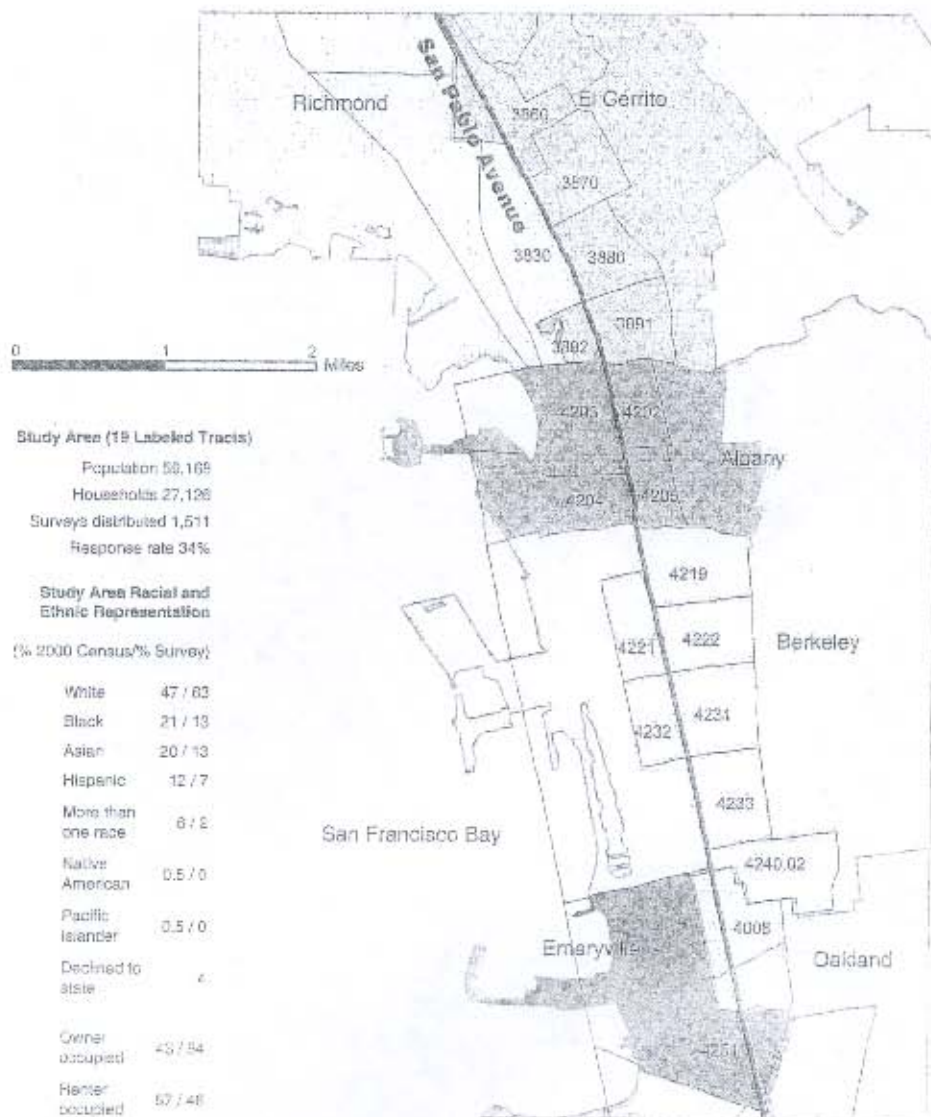


FIGURE 1 San Pablo Avenue study area.

two to a lot with the second house built behind the other (deep lots are found in parts of Emeryville, Oakland, and Berkeley).

In total, the research team and students carried out or distributed 1,511 surveys and received 514 responses, for a response rate of 34%. For individual teams of surveyors, response rates ranged from 25% to more than 50%. In all cases about half the surveys were collected in person, and the other half were returned by mail. Five surveys were conducted in Spanish, and two were conducted in Mandarin. In the field, only two people declined to do the survey because of language; one spoke Farsi and the other spoke Cambodian. Most of the residents interviewed spoke English sufficiently well to do the survey. Adult literacy data are not available for the study area, and local reporting from Berkeley suggests that residents of the Berkeley study area could be more likely than other Berkeley residents to have lower adult literacy levels (7). While the resulting sample is not entirely random and somewhat undercounts dwellers in smaller apartment buildings (only 46% of the survey responses were from renters, whereas renters account for 57% of occupied units, according to 2000 census data), it is reasonably representative of the area in demographics and income levels.

The survey responses were entered into an Excel spreadsheet for detailed analysis. The results of the survey were used to structure a series of questions for focus groups, described next.

An invitation to attend a focus group was provided to each surveyed resident. The invitation described the purpose of the group meeting (to discuss resident perspectives on transportation and land use issues along San Pablo Avenue in some depth), the length of the meeting (approximately 1 h), and the honorarium (\$40), which was paid with grants from the University of California Transportation Center and the U.S. Environmental Protection Agency (EPA). Any adult resident (one resident per household) was eligible to participate in a meeting; interested residents could phone to register for a focus group. Sixty-six people accepted the invitation to participate in the focus groups. Six meetings were held: two in Albany, two in Berkeley, and one each in El Cerrito-Richmond and Emeryville-North Oakland. In each case, the meetings were held in public facilities (schools, city buildings) on San Pablo Avenue itself. Each participant was assigned to a meeting in his or her home community.

The focus group discussions covered both transportation and land use issues. Topics included the following:

- Use of San Pablo Avenue. What shops and businesses, if any, do residents patronize, and how often? What modes of transport do residents use when visiting San Pablo Avenue? What about other family members—including children and seniors?
- Likes and dislikes. What are residents' favorite things about San Pablo Avenue? What do they like least? What would they change if they could?
- Street design. Do residents see San Pablo Avenue as too narrow or too wide, too crowded or too empty? Do they like the sections with a median or prefer those with double turn lanes? Do they like or dislike the landscaping along San Pablo Avenue in their community?
- Perception of traffic. How often do residents drive on San Pablo Avenue? Do residents see San Pablo Avenue as congested, carrying too much traffic, troubled by speeding, dangerous, noisy, polluted, or do they see it as well functioning, convenient, providing an important traffic function?
- Sidewalks and crosswalks. How often do residents walk on San Pablo Avenue? Are the sidewalks adequately wide and in acceptable repair? What are the residents' views of amenities such as trees,

awnings, and street furniture (or lack thereof)? Are there adequate crosswalks? Are the gaps in traffic at unsignalized intersections big enough for pedestrians to cross comfortably? Are drivers polite? Are signals timed to leave enough time for pedestrians? Is lighting adequate?

- Public transportation. How do residents rate transit along San Pablo Avenue? How often do they use it and for what purposes? What do they think about the schedules, quality of vehicles, reliability, information provided, shelters, safety?

- Land uses and change. What do residents like or dislike about the land uses along San Pablo Avenue? What establishments do they visit regularly? What do they visit occasionally? What are their views about the mix of uses, what additional uses would they like to see, and are there any uses they would like to remove from the mix? Do respondents believe the density of the area is too low, or is it getting too crowded?

- Design. In the residents' views, are the buildings ugly, attractive; too small, too big? Do they prefer spaces between buildings and lots of parking, or a continuous street frontage with windows for window-shopping?

A moderator led each of the meetings, and at least one other researcher took notes—none of the meetings was recorded. The notes provide a detailed and comprehensive record of the discussions at each of the meetings. Additional researchers, students, and staff assisted before and during the meetings to greet attendees and help with paperwork.

Multiple methods were used to analyze the focus group discussions. A table was created to compare comments from each group (e.g., likes and dislikes on the avenue, auto use, etc.). This table was particularly useful for gleaning each topic discussed at each group. The researchers also discussed the groups' comments to identify the themes, and shared the findings with other members of the San Pablo Avenue team to get feedback and other perspectives. A third method selected issues that are important to planners (e.g., neighborhood response to new infill developments) and compared all the comments that the participants made about the topic (e.g., parking, design, height, etc.). Essentially, the analysis relied on discussion among the researchers. The analysis could be replicated by sharing the same notes with other groups.

FINDINGS FROM SURVEYS

Survey results showed that residents fell into two groups: long-term residents, many of whom grew up along San Pablo Avenue or have lived in the neighborhood for a decade or more, and recent arrivals. The most frequently given reason for choosing the neighborhood of residence was its affordability, followed by its good transportation access and easy access to work. The vast majority also found their neighborhoods to be friendly places, with nearly half reporting that they know their neighbors well and another 38% reporting that they know some of their neighbors.

Nearly 80% of the survey respondents reported using San Pablo Avenue for shopping, and two-thirds go to restaurants and cafes there. Half buy gasoline along San Pablo Avenue, and 19% visit bars, clubs, and discos along the avenue.

About two-thirds also reported using the arterial as a transportation corridor to get from their homes to another destination. While only 16% work on San Pablo Avenue, 56% of the respondents are full-time

workers, and 13% go to school full-time; another 14% are part-time workers. Most of the full-time workers and students commute 5 days a week on an 8:30 a.m. to 5 p.m. schedule. Probably reflecting the most frequent workplaces for the residents of the area—downtown San Francisco, downtown Oakland, downtown Berkeley, and the UC campus—only 32% of the respondents reported having a free parking place at work, while 23% have a free transit pass, and 13% have showers and lockers at work (a boon for cyclists and walkers). Accordingly, only about 46% of the workers drive alone or with others; 15% commute by bus, and 15% commute by rail transit; 9% walk, and 9% bicycle. Grocery shopping is another trip that makes use of, but is not usually destined on, San Pablo Avenue; only in El Cerrito and a small part of Emeryville and Oakland did respondents report shopping at a grocery located on the avenue.

As might be expected, residents make 85% of grocery shopping trips by car. The modes of other shopping trips vary considerably. About half of the respondents report that they use a car for the majority of their trips along San Pablo Avenue; 30% walk for most of the trips, 10% bike, and 10% take transit. However, most respondents use different modes depending on the circumstances. For example, nearly two-thirds walk some of the time, 44% take the bus some of the time, and 40% sometimes bike or take Bay Area Rapid Transit (BART).

Overall, more than 90% reported at least one round trip a week to a destination on San Pablo Avenue; 32% made three to five trips to San Pablo each week, and 35% made five or more such trips. About two-thirds of these trips are in cars, and the majority of the rest are made on foot. In other words, residents along San Pablo Avenue are a big share of the drivers on the arterial as well as a big share of the pedestrians.

As San Pablo Avenue undergoes changes, most residents hope for local-serving retail such as cafes, bakeries, and produce stores. Most would like to see a reduction in the number of auto-oriented services, even though most also use some of these services. Most prefer small-scale retail over big-box.

FINDINGS FROM FOCUS GROUPS

Because some of the responses to the survey were apparently contradictory (e.g., residents drove a lot but disliked traffic along San Pablo Avenue, and residents both praised and criticized current land uses along the avenue), the focus groups offered an important opportunity for more in-depth exploration of the issues. One feature of the discussions was that while the questions were raised about San Pablo Avenue in general, nearly all the participants focused on the portions of San Pablo Avenue in their city of residence and on the nearest shopping node to their homes. The one notable exception was that during discussions of street design, members in every group brought up Berkeley's wide median and large trees as desirable features that other cities would do well to emulate.

For the most part, residents raved about their neighborhoods, confirming the survey findings that residents appreciated the neighborhoods' affordability, accessibility, friendly atmosphere, and convenience to services. With regard to San Pablo Avenue itself, focus group participants' feelings were often negative. Many participants described San Pablo Avenue as an "unfriendly" street and explained that traffic conditions made it so. In El Cerrito and the northern part of Albany in particular, high speeds, unfriendly driving behavior, and inadequate crosswalks were major complaints. One focus group participant called it the San Pablo Freeway because of the high volumes and speeds. According to focus group participants, the nega-

tive characteristics of San Pablo Avenue are highlighted when one is a pedestrian—heavy, speeding traffic volumes, lack of respect for pedestrians on the part of drivers, chaotic turning movements, short pedestrian crossing times, lack of crosswalks at unsignalized intersections, and poor pedestrian-scale lighting were some of the reasons cited as explaining the street's "unfriendly" character.

Residents had a slightly different view of the street at night. At night, the avenue carries less auto traffic, and for long stretches businesses are closed, with the result that there is hardly any pedestrian travel after 6 p.m. Residents in each group expressed concern about, and even fear of, the "dark corners" on the avenue. When businesses are closed at night, neighbors avoid walking along San Pablo Avenue and prefer routes through neighborhood streets.

To improve the pedestrian environment, the strongest message from the residents concerned street trees. The segment of San Pablo Avenue that transects Berkeley has mature street trees, and neighbors in each city praised Berkeley's trees. In addition, residents along the avenue supported the idea of installing medians where they do not exist, planting trees in those medians, adding more marked crosswalks, and providing additional signage, lighting, pedestrian crossing time, and traffic-calming installations to give pedestrians a stronger presence on the street. Asked whether they would accept slower speeds and higher levels of congestion in return for more pedestrian comfort, the overwhelming response was yes.

Physical improvements to the street were therefore a priority for most focus group participants. But, few of the participants felt that physical improvements alone would make the street an attractive walking environment. As one put it, there has to be somewhere to walk to—the destinations need to exist before more walking along the street will occur. Indeed, several participants commented that there was pedestrian activity after dark only where there were restaurants, cafes, and entertainment centers that stayed open—with unlawful pedestrian activity (prostitution, drug dealing, and crime) in areas where no legitimate nighttime activities were present.

Bicyclists said they avoid San Pablo Avenue for many of the same reasons pedestrians expressed. In some neighborhoods along the avenue, bicyclists have convenient alternate routes, but these alternate routes do not provide refuge to cyclists riding to locations on San Pablo Avenue. One result is that many cyclists use the bike routes until they get close to their destinations, then ride on the sidewalks when they must travel down the avenue. While recognizing this behavior as a problem, bicyclists did not agree on whether San Pablo Avenue should have a bike lane; many felt there was insufficient space for a bike lane without removing other valued amenities (wide sidewalks, landscaping, street trees, a green median, on-street parking). The dilemma remains on how to connect the cyclist from side-street routes to destinations on San Pablo Avenue.

Most of the participants in the focus groups also drive cars on San Pablo Avenue. Therefore their stated willingness to accept lower speeds and worsened congestion in return for better pedestrian conditions could affect them personally, as drivers. Asked about this, several admitted that they "routinely speed" on San Pablo Avenue, behavior they attributed to poor street design for the context—wide lanes, long vistas, and few breaks in traffic. Several argued that the street should be redesigned for a lower speed. Most of the participants thought it would be reasonable to lower speeds for cars to 25 or 30 mph along the arterial and to give both pedestrians and transit more priority.

In contrast to the broad support for lowered speeds, when discussing the acceptability of congestion, the participants had mixed reactions. Some said that they already avoid driving on San Pablo

Avenue when it is congested. Instead, they time their trips to avoid congested periods, use alternate arterials, or stay on neighborhood streets. At the same time, a number of participants complained about traffic cutting through neighborhoods and urged traffic calming on the neighborhood streets to reduce this adverse impact. Hence the acceptability of increased congestion is not as clear as the acceptability of lowering the speed along the avenue.

Improved transit service, especially bus service, also appeared attractive to most participants. A handful of participants in each focus group discussed their experiences riding transit on San Pablo Avenue. Users of the Alameda-Contra Costa Transit District (AC Transit) RapidBus come from all neighborhoods along the avenue, and many of the riders do not have access to automobiles. RapidBus riders said that they like its service, though they had remaining concerns about bus frequency, connection times for transfers, and lighting and shelter at the bus stops. In addition, few were interested in using bus-to-BART options. Most BART users were concentrated in El Cerrito, where two stations are just off San Pablo Avenue. Elsewhere, participants thought of BART as too distant to be a convenient option for their commutes.

Most participants saw land use issues as intimately tied to transportation consequences along San Pablo Avenue. The auto-oriented uses such as repair shops, gas stations, parking lots, and auto dealers concentrated on San Pablo Avenue received mixed reviews. Although neighbors said that they appreciate the convenience of the nearby auto repair shops, many participants said that there are too many of these shops and that some of them are unattractive and alienating. Residents who live close to the shops reported that fumes from the shops and cars spilling over into the street are two negative externalities that they do not want to live with. Residents agreed, however, that the design and management of the auto repair shops make a difference (e.g., a shop with razor wire, anti-theft lights, and cars parked helter-skelter is a detriment to the community; a shop with fresh paint, attractive signage, and landscape-quality fencing, plantings, and lighting can be a good neighbor and an asset to the community).

Run-down buildings, neglected vacant lots, and litter are other negatives that plague some stretches of San Pablo Avenue. In parts of the corridor where such problems persist, respondents actually avoid the avenue. As one participant said of such a stretch, "San Pablo Avenue is a route to get from Point A to Point B, but it is not a destination itself."

Crime and other social problems also were raised during discussion. Both the run-down areas of San Pablo Avenue and some of the more economically successful areas have had problems with drug dealing and prostitution—operating from fast-food joints and liquor stores, around clubs, and in some cases at bus stops. In addition, some female residents said that they frequently receive harassing catcalls while walking on some stretches of San Pablo Avenue, which makes them feel unsafe. Parents of children generally said that they have concerns about children and teenagers traveling along the avenue at night.

Residents had a clear set of ideas on the sorts of land uses that would be best received. Examples of new, higher-density, mixed-use developments have begun to appear along the avenue. A few residents had strong, negative opinions of the new buildings, and others offered strong support of such developments; but most of the focus group participants supported the additional development with a few caveats. First, residents do not want increased competition for on-street parking because many people rely on the street parking in front of their homes for their own cars—older houses and apartments in

the area were often built with few or no off-street parking spaces. The focus group participants therefore want assurance that the new residents have adequate off-street parking. They also want assurance that new developments will not look like "big-box" retail or "monolith" apartment buildings. Neighbors thought that the design of the buildings is important—the height should not be out of scale with the surrounding neighborhood (most thought three and sometimes four stories would be suitable), and the building should convey a sense of permanency rather than temporary residence. They say that the possibility for new development should be analyzed with design in mind, and further, if reduced parking is going to be justified on the basis of transit proximity or walkability of the area, a detailed study should be produced to establish reasonable parking levels.

ANALYSIS

Despite negative criticism about several aspects of San Pablo Avenue, both the resident survey and the focus groups show that residents of the surrounding neighborhoods use the street and the activities and land uses located along it. Each group also expressed a sense of identity in their neighborhoods. Residents in El Cerrito appreciate that it is quiet, diverse, progressive, and supportive of smaller, local, independent commerce and in-fill development. Residents in Albany said that they "love" their neighborhood, which they describe as a small town with strong community that is perfect for walking. Berkeley residents identify with Berkeley because of the social and cultural resources there and the diverse population. Residents in North Oakland expressed a strong sense of community and history and the patience to support their neighborhoods even during cycles of decline. Emeryville residents said they like their neighbors, the sense of safety in their neighborhoods, and the access to commerce and transportation.

Each group gave considerable attention to pedestrian travel, and participants said that they enjoy walking through the neighborhoods adjacent to San Pablo Avenue. Pedestrian activity along most stretches of San Pablo Avenue is low, because most perceive it as a hostile environment for pedestrians. Fieldwork confirmed that the residential neighborhoods are high-quality walking environments with light traffic, sidewalks, and numerous attractive houses, gardens, and street trees. However, people do in fact walk on some stretches of San Pablo Avenue. Respondents said that they walk to restaurants on San Pablo Avenue instead of driving, if they are going out for a quick meal.

Participants made a distinction between a "walkable" street and one that is an attractive destination for walking. This distinction became clear when participants compared San Pablo Avenue with other tree-lined shopping streets not far from San Pablo Avenue. Improvements that participants suggested would make San Pablo Avenue more "walkable" included traffic calming to slow traffic, management of the turning and parking movements, improved lighting at the scale of pedestrians, installation of safety medians in locations where they do not exist, provision of street trees for shade and beauty, and reduction of hazards at intersections with long crossing distances.

In addition to these physical and aesthetic elements, residents expressed strong positive opinions about increasing the levels of activity on San Pablo Avenue. From these focus groups, it was learned that efforts to revitalize San Pablo Avenue with changes in the physical environment, such as planting trees, will not work unless they include land use changes that increase the level of activity on the street. Plans to improve the pedestrian experience are not sufficient

because many perceive San Pablo Avenue as a dangerous place because there are so few people on the street, especially at night.

Many of the transportation and land use planners from communities along San Pablo Avenue view the corridor as a possible regional destination, with good access to freeways and good auto mobility. Indeed, arterials such as San Pablo Avenue are often seen as promising locations for region-serving retail. Regional retail can provide service to many, but neighbors in the focus groups said they find it alienating when the scale of the buildings, parking, and demand do not correspond with the scale of the neighborhood and the identity of the neighborhood.

Residents, in contrast, view the corridor a few blocks at a time, as a series of neighborhood shopping districts. In thinking about future development, they generally suggest land uses that could serve local needs. Local needs vary somewhat across the focus group locations but generally include restaurants and cafes, a laundromat, a dry cleaner, a gas station, a grocery or a series of specialty food stores, and possibly clothing stores or other specialty uses.

When land uses are not useful for neighbors and not suitable for window-shopping, residents will avoid the arterial street and take quieter, parallel residential streets to their destinations even when they do make their trips by walking. The loss of residents could in turn undermine attempts to increase walking in the corridor; if people don't like to walk when there are no other walkers present, surely visitors will not find walking an attractive option in low-walk areas. Unlike the local residents, however, these visitors from other parts of the region will probably arrive by car and move shop to shop by car, not knowing about alternative parallel routes through the neighborhoods. In short, if neighborhood residents won't walk on San Pablo Avenue, it's likely no one else will, either.

A street like San Pablo Avenue needs (a) a safe physical environment for pedestrians, (b) land uses that create activity on the street during the day and at night, and (c) land uses that are useful to neighbors. If these activities could be concentrated in areas that invite pedestrian travel, then the clustering increases access to each of the uses and provides support for seed businesses. These locations also would be ideal for bus stops.

Discussions of scale and identity led to the topic of design. Participants in the focus groups were sensitive to design, which is promising because it could be used to integrate new residential and commercial developments into the neighborhood. For example, neighbors found that auto uses detract from the pedestrian environment, but if they were designed to be compatible with pedestrian travel, then they could be integrated. Another example of the use of design to integrate a diversity of land uses is from housing. Participants agreed that housing developments designed to reflect local topographies and neighborhood characteristics would make higher-density development more acceptable to neighbors.

Neighbors who drive on the avenue complained about congestion and reported avoiding the congestion by choosing alternate routes through the adjacent neighborhoods. At the same time, participants in each group said that speeding vehicles on neighborhood streets are a serious problem. Neighbors also discussed their desire for traffic calming on their own residential streets. This situation is an example of the system effects of urban arterials and their influence on the local road network. Similar to the spillovers of fumes from auto repair shops and controversies about the use of on-street parking, traffic diversion into residential neighborhoods is an example of how system effects influence the quality of life of residents. These

effects need to be accounted for in order to create a complete plan for an urban arterial.

There is a second type of spillover that affects the quality of life of neighbors of San Pablo Avenue—the social spillovers from the avenue. The social elements of the avenue include the level of activity on the street (or loneliness of the place), the presence of “dark corners,” prostitution, perceptions of housing status, instances of harassment, and neighborhood identities. All these things that occur on the street are part of “street life” and are elements of the transportation system. These are issues that affect the neighbors’ decisions about their use of San Pablo Avenue—or their decision to go to an alternate location. These factors also affect their decisions to walk, drive, bike, or ride transit. Participants reported being much more comfortable on the street at night when they were at a restaurant with sidewalk seating or at a lively café that stays open late. They also were more comfortable in the presence of such active land uses when they themselves were not partaking of the activities offered but were merely passing by.

CONCLUSIONS

City officials and community members would like to see the revitalization of San Pablo Avenue. Residents would like to see more pedestrian-oriented activity on the avenue during the day and at night. But the right environment needs to exist to support the pedestrian activity. From participants in the focus groups, it was learned that many would favor the development of grocery, produce, and specialty food shops; neighborhood-serving cafes and restaurants; and recreation opportunities for both children and adults. Mixed-use projects with ground-floor retail and upper-story offices or housing are favorably received by residents if well designed and planned, but many residents are concerned that the size and scale of such development not be too far out of scale with the single-family homes in adjacent neighborhoods. Residents are also concerned about parking spillover from these projects and the lack of community-serving retail if the development has ground-floor retail. Hence, plans for revitalization must account for the varying prospects along different stretches of the avenue, must be combined with traffic management strategies, and must pay attention not only to economic growth, affordability, and inclusion, but to the social assets and liabilities of transportation systems.

The transportation planning, urban design, and social issues on San Pablo Avenue are not unique to San Pablo Avenue or to these communities. Other communities in the United States and in other parts of the world have similar corridors with similar issues. This is why lessons from San Pablo Avenue are valuable. Other communities and professionals grapple with urban arterials and ask how to balance the needs of different users, manage traffic growth, and integrate the transportation service elements of the street with housing, commercial, social, private, and public needs. This paper shows how community perspectives on the development process, transportation, and land use can provide insights and guidance for such design efforts.

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