Transportation & Environmental Justice

case studies

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

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December 2000

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Publication No. FHWA-EP-01-010

Introduction

"No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." - **Title VI of the Civil Rights Act of 1964.**

"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." - **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994**

Title VI of the Civil Rights Act of 1964 set a standard which authoritatively outlawed discrimination in the conduct of all Federal activities. Although considerable progress toward nondiscrimination has been made during the 1990s, individuals both inside and outside government are troubled by the high and adverse environmental impacts of private or governmental actions that fall disproportionately on populations protected by laws such as the Civil Rights Act.

The term *environmental justice* was created by people concerned that everyone within the United States deserves equal protection under the country's laws. Executive Order 12898, issued in 1994, responded to this concern by organizing and explaining in detail the Federal government's commitment to promote environmental justice. Each Federal agency was directed to review its procedures and to make environmental justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on minority populations and low-income populations. The U.S. Department of Transportation (DOT) issued its *DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations* in 1997. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have been working with their State and local transportation partners to make sure that the principles of environmental justice are integrated into every aspect of their transportation mission.

There are three fundamental principles at the core of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Some transportation practitioners are concerned that environmental justice is a new requirement thrust upon State and local agencies. The truth, however, is that the recipients of Federal-aid have long been required to certify, and the U.S. DOT must ensure, nondiscrimination under Title VI of the Civil Rights Act of 1964 as well as under many other laws, regulations, and policies.

Moreover, environmental justice is more than a set of legal and regulatory obligations. FHWA and FTA have embraced the principles of environmental justice as a means toward improving the transportation decision-making process. Today, effective transportation decision making requires understanding and addressing the unique needs of many different socioeconomic groups. Early, inclusive, and meaningful public involvement in transportation decision making is a proven means for designing transportation facilities that fit more harmoniously into communities. The involvement of people potentially affected by transportation projects offers many benefits and does not threaten the accomplishment of other U.S. DOT priorities, such as safety and mobility.

Recently, FHWA and the FTA began developing technical assistance training materials to educate Federal transportation agency staff, State Departments of Transportation (State DOTs), Metropolitan Planning Organizations (MPOs), transit providers and the public about environmental justice. FHWA and FTA have developed a joint web site, created a brochure, and prepared other technical assistance products including this case study booklet to promote a deeper understanding of the responsibilities and obligations as well as the opportunities and benefits created by accomplishing environmental justice.

The case studies included in this booklet are part of FHWA's and FTA's ongoing effort to put environmental justice at the center of transportation decision making. These cases show that, when properly implemented, environmental justice principles can improve all levels of transportation decision making — from the first thought about a transportation plan through project development, right-of-way, construction, and operations and maintenance. The cases also illustrate that the pursuit of environmental justice is not a simple task. It may sometimes test the practitioner as well as stretch the imagination of the transportation agency. Many "success stories" did not start successfully. They began to take shape only after taking a closer look at community needs, different perspectives, and the reasoning behind opposition. Achieving environmental justice as part of the agency's mission may demand humility, reflection, and flexibility in the face of criticism. The practitioner may be called upon to explore new methods and new partnerships. Eliminating discrimination, and the appearance of discrimination, often requires probing analysis of transportation issues, broad-based community outreach, and a particular sensitivity to the needs of local populations including the needs of people who have not traditionally been participants in decision-making processes.

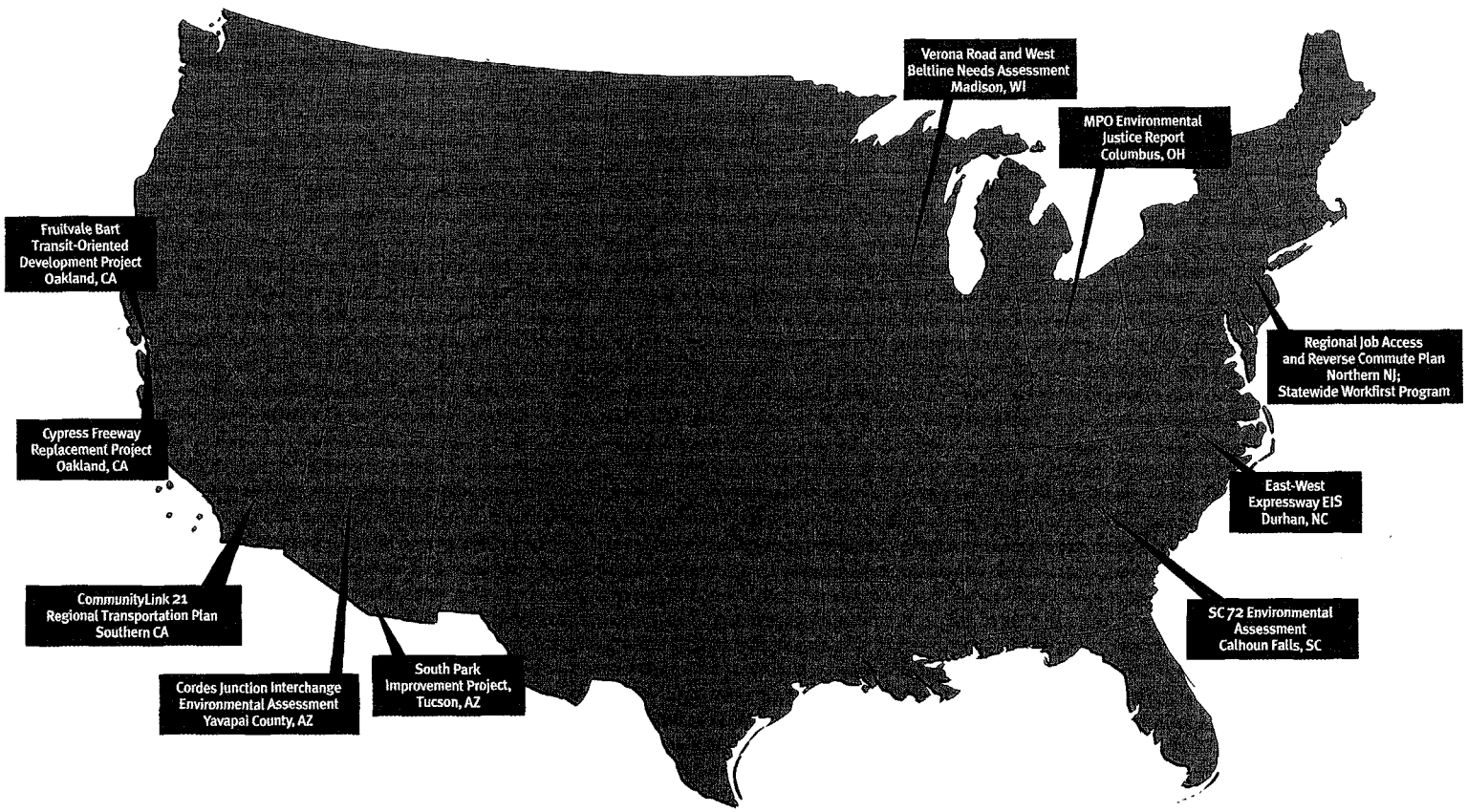
The cases included in this booklet sometimes feature dramatic stories and sometimes highlight commonplace techniques that have been used to promote environmental justice in transportation. As the list below shows, these 10 cases are drawn from all aspects of transportation decision making. The case studies detail both analytical and procedural issues relevant to a diverse community including: FHWA, FTA, State DOTs, MPOs, transit providers, other partnering government agencies, community organizations, environmental interest and environmental justice advocacy groups, businesses, academic institutions and the public. The cases can be read individually, or can be used together or separately as part of a training program for improving environmental justice responsiveness. The summary table highlights several characteristics of the case studies to assist readers in finding examples particularly relevant to their interests or to a specific stage in the transportation decision-making process.

Summary of Case Studies: Study Activities, Topics and Effective Practices, and Other Characteristics

Case Study Name/Geographic Distribution	Type of Activity					Community	Research Topics	Type of Stakeholder		
	Planning	Project Development (NEPA)	Evaluating Right-of-Way	Community Impact Assessment	Public Involvement	Minority/Low Income Population	Topics and Effective Practices	Geography (Urban, Rural)	Mode	Agency Involvement
1. Verona Road and West Beltline Needs Assessment Study (Madison, WI)	X				X	B,A,LI	Early Public Involvement	U	Roadway	Wisconsin DOT
2. Job Access and Reverse Commute Planning (Northern NJ and Statewide)	X					M,LI	Data Souces, GIS Analytical Methods, MPO Regional Coordination	R, U	Transit	NJTPA - MPO ; State Health and Human Services
3. East-West Expressway Environmental Impact Statement (Durham, NC)		X	X	X	X	B, LI	Title VI Complaint, Housing of Last Resort, Mitigation and Enhancements, Collaborative Plans	U	Highway	North Carolina DOT, City of Durham, Crest St. Community
4. Southern California Regional Transportation Plan, (Southern CA)	X					M, LI	Data Sources, Analytical Techniques, Benefits/Burdens, Alternative Dispute Resolution	U	Roadway, Transit	Southern California Association of Governments - MPO
5. Cypress Freeway Replacement Project (Oakland, CA)		X	X	X	X	B,LI	Project Development, Right of Way, Public Involvement, Mitigation and Enhancements	U	Highway	Caltrans
6. Fruitvale BART Transit-Oriented Development Project (Oakland, CA)					X	H,B,A,LI	Partnerships, Enhancements, Public Involvement	U	Transit	BART, City of Oakland, Unity Council
7. MPO Environmental Justice Report (Columbus, OH)	X				X	H,B,LI	Data Sources, Analytical Techniques,	U	Roadway, Transit	Mid-Ohio Regional Planning Commission - MPO
8. South Park Avenue Improvement Project (Tucson, AZ)					X	H,LI	Partnerships, Enhancements, Context-Sensitive Design, Public Involvement	U	Bike/Ped, Transit	FTA, Tucson DOT, HUD
9. Cordes Junction Interchange Environmental Assessment (Yavapai County, AZ)		X	X		X	N	Tribal Consultation, Cultural Resources Assessment	R	Highway	Arizona DOT
10. South Carolina Route 72 Environmental Assessment, (Calhoun Falls, SC)		X	X	X	X	B,LI	Community Impact Assessment, Public Involvement	R	Highway	South Carolina DOT

Population
B = African American; N = Native American; H = Hispanic Origin; A = Asian; M = Minority; LI=Low Income

Case Study Location Map



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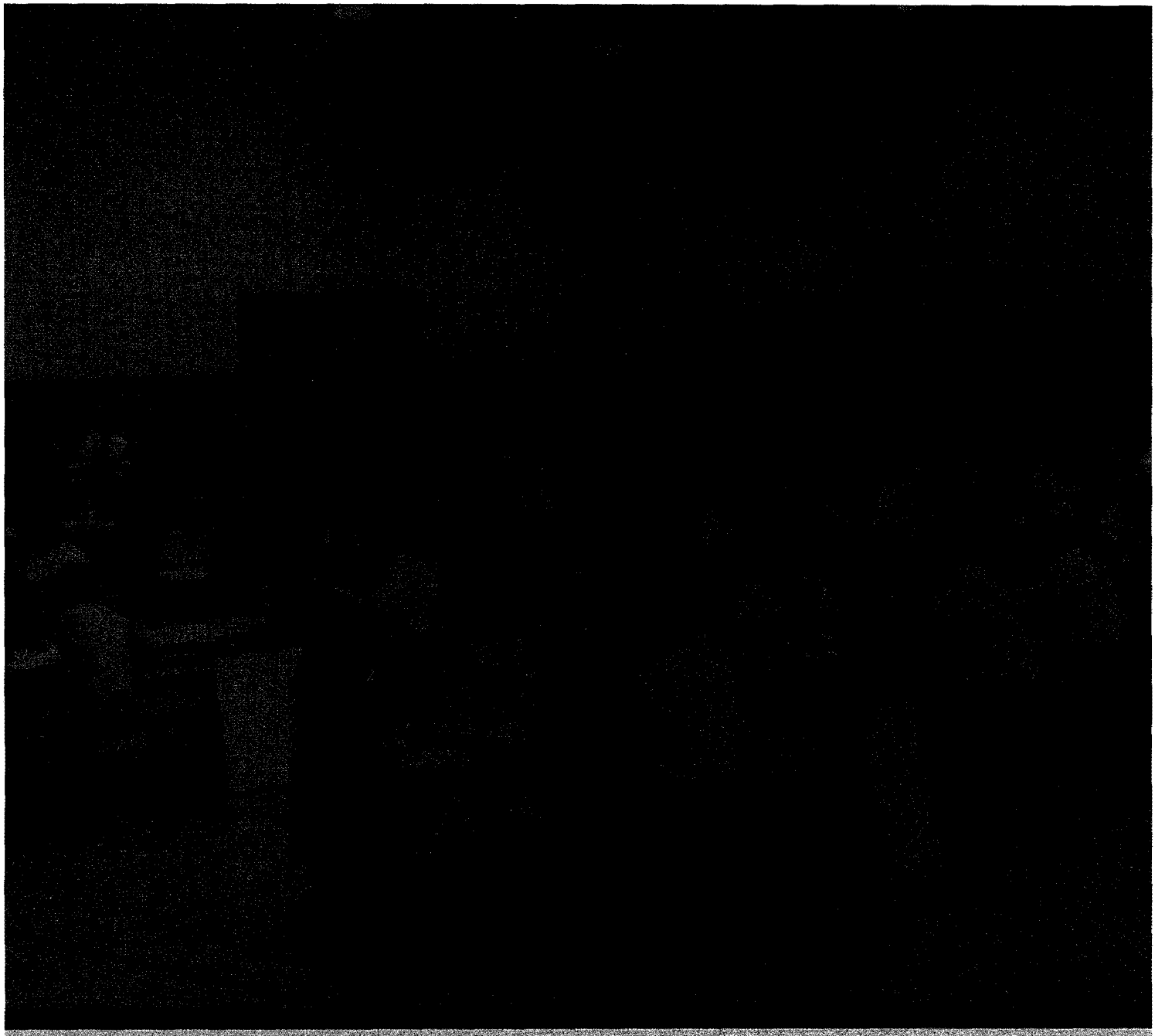
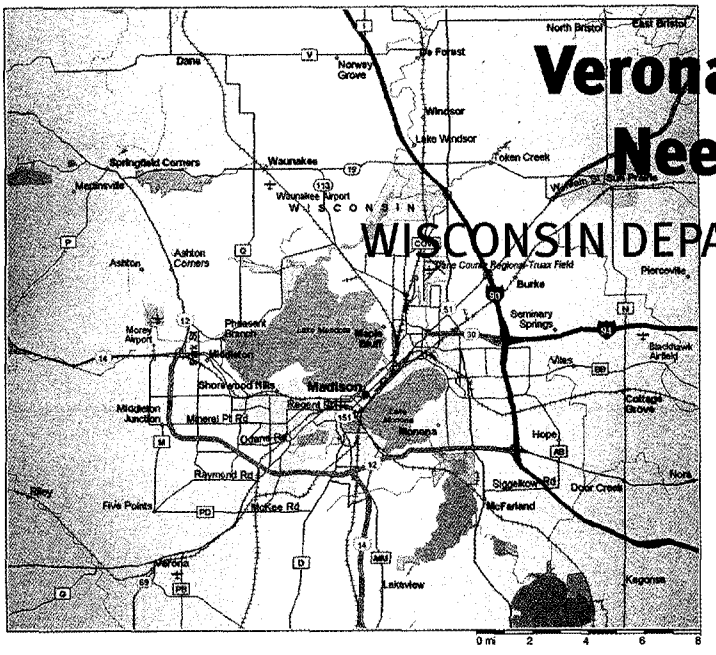


Early Public Involvement



Verona Road/West Beltline Needs Assessment Study

WISCONSIN DEPARTMENT OF TRANSPORTATION

Introduction

In 1997, Wisconsin Department of Transportation (WisDOT) initiated a process leading to a transportation needs assessment study of Verona Road and the West Beltline, two of the City of Madison's most heavily traveled corridors. Over the years, congestion problems at the intersection of these two highways have increased significantly. The configuration of the intersection of Verona Road and the West Beltline essentially isolates the predominantly minority community of Allied Drive from the rest of Madison.

The National Environmental Policy Act (NEPA) does not require a needs assessment study for highway projects. However, given the political sensitivity of implementing major public works undertakings in the progressive community of Madison, WisDOT decided to undertake this effort *before* entertaining any discussion of an actual project. The purpose of the study was to analyze the Verona Road/West Beltline corridors from numerous road user perspectives, including drivers, pedestrians, cyclists, and transit users, and those of neighborhood residents and businesses. WisDOT initiated a variety of public outreach strategies to obtain public input into the needs assessment process, with special efforts to involve Allied Drive neighborhood residents.

WisDOT's efforts to engage Allied Drive community residents in the needs assessment study process help answer three key questions about involving low-income and minority populations in transportation planning efforts:

- What is the value of public involvement from a transportation planning perspective?
- How is meaningful public involvement best achieved?
- What are the difficulties of conducting effective outreach to a low income, transient community?

Ultimately, WisDOT's creative and persistent efforts to involve stakeholders — including low-income and minority residents — early in the planning process provided several important benefits. Not only were a number of key issues and concerns identified that might otherwise have been overlooked, but also public support for the process was mobilized through the participation of a wide variety of groups. Although it was occasionally difficult to attain meaningful public involvement, WisDOT's commitment of time and effort enabled this project to advance from a dialogue that strictly addressed needs and concerns to a discussion of possible solutions — with surprisingly little public acrimony. In a community such as Madison, which has been reluctant to embrace major transportation projects, establishing this type of open communication and cooperation is a significant accomplishment.

The Madison Region and Community

Madison is the capital city of Wisconsin and home of the University of Wisconsin at Madison, one of the Nation's largest universities. With a population slightly more than 200,000, Madison is Wisconsin's second largest city. Madison is located in Dane County, which apart from the city and the surrounding metropolitan area, is largely rural and agricultural (see Snapshot of the City of Madison).

Madison has a relatively diverse economic base. The public sector is the area's largest employer. Approximately 66,000 individuals — one-third of the Madison metropolitan area's workforce — are employed in local, State, and Federal government. The University of Wisconsin provides many of these jobs. Because of the university, Madison is also emerging as an important high-tech employment center. Most notably, the university plays an integral role in research and development for Wisconsin's dairy and agricultural industries, and Madison remains a leading center both on- and off-campus for this essential state industry.

Madison has long had a reputation as a stronghold for liberal thinking and civic activism, and there is usually intense public involvement in decisions affecting public schools, land-use questions, historic preservation, and other issues. Madison is home to a substantial number of public interest organizations, and major public decisions typically require a consensus of many groups, a situation that frequently leads to gridlock. For example, it took 50 years to successfully site and complete the Monona Terrace Community and Convention Center, a building designed by Frank Lloyd Wright.

The Allied Drive community is an exception to the vast majority of Madison neighborhoods, which are primarily stable and middle class. Located in the southwestern portion of the city, Allied Drive is home to approximately 4,000 residents. The neighborhood has a significantly greater proportion of minority and low- to moderate-income residents than the rest of the

Snapshot of the City of Madison

Location:
- Wisconsin State Capital
- Main campus of University of Wisconsin

Population: Over 200,000 Persons

Racial and ethnic composition:
- Minority Population - 10.5 percent
- African American - 4.2 percent
- Asian - 4.0 percent
- Hispanic - 2.0 percent
- American Indian - 0.3 percent

Median household income: $29,240

Households earning less than $20,000: 26 percent

Source: 1990 U.S. Census

Snapshot of the Allied Drive Neighborhood

Location:

Southwest Madison, at the intersection of Verona Road and the West Beltline

Population: 4,000

Racial and ethnic composition:
- African American - 70 percent
- Southeast Asian - 15 percent
- Hispanic - 5 percent
- Other - 10 percent

Median household income: $21,600

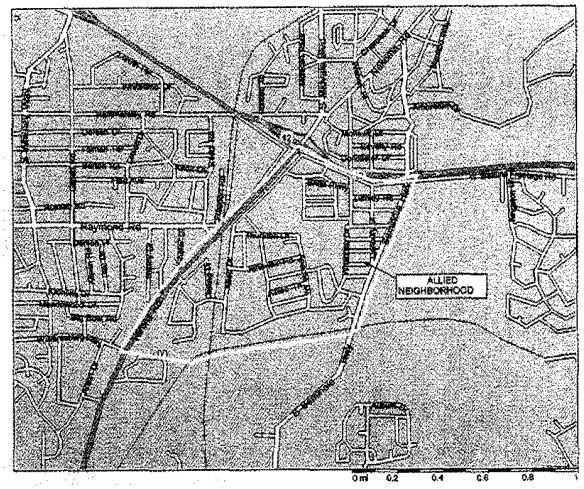
Households below poverty line: 30 percent*

Transportation concerns:
- 80 percent of residents do not own vehicles.
- The neighborhood is served by only one bus line.

Sources: 1990 U.S. Census.
Preliminary Estimate of Weighted Average Poverty Thresholds for 1999, U.S. Census Bureau, 1999.

Vehicle data from Allied-Dunn's Marsh Neighborhood Center.

* The U.S. poverty threshold for a family of four was $12,674 at the time of the 1990 U.S. Census. The U.S. Census Bureau estimates the comparable poverty threshold at $17,028 in 1999.



The Allied Drive neighborhood has a higher proportion of minority and low-income residents than other parts of Madison.

city, a fact which is common knowledge in Madison (see Snapshot of the Allied Drive Neighborhood).

The Allied Drive neighborhood was originally developed in the 1960s with construction of more than 1,500 residential dwelling units. The neighborhood remained largely middle class until an influx of low-income minorities to Dane County in the 1990s. Allied Drive became an entry point into the Madison area for many of these individuals. The neighborhood developed a transient character as many residents moved out as soon as they were able to find alternative living arrangements.

The isolation of the neighborhood caused by the intersection of Verona Road and the West Beltline also separates Allied Drive from the rest of Madison, helping to concentrate poverty in the area. Transportation deficiencies were clearly among the multiple causes of the Allied Drive neighborhood's increasing economic distress. Approximately 80 percent of residents do not own a vehicle, and only one bus line serves the neighborhood. Limited transportation options help explain the "working poor" status of many Allied Drive residents because they simply do not have access to jobs that pay more than minimum wage. Lack of reliable, efficient transportation also makes it difficult for parents to participate actively in their children's schools.

What Happened

In 1997, WisDOT initiated a process to assess the needs of the Verona Road and West Beltline corridors. While the issues confronting the Allied Drive neighborhood were only one part of a broader set of area transportation problems, the specific needs of these residents could easily have been ignored without proper outreach and attention. Targeted community involvement throughout the needs assessment process helped WisDOT keep sight of the Allied Drive neighborhood's particular concerns.

As noted, Verona Road and the West Beltline are the two principal arterial roadways serving the west Madison area. The West Beltline was built during the 1950s and Verona Road dates to at least the 1920s. These two highways were originally constructed across primarily rural and agricultural areas outside of Madison serving as entry points into the city from the south and the west. Since the 1950s, however, the expansion of Madison's western fringe has gradually incorporated the two corridors into the Madison metropolitan area. Increasing traffic volumes on Verona Road and the West Beltline over the years have begun to place serious strains on both arterials and cause major delays, congestion, and diverted traffic onto neighborhood streets.

While the purpose and need for transportation projects must be described as part of the NEPA impact assessment process on projects that require Federal funding or permits, the NEPA process is not always the best forum for an initial assessment of transportation needs. WisDOT was mindful of the potential role of pre-NEPA transportation studies to identify and build support for transportation solutions acceptable to a diverse set of stakeholders. Recognizing that a project of this magnitude would be difficult to advance in the highly politicized community of Madison, WisDOT

Project Chronology

1948-53
West Beltline is constructed as a 2-lane roadway.

1997
WisDOT initiates process to assess the needs of the Verona Road and West Beltline corridors.

1997-99
Meetings held to obtain public input into the needs assessment process.

May 1999
Verona Road/West Beltline Mayor's Advisory Committee is formed.

June 1999
A charrette presents the needs assessment study's findings to the public and begins to identify solutions.

July 1999
Verona Road/West Beltline Needs Assessment study is released.

March 2000
Mayor's Advisory Committee issues recommendations for short-term improvements to the Verona Road and West Beltline corridors.

May 2000
Mayor's Advisory Committee introduces resolution into city council advising WisDOT to initiate the NEPA process for the Verona Road and West Beltline corridors.

determined that a thorough evaluation of needs should precede any discussion of solutions. It was also clear that the needs assessment phase would require extensive public involvement to build the constituency necessary to advance recommended projects to the next stage. Thus, a major public outreach effort over a 2-year period from 1997 to 1999 began the needs assessment.

During the course of this public outreach process, extra efforts were made to involve the predominantly minority community of Allied Drive just south of the West Beltline along Verona Road. With relatively few vehicle owners, this neighborhood was concerned chiefly with pedestrian, bicycle, and transit issues. A neighborhood open house at the Allied-Dunn's Marsh Neighborhood Center was held to explain the study process to neighborhood residents and obtain input from the community. In addition, a representative from the Center was appointed to a committee convened by the mayor of Madison as an advisory group to the project.

Participating Allied Drive residents voiced concerns about safety and accessibility, including:

- The section of Verona Road adjacent to the Allied Drive community had no sidewalks, although residents pointed to the presence of well-worn footpaths as evidence of significant pedestrian traffic.
- Allied Drive residents found it difficult to cross Verona Road to access retail establishments on the west side of the street. Efforts to cross 7 lanes of traffic frequently left pedestrians stranded halfway across the intersection because the light changed before they had time to reach the other side.
- Traffic and pedestrian issues not only contributed to the isolation of the Allied Drive community from the rest of Madison, but they also presented a serious safety threat to community residents. In winter 1998, an 11-year-old girl trying to cross Verona Road to reach a convenience store on the other side was struck and seriously injured by a hit-and-run driver.

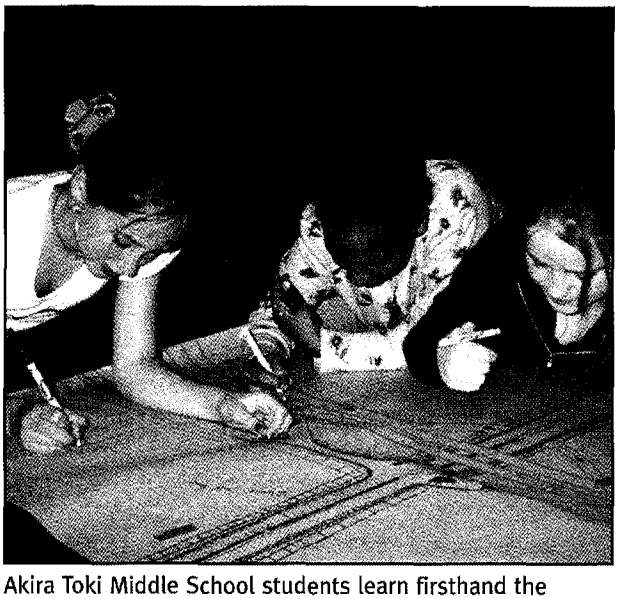
The Verona Road/West Beltline Mayor's Advisory Committee

The Mayor's Advisory Committee played an important role in advancing the Verona Road/West Beltline planning process beyond the needs assessment phase. The committee, which included city council members, neighborhood organizations (including Allied Drive), and business groups, served as a forum for building a constituency around the project and as a vehicle for moving the project forward.

A March 2000 committee report asked WisDOT to begin implementing short-term improvements for the Verona Road and West Beltline corridors. Several months later, the Committee introduced a resolution into the city council advising WisDOT to initiate the NEPA process. The resolution calls on WisDOT to develop transportation solutions consistent with the goals identified through this very public needs assessment process. If the city council passes this resolution, it will be a significant milestone in Madison's transportation history, illustrating the importance of meaningful public involvement by all stakeholders, including low-income and minority residents, in the earliest stages of the transportation planning process.

An important aspect of WisDOT's outreach to the Allied Drive neighborhood was a partnership with Akira Toki Middle School, which is attended by children from Allied Drive and a number of other west Madison neighborhoods. WisDOT staff worked with students and teachers to develop a transportation and land use curriculum, which included having students prepare a pedestrian needs assessment for the Verona Road corridor. As part of the project, students conducted traffic counts and speed studies, interviewed community residents, and inventoried facilities. Students presented their findings to parents, WisDOT staff, city and county officials, and other interested individuals in a group presentation at the Madison municipal building.

The needs assessment study of Verona Road and the West Beltline incorporated comments and suggestions of Allied Drive community residents, together with those of the many other groups and individuals contacted through the public outreach process. Study findings were introduced to the community during a charrette at Akira Toki Middle School in June 1999. Roughly 150 neighborhood residents, business owners, public officials, and other stakeholders packed the school gymnasium on a hot, rainy summer evening to hear a presentation about the study and provide feedback.



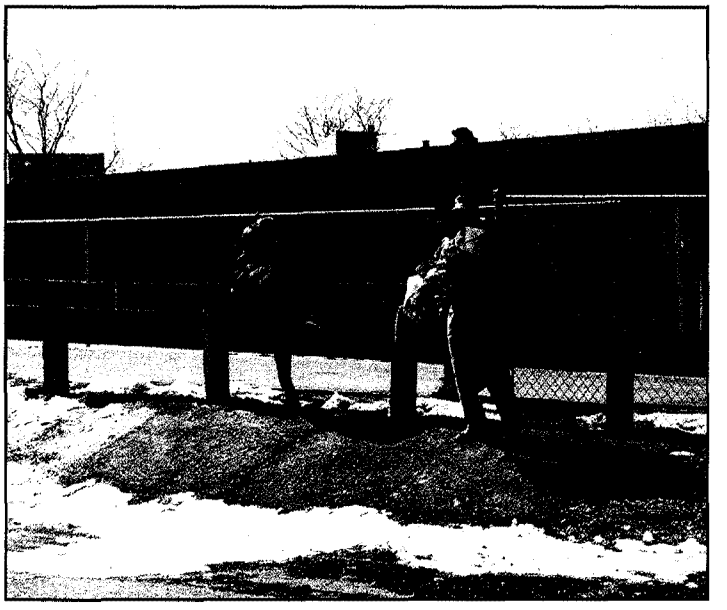
Akira Toki Middle School students learn firsthand the challenge of community-based transportation planning.

The charrette served both as a forum for introducing the study's findings to the community and as a bridge to Phase II of the project — identifying solutions. Workshop participants were asked to brainstorm about short- and long-term solutions, and their ideas were collected, organized, and presented to the Verona Road/ West Beltline Mayor's Advisory Committee. Some short-term improvements identified by charrette participants were implemented the following year,

including two pedestrian improvements along Verona Road adjacent to the Allied Drive neighborhood:

- A new pedestrian-activated signal at the median to facilitate safer and quicker pedestrian crossings of Verona Road.
- Improved accessibility to a pedestrian signal previously activated only by stepping over a guardrail.

WisDOT's efforts to involve representatives from Allied Drive in the decision-making process ensured that issues and concerns important to the neighborhood were recognized and acted upon even as the project moves beyond needs assessment to identifying and evaluating solutions.



Short-term improvements resulting from community outreach efforts included creating access to a pedestrian signal previously activated only by stepping over a guardrail.

Effective Environmental Justice Practices

The Verona Road/West Beltline Needs Assessment study provides important lessons about engaging members of the public in transportation decision-making processes. Efforts to promote public involvement should begin at the earliest planning stages that identify purpose and need. WisDOT's aggressive public outreach during the needs assessment phase of the project, including nearly 70 meetings, sensitized decision makers to community concerns and helped foster community buy-in to the project. Later on, the Mayor's Advisory Committee served as an additional vehicle for public participation and kept decision makers informed about community concerns about the project.

WisDOT and its partners used creative strategies to engage the public in the process. In addition to public meetings and the design charrette, WisDOT produced a 13-minute video to describe the needs assessment study. More than 200 copies of the video were distributed to city council members, local media, neighborhood organizations, business groups, and other stakeholders. In addition, involving local school children in the needs assessment process provided a sidewalk-level view of the world and produced a

The Verona Road/West Beltline Needs Assessment Community Outreach Process

- Held approximately 70 meetings with neighborhood organizations, local businesses, elected officials, and other stakeholders.
- Conducted in-the-street interviews to help identify pedestrian and bicycle deficiencies throughout the study area.
- Used creative engagement of local schools and children to identify pedestrian needs.
- Conducted a design charrette to explore needs, present study findings to the public, obtain feedback, and identify solutions.

Roughly 150 neighborhood residents, business owners, public officials, and other stakeholders packed the school gymnasium to learn about the study and provide feedback.

number of useful suggestions that were incorporated into the study.

Involving the Allied Drive community in the project presented special challenges. Because of the rather transient character of the area, it was difficult to identify leadership with well-established community roots. Three different neighborhood representatives served on the Verona Road/West Beltline Mayor's Advisory Committee in just over a 1-year period. Community residents, many of whom did not have long-standing commitments to the area, were not always eager to become involved.

Securing meaningful Allied Drive community involvement in the study process proved to be an uphill battle and required persistent efforts on the part of WisDOT and its partners to ensure that neighborhood interests and concerns were incorporated into the planning process:

I feel a personal involvement, an ownership of the solution.

– Design charrette participant
Akira Toki Middle School, June 1999

- A neighborhood open house at the Allied-Dunn's Marsh Neighborhood Center explained the study process and obtained feedback.
- To reduce barriers and attract participation by Allied Drive residents, the Akira Toki Middle School charrette offered free child care and free transportation to the event.
- Project managers worked to ensure that the Allied Drive neighborhood maintained a presence on the Mayor's Advisory Committee, despite the loss of several representatives during the previous year.

Challenges Ahead

The needs assessment phase of the Verona Road and West Beltline corridor analysis featured efforts to identify concerns of the Allied Drive neighborhood and to involve its residents in the decision-making process. However, needs identification is only the first step in a more comprehensive vision for transportation improvements in the study area. To meet the letter and spirit of Title VI and the Executive Order on environmental justice, WisDOT and its partners must reaffirm their commitment to the Allied Drive community in subsequent phases that involve project development and environmental review, preliminary and final design, right-of-way, construction, and operations and maintenance.

In the event that WisDOT moves forward with the environmental review process for the Verona Road and West Beltline corridor project, further analysis will be required to assess the impacts of proposed solutions on the local community. This analysis, whether in the form of an Environmental Impact Statement or Environmental Assessment, will need to pay careful attention to the interests and concerns of the Allied Drive neighborhood. Ongoing efforts to involve Allied Drive residents in project design and implementation will help ensure that the needs of this community are understood by project planners and incorporated into all decision-making processes.

"In a complex project, it is essential to get ideas from the public first. Involving all stakeholders early in the process should help identify important issues that otherwise might not surface until preliminary decisions are made. Transportation agencies need to recognize that the residents of an area know the transportation problems and have ideas for solutions."

– Susan Fox
Wisconsin Department of Transportation
(in American Association of State Highway Transportation Officials, Best Practices in Environmental Partnering: Raising the Bar, Washington, DC, 2000, p. 54)

Lessons Learned

When initiated, the Verona Road/West Beltline Needs Assessment Study process faced significant hurdles. Notwithstanding the politically turbulent community of Madison, the project advanced with remarkable speed. Moreover, it incorporated the needs and concerns of a low-income and minority neighborhood within the study area. The project's success provides three important lessons:

- Effective public involvement is best achieved through a variety of techniques. WisDOT and its partners held public meetings, open houses, and a charrette. They also produced a video to explain the study and engaged local school children in the study process.
- Meaningful public involvement helps ensure that solutions respond to genuine needs. The involvement of the Allied Drive neighborhood in the study process raised awareness of pedestrian, transit, and bicycle needs in the study corridors that otherwise might have received less attention. The transportation needs articulated reflected the community's sincere interest in creating a more livable community. This is a vital example of the way in which environmental justice enhanced the decision-making process.
- Facilitating the involvement of low-income and minority residents in the decision-making process may require special attention. Involving Allied Drive residents in the study process resulted only from persistent outreach efforts that involved significant time and resources investments by WisDOT and its partners.

The Participants

Key agencies and groups involved in the Verona Road/West Beltline Needs Assessment study:

- Wisconsin Department of Transportation
- City of Madison
- City of Fitchburg
- Dane County
- Verona Road/West Beltline Mayor's Advisory Committee
- Allied Dunn's Marsh Neighborhood Center
- Akira Toki Middle School

Benefits from Environmental Justice in Decision Making

For the Neighborhood:

- Allied Drive residents' issues and concerns were incorporated into WisDOT's *Verona Road/West Beltline Needs Assessment* study.
- Allied Drive residents won several short-term improvements that addressed their concerns for safety and more pedestrian-friendly traffic signals along Verona Road.
- Knowledge and experience gained through participation in the needs assessment study process will better equip Allied Drive residents to participate in future public decision-making activities.

For the Agencies:

- WisDOT's effective public involvement efforts — including outreach to Allied Drive — helped build the constituency necessary to move the planning process forward.
- Allied Drive's participation helped identify needs and concerns that might otherwise have been overlooked.
- WisDOT representatives gained experience working with low-income, minority communities that will be useful in future planning and project development efforts.
- Addressing needed short-term improvements builds trust between residents and agency that may prove helpful as other projects move forward to implementation.

References

Verona Road/West Beltline Needs Assessment, Wisconsin Department of Transportation, July 1999.

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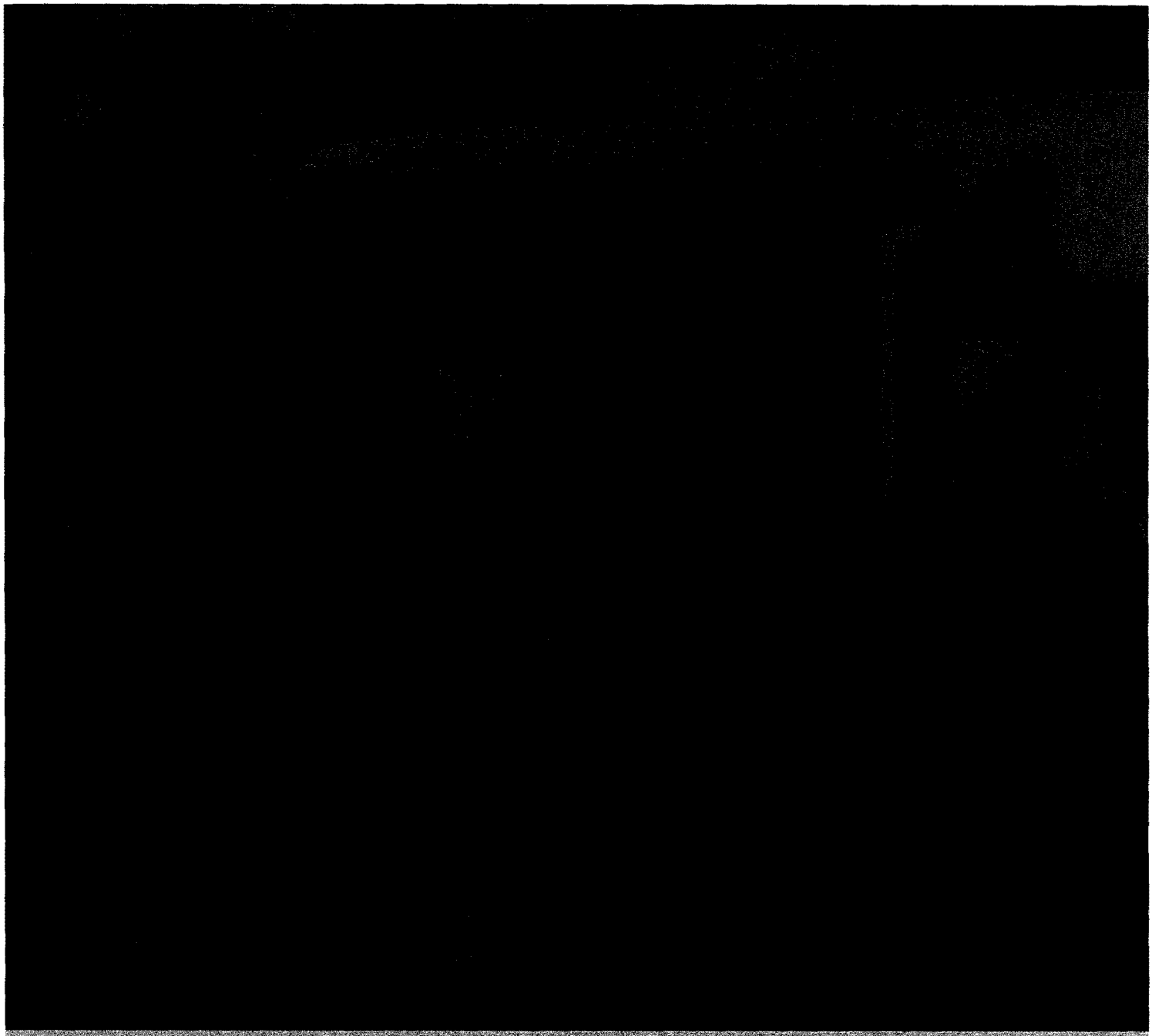
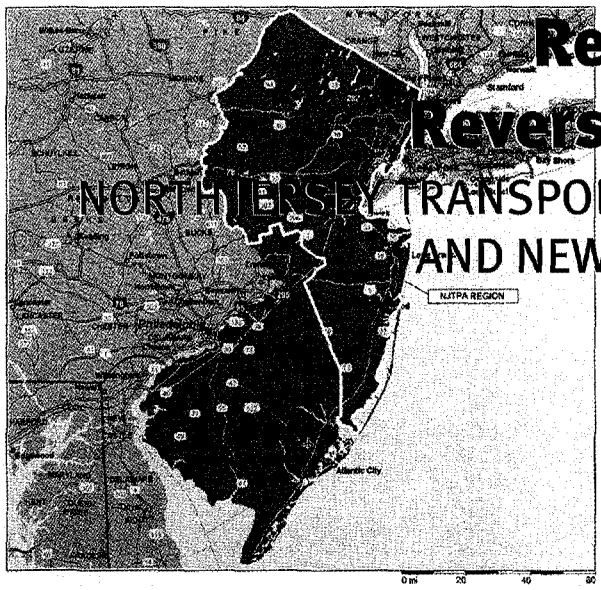


Data Sources, GIS Analytical Methods, and MPO Regional Coordination



Regional Job Access and Reverse Commute Planning:

NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY AND NEW JERSEY WORKFIRST PROGRAM

Introduction

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) replaced the former Federal welfare program with the Temporary Assistance to Needy Families (TANF) program. A hallmark of the legislation was imposed time limits and mandatory work requirements for welfare recipients. Commonly known as the welfare-to-work (WtW) program, TANF's goals include reducing welfare rolls and providing job skills for welfare recipients and opportunities for steady employment.

Secretary of Transportation Rodney Slater has stated, "Transportation is the *to* in welfare-to-work." The comment recognizes that welfare recipients often face unique challenges in searching for jobs and maintaining employment. In addition to disadvantages in education, work skills, and training, welfare recipients often lack access to vehicles or housing served by public transportation with which to reach most entry-level and service sector jobs. Estimates are that approximately 75 percent of welfare recipients nationwide live in central cities or rural areas, whereas two-thirds of the suitable job opportunities are in the suburbs. For welfare-recipients to successfully meet the challenge of balancing work and family responsibilities, necessary support services, such as child care and shopping, must be readily accessible. Traditional public transportation services typically do not address these unique commuter demands. Inadequate transportation services are a barrier to the success of the welfare-to-work program.

The Transportation Equity Act (TEA-21) of 1998 included the Job Access and Reverse Commute Program to address the mobility challenges facing welfare recipients and low-income persons. This grant program requires States to develop solutions collaboratively with Metropolitan Planning Organizations (MPOs), local and regional transportation agencies, and social service providers. Partnerships are essential to the success of WtW because reliable access to jobs involves more than merely providing transportation to and from work. In implementing this program, the Federal government acknowledged MPOs as good administrators that already coordinate a wide variety of regional planning agencies.

WorkFirst New Jersey

The State of New Jersey implemented its welfare program, WorkFirst New Jersey (WFNJ), following passage of PRWORA. Like the Federal initiative, WFNJ emphasizes moving aid recipients off welfare rolls and into steady employment.

In 1997, the New Jersey Department of Human Services (NJDHS) studied the State's bus transportation network for its ability to help

The Job Access and Reverse Commute Program

The Job Access and Reverse Commute Program provides grants to help States and localities develop a coordinated regional approach to new or expanded transportation services that connect welfare recipients and other low-income persons to jobs and other employment-related services. Projects funded must result from collaborative planning efforts that include States and MPOs, transportation providers, agencies administering TANF and WtW funds, human services agencies, public housing and child care organizations, employers, and other stakeholders. The program also seeks to leverage other transportation-eligible funds.

- **Applicant Eligibility.** MPOs select the applicant(s) in urbanized areas with populations of 200,000 or more. States select the applicant(s) in smaller urbanized areas (population less than 200,000) and in nonurbanized rural areas. Tribal governments must go through the State process but, once selected, can choose to be subrecipients of the State or apply directly to the Federal Transit Agency. Job Access and Reverse Commute grant applications are subject to the following criteria:
  - Coordinated human services/transportation planning process must involve State, MPO, or local agencies that administer the TANF and WtW programs, the community to be served, and other area stakeholders.
  - Meet a need for additional services and extent to which the service will meet that need.
  - Involve project financing, including sustainability of funding and financial commitments from human service providers and existing transportation providers.
  - Address other factors such as innovative approaches, project implementation schedule, and geographic distribution.
- **Eligible Projects.** *Job Access* projects support developing new or expanded transportation services such as shuttles, van pools, new bus routes, late night and weekend services, connector services to mass transit, and guaranteed ride home programs for welfare recipients and low-income persons. *Reverse Commute* projects provide transportation services to suburban employment centers from urban, rural, and other suburban locations for all populations.
- **Available Funding.** Beginning in FY 1999, annual authorized funding for Job Access and Reverse Commute Program grants is $150 million. A 50/50 Federal/local match is required. Other Federal funds can be used as part of the local match. In FY 2000, the Congress appropriated $75 million for the program and more than $600 million is likely to be expended over 5 years.

WorkFirst participants (welfare clients) reenter the workforce. The study, *Assessment of Public Transportation Opportunities for WorkFirst New Jersey Participants* (WorkFirst Study), used a geographic information system (GIS) to analyze factors such as known locations of jobs held by and appropriate for WorkFirst participants, child care facilities, job training centers, and bus routes.

The North Jersey Transportation Planning Authority, Inc. (NJTPA), the State's largest MPO, also used GIS for its recent *Regional Job Access & Reverse Commute Transportation Plan* to identify opportunities for cooperative efforts, or linkages, among New Jersey's 13 northern counties. The plan suggested coordinating county-based or regional services and implemented a method to evaluate and prioritize future job access and reverse commute projects.

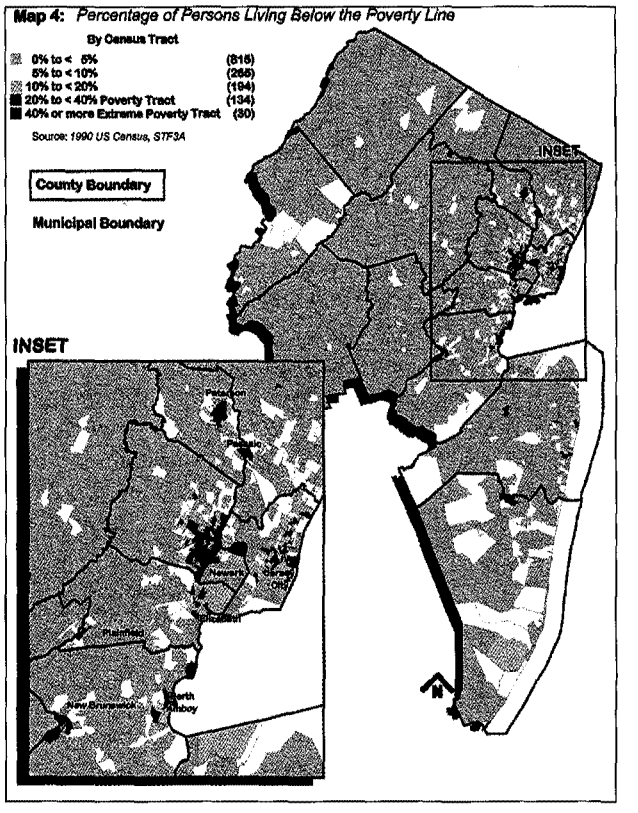
These two New Jersey initiatives combined GIS analysis and post-census data to address the fundamental question of how States and regional transportation agencies can meet the transportation-related needs of low-income families seeking to join the workforce. While the two reports have

somewhat different goals and reach slightly different conclusions, they provide practical examples for transportation planners and decision makers. The reports illustrate how an easily reproducible method can identify and begin to address the service requirements of a transit-dependent population.

The Region

The NJTPA region encompasses the 13 northernmost counties in New Jersey (see map, page 1) and is home to most of New Jersey's largest cities, including Jersey City, Newark, New Brunswick, Elizabeth, and Paterson. An extensive highway network and large public bus and commuter rail systems serve the area. For several decades, however, employment growth in the traditional urban centers — including the older "closer-in" suburbs — has not kept pace with the more rapidly growing suburban corridors that possess substantial land area for greenfield developments and enjoy the regional access provided by an extensive Federal, State, and county highway network.

The 1990 U.S. Census reveals a concentration of poverty (potential WFNJ participants) in the NJTPA region urban centers — 19.5 percent of all persons below the poverty line compared to 4.8 percent for the rest of the NJTPA region. Similarly, the unemployment rate reported for the urban centers was well above the rest of the region.



NJTPA examined the spatial patterns of poverty, in part, by preparing a GIS map of persons living below the poverty line.

Snapshot of the Region

- The NJTPA region encompasses the 13 northernmost counties in New Jersey.
- The NTPA region is home to five of New Jersey's six major urban centers, and several of these centers are ringed by older suburbs exhibiting patterns of poverty.
- 417,460 persons (7.6 percent) live below the poverty level; nearly one-third are children.
- Higher percentage of persons live below the poverty level in urban centers than the rest of the region (19.5 versus 4.8 percent).
- Unemployment rates in the urban centers are higher than the rest of the region (13.5 versus 5.2 percent).

Source: 1990 U.S. Bureau of the Census Data

What Happened

Welfare-to-work participants must have reliable transportation if they are to realize the economic independence envisioned in Federal and State welfare reform legislation. State agencies and MPOs face the daunting challenge of understanding and addressing those transportation-related needs. GIS is a powerful tool for identifying transit routes responsive to the housing patterns, support services, and jobs available to WtW clients. Crucial barriers to mobility can be identified with the careful use of appropriate data and GIS methods. This analytical phase benefits greatly

WorkFirst Study Post-Census Data Sets

- Potential WFNJ participants — data from the AFDC/FAMIS database
- Training centers — data about the location of the State's 99 training centers furnished by the New Jersey Department of Human Services
- Licensed child care and registered family day care facilities — facility location data provided by the New Jersey Department of Human Services
- Employers — the New Jersey State Employer reporting database (ES-202) provided by the NJ Department of Labor

when the process encourages interagency coordination between MPOs, State and local transportation agencies, social service agencies, and workforce programs.

The NJDHS sponsored the WorkFirst study to examine whether New Jersey's existing bus system could help a significant percent of WorkFirst participants reenter the workforce. The study combined current data — not just census data released every decade — with GIS applications. The methods employed are not unique, but they are reproducible and suitable for assisting in public policy decision making.

The study's hypothesis is that New Jersey's public bus network can provide an important link between WorkFirst client residences and a variety of destinations. Four different post-census data sets were collected to construct an analysis that tests this hypothesis.

These databases were mapped and overlain using GIS software. Mapping these data was not always easy and overcoming inconsistencies often required several iterations of data matching (for example, geo-coding) between maps and data sets. The report's authors illustrate methods for ensuring accuracy and data integrity — often a complicated process. New Jersey Transit provided bus route maps to overlay the data maps. The study addressed comprehensive bus routes and fixed routes (such as local, county, and Interstate), as well as the NJ Wheels Program — an innovative program of feeder transit connections that fill missing links to existing transit stations, park and rides, and circulator services to area stores and restaurants.

The GIS software was further used to create buffers or boundaries at set distances around the bus routes. Study authors assumed that potential transit riders would be reluctant to walk more than about one-half mile (the average person can walk one-half mile in about 10 minutes). Using this assumption, preliminary spatial analysis techniques were applied to measure the percentage of client residences, training centers, child care and family day care facilities, and potential employers within walking distance of the transit routes. Table 1 presents data on distance from transit routes.

The relative proximity of welfare recipients, child care facilities, employment training centers, and employers in relation to transportation services is the key access concern. Choosing analytical tools that work for you will depend on local circumstances and resources. The tools may be as simple as sticking pushpins in a wall map or as advanced as using GIS. The analytical goal is to understand how available transportation services need to be improved or can improve accessibility.

– Challenge of Job Access: Moving Toward a Solution, U.S. DOT

Table 1. Percent of Families Within a Half Mile of Bus Transit Routes

County	Client Residences	Training Centers	Child Care Centers	Family Day Care Centers	Potential Employers
Essex	99%	100%	97%	98%	98%
Hudson	99%	100%	100%	100%	98%
Passaic	99%	100%	93%	94%	96%
Mercer	98%	93%	83%	87%	87%
Union	97%	100%	94%	97%	96%
Camden	96%	100%	88%	92%	93%
Bergen	95%	100%	78%	83%	81%
Atlantic	91%	100%	86%	85%	93%
Salem	91%	100%	88%	94%	88%
Cape May	88%	100%	79%	71%	92%
Monmouth	88%	100%	75%	76%	78%
Middlesex	84%	75%	75%	65%	77%
Ocean	82%	100%	89%	76%	74%
Gloucester	80%	0%	85%	68%	92%
Morris	78%	100%	56%	57%	74%
Cumberland	73%	100%	72%	71%	78%
Burlington	71%	100%	60%	64%	82%
Somerset	65%	100%	39%	30%	68%
Warren	65%	0%	44%	47%	56%
Hunterdon	15%	0%	19%	12%	19%
Sussex	14%	0%	11%	11%	8%
Average	94%	92%	79%	77%	85%

The WorkFirst study concludes that the existing New Jersey bus system is generally capable of serving WorkFirst client needs. Research indicates that nearly 94 percent of welfare families statewide live within one-half mile of a transit route, and that 85 percent of potential employers are within one-half mile of transit. The relatively concentrated patterns of poverty in New Jersey, as well as State's overall population density, afford opportunities to improve transit services. The WorkFirst study provides an interesting comparison to another recent study of the Atlanta metropolitan area, a less-densely populated area where only 50 percent of welfare recipients and only 44 percent of entry-level jobs are within one-half mile of public transportation.

Although WorkFirst study findings suggest the potential for enhancing job access, the study is cautious about its analytical limitations and points to the next steps required to meet the unique needs of this ridership segment:

- A more thorough study would include bus hours of operation, frequency of service, and pickup/discharge site data.
- There is no guarantee that jobs near transit routes will be appropriate — or available — for WFNJ clients.
- The study must factor in the need to make multiple trips because numerous trips and stops can considerably lower the probability of finding all necessary services within a reasonable travel distance.

With its careful analysis and balanced presentation of findings, the WorkFirst study is a useful preliminary tool for identifying the transportation needs of WtW clients. Because the study is explicit about the need to implement more planning at the local level, by county-level administrators, NJ Transit, and other transit providers, the study provided a springboard for more intensive study of transit services. The New Jersey Department of Transportation (NJDOT) and the NJDHS have committed resources for county transportation coordination planning, prepared a Transit Training video, and devised a promotional incentive, *Get A Job, Get A Ride,* which provides any WFNJ participant — who's working or in training — 1 free month of New Jersey Transit public transportation.

NJTPA Regional Job Access and Reverse Commute Transportation Plan

In July 1998, the NJTPA received an FTA Job Access Planning Challenge Grant to coordinate preparation of community transportation plans throughout the northern New Jersey region. Each county had to develop a Community Transportation Plan that promoted and assisted the WFNJ program by addressing the need for job-access services.

Available and Suitable Jobs for WtW Recipients: A Closer Look at an Estimating Method

The Atlanta Approach

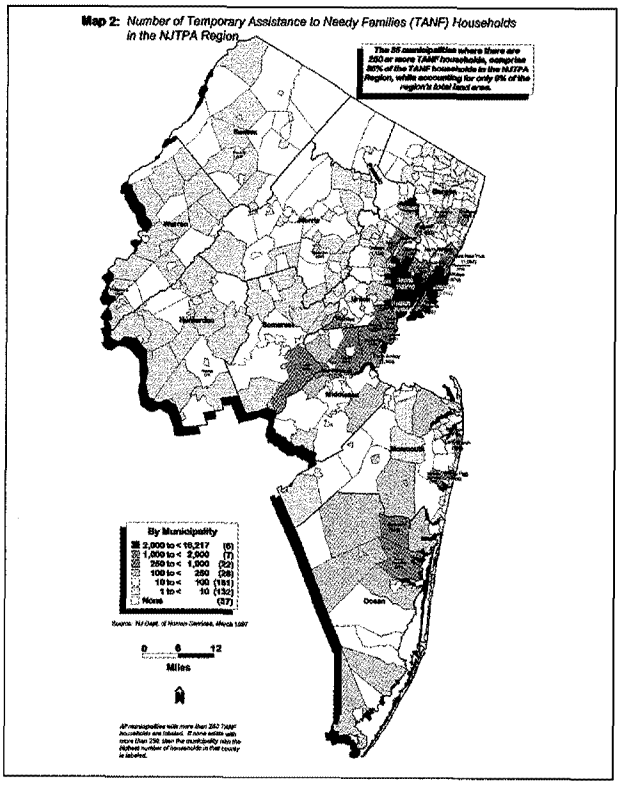
Beyond the need to further improve transit schedules, frequencies, and hours of service, the WorkFirst Study cautions that there is no guarantee that a client living near transit will find a job near a transit route. The study represents the problem mainly in statistical terms — joint probabilities — and offers an instructive example of how to calculate the likelihood of both client and job being near transit:

> In Hudson County, NJ, 99.89 percent of clients and 98.40 percent of firms are located within one-half mile of transit. Thus, there is a 98.29 percent (99.89 x 98.40) joint probability of a client and job being near transit. This calculation assumes that all firms have an equal likelihood of being selected by a client. The likelihood drops for Ocean County where 73.61 percent of jobs and 82.29 percent of clients are within one-half mile of transit — the joint probability is only 60.57 percent. Of course, a WorkFirst client would seek to maximize the job opportunities along a transit route, and the search process would not be random. Although the latter joint probabilities represent a worst case scenario, they are nevertheless instructive.

The WorkFirst Study cautions that some types of employment may be more suitable to WtW recipients. Several other studies, including one in Atlanta, more closely focus upon methods to address this issue. Researchers in Atlanta used similar data from the Georgia Department of Labor (ES-202) to identify the locations of entry-level jobs. These researchers elected to address-match (e.g., geo-code) total jobs by census tract. The resulting file also included taxable wages, employer names, and a multiestablishment 4-digit Standard Industrial Classification (SIC) code. More than 1.3 million total jobs were allocated to census tracts. Three additional steps were taken to estimate the locations of entry-level jobs:

1. **Translate Jobs into Occupations.** An occupational profile was prepared for each SIC code using the 1 percent U.S. Census Public Use Microdata Sample (PUMS) for the Atlanta Metropolitan Statistical Area (MSA). The value of the data set is that it contains employment — SIC code — and occupational data for all workers who completed the 1990 Census of Population and Housing long form. From this data set, it is possible to prepare a "bridge table" or matrix that links industries to occupations. The table enables the analyst to translate "jobs" at each business establishment into "occupations."
2. **Estimate Entry-Level Occupations.** Although the Atlanta study considered alternative approaches, it ultimately relied on one developed for a study in Cleveland, OH, that reviews Specific Vocational Preparation data, General Equivalency Degree (GED) data, and level of education (achieved in the first quartile) by occupation. These data sources make it possible to rank occupations by skill content and worker education level. In Atlanta, the bottom 92 of 389 occupations were specified as entry-level occupations, which account for 22.1 percent of total employment.
3. **Adjust Occupational Employment to Entry-Level Jobs.** The total numbers of workers in entry-level occupations were then extracted from the total occupations file and displayed as points on a map in order to analyze whether there was a spatial mismatch between available, suitable jobs and recipients.

Source: Excerpts from Richard K. Brail, "Assessment of Public Transportation Opportunities for WorkFirst New Jersey Participants, Bloustein School of Planning and Public Policy," Rutgers, the State University of New Jersey. July, 1997, and David S. Sawicki and M. Moody, "Developing Transportation Alternatives for Welfare Recipients Moving to Work," *Journal of the American Planning Association*, Vol. 66, No. 3, Summer 2000.



Map 2: *Number of Temporary Assistance to Needy Families (TANF) Households in the NJTPA Region*

The NJTPA used the grant to examine current data sources and conduct GIS analysis techniques, similar to the work described in the WorkFirst study. This information complemented the findings of the individual Community Transportation Plans. The resulting *Regional Job Access & Reverse Commute Transportation Plan* includes several work activities that:

- Identify the current location of TANF recipients (see table 2).
- Map poverty and employment concentrations.
- Illustrate the prospective client travel patterns.
- Screen for specific projects proposed in individual County Community Transportation Plans that successfully establish regional linkages — projects that link particularly well with each other.

NJTPA Regional Household, Employment and Client Travel Profile

Households

- 64,947 households in NJTPA region receive TANF aid.
- TANF aid is distinctively dispersed and heavily concentrated in the State's four northeast counties: Essex, Hudson, Passaic, and Union.
- 77 percent of the region's TANF recipients live in these four counties.
- 49 percent of the region's TANF clients are concentrated in the NJTPA urban centers of Newark, Jersey City, Paterson, Elizabeth, and New Brunswick.
- 70 percent of the region's TANF clients live in these urban centers and the municipalities adjacent to them.
- Approximately 85 percent of TANF participants are located within 35 of the region's 385 municipalities.
- Each of the 35 municipalities is within 6 miles of an urban center and accounts for only 8 percent of the region's total land area.

Employment

- Between 1972 and 1997, urban counties lost more than one-quarter of their share of private sector jobs.
- Majority of employment growth is in areas that are largely vehicle dependent, not in the urban centers served by public transportation.

Client Travel

- Employed women in urban areas average 3.8 trips per day, usually involving a combination of work, school and running errands.
- Approximately 90 percent of New Jersey TANF recipients are female.
- Obvious needs exists for effective and efficient complete trip chains.

Source: Regional Job Access Reverse Commute Transportation Plan, NJTPA, October 1999

NJTPA's Recommended Transportation Strategies

- Modify existing bus routes and schedules to increase the frequency of service, add destinations, or provide connections to other services.
- New services, operating on fixed or flexible routes and schedules, to link county residents with regional transit services or employers and other major destinations.
- Increase coordination of para-transit services, including establishing transportation brokers.
- Expand para-transit systems to offer service to new user groups or add hours of service.
- Initiate programs to assist low-income individuals with the purchase and operation of their own cars.
- Initiate employer shuttles.
- Increase distribution of public transportation information to users, including trip-planning services.
- Implement NJ Transit's WorkPass program and other incentives for using transit passes.
- Encourage car pooling and van pooling.

- Outline procedures for prioritizing and selecting proposed projects. Once priority programs and projects are identified, they are then forwarded to the FTA for approval for funding.

The NJTPA devoted significant time and monetary resources to identify and document the needs and patterns of welfare recipients' lives. This effort provided an important foundation for interpreting GIS data because it provided information about welfare recipients' education levels, travel and expenditure trends, and emerging suburban and urban employment spatial patterns.

Using NJDHS and U.S. Census data in GIS applications, the NJTPA developed a comprehensive profile of the NJTPA region. The spatial examination of the residential, work, and transit links data helped the NJTPA identify strategic regional linkages capable of connecting transit-dependent populations to job opportunities.

The NJTPA plan concludes with clear recommendations as to what the region's proposed programs should include and how they will be prioritized. Communicating the method of prioritization is an important element of the plan as it sets the ground-rules — the expectations and the criteria — for communities to develop their local plans.

Table 2. TANF Recipients and Total Households by Counties of NJTPA Region

	1997		1990		Relative
County	TANF Recipients	Percent of Region	Total Households	Percent of Region	County Share of TANF Recipients
Essex	24,689	38.0%	277,667	13.3%	286.0%
Hudson	14,153	21.8%	208,574	10.0%	218.3%
Passaic	6,193	9.5%	155,450	7.4%	128.2%
Union	5,392	8.3%	179,966	8.6%	96.4%
Monmouth	3,456	5.3%	197,325	9.4%	56.3%
Middlesex	4,184	6.4%	238,974	11.4%	56.3%
Ocean	2,538	3.9%	168,312	8.1%	48.5%
Warren	403	0.6%	33,876	1.6%	38.3%
Somerset	730	1.1%	88,819	4.3%	26.4%
Bergen	2,363	3.6%	308,795	14.8%	24.6%
Sussex	186	0.3%	44,492	2.1%	13.4%
Morris	585	0.9%	148,627	7.1%	12.7%
Hunterdon	69	0.1%	38,152	1.8%	5.8%
NJTPA Region	64,941	100.0%	2,089,029	100.0%	

The Participants

- U.S. Department of Transportation (U.S. DOT)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- New Jersey Department of Transportation (NJDOT)
- New Jersey Department of Human Services (NJDHS)
- North Jersey Transportation Planning Authority (NJTPA)
- 13 NJTPA counties, with participation from members of their economic development corporations, planning departments, divisions of social services, transportation divisions, and others
- The Bloustein School of Planning and Public Policy at Rutgers, the State University of New Jersey

Effective Environmental Justice Practices

The WorkFirst Study demonstrates how post-census data incorporated into GIS mapping can facilitate a better understanding of the needs of an often highly transit-dependent population:

- With the cooperation of the State's health and social services agencies, it is possible to compile highly relevant data on the welfare recipients, the location of training centers for welfare recipients, and licensed child care facilities.
- The State's labor department maintains important post-census, administrative records data about business establishments and also employment and payroll (ES-202) data. Restrictions and limitations on the use of this data can often be overcome when there is a compelling public purpose.
- GIS mapping of post-census data provides a spatially sensitive technique for exploring the unique transportation needs of welfare recipients as well as the opportunity to match transit and para-transit services to these needs.
- The report assessed barriers to job access for welfare recipients (e.g., the fact that bus service was inadequate in certain counties) that could be solved by specific policy initiatives. It also identified the uncertainties in the analysis that require further research.

The NJTPA Regional Job Access and Reverse Commute Transportation Plan also demonstrates several effective practices important for integrating environmental justice principles into transportation planning:

- The study used the Job Access Planning Challenge Grant to focus upon the crucial problem of job access, which disproportionately affects low-income and, often, minority populations. Developing successful transit solutions that address this problem directly benefits often overlooked communities and is consistent with national social policy focused on eliminating barriers for all who need to work.
- The study illustrates how cooperative relationships with Federal, State, and local partners, and collaboration between State labor departments and social service agencies can effectively leverage resources to solve problems. The diverse expertise and resources tapped facilitated identification and use of multiple data sets, disclosed critical gaps in transit services, and explored needed operational services and capital equipment purchases. Each primary participant made complementary contributions to the planning process. The Federal

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We have to stop thinking like transportation organizations, labor organizations, or human resource organizations and start thinking like organizations that are here to provide services — whether it be services for those who are in welfare-to-work, or housewives to work, or husbands to work. We need a holistic approach.

– Ernest Maddox
Michigan Department of Employment Security

Major Challenge: Establishing Effective Partnerships

Three major laws passed in the last several years promote collaboration between the transportation and employment and training communities:

- **The Personal Responsibility and Work Reconciliation Act of 1996.** Better known as welfare reform or Temporary Assistance for Needy Families (TANF), the Act sets a 60-month (5-year lifetime) limit on public assistance and mandates work. The Act's passage requires that communities focus upon meaningful strategies for overcoming the barriers to employment. Lack of effective transportation options is a major hurdle.
- **Transportation Equity Act for the 21st Century (TEA-21).** In 1998, TEA-21 raised funding levels for public transportation. The Job Access and Reverse Commute Program was established to fund community partnerships that build upon existing public transportation services to provide greater opportunities for low-income people to find and keep employment.
- **Workforce Investment Act of 1998.** This Act consolidated the former Job Training Partnership Act (JTPA) and many other Federal job-training programs into three State-managed block grants. The law replaced Private Industry Councils (PICs) with Workforce Investment Boards to oversee employment and training activities that are centralized in one-stop locations. These locations provide information on job training and placement as well as on transportation and other support services.

Workforce development professionals must ensure that people can get to training, interviews, and jobs each day. Workforce Investment Boards and TANF agencies set policies, plan activities, and negotiate contracts with other Federal, State, and local programs to enhance service delivery. Central to their success is the need to establish workable agreements with transportation providers to deliver transit support services to those who need it.

government helped to communicate the broad environmental justice principles and goals as well as made funds available. The MPO and State-level agencies provided regional coordination and administration and were significant resources for data. The counties and other local partners, as well as the social service agencies, contributed intimate knowledge about local job-access and transportation obstacles, and they were able to suggest specifically targeted solutions.

- The NJTPA plan also demonstrates how post-census data can be combined with GIS applications to provide an analytical and presentation tool. Data-based maps bring a new perspective to the job-access problem. GIS methods enabled planners to better understand poverty and welfare spatial patterns and make more informed decisions about transit service needs.
- MPOs can provide the necessary forum for developing close partnerships with local communities affected in the transportation planning process. In this case, NJTPA coordinated the plans of New Jersey's northern and central counties to ensure identification of regional deficiencies and opportunities. By soliciting the participation of many counties and local agencies, the NJTPA successfully integrated environmental justice practices by ensuring that the planning process considered the concerns of all the constituents.

Project Chronology

February 1994
Executive Order 12898, Federal Action to Address Environmental Justice in Minority and Low-Income Populations, issued.

January 1996
Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) passed.

April 1997
WorkFirst New Jersey — New Jersey's State welfare reform program implemented.

July 1997
Assessment of Public Transportation Opportunities for WorkFirst New Jersey Participants prepared for the Office of Policy and Planning, New Jersey Department of Human Services.

June 1998
The Transportation Equity Act for the 21st Century (TEA-21) passed, creating the Job Access and Reverse Commute Grants Program.

1998 – 1999
Each New Jersey county prepares a Community Transportation Plan.

October 1999
NJTPA prepares the *Regional Job Access and Reverse Commute Transportation Plan* to address transportation issues.

1999-2000
NJTPA begins to select and prioritize proposed transportation programs for presentation to the FTA for funding.

Challenges Ahead

No single method is sufficient to address all environmental justice issues in transportation planning; however, discovering and refining the use of appropriate data sets and analytical methods are important research elements of an ongoing process. As this case study demonstrates, combining post-census data with GIS analysis is one method for targeting origins and probable destinations of WtW recipients. Among the challenges facing the transportation planner:

NJTPA staff evaluated the Community Transportation Plans prepared by each County for inter-county regional linkages and opportunities for cooperation as part of a grant application review.

- **Ensure Data Quality**. To be a valuable resource, the data sources must be current and accurate. Different States, municipalities, and social service agencies collect and maintain data of differing qualities. It is important to fully check sources and evaluate the limits and applicability of the data because the quality of data factors significantly in the ability to perform valid analyses.

- **Identify Qualitative and Primary Data Sets.** Important limitations of secondary data sets must be overcome to design transit and para-transit services that accurately address the travel and support-service needs of its target population — in this case, WtW participants. Certain types of needs can only be identified through more direct forms of outreach and communication with social services, transportation providers, potential employers, and eligible participants. Traditional market research tools such as focus groups, surveys, and interviews can complement other forms of

Statewide Partnerships to Address Transportation Barriers

Since 1997, New Jersey's welfare reform program, WorkFirst New Jersey (WFNJ), has served as a catalyst for increased statewide coordination of efforts to address the mobility challenges faced by many low-income individuals. At the state level, the New Jersey Departments of Human Services (NJDHS), Labor (NJDOL), and Transportation (NJDOT), NJ Transit, and the State Employment and Training Commission (SETC) have developed the Project Oversight Group (POG). The POG, comprised of representatives from NJDHS, NJDOL, NJDOT, NJ Transit, and SETC, was established to facilitate inter-departmental planning and assist counties in the development of innovative solutions to local mobility issues.

This partnership has led to several initiatives designed to address transportation barriers that limit access to employment opportunities including implementation of the WorkPass program, which provides transit passes to welfare recipients who are involved in work activities, creation of the Transportation Innovation Fund, which provides funding for new and expanded transportation services, and completion of a statewide community transportation coordination planning effort.

regular public involvement to reveal these needs and preferences. Designing responsive transit services requires understanding the needs and patterns of multiple trips or trip chains in various communities. Similarly, many entry-level jobs require evening or weekend work, which may require more extensive research into time-of-day and day-of-week dimensions to create responsive transit services.

- **Establish Effective Partnerships.** Transportation planning is more than a desktop exercise, and the transportation decision maker must collaborate with a diverse set of stakeholders in order to select, prioritize, and, ultimately operate effective job-access and reverse-commute services and routes. The process depends upon partnerships among members of the transportation and education and training communities.

- **Recognize Crucial Resource Needs and Devise Sustainable Program.** The ultimate measure of success, of course, is not a well-received transportation plan, rather it is the number of persons who successfully enter the workforce because transportation services respond to their needs. This ultimate success is achieved only with effective partnerships, careful strategic and operational planning and adequate resources — financial, technical, legal, operational. Funding for job access and reverse commute programs is clearly one factor necessary for success. The State of New Jersey provides matching funds under its NJ Transportation Innovative Fund, which are matched with Federal Labor Welfare to Work Grants and/or the FTA's Job Access and Reverse Commute Grants. The National Transit Resource Center has amassed a database of Federal funding opportunities for transportation and mobility partnerships that includes, but is not limited to, programs traditionally used by community transportation systems. The primary resource for this information was the *Catalog of Federal Domestic Assistance*. From this directory, planners identified more than 100 programs within 20 different Federal agencies.

Lessons Learned

Making employment accessible to WFNJ participants is an ongoing challenge, but the plans and reports described above can help relevant agencies achieve that goal. The process of developing these plans has related some important lessons about environmental justice, data analysis, and planning:

- Many State and Federal agencies compile post-census data, which can be invaluable resources for

Benefits from Environmental Justice in Decision Making

For the Agencies:

- Environmental justice principles and procedures recognize that transportation decision making improves when agencies enhance their data collection, monitoring, and analysis tools in order to assess the needs and analyze the potential consequences upon low-income persons. These specific needs and effects can be directly identified and assessed by overlaying maps of transit routes with the residences of welfare recipients, potential employment locations, and child care and other facilities.
- The Job Access and Reverse Commute Program encourages collaborative planning processes that leverage the resources of transportation and human services agencies. Both the WorkFirst and NJTPA initiatives recognize the value of partnerships and the limits of transportation-only-based solutions for improving workforce participation.

For Low-Income Populations:

- Environmental justice principles recognize that community-based partnerships can improve the quality and usefulness of transportation for currently isolated low-income populations. The data and GIS tools used in this study assisted in identifying regional service gaps. New transit services and other initiatives have been proposed in local community transportation plans to address such gaps.
- The Job Access and Reverse Commute Program delivers substantial funding source with which to target transit services that meet the needs of persons leaving welfare and other low-income persons.

analyzing demographics, needs and transit destination locations for target populations, such as WorkFirst participants.

- GIS applications are tools that provide a method for analyzing data two dimensionally. The spatial representation of data and patterns holds significant benefits, especially when examining linkages between regions.
- GIS applications are readily available and user-friendly in that they can be used by a variety of transportation organizations, government agencies, or social services.
- The limitations of GIS data and analysis must be recognized and incorporated into a report's conclusions.
- A regional planning agency, such as an MPO, can be instrumental in providing resources, guidance, and links with smaller jurisdictions. Such arrangements foster opportunities for broader planning solutions and often provide an opportunity to engage a more diverse set of participants.
- Effective use of quantitative tools (like GIS) requires an understanding of the qualitative characteristics of the populations and regions for which an agency plans. Agencies must be sensitive to the entire context in which welfare recipients live, including gender, marital status, education, training, and more. Post-census data alone does not present the entire picture and should not be depended upon to completely define the problem or to build solutions.

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The Challenge of Job Access, Moving Toward a Solution, U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, Washington, DC, cited May 2000. http://www.fhwa.dot.gov/reports/challeng.htm

National Personal Transportation Survey, 1990. http://www-cta.ornl.gov/npts/1990/index.html

Job Access and Reverse Commute Web Sites and Related Links

Community Transportation Association
National Transit Resource Center: www.ctaa.org/ntrc/atj/
Publications: www.ctaa.org/ntrc/ctap/pubs/

Federal Transit Agency welfare-to-work
www.fta.dot.gov/wtw/

New Jersey Department of Transportation WorkFirst
www.state.nj.us/transportation/workforce/

North Jersey Transportation Planning Authority
http://njtapa.njit.edu/

Poverty Center at Case Western University Job Access Project http://povertycenter.cwru.edu/jobaccess/cupsc.htm

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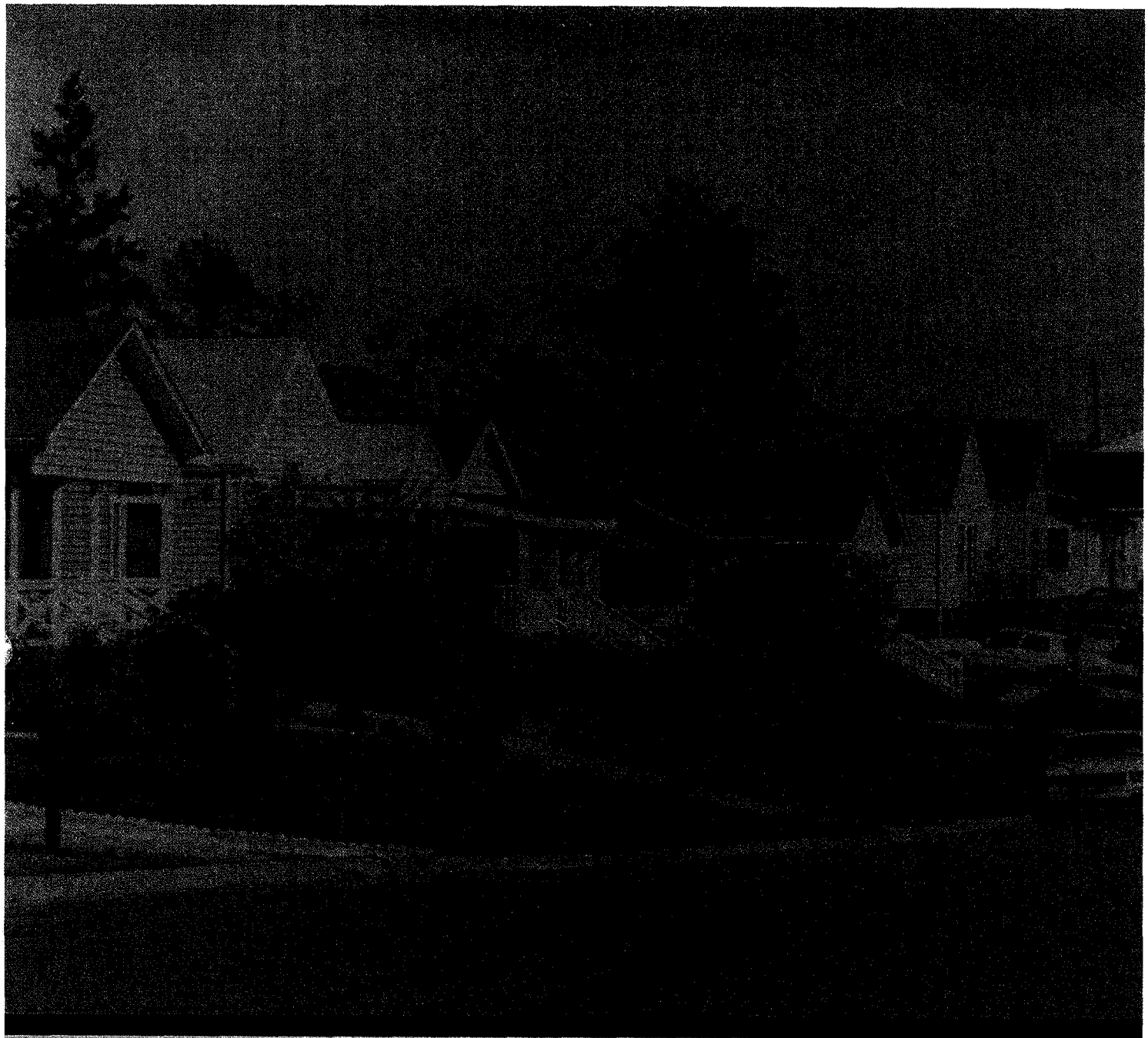
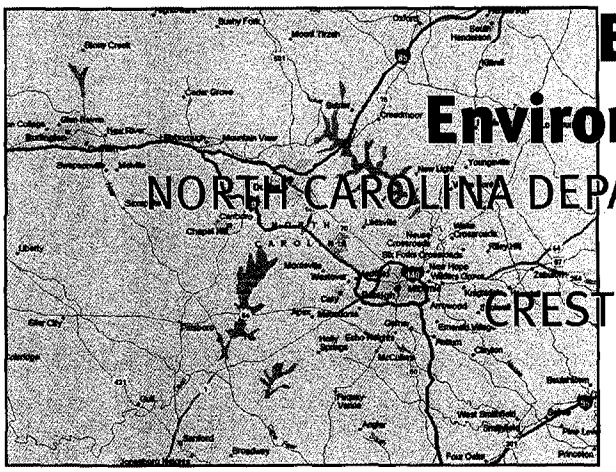
For more contact information on the NJTPA *Regional Job Access & Reverse Commute Transportation Plan*, see: http://njtpa.njit.edu/jarc/Reg_Jarc_Trans_Plan.pdf



Title VI Administrative Complaint, Mitigation and Enhancement Plan, Housing of Last Resort, Collaborative Planning



East-West Expressway Environmental Impact Study

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
CITY OF DURHAM
CREST STREET COMMUNITY COUNCIL

Introduction

In 1959, the East-West Expressway, a 10-mile, limited-access highway, was planned near the central business district of Durham, North Carolina. Passing through a mixture of industrial, railroad, and older residential land uses, the East-West Expressway was designed to connect I-85 with I-40 in central North Carolina. It would serve a severely congested area of Durham, then a rapidly growing city of more than 100,000 persons and now part of the "Research Triangle" area. By the early 1970s, about half of the East-West Expressway had been constructed. The right-of-way for part of the project had been acquired with urban renewal funds and as a Federal-aid project. In 1973, plans were proceeding for right-of-way acquisition for the remainder of the highway when a court decision required the Federal Highway Administration (FHWA) and the North Carolina Department of Transportation (NCDOT) to prepare an Environmental Impact Statement (EIS) to comply with the National Environmental Policy Act (NEPA) of 1969.

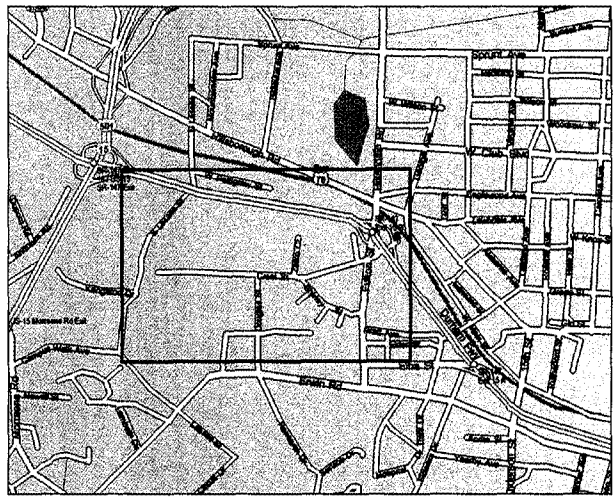
An unbuilt segment of the East-West Expressway would go through a small African-American neighborhood known as Crest Street. Crest Street has existed for more than 100 years, originally as an agricultural settlement of former slaves on the outskirts of Durham. Later, Crest Street became a semi-urban, residential neighborhood near the rapidly growing employment centers at Duke University, the Veterans Administration Hospital, and industries in the area. Plans for the East-West Expressway called for relocating the residents of Crest Street to another area in or near Durham. Crest Street residents, well acquainted with the large-scale, urban-renewal displacements of other African-American neighborhoods to complete another segment of the East-West Expressway during the 1970s, decided to oppose the expressway.

For 2 years, the leaders of the Crest Street community in Durham worked closely with a dedicated group of professionals from the FHWA, the NCDOT, the city of Durham, Duke University, the U.S. Department of Housing and Urban Development (HUD), and others to develop a comprehensive impact mitigation and enhancement plan to preserve the cohesiveness of the Crest Street community. An NCDOT official with a role in developing the mitigation and enhancement plan called the effort the "highlight" of his career. His remark did not apply to the laying out of asphalt, concrete, and steel for roads and bridges. Rather, he was referring to the successful implementation of the mitigation and enhancement plan that preserved a cohesive community as well as the satisfaction he felt

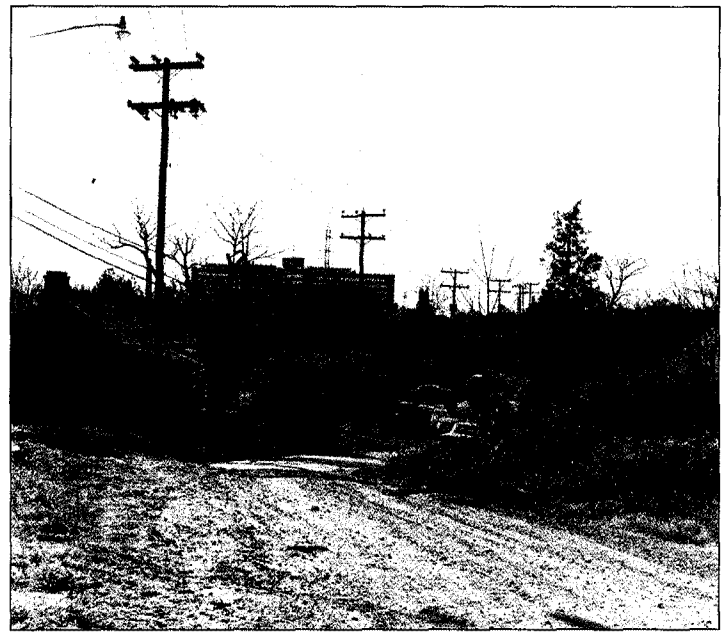
from working in a collaborative process with community residents and committed professionals both inside and outside the transportation community to make it happen.

The situation in this case was difficult from the beginning — property acquisition and housing relocation are among the most politically and emotionally charged aspects of large transportation projects. Moreover, the history of this project encompassed eras of highway construction and urban renewal that were significantly detrimental to Durham's African-American population. From 1973 to 1983, the opposition that began as a heated disagreement with racial overtones became the impetus for one of the most creative community mitigation and enhancement efforts the Federal-aid Highway Program has experienced.

The case is also notable because it clearly illustrates the potency of Title VI of the Civil Rights Act of 1964 and its applicability to transportation projects even before the 1994 *Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.*



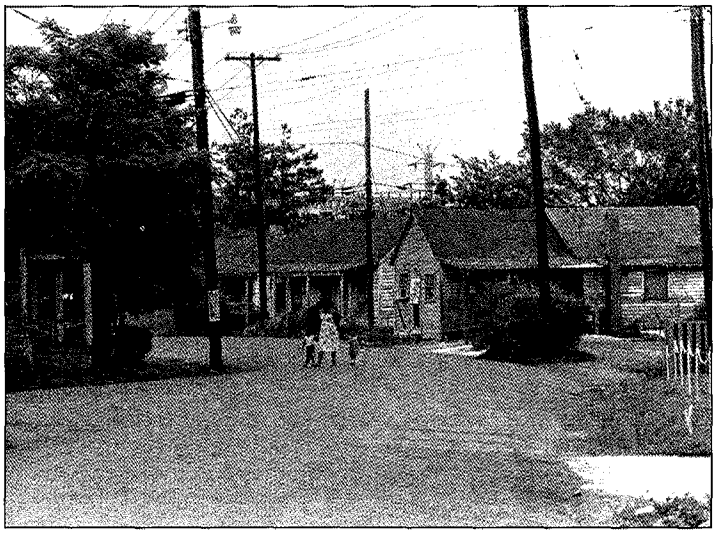
The final section of the 10-mile East-West Expressway that began near downtown Durham, NC, crossing the Crest Street neighborhood northwest of Durham.



Before the project, many Crest Street neighborhood residents walked to their jobs at the Durham, NC, Veteran's Hospital (shown in the background), as well as to nearby Duke University Medical Center. Because the Crest Street project used nearby vacant land to reconfigure the neighborhood, the Crest Street residents who walked to work were able to keep their jobs.

The Crest Street Neighborhood

The Crest Street community was formed in the decades immediately following the Civil War. Originally, it was an area of small subsistence farms on the outskirts of Durham. In the 1920s and 1930s, the construction of Duke University generated jobs that were filled by many Crest Street residents, stimulating the growth of the community. Crest Street is located within a mile of the University and the Duke University Medical Center. Crest Street residents attained a modest but stable standard of living over a long period of time, filling a need for laborers, food service workers, housekeepers, and grounds maintenance workers, and farming part time on open parcels of land in the vicinity. By the 1970s, the community included more than 200 households.



By a review of exterior conditions, the Crest Street neighborhood appeared distressed before the project. However, sociological studies prepared during the EIS process looked beneath the surface and discovered a highly stable, cohesive community where residents knew and cared about each other.

Prior to the 1960s, the Crest Street community had only one paved road. Later, other streets were paved minimally, without sidewalks. The housing stock, never substantial, deteriorated steadily when plans for the highway became known, and obtaining mortgages or funding for housing improvements became difficult. Anticipating relocation, community businesses that had served residents for years began to move away.

To those who looked beneath the exterior, however, Crest Street was, in fact, a strong community. Despite limited material wealth, residents seemed content with their lives. Sociological surveys showed that the Crest Street community had several characteristics of a highly cohesive community. Most of the residents had relatives in the community, and many families had been in the community for generations. The presence of extended family and close friends enabled Crest Street residents to survive quite well, although 40 percent of

Snapshot of the Crest Street Community

By appearances alone, the Crest Street neighborhood looked severely distressed. To the casual, outside observer, the neighborhood seemed to have little physical value and probably represented an opportunity for what was referred to informally in the 1960s as "slum clearance." During the EIS process, however, commissioned sociological surveys gave a strong statistical portrait of a cohesive community:

Length of Tenure for Residents

- Average length of residence in the community — 36.5 years
- Average length of tenure for tenants — 10 years
- Residents whose tenure exceeded 50 years — 30 percent

Kinship in the Community

- Residents with at least one relative in the community — 65 percent
- Residents with five or more relatives in the community — 55 percent

Degree of Job Stability

- Average length of employment at job — more than 8 years

Local Employment

- Workforce working within a mile of the community — 44.3 percent

Perception of Physical Safety

- Considered the neighborhood safe — 90 percent
- Complaints about community's minors — none

While the sociological surveys compiled a provocative set of social indicators to explore "community cohesiveness," statistics and surveys reveal only so much. The cohesiveness of Crest Street was exhibited in the daily interactions between people. They lived as though they were all related (but not all were), looking after each other's children, borrowing and lending items, and sharing emotional good times and bad — a community where all residents knew and cared about each other.

Source: Elizabeth Friedman, *Crest Street: A Family/Community Impact Statement*, Institute of Policy Sciences and Public Affairs, Duke University, 1978.

the households were living below the Federal poverty limit.

Residents provided child care and transportation to one another, cooperated during times of need, and participated freely in neighborhood improvement activities such as periodic community clean-up days. These informal, social-support systems provided access to jobs for people who might otherwise have depended upon unemployment compensation or welfare. They also allowed elderly and disabled residents to live in their own houses and near their families, thereby avoiding the substantial expense of State-financed, long-term care facilities.

Two other characteristics of the Crest Street community also deserve special notice — the presence of a strong church and the continuity of its leadership. The New Bethel Baptist Church, to which nearly two-thirds of Crest Street's residents belonged, was founded in the 1880s and, over time, became the focus of community activities. In the 1960s and 1970s, the church was providing many services, such as day care and tutoring, and was serving as the organizational focus for political activities.

The Crest Street Community Council, the group that handled most negotiations concerning the East-West Expressway project, was an outgrowth of the church organization. The leaders of Crest Street, who organized the opposition to the East-West Expressway, were long-term residents who occupied prominent positions in the community. The outstanding character of these leaders is, in hindsight, a strong indicator of community cohesion. Council leaders remained in their leadership roles throughout the long and complex negotiation process, obtained a strong community consensus on project issues, and remain leaders in their community to this day. This type of staying power is one of the key indicators of a community with a high degree of cohesiveness.

The New Bethel Baptist Church, built in 1965, was the focus of community life in Crest Street, Durham, NC. The church is shown as it was before the project.

What Happened

Planning for the East-West Expressway began in 1959. The highway was intended to provide access to a corridor characterized by high employment density, including the Durham central business district, major nearby manufacturers, and the Duke University Medical Center complex. The route was to generally follow the Southern Railroad tracks through the city, where increasing congestion was hampering the city's growth.

During the 1960s, several urban-renewal programs were undertaken in conjunction with the East-West Expressway project. The programs concentrated on the older communities located along the proposed East-West corridor. Many households and businesses were relocated at a time when relocation benefits were limited, and many relocated residents became distrustful of the city for not keeping promises it had made. A major African-American community, Hayti, was virtually dismantled by a combination of urban renewal and the East-West Expressway, and the result was long-term resentment and distrust of government agencies among Durham's African-American residents.

Project Chronology

1959
East-West Expressway appears in thoroughfare plans of NCDOT and city of Durham.

1967
Construction begins on the first segment of the expressway.

1970
First expressway segment opens.

1973
NCDOT required to prepare NEPA EIS for remaining expressway construction.

1975
Crest Street Community Council (CSCC) formed.

1977
CSCC obtains assistance from North-Central, Legal-Assistance Program attorneys.

1978
CSCC files Title VI administrative complaint with U.S. DOT alleging racial discrimination. NCDOT completes Draft EIS.

1980
U.S. DOT issues preliminary ruling that the proposed East-West Expressway alignment is discriminatory. East-West Expressway Steering Committee established.

1981
Smaller Task Force convenes and begins negotiations for community-impact mitigation and enhancement plan. Housing-of-last-resort relocation funding used to relocate the entire community.

1982
Final mitigation and enhancement plan agreed to by CSCC, city of Durham, NCDOT, and the FHWA. Final EIS completed; FHWA issues Record of Decision.

1986
Construction of the new Crest Street community completed.

1992
Final East-West Expressway construction completed.

1996
Crest Street community reaches its 10th anniversary in its new location. The community continues to be socially cohesive, it has strong leadership and is a well-maintained community.

The Crest Street community was the next African-American community to face the prospect of relocation. Beginning in the 1960s, Crest Street residents became active in opposing efforts to complete the East-West Expressway, which was already delayed because of funding problems. Residents clearly recognized that the proposed highway, if implemented as planned, threatened the survival of their community.

Crest Street neighborhood opposition was noticed early because, throughout Durham, this large African-American neighborhood had achieved a significant degree of economic and political power over the years. Crest Street residents were able to effectively use their long-term connections and respect in the Durham area to develop political alliances with sympathetic activist groups such as ECOS (a Duke University group opposed to the expressway for environmental reasons). An important milestone was reached in 1973, when ECOS won a court decision that required NCDOT and the FHWA to comply with NEPA and prepare an EIS.

During the preparation of the EIS in the mid-1970s, the NCDOT, FHWA, and the city of Durham worked together to prepare a restructuring plan for Crest Street. This plan, which would have dispersed Crest

Street residents throughout the city, was actively opposed by the Crest Street neighborhood. In 1977, the Crest Street neighborhood was declared eligible to receive legal aid from the North-Central Legal-Assistance Program. The help of legal-aid attorneys was crucial to Crest Street residents' ability to make themselves heard.

The Crest Street neighborhood obtained expert technical assistance services during the development of the East-West Expressway. For example, a qualified traffic engineer offered credible counter arguments to NCDOT proposals. In 1978, a Duke University group conducted a sociological survey of the community. Although disputed at the time, the survey findings were subsequently validated by a 1980 survey commissioned by a project Steering Committee. These surveys were important in convincing people of the value of preserving the Crest Street community.

This case highlights the fact that even in the period prior to the 1994 *Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* Federal-aid recipients have been required to certify, and the U.S. DOT has had to ensure, nondiscrimination under Title VI of the Civil Rights Act of 1964, as well as in many other laws, regulations, and policies. In 1978, the Crest Street Community Council, assisted by legal-aid attorneys, filed an administrative Title VI complaint with the U.S. DOT alleging racial discrimination in the planning of the East-West Expressway project. Today, most parties agree that this complaint and the resultant favorable advisory ruling by the U.S. DOT Office of Civil Rights in 1980 were the crucial elements in making the FHWA, NCDOT, and the city enter into serious negotiations with the Crest Street neighborhood.

A series of meetings was convened among all parties, including a representative from the FHWA's Headquarters in Washington, DC. These meetings were instrumental in formulating a collaborative process for preparing a comprehensive mitigation and enhancement plan for the Crest Street neighborhood. The objectives

The Participants

Agencies and groups involved in the Crest Street project included:

Steering Committee Members set the overall committee structure, approved the initial plan of action, monitored study and provided oversight of relocation planning process. The steering committee included top officials and senior membership from:

- North Carolina Department of Transportation
- Federal Highway Administration (Headquarters and Division offices)
- City of Durham
- County of Durham
- Duke University
- Crest Street Community Council
- Durham Committee on the Affairs of Black People
- The People's Alliance, an environmental coalition opposed to the expressway project

Task Force Members represented the following agencies and organizations and developed the technical studies to prepare the community impact mitigation and enhancement plan:

- Crest Street Community Council and its legal counsel, the North-Central Legal-Assistance Program
- Duke University
- City of Durham (the Durham City/County Planning Department)
- Federal Highway Administration, North Carolina Division Office, Raleigh, NC
- North Carolina Department of Transportation

Other Parties:

- ECOS, a group of Duke University Law School students opposed to the expressway project
- The Durham Voter's Alliance was involved in the City Council elections and politics in Durham as it related to the expressway project

Title VI's Administrative Complaint Process—

Its Purpose, Arguments, and Outcome in the Crest Street Case

Title VI prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Title VI of the Civil Rights Act of 1964 requires that all agencies establish regulations to enforce its provisions. The Federal DOT regulations are set out at 49 C.F.R. Part 21, and require that the Secretary investigate whenever it appears that there may be a violation and to take the necessary steps to correct the violation.

The Crest Street Community Council, assisted by legal-aid attorneys, filed an administrative Title VI complaint with U.S. DOT. The complaint alleged that the State DOT plans violated Title VI, which prohibits racial discrimination in any program that receives Federal funding, in that the plan was prepared with a discriminatory intent and had a discriminatory impact. Several Title VI allegations were made by the Crest Street community and its legal team:

1. The first argument presented a set of facts suggesting that African Americans bore a disproportionate share of the adverse impact of the freeway project because the percentage of African Americans displaced was much higher than the overall percentage of the city that was African American. The disparity was evident in the proposed section and existed in the previously built sections of the expressway. The community further argued that alternative transportation improvements and designs were possible to reduce the number of displacees and that more cost-effective alternatives were present to satisfy the transportation needs.
2. The second argument gave a specific example of a case in which a white neighborhood was given different and better treatment in the siting of a Durham highway transportation facility by State DOT in the 1970s.
3. The third argument arrayed a set of facts suggesting that African Americans had been excluded from the State DOT positions at policymaking and technical levels including decision-making bodies responsible for decisions about which transportation projects were built and where. The arguments were intended to show that the highway project was tainted because the selection of projects in the State was not made by a properly representative body using current data.
4. The complaint also alleged that the State DOT had failed to comply with the Uniform Relocation Act by failing to plan for or provide last resort housing.

In February 1980, the U.S. DOT issued a preliminary finding that the expressway, as proposed, would violate Title VI. The preliminary ruling was made by U.S. DOT's Office of Civil Rights and it did not make detailed findings of fact or law. Instead, it cited the broad antidiscrimination language from the U.S. DOT Title VI regulations and noted that 1) the project as proposed would destroy the African-American community; and 2) there appeared to be other project designs that would greatly reduce this adverse impact while still satisfying the transportation needs of the city. Most importantly, it urged the parties to meet and seek to negotiate a solution.

Source: Excerpted from Alice A. Ratliff and Michael D. Calhoun, "Use of Last Resort Housing Benefits and Redevelopment Powers to Preserve a Low-Income Community Threatened with Displacement: A Case History," *Clearinghouse Review*, Volume 22, No. 5, October 1988, p. 441-454.

and organizational framework were established and included a technical, operating committee (the Task Force) composed of representatives from the Crest Street Community Council and the principal public agencies and private organizations involved in the project, including FHWA. A Steering Committee composed of Task Force members, top government officials, and private interest groups was also created. Although the process was interrupted for 11 months to resolve a controversial zoning dispute in the Crest Street neighborhood, the basic structure survived this challenge and members forged a comprehensive mitigation and enhancement plan in 1983.

The completion of the East-West Expressway had become a volatile and racially charged political issue in the city of Durham. Several elections turned on the issue. In the end, however, the Durham City/County Planning Department began developing a mitigation and enhancement plan with the NCDOT and FHWA.

The most encouraging and inspiring part of the Crest Street story is the evolution of the mitigation effort. In a period of less than 2 years, the working environment changed from angry and adversarial to a spirit of cooperation and mutual respect rarely, if ever, found in negotiations among opposing parties on a highway or other type of project.

Mitigation and Enhancement Measures. The mitigation and enhancement plan was made a part of the final EIS for the East-West Expressway. The plan involved a comprehensive restructuring of the entire Crest Street neighborhood, keeping it intact in the process. Although it sounds like a simple concept, the mitigation and enhancement plan actually took several years to develop and gain support. Its implementation required the innovative use of program resources and a commitment of time from agency representatives, community leaders, and residents.

The Crest Street mitigation and enhancement plan would not have been feasible without sufficient, suitable vacant land on which to reestablish the neighborhood. Siting the new neighborhood in the vicinity of the old location minimized the disruptions in people's lives and avoided adverse impacts for those residents who walked to work. Sufficient vacant land was located nearby; however, site assembly was complicated dramatically when the city rezoned some of the proposed site for a health club facility. The city justified this on the grounds that commercial facilities near an expressway interchange were economically important in terms of tax revenues and jobs. This decision removed a crucial parcel from the proposed relocation site. Additional land had to be assembled, and the only remaining location was a community cemetery. This might have been an insurmountable obstacle were it not for expeditious action on the part of the NCDOT and FHWA to secure approval by the Crest Street neighborhood and relocate all of the graves to a satisfactory site nearby. More than 1,000 graves were involved in this relocation. The resultant vacant parcel allowed the elements of the mitigation and enhancement plan to fall into place, and a new site for the Crest Street neighborhood was successfully created.

The Federal housing-of-last-resort provision of the Uniform Relocation and the Real Property Acquisition

Mitigation and Enhancement Measures

- Moved more than 1,000 graves to provide an adequate community site.
- Realigned an expressway interchange to maximize land available for reconfigured community.
- Moved and rehabilitated 65 houses.
- Rehabilitated 12 housing units in place.
- Constructed 178 new housing units, including 112 single-family and 66 multifamily units.
- Renovated a former school for elderly housing
- "Stacked" relocation benefits and housing assistance programs to maximize homeownership.
- Built infrastructure for the new community location, including streets, sidewalks, sanitary and storm sewers, and street lighting.
- Constructed two new parks and a community center.

Uniform Relocation and the Real Property Acquisition Policies Act of 1970 —

Housing of Last Resort

The *Uniform Relocation and the Real Property Policies Act of 1970* consolidated diverse relocation assistance requirements found in Federal legislation and regulations and provided uniform and equitable treatment of displaced people. The act requires that displaced individuals and families be given the opportunity to secure decent, safe, sanitary housing of adequate size that is within their financial means. It established maximum levels for payment to relocatees for moving expenses and assistance payments, including payments to renters and homeowners.

The act includes a Housing of Last Resort provision that was exercised in the Crest Street case. It gives an agency more flexibility in funding replacement housing if a program or project cannot proceed on a timely basis because comparable replacement housing is not available within the monetary limits set by the Act. Any decision to provide last resort housing assistance must be adequately justified either:

1. On a case-by-case basis, for good cause, or
2. By a determination that:
   - There is little, if any, comparable replacement housing available to displaced persons within an entire program or project area; and, therefore, last resort housing assistance is necessary for the area as a whole; and
   - A program or project cannot be advanced to completion in a timely manner without last resort housing assistance; and
   - The method selected for providing last resort housing assistance is cost effective, considering all elements which contribute to total program or project costs.

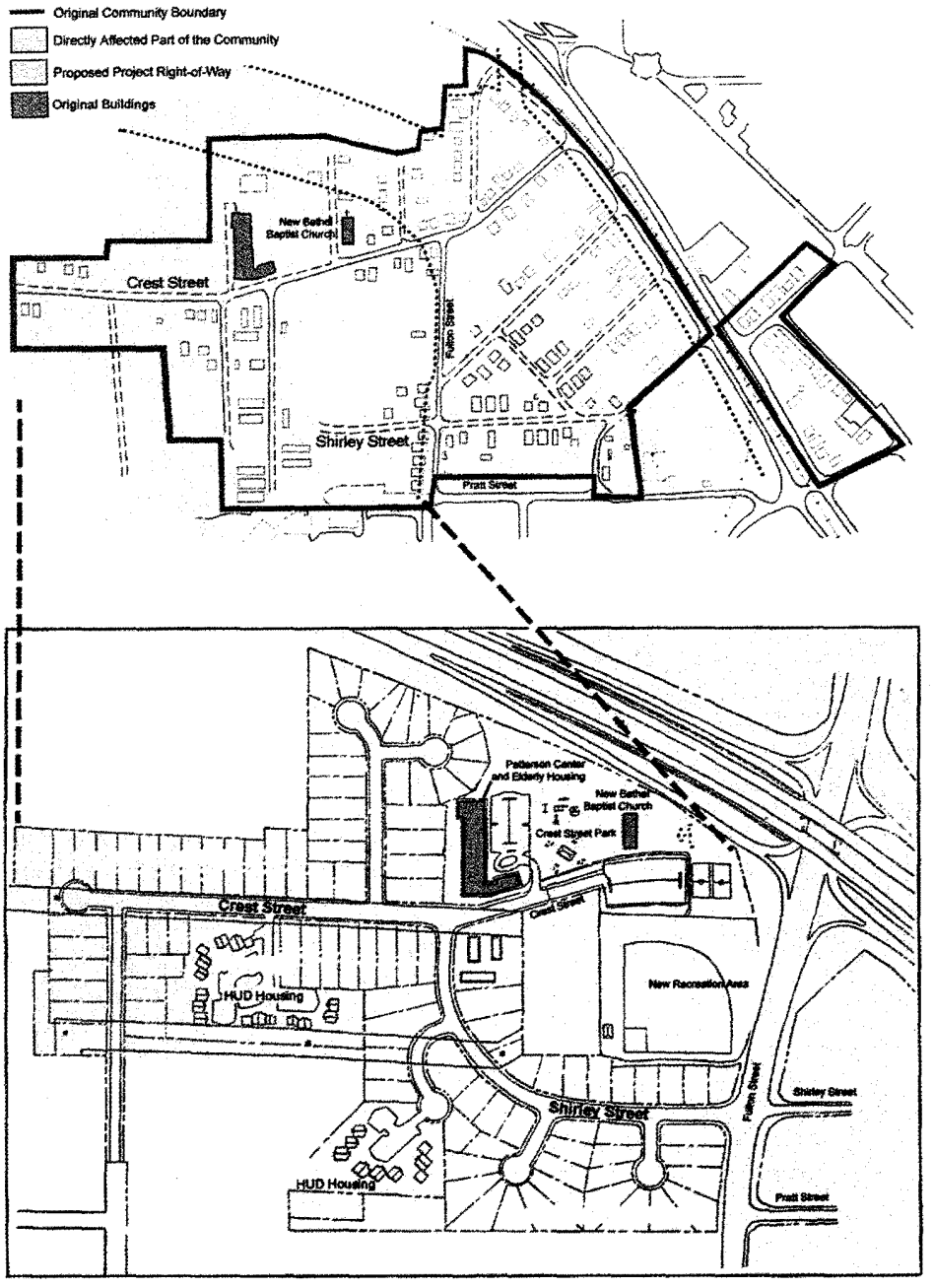
Futher information about the *Uniform Relocation and the Real Property Acquisition Policies Act of 1970*, and its Housing of Last Resort provision can be found on the web at: http://www.fhwa.dot.gov/legsregs/directives/fapg/cfr4924e.htm

Policies Act of 1970 provided the flexibility that the FHWA needed to commit Federal funds to construct replacement dwellings for the new community configuration. However, the State of North Carolina had not previously enacted legislation commensurate with the Federal Act (including housing of last resort). It took a separate act of the North Carolina legislature to make State funds available.

The community successfully argued that replacement housing should be provided as a means of preserving the family relationships and social fabric of the Crest Street neighborhood. This reasoning permitted the neighborhood to be treated as a whole, and enabled some Crest Street residents outside the highway footprint to be included as part of the mitigation. In addition, based on 23 U.S.C. 109(h) of the 1970 Federal-aid Highway Act, Title VI of the 1964 Civil Rights Act of 1964, and NEPA, the FHWA is required to consider fully not only the direct impacts, but also secondary and cumulative impacts of proposed Federal-aid highway projects. This further buttressed the idea that the mitigation and enhancement plan should include the entire Crest Street neighborhood — not just that portion within the project footprint.

Many houses were rehabilitated with entirely new interiors and modern conveniences. Sixty-five houses were moved from the old community to the new. In addition, several new single-family homes were built; a former school building was converted to housing for the elderly; existing houses on the new site were rehabilitated; and apartments were built for those who could not afford to purchase homes.

Rental housing was built with the help of the city of Durham and HUD Section 208 housing program. The Section 208 program allows residents to pay rent based upon their incomes, with the remaining cost financed by Federal funds. The Crest Street Community Council acquired the right from HUD to purchase a controlling share of the rental units in the event that the private investors had financial difficulties.



The top map shows the original Crest Street neighborhood superimposed on the East-West Expressway right-of-way. The mitigation and enhancement plan called for reestablishing the community into the West Fulton Street area. The area included vacant land and initial designs of the interchange were modified to a more compact "urban diamond" in order to leave more community land intact and accommodate the relocation of the neighborhood. The bottom map shows the plan implemented for that area.

Another key element in the mitigation and enhancement plan was the provision of modern infrastructure in Crest Street. This included paved streets, sidewalks, sewerage, and recreation facilities. The city, NCDOT, FHWA, and HUD shared the cost. NCDOT waived the usual North Carolina requirement that a city acquire a prorated portion of a State highway right-of-way based on its projected use by local traffic. This saved the city of Durham a substantial sum of money, which was then made available for infrastructure improvement in the new Crest Street community.

Before the mitigation and enhancements, 22 percent of the households owned their homes (although another 20 percent of the buildings were owned by residents for use as rental properties). To encourage people to own homes, the FHWA, HUD, NCDOT, and the city of Durham worked out an arrangement whereby subsidies were used to give residents maximum flexibility in deciding whether or not to purchase a home. At project completion, 56 percent of Crest Street's households were homeowners.

As of 1996, there were 155 dwelling units in the Crest Street community, about half of which were single-family homes. The Crest Street Community Council took an active hands-on approach to the management and ownership of the multifamily units in the neighborhood. Using its prior investment in a senior citizen property developed with the assistance of HUD and the city of Durham as collateral, the council acquired title to other units, including Section 208 rental units. The former owner of the Section 208 units went bankrupt, and the apartments had become a liability to the community because of their poor physical appearance and some disruptive tenants. The Crest Street Community Council assumed ownership and active management of the apartments, rehabilitated them and evicted problem tenants.

The total cost of the mitigation has been estimated at approximately $15,700 per housing unit above what would normally have been spent for a relocation project. The FHWA's share of expenditures on this project was not significantly more than what the agency normally spends for housing of last resort. Moreover, the FHWA was able to creatively partner with HUD and the city of Durham, thus leveraging its resources with additional funds from nontransportation agencies.

Two parks were built as part of the mitigation and enhancement plan. A picnic and playground were located adjacent to the New Bethel Baptist Church. A baseball field was sited in the middle of the community.

Today, Crest Street is a vital, inner-city neighborhood with modern streets, sidewalks, and infrastructure. The homes are well maintained with neatly mowed lawns and landscaping. The neighborhood's livability was further enhanced by the development of two parks specified in the mitigation and enhancement plan. One park supports active recreational activities such as baseball, while the other, with a picnic shelter and a playground with swings and apparatus for younger children, appeals to families.

Near the parks is the W.I. Patterson Community Center, part of a former school building renovated during the project. The community center includes housing for the elderly as well as facilities for the community as a whole. Crest Street is physically smaller than it was before the project, and the lots are smaller, which has led to a few complaints from people who liked the more rural environment that existed prior to the mitigation plan. The community's attractive, compact appearance, however, more than counters such criticisms.

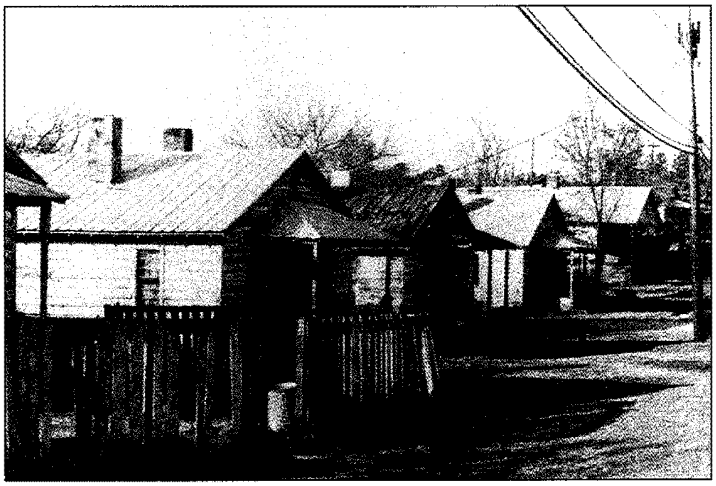
Even more important, Crest Street retained its sense of togetherness. The New Bethel Church's importance in the community has grown even stronger, while the community's elderly housing has enabled three and four generations to retain close family ties.

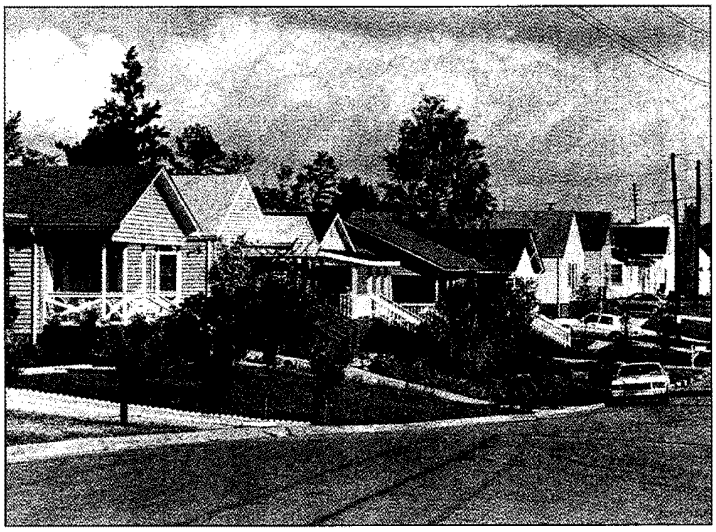
Perhaps the most important legacy of this project is the Crest Street Community Council, whose five governing members are elected by the residents. The council ensures that homes in the community are properly maintained and it sponsors periodic cleanup days. It effectively serves as a central organization for the social support systems that have existed for generations. With its real estate holdings, the council has managed to finance its operation without imposing dues on the members. It is a stabilizing institution that fosters community cohesiveness and promotes a family-oriented environment.

Effective Environmental Justice Practices

This case shows how the project development process — even one that started with animosity and suspicion between the project sponsor and affected communities — can be successfully transformed when its participants are faithful to core principles of environmental justice. Several effective practices were employed to bring this transformation about:

- **Adherence to Title VI Requirements and Principles.** Crest Street neighborhood residents saw a pattern of discrimination and developed a strategy for addressing it. They had seen how previous segments of the East-West Expressway had cleared out Hayti, a mostly African-American, low-income area. They further observed that their community had been denied revitalization investments from the city, in part, because their community was slated for demolition with the subsequent phase of expressway construction. The community organized and filed a Title VI administrative complaint and U.S. DOT concluded, in the neighborhood's favor, that the project would have an extremely adverse and disproportionate impact on the African Americans as compared with whites in the surrounding area. Once the validity of the neighborhood's civil rights concerns were recognized, a sincere, collaborative planning process was undertaken to resolve conflicts and produce meaningful agreements. The NCDOT, acting on the advice of U.S. DOT, set up an East-West Expressway steering committee to provide a forum for further negotiations. Ultimately it was adherence to the requirements and principles of Title VI that allowed this project to become such a success.
- **Personnel Skilled in Conflict Resolution were Empowered to Make Decisions.** Key personnel assigned to the task force were properly trained and sufficiently autonomous to negotiate solutions. Personnel were senior enough to make key decisions and they devoted significant time to the project. Most importantly, they had the maturity and experience to handle emotionally charged events, such as those early in the process when negotiations did not always go smoothly. Staff continuity was also preserved through successive phases of project development, from site planning to implementation, which built trust and credibility between the parties.
- **Project Meetings in the Community.** The FHWA and NCDOT personnel met at locations convenient for people in the community. Most meetings were held in the New Bethel Baptist Church fellowship hall.





Approximately 80 percent of the Crest Street neighborhoods housing stock was classified as substandard before the project. The mitigation plan resulted in the construction of new homes, repositioning and rehabilitation of dwellings, and the installation of modern infrastructure facilities at the new location.

- **Detailed Mitigation and Enhancement Plan.** Key participants signed a carefully worded, detailed, and precise plan to mitigate community impacts, which defined commitments, roles, and responsibilities.

- **Use of the Housing-of-Last-Resort Provision.** Exercising the housing-of-last-resort provision was integral to amassing sufficient funds to relocate an entire community. It provided necessary funds, greater flexibility in the use of funds, and broadened the base of eligible applicants to better preserve family relationships and the social fabric of the community. By keeping the community intact during relocation, traditional social support networks were preserved and certain social and human health costs of disruption, particularly for the elderly, were minimized. Expending additional funds to keep the community intact also could be justified on the basis that the Crest Street neighborhood and its residents had long been underserved by public investments. In more practical terms, the expressway's completion was threatened and the costs of failure to complete were simply too great for the interested parties not to explore creative solutions that would resolve the impasse.

- **Building a Planning Partnership with the Community.** The strength and leadership of the community, embodied in the Crest Street Community Council, allowed the FHWA, NCDOT, and other agencies to build a true planning partnership with the Crest Street neighborhood. Once this partnership was established, the involved agencies and the community were able to mobilize their respective resources to understand and achieve shared goals.

- **Leveraging Transportation Resources through Creative Partnering Arrangements to Foster Livable Communities.** Effective mitigation is sometimes expensive. The Crest Street mitigation and enhancement plan had its genesis in the East-West Expressway project, but it also involved expenditures for housing, infrastructure, parks, and other neighborhood enhancements. Each partner brought essential funds, unique technical competencies, or community-based activism to supply key ingredients of a livable community (e.g., transportation, housing finance, tenant management, park development, community facilities and leadership, urban design, and land use planning). The project provided an

extraordinary forum for combining forces. The partners were able to accomplish more together by combining their resources than could have been achieved separately.

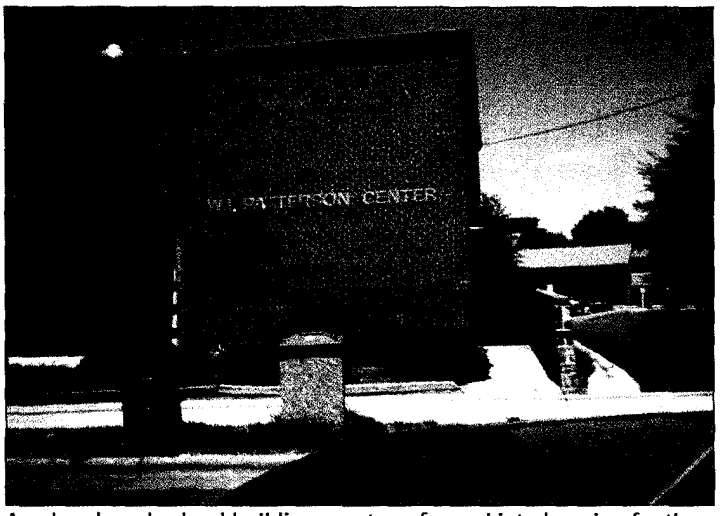
- **Field Office During Relocation Phase.** The NCDOT renovated a house near the site to serve as a field office to facilitate relocation. They maintained a staff that worked closely with the city in improving the site and coordinating financing for residents. The agency also coordinated all construction and moving of structures.

Challenges Ahead

The East-West Expressway has been built, the Crest Street neighborhood has been relocated and revitalized, and the Crest Street Community Council is a greater social force that serves as an agent for dedicated volunteerism and community-building projects. This successful outcome was not inevitable, rather it depended upon the various parties capitalizing on emerging favorable conditions and becoming increasingly creative in their approach to negotiations and problem solving.

This effort was possible, in part, because adequate land was available nearby to facilitate a major community-scale relocation and mitigation. Moreover, substantial funding was made available at the right time for many of the programs involved, especially those dealing with housing. Significant public controversy and the risk of failure finally brought an urgency to negotiations that gave each of the conflicting parties the willingness to explore the potential of a community-based collaboration and partnership. The successful conclusion of the project only occurred when proponents sat down and broke bread with opponents — an event that did not take place until an administrative complaint against the proponent agencies forced negotiations.

A challenge for transportation practitioners will be to recognize that the collaborative planning process does not have to begin only after allegations, conflict,



An abandoned school building was transformed into housing for the elderly and a community center named after one of the community leaders. The elderly housing, seen in the right of the photo, minimized the disruptive impacts of relocation, preserving bonds with family and community.

posturing, and brinkmanship occur. Similarly, initiating a collaborative planning process does not require extraordinary resources or leadership at the very highest levels of government.

Perhaps, the most important challenge highlighted by this case, is the challenge to "do the right thing" from the beginning. The East-West Expressway project took decades to complete. While funding shortfalls were responsible for some of the delays, other delays were caused by the disruptive and controversial nature of the project itself. The challenge will be to avoid these types of delays and uncertainties.

Integrating this lesson into the culture of transportation agencies may be difficult. Agency discretion and authority — granted by law, regulations, and legal precedent — are often jealously guarded, and collaborative planning with a neighborhood community can "feel" to an agency like a loss of power. This case, however, is a powerful reminder that transportation systems are of immense significance to the shape, form, and livability of communities. Therefore, transportation practitioners have a duty to listen, to observe

The New Bethel Baptist Church remained at its original site in the Crest Street neighborhood. The mitigation and enhancement plan, however, included careful landscaping of the church grounds.

carefully, and to learn more about the lives of the communities along the right-of-way.

The challenge ahead is to learn how to better integrate transportation systems planning and specific project development planning into a process that recognizes the value of sustainable communities. Regardless of whether future projects can amass as many resources or replicate so many favorable conditions, the transportation practitioner should be intrigued by collaborative planning processes that bring together multidisciplinary teams to address the elements, including transportation, that make communities sustainable. The collaborative planning model starts with the idea that bringing diverse partners and communities together holds enormous potential for creative planning, problem solving and realistic, implementation-minded strategies and actions. This process is of immeasurable value to promoting sustainable, livable communities and community-responsive transportation systems.

Lessons Learned

The development and implementation of the Crest Street mitigation and enhancement plan is an example of what a collaborative problem-solving approach can accomplish when pursued during transportation decision making. Using existing programs in creative combinations, the FHWA, NCDOT, and the city of Durham were able to work with the Crest Street Community Council to develop such a plan. FHWA and NCDOT representatives were instrumental in helping to preserve the social bonds that had existed for generations within Crest Street. Application of the housing-of-last-resort provision was an integral source of funds for a large-scale community relocation.

Organized minority communities used Title VI legal protections and administrative procedures to gain a place at the transportation planning table. However, creative planning and solutions were not discovered until there was trust, communication, and an understanding of the community's needs and values.

It is important to recognize the spirit of dedication and cooperation that developed during the final planning period to address challenges and overcome obstacles. The collaborative problem-solving approach and multi-organizational partnerships that were forged, not just the physical circumstances of the community, were vital elements to success. Early tensions that had led to anger and animosity were replaced by a cooperative working environment between the agencies and the community.

Finally, the Crest Street case offers several instructive lessons about resolving conflicts between parties:

- **Identify Essential Parties.** The Crest Street dispute was resolved only after several parties who had participated in various stages of the controversy, but who were not crucial to the final settlement, withdrew from the negotiations. At various times during the two years of negotiations, no fewer than nine separate groups

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We are people who will stick together and fight for our rights.

– A Crest Street resident

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were at the negotiating table. Gradually, the negotiating process was winnowed down to five, and then three participants who signed the final agreement for the mitigation and enhancement plan — the City of Durham, Crest Street Community Council and NCDOT.

- **Recognize Critical Issues for Each Party.** Progress was made when the individual interests of each major party to the dispute were deemed legitimate. The ability "to see the other side" occurred when all the essential parties were recognized as having power and legitimacy and when the crucial negotiations shifted to the less political task force.
- **Sense of Urgency.** All parties felt a sense of urgency because of their prior resource commitments, their legitimate fears of letting down their constituents, failing in their principal objectives, and their desire not to squander funds or opportunities. For example, the city had received a mandate from the electorate for the expressway and felt failure to complete the project would be a major political liability. Additionally, the city had received housing subsidy funds that HUD threatened to withdraw. NCDOT had invested time and money on planning the highway segment and was eager to complete the entire East-West Expressway. The Crest Street neighborhood had been denied revitalization funds for its community in the past and did not expect to receive funds without a solution.

Benefits from Environmental Justice in Decision Making

For the Community:

- The Crest Street neighborhood residents overcame a threat to their community in the form of a highway project. They successfully organized and initiated a Title VI administrative complaint process in order to protect their civil rights and preserve their community. The mitigation and enhancement remedies emerging from a collaborative negotiation and planning process were highly creative, yielding a more livable community for its residents.
- The Crest Street neighborhood built valuable partnerships with institutions such as Duke University and organizations such as local environmental, legal, and civil rights groups. The neighborhood leadership recognized an opportunity as well as a potential threat to the community from relocation. The neighborhood accepted the challenges of participation in a complicated planning process and drew upon professional advisory services on sociological, legal, engineering, architectural and urban design matters to successfully advocate for their interests.
- Crest Street neighborhood residents avoided many of the social and psychological stresses that displacement projects often generate. Although the community was disrupted by the completion of the East-West Expressway, by becoming a partner in the development of a comprehensive mitigation and enhancement package, it was able to preserve its social support network and strengthen its community institutions.

For the Agencies:

- The NCDOT and FHWA were able to complete an important transportation project with the cooperation of a minority community and they earned a measure of goodwill and trust from a community whose prior experiences with State and local governments had been largely negative.
- The agencies built a set of relationships and an approach to community-based planning, that can serve as a model for future transportation efforts. Cooperation among agencies, originally arising from concerns about Title VI compliance, ultimately led to a substantial and creative community mitigation and enhancement plan that took advantage of a broader range of resources than any one agency could have marshaled alone.

What we did in order to break down the type of fighting that we did not want was, we invited those people [FHWA, NCDOT, and other closely involved parties] here, to this church, in the fellowship hall. We fed them and we sat down together, like human beings, and worked the thing out. This is what we did.

– Dr. Lowery W. Reid
Community leader and pastor of the New Bethel Baptist Church

- **Elements of Uncertainty and Flexibility.** Each party had specific interests to pursue, but they were flexible to possible alternative solutions or devising mutually acceptable outcomes. While the expressway was needed, the city was not fully certain that the Crest Street neighborhood had to be displaced, and if so, how best to mitigate a massive community disruption. The NCDOT had a strong interest in minimizing the social and political impact of displacement, even as it was concerned about the costs tolling from delays. Alternatives were possible, but there was considerable uncertainty over the future design costs, the role the State should play financially and administratively in relocating displaced residents, and its role in relationship to the city in the dispute. Finally, the Crest Street neighborhood wanted to preserve its community, but community members recognized that opposition to the expressway did not ensure the community of its needed improvements or addressed problems in traffic flow and congestion that plagued the western portion of the city, including the Crest Street area.

This was a highlight of my career.

– Richard F. Smith
Retiree of NCDOT, reflecting on his role in developing the mitigation plan.

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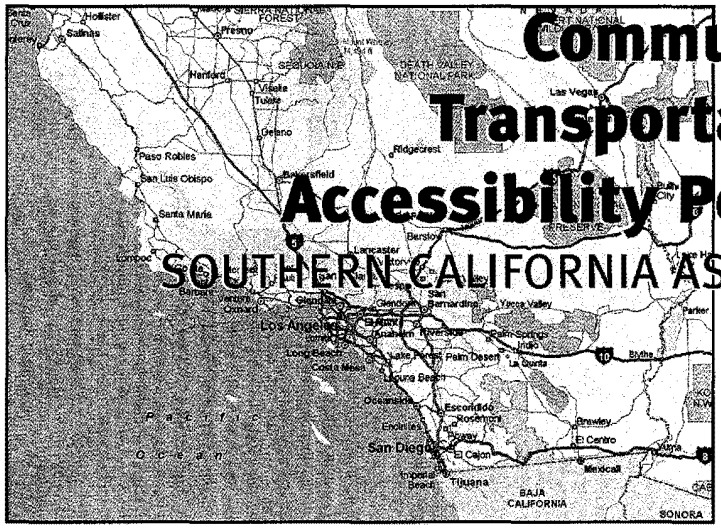
Data Sources, Analytical Techniques, Benefits and Burdens Assessment, Alternative Dispute Resolution



CommunityLink 21, Regional Transportation Plan: Equity and Accessibility Performance Indicators

SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Introduction

Transportation planning has evolved rapidly in the United States with the successive passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century in 1998 (TEA-21). Federal highway and transit statutes require, as a condition for spending federal highway or transit funds in urbanized areas, the designation of Metropolitan Planning Organizations (MPOs) which have responsibility for planning, programming and coordination of federal highway and transit investments. MPOs set priorities for the allocation of transportation expenditures — geographically and modally in response to the needs of a diverse regional population. The MPO has become an important forum for a debate over the vision for a metropolis at a time when there is an emerging recognition that transportation investments significantly influence the urban form — its land use patterns, competitiveness, and quality of life.

There are many parties, at and near the negotiating table, keenly interested in influencing the allocation of resources. Increasingly, the transportation decision making process and its outcomes are closely monitored not only by participating agencies and local governments, but also by a diverse and questioning public comprised of environmental and public interest groups, community organizations, academics, professionals and citizens.

Transportation planners work today in an era where new ideas and information are rapidly disseminated via desk-top and local network computing, the internet and e-mail. The proliferation of these technologies has provided a highly supportive environment for information-sharing and networking of like-minded organizations and individuals.

This environment places new challenges upon transportation agencies to adopt new technologies, remain open to innovation, and keep pace with "cutting-edge" approaches for delivering transportation systems and services. In short, transportation agencies are increasingly accountable to a diverse, well-educated, and informed public. MPOs (as well as transit service providers and State DOTs) are expected to provide a rationale for their recommended program of transportation investments and explain how the benefits and burdens of their programs are distributed. MPOs (as well as transit service providers and State DOTs) must develop more continuous and open public involvement processes as well as adopt more analytically rigorous methods to effectively navigate this new, information-driven working environment. Failure to adapt to this environment of raised expectations can

have consequences in the form of administrative and legal complaints, public controversy and, ultimately, greater delays and uncertainties in the implementation of future transportation improvement program items.

Title VI of the Civil Rights Act of 1964 provides one very significant means by which the public can seek greater accountability from transportation agencies. Title VI says that "No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination) but have the *effect* of discrimination on protected groups.

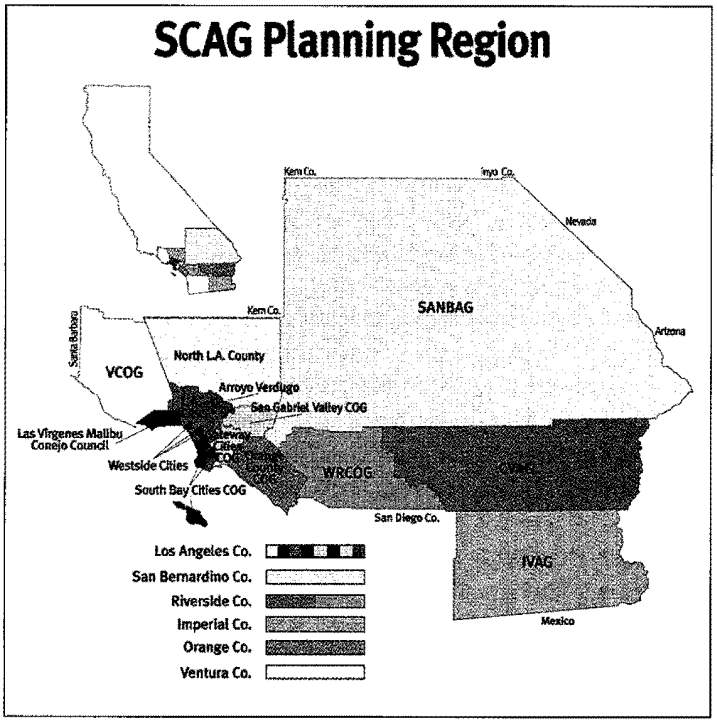
MPOs are required to identify and address the Title VI and the environmental justice implications of their planning processes and investment decisions. They must ensure that their transportation programs, policies, and activities serve all segments of the region without generating disproportionately high and adverse effects. In their joint October 7th memorandum, *Implementing Title VI Requirements in Metropolitan and Statewide Planning*, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) gave a clear message that Title VI and environmental justice are integral throughout the transportation planning process and, by extension, to those who participate in the transportation process. Most notably, FHWA and FTA staff responsible for certification reviews are directed by headquarters to verify the procedures and the analytical basis for the MPO's self-certification of the Civil Rights Title VI compliance (and for the State DOT's self-certification as part of the Statewide Transportation Improvement Program findings). Where self-certification cannot be adequately supported, these reviewers are further directed to include a corrective action notice in their certification to report deficiencies. State DOTs also conduct Title VI reviews of cities, counties, consultant contractors, suppliers, universities, colleges, planning agencies including MPOs as well as other recipients of Federal-aid highway funds.

However, Civil Rights Title VI and Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* do not prescribe the specific methods and processes for ensuring environmental justice in transportation planning. State and local transportation agencies are free to explore and devise more effective analytical techniques and public involvement approaches to ensure that transportation plans successfully integrate environmental justice into decision making. In its *1998 Regional Transportation Plan*, the Southern California Association of Governments (SCAG) grappled with several important methodological issues in the consideration of equity in transportation planning. These activities occurred before the October 7th FHWA/FTA memorandum about Title VI certification reviews, but their research efforts remain instructive for practitioners today.

The Participants

The RTP was a 3-year planning process that involved:

- Southern California Association of Governments
- 14 SCAG Subregions
- County Transportation Commissions
- Caltrans
- Los Angeles County Metropolitan Transportation Authority
- FTA/FHWA Los Angeles Metropolitan Office
- Regional Transportation Plan Technical Advisory Committee
- Transportation and Communications Committee
- Peer Review Committee
- Public



The SCAG region is made up of 6 Counties which are divided into 14 subregions.

SCAG is the designated MPO for a six-county region, covering 38,000 square miles and equal in size to the state of Ohio. As an MPO, SCAG is required to produce a Regional Transportation Plan (RTP) with a minimum 20-year planning horizon, every three years. SCAG also produces a Regional Transportation Improvement Program (RTIP) every two years.

SCAG's 1998 RTP and its working documents stand out as an example of the methods and processes for assessing the benefits and burdens of a regional transportation plan. The SCAG RTP, also known as *CommunityLink 21*, developed and adopted performance indicators that gauge the social and economic effects of transportation investment decisions on the region's minority and low-income populations. The methods adopted for the SCAG RTP gave the transportation community — its modelers, decision-makers, interest groups — greater insight about how and to what extent the region's various transportation users receive benefits from the transportation system as well as pay for these system benefits. During the study, SCAG discovered limitations with its equity analysis methodology for translating benefits into monetary terms and responded by taking a closer look at improved accessibility to jobs and other opportunities. By adopting the methods used in the SCAG RTP, the regional transportation community

Metropolitan Transportation Planning Process: Certification

The State and the Metropolitan Planning Organization must annually certify to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) that their planning process is addressing the major issues facing the area and is being conducted in accordance with all applicable requirements. The self-certification addresses several requirements including adherence to Title VI of the Civil Rights Act of 1964 and the Title VI assurance executed by each state under 23 U.S.C. 324 and 29 U.S.C. 794.

The FHWA and the FTA jointly review and evaluate the transportation planning process of each Transportation Management Area—typically an urbanized area of greater than 200,000 persons—to determine if the process meets the requirements. The review may take place as appropriate but no less than once every 3 years. The FHWA and FTA have the authority to certify the transportation planning process and/or specify areas where corrective actions may be required by the reviewed transportation agency. They also retain the authority to withhold in whole or in part various highway and transit funds and approvals of certain projects if they determine that the transportation planning process does not substantially meet requirements. Further information can be found at 23 C.F.R. Part 450.334, Metropolitan Transportation Planning Process: Certification.

was afforded an opportunity to wrestle with the issue of fairness in the distribution of transportation system benefits and burdens.

The Region and the Community

SCAG is comprised of six counties, Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura, and is divided into 14 subregions and includes 184 cities in Southern California. SCAG is served both by an extensive highway network as well as large public bus and commuter rail systems linking the region to the rest of California.

It is the largest and most populous metropolitan planning region in the nation, and includes nearly half of the entire population of California. The SCAG Region includes urban areas and uninhabited mountains and deserts, with the urban areas reflecting a wide variety of land use patterns and conditions. At the center of the urbanized region is Los Angeles, with other urban centers scattered peripherally in Long Beach, Burbank, Glendale, Pasadena, Pomona, Riverside, San Bernardino, Santa Ana, Anaheim, Irvine, Oxnard and Ventura.

A major gateway for immigration from the west and the south, the SCAG Region's ethnic make-up has

Snapshot of the SCAG Region

Location: The SCAG region is equal in size to the state of Ohio and is the largest and most populous metropolitan planning region in the nation with 6 counties and 184 municipalities in Southern California.

Population: SCAG's estimated 15.61 million residents in 1994 totaled nearly one-half of the entire California population. SCAG forecasts 6.7 million new residents by 2020, an increase of 43 percent. This scale of growth is equivalent to adding the population of Chicago to the area–twice–within two decades. The highest growth rates are projected in the outlying subregions.

Racial and Ethnic Composition: Over the past three decades, the SCAG region has been transformed into a multicultural megalopolis with the growth of Hispanic and Asian American populations. In 1970, Non-Hispanic Whites accounted for 76 percent of the SCAG regional population. By 1999, SCAG's racial and ethnic composition was:

- Non-Hispanic White – 42 percent
- Hispanic – 38 percent
- Asian American – 11 percent
- African American – 8 percent
- Native American – 1 percent

Employment: SCAG projects a 61 percent increase in jobs, bringing the total number of jobs in the region to 10.6 million by 2020. The MPO foresees a worsening of the jobs and housing balance, resulting in more and longer commutes.

Greater Diversity in the Future Workforce: SCAG forecasts an increase in Hispanic workers from 34.2 percent to 46.5 percent of the total workforce by 2020. African Americans and "Others" racial and ethnic categories will grow in absolute numbers, but decline in their share of the total workforce.

Households Below Poverty Line: 13 percent of households earn less than $12,000 per year and are considered to be living in poverty.

Spatial Concentration of Minorities and Urban Poverty: Los Angeles County accounts for 58 percent of the total SCAG region population, but 78 percent of African Americans, 68 percent of Asian Americans and 65 percent of Hispanics. The urban poverty core within the city of Los Angeles is 92 percent people of color, 62 percent Latino, and 38 percent in poverty compared to 18 percent of the county.

Source: 2000 U.S. Census Bureau, Population Estimates for Counties by Race and Hispanic Origin: July 1, 1999; *Community Link 21, 98 Regional Transportation Plan*, Southern California Association of Governments; Environmental Defense Fund, http://www.environmentaldefense.org/programs/ej/timeline.

changed considerably over the past three decades becoming increasingly Hispanic and Asian. In 1970, non-Hispanic Whites represented 76 percent of the population, dropping to 50 percent in 1990. The percentage of the region's non-Hispanic Blacks has remained relatively stable at eight percent. Hispanics are the largest ethnic group in four of the 14 subregions: the City of Los Angeles, San Gabriel Valley Council of Governments, Gateway Cities, and Imperial County.

What Happened

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and *the Clean Air Act Amendments of 1990* set the stage for an integrated, multi-modal approach to transportation planning. Transportation practitioners and decision makers were asked to adopt goals and objectives and methods capable of setting priorities and investments for an entire integrated system rather than as a collection of competing modes. With ISTEA, MPOs were asked to adopt and periodically update their Regional Transportation Plans (RTP) and, in so doing, explicitly consider and analyze a series of sound planning principles commonly referred to as the ISTEA Planning Factors.

In response to these changing requirements, and following completion of its previous transportation plan in 1994, SCAG initiated a performance-based planning process — an approach intended to provide a more comprehensive framework for decision making. The new approach introduced several new performance indicators into decision making. These new indicators were not prepared by SCAG alone, but rather came after discussions with stakeholders about the proper goals and objectives that should be set for the transportation system. The process engaged the public, interest groups, subregions, County Transportation Commissions and several SCAG committees including a Peer Review Committee formed by SCAG's Transportation and Communications Committee (TCC). The performance indicators approach has been credited as a means for bringing a "user's perspective" into transportation decision making, overcoming a limitation of more traditional analyses focused upon measures of vehicle volumes and levels-of-service.

This process culminated in recommendations from the TCC and approval by SCAG of performance indicators for each of the following seven criteria in order to report findings in the Preliminary 1997 RTP:

- Mobility
- Accessibility
- Environment
- Cost Effectiveness
- Reliability
- Safety
- Consumer Satisfaction

This process was also notable because, for the first time, SCAG employed a "bottom-up" approach that drew input from SCAG's 14 subregions. Each subregion was first given baseline transportation information projecting system performance for each of the seven performance indicators to the year 2020. Each subregion then utilized this information to nominate policies, programs, and projects for possible inclusion in the regional plan.

SCAG's experience confirmed the merits of performance indicators as a planning tool to evaluate investment alternatives. The indicators provided a broader analytical framework for the decision maker. The traditional emphasis upon mobility was balanced by the introduction of a series of sound planning principles. In general, the approach fostered more input from a wide range of agencies, organizations, and individual stakeholders within the region and was viewed by its proponents as offering a better foundation from which to make cost-effective investment decisions.

Project Chronology

March 1994
EDF Report *Efficiency and Fairness on the Road: Unsnarling Southern California's Traffic* outlining a transportation equity methodology is published.

April 1994
SCAG begins revisions of its Regional Transportation Plan (RTP) and starts to develop a methodology for the RTP.

September 1994
Class action civil rights lawsuit *Labor/Community Strategy Center v. Los Angeles County Metropolitan Transportation Authority (MTA)* is filed by the NAACP Legal Defense & Education Fund, Inc. (LDF).

Summer 1995
Eleven "task forces," including the Peer Review Committee (PRC), are formed. The PRC assisted in the identification of 7 performance indicators including a measure of equity.

September 1995
SCAG issues a "Performance Indicators White Paper" and approves 7 new performance indicators for RTP.

October 1996
NAACP Legal Defense & Education Fund entered into a court-ordered Consent Decree with the Los Angeles County Metropolitan Transportation Authority.

February 1997
Preliminary RTP is issued and includes first performance-based measures findings regarding 3 scenarios.

Spring 1997
SCAG refines its equity and accessibility measures, among other activities, following an alternative dispute resolution process initiated in response to issues raised by a coalition of advocacy organizations.

Autumn 1997
PRC reconvenes to comment upon findings including SCAG's refinements to its accessibility measure to further address equity concerns.

November 1997
Draft 98RTP circulated.

April 1998
SCAG Regional Council adopted the Regional Transportation Plan, CommunityLink 21.

Although noteworthy, SCAG's initial study findings drew criticism for its inadequate treatment of equity and accessibility issues. In March 1997, a coalition of groups, including the Environmental Defense Fund (EDF), Natural Resources Defense Council, the NAACP and the Bus Riders Union, sent SCAG a letter of intent to sue for their handling of Title VI and environmental justice in the Preliminary RTP released in February 1997. The coalition observed that the Preliminary RTP appeared to offer few benefits to those living below the poverty line. The coalition also criticized SCAG for failing to involve low income and minority communities in the planning process.

SCAG took the threat of a lawsuit very seriously, in part, because Title VI of the Civil Rights Act of 1964 had been recently and successfully raised as an issue against the region's major transit service provider in the landmark civil rights class action lawsuit, *Labor/ Community Strategy Center v. Los Angeles County Metropolitan Transportation Authority (MTA)* in October 1996. The lawsuit, which eventually led to a court-order Consent Decree, charged that the MTA operated separate and unequal bus and rail systems that discriminated against minority and low-income bus riders of Los Angeles.

To avoid the delays and costs of a lawsuit, an alternative dispute resolution (ADR) process was employed to fully understand and explore the positions held by each party. Within 4 weeks of receiving the letter of intent to sue, the first meeting was held between SCAG and the coalition of potential litigants. Several other meetings were held between the parties. During this process, SCAG representatives included elected officials, the chair of the SCAG transportation policy committee, the

Landmark Civil Rights Class Action Lawsuit About Service Equity

In October 1996, on behalf of 350,000 poor minority bus riders, the NAACP Legal Defense & Education Fund, Inc. (LDF) entered into a court-ordered Consent Decree settling the civil rights class action lawsuit *Labor/ Community Strategy Center v. Los Angeles County Metropolitan Transportation Authority (MTA)*, which charged that the MTA operated separate and unequal bus and rail systems that discriminated against minority and low-income bus riders of Los Angeles. Under the terms of the Consent Decree, the MTA agreed to make over one billion dollars in bus system improvements over the next 10 years.

The MTA case was a landmark event because Title VI of the Civil Rights Act of 1964 was successfully invoked by its plaintiffs–the Labor/Community Strategy Center, the Bus Riders Union, the Southern Christian Leadership Conference, the Korean Immigrant Workers Advocates, and individual bus riders–to get a major transportation agency to change its investment and service priorities. The plaintiffs amassed extensive documentation asserting disparate impacts and intentional discrimination over 30 years. MTA's budget disproportionately allocated resources to rail transit over bus ridership, an expenditure pattern discriminatory to low-income people of color. For example, the plaintiffs concluded that 94 percent of MTA's ridership were bus riders, but the agency customarily spent 70 percent of its budget on the 6 percent of its ridership that were rail passengers. Other evidence was compiled about disparities in spending on security, subsidies, transit routes and service patterns, overcrowding, and reductions in peak hour bus fleets.

The Consent Decree required MTA to address Title VI with greater service equity for transit-dependent riders and committed the agency to several specific planning and programming actions. Improvements meeting the needs of transit-dependent populations were to be given priority consistent with MTA's other statutory responsibilities and obligations. Equally important, the Consent Decree necessitated that MTA continue consultation with the plaintiffs through procedures that retain court jurisdiction over the matter. A court-appointed expert, a *special master*, retained authority to review areas of dispute between the parties on pertinent matters previously the sole province of the MTA. MTA agreed to the following by the Consent Decree settlement:

- Address the needs of the transit-dependent in a specific section of the MTA's long-range plans, major capital projects, and annual budgets.
- Monitor loading factors and reduce overcrowding by adding new services, additional buses, and special-route bus services to job, education and health centers.
- Develop a comprehensive program to enhance security, improve bus stops, increase user-friendliness, and improve bus service efficiency for transit-dependent riders.
- Facilitate greater consultation with riders in improving bus services to the transit-dependent.
- Freeze Fare levels for 2 years with allowances for inflation afterwards.
- Work with plaintiffs on bus service improvement plans, fare adjustment issues, ridership surveys.
- Abide by the decisions of a court-appointed special master to facilitate the resolution of disputes.
- Pay plaintiff's reasonable attorney's fees, costs and expenses for monitoring compliance of the Consent Decree.

president and vice president of SCAG, and representatives from the each of the SCAG counties. SCAG agreed to involve coalition membership in the planning process, and to facilitate a series of public meetings and workshops to solicit greater involvement from low-income and minority communities.

During the ADR process, SCAG affirmed its support and recognition for the Consent Decree by incorporating the following provision into the 1998 RTP:

"capital improvement planning and programming for MTA shall include attention

to all modes of transportation and all areas of the County from which riders are drawn. Improvements meeting the needs of transit dependent populations shall be given priority consistent with MTA's other statutory responsibilities and obligations"

The RTP recommended a transit restructuring strategy that shifted the focus away from fixed route systems that required significant subsidies and adopted several "cost-effectiveness" performance measures toward that end. The RTP also included specific commitments to low-income and minority community outreach, an endorsement for the development of "Smart Shuttles" — a non-fixed route, demand-responsive system of feeder services to bus and transit systems — and an increase in connections and services for lower-income communities.

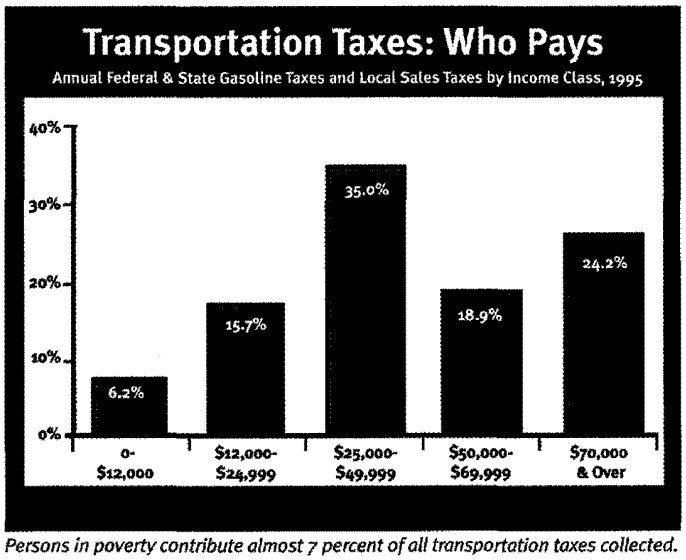
The success of these efforts was later recognized by EDF following SCAG's approval of the RTP in an April 17, 1998 news release in which an EDF senior attorney, Robert Garcia, was quoted: "SCAG has brought transportation equity to the planning table and the Environmental Defense Fund is committed to working with SCAG to improve transportation for communities of color and the transit dependent."

For SCAG, the MTA lawsuit and Consent Decree underlined the need for public transportation agencies to consider the fairness and equity of their investment and policy decisions. The Consent Decree spurred action on the part of government to make a greater commitment to understand and address Title VI and environmental justice issues in Southern California.

Revised and updated every three years, *CommunityLink 21* was the first SCAG RTP to include an analysis of transportation "equity" among its performance indicators incorporated into its plan evaluation process. Moreover, another performance indicator — "accessibility" — was examined in greater detail than ever before in order to differentiate and compare this measure by transportation mode, income group and ethnicity. SCAG's research efforts are detailed below:

Review of Tax Structures. In its November 1997 issues paper for the RTP, "Equity and Accessibility: Issues and Considerations in Community Link 21", SCAG examined the tax structures and revenue sources used to fund regional transportation projects and investments. The analysis documented the shifting economic base of the SCAG region toward a service-based and information-related economy, concluding that the primary taxation source for transportation investments — the gasoline tax and sales tax — were shrinking in importance relative to the region's growth and infrastructure needs. The report stressed that an overreliance on these revenue sources presented a "gross equity" concern for the well-being of all SCAG region residents and the region's future economic health. Equity, in this specific context, was defined in broad "geographic" terms — whether the entire region was adequately prepared to address its infrastructure requirements.

However, the SCAG report also looked at the tax structure's implications to specific income segments of the SCAG regional population. The issues paper cautioned that the transportation revenue funding sources and structures, basically the fuel tax and the sales tax, were regressive means for funding transportation systems. The paper explained that persons would consume largely the same amount of the taxed good. Thus, persons with limited financial means would pay a larger share of their total income in taxes. For example, SCAG's report asserted that spending on consumption items such as gasoline (as a percentage of income) falls as income rises. The report found such taxes regressive, particularly excise taxes, which are imposed on a narrow band of goods and carry a practical per-person maximum (e.g., one can only use so much gasoline, smoke so many cigars and cigarettes, and drink so much beer or liquor). Typically, wealthy people do not buy more of the product no matter how much money they may have. The tax is on volume rather than price, so financially better off people pay the same absolute



SCAG compared the total share of transportation funding borne by low-income persons against other income groups.

tax on an expensive product as low-income households may pay for a more generic variety.

The report presented the amount of sales and gasoline taxes paid by five income groups as well as analyzed the total share of sales and gasoline taxes collected by each of the five income groups. The analysis indicated that *tax burdens*, measured as percent of total adjusted income paid for sales and gasoline taxes, were disproportionately high, ranging between 8.6 percent and 10 percent for all income groups except for the top income households who pay just over 3.5 percent of their income to sales and gasoline taxes.

Another measure focused upon the *shares of transportation funding contributed by each income group.* This latter indicator was used to *benchmark* and evaluate whether proposed RTP strategies would bring a similar benefit distribution among different income groups. While accounting for 13 percent of the SCAG's regional population, the lowest income groups (under $12,000) contributed about 6.2 percent of total tax revenues for transportation funding. Households with incomes between $25,000 and $49,000 contributed the most to sales and gasoline taxes.

Benefit Assessment. The RTP developed a benefit assessment method that considered to what extent various socioeconomic groups were receiving value from existing and funded transportation investments. The benefit approach was a fundamental component of the initial performance-based planning approach adopted by SCAG. The benefit method calculated time savings and the value of time saved by income group for various transportation investment programs. Central to the approach was the assumption that an equity measure should monitor the amount of delay in monetary terms (i.e., time means money) and that delay means lost dollars. The approach followed standard benefit assessment conventions and calculates the value of time (half the average hourly wage for an income category) and the total time saved to measure benefits. Table 1 reports the findings from the equity calculation methodology. Using this approach, it was possible to report that fully 13 percent of the region's population lived below the poverty level, but received only 2.3 percent of the existing transportation investment benefits.

These findings raise important questions about the fairness of transportation investments in the region, but considerable caution still must be exercised when findings are presented in monetary rather than travel time terms. The findings clearly point to the fact that the highest income households (i.e., $70,000 or greater) are expected to benefit the most in terms of *hours saved* and *monetary savings* over the planning horizon, while those in the lowest household income category benefit the least. However, the benefit assessment is complicated by its highly problematic need to assign a defensible "value of time" for households in order to translate the analysis into purely monetary terms. Thus, the middle income household (i.e., $25,000 to $49,999) capture a greater share of hours saved than the next highest income (i.e., $50,000 to $69,999) household (31

percent versus 22 percent), but due to their lower value of time less monetized time savings (21 percent versus 23 percent).

SCAG took note of this issue in its methodology paper and cautioned that conclusions about "fairness" using a benefits assessment approach should only be made after careful consideration of the underlying reasons for the current distribution of benefits and burdens. Particularly, if the benefit distribution from transportation investments show "uneven" results, the conclusion and policy implication will greatly depend on the "reason" for the "imbalance" or "uneven" distribution. SCAG observed that two factors must be sorted out to make such an evaluation: the *Income Effect* and *Equity Concern*.

1) *The Income Effect.* If the uneven benefit distribution (in monetary terms) by different income categories are caused only by significant variation of time values among income groups, this is reflective of a so-called *income effect.* SCAG concluded that there is *no* equity issue from the income effect; the policy implication is that higher income people should pay more because they have a much higher willingness to pay for the time savings. Thus, policy makers should encourage transportation financing structures or some differential pricing strategy to capture the higher "willingness-to-pay" for transportation improvements from higher income groups.

2) *The Equity Concern.* If the uneven benefit distributions by income groups are caused primarily by an unbalanced distribution of time savings *(in minutes or hours)*, then there *is* an equity concern. Transportation planners should look into modified investment strategies to address and correct this inequitable outcome.

This benefits assessment approach drew comments and suggestions at the time of the submission of the Preliminary RTP and eventually precipitated SCAG's

Equity Calculation Methodology

	Income Category ($0-11,999)	Income Category ($12,000-24,999)	Income Category ($25,000-49,999)	Income Category ($50,000-69,999)	Income Category ($70,000 & above)	Total
Hours Saved Over Planning Period (1996-2020)	390,223,000	572,381,400	1,340,847,200	944,111,300	1,079,013,000	4,326,575,900
Percent of Total Hours Saved	9%	13%	31%	22%	25%	100%
Value of Time (1995 Dollars)	$ 2.28	$ 4.05	$ 6.05	$ 9.34	$ 17.37	$ 7.82
Savings Over Planning Period (1996-2020)	$894,286,000	$2,317,367,000	$8,110,785,200	$8,818,437,000	$18,737,235,000	$38,878,110,200
Percent of Total Savings	2%	6%	21%	23%	48%	100%

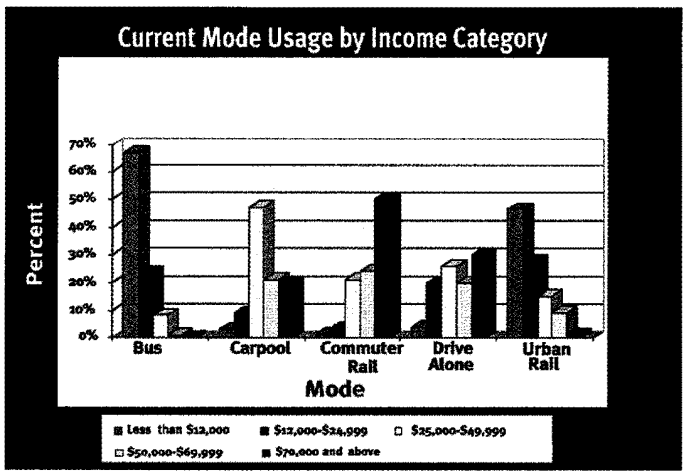
Time means money. *Equity calculations consider the value of time saved. Measured by time or money, the highest income group benefits the most.*

Table 1. SCAG used a benefit assessment methodology that considered the percent of hours and value of time saved by income category.

consideration of other formulations of equity and a closer look at accessibility.

Accessibility. *CommunityLink 21*'s issues paper examined the concept of *accessibility* in detail and compared the trip-making ability of households without ready access to automobiles with those of the driving majority. SCAG defined accessibility as the opportunity to reach a given destination within reasonable time and costs and without being impeded by physical, social or economic barriers. Accessibility became an important performance indicator in the RTP and it was defined as *the percent of total workers within 25 minutes travel to their jobs.*

Accessibility is a foundation for social and economic interactions. As an indicator, accessibility is measured by the spatial distribution of potential destinations, the ease of reaching each destination, and the magnitude, quality and character of the activities at the destination sites. Travel costs are central: the lower the costs of travel in time and money terms, the more places that can be reached within a certain budget and, thus, the greater the accessibility. Destination choice is equally crucial: the



Low-income persons ride buses and urban rail. Higher income populations drive alone in cars and use Metrolink.

The SCAG RTP used Census data to profile mode choice by income category, clarifying who most benefitted from farebox subsidies for bus, urban rail, and Metrolink, a commuter rail operation.

more destinations, and the more varied the destinations, the higher the level of accessibility.

The RTP contrasted accessibility with the traditional emphasis upon *mobility* in transportation planning. Mobility was defined as the ability to travel and the potential for movement. Mobility reflects the spatial structure of the transportation network and the level and quality of its service. Mobility is determined by such characteristics as road capacity and designed speed and, in the case of automobile mobility, by how many people are using the roads. Typical performance measures for mobility consider how vehicles get through the transportation system and report level-of-service, volume-to-capacity ratios, or vehicles miles traveled.

SCAG argued that accessibility had two crucial advantages over mobility measures. First, it allows for comparison of alternative land use and transportation policies and focuses upon the level-of-service of the metropolitan system as a whole, rather than just the transportation system. Thus, policies designed to increase the mixing of land uses can be compared to policies designed to increase capacity of transportation networks such as intersection improvements. Second, accessibility as a planning goal provides clear direction for policy makers. While increased mobility *may* be a good thing, higher levels of accessibility *are* a good thing.

Automobile Ownership and Accessibility. SCAG reviewed the relationship between auto ownership and accessibility. SCAG examined its trip-generation model which details trip-generation rates by trip purposes, housing types and vehicle ownership by counties of the SCAG region. The model shows that households without automobiles make fewer trips than households with automobiles and, therefore, are somewhat more restricted in the exercise of travel for shopping, work and other trip-making opportunities. This phenomenon is sufficiently stark to lead some policy makers and academic researchers to conclude that the best and most efficient way to move people from welfare to the workforce is to provide automobiles to welfare recipients. SCAG reflected on this policy implication, but concluded that it had a limited role to play in promoting auto ownership. Rather, the MPO should narrow the "accessibility gap" through transit investments and transit restructuring strategies for those who prefer transit or who are without access to an automobile.

Travel Behavior and Transportation System Utilization by Population Segments. SCAG profiled travel behavior and the modes of transportation (i.e., auto vs. public transit), by income group (i.e., low, middle, high) and by race/ethnicity (i.e., Blacks, Hispanics, all others or region average). The analysis drew heavily upon the Public-Use Microdata Sample (PUMS) data set from the U.S. Census Bureau. The PUMS data set contains records from the long-form census survey — a rich source of travel, housing and socioeconomic data about a cross-section of U.S. households. The microdata sample is a valued tool for demographers, economists, and transportation analysts who wish to perform special tabulations.

SCAG's Method for Calculation of Job Accessibility Indicator

Several data sources and procedures were used to calculate the job accessibility indicator at the Traffic Analysis Zone (TAZ) level:

I. Socioeconomic Data

- Census Tract data from the 1990 Census was used to divide the region's population into nine total categories including 3 Race/Ethnicity (Black, Hispanic, Other) and 3 Income (Below $12,000; $12,000 to $25,000; above $25,000) segments. The census tract level distributions of income/ethnicity were the basis for the assignment of data to the model's 1,527 TAZs.
- SCAG made a future projection of changing racial and ethnic composition, but held income constant in relationship to an existing income distribution. The approach avoids forecasting inflation and future changes in the income distribution of each ethnic group. The income distribution is based on the most recent census data on household income. The approach allows comparisons of estimated benefits and costs across income categories and facilitates comparisons of differences between smaller sub-areas and the region.
- Income/ethnicity ratios after adjustments for future change were applied to SCAG's 2020 data set.

II. Transportation Modeling

- Work trip travel mode splits between public transit and auto were developed for the base year, baseline future year, and RTP plan by TAZ. The future RTP plan model results showed a substantial increase in transit usage (i.e., nearly 50 percent increase) and an edging down of commuting trips by auto.
- Trip tables were prepared for auto and transit trips origins to all destinations.
- Travel time matrices were prepared for auto and transit between all TAZs.

III. Calculation of Job-Related Accessibility Measure

- Each TAZ's auto and transit trips were divided into 9 income/ethnicity combinations according to their share of each TAZ's workers.
- Using trip tables, each origin TAZ's auto and transit trips and their distributions among all destinations were broken down and allocated into the nine income/ethnicity combinations.
- TAZ to TAZ travel time matrices were processed by using a 30-minute travel time criteria for automobile and a 30-minute and a 45-minute travel time limits for transit.
- For each origin TAZ, total auto trips (within 30-minutes) and total transit trips (within 30 and 45 minutes) were summarized by the nine income/ethnicity combinations.
- Accessibility measures were prepared by ethnicity/income segment and by transit and auto. These findings were compared for baseline, baseline future and the future plan.

The RTP analysis revealed that socioeconomic backgrounds did not cause any significant variation in travel times to work within the SCAG region. However travel modes did make large differences in travel time — almost 75 percent of transit users incurred more than 30 minutes travel time to work, while less than 40 percent of auto users spent that much time in work commuting.

Moreover, differences in socioeconomic backgrounds did affect the use and choice of transportation mode. For example, low-income commuters were four times more likely to take public transportation than high-income commuters. This was also true for specific low-income minority populations. Low-income Hispanics and low-income Blacks were far more likely to use public transit (approximately 20 percent probability) compared to other income and ethnicity combinations. This results in a higher percentage of Black (8 percent) and Hispanic (10 percent) commuters using public transportation compared to other ethnic groups (2 percent).

SCAG's Method for Calculation of "Opportunity" Accessibility Indicator

SCAG followed similar steps taken to derive job accessibility, but additional processing routines were required to calculate an "Opportunity" accessibility measure:

I. **Socioeconomic Data"Opportunity"**

- Measures required estimates of entry-level jobs, essential services and retail stores, but this data was not part of the basic future employment forecast and had to be developed. SCAG obtained the number of entry-level jobs by 4-digit Standard Industrial Classification (SIC) code by county from California's Employment Development Department, Labor Market Information Division. County totals for entry-level jobs were allocated to census tracts in accordance with SCAG's 4-digit employment database.
- Essential services jobs were used as a surrogate for representing accessibility to important services. These jobs included commercial banks and saving institutions, personal services, automotive repair, miscellaneous repair, amusements and recreation, health, education, social, religious, private households, police and fire protection.
- Income/ethnicity ratios after adjustments for future change and the additional employment variables (i.e., entry-level jobs, essential services, and shopping) were applied to SCAG's 2020 data set.

II. **Calculation of "Opportunity" Accessibility Measure**

- Jobs, essential services and shopping opportunities for the nine income/ethnicity comparisons in each origin TAZ was obtained by adding appropriate opportunities from all reachable TAZs within 30 minutes (auto) and 30 and 45 minutes (transit). The two lowest income groups were restricted to access only entry-level jobs.
- Opportunity accessibility measurements are expressed as a *percent* of total available opportunities in the region. For example, if a low-income Hispanic in a specific TAZ can reach 50,000 entry-level jobs within a 30-minute bus ride, while the SCAG region has a total of 1 million entry-level jobs, the entry-level job accessibility indicator for a low-income Hispanic in this TAZ is calculated as 50,000/1,000,000 = 5 %

Two Accessibility Performance Indicators. In response to comments on the Preliminary RTP, SCAG expanded upon the aggregate measure of accessibility defined as the *percent of workers who travel 25 minutes or less to work.* First, SCAG differentiated accessibility by various income categories, ethnicity groups and travel modes. Second, SCAG created a measure of accessibility focused upon "opportunities" (i.e., employment, essential services and shopping) available within a reasonable travel time, distance range and costs. This second measure, an "opportunity accessibility indicator", was used to evaluate progress in accessibility from transportation improvement strategies.

This analytical method revealed that "transit restructuring" strategies recommended in the Draft 1998 RTP — consistent with the goals of the Consent Order — would enhance greatly the "ease" of work commuting for transit ridership. For example, while work trips within 30 minutes by automobile were estimated to increase by 3.9 percent, work trips by transit would jump 48 percent and 39 percent for transit trips within 30 and 45 minutes, respectively.

The analysis also detailed the impacts of improved transit accessibility for work by income and ethnicity. The analysis indicated that low-income Hispanic and Black commuters would capture a greater than proportionate share of the benefits from the accessibility improvements in 30-minute and 45-minute commutes. Similarly, the transit restructuring strategy was expected to narrow the gap between the use of private autos and public transportation when providing access-to-opportunities other than jobs. The analysis revealed that low-income Blacks were expected to gain the greatest relative improvements in accessibility to opportunities.

Performance Results — Evaluation of the Plan. The 98 RTP concluded with a performance evaluation to compare the goals and objectives of the SCAG Region to the 1994 Base Year, the 2020

Baseline (conditions if no plan were adopted) and the 2020 Plan (performance-based constrained programs and policies). Table 2 presents the findings from SCAG's Equity Performance Indicator in terms of percent of hours saved and percent of monetary value of hours saved. The Plan showed substantial improvements for low-income persons using either term of measurement. For reference purposes, the Plan also reported *percent of total expenditures* which looks at the raw dollars and compares the amounts spent on low-income and high income persons. This latter analysis found that expenditures on programs and projects that are used by low-income persons exceeded expenditures spent on persons in the high-income category.

The performance evaluation section of the RTP also presented performance indicators that reported equity as measured by increased accessibility. SCAG reported that all groups were expected to benefit from improved access when compared with the 2020 Baseline, although there were variations in the level of these improvements by groups (see Table 3). The performance evaluation found that low-income communities enjoyed appreciable gains in accessibility from transit restructuring.

Effective Environmental Justice Practices

SCAG's RTP, *CommunityLink 21*, intensively explored the benefits and burdens of their current and prospective transportation program upon various racial, ethnic and income categories. MPOs and states can observe several effective practices important to integrating the principles of environmental justice into transportation planning.

- **Demographic Profile of Socioeconomic Groups.** SCAG used demographic, income, travel and employment information to consider the travel characteristics and needs of low-income and minority populations covered by Civil Rights Title VI and other laws. This analysis was initially compiled at the census tract level and translated to SCAG's traffic analysis zones for travel forecasting purposes. SCAG used post-census, establishment-based job data (ES-202 data) provided by the California Employment Development Department, Labor Market Information Division in order to develop its two

Equity Measured by Share of Benefits
EQUITYNEquitable distribution of tr ansportation investment benefits

Performance Indicators	Goal/ Objective	1994 Base Year	2020 Baseline	2020 Plan
	Equitable	n/a		
Percent of Hours Saved				
Low Income (<$12,000 per household)		n/a	9%	16%
High Income (>$70,000 per household)		n/a	25%	20%
Percent of the Monetary Value of Hours Saved				
Low Income (<$12,000 per household)		n/a	2%	4.5%
High Income (>$70,000 per household)		n/a	48%	42%
Percent of Total Expenditures				
Low Income (<$12,000 per household)		n/a	26%	28%
High Income (>$70,000 per household)		n/a	15%	15%

Table 2. SCAG compared equity as measured by the changing share of hours saved and percent of monetary value of hours saved between the baseline future and the plan.

Equity Measured by Increased Accessibility

Performance Indicators	Increased Plan Performance Over 2020 Baseline	
Increased Accessibility (Trips <30 minutes) on TRANSIT with Implementation of the Plan		
	Increased Job Access	Increased Transit Access
Low Income (←$12,000 per household)	61.7%	22.7%
Medium Income (→$12,000←$25,000 per household)	61.1%	21.2%
High Income (→$25,000 per household)	55.6%	56.1%
Hispanics	59.6%	55.3%
Blacks	72.5%	10.2%
Others	55.8%	34.6%
Increased Accessibility (Trips <30 minutes) on AUTO with Implementation of the Plan		
	Increased Job Access	Increased Auto Access
Low Income (←$12,000 per household)	24.2%	14.9%
Medium Income (→$12,000←$25,000 per household)	24.8%	17.9%
High Income (→$25,000 per household)	28.2%	67.3%
Hispanics	25.3%	45.3%
Blacks	22.0%	4.4%
Others	26.9%	50.3%
Accessible Job Opportunities as % of Total Region		

Table 3. SCAG disaggregated accessibility impacts by income and ethnicity and reported the Plan's impact in enhancing access to both convenient jobs and other opportunities by both transit and auto.

measures of accessibility — jobs and opportunities. Working in close cooperation with the state labor agency, SCAG created an "entry-level" job definition for its accessibility to opportunities measure and then estimated entry level jobs by census tract. SCAG also made creative use of a commercial data set — the Dun & Bradstreet employment data file to estimate the average number of retail jobs per retail store. Retail stores were used as a surrogate for shopping opportunities.

- **Benefits and Burdens Were Integrated into a Performance-Based Methodology.** SCAG treated the equity issues as an integral indicator in its performance-based plan evaluation and decision-making process. This approach institutionalizes the consideration of social impacts of various transportation investment strategies as part of the priority-setting process. Ultimately, it gives the public and decision makers more information to observe and remedy imbalances in the existing or proposed investment plans.

- **Peer Review Committee Challenged and Informed MPO.** SCAG recognized that its investigation of equity raised new and challenging methodological issues for its staff, decision makers, and the public. The agency recognized that it could benefit from a wider forum in which to build a consensus on best methods and draw upon technical expertise. Thus, SCAG staffers opened themselves up to critical comments at an early stage and were better able to improve their technical products and processes by establishing a Peer Review Committee (PRC). The PRC was comprised of a 10-person committee of experts invited to review and comment on technical issues and processes used during the planning process. SCAG brought together experts familiar with national transportation policy, the region's transportation system, transportation modeling, and tools and processes for decision making such as performance indicators.

- **Employed Alternative Dispute Resolution Approach.** SCAG understood that Title VI was being successfully employed against the region's major transit service provider in a lawsuit. SCAG's planning process further confirmed an imbalance in the stream of benefits and burdens to transit-dependent populations. SCAG determined that engaging in a dispute resolution process could prove less costly and time-consuming than a lawsuit and that there were advantages to exploring areas of mutual gain and common ground with the parties objecting to the Preliminary RTP.

Drawing Upon Technical Expertise: The Peer Review Committee

The PRC was a sounding board for SCAG staff in the development of meaningful performance indicators for the RTP and to build consensus on how to address various technical issues. The PRC met initially in 1995 and reconvened in 1997 to comment upon the performance indicators including the measures used to address equity. The PRC worked with SCAG's Forecasting Division staff to analyze the quality of indicators capable of illustrating the tradeoffs of transportation policy and investment decisions upon racial and income categories. The PRC included representatives from the following organizations who were recommended by SCAG staff, SCAG elected officials, and Transportation Research Board conference attendees:

- SCAG
- Southern California academic institutions – USC and UCLA
- State Department of Transportation – Caltrans
- Metropolitan Transit Agency – LACMTA
- Private sector transportation consultants
- FHWA – U.S. headquarters

"With the lawsuit going on there was clear recognition that issues of environmental justice had to be taken very seriously...

...In shaping the 98RTP, SCAG opened itself up and invited a group of people who did not necessarily agree with their approach, and they actually listened and were responsive. As a result, they came up with a strong set of performance indicators for their regional transportation plan.....

....Involving academics in the shaping of performance measures for the RTP brought a different set of skills to the table. For example, the focus on quantitative measures to evaluate environmental justice objectives was key to coming up with such a strong product."

— *Genevieve Giuliano*
Peer Review Committee member, commenting on lessons learned in preparing a transportation equity analysis in the SCAG RTP.

- **Public Involvement Processes and Comments Influenced Methods.** Between the preliminary and final studies, SCAG's equity analysis was refined in response to comment and further study was given to detailing accessibility by income, race and ethnicity. By comparing percentage changes in transit and auto accessibility (e.g., trips under 30 minutes) for various socioeconomic segments, the subsequent report improved its focus on enhancing job accessibility and other opportunities for minorities and the poor. This approach avoids some problematic issues generated by imputing a monetary value to time. It also places a greater emphasis on the question of whether an accessibility gap is being narrowed by the plan so that various income or race categories enjoy similar opportunities.

Alternative Dispute Resolution

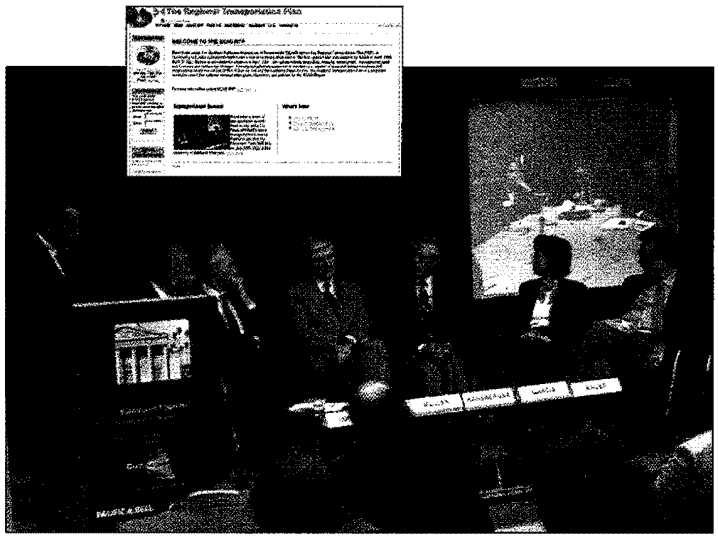
In the mid-1990s, the Southern California Association of Governments established partnerships with mediation institutes, established rosters of qualified mediators and facilitators, and promoted the increase use of alternative dispute resolution (ADR) methods for problem solving. SCAG's initiative came in response to a growing number of disputes involving its programs in air quality, transportation and housing and its concerns about gridlock in the siting of critical public works and infrastructure.

SCAG has identified the need for several distinct ADR systems to best address the full range of disputes encountered by the agency. Each ADR system can be differentiated by typical participants, initial convening processes, the role of SCAG as participant or convenor, the role of outside professional service providers and the actual ADR process administered (e.g., facilitation, mediation, arbitration, factfinding). These systems are described in detail in SCAG's *Alternative Dispute Resolution Systems.*

SCAG has concluded that compliance procedures for environmental justice in transportation planning should include the fullest possible use of ADR techniques for mediation and consensus-building when disputes arise.

Challenges Ahead

SCAG is moving forward now with their update of the regional transportation plan. Staff and decision makers will be confronted again with the substantial challenges that the region faces to manage growth and finance and deliver transportation infrastructure cost-effectively. The allocation of transportation resources will continue to be vigorously debated by parties with differing values and competing visions for the region. The debate's outcome will have significant implications for the region's land use patterns, densities, nodes for growth and development, environmental health, livability, accessibility and equity. Transportation decision makers will have to navigate through political, planning and policy processes in order to devise



SCAG is using videoconferencing and posting audio and video transcripts to its web site to engage people across the region. Community dialogues provide a more informal means of involving those not traditionally involved with SCAG planning processes.

politically workable, technically feasible and legally defensible solutions.

In this new round, SCAG faces the challenge to carry forward its commitment to the methods and processes for considering equity and promoting inclusiveness in planning and decision-making processes. SCAG staff recognize that the 98RTP process was a learning experience and have recently developed procedures to improve internal management of future projects and programs which are reported in SCAG's *Compliance Procedure for Environmental Justice in the Transportation Planning Process*. The document describes public outreach strategies to assure that traditionally underrepresented groups can participate meaningfully in processes as well as analyses that SCAG staff conduct to examine equity. The guidance manual has not yet been formally adopted by SCAG's regional council, but its recommendations have been approved by its Transportation and Communications Committee.

SCAG staff are already practicing many of the recommended procedures for the 2001 RTP update including an improved public outreach and involvement program. Several outreach practices are noteworthy:

- SCAG has retained communications consultants to facilitate regular meetings and workshops, including "Environmental Justice Community Dialogues" targeting low-income and minority populations. Community dialogues are more informal meetings with groups that have not traditionally been involved with SCAG or the RTP planning process. These dialogues are frequently scheduled for evening hours to allow attendance for those who work during the day. For these audiences, which typically include minority groups and low-income populations, a "tutorial" is offered on SCAG and the RTP which describes the nature of a regional planning organization and its function. The RTP is further explained as the planning document for regional transportation. As the discussion evolves with each group, specific needs and issues are identified and recorded as input for the RTP planning process.
- SCAG now maintains a database of contact information for individuals in low-income and minority populations. The community database is developed through each local subregion in order to adequately reflect the needs and interests of each subregion. In addition, the SCAG communications consultant supplements these lists with its own set of community contacts and conducts a comprehensive search of local community organizations and associations using a community development directory. These individuals are routinely updated on public involvement workshops and discussion sessions through mailings.
- Outreach material is translated into Spanish and other languages as needed by a community area. All outreach material is tailored to match local community needs in terms of content and language.

- Local public affairs shows offer an outlet for local communication, particularly for non-English speaking audiences. Local elected officials are asked to serve as regional spokespersons, as appropriate, for these programs, emphasizing the importance of regional planning and the need for local input.

SCAG developed performance-based indicators to improve decision making. The approach presumes that a firm technical foundation can be established that incorporates the values expressed by the public for the assessment of transportation alternatives. However, the measures need to be continually reviewed for their technical quality and relevance by such entities as the Peer Review Committee as well as an informed public. Similar to other MPOs, SCAG will need to refine its methods as new technologies are developed to manage and display data, as new sources (e.g., 2000 Census) become available and more effective practices are disseminated. SCAG recognized the need for such improvements in its previous issues paper for the 1998 RTP. That report identified several areas in need of research pertaining to SCAG's modeling including:

- Collecting and analyzing data on travel behavior for non-work trips by income and ethnicity and modes of transport;
- Establishing and building a transit network with capacity (level-of-service) constraints;
- Investigating equity and accessibility conditions for low-income ethnic groups living in suburban and rural areas;
- Examining the value of time — theoretical foundations and its measurement by trip types and by income groups;
- Exploring further research in defining and measuring accessibility;
- Analyzing the trade-off between land use and transportation investments for improving accessibility. For example, developing methods for measuring accessibility impacts from implementing SCAG's *Livable Community* strategy promoting transit-oriented developments.

Equally important, SCAG's performance indicators reflect a broad set of goals and objectives put forward for the region and its transportation system. A major challenge that follows from the development of indicators, including equity and accessibility measures, is its full integration into the culture of decision making and the clear setting of priority funding for projects consistent with these objectives. Developing a credible feedback-loop between the performance measure findings and the priority list of recommended projects is a crucial element of bringing community-based goals and objectives into transportation decision making.

Ultimately, however, SCAG must explain its strategies and commitments in terms of its Title VI obligations. It must demonstrate that its planning processes and methods are responsive to imbalances caused by the existing and potential future spending priorities. A major challenge, therefore, is to commit resources — even when scarce — to programs, projects, activities and services capable of addressing potential discrimination in the distribution of transportation benefits and burdens.

Lessons Learned

SCAG has taken a leadership role in the development of performance indicators that directly consider the issue of equity and accessibility and the impact of transportation policies on minority and low-income groups. SCAG's efforts are reproducible and within the capabilities of other MPOs. The SCAG RTP process offers important lessons to MPOs and States:

- **Equity and Efficiency Are Not Mutually Exclusive Goals.** Civil Rights and environmental justice advocates and national and local environmental organizations have joined forces in

places such as Southern California and Atlanta. They have identified the MPO as an important forum for promoting a debate about transportation policy and the conservation of financial and environmental resources. These organizations have identified several alternative strategies to the automobile that can be used to promote transit utilization, land conservation, air quality improvements and also be designed to be cost-neutral or beneficial to low-income and minority communities. These strategies include, but are not limited to: livable communities, location efficient mortgages, greater emphasis on car-pooling for low-income travelers, car-sharing, transit-dedicated funds for congestion road pricing revenues (i.e., "equitable road pricing"), "smart shuttles", shared-ride taxis and bicycle and pedestrian facilities. The efficiency and equity impacts of these multi-modal strategies place new analytical demands upon the MPOs and have created the need for a broader set of performance-based measures to consider.

- **Benefits and Burdens Can Be Integrated into a Performance-Based Planning Process.** The development of performance indicators to gauge the social and economic effects of transportation plans on minority and low-income populations

Performance Indicators — Integrating "Equity" and "Accessibility" into Decision Making

SCAG used performance indicators to consider how well alternate transportation plan investments met the target goals and objectives set out for the SCAG region. Scenarios were prepared for the base year, baseline future representing conditions in the absence of a plan, and a future plan with a financially constrained set of programs and projects. The following performance indicators were used:

Mobility — Ease of movement of people, goods and services

- *Measures: Work Trip Travel Time, PM Peak Highway Speed, Percent of PM Peak Travel in Delay*

Accessibility* — Ease of Reaching Opportunities as measured by the percent of commuters who can get to work within 25 minutes

- *Measures: Work opportunities within 25 minutes*

Environment — Sustainable development and preservation of the existing system and the environment.

- *Measures: Air Quality Conformity, Environmental Impact Report*

Reliability — Reasonably dependable levels of service as measured by percent of on-time arrivals

- *Measures: Transit, Highway*

Safety — Transit with minimal risk of accident or injury as measured by reduced accidents

- *Measures: Fatality Per Million Passenger Miles, Injury Accidents*

Livable Communities — Access to destinations with minimum travel times

- *Measures: Vehicle Trip Reduction, Vehicle Miles Traveled Reductions*

Equity — Equitable distribution of transportation investment benefits (as share of benefits)

- *Measures: Percent of Hours Saved, Percent of the Monetary Value of Hours Saved, Percent of Total Expenditures*

Cost-Effectiveness — Maximized return on transportation investments

- *Measures: Net Present Value, Value of $1 Invested*

* The RTP took a close look at the concept of "accessibility" as a measure of equity. Accessibility was measured and compared by mode of transportation, by income group, and by ethnicity.

Source: *Community Link 21, 98 Regional Transportation Plan*, Southern California Association of Governments.

Raising the Bar, Addressing the Challenge

Many MPOs in major metropolitan areas work in an environment where transportation decisions are very carefully scrutinized by an informed public and by "special-interest" organizations including environmental, civil rights and environmental justice groups. In the early 1990s, the Environmental Defense Fund (EDF) closely monitored SCAG's regional transportation planning methods and decisions with particular attention to air quality. During this period EDF promoted market pricing mechanisms (e.g., VMT tax, incentive toll pricing) to encourage the full-pricing of "externalities" such as air quality impacts. However, concern for the equity impacts of such solutions led to a second EDF report, *Efficiency and Fairness on the Road: Unsnarling Southern California's Traffic*. Three years in the making, this 1994 report disaggregated travel behavior and mobility by income groups and determined that the lowest income groups were receiving fewer benefits than anyone else. Recognizing that few means existed to quantify these impacts, EDF developed a transportation equity methodology allowing for an assessment of transportation system benefits and costs.

This research was an important technical foundation for advocacy groups working on behalf of the minority poor who challenged the practices and priorities of the Los Angeles County Metropolitan Transportation Agency. This challenge resulted in the landmark Title VI lawsuit and 1996 Consent Decree.

can be a powerful means of assessing the equitable distribution of transportation benefits. Developing and adopting performance indicators appropriate for community, neighborhood, social, economic, and "people" impacts of transportation plans can help MPOs and other transportation agencies address concerns about transportation equity and environmental justice. SCAG's

"The inclusion of transportation equity as a performance indicator really encouraged everyone to be much more open-minded. For the first time we had to look beyond the addition of or discontinuation of a bus line, and really examine the equity issues at stake."

— Zahi Faranesh
SCAG Participant on Peer Review Committee

integration of equity and accessibility considerations into a performance-measure based method of plan evaluation places these issues on an equal footing with other more traditional considerations in transportation planning. The inclusion of these criteria in plan evaluation and decision making provides an opportunity to identify and address the potential for discrimination when responding to the travel needs of many different populations and communities in the region.

- **Room for Improvement in Public Involvement Processes.** The Transportation Plan is a recurring product within the metropolitan planning process. There are significant advantages in transportation planning from reaching out to all transportation users including minority and low-income individuals to understand the needs and barriers to access and opportunity. SCAG has learned from its previous RTP Plans that they needed to make a greater commitment to building long-term relationships in order to solicit input from minority and low-income communities. They have instituted a series of environmental justice dialogues, retained a public outreach consultant to conduct workshops and regular meetings, and developed databases of interested individuals as part of a proactive strategy to do outreach earlier in the RTP process.

Benefits from Environmental Justice in Decision Making

For Low-Income and Minority Populations:

- The RTP assessed the financial burden of a predominantly automobile-based transportation system upon people with limited economic means and considered how the costs of the system as well as the public transit service patterns may influence accessibility for low-income persons.
- The mobility needs, transportation system deficiencies, resource allocation patterns and investment priorities were analyzed in a context in which transportation planners grappled with fairness to low-income and minority populations. The data was presented in a manner that allowed low-income and minority communities to consider how various transportation policies were affecting their lives.
- Analyses revealed that a small portion of the existing transit routes carried the majority of transit trips. The costs and farebox subsidies required to provide fixed rail route and bus service were closely analyzed in light of the different income segment and population categories served by each mode. These findings led to: transit restructuring strategies including redeployment of local fixed route assets; improvements to express bus services; exploration of "smart shuttles"- demand responsive feeder systems to facilitate greater transit and bus usage; and the identification of several transit corridor projects for which transit solutions are to be developed.

For the Agencies:

- Civil Rights Title VI obligations spurred the agency to assess the equity issues at stake with the addition and discontinuation of transportation services. The adoption of transportation equity as a performance indicator institutionalized a more comprehensive technical approach and a more inclusive public involvement approach to decision making.
- Agency transportation planners, modelers and economists were called upon to extend the state-of-the-practice in transportation planning to assess the benefits and burdens of their current program. They were challenged to use the data and tools at their disposal, devise appropriate new analytical methods, and look more closely at performance measures such as accessibility as well as consider how various income, race and ethnic groups were affected by the resource allocation priorities for investments and services.
- Transportation decision makers were provided with sufficient information and context to compare the distributional impact of various transportation strategies upon minority and low-income populations. The planning process was able to respond to the analyses produced and support remedies to improve access and public transportation services for these populations.

- **Dispute Resolution Processes Offer an Alternative to Litigation.** During the course of the RTP's development, SCAG faced the threat of a lawsuit and opposition from community based organizations, grass roots and environmental groups, civil rights and environmental justice advocates regarding the priorities embodied in the plan. SCAG worked through an alternative dispute resolution process to develop a better understanding of the positions held by these groups. SCAG reopened its planning processes to solicit greater involvement. These meetings were a learning experience for SCAG staffers and it has altered SCAG's approach to conducting public involvement meetings for its upcoming planning process.

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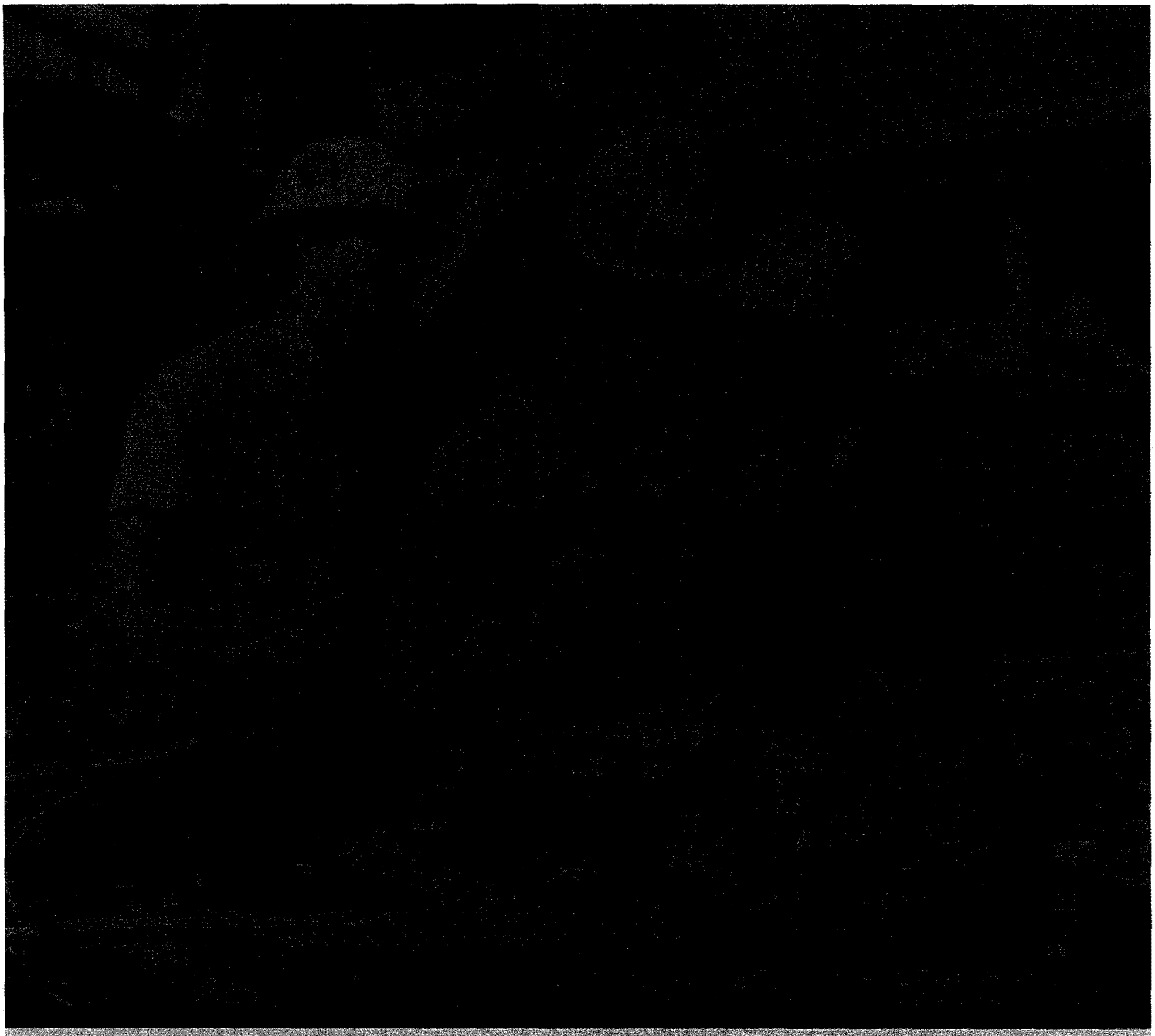
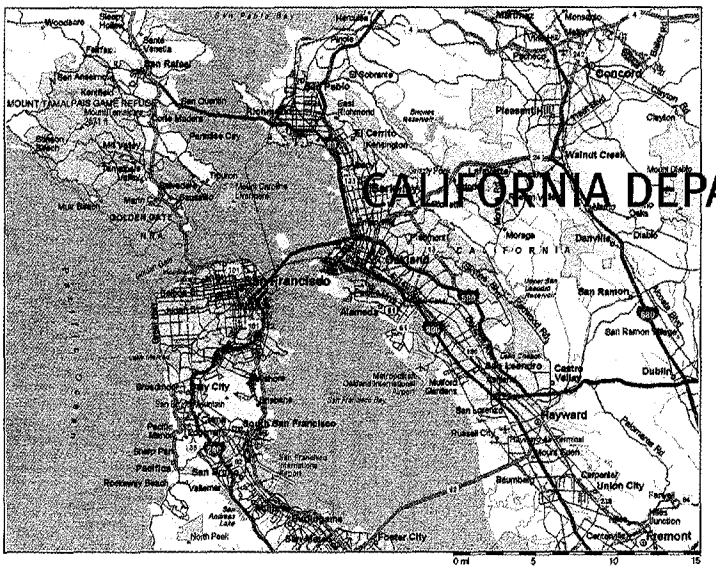


Project Planning, Development, Right of Way; Public Involvement; Mitigation and Enhancement Activities

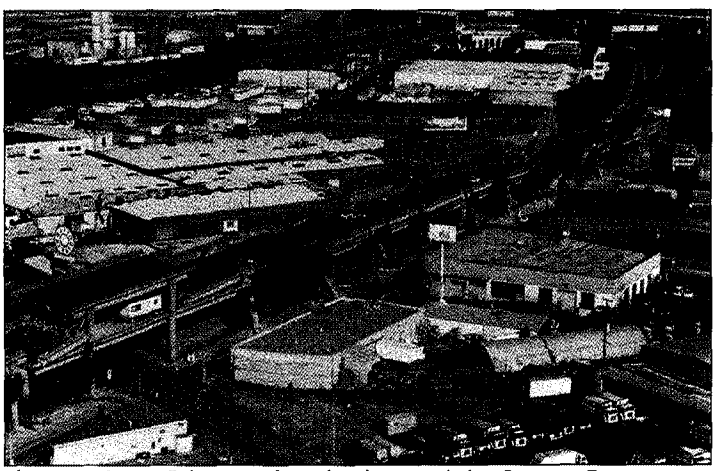


Cypress Freeway Replacement Project

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Introduction

At 5:04 p.m. on October 17, 1989, as millions of baseball fans were watching the pregame broadcast of the third game of the World Series at San Francisco's Candlestick Park, a powerful earthquake struck the Bay Area. Television screens across the nation went momentarily blank as the earthquake, measuring 7.1 on the Richter Scale, rocked Candlestick Park. Sixty-seven people died and 3,000 were injured in the third most lethal earthquake in U.S. history.



The 1989 Loma Prieta earthquake damaged the Cypress Freeway beyond repair.

Of all the scenes of destruction in the aftermath of the Loma Prieta earthquake, the lasting image was the collapse of the Cypress Freeway in West Oakland. Forty-two people died when concrete pillars supporting the upper section of the double-deck freeway buckled and the entire structure collapsed, destroying a 1¼-mile section of Interstate 880.

The Cypress Freeway was built in the 1950s to connect the sprawling tractlands of southern Alameda County to downtown San Francisco and Oakland's industrial waterfront. Its path through the predominantly African-American community of West Oakland split the community in half and uprooted 600 families and dozens of businesses. A roughly four-square-mile area was cut off from downtown and more affluent sections of West Oakland to the east, sandwiched against metalworking shops, railyards, and the Port of Oakland. Over the years, neighborhood businesses withered from isolation, while residents were forced to endure the fumes and noise from the thousands of cars passing overhead.

Certainly no resident of West Oakland welcomed the tragedy that took place on October 17, 1989. However, the collapse of the Cypress Freeway created the potential for a dialogue over how and where the freeway would be reconstructed, an opportunity that had not been available to West Oaklanders 35 years before when the structure was originally built. Although the California Department of Transportation (Caltrans) originally proposed to

rebuild the freeway in its existing location, a coalition of West Oakland community representatives quickly formed in opposition to this plan. For nearly two years following the earthquake, Caltrans worked with a wide range of stakeholders to select a new alignment for the freeway that meets the needs of both the traveling public *and* the community of West Oakland. In addition, construction is scheduled to begin in March 2001 on a $13 million project to turn the former freeway into a forested, landscaped boulevard that will reunite West Oakland.

The reconstruction of the Cypress Freeway was an enormously expensive and complex undertaking and, like most projects of this magnitude, it was not without controversy. Disputes over the new freeway alignment and the discovery of toxic waste during construction boiled over into several legal battles. In the final analysis, however, the Cypress Freeway Replacement Project sends a strong message about the potential for a transportation agency to work together with citizens to accomplish an enormous task while helping to revitalize a community.

The Participants

- Federal Highway Administration
- California Department of Transportation
- City of Oakland
- Alameda County
- Metropolitan Transportation Commission
- US Environmental Protection Agency
- California Environment Protection Agency
- Port of Oakland
- Southern Pacific Railroad
- Citizens Emergency Relief Team
- West Oakland Commerce Association
- Oakland Citizens Committee for Urban Renewal
- South Prescott Neighborhood Association
- Chester Street Block Association
- Oakland Private Industry Council

The Region and the Community

West Oakland is a community of 18,317 residents located in a rectangular area south of Interstate 580 and west of Interstate 980. A large portion of this area is industrial, including the Port of Oakland, a Union Pacific intermodal freight facility, warehousing and distribution facilities, and light and heavy manufacturing. The vast majority of West Oakland residents are African Americans, making up 77.3 percent of the population according to the 1990 U.S. Census. Other groups include whites (11 percent), Hispanics (5.7 percent), Asians (3.5 percent), and Native Americans (.3 percent).

West Oakland is one of the oldest neighborhoods of Oakland and home of the Transcontinental Railway terminus, which opened in 1869. Early residents were Portuguese, Irish, and Italian immigrants. Many African Americans moved to the area from the southern and eastern United States during the period of western railroad expansion. A second wave of African-American immigrants came during World War II, attracted by the wartime boom in the shipbuilding industry. West Oakland became a solid middle-class African-American community, featuring well-preserved Victorian homes and attractive shopping, cultural, and entertainment districts.

This prosperity proved to be short lived, however. Following World War II, government shipbuilding decreased, idling thousands of workers. In addition, increased mechanization of Port of Oakland operations raised labor productivity and created few new longshoring jobs. Finally, industrial firms located near the Port increasingly relocated to southern Alameda County, where taxes were lower and land for sprawling one-story factories was cheaper.

With these changes, West Oakland became an increasingly distressed community. By 1989 more than 35 percent of West Oakland residents lived below the poverty level, according to data from the 1990 U.S. Census. Unemployment was 21.5 percent and nearly double that amount for African-American males. The median household income was $13,123

compared to the citywide median income of $27,095. Few residents were homeowners, with roughly 85 percent of the 8,735 housing units in West Oakland occupied by renters.

Community-based efforts to address these challenges have been underway for several decades. West Oakland has a strong tradition of community activism which dates back to the 1960s. Some twenty community groups are active in the area working on a variety of issues including housing, jobs, economic development, and environmental improvement. A top priority of neighborhood leaders is to have a voice in the planning of projects that have significant impacts on the community. The economic revitalization of West Oakland is high on the agendas of many of the area's community groups.

Potential anchors for economic renewal do exist. West Oakland has several major employers, including a U.S. Postal Services facility that employs over 4,000 workers and the Port of Oakland. The Port, however, has been a mixed blessing for West Oakland. Although Port-related activity accounts for almost 9,000 maritime industry jobs in the Bay Area, only 12 percent of those jobs are held by Oakland residents. In addition, truck traffic generated by the Port and ancillary facilities produces noxious emissions, wear-and-tear on city streets, and traffic congestion and parking problems. West Oakland residents have long argued that they have suffered the negative environmental and traffic impacts of the Port without receiving a significant share of the economic benefits.

Air pollution generated by the Port and ancillary activities, by major freeways, by truck traffic, and by neighborhood industrial facilities has become a growing source of concern for West Oakland residents. Studies by the Children's Hospital of Oakland and the California Department of Health Services indicate that West Oakland residents suffer higher than expected rates of hospitalization for asthma and certain forms of cancer (Children's Hospital of Oakland 1994, California Department of Health Services 1993). Such concerns played a role in solidifying the community's opposition to rebuilding the Cypress Freeway in its existing location.

Snapshot of the West Oakland Community

Population: 18,317

Racial and ethnic composition:

- African American – 77.3 percent
- Caucasian – 11 percent
- Hispanic – 5.7 percent
- Asian/Pacific Islander – 3.5 percent
- Native American – .3 percent
- Other – 2.2 percent

Median household income: $13,123

Population living below poverty level: 35 percent*

Source: 1990 U.S. Census

* The U.S. Department of Health and Human Services (HHS) issues poverty guidelines on an annual basis. In 1990, DHHS defined the poverty level as $6,280 for a single person. In 2000, the poverty level was $8,350 for a single person. The most current HHS poverty guidelines can be found at the HHS Website at http://aspe.os.dhhs.gov/poverty/poverty.htm.

What Happened

For decades after the Cypress Freeway was completed in 1957, it served as a magnet for community frustration among West Oakland residents. Residents argued they were given no opportunities to participate in the planning and design process and many blamed the freeway for Oakland's decline that began during the 1960s. According to one former West Oakland resident, "Cypress opened the door. It really split the city physically. It was the beginning of the end. It ruined the integrity of the whole area."

When the Cypress Freeway collapsed in October 1989, West Oakland residents were determined to prevent the mistakes of the past from being repeated. Within forty-eight hours of the Loma Prieta

Project Chronology

1957
The original Cypress Freeway is completed.

October 17, 1989
The Loma Prieta earthquake strikes the Bay Area, causing the collapse of the Cypress Freeway.

November 1990
Caltrans releases the Draft EIS for the Cypress Freeway Replacement Project.

September 1991
Caltrans releases the Final EIS.

October 1991
The California Transportation Commission approves the Final EIS.

March 1993
A coalition of West Oakland minority residents files a lawsuit to prevent construction of the Cypress on the selected route.

July 1993
The City of Oakland and Caltrans sign the *Freeway Performance Agreement* identifying goals for minority and local participation in the freeway reconstruction.

January 1994
Freeway construction begins.

July 1996
Caltrans discovers toxic vinyl chloride in the freeway construction path and halts construction in this area.

December 24, 1996
Caltrans resumes freeway construction following approval by the California Department of Toxic Substances Control of Caltrans' Removal Action Workplan.

June 1997
The Chester Street Block Association files a Title VI administrative complaint with US EPA and US DOT, citing Caltrans' failure to remediate vinyl chloride.

July 1997
The first leg of the new Cypress Freeway reopens.

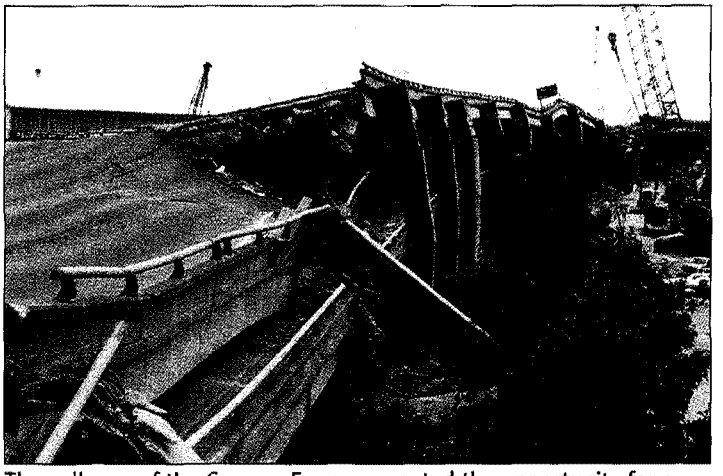
September 1998
The Cypress Freeway is completed.

August 1999
Caltrans settles a Title VI administrative complaint filed by the Chester Street Block Association by agreeing to more stringent standards for removing soil at a future park site.

earthquake, a group of prominent West Oakland leaders and community activists formed the Citizens Emergency Relief Team (CERT). CERT was established to provide a voice for the community of West Oakland in the reconstruction of the Cypress Freeway and other rebuilding efforts following the earthquake. It was more than just another neighborhood organization. Its membership – including a Bay Area Rapid Transit (BART) director, a former Port of Oakland CEO, and an Alameda County supervisor and former mayor of Berkeley – was exceptionally resourceful and well-positioned to influence policy.

After the earthquake, Caltrans initially proposed to rebuild the Cypress in its existing location. This plan, however, was adamantly opposed by the City of Oakland, Alameda County officials, CERT, and the vast majority of the West Oakland community. In January 1990, over 200 Oakland residents and politicians packed the gymnasium of a West Oakland elementary school for a meeting with Caltrans at which the agency's proposal was heavily criticized.

Meanwhile, members of CERT, together with city and county officials, had begun efforts to identify an alternative route for the Cypress. This alignment would run west of the previous Cypress structure closer to the Port of Oakland, following Southern Pacific railroad tracks for a portion of the way. The new route would still impact a small residential area. However, the majority of West Oakland would be reunited under this plan.



The collapse of the Cypress Freeway created the opportunity for a dialogue over where and how the freeway would be rebuilt.

Debate over the alignment for the reconstruction of the Cypress Freeway continued for eighteen months. During this period, Caltrans helped form the Community Advisory Committee (CAC), comprised of West Oakland citizens, and participated in scores of meetings with the CAC, CERT, the West Oakland Commerce Association, City of Oakland officials, and commuter groups.

The coalition backing a new alignment for the freeway frequently used the language and symbolism of environmental justice to articulate its positions. As one frustrated West Oakland resident asked, "How about putting the freeway through Blackhawk or Danville? Why is the poor community always having to pay?" Residents argued that car exhaust fumes contributed to higher incidences of underweight babies, infant deaths, and acute and chronic diseases in West Oakland than elsewhere in Alameda County, a claim supported by health officials.

The discussion over the future Cypress freeway alignment was complicated from the start because, at the outset, Caltrans and the community of West Oakland held very different perspectives on the project. For Caltrans, it was above all a transportation project of regional importance, necessary to replace an essential link in the East Bay's freeway network. For others, however, particularly CERT and its allies, it was principally a community revitalization project that had the potential to help return West Oakland to its previous grandeur and address environmental justice concerns of community residents. Although Caltrans never wavered in its commitment to restoring the Cypress as a regionally significant highway connector, dialogue with the West Oakland community ultimately sensitized the agency to the community's perspective as well.

NEPA Process. For twelve months following the Loma Prieta earthquake, Caltrans worked to prepare a Draft Environmental Impact Statement (EIS), evaluating numerous alternatives for responding to the collapse of the Cypress Freeway. Six alternatives were identified in the Draft EIS released by Caltrans in November 1990. These included a no-build alternative, two alternatives that would utilize the existing Cypress right-of-way, and three versions of the railroad corridor alignment advocated by CERT and the City of Oakland. The Draft EIS was distributed to government officials, local businesses and residents, and community organizations for review and comment. In January 1991, Caltrans held open houses at three different Oakland schools to provide opportunities for public input about the alternatives. Also that month, Caltrans held a formal public hearing attended by roughly 250 people at one of the same three schools.

Eight months after the official public comment period for the Draft EIS ended on February 1, 1991, Caltrans released the Final EIS for the Cypress Freeway Replacement Project, which identified the selected alignment for the new freeway. Responding to pressure from the City of Oakland and West Oakland citizens, Caltrans selected the *Transit/TSM/Freeway Alternative in the Railroad Corridor* (see sidebar), which redirected the freeway along railroad tracks to the west of the community. This alternative added over one mile to the freeway at a cost of more than $500 million for purchase of the right-of-way alone. However, it represented an opportunity to reunite West Oakland, a crucial step in addressing the social and economic problems of this community.

NEPA Process: Identifying and Evaluating Alternatives

The National Environmental Policy Act of 1969 (NEPA) sets a vision for how the government should work to incorporate protection and enhancement of the environment into its decisions and actions. NEPA was enacted to ensure that information on the environmental impacts of any federally funded action is available to public officials and citizens before decisions are made and before actions are taken. Under NEPA, governmental agencies are required to prepare an Environmental Impact Statement (EIS) for projects where it is known that the action will have a significant effect on the environment. Agencies must prepare and make available for public comment a Draft EIS before preparing the final version of the EIS.

In preparing its Draft EIS for the Cypress Freeway Replacement Project, Caltrans identified and evaluated many different alternatives for responding to the loss of capacity caused by the collapse of the Cypress structure. In developing and screening the alternatives, Caltrans consulted with a range of groups, including jurisdictional agencies, the business community, environmental groups, West Oakland residents, CERT, and major local employers such as the Port of Oakland, the U.S. Army, the Southern Pacific Railroad, and the East Bay Municipal Utility District.

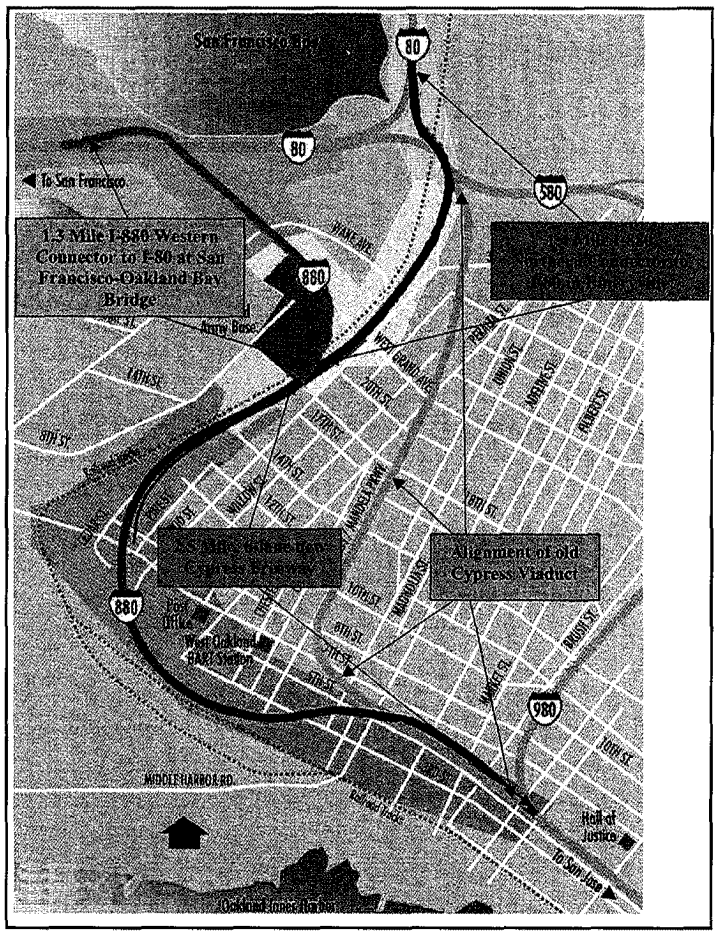
Sixteen alternatives were evaluated and withdrawn from further consideration because of excessive cost; operational or safety problems; unacceptable social, economic, or environmental impacts; serious community disruption; or failure to meet project purpose and need.

The following six alternatives were presented in the Draft EIS:

1. **No-Build Alternative.** Under this alternative, no action would be taken. Modifications and operational improvements already made to I-980 and I-580 to accommodate traffic diverted from the Cypress would remain in effect.
2. **Cypress Corridor Alternative.** This alternative would construct the freeway using the existing Cypress right-of-way, utilizing a cut-and-cover tunnel configuration through residential portions of the alignment.
3. **Transit/Transportation System Management (TSM)/ Freeway Alternative in the Cypress Corridor.** This alternative would combine a version of Option 2 with transit improvements and other strategies to reduce congestion.
4. **Railroad Corridor Alternative – Partially at Grade.** Under this alternative, the freeway would be built west of the existing Cypress structure, utilizing Southern Pacific railroad yards near the Port of Oakland.
5. **Railroad Corridor Alternative – Elevated Alignment Option.** This alternative would be an entirely elevated version of Option 4.
6. **Transit/TSM/Freeway Alternative in the Railroad Corridor.** This alternative would combine Options 4 or 5 with transit improvements and other strategies to reduce congestion.

Negotiations among Caltrans, the City of Oakland, and West Oakland community groups over the project design led to a number of additional community benefits. First, Caltrans agreed to provide a direct off-ramp from the new freeway to service the Port of Oakland, meaning that heavy transport trucks traveling to and from the Port would no longer traverse residential neighborhood streets. This interchange, valued at nearly $25 million, was also expected to improve the Port's competitive position vis-à-vis other West Coast ports and facilitate employment opportunities for local residents.

In addition, although Caltrans initially proposed to eliminate an existing off-ramp at Market Street, West Oakland businesses and community groups expressed concern that this might limit access to local businesses. A West Oakland resident and member of CERT who was also chief of construction for Alameda County prepared a design to maintain the interchange which was presented to Caltrans at community meetings. Largely on the basis of this proposal, Caltrans agreed to modify and retrofit the existing structure at Market Street.



The new Cypress Freeway alignment ran west of the original structure, avoiding most residential areas of West Oakland.

Mitigation and Enhancements. Caltrans initiated several strategies and actions to mitigate the impacts of the demolition of the old Cypress Freeway and construction of the new structure on the Oakland community. Some of these actions included temporarily relocating nearby residents and installing dust screens on homes in close proximity to the demolition site. Caltrans also produced a series of trucking guides in response to neighborhood concerns over increased truck traffic on residential streets to and from the Port of Oakland during the construction and demolition period. These guides encouraged truck drivers to use designated routes through West Oakland. Caltrans also supplied extra crossing guards at two local schools to help ensure the safety of schoolchildren.

Mitigation for residents and businesses in close proximity to the new freeway included sound barriers that reduced projected freeway noise levels to between 62 and 67 decibels. Landscaping in front of sound barriers, including densely planted trees and shrubs, provided aesthetic visual screening of the freeway from the neighborhoods. In addition, Caltrans compensated 30 homeowners and 46 businesses whose property was located within the right-of-way selected for the new freeway.

Caltrans also made efforts to ensure that Oakland residents and businesses benefited from the project. During the demolition phase, Caltrans archaeologists excavated sites along the route and uncovered a wealth of artifacts dating back to the 1800s. Key finds included turn-of-the-century artifacts belonging to African-American railroad porters. While fieldwork was in progress, oral history interviews with former porters were carried out to gather information on how jobs were done and what they meant to the workers. Caltrans compiled artifacts, historic photographs, and documentation into a traveling exhibit called "Holding the Fort: An Exhibit of African-American Historical Archaeology and Labor History in West Oakland." The title of the exhibit comes from a song regularly sung by the Brotherhood of Sleeping Car Porters at their West Oakland meetings.

In July 1993, Oakland City Council approved an agreement with Caltrans that outlined Caltrans' responsibility for resolving issues of concern with the City of Oakland and its citizens during the design and construction of the project. The agreement set goals for the participation of disadvantaged and local contractors on the project, along with employment of local residents, minorities, and women. It also called for the state to spend up to $1.2 million training local residents.

Caltrans worked with the City of Oakland and the Oakland Private Industry Council, a local job training

Benefits to Local and Minority Workers and Contractors

One of the final hurdles to rebuilding the Cypress Freeway was removed in July 1993 when representatives from Caltrans and the City of Oakland signed the *Freeway Performance Agreement*. A key part of the Agreement was a provision intended to ensure that local residents and businesses would receive a proportionate share of the jobs and contracts generated by the project. The agreement established the following goals:

- 35 percent Disadvantaged Business Enterprise (DBE) participation
- 20 percent Local Business Enterprise (LBE) participation
- 45 percent employment of local residents, minorities, and women on a craft-by-craft basis by hours of employment

DBEs are businesses owned by women and minorities. LBEs are businesses located within the City of Oakland.

In February 1994, an Independent Monitoring Team was established to monitor the contracting and employment goals set by the terms of the Agreement. The Team, which was funded by Caltrans, issued periodic reports during the construction phase of the project and released its final report in March 1999.

Tables 1 and 2 taken from the Independent Monitoring Team's Close-Out Report indicate that Caltrans met the contracting and employment goals identified in the *Freeway Performance Agreement*. However, certain groups were underrepresented in the project. For example, African Americans and women performed just 13.7 percent and 6.3 percent of the work hours on the project, respectively. Perhaps more disturbing, the Report found that less than 1 percent of all work hours were performed by West Oakland residents. African-American contractors were also underrepresented in the project.

Table 1. Project Workhour Percentages by Ethnicity, Gender, and Residency

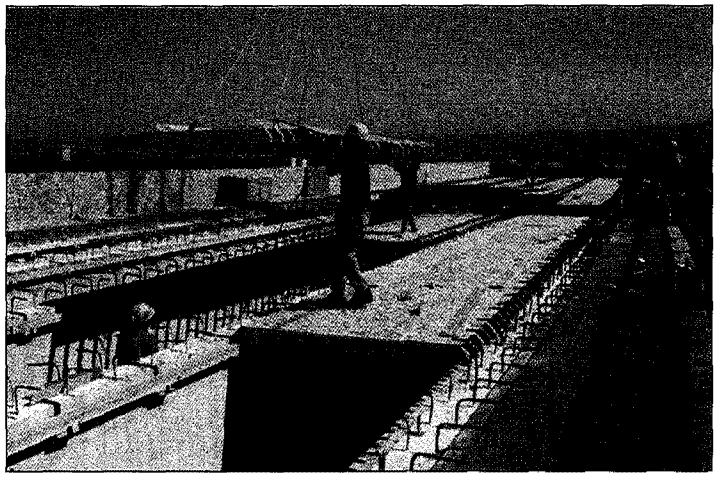
Percentage of Workhours

Minority							Combined
All	Black	Hispanic	Asian	N. Am.	Female	Oakland	(M, F, O)
43.6%	13.7%	25.2%	1.9%	2.8%	6.3%	17.1%	67.0%

Table 2. DBE/LBE Project Participation

	Total		African American		Hispanic		Asian		Native American		Female	
	$	%	$	%	$	%	$	%	$	%	$	%
DBE	204.6	43.9	35.9	7.7	112.5	24.2	8.2	1.8	9.8	2.1	38.2	8.2
LBE	90.6	19.5	33.2	7.1	6.8	1.5	0	0	0	0	17.4	3.74

The Independent Monitoring Team identified a number of reasons for the underrepresentation of certain groups. Most important, the *Freeway Performance Agreement* used *combined* employment and contracting goals. The 45 percent combined employment goal, for example, could be met without hiring a single Oakland resident if minority and female percentages were high enough. The report recommended that separate local workforce goals be specified in any future agreements of this nature.

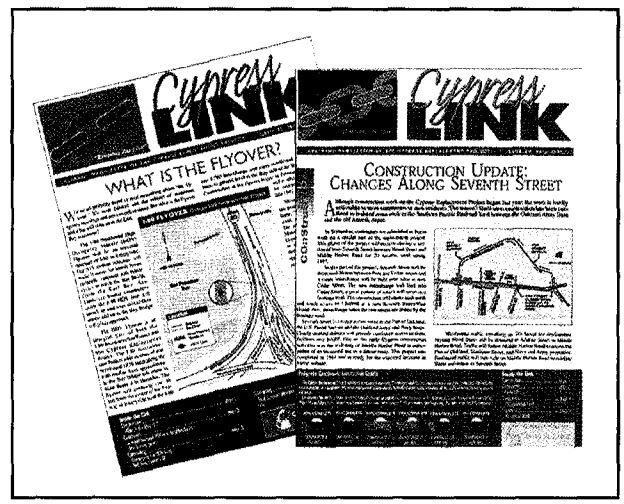


An agreement between Caltrans and the City of Oakland set goals for the employment of local residents, minorities, and women on the Cypress reconstruction project.

provider, to establish the Cypress/Mandela Training Center. The Center's initial mission was to provide low-income West Oakland residents with the training and skills necessary to be included in the freeway reconstruction project. The Center, which is still in operation, has produced nearly 700 graduates qualified for positions in carpentry, surveying, electrical, and masonry work that have been placed in construction positions throughout northern California. The Center's placement rate is 82 percent. Sixty-five of its graduates were employed on the Cypress Freeway Replacement Project. Caltrans provided nearly $500,000 to fund the Center during the freeway construction period, and an additional $1 million for continuation of the program after the freeway was completed.

In order to keep the community informed about opportunities and disruptions associated with the Cypress Freeway Replacement Project, Caltrans opened a Public Information Office in West Oakland's historic Glove Building in 1992. Caltrans staffed the office five days a week, responding to questions from the public and researching information requests. In its first three years, approximately 10,000 individuals visited the office, while staff conducted between 30 and 40 presentations per year to local, regional, and statewide groups on a range of topics. Caltrans also produced 29 issues of the quarterly newsletter, the *Cypress Link*, distributed to more than 15,000 residents, businesses, community organizations, and public officials. The *Cypress Link* was an important source of information, providing construction updates, commuter, and contracting information to the public for the duration of the project.

A Community Divided. Although the new route selected for the Cypress Freeway no longer bisected West Oakland, it did impact a small residential area in the southwestern portion of the community. Residents of this area, known locally as "Lower Bottom," argued unsuccessfully that the new Cypress structure should be located further west, avoiding residential areas altogether. Caltrans determined that such an alignment would fail to comply with highway construction standards because cars would be forced to slow down to unsafe freeway speeds in order to negotiate curves.



Caltrans produced a quarterly newsleter, the *Cypress Link*, to provide the community with information on the project.

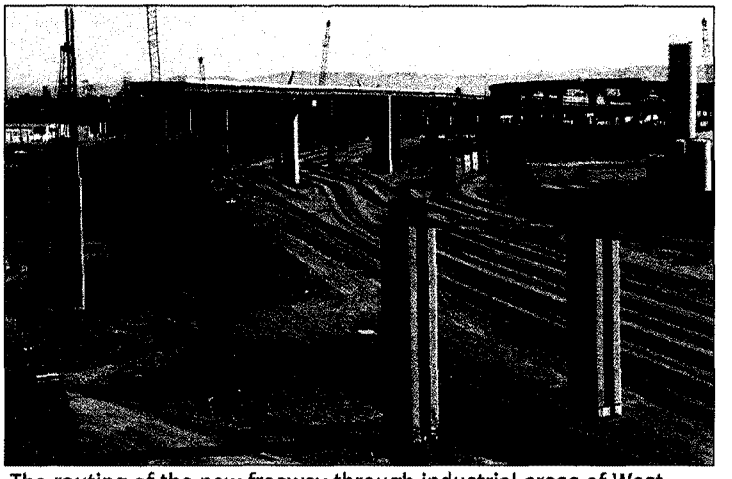
In March 1993, a coalition of residents from this area of West Oakland filed a 92-page lawsuit in U.S. District Court in San Francisco against Caltrans, the U.S. Department of Transportation, and the Federal Highway Administration. The suit alleged that the project would expose about 7,000 residents to

excessive noise and high levels of carbon monoxide, ozone, lead and other pollutants, endangering health and lowering property values. It claimed that the agencies violated environmental and civil rights laws, including the National Environmental Policy Act and Title VI of the Civil Rights Act, by not fully considering the health and environmental effects of the project on low-income and minority residents located nearby.

This claim, however, was challenged by other members of the West Oakland community. The following month, representatives from CERT and several other West Oakland community organizations held a press conference to denounce the lawsuit, insisting that Caltrans worked closely with West Oakland community representatives to determine the alignment of the new freeway.

The suit was ultimately settled when Caltrans agreed to some additional mitigation measures, including reimbursement costs for an air conditioning system and soundproofing at a church located near the freeway, along with additional soundwalls and landscaping. However, conflict resurfaced several years later when a large plume of cancer-causing vinyl chloride was discovered in the path of the new freeway. Caltrans immediately halted work at the site when the discovery was made in the spring of 1996. During the next several months, Caltrans developed a plan to drive hollow steel pillars into freeway footing sites contaminated by vinyl chloride, and then seal them above ground with cement. Area residents, however, argued that a full cleanup was necessary. On December 23, 1996, the California Department of Toxic Substances Control (DTSC) issued a ruling approving Caltrans' plan. In a controversial move, Caltrans resumed work at the site the following day before residents had time to review the DTSC report.

In June 1997 the Chester Street Block Association, a community organization active in the area where the vinyl chloride was discovered, filed an administrative complaint with the U.S. DOT. The complaint alleged that Caltrans had violated Title VI of the Civil Rights Act by failing to remediate toxic hazards threatening

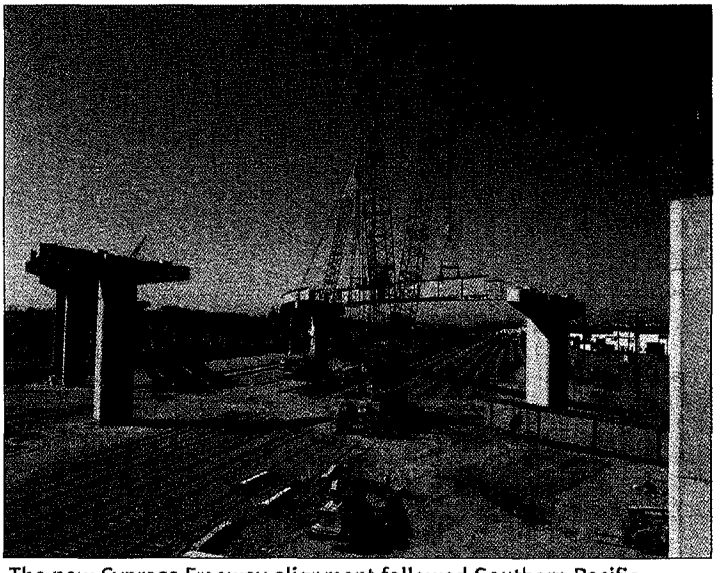


The routing of the new freeway through industrial areas of West Oakland forced Caltrans to address hazardous waste concerns.

the health and safety of minority residents living adjacent to the site. This conflict remained unresolved for more than two years. However, the parties reached a settlement in August 1999, when Caltrans agreed to abide by stringent cleanup standards in removing contaminated dirt from a park located opposite the toxic waste site. The agreement came after the U.S. representative, state assembly member, and Oakland city council member representing the district announced their support for the neighborhood's position.

Restoring the Link. In September 1998, nearly nine years after the massive Loma Prieta earthquake struck the Bay Area, the final sections of the Cypress Freeway reopened to traffic. The $1.2 billion price tag for the 5.2-mile stretch of asphalt and concrete easily made it the most expensive strip of highway in California history.

Meanwhile, efforts are underway to transform the old Cypress corridor into an elegant, landscaped boulevard. Caltrans worked with West Oakland business and community representatives and city officials to plan the Mandela Parkway, which will be lined by nearly 1,000 trees and include 1920s-style street lamps, benches, fountains, bike and walking trails, and a Welcome-to-Oakland arch. The $13 million cost for developing the greenbelt



The new Cypress Freeway alignment followed Southern Pacific railroad tracks.

surrounding the boulevard will come from state highway operations funds.

In 1998, the Mandela Artscape Project was created in the Cypress corridor. The environmental art project used recycled construction materials and native plants to transform a portion of the former freeway site into a sculpture garden. Caltrans donated time and materials to the project, which was intended as a first step toward reweaving West Oakland back into the fabric of the city.

Indeed, signs of a renaissance in West Oakland are already visible. Property values along Mandela Parkway have experienced sizable increases in recent years, due in part to the presence below the street of what represents the Bay Area's tightest mesh of underground data transmission lines. Some planners and developers are anticipating this will ultimately draw West Oakland into a technology triangle with Emeryville to the north and San Francisco to the west.

Use of Effective Environmental Justice Practices

The Cypress Freeway Replacement Project offers an example of a transportation agency that worked hard and, for the most part, effectively to address the needs and concerns of a low-income and minority community in the planning, design, and construction of an enormously complex and controversial project. Through the efforts of Caltrans and its partners, a 1¼-mile freeway segment that once drove a wedge through the heart of West Oakland was rerouted and the community of West Oakland was physically reunited. The project contains examples of some of the following effective practices:

- **Responsiveness to Community Preferences.** In the aftermath of the Loma Prieta earthquake and the collapse of the Cypress Freeway, Caltrans faced enormous pressure to reconnect what represented a key highway link between the South Bay and the San Francisco Bay Bridge. Clearly, the least costly and most expedient solution would have been to reconstruct the Cypress using the freeway's existing right-of-way. Although Caltrans initially explored this possibility, the agency listened when the community of Oakland argued for an alternative route. The result was a more expensive and time-consuming project, but one that takes into account the impact of a major freeway project on a low-income and minority community.

- **Highlighting of Neighborhood History and Culture.** In addition to selecting a new, less intrusive alignment for the Cypress Freeway, Caltrans worked with the Oakland community to mitigate the impact of the freeway and freeway construction on local residents and to ensure that the community benefited in meaningful ways from the project. For example, Caltrans excavated sites along the freeway right-of-way where artifacts belonging to former African-American railroad porters were uncovered. This material became part of a traveling exhibit on African-

Benefits from Environmental Justice in Decision Making

For the Community:

- The Cypress Freeway Replacement Project removed a physical barrier that had divided West Oakland for more than three decades. It reduced noise and emissions levels for thousands of West Oakland residents living adjacent to the former structure. It sets the stage for the economic renewal and revitalization of West Oakland.
- The new Mandela Parkway, which will be constructed in the Cypress corridor, will physically reconnect the sections of West Oakland formerly divided by the Cypress Freeway. This project, with its bike and pedestrian trails and green space, will improve the livability of West Oakland in addition to serving as an important local transportation corridor.
- Efforts underway to expand operations at the Port of Oakland will benefit from an interchange along the rerouted Cypress Freeway directly servicing the Port. The expansion of the Port is creating living wage job opportunities for Oakland residents. The interchange also reduces Port-related truck traffic on West Oakland residential streets.
- Local businesses were awarded over $90 million in contracts during the construction of the Cypress Freeway. The project provided employment for more than 1,000 Oakland residents, although few of these workers were from West Oakland. A local job training program funded by Caltrans to provide pre-apprentice training in construction continues to place graduates in construction jobs today.

For Caltrans:

- From the start, Caltrans had a strong interest in restoring what it perceived as a crucial link in the East Bay's freeway network. Not only was this accomplished, but the outcome is also far better than it would have been had environmental justice principles not been incorporated into the planning, design, and construction of the project. The impacts of the Cypress Freeway on the West Oakland community have been reduced, and plans for the Mandela Parkway are generating excitement and enthusiasm in West Oakland, rather than opposition.
- Caltrans gained important insights into the value of public involvement during this project. Its relationship with the West Oakland community reinforced the agency's appreciation of the benefits of partnering with a sophisticated and resourceful community. By the same token, the agency learned that decisionmaking processes that fail to satisfy all segments of the community may well impose additional time and costs on a project.

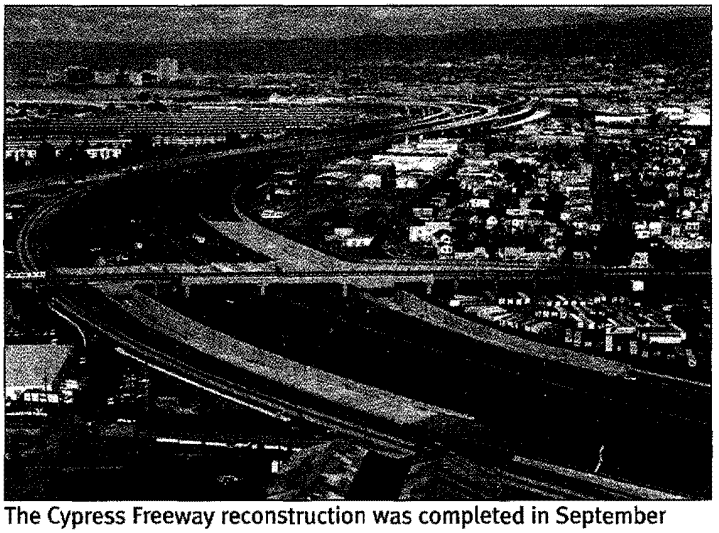
American labor history in West Oakland sponsored by Caltrans.

- **Provision of Multiple Economic Benefits for the Community.** The new alignment for the Cypress Freeway provides several economic benefits for West Oakland residents and businesses. Negotiations among CERT, Caltrans, and the Port of Oakland resulted in a direct off-ramp servicing the Port, which will facilitate Port expansion and create local job opportunities. Preservation of the Market Street off-ramp, an additional concession by Caltrans to West Oakland business and community groups, will maintain accessibility to local businesses.
- **Local and Minority Participation in Construction.** Caltrans also undertook steps to facilitate participation of local and minority workers and contractors in the construction phase of the project. An agreement between Caltrans and the City of Oakland identified goals for disadvantaged and local business participation in the project, and targets for employment of local residents, minorities, and women. The final report of an Independent Monitoring Team hired by Caltrans to monitor compliance with these goals indicates they were indeed met, even if certain groups were underrepresented in the project. In addition, Caltrans' financial support for the Cypress/Mandela Training Center helped produce

Caltrans financed the Cypress/Mandela Training Center to provide Oakland residents with skills necessary to participate in the freeway reconstruction project.

a program that has outlived the construction phase of the Cypress Freeway and continues to provide badly needed training opportunities for Oakland residents today.

- **Improvement of Community Livability.** Caltrans is working with the City of Oakland and Oakland community organizations to transform the old Cypress Freeway corridor into the Mandela Parkway. The landscaped boulevard promises to undo much of the damage caused by the routing of the original Cypress Freeway through West Oakland during the 1950s.



The Cypress Freeway reconstruction was completed in September 1998, reuniting the community of West Oakland.

Challenges Ahead

Although the reconstruction of the Cypress Freeway is now complete, West Oakland will not be physically reunited until the Mandela Parkway is finished. Current plans call for a tree-lined boulevard with a trail down the center, parks, and public art. This new public space is expected to serve as a pedestrian friendly bridge between the two segments of West Oakland formerly separated by the Cypress Freeway. The City of Oakland, which will assume responsibility for the parkway once it is completed, will need to dedicate resources to maintaining park spaces and ensuring public safety so that it is perceived by pedestrians and cyclists as a safe and attractive area. In the meantime, Caltrans should work carefully with the City of Oakland and West Oakland residents and businesses to ensure that the project is carried out as planned and that disruptions to the West Oakland community during the construction phase are minimized to the extent possible.

Without question, the Cypress Freeway played a key role in Oakland's decline during the past several decades. However, the removal of the Cypress from the heart of West Oakland represents a necessary but insufficient condition for revitalizing this community. There is still much work to be done. Housing and commercial areas of West Oakland are in desperate need of improvement. In addition, with the flight of industry from the area, too few living wage jobs are available to meet the employment needs of local residents. Now that the Cypress has been removed, Oakland city officials, businesses, and community organizations will need to work together to develop solutions to these problems if West Oakland is to achieve its former status as a thriving, middle-class community.

"We changed the course of transportation in West Oakland forever by planning, organizing, demanding, and shepherding the rerouting of the Cypress Freeway ... Never before have so many benefited from the initiatives of a community-based group."

— Paul Cobb
Citizens Emergency Relief Team (CERT)

Lessons Learned

- **Representatives of Low-Income and Minority Communities can be Resourceful and Effective Partners.** All too often, transportation agencies view "the community" as a collection of individuals lacking the knowledge, training, and influence to play a substantive role in project planning, design, and implementation. In the case of the Cypress Freeway, such an outlook would have grossly underestimated the capacity of West Oakland community representatives involved with the Cypress Freeway Replacement Project. CERT in particular played a leading role in developing the plan to reroute the Cypress, and leaders of the organization met with White House, U.S. Department of Transportation, and California officials to lobby on behalf of the proposal. Additional recommendations put forth by CERT and other community organizations, such as the installation of an interchange servicing the Port of Oakland, helped ensure that the community benefited from the project in multiple ways.

- **Community Representatives and Transportation Agencies may have Different Goals for Transportation Projects.** Caltrans viewed the Cypress Freeway Replacement Project principally as a transportation project. For residents of West Oakland, however, it was above all a community revitalization project. Effective working relationships between communities and transportation authorities do not require each group to adopt the other's perspective on a particular project. What *is* required, however, is a healthy appreciation by all project partners of the interests and concerns of all stakeholders and a willingness to negotiate and build consensus.

- **Local Hiring Goals are Achievable through Effective Performance Agreements.** Large projects located in low-income and minority communities should provide significant employment opportunities for local residents. Cities that are genuinely committed to fostering such opportunities would do well to avoid combined employment goals and instead identify specific targets for local participation in agreements with transportation agencies.

- **Communities may not Always Speak with One Voice.** The Cypress Freeway Replacement Project sparked controversy at times, which comes as no surprise given the enormity and complexity of the project. While disagreements are inevitable and perhaps even healthy in a project of this magnitude, the expensive and time-consuming litigation that Caltrans found itself confronting at various times during the course of this project was unfortunate. Caltrans made a good faith effort to involve West Oakland community representatives in the decisionmaking process. Its mistake, perhaps, was assuming that the members of CERT and other organizations that it partnered with spoke for the entire community of West Oakland. Clearly, they did not. In order to avoid a repeat of this situation in future projects, Caltrans and other agencies should make a special effort to engage community representatives from *all* neighborhoods that are impacted by a particular project and seek to resolve issues of concern through negotiation and compromise.

"The Cypress Replacement Project is more than the physical construction of a freeway; it is a prime example of concerned citizens working together with local government to improve and shape their community."

— Caltrans
(from The Cypress Freeway: The Link is Restored*)*

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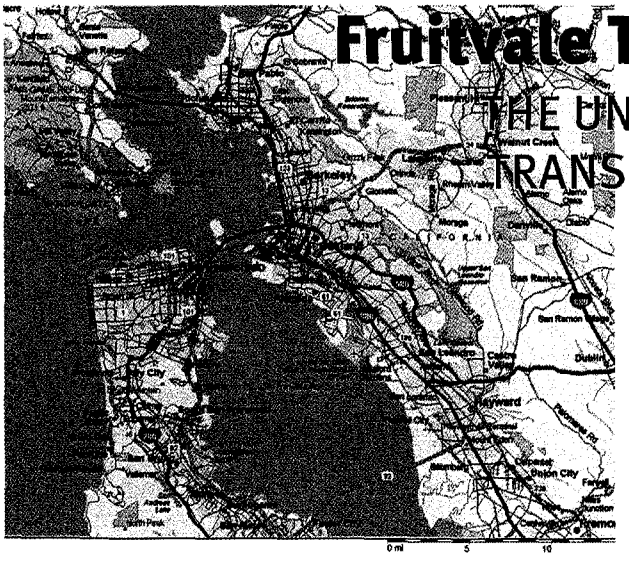
Partnerships, Enhancements, and Public Involvement



Fruitvale Transit Village Project

THE UNITY COUNCIL, BAY AREA RAPID TRANSIT DISTRICT, CITY OF OAKLAND

Introduction

The Fruitvale Transit Village project is the result of a broad-based partnership among public, private, and nonprofit organizations working together to revitalize a community using transit-oriented development. Transit-oriented development is a planning concept that seeks to use mass transit stations as building blocks for economic revitalization and environmental improvement. In September 1999, groundbreaking took place on a $100 million mixed-use development adjacent to the Fruitvale Bay Area Rapid Transit District (BART) station in Oakland, California. Fruitvale, one of Oakland's seven community districts, is a low-income, predominantly minority community experiencing economic stress. This case study focuses on the incorporation of environmental justice principles into the planning and design of the Fruitvale Transit Village.

The Fruitvale Transit Village is the brainchild of the Unity Council, a community development corporation formed in 1964 by activists who wanted to create a forum for working on issues important to Fruitvale's Latino community. The origins of the project date back to 1991, when BART announced plans to construct a multi-layered parking facility next to the Fruitvale station. Although the community agreed that new parking was necessary, the design and location of the facility did not sit well with Fruitvale residents and business owners. Members of the community were concerned that the proposed structure would increase traffic and pollution and further separate the Fruitvale neighborhood from the BART station. The Unity Council galvanized neighborhood opposition to the parking structure design and location, arguing that any development around the BART station should be guided by a broad-based community planning process.

Faced with this strong community opposition, BART withdrew its proposal and agreed to work with the Unity Council on a plan for the area. During the next several years, the Unity Council engaged local stakeholders in a comprehensive visioning and planning process that laid out the parameters of the Fruitvale Transit Village. Plans for the Transit Village include a mixture of housing, shops, offices, a library, a child care facility, a pedestrian plaza, and other community services all surrounding the BART station. The project is expected to reduce traffic and pollution in and around Fruitvale because community residents will have access to a range of goods and services within easy walking distance of the transit station.

The Fruitvale Transit Village project illustrates a number of key themes and effective practices that are central to incorporating the principles of environmental justice into transportation planning and design. First, it demonstrates an effective use of partnerships to generate funding and other resources necessary to plan and implement a costly and complex project. The Unity

Council's success in building relationships with a wide range of key players helped overcome the formidable legal, regulatory, and financial hurdles the project initially faced.

In addition, the project illustrates a strong commitment to public involvement by the lead agencies involved. Typically, either city officials or private developers represent the driving force behind large-scale development projects such as this. Under the best of circumstances, community residents are usually in the position of responding to plans that are initiated by others. In this case, however, the Unity Council's leadership role in the project helped ensure that the community's own vision for the transit station and its surrounding area served as guiding principles for the planning and design process.

What is Transit-Oriented Development?

Transit-Oriented Development (TOD) is a simple concept: moderate and high density housing, along with complementing public uses, jobs, retail and services, are concentrated in mixed-use developments located at strategic points along the regional transit system. Each TOD has a centrally located transit stop and core commercial area; accompanying residential and/or employment uses are within an average 2,000 feet walking distance. The location, design, configuration, and mix of uses in a TOD provides an alternative to current suburban development trends by emphasizing a pedestrian-oriented environment and reinforcing the use of public transportation.

This linkage between land use and transit is designed to result in an efficient pattern of development that supports the transit system and makes significant progress in reducing sprawl, traffic congestion, and air pollution. The TOD's mixed-use clustering of land uses within a pedestrian-friendly area connected to transit provides for growth with a minimum of environmental and social costs.

Source: Excerpts from 1000 Friends of Oregon, *The LUTRAQ Alternative: Volume 3* (1992), p. 8.

"Transportation planning should be about more than concrete and steel. It should be about building communities and we are all looking to Fruitvale as an example of how that can happen."

— Rodney Slater
U.S. Secretary of Transportation, Fruitvale BART Station, Formal Launch of the Fruitvale Transit Village, July 9, 1999

Finally, the planning effort behind the Fruitvale Transit Village represents an innovative strategy for using mass transit as a lever for revitalizing an urban community. While transit-oriented development has been successful in a growing number of affluent suburban locations, the Fruitvale Transit Village sets a precedent for such projects in lower-income, inner-city communities.

The Region and the Community

Oakland is situated on the eastern shore of the San Francisco Bay. With a population of 395,000, Oakland is California's sixth largest city. A thriving port, an international airport, and major transit facilities have made Oakland the major hub for commerce, transportation, and international trade in the Bay Area.

Oakland is a diverse community. African Americans and whites are the largest racial/ethnic groups, with 43 percent and 28 percent of the city's population, respectively. The other major groups are Asian Americans and Hispanics. Seventy-two percent of Oakland's population consists of minorities. Oakland's Fruitvale neighborhood, by contrast, is over 90 percent minority, with Hispanics, Asians, and African Americans representing the neighborhood's largest population groups.

Fruitvale earned its name in the 1800s when German settlers immigrated to the area to plant fruit orchards.

The community developed a significant manufacturing base anchored by canneries that served local orchards. Fruitvale became a prosperous neighborhood, its vibrant business activity earning it a reputation as Oakland's "second downtown." This boom continued through World War II, when the area experienced an influx of war industry workers, bringing the first significant numbers of African-American and Hispanic residents to the community.

Fruitvale's troubles began during the 1950s, when the construction of new freeways created opportunities for manufacturers to take advantage of cheap land and labor in suburban areas. Canneries and factories located in Fruitvale began leaving the area, accompanied by many of the community's white, middle-class residents. With the erosion of its customer base, the Fruitvale business district went into decline. By the 1960s, Fruitvale had become a distressed neighborhood, plagued by joblessness, inadequate housing, and other problems characteristic of low-income, inner-city communities.

In spite of all this, Fruitvale retained a number of significant assets that represent potential building blocks for community revitalization. One such asset was the neighborhood's strong network of community-based organizations, including the Unity Council. Founded in 1964 by Arabella Martinez, Assistant Secretary of the U.S. Department of Health, Education and Welfare under the Jimmy Carter administration, the Unity Council developed a solid record of success in bringing together residents, community-based organizations, and businesses to deliver important community projects. The Unity Council's programs include the development and management of affordable housing, business assistance, historic preservation, facade improvements, community festivals, home ownership assistance, job readiness and employment services, Head Start and Early Head Start child development programs, the Fruitvale Senior Center, open space development, and environmental programs.

The Fruitvale BART Transit Village is the outgrowth of a growing interest on the part of the Unity Council in developing a project that would have a large impact on the community of Fruitvale. According to Arabella Martinez, "We felt we needed a project of scale, that a single housing project wasn't going to change the neighborhood." The Fruitvale Transit Village presented such an opportunity.

Snapshot of the Fruitvale Community

Location: Southeast of downtown Oakland

Population: 53,000

Racial and ethnic composition:

- Latino – 52 percent
- Asian/Pacific Islanders – 23 percent
- African American – 16 percent
- White – 7 percent
- Native American – 2 percent
- Other – 1 percent

Average Household Income: $36,266

Source: 1990 U.S. Census.

What Happened

When BART announced plans in June 1991 to construct a multi-level parking facility adjacent to the Fruitvale BART station, the community's response was less than enthusiastic. As it was, the area around the station was increasingly distressed. The station's crime rate was the second highest in the entire BART system. At a public meeting organized by BART to present its proposal, community residents and business owners complained that the proposed new facility would worsen crime and blight, exacerbate existing air quality and traffic problems, and cut off pedestrian access from the station to the downtown business district.

The Unity Council led the opposition to BART's plans. When it became obvious that the project did not have the support of the Fruitvale community, BART withdrew its proposal and agreed to work with community leaders on an alternative plan for the area.

The Participants

- The Unity Council
- National Transit Access Center, University of California at Berkeley
- Bay Area Rapid Transit District (BART)
- City of Oakland
- Metropolitan Transportation Commission (MPO for Bay Area)
- Federal Transit Administration
- U.S. Department of Housing & Urban Development
- U.S. Environmental Protection Agency

The vocal and sometimes contentious meetings between BART and community representatives that followed helped give birth to the idea for the Fruitvale Transit Village.

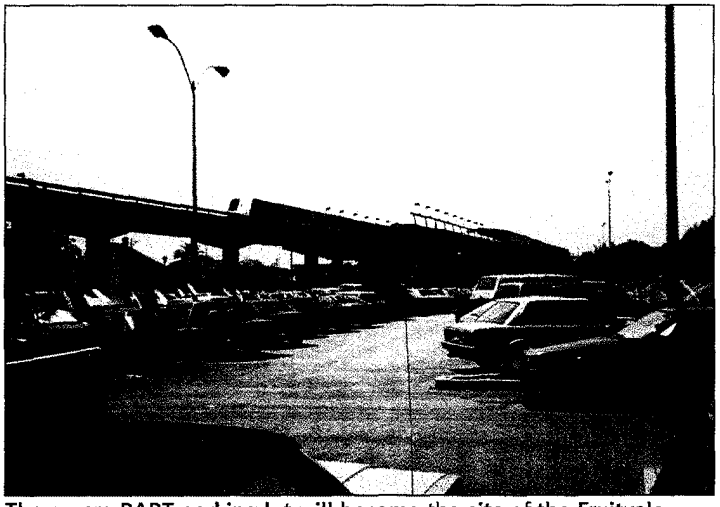
Identifying Community Preferences. In February 1992, the City of Oakland awarded the Unity Council $185,000 in Community Development Block Grant (CDBG) funds to initiate a community planning process for revitalizing the area around the Fruitvale BART station. That year, the Unity Council held a series of workshops bringing together different stakeholder groups from around the community.

Impressed with the Unity Council's community involvement strategy and ongoing progress, the U.S. DOT awarded the agency a $470,000 FTA planning grant for the Fruitvale Transit Village in April 1993. The Unity Council used the money to conduct a series of community workshops and carry out economic, traffic, and engineering studies about the immediate station area.

In May 1993, the Unity Council partnered with the University of California at Berkeley's National Transit Access Center (UC NTRAC) to sponsor a community design symposium at which architects translated ideas of participants into a plan for the station area. One of the main themes articulated by participants was the need for revitalization of existing neighborhood businesses and a plan to better integrate businesses into transit station development. Some 60 people, including Oakland Mayor Elihu Harris and Oakland BART Director Margaret Pryor, attended the event. This was followed by a series of community planning meetings to further develop the plan.

As the scale of the Transit Village project continued to grow by leaps and bounds, the project's three central players decided to formalize their relationship. In 1994, the Unity Council, BART, and the City of Oakland signed a Memorandum of Understanding establishing the Fruitvale Policy Committee to guide further planning and development activities at the station. The Policy Committee was a very different approach to project development for BART and one of several ways that BART exhibited flexibility and innovation during the planning and design phase of the project. The Policy Committee members included two representatives from the Unity Council, one representative from BART, the Mayor of Oakland, and the city council member representing the Fruitvale district.

Meanwhile, the Unity Council continued to engage in intensive community planning efforts for the



The 9-acre BART parking lot will become the site of the Fruitvale Transit Village.

Project Chronology

1991

BART announces plans to build a multi-level parking facility at the Fruitvale rapid transit station. The Fruitvale community opposes the project.

February 1992

The Unity Council receives $185,000 in Community Development Block Grant funds to develop an alternative plan for the station.

April 1993

The Unity Council is awarded a $470,000 Federal Transit Administration (FTA) planning grant.

May 1993

The National Transit Access Center at UC Berkeley and the Unity Council hold a community design symposium.

July 1994

The Unity Council, BART, and City of Oakland sign a Memorandum of Understanding to form the Fruitvale Policy Committee.

Spring/Summer 1995

The Unity Council holds a series of community site planning meetings.

1996

The City of Oakland passes a zoning ordinance capping parking space construction in the Transit Village area.

1997

The Unity Council creates the Fruitvale Development Corporation (FDC).

1998

The Unity Council gains control of the Village site through a land swap with BART.

September 1999

BART receives $7.3 million from the FTA to build replacement parking near the Fruitvale station.

September 1999

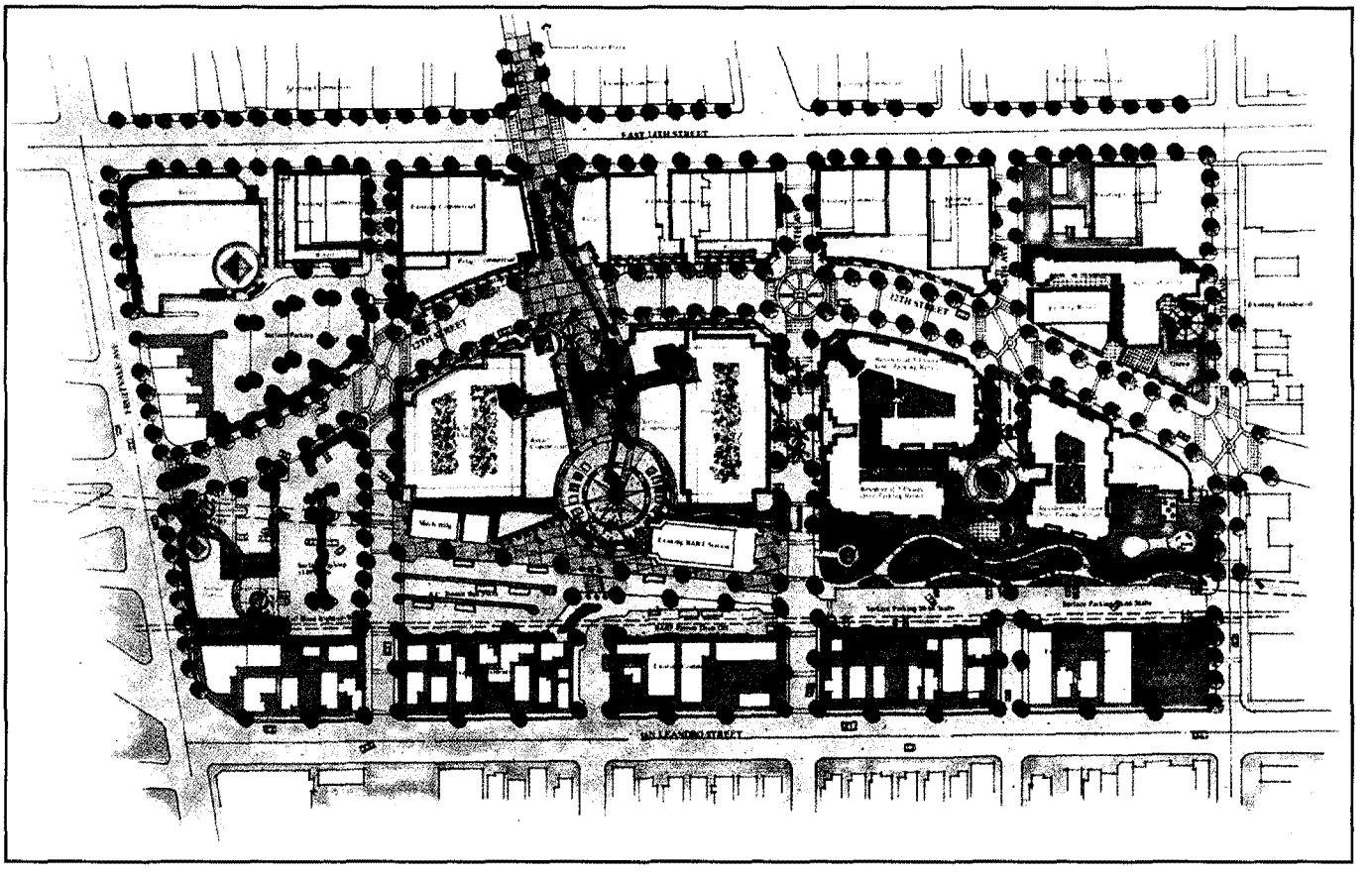
Groundbreaking for construction of the Fruitvale Transit Village project takes place.

Fruitvale BART station area. In the spring and summer of 1995, the Council organized a series of community site planning workshops to help stakeholders reach a consensus on a conceptual site plan. At the first workshop, participants were asked to identify both positive and negative qualities of the Fruitvale community and to indicate their development preferences for the Transit Village. Participants identified crime, lack of retail businesses and community services, the area's negative image, and the lack of connection between the BART station and the community as issues of concern. Positive qualities cited included the area's diversity and strong tradition of community involvement. This workshop attracted about 30 people.

Participants at the second workshop were asked to develop more specific goals for the Transit Village. Some of the goals identified included job creation, improved public safety near the BART station, increased availability of retail goods and services in the community, provision of high-quality affordable housing, and better local air quality. This workshop, attended by nearly 50 individuals, also featured a walking tour of the site.

At the third and final workshop, participants were asked to provide feedback on two alternative land-use plans prepared by the project design team. Once consensus had been reached on a site plan, the Unity Council initiated the technical phase of the project, conducting a final traffic study and financial feasibility studies.

By this time, the project components of the Fruitvale Transit Village were more or less settled. The Village would be located on the existing BART parking lot, a nine-acre site adjacent to the station. The centerpiece

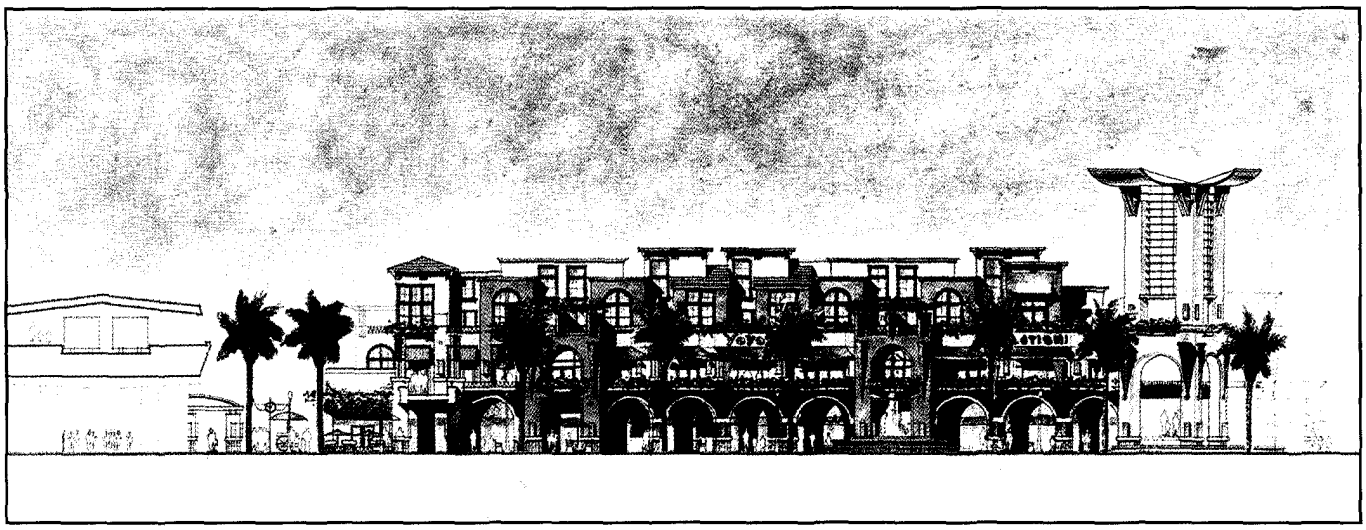


Architects translated the ideas from community workshops into a plan for the station area.

of the project would be an elegant, tree-lined pedestrian plaza connecting the BART station entrance with the 12th Street business district one block away. The plaza would be lined with restaurants and shops and serve as a venue for neighborhood festivals and concerts. The surrounding area would include a mixture of retail development, housing, and social service agencies, all easily accessible by foot from the BART station.

Overcoming Barriers. In 1996, the Unity Council established a nonprofit subsidiary corporation called the Fruitvale Development Corporation (FDC) to serve as the developer for the Transit Village and manage contracts. Normally, BART uses a competitive bidding process to identify developers for projects on BART properties. However, BART policy allows the agency to award sole-source development rights if such an arrangement is deemed to be in the best interests of the District. Given the Unity Council's stature in the Fruitvale community, its success in raising funds for the project, and BART's participation in the Fruitvale Policy Committee, the BART Board of Directors acted positively on a staff recommendation to award the Unity Council an exclusive negotiating agreement for the project.

By the mid-1990s, considerable progress had been made on the planning and design of the Transit Village, yet the project still faced a number of significant hurdles. Chief among these was the issue of "land assembly," that is, the need to assemble all parcels of land within the development site under single ownership. BART still owned much of the development



Transit Village streetscapes are designed to maximize pedestrian comfort, safety, and access to local businesses.

site and, due to a long-standing policy requiring the agency to retain ownership of land around transit stations for effective long-term planning, it could not easily part with the property. The challenge for the Unity Council was to persuade BART to make an exception to this policy and accept a fair market price for the property.

The Transit Village plaza will serve as a venue for neighborhood festivals and concerts.

Here once again, BART exhibited considerable flexibility. The land assembly problem was addressed in 1998 through a complicated "land swap" orchestrated by the Fruitvale Policy Committee, which awarded the FDC a 96-year lease on the property. In return, BART received a parcel behind the transit station owned by the Unity Council and several nearby vacant parcels owned by the City of Oakland, enabling BART to maintain the existing value of its land holdings in the area. The land swap gave the FDC and the Unity Council proprietary rights to the entire development site without reducing the value of BART's land assets near the transit station.

A second hurdle was posed by the issue of BART parking capacity at the station. BART policy required that every parking spot removed for a project be replaced elsewhere. According to Unity Council Chief Executive Officer Arabella Martinez, "the parking was a critical issue." Ultimately, the Unity Council helped negotiate an agreement allowing BART to construct a parking garage on property owned by Union Pacific Railroad west of the station, replacing about 500 lost spaces. In addition, the Unity Council helped BART secure a $7.3 million grant from the FTA to construct the new facility.

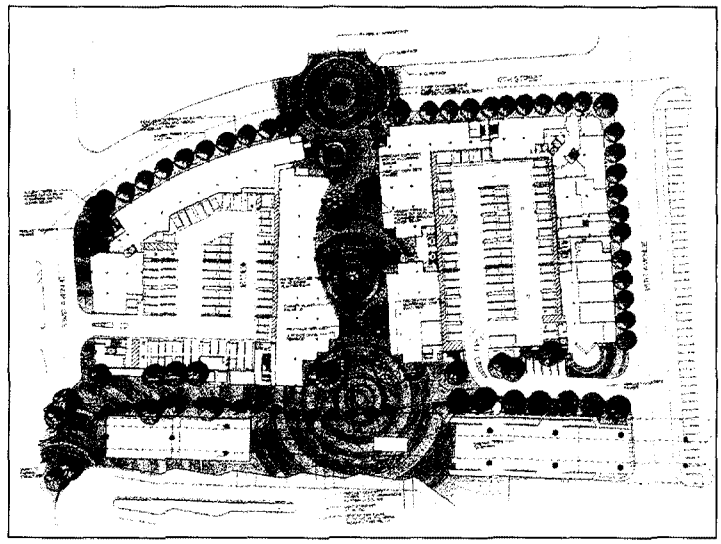
Finally, in order to maintain the pedestrian-oriented character of the Transit Village site and to support community preferences for less traffic congestion and better air quality, the Unity Council petitioned the City of Oakland for a zoning ordinance that would ban construction of any additional parking spaces within the area around the Transit Village. The City passed the ordinance in 1996. In addition, the City agreed to abandon half of the East 12th Street right-of-way along the southwest border of the Transit Village and narrow the street to one lane.

During the next several years, the Unity Council and its partners were able to secure two more significant federal grants to financially anchor the project. In 1999, BART received $780,000 from the FTA in flexible funds transferred from the FHWA to construct the pedestrian plaza portion of the Transit Village. BART was also awarded a $2.3 million grant through the FTA's *Livable Communities Initiative*, which uses sustainable design concepts such as transit-oriented development to strengthen linkages between transportation services and communities. This grant provided funding for construction of the project's child care center, which will be developed by the Unity Council.

FDC architects finished the comprehensive plan for the Fruitvale Transit Village in 1999, and groundbreaking for the project took place later that year. To date, FDC has secured over $82 million of public and private financing for the $100 million venture.

Components of the Fruitvale Transit Village

- 45,000 ft² Retail/Restaurant Use
- 54,000 ft² Nonprofit Health-Care Clinic
- 55,000 ft² Child Care Facility
- 15,000 ft² Library
- 45,000 ft² Executive Offices
- 68 Units of HUD Housing
- 220 Units of Mixed-Income Housing
- 2 Parking Garages for 1,500 Cars

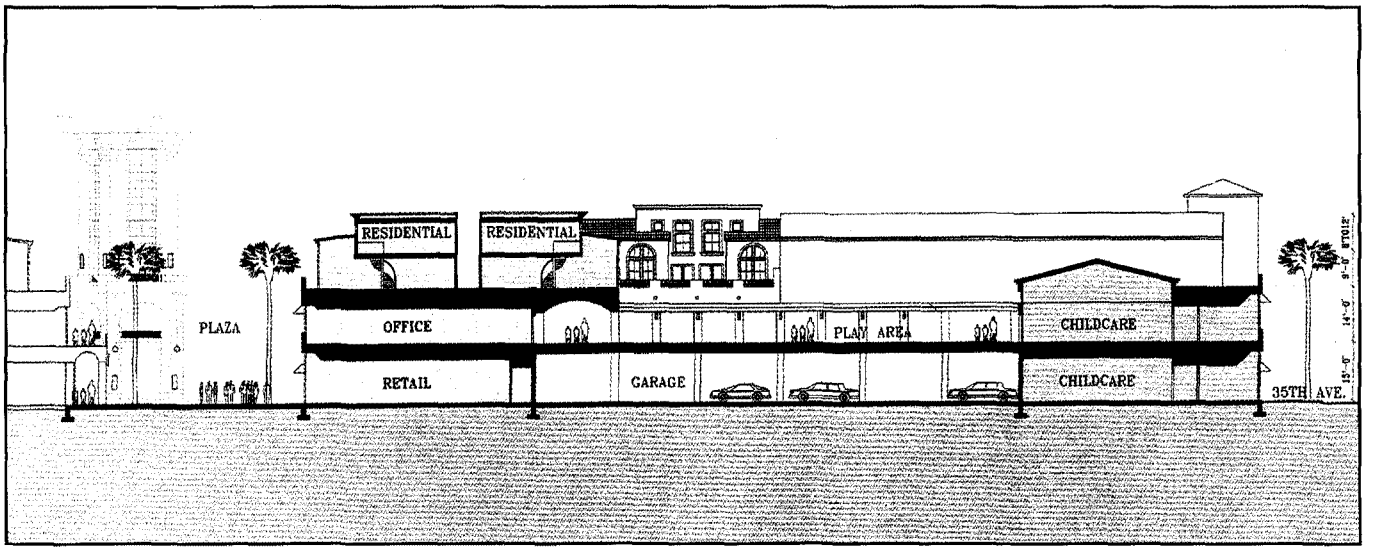


The plan for the station area incorporates the community's desire for a better connection between the community and the transit station.

Effective Environmental Justice Practices

The Fruitvale Transit Village represents an innovative strategy for using public transit to stimulate community development and achieve environmental improvements in a low-income, minority neighborhood. The project illustrates a number of effective practices for incorporating environmental justice principles into project planning and design:

Effective Partnerships. All major development projects face certain legal, regulatory, and financial hurdles. However, such obstacles tend to be more pronounced in built up urban areas, particularly in less prosperous inner-city neighborhoods. Difficulties with land assembly, potential for environmental contamination, and negative perceptions of such areas on the part of private investors are just some of the obstacles that development projects in lower-income central city neighborhoods may face. The Unity Council's success in negotiating the Fruitvale Transit



The Transit Village will feature a mix of uses – including child care and other community services, retail, and housing – within easy walking distance of the BART station.

Village through a formidable series of hurdles is due, in large part, to the effective partnership that it entered into with BART and the City of Oakland, institutionalized with the establishment of the Fruitvale Policy Committee in 1994. Importantly, both BART and the City of Oakland stood to gain from their participation in the project. The City of Oakland anticipated rising property tax revenues and other benefits associated with new investment activity in a formerly distressed area, such as job creation and reduction of crime. BART expected the new development would add from 300 to 600 new daily riders at its Fruitvale station.

Flexibility and Innovation by Project Partners. Project partners acted in creative and sometimes unorthodox ways to overcome key barriers. BART entered into an exclusive negotiating agreement with the Unity Council, agreed to a land swap and relocation of its parking facilities at the Fruitvale station, and worked collaboratively *with* a community on a project initiated *by* the community. The City of Oakland capped parking in the Transit Village and relinquished a portion of its right-of-way on East 12th Street. The Unity Council provided the vision for the project, demonstrated effective leadership, and helped to orchestrate the necessary public support.

Use of Creative Financing. The Unity Council and its partners tapped diverse sources of public and private funds. For example, a housing complex for seniors is being funded through a combination of grants, loans, and land and equity capital from seven different entities, including private banks, the City of Oakland, a federal housing program, and the Unity Council. Project partners worked effectively to overcome constraints on the use of certain funds. For instance, since the Unity Council was not an eligible recipient of FTA grant funds for construction of the project's child care center, BART agreed to accept the funds and allocate them to the Unity Council.

Effective Public Involvement. It is noteworthy that the Fruitvale Transit Village began as a proposal for nothing more than a simple parking facility, an idea opposed by the community. Without the strong and sustained public involvement effort that followed BART's proposal, that would have been the end of the story. The Fruitvale Transit Village is an unusual development project in the sense that a community-based organization – the Unity Council – eventually served as the lead agency and developer for the project. The planning process led by the Unity

Council featured creative public involvement strategies such as community site planning meetings, workshops, and a community design symposium. This process helped to articulate a broad set of concerns focused around traffic congestion, air pollution, and the need for neighborhood revitalization. Once such concerns were effectively incorporated into the planning process, the project moved forward with enthusiastic community support.

Use of Transportation Assets as a Community Building Tool. The Fruitvale Transit Village is based on the proposition that public transit facilities can be used to stimulate economic development and promote environmental improvement in a low-income, urban community. Transit-oriented development, a planning concept that has been used successfully in various suburban locations, is largely untested in the inner city. Since central city neighborhoods are often better served by mass transit than suburban areas, the Fruitvale Transit Village may hold valuable lessons about the potential for using mass transit as a tool for the revitalization of low- and moderate-income inner-city communities.

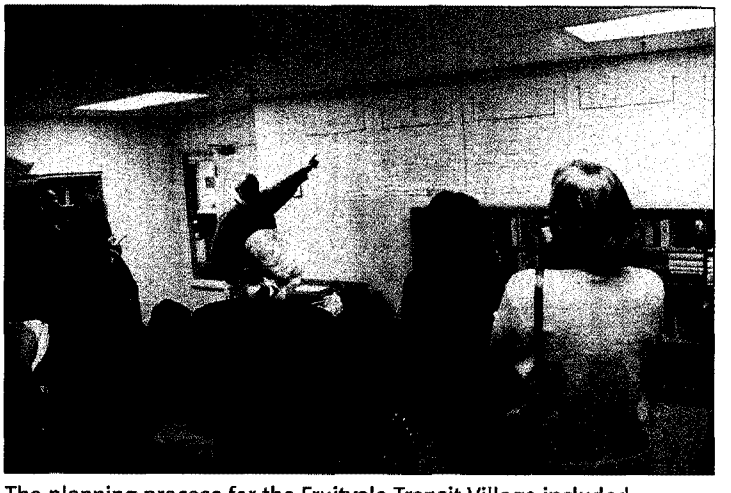
Challenges Ahead

The planning and design phase of the Fruitvale Transit Village featured strong community participation, effective leadership by the Unity Council, and a willingness on the part of BART authorities to participate in a community-based planning process. As the project moves into the construction phase and beyond, a number of key challenges lie ahead:

- The concept of the "transit village" should serve as a guiding principle for future planning and development within the project area. The investment of substantial amounts of public and private funds in the immediate vicinity of the Fruitvale BART station will no doubt spark interest in the area on the part of private developers, many of whom will have no particular interest in or commitment to environmental justice, transit-oriented development, or other project goals. Unless the City of Oakland continues to work closely with BART and Fruitvale community leaders to manage future development in the area in accordance with the transit village concept and the community plan for the area, the original focus of the project may be lost.

- The Fruitvale Transit Village could become the victim of its own success if redevelopment activity drives up property values and property taxes in the surrounding area to the point that existing residents and businesses are forced out of the community. City officials and community leaders should be on the lookout for signs of gentrification and be prepared to work together on a plan to minimize displacement in the event such steps become necessary. Possible actions include the capping of property tax increases for long-term residents and businesses in the area.

- The Fruitvale Transit Village could become a model for additional transit-oriented development projects serving low-income, minority communities located along the BART system. Whether or not this occurs depends to a large



The planning process for the Fruitvale Transit Village included creative public involvement strategies such as community site planning meetings, workshops, and a design symposium.

extent on the commitment of BART and Bay Area city officials to pursue such opportunities and the presence of committed and effective community-based organizations like the Unity Council in neighborhoods where such projects are viable and appropriate.

"The collaboration between the Unity Council, BART, and the City of Oakland was the key to the success of this project."

— Patricia Hirota Cohen
Senior Real Estate Officer, BART

Lessons Learned

- Community-based organizations are typically well positioned to identify community preferences, needs, and concerns. They are often better equipped than government agencies to determine whether or not a project is appropriate for a given community and how well it is likely to be received. The idea for the Fruitvale Transit Village originated within the Fruitvale community, following a proposal by BART to construct a parking garage at the Fruitvale BART station. That proposal generated little community support. To BART's credit, it changed course quickly once it recognized the community's desire for a different type of project developed through a more inclusive planning process.
- Partnerships can be an effective tool for overcoming barriers posed by the expense and complexity of certain projects. The Fruitvale Transit Village survived various legal, financial, and regulatory challenges in large part because of the leadership of the Unity Council and the willingness of key players like BART and the City of Oakland to actively participate in the project.
- Public transit facilities are valuable assets for certain low-income, minority communities in urban locations. Such facilities already play an important role in providing inner-city residents with access to jobs, shopping, and other key destinations. To the extent that projects like the Fruitvale Transit Village prove successful, transit facilities may also be used increasingly as anchors for neighborhood revitalization.

Benefits from Environmental Justice in Decision Making

For the Neighborhood:

- Neighborhood businesses will benefit from improved pedestrian access between the BART station and the East 12th Street business district, encouraging more pedestrian traffic.
- Neighborhood residents and businesses will experience less traffic and better air quality as a result of planning efforts emphasizing alternatives to automobile use.
- New investment activity around the transit station will provide jobs, increase property values, improve the appearance of the area, and, ideally, transform the commercial core of Fruitvale into a convenient and healthy place in which to live, work, and shop.

For the Agencies:

- With a strategy in place to revitalize an area of the city experiencing economic hardship, the City of Oakland is likely to benefit from new investment activity, job growth, rising property values, and increased property tax revenues.
- New development around the Fruitvale BART station will lead to an increase in the number of transit users passing through the station each day, boosting BART's ridership.
- Both BART and the City of Oakland have learned valuable lessons about the planning and design of transit-oriented development projects, knowledge that can potentially be applied at other transit stations, both in Oakland and throughout the BART system.

"Community input equals community support. Without community support we don't have a project."

— Gary Penman
Project Architect, Fruitvale Transit Village

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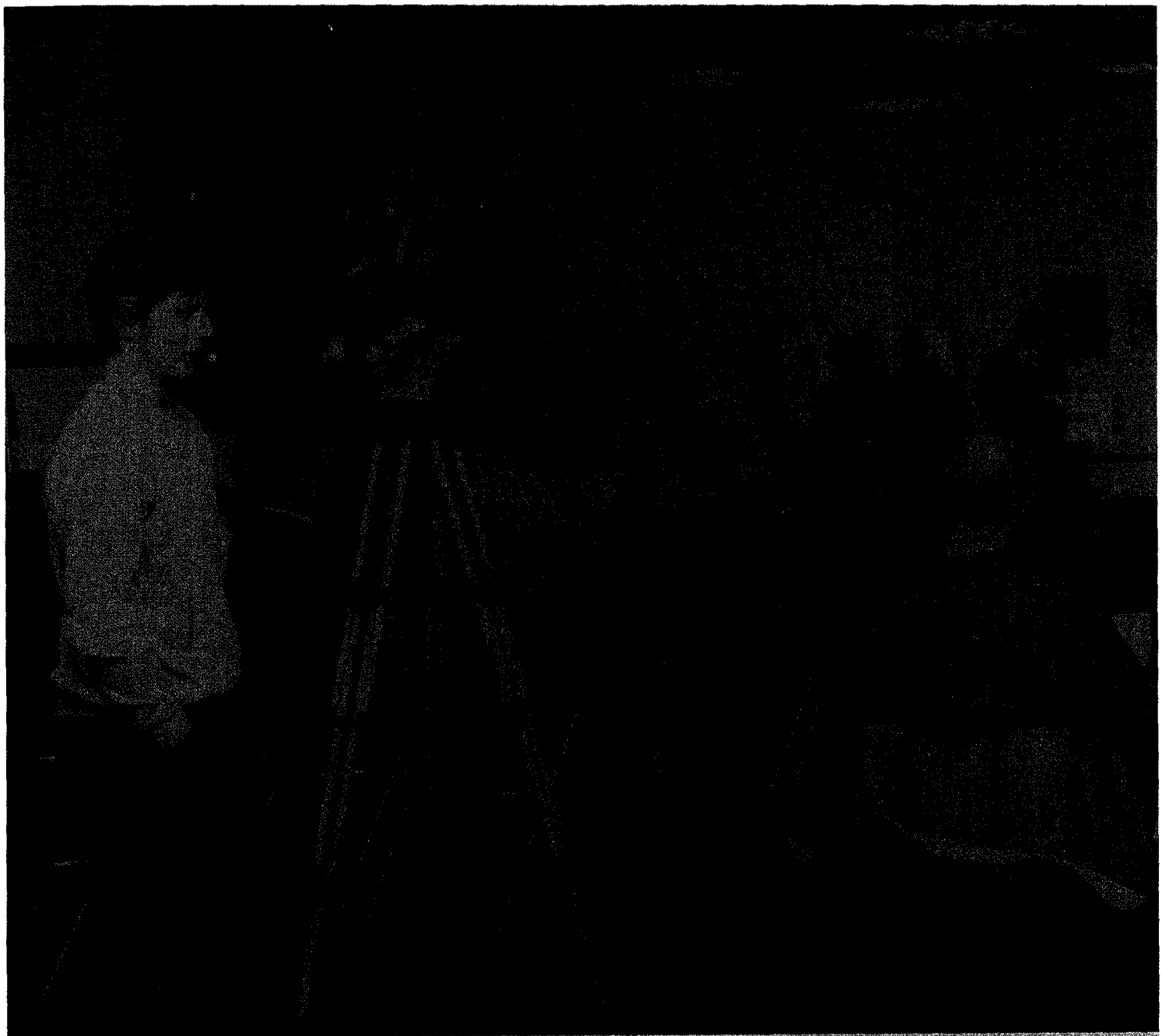
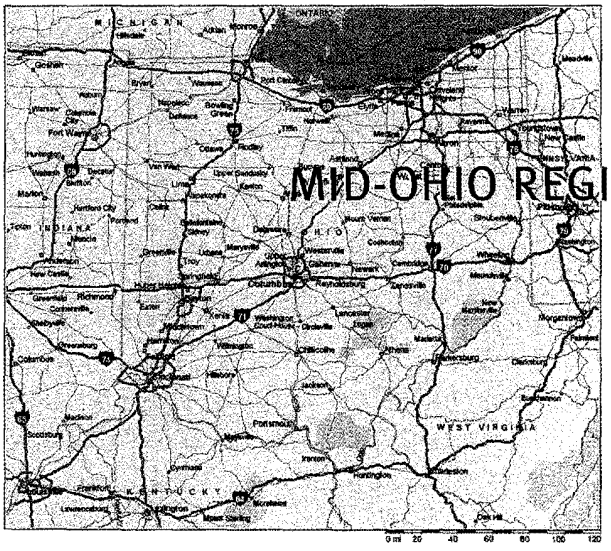


Use of Data Sources, Analytical Techniques, and Public Involvement



MPO Environmental Justice Report

MID-OHIO REGIONAL PLANNING COMMISSION

Introduction

In the wake of new Federal guidelines on environmental justice that amplify Title VI of the Civil Rights Act, growing attention has been placed on the need to incorporate environmental justice principles into the processes and products of transportation planning. In response to this important challenge, Metropolitan Planning Organizations (MPOs) around the country have begun developing methods to assess the impacts of their transportation plans and planning processes on low-income and minority populations. One such agency is the Mid-Ohio Regional Planning Commission (MORPC), the MPO for the greater Columbus, Ohio, region.

In January 2000, MORPC convened a task force to develop a process with which to assess and ensure compliance of the agency's transportation planning efforts with environmental justice requirements of Title VI. This process ultimately contained four key steps:

- Identify and map locations of low-income and minority populations.
- Identify transportation needs of target populations.
- Document and evaluate the agency's public involvement process.
- Quantitatively assess benefits and burdens of transportation plans with respect to target populations.

MORPC's efforts are noteworthy for using analytical techniques and public involvement. The agency effectively used Geographic Information Systems (GIS) mapping to locate low-income and minority populations within the Columbus metropolitan area. This information was incorporated into a travel-demand forecasting model to assess the benefits and burdens of existing and planned transportation system investments on target populations.

MORPC also undertook significant steps to publicize its efforts and involve the public. The task force that developed the review process represented public, private, and nonprofit sectors. In addition, MORPC held an open house to provide opportunities for public comments on the *Draft Environmental Justice Report* following its release in March 2000. The entire draft report was also posted on MORPC's web site, along with minutes from all five Environmental Justice Task Force meetings.

Recent Federal guidelines on environmental justice emphasize the need for MPOs to substantiate self-certification of Title VI compliance. However, procedural and analytical approaches for doing so remain largely unspecified. MORPC's efforts in this regard may serve as a useful model for other MPOs facing the same challenges.

Snapshot of City of Columbus and MORPC Planning Area

Location

- Columbus is the Ohio State Capital
- The Mid-Ohio Regional Planning Commission (MORPC) includes Franklin County, Delaware County, Pataskala (Licking County), Etna Township (Licking County), Violet Township (Fairfield County), and Bloom Township (Fairfield County)

Population: 1,049,666

Minority population:

- City of Columbus — 25.5 percent
- MORPC Region — 17 percent
- Percent of region's minority population living in City of Columbus — 84 percent

Median household income:

- City of Columbus — $26,651
- MORPC Region — $31,353

Households below poverty level:

- City of Columbus — 17.2 percent
- MORPC Region — 11.8 percent
- Percent of region's population with incomes below the poverty level and living in the City of Columbus — 63 percent

Source: 1990 U.S. Census Data

The MORPC Region

MORPC's planning area includes Delaware County, Franklin County, and portions of Fairfield and Licking Counties. Columbus, the Ohio State Capital, is located in Franklin County.

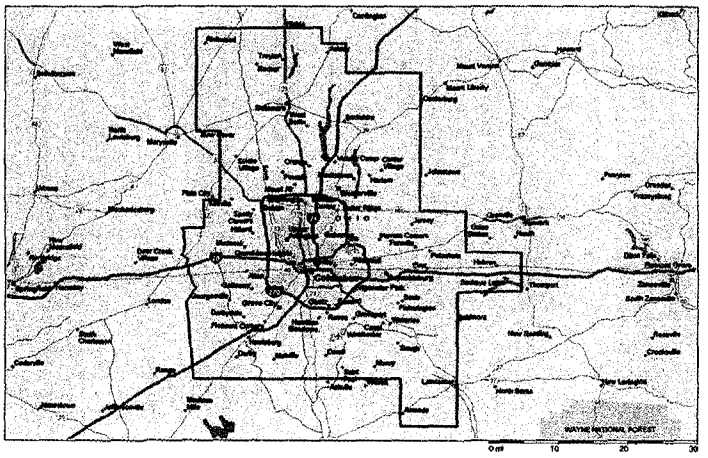
Land development patterns in the Columbus metropolitan area mirror those of other urban centers during the past several decades. Since the 1960s, new development has shifted away from the urban core in favor of outlying areas. New suburban developments, both residential and commercial, have tended to spring up along major freeways and arterials and are heavily oriented toward automobile use.

The Columbus region is growing rapidly. Estimates are that between 1990 and 1995, MORPC's planning area added more than 50,000 households and 70,000 jobs. By 2020, MORPC predicts that the number of households will increase by 150,000 and the number of new jobs by 180,000. According to MORPC's 2020 Regional Transportation Plan, approximately three-quarters of the anticipated residential development and two-thirds of the projected nonresidential development will occur *outside* the I-270 outerbelt.

Data from the 1990 U.S. Census indicate that low-income and minority populations within MORPC's planning area remain concentrated principally in the urban center. Of the nearly 12 percent of the MORPC region's population living below the poverty line, 63 percent of these individuals are located in the City of Columbus. Likewise, while 17 percent of the population within MORPC's planning area is minority, 84 percent of those individuals live in Columbus.

What Happened

In late 1999, MORPC undertook a substantive review of the extent to which its transportation planning activities met the requirements of Title VI



The U.S. Department of Transportation recognizes MORPC as the official transportation-planning agency for the mid-Ohio region.

and environmental justice. The Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) Administrators issued a joint memorandum on October 7th, 1999, directing regional and division administrators to consider environmental justice requirements in the MPO planning certification review process. The memorandum, however, defined no specific procedural or analytical approaches for demonstrating compliance. Thus, MORPC, like MPOs around the country, had considerable discretion in developing methods to evaluate its planning programs, policies, and processes.

MORPC's first step was to convene a task force to serve as an advisory group for the project. Members of the task force came from MORPC's Citizen Advisory Committee, Transportation Advisory

Implementing Title VI Requirements in Metropolitan and Statewide Planning

October 7th Memorandum

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued a memorandum, "Implementing Title VI Requirements in Metropolitan and Statewide Planning," October 7, 1999. The memorandum provides clarification for field offices on how to ensure that environmental justice is considered during current and future planning certification reviews. While Title VI and environmental justice have often been raised during project development, the law applies equally to the processes and products of planning. The FTA and FHWA have concluded that an appropriate time to ensure compliance with Title VI in the planning process is during the planning certification reviews conducted for the Transportation Management Areas (TMAs) and through the statewide planning finding rendered at approval of the Statewide Transportation Improvement Program (STIP). TMAs are MPOs for regions with populations of 200,000 or more.

The memorandum recommends several questions be raised during certification reviews to substantiate the basis upon which self-certification of Title VI compliance is made. If it becomes evident that the self-certification was not adequately supported, a corrective action to rectify the deficiency is to be included in the certification report. The entire memorandum is available online: www.fhwa.dot.gov/environment/ejustice/ej-10-7.htm.

During certification reviews, MPOs are asked to address several important questions related to:

- Overall Strategies and Goals
- Service Equity
- Public Involvement

Below are specific questions MPOs should be prepared to address about their Overall Strategies and Goals:

Overall Strategies and Goals

- What strategies and efforts has the planning process developed for ensuring, demonstrating, and substantiating compliance with Title VI?
- What measures have been used to verify that the multimodal system access and mobility performance improvements included in the plan and Transportation Improvement Program (TIP) or STIP and the underlying planning process comply with Title VI?
- Has the planning process developed a demographic profile of the metropolitan planning area or State that identifies the locations of socioeconomic groups, including low-income and minority populations as covered by the Executive Order on Environmental Justice and Title VI provisions?
- Does the planning process identify the needs of low-income and minority populations?
- Does the planning process use demographic information to examine the distributions across these groups of the benefits and burdens of the transportation investments included in the plan and TIP (or STIP)?
- What methods are used to identify imbalances?

Committee, and the Columbus Area Transportation Coordination Program. The 12-member group included representatives from municipal governments within the MORPC planning area, Central Ohio Transit Authority (COTA), Ohio Environmental Protection Agency, and several public interest groups. Two of the twelve task force participants were members of target populations. Other members were selected principally on the basis of their experience working with low-income and minority populations. For example, COTA has worked with the Franklin County Department of Human Services for several years on the issue of access to jobs. As part of this effort, COTA mapped the location of Temporary Assistance to Needy Families (TANF) recipients by census tracts.

The Environmental Justice Task Force met biweekly for three months, beginning in January 2000. During that time, members played a key role in helping MORPC define the target population, identify the needs of the target population, evaluate the agency's existing public involvement process, and develop appropriate measures for gauging the regional burdens and benefits of transportation system investments on the target population.

Three months after the Environmental Justice Task Force's first meeting, MORPC held an Open House on Environmental Justice to formally present the findings of its *Draft Environmental Justice Report* and give citizens an opportunity to ask questions and provide feedback. The open house was held at MORPC's downtown Columbus office, a location accessible by transit during the evening hours when the event was held. MORPC determined that a central location would provide the best access for the greatest numbers of low-income and minority residents. MORPC was confident that these individuals would be comfortable coming to this location because the agency had previously hosted activities directed toward low-income and minority residents, which had been well attended. More than 50 people attended the Open House. The proceedings were also broadcast on Channel 3, a local government-access network.

MORPC's *Draft Environmental Justice Report* contained four principal areas of investigation used to evaluate whether the agency's transportation planning efforts met the letter and spirit of Title VI and the Executive Order on Environmental Justice. The four principal areas of investigation involved:

I. Demographic Profile. Identifying the size and location of low-income and minority population groups is an important first step toward assessing whether or not transportation system investments disproportionately burden or fail to meet the needs of any segment of the population. MORPC first reviewed the racial and ethnic and income-distribution patterns provided by various 1990 U.S. Census data sets. After screening the advantages and disadvantages of various data sets, MORPC decided to use census data sets to prepare a demographic profile of the central city and metropolitan area. Although 10 years old at the time, census data offered the advantage of providing information at the census block group, the smallest geographic unit available. In addition, census block groups correspond roughly to Traffic Analysis Zones (TAZs), the level of geography used in MORPC's travel-

The Participants

The Mid-Ohio Regional Planning Commission established an Environmental Justice Task Force whose members represented:

- Central Ohio Transit Authority (COTA)
- Ohio Environmental Protection Agency
- Neighborhood Empowerment Council
- Transportation Resources, Inc.
- Sierra Club, Ohio Chapter
- Franklin County
- City of Columbus
- City of Delaware
- City of Whitehall
- City of Westerville
- City of Upper Arlington

Project Chronology

January 2000
MORPC convenes Environmental Justice Task Force.

January-March 2000
Environmental Justice Task Force meets every 2 weeks.

March 2000
MORPC releases *Draft Environmental Justice Report.*

March 2000
MORPC hosts Open House on Environmental Justice.

April 2000
MORPC's Policy Committee passes a resolution to include the environmental justice assessment in the MORPC regional transportation plan.

demand forecasting model. This became an important consideration in subsequent phases of the analysis.

Using census data, MORPC then calculated percentages of low-income and minority populations for each TAZ within the planning area. At that point, MORPC chose to establish "threshold" criteria for determining whether or not a particular TAZ should be considered predominantly minority or low-income. To make that determination, MORPC used the regionwide percentages of minority and low-income residents — 17 percent and 11.8 percent, respectively. Any TAZ that met or exceeded this threshold was considered by MORPC as predominantly minority and/or low-income.

Finally, MORPC prepared GIS maps to provide a visual representation of the low-income and minority populations. The maps revealed that TAZs with concentrations of minority or low-income residents higher than the regional averages were located predominantly in the central city. By contrast, areas outside the I-270 outerbelt had very few concentrations of target populations, although this periphery region was, and is expected to remain the principal location of new job growth.

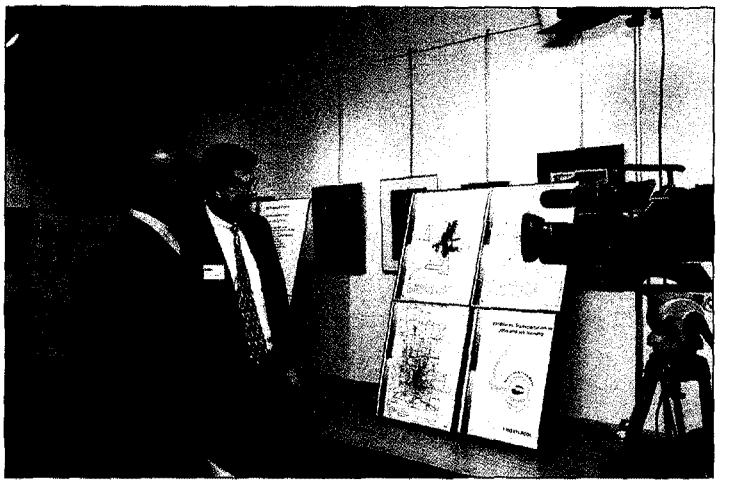
The mapping exercise also assessed the number and location of zero car households and people with disabilities. The report found that approximately 85 percent of zero car households were concentrated in TAZs with relatively greater numbers of low-income and minority populations. While members of the Environmental Justice Task Force were generally aware of the issue, the maps amplify and illustrate the problem of a potential *spatial mismatch* between employment growth and population. The maps reinforce one of the Report's findings that a principal challenge will be to devise transportation solutions as well as land-use planning strategies capable of addressing this problem.

II. Identify Transportation Needs. In addition to establishing locations of low-income and minority residents, a key element of Title VI compliance in statewide and metropolitan transportation planning is due consideration of the transportation needs of the target populations. For MORPC, documentation of transportation needs was readily available. Numerous reports had already been produced by MORPC, COTA, and a number of other sources. For example, agencies represented on the Environmental Justice Task Force had previously prepared a *Job Access and Reverse Commute Plan,* which examined travel by TANF recipients in Franklin County, studied transit-labor force accessibility of central city residents, and established a regional transportation coordination committee. COTA also maintains a census tract map with overlays showing minority census tracts, transit routes, and major destinations. Staff periodically sample census tracts and conduct analysis comparing population segments with the quality and level of transit service. In 1998 COTA submitted a Title VI report to FTA that documented the results of its route performance monitoring and demonstrated COTA's compliance with Title VI regulations.

MORPC's methodology for identifying the transportation needs of target populations for its *Draft Environmental Justice Report* report drew chiefly upon existing documentation supplemented by feedback provided by members of the Environmental Justice Task Force. The needs identification section focused on shortcomings within the Columbus-area public

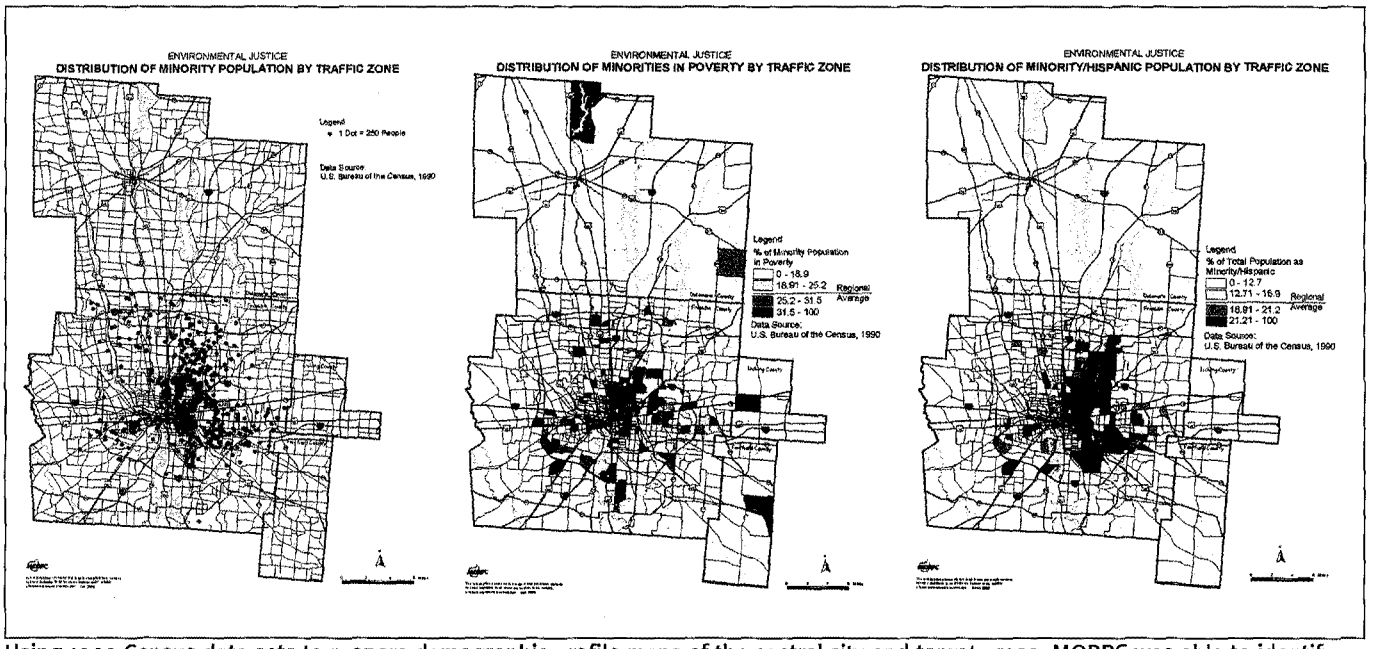
transit system because of the heavy reliance on public transportation by low-income and minority residents. MORPC identified several needs suggesting the importance of improving public transportation:

- Greater transit access to emerging employment centers, shopping, and other services located in outlying areas.
- More responsive reverse commute transit service from low-income neighborhoods to employment centers with insufficient or nonexistent service.
- Safer, more easily accessible and user-friendly transit facilities.
- Better transit connections to reduce commute times.
- Transportation systems that cross county lines and adequately serve low-income persons in rural areas.



Demographic profile maps were among those displayed at an Open House on Environmental Justice.

III. Evaluate Public Involvement Efforts. MORPC institutionalized its commitment to public involvement with adoption of the Public Involvement Process (PIP) in January 1995. The PIP identified a set of procedures to be consistently applied to incorporate public participation in the transportation planning process. Foremost among these was the creation of the Citizen Advisory Committee (CAC), an advisory group that serves as the principal vehicle for public participation in transportation planning activities. The CAC is



Using 1990 Census data sets to prepare demographic profile maps of the central city and target areas, MORPC was able to identify the geographic locations of minority and low income residents.

Target Population Identification and Data

Consistent with the direction of Executive Order 12898, MORPC identified minority and low-income populations to analyze whether the agency's programs, policies, and other activities had disproportionately high and adverse human health or environmental effects. Other special populations were added for analysis as well, including minority populations in poverty, people with disabilities, and zero car households.

- **Defining Target Population "Thresholds."** Averages of regional totals for various target populations were calculated. MORPC concluded that using the break point at which areas fall above or below the average for the study area alerts planners to special areas of consideration when analyzing the effects of changes to the transportation system.

Target Population Thresholds Used by MORPC for Demographic Profile and Mapping

Data Set	1990 Totals for Study Area	Threshold (percent of total)
Total population	1,049,656	
Total households	416,400	
Minority population	177,965	17.0 percent
Population below the poverty line*	122,389	11.8 percent
Minority population below the poverty line*	44,835	25.2 percent
Persons with disabilities	60,602	5.8 percent
Zero car households	9,404	2.3 percent

*Based on 1990 poverty guidelines issued by DHHS

- **Distribution of Demographic Data to Traffic Analysis Zones (TAZs).** Census data sets providing information at the most detailed geographic level available — census block groups — were used. Data characteristics of the block groups were applied to population and housing totals of the TAZs through a conversion table in which TAZ boundaries were matched to census block groups on a "best-fit" rule between the two geographies.
- **U.S. Census Data Source.** MORPC relied upon 1990 U.S. Census data, which was available in the geographic detail most consistent with their travel-demand forecasting model, the primary analytical tool used to review the benefits and burdens of their transportation planning efforts. More current administrative records about the residential location of TANF recipients, child care facilities, the locations of business establishments, and emerging and suitable employment opportunities could be drawn upon to deepen the needs assessment. As discussed previously, COTA and the Franklin County Department of Human Services had undertaken elements of such a research effort in the past several years to map the location of TANF recipients by census tract for bus transit planning.
- **National Poverty Guidelines.** To identify low-income households, MORPC drew upon national poverty guidelines issued by the U.S. Department of Health and Human Services (DHHS), which vary by family size. MORPC's analysis identified $12,674 as the poverty threshold for a family of four in 1990, and indicated that the threshold had risen to $16,000 by 1997. The latter figure was taken from the March 10, 1997 Federal Register, part of a package of legislative information that the Ohio Department of Transportation provided to MORPC to use in environmental justice planning.

composed of citizens from all segments of the population including representatives of low-income, minority, and transportation-disadvantaged populations. An effort is made to maintain broad geographic representation covering the municipalities, townships, and counties of the entire MORPC planning area.

MORPC maintains a list of organizations that it refers to when it needs to fill vacancies on the CAC. The PIP specifically commits the CAC to identifying and considering the transportation needs of low-income and minority households.

Implementing Title VI Requirements in Metropolitan and Statewide Planning:

Public Involvement

The October 7th memorandum directs FHWA and FTA staff to explore the MPO's commitment to public involvement:

- Does the public involvement process have an identified strategy for engaging minority and low-income populations in transportation decision making?
- What strategies, if any, have been implemented to reduce participation barriers for such populations?
- Has their effectiveness been evaluated?
- Has public involvement in the planning process been routinely evaluated as required by regulation?
- Have efforts been undertaken to improve performance, especially with regard to low-income and minority populations?
- Have organizations representing low-income and minority populations been consulted as part of this evaluation and have their concerns been considered?
- What efforts have been made to engage low-income and minority populations in the certification review public outreach effort?
- Does the public outreach effort use media (such as print, television, radio) targeted to low-income or minority populations?
- What issues were raised, how are their concerns documented, and how do they reflect on the performance of the planning process in relation to Title VI requirements?
- What mechanisms are in place to ensure that issues and concerns raised by low-income and minority populations are appropriately considered in the decision-making process?
- Is there evidence that these concerns have been appropriately considered?
- Has the MPO or State Department of Transportation made funds available to local organizations that represent low-income and minority populations to facilitate their participation in planning processes?

MORPC's evaluation of its public involvement process identified a range of existing strategies and opportunities for public participation, including public meetings, task forces, a quarterly newsletter, direct mail, press releases, community presentations, and citizen involvement on various committees. The evaluation cautioned that low-income and minority residents typically become involved in regional transportation planning only when issues arise that concern them directly. The report recommended that MORPC do more to publicize its activities among low-income and minority populations and make staff available to give presentations at neighborhood meetings.

IV. Assess the Benefits and Burdens of the Transportation System. The final step MORPC completed in its environmental justice analysis was to examine the agency's planning efforts to determine whether the benefits and burdens of existing and proposed transportation system investments were distributed equitably among target and nontarget populations within the MORPC planning area.

MORPC, like any transportation agency, was quickly confronted with the need to make several important defensible assumptions regarding baseline and future socioeconomic conditions, growth rates, and travel-demand forecasting methods to assess the benefits and burdens.

Central to MORPC's study plan was the agency's use of the travel-demand forecasting model that it had used to prepare its *Vision 2020 Transportation Plan*. This model employed land use and demographic information for each TAZ within the MORPC planning area to forecast existing and future traffic patterns and volumes on the regional transportation network. By expanding the modeling process to take into account the distribution of target versus nontarget populations within each TAZ, MORPC was able to estimate the extent to which low-income and minority populations were equitably served for each measure considered.

Estimating Baseline and Future Target and Nontarget Populations by Zone

MORPC concluded that it was necessary to estimate the target and nontarget population within each TAZ. However, the land use variables of their travel-demand forecasting model considered only total population by TAZ for their baseline (1995) and future years (2015). They needed a method to estimate 1995 and 2020 target populations by zone.

MORPC used a relatively simple and straightforward "constant share" method to estimate poverty and minority populations. In estimating the target populations by traffic zone, it was assumed that the total regional percentage for each population would be the same percentage as the 1990 census. For example, the regional percentage in poverty in 1990 was 12 percent, and it was assumed that this figure would remain constant for the 1995 population and the forecast 2020 population. MORPC decided to use this assumption because the agency had no data available to support an alternative scenario.

The first step was to apply the 1990 target population percentage *in each zone* to the 1995 and 2020 total population within each zone. However, because higher growth is occurring in zones with lower than average target population percentages, the total regional target population percentages were less than the 1990 percentages. Uncorrected, this would provide a rather misleading projection of the effects of growth.

The next step, therefore, was to add the additional target population to zones throughout the region in order to achieve the same regional percentage as in 1990. This allocation relied upon the 1990 distribution share of the particular targeted population. For example, assume 10,000 additional poverty population is needed to achieve the same 12 percent as in 1990. If, in 1990, one TAZ had 1 percent of the total poverty population, an additional 100 (10,000*.01) poverty persons were added to the zone. During this process, steps were taken to ensure that the total target population did not exceed the total population of each zone.

A major analytical step in MORPC's benefits and burdens assessment involved identifying a series of measures with which to compare the respective treatment of *target* and *nontarget* populations in the planning process. During the study process, MORPC distinguished between types of measures and offered the following definitions:

- *Population-based* measures best address the environmental justice definition in that they provide information about members of the target population, regardless of their location. Population-based measures also consider small pockets of target populations within nontarget populations.
- *Geographic-based* measures provide information specific to a geographic area (e.g., TAZ). Some information such as congested vehicle miles of travel can only be reported for an identified geographic area. The data reported within these areas are applicable to *all* of the populations residing in the particular area. Thus, for an environmental justice analysis, identifying the geographic area(s) of interest is very important. The geographic area(s) should have higher-than-average percentages of the target population and in total account for a large majority of the target population.
- *Visual-based.* In contrast to the measures above, some data cannot be boiled down to comparisons. These can be classified as visual data, which are usually presented in a map form.

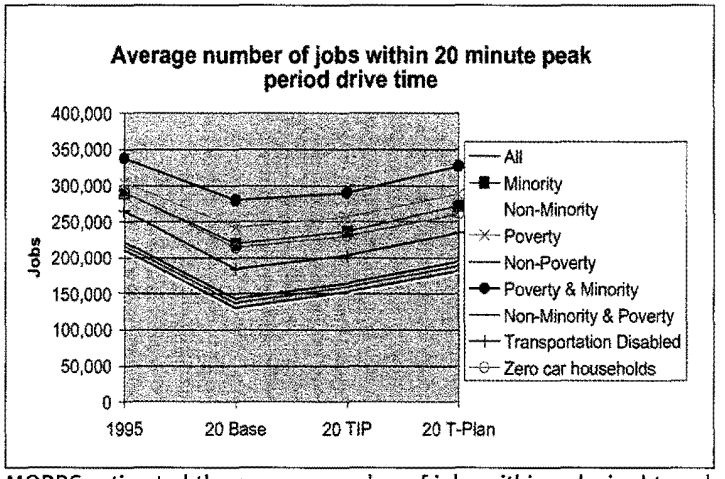
MORPC considered *accessibility* measures and *travel* measures and elected to use both types of measures in the study. In the report, an example of an accessibility measure is "number of jobs within 20 minutes." Travel measures, such as the "average work trip length" or "congested vehicle miles" are based upon an estimated pattern of trip making.

MORPC was careful to note that some measures can be either accessibility measures or travel measures, depending on how they are calculated. For example, average travel time to the central business district, if based on an estimated pattern of trip making, would

be a travel measure. However, if it were calculated based on the average travel times for trips downtown originating throughout the MORPC planning area, it would be an accessibility measure.

MORPC screened and categorized potential measures for their immediate and future application to environmental justice evaluations. The selected measures included variables such as average number of accessible job opportunities, average number of accessible shopping opportunities, and average travel times for work and shopping trips.

For most measures, estimates were calculated for four different scenarios. The first scenario represented 1995 conditions. The next three represented 2020 conditions under three different sets of transportation system assumptions. The first was that only those projects currently under construction were completed. The second assumed that only projects in the current FY 2000-2003 Transportation Improvement Program (TIP) were constructed. The final scenario assumed all of the projects in the 2020 Plan were constructed.



MORPC estimated the average number of jobs within a desired travel time available to various socioeconomic groups.

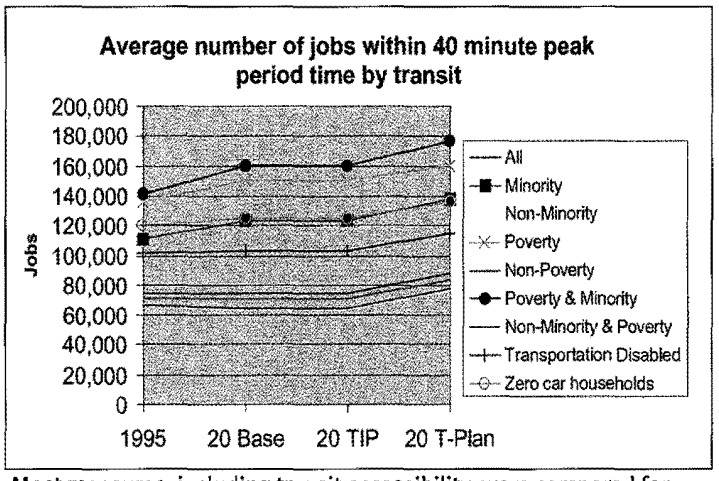
Average Number of Job Opportunities Close: How MORPC Calculated the Measure

One of MORPC's standard variables is the number of jobs by TAZ. This measure estimates the average number of jobs within a specified travel time. Discussion during the task force meetings addressed what the appropriate time threshold should be to define a "close job opportunity." A time threshold for auto travel was set at 20 minutes. For transit, a doubling of the auto travel time threshold (40 minutes) was selected. This was based upon a discussion concluding that persons with multiple transportation options would not likely ride public transit more than this length of time.

- First, the model was used to estimate peak period auto travel times and peak and off-peak transit travel times from each TAZ to every other TAZ. This is commonly referred to as a travel-time skim.
- Second, for each TAZ based on the skim, the total number of jobs within various travel times was calculated.
- Finally, a weighted average number of jobs was calculated based on the number of each population group within each TAZ.

The modeling process did not reveal significant disparities in the distribution of benefits and burdens of transportation system investments between target and nontarget populations. For each measure considered, MORPC concluded that low-income and minority residents were at least as well served by existing and proposed investments as other segments of the population. In addition, an analysis of the potential for displacement resulting from the construction of major transportation projects during the next 20 years revealed no significant disparities in expected impacts upon target and nontarget populations.

In April 2000, based on the recommendations of its Citizen Advisory and Transportation Advisory Committees, MORPC passed Resolution T-7-00, "Adoption of Environmental Justice Assessment and Recommendations and Inclusion in the MORPC Regional Transportation Plan." The resolution



Most measures, including transit accessibility, were compared for various transportation investment scenarios.

incorporated the findings and recommendations of the *Draft Environmental Justice Report* into the Transportation Plan and instructed staff to carry out the recommended improvements. In addition, it encouraged member jurisdictions to comply with environmental justice requirements when reviewing, selecting, and submitting projects to MORPC for Federal funding.

Soon after, MORPC began following up on specific recommendations made in the Report. During summer 2000, MORPC began preparing a plan to increase participation of target populations in the transportation planning process. In addition, updates of the Regional Transportation Plan and future versions of the TIP will contain sections on environmental justice that include revised and updated versions of the analysis contained in the *Draft Environmental Justice Report*. Year 2000 census data will be incorporated into this analysis as soon as it becomes available.

MORPC continues to work with transportation providers to ensure that the recommendations outlined in the Report are implemented. For example, MORPC and the region's transit provider COTA have translated analytical research and public involvement activities into proactive initiatives, particularly in the areas of job access. COTA has expanded and instituted new services and invested and developed plans for transit center/transfer centers at key nodes to support improved access to Empowerment Zones.

Effective Environmental Justice Practices

MORPC's environmental justice review process serves as an example of how one MPO comprehensively evaluated the extent to which its regional planning efforts incorporate the principles of Title VI and the Executive Order on environmental justice. This review process illustrates a number of

Measures Used to Assess Benefits and Burdens of Transportation System Investments

Accessibility Measures

- Average number of accessible job opportunities
- Average number of accessible home-based shopping opportunities
- Average number of accessible nonshopping attractions, such as medical appointments or banking
- Percent of population close to a college
- Percent of population close to a hospital
- Percent of population close to a major retail destination
- Transit accessibility to Columbus CBD

Travel Time Measures

- Average travel time for work trips
- Average travel time for home-based shopping trips
- Average travel time for nonshopping home-based trips
- Average travel time for all home-based trips
- Average travel time to Columbus CBD

Other Measures

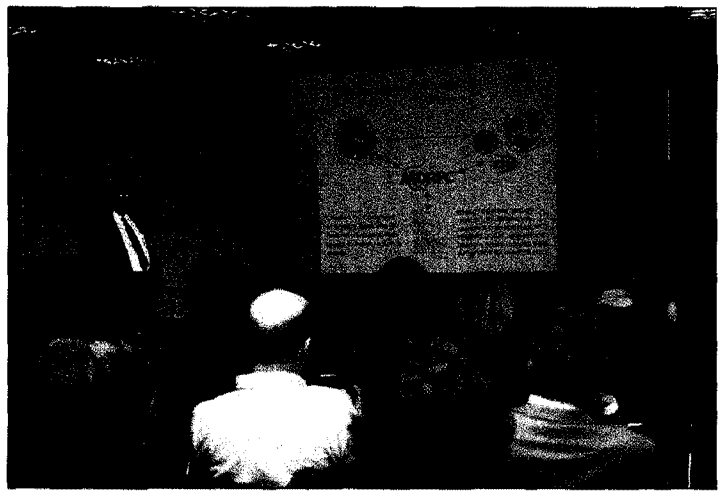
- Congested vehicle miles of travel
- Highway investments
- Displacement from highway projects

effective practices for ensuring that environmental justice requirements are fulfilled:

- **Technical Advisory Groups and Public Involvement Techniques.** MORPC engaged the public and transportation service providers in carrying out its environmental justice review process by convening a broad-based task force to advise agency staff. This group not only provided opportunities for public participation in the process, but it also filled certain gaps in the knowledge and expertise of agency staff. In addition, MORPC made efforts to publicize the review process and seek public input by holding an Open House on Environmental Justice, televising the proceedings, and making its *Draft Environmental Justice Report* available on the agency's web site.

- **GIS Mapping of Target Populations.** In identifying and mapping the locations of target populations within the Columbus metropolitan area, MORPC had to balance the need for current data against the need for data that were usable in its travel-demand forecasting model. In the end, MORPC used 1990 census data, a choice that will allow the model to be easily updated once year 2000 census data become available. Although more current administrative records data on employment and establishments could be mapped by exploring a data-sharing partnership with the State's employment office, the analysis was still able to pinpoint the existence of a spatial mismatch between the locations of new job growth in the outerbelt and the residential location of low-income and minority populations.

- **Use of Accessibility and Travel Time Measures from MPO's Travel-Demand Forecasting Model.** In assessing the benefits and burdens of transportation system investments on low-income and minority populations, it makes sense for MPOs to use analytical methods with which they have prior experience. MORPC's use of travel demand forecasting shows how an existing model can be modified and applied to address a different set of questions. In this case, a model developed to estimate existing and future regional traffic patterns and volumes was modified to predict how well current and proposed transportation investments serve low-income and minority populations.



MORPC's outreach program included an Open House on Environmental Justice to present the *Draft Environmental Justice Report* and invite citizens' comments and feedback.

- **Documenting the Review Process.** MORPC's *Draft Environmental Justice Report* thoroughly documents the methodology developed to carry out the agency's environmental justice review process. This is important because the report identifies a clear set of procedures for assessing future planning efforts from an environmental justice perspective. Although some of these procedures will undoubtedly be modified as refinements to the methodology are introduced, the report represents an important baseline. It also represents a potential learning device for MPOs elsewhere wrestling with the same issues.

Challenges Ahead

Incorporating environmental justice principles into regional transportation planning is an evolving area of practice, and it is only natural that MPOs seeking to address this mandate will encounter certain challenges. Some of the key challenges MORPC faces concern the limitations of the data used by the agency to carry out its analysis.

For example, MORPC's use of 10-year-old 1990 census data to identify the locations of target populations within the agency's planning area raises significant questions about the accuracy of the information. While not inappropriate, using this data places the burden on MORPC to update its analysis once new census data become available.

Equally important, it is often possible to cooperate with the State labor department, which is responsible for keeping and reporting administrative establishment employment and payroll data for the ES-202 program. This data set has confidentiality restrictions that present challenges in precisely pinpointing establishment locations. These limitations can frequently be overcome, however, with proper handling of confidentiality concerns. No other employment data set provides the ability to map emerging employment centers and illuminate the challenges presented by a spatial mismatch between job growth and population in such a timely and comprehensive fashion.

MORPC's use of travel-demand modeling to identify benefits and burdens of transportation system investments also reveals certain data limitations. For instance, the analysis concluded that target populations had access to at least as many jobs as other groups, yet no effort was made to determine what kinds of jobs these were and what percentage of them represented viable employment opportunities for low-income and minority workers. Although this type of information was not readily available to MORPC at the time it was developing its environmental justice methodology, it is important that such data limitations be acknowledged and addressed in future modeling efforts.

Additionally, MORPC's analysis of travel times and accessibility for public transit did not consider frequency of service. All bus lines were assumed to have uniform service, even if lack of evening or weekend service prevented individuals using certain bus routes from accessing jobs or other destinations.

Shortcomings such as these should not obscure the fact that MORPC has gone to great lengths to assess the benefits and burdens of its transportation planning efforts, investing considerable time and resources in developing a methodology, carrying out the analysis, and documenting the process. Now, however, MORPC faces the additional challenge of holding its findings up to further scrutiny and, finally, incorporating the substance of the environmental justice review process into its transportation planning efforts.

Lessons Learned

- MPO staff may not be intimately familiar with the transportation needs and concerns of low-income and minority populations. MORPC's environmental justice review process benefitted from the knowledge that Environmental Justice Task Force members brought to the table.
- Methods for evaluating equity in transportation planning may be constrained by the absence of timely and appropriate data. MORPC's *Draft*

Implementing Title VI Requirements in Metropolitan and Statewide Planning:

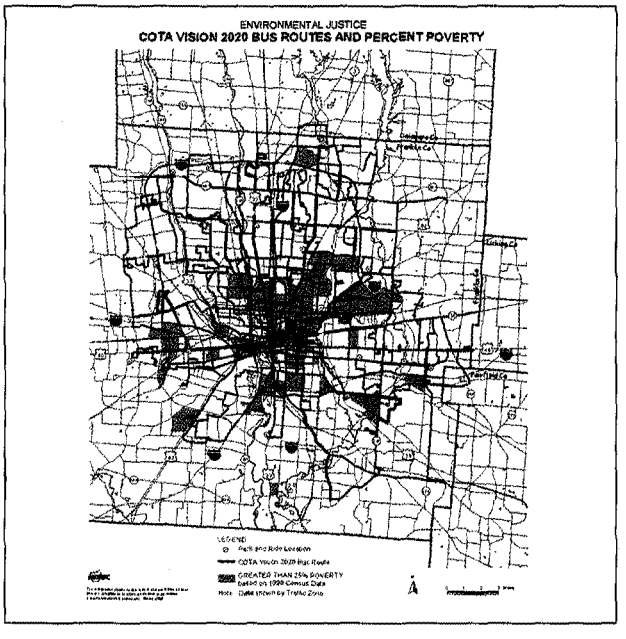
Service Equity

The October 7th memorandum directs FHWA and FTA staff to ask MPO's about their planning and analytical processes related to service equity:

- Does the planning process have an analytical process in place for assessing the regional benefits and burdens of transportation system investments for different socioeconomic groups?
- Does it have a data collection process to support the analysis effort?
- Does this analytical process assess the benefit and impact distributions of the investments included in the plan and TIP (or STIP)?
- How does the planning process respond to the analyses produced and are imbalances identified?

Environmental Justice Report is by necessity a work in progress whose findings and conclusions will need to be reassessed as new data sources become available.

- MORPC's *Draft Environmental Justice Report* is more than a summary of findings from GIS mapping and the application of evaluation measures drawn from a travel-demand forecasting exercise. The report gives an overview of the public-involvement processes, partnerships, and other initiatives undertaken by the MPO and its member agencies such as COTA. In so doing, the overview clarifies how environmental justice requirements are addressed in the overall regional transportation planning process. For example, the report details the role of MORPC's Columbus Area Transportation Coordination Program (CATCP), which was created to assist in providing transportation to employers located in the outlying areas that are not served by public transit. The CATCP planning process provides a forum for addressing complex regional transportation problems and forging workable partnerships to leverage the scarce resource of individual agencies. The CATCP facilitates a dialogue between private and public transportation providers, human service agencies, planning agencies, citizen groups, and employers.



The MORPC *Draft Environmental Justice Report* described activities to address minority populations undertaken by COTA, the region's transit agency, in coordination with MORPC.

Evaluating regional planning from an environmental justice perspective can't be a cookbook process. Different cities have different issues and concerns. The process needs to be tailored to local conditions.

— Robert Lawler
Assistant Director of Transportation
Mid-Ohio Regional Planning Commission

- Taking a first step in a long journey, MORPC adopted a self-critical perspective about its findings and outlined several next steps to improve both its analyses and outcomes. In addition to exploring other methods and noncensus data sources, MORPC concluded that further public involvement outreach to both general and target communities would better promote an understanding of needs. More consideration was also required as to whether minority and disabled populations had special needs to address. Finally, MORPC concluded that, despite the strategic role of Columbus as a rail and freight hub, the agency's consideration of environmental justice as it relates to rail and truck freight needed to be more comprehensive and required further investigation.

- MORPC recognizes that considering Title VI/ environmental justice issues is more than a one-time exercise or occasional obligation; rather, it is a normal part of its mission to be fully integrated into its transportation planning and programming process. The agency further recognized that establishing and monitoring performance measures such as the ones discussed in this case study will prove beneficial in determining whether the target populations have been treated fairly in transportation programs and activities receiving Federal funds.

Benefits from Environmental Justice in Decision Making

For Low-Income and Minority Populations:

- MORPC's environmental justice review process produced a set of conclusions about the fairness of transportation access and travel in the Mid-Ohio region based largely on a modeling process developed by agency staff. By thoroughly documenting the review process in its *Draft Environmental Justice Report*, MORPC opened itself to the possibility of public scrutiny. Neighborhood groups and other organizations now have the opportunity to review the agency's findings, gauge them against their own experiences, and respond accordingly.
- MORPC's *Draft Environmental Justice Report* provides valuable information on regional demographics, accessibility, travel times, and highway investments for different segments of the population that may be useful in research efforts or other undertakings by neighborhood groups.

For the MPO:

- MORPC staff acquired a greater sensitivity to the demographic profile and spatial patterns of low-income and minority populations. This further clarified an understanding about the zones of employment growth and residential development as well as possible avenues for additional needed research and resources.
- The MORPC staff became further engaged in a review of the transportation needs and concerns of low-income and minority populations. By working with Environmental Justice Task Force members from a cross section of institutions and agencies, MORPC provided a forum for exploring workable partnerships to discover opportunities as well as improve access for target populations.
- MORPC better understands how its transportation system and transportation plans serve low-income and minority residents. Meaningful efforts to incorporate the findings and recommendations of the report into future planning efforts will strengthen MORPC's support by target populations and better ensure that transportation plans are broadly inclusive. Transportation planning efforts that consider all segments of the population are more likely to enjoy broad-based support. Conversely, projects and planning efforts that ignore the concerns of certain groups may become the subject of vocal opposition.

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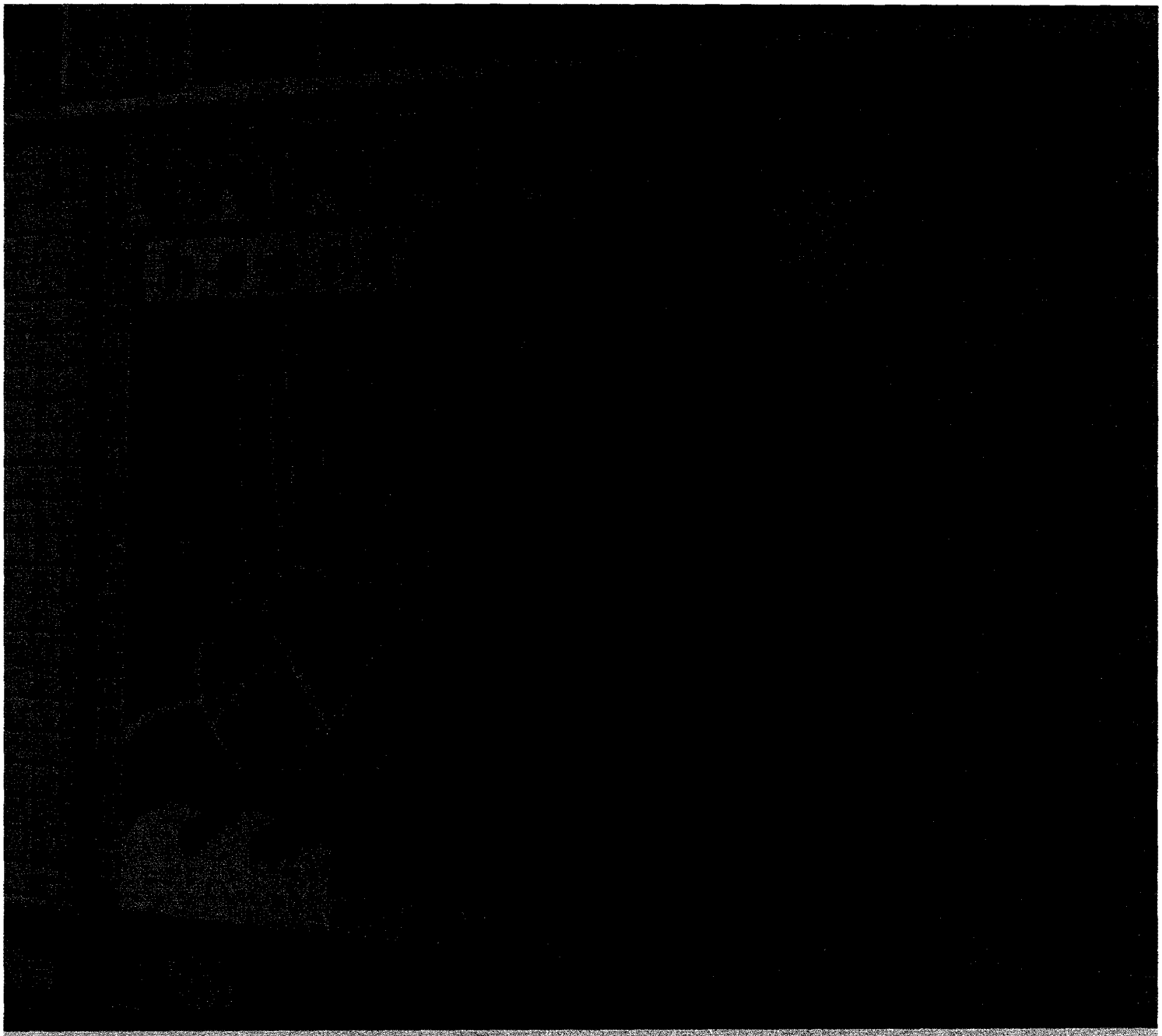
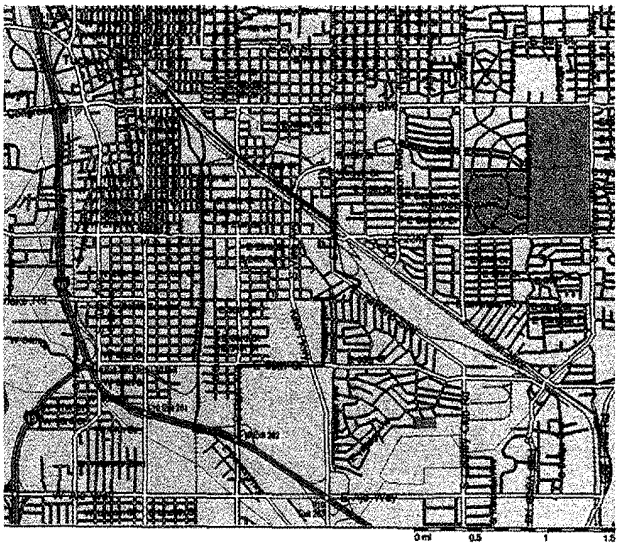


Partnerships, Enhancement Activities, and Public Involvement



South Park Avenue Improvement Project

TUCSON DEPARTMENT OF TRANSPORTATION

From an environmental justice standpoint, the South Park Avenue Improvement Project is noteworthy for three principal reasons:

- *Partnerships* were developed to leverage financial and technical resources for planning and implementing transportation enhancements in a low-income, minority community. The project culminated a 10-year planning process whose major participants included the Tucson Urban League, the South Park Neighborhood Business Association, the University of Arizona, the U.S. Department of Housing and Urban Development (HUD), TDOT, and FTA.
- *Context-sensitive design* tools were used to reawaken a community's sense of identity and pride. Art components of the South Park Avenue Improvement Project — including mosaics, totems, and sculptures — were designed to draw attention to

Introduction

During 1995 and 1996, the Federal Transit Administration (FTA), through its Livable Communities Initiative, awarded the City of Tucson, Arizona, $1.5 million to carry out a series of transportation enhancements along a 1-mile stretch of South Park Avenue. The South Park area, located within Tucson's federally designated Enterprise Zone/ Enterprise Community, is a low-income, minority community originally settled by African Americans during the 1940s. It is an area rich in cultural and historical significance because, during its early days, it was one of the few places in Tucson where African Americans could purchase land, build homes, start businesses, and create a community.

FTA's Livable Communities Initiative (LCI) was established, in part, to assist transit-dependent communities with economic recovery. From 1995 through 1999, the Tucson Department of Transportation (TDOT) worked with residents and businesses in the South Park neighborhood to plan and implement a series of improvements that increased transit, pedestrian, and bicycle safety and accessibility; enhanced commercial district aesthetics along South Park Avenue; and reinforced the community's sense of pride in its unique history and culture.

The Participants

- Federal Transit Administration
- U.S. Department of Housing & Urban Development
- Tucson Department of Transportation
- Tucson Urban League
- South Park Neighborhood Business Association
- University of Arizona

The Livable Communities Initiative

The U.S. Department of Transportation, Federal Transit Administration, developed the Livable Communities Initiative (LCI) to strengthen the linkage between transportation services and the communities served. The LCI is an experiment that uses sustainable design concepts such as transit-oriented development, community-sensitive transit services, mixed-use development near transit facilities, safe and secure pedestrian access, and transit-supportive parking management and traffic management techniques. The goal is to increase access to jobs, health care, education, and other social amenities and to stimulate community participation in the decision-making process that leads to these improvements.

Eligible Applicants

- Transit operators, metropolitan planning organizations, city and county government, planning agencies, and other public bodies with authority to plan or construct transit are eligible. Nonprofit, community, and civic organizations cannot apply directly, but they can participate as partners.

Eligible Types of Project Planning Activities

- Preparation of implementation plans and designs incorporating safe livable elements.
- Assessment of environmental, social, economic, land use, and design impacts of projects.
- Feasibility studies.
- Technical assistance.
- Participation by community organizations, businesses, and persons with disabilities.
- Evaluation of best practices.
- Development of innovative design, land use, and zoning practices.

Eligible Capital Activities or Capital Project Enhancements

- Property acquisition, restoration or demolition of existing structures, site preparation, utilities, restoration of historic buildings, building foundations, bikeways and trails, walkways, and open spaces physically or functionally related to the transportation project.
- Purchase of buses, enhancements to transportation intermodal centers, park-and-ride lots, and transfer facilities incorporating community services such as day care, health care, and public safety.
- Safety elements such as lighting and rail crossings.
- Intelligent Transportation Systems technology such as GPS vehicle location and dispatch systems and associated computer software.
- Traveler information for tourists and other rural travelers, improved access to transit services, and operational enhancements such as transit marketing and pass programs, especially for job access.

Available Funds

DOT provided about $50 million for 21 capital projects and an additional $2 million for local planning, technical assistance and best practices materials in FY 1999. Funding is available through the following programs:

Federal Transit Administration

- Transit Grants and Loans for Special Needs of Elderly Individuals and those with Disabilities
- Rural Transportation Accessibility Incentive Program
- Transit Capital Investment Grants and Loans Program (Bus and Bus Related)
- Transit Enhancements
- Urbanized Aid Formula Grants Program
- Formula Grants for Other than Urbanized Areas

Federal Highway Administration

- The National Highway System (NHS)
- The Interstate Maintenance Program
- The Surface Transportation Program (STP)
- Bridge Replacement and Rehabilitation
- Federal Lands Highway
- Transportation Enhancements
- National Scenic Byways Program

Project Chronology

1982-1989
Kino Boulevard constructed on the eastern boundary of the South Park community.

1989
Tucson Urban League receives CDBG funds to partner with University of Arizona to create the *South Park Area Community Development Plan.*

1991
South Park Area Community Development Plan published by the Tucson Urban League.

1995
TDOT receives $1 million from FTA's Livable Communities Initiative for improvements to South Park neighborhood.

August-December 1996
Monthly town hall meetings held at Quincie Douglas Center to obtain public input on design and implementation of the project.

August 1996
TDOT receives additional $500,000 from FTA's Livable Communities Initiative.

October 1997
South Park Community Art Center opens to provide community members with instruction in the creation of mosaic art pieces for the project.

July 1998
Construction begins on South Park Avenue.

September 1999
Project completed.

and celebrate the neighborhood's history and strong community spirit.

- Highly creative and effective *public involvement strategies* gave community residents a strong sense of project ownership. For example, community residents voted on project designs and created artwork integral to the project.

The Region and Community

Tucson is located in the southeast corner of the State of Arizona. It is the seat for Pima County and home to the University of Arizona and Davis-Monthan Air Force Base, the area's two largest employers. Tourism is the region's third largest industry, followed by a growing high-tech industry.

Minority groups account for more than one-third of Tucson's population (405,000 in 1990). Hispanics are the largest minority, representing 29 percent of the population. Other minority groups include African Americans (4 percent), American Indians (4 percent), and Asian Americans (2 percent).

The South Park area of Tucson was first settled in the 1940s by African Americans who moved to the city primarily from other southwestern States. Although the majority of Tucson's African-American

Snapshot of the South Park Community

Location: Southeast of downtown Tucson

Population: 2,400

Racial and ethnic composition:

- African American - 43 percent
- Hispanic - 39 percent
- Native American - 3 percent
- Other - 15 percent

Median household income: $7,922

Households below poverty line: 34.5%

Transportation concerns: Absence of pedestrian, bicycle, and transit amenities along South Park Avenue, the heart of the local retail business district

Source: 1990 U.S. Census.

residents at that time lived in substandard rental housing near the downtown area, many of these new arrivals had previously owned their own homes and were anxious to do the same in Tucson.

Because of segregation, however, African Americans had only limited opportunities to purchase land. The South Park area, at the time an unincorporated area southeast of Tucson, was one of only two locations where African Americans were permitted to buy lots. Families generally built their own homes. With little access to credit, they paid for materials and lived in tents while permanent dwellings were being constructed.

The struggles of these early residents helped foster a strong sense of community as residents pulled together to overcome adversity. By the 1960s, South Park was a well-knit, thriving community, anchored by a number of black-owned businesses along South Park Avenue. During the next several decades, however, South Park fell victim to problems of crime, gangs, and drugs shared by many inner-city communities across the Nation. The neighborhood declined, and by 1980, the incomes of almost 35 percent of South Park households were below the poverty level. The neighborhood's unemployment rate was more than 11 percent, nearly double that of the Tucson metropolitan area.

The racial and ethnic mix of the neighborhood also changed. By 1990, the area's African-American population had fallen from 90 percent during the 1940s to less than 50 percent. The Hispanic population, meanwhile, increased to nearly 40 percent.

What Happened

The South Park Avenue Improvement Project resulted from a decade-long planning process. In 1989, the Tucson Urban League received HUD Community Development Block Grant funds to help prepare a Community Development Plan for the South Park area of Tucson. Working in partnership with the University of Arizona College of Architecture, which donated its services, the Urban League conducted 9 months of intense public meetings to identify key issues and opportunities. The process culminated in January 1991 with the release of the *South Park Area Community Development Plan* [Plan].

One area of concern targeted by the Plan was the commercial district along South Park Avenue from 18th Street to 36th Street. Businesses along this corridor had been struggling recently, in part because of the

Context-Sensitive Design

Context-sensitive design is a way to integrate highways and communities. This concept encourages designers to balance the transportation goals of mobility and safety with community values by enhancing and preserving a community's cultural and natural resources, while not establishing any new geometric standards or criteria. Context-sensitive design is supported by provisions in the ISTEA, NHS Act, and TEA-21, which emphasize the importance of good transportation design that is sensitive to the human-made and natural settings.

Successful context-sensitive design requires involvement of an interdisciplinary team in which the community plays an active role throughout planning and implementation. With early and continuous collaboration, the team may identify valuable features for incorporation into plans and projects.

The U.S. DOT fully supports the concept of context-sensitive design as an important part of the effort to provide sustainable transportation service to the public. In recent years, U.S. DOT has actively promoted context-sensitive design in training materials, publications, conferences, and workshops.

The town hall meetings were a success because community residents could see the evolution of their input on design mock-ups each month.

– Too-Ree-Nee Keiser
Lead Public Artist
South Park Avenue Improvement Center

Creating the art to complement the South Park development was a hands-on project.

construction of Kino Boulevard during the 1980s, a north-south arterial route for traffic between downtown Tucson and Tucson International Airport. This arterial diverted significant traffic volumes from South Park Avenue to Kino Boulevard, causing South Park Avenue commercial establishments to lose business.

In 1995, TDOT identified the FTA's Livable Communities Initiative as a potential funding source for improvements along South Park Avenue. TDOT ultimately submitted a proposal to FTA that incorporated concerns and recommendations recognized by the Community Development Plan and by the recently established South Park Neighborhood Business Association. The proposal included canopied bus stops, landscaping, and pedestrian and bicycle facilities. FTA awarded the City of Tucson a $1 million grant for streetscape improvements to enhance pedestrian access to transit and local businesses along South Park Avenue. Project elements included:

- Sidewalk improvements.
- Construction of accessible bus shelters.
- Landscaping.
- Street lighting.
- Designated curb cuts and curb infill.
- Lane reductions on South Park Avenue.

During 1996 and 1997, TDOT held a series of town hall meetings to gain public input on the project's design. Although TDOT went to considerable lengths to publicize the first of these sessions, attendance was poor. Moreover, the few participants were skeptical about the city's plans and its commitment to meaningful public involvement on the project.

After this disappointing start, TDOT resolved to become more aggressive in its outreach efforts. Neighborhood "walkabouts" were held to show the community that "the project and people working on it were real and accessible," as one TDOT representative put it. Throughout the hot Tucson summer, project staff members walked through neighborhood streets and parks, introducing themselves to residents in a personal, informal context. In addition, TDOT also conducted in-home interviews with several respected elders in the South Park community.

Within months, participation at the town hall forums increased to more than 40 individuals. The increased turnout resulted, in part, from TDOT's increased solicitation efforts as well as the format of the meetings themselves. Residents were invited to "view and vote" on design mock-ups of bus shelter placements, crosswalks and other pedestrian facilities, and public art components of the project. Residents were provided five "ballots" each and given the opportunity to affix their votes next to their preferred designs. After each meeting the project team tallied the "votes" for each design. The effect was a continually evolving project design that reflected ongoing community input.

One of the most creative aspects of the South Park Avenue Improvement Project was to use public art to enhance the streetscape along South Park Avenue. TDOT hired a public artist to oversee this project task, which featured community participation to create mosaics and totems. In October 1997, classes began at a new community art center opened along South Park Avenue to instruct area residents in mosaic tile work.

Community members visited the art center during the day to decorate trash container shells and to work on the mosaic tiles and totems and other art components of the project.

Much of the project's artwork was intended to draw attention to the South Park area's history and identity as a community. For example, a number of new bus shelters featured colorful figures at each corner, their upraised arms "holding up" structure roofs. This design was intended to symbolize the South Park neighborhood's strong community spirit and legacy of helping others during difficult times.

In August 1997, citing the tremendous public involvement in town hall meetings and the community's design recommendations, the FTA granted an additional $500,000 to the South Park Avenue Improvement Project. This grant was matched by $100,000 from the City of Tucson. By the time the project was completed in September 1999, the improvements included:

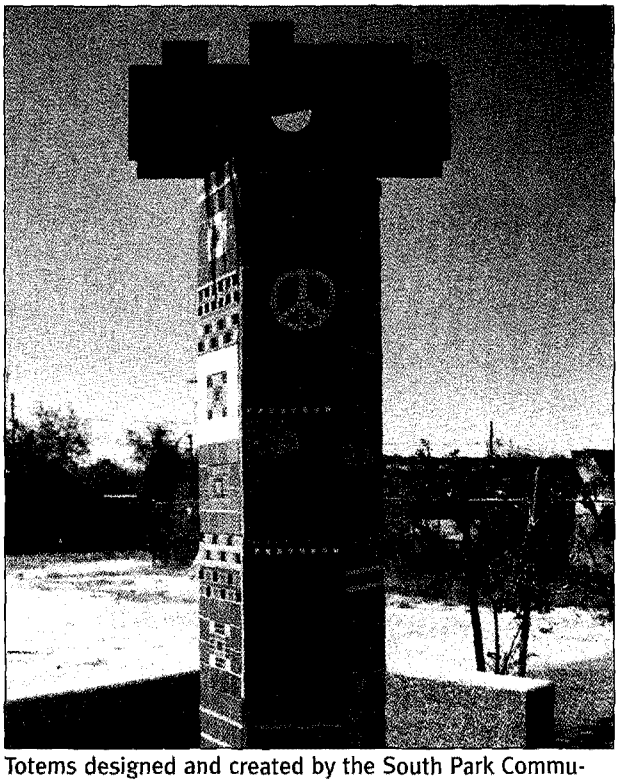
- Constructing sidewalk and curb access ramps.
- Installing six artistic bus shelters and one standard shelter.
- Designing pedestrian-friendly walls that double as a public art canvas.
- Installing new traffic signals at three intersections.
- Landscaping.

Effective Environmental Justice Practices

The South Park Avenue Improvement Project enhanced the livability of a low-income, minority neighborhood and helped breathe new life into a distressed commercial district. The project illustrates several key practices useful for integrating environmental justice principles into transportation project planning, design, and construction.

Symbols of community spirit, colorful figures hold up the roofs of new bus shelters.

- **Creative Partnerships.** Clearly, no individual group or agency would have been capable of advancing this project. While TDOT played a central role, it relied upon others to supply crucial technical and financial resources integral to vision plans, design, finance, and other implementation activities. The origins of this project lie in the partnership established between the Tucson Urban League and the University of Arizona, which identified — in a comprehensive, grassroots manner — the needs and concerns of the South Park community. Local government agencies may not be in a position to conduct such thorough, exhaustive analysis for every neighborhood. In most cases, however, they are well suited to identify funding opportunities for specific transportation recommendations that come from the communities themselves. In this case, TDOT listened to the recommendations from South Park Area representatives and successfully used those recommendations to leverage significant city and Federal funding.
- **Enhancement Activities.** The South Park area of Tucson is a neighborhood rich in historical significance, especially for African Americans.



Totems designed and created by the South Park Community are an integral part of the new streetscape.

Project planners recognized this history as an asset capable of inspiring others. Design processes sought to draw attention to key historic themes and capitalize upon this historical context. Efforts of this nature can help reinforce a community's sense of pride and identity, serving as powerful elements of a rebuilding strategy.

- **Public Involvement Techniques**. Although citizens' preferences are increasingly taken into account in transportation projects, only rarely is public involvement elevated to the hands-on status it achieved during the design and construction of the South Park Avenue Improvement Project. By giving citizens a "vote" on the project's design and the opportunity to contribute their own artwork, TDOT actively engaged the public in a way that few transportation projects have.

Public Art Components of the South Park Avenue Improvement Project

- Bus shelters, totems and totem caps, benches, bicycle racks, and trash cylinder mosaic covers
- Bridge mosaic insets with mosaic paneling
- Sidewalk epoxy with random stenciled designs on both old and new sidewalks
- Historic plaques with site-specific or historic information and graphics

Challenges Ahead

The South Park Avenue Improvement Project represents a noteworthy example of incorporating the letter and spirit of Title VI and environmental justice into the transportation decision-making process. The improvements have given a significant boost to the South Park neighborhood, yet the area faces a number of key challenges. The community's long-term prospects depend on a sustainable program of investments and partnerships. Some of the challenges confronting the partners in this project include:

- Community members must continue to discuss, debate, and refine the vision for the neighborhood. Organizations such as the Tucson Urban League and the South Park Neighborhood Business Association will need to provide leadership in articulating both the vision and the plans and mobilizing the additional resources necessary for continued advancement.

- Local public officials will need to maintain a dialogue with the neighborhood so that they better understand the community's needs and preferences. Dialogue will need to be accompanied by resources in the form of staff support and funding, in particular. While such efforts may prove costly in the short term, the payoff will come in the form of sound projects embraced by the community.

Benefits of Environmental Justice in Decision Making

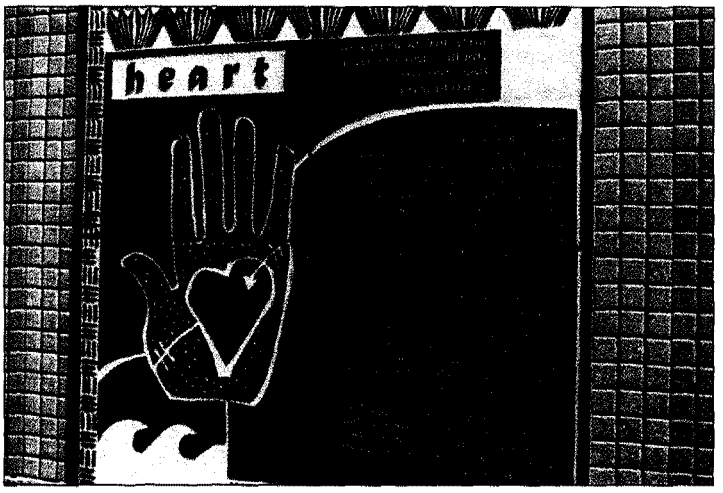
For the Neighborhood:

- Neighborhood residents and businesses benefited from a series of pedestrian improvements that enhanced the commercial district along South Park Avenue.
- Community members gained experience working with government agencies and other institutions that can be used on future projects benefiting the neighborhood.
- Community members were provided with opportunities to celebrate and draw attention to the South Park area's history and culture.

For the Agencies:

- The South Park Avenue Improvement Project incorporated themes and recommendations identified in plans produced by community members, increasing the likelihood that the project would address issues and concerns important to the community.
- By actively involving neighborhood residents and businesses in the project's design and construction, TDOT overcame initial public skepticism to win strong community support.
- The City of Tucson gained important insights into community revitalization and the potential for transportation improvements to serve a broader purpose.

- The City of Tucson and TDOT in particular learned key lessons about how to apply the principles of environmental justice to improve transportation planning. The project demonstrates several ways that these principles can be effectively incorporated into a specific project. The challenge now is to *institutionalize* these lessons so that future projects can benefit from the South Park Avenue experiences.



Public art elements included historic plaques intended to instill community pride.

Lessons Learned

Some of the most important lessons of the South Park Avenue Improvement Project include:

- Partnerships bring knowledge, expertise, financing, and other resources to the table. Low-income, minority communities in particular may need to draw on a variety of sources to assemble the resources necessary to advance costly transportation projects.
- Partnerships that bring together stakeholders from public agencies, community organizations, and the private sector have tremendous potential for discovering and implementing creative solutions to complex problems. They offer a workable

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This project would not have been the success that it was without the public art component. The artist's daily interaction with the community was invaluable.

– Keith Walzak
Project Manager, Tucson DOT

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foundation for targeting and addressing the more harmful factors leading to neighborhood decline and persistent poverty. Transportation officials should recognize the exceptional contribution of pedestrian-friendly streetscape design and enhancement-type investments in reversing perceptions, instilling community pride and volunteerism, as well as establishing the conditions for reinvestment. Properly targeted, these investments can create ripple effects such as safer neighborhoods, more cohesive communities, and more attractive environments.

- Transportation improvements can serve a broader purpose by playing a role in revitalizing distressed communities. Transportation officials who manage projects in such areas should be on the lookout for opportunities to integrate transportation enhancement investments into community redevelopment, economic development, and other local land-use initiatives.
- Integrating cultural symbols into transportation enhancement projects can be an effective way of engaging community members and reinforcing cultural awareness, pride, and identity.
- A well-planned and adequately funded public involvement process for the design and implementation phases of a project creates community buy-in. In the case of South Park Avenue, the feedback format for town hall meetings kept residents invested, while the opportunity to create highly visible mosaic art tiles delivered a true sense of community ownership.
- Residents of low-income and minority neighborhoods may justifiably feel that their issues and concerns have not been adequately addressed in the planning and implementation of public works projects. The accessibility and commitment of TDOT representatives to carry out neighborhood outreach efforts were essential to engaging an initially skeptical community.

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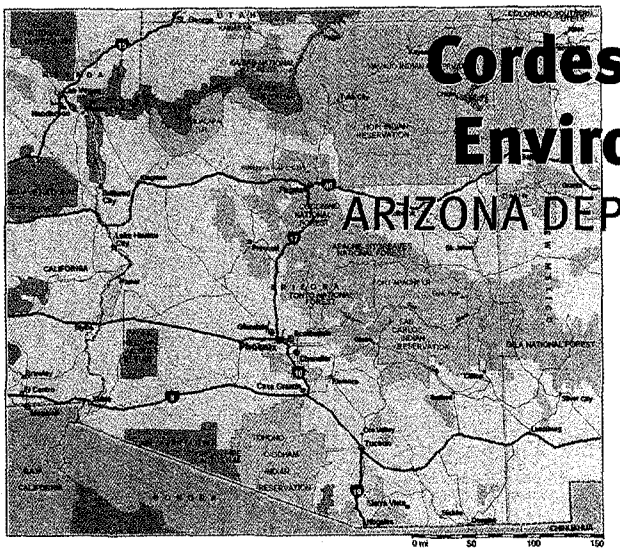
Tribal Consultation and Cultural Resources Assessment



Cordes Junction Interchange Environmental Assessment

ARIZONA DEPARTMENT OF TRANSPORTATION

Introduction

The junction between Interstate 17 (I-17) and State Route (SR) 69 in Yavapai County, Arizona, now carries far more traffic than it was originally designed to accommodate. The interchange needs to be redesigned and rebuilt. The Federal Highway Administration (FHWA) and the Arizona Department of Transportation (ADOT) initiated an Environmental Assessment process to develop alternatives for improving the interchange. However, the redesign will need careful review because Native American cultural materials have been discovered nearby. Section 106 of the National Historic Preservation Act (NHPA) and its accompanying regulations define how such resources must be identified, evaluated, and considered during a Federal undertaking, such as this Federally funded highway improvement. Section 106 requires that these tribes be informed of, and involved in any decision-making process that may affect their historic and cultural legacy. Tribal participation in discussions about these resources will become a part of the official record for the project and will be reflected in the project's environmental impact documents.

Environmental justice is not solely about disparate health or economic effects — it also applies when the cultural and historical resources of protected groups are potentially affected by a Federally funded transportation project. Also, Native American Tribes are different than other minority groups affected by the environmental impacts of transportation projects. Tribes are sovereign governments, analogous to State governments in certain (but not all) ways. Interactions among tribes, the FHWA, and State DOTs should be structured as a government-to-government relationship. Consultation with tribes is therefore different from traditional public involvement outreach. Reaching out to tribes is still crucial if Federal and State agencies want to be sure that environmental justice concerns are understood and addressed. Transportation officials need to adapt their outreach efforts to this special relationship.

Arizona has a particularly rich cultural and archaeological heritage. The State has been home to many different cultural groups over thousands of years. Evidence of these groups can be identified by artifacts they left behind, many of which are well preserved because of the area's arid desert environment. Many tribes in the region trace their ancestry back to these earlier groups. For these tribes, the handling of archaeological artifacts is not just important in protecting their cultural heritage, it provides continuity in maintaining their current way of life.

Generally, there are two kinds of projects in which Native American tribal participation, with an emphasis on environmental justice, is most likely to occur. Transportation projects conducted on or partially on Indian-owned land are the most obvious. These should

The Nature of the Government-to-Government Relationship

Executive Order 13084, *Consultation and Coordination with Indian Tribal Governments*, explains that Federally recognized Indian Tribes are "domestic dependent nations" with "inherent sovereign powers over their members and territory." While tribal members are full U.S. citizens, with all the same rights and responsibilities as other citizens, they are also members of tribal nations that have separate laws, customs, traditions, and rights. This has some very practical implications for Native American participation in transportation planning. These implications are spelled out in DOT Order 5301.1, *Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes*, which explains in detail how to involve American Indians and Alaska Natives in DOT decision making.

always be conducted with the direct participation of the relevant tribes. But tribal participation is also required when transportation projects have the potential to affect historic resources on lands used by Native Americans in the past. Because all of this country was once owned and used by native tribes, transportation planners must be ready to consult with the appropriate tribal governments even when tribal historical resources are found far from any present-day tribal settlements.

This case study describes a small project that confronted the discovery of protected historical resources. The case illustrates an effective working relationship between Federal, State, and tribal governments – a relationship that was built even though tribal participation in the early parts of the project was not as extensive or proactive as it should have been. The project described is ongoing, so the final results of this consultation are not yet known. Still, the case shows how different governmental agencies can work together on planning projects, and at the same time respond to their respective mandates, and strive to serve their constituencies in the best way possible.

The Region

The Interstate 17/State Route 69 intersection, also called the Cordes Junction Traffic Interchange, is located at Milepost 262.7 on I-17 in Yavapai County, Arizona. I-17 is the north-south interstate connecting Flagstaff and Phoenix. The area is predominantly rural in character, with a small commercial node adjacent to the interchange. The communities of Cordes Lakes, Spring Valley, and Mayer are each located within a few miles of the intersection. Arcosanti, an artists' colony/utopian community and a popular tourist attraction, is located 2.4 miles northeast of the traffic interchange.

Cordes Lakes and Spring Valley are the two residential areas closest to the project site. Cordes Lakes is a subdivision with 3,614 lots on 1,299 acres immediately to the southwest of the interchange. In 1996 it had approximately 2,500 residents. Spring Valley is several miles to the northwest of the interchange and has a school, 897 lots, and 13 tracts on 350.7 acres. The Arcosanti community currently has fewer than 100 residents, but has a projected population of 5,000 by 2050.

State and Federal officials anticipate that the population of the Cordes Lakes/Spring Valley area

The Participants

- Arizona Department of Transportation (ADOT)/ Environmental Planning Office, Historic Preservation Section
- FHWA Arizona Division Office
- Hopi Tribe — Director Hopi Cultural Preservation Office and Hopi Clan Representatives
- Salt River Pima-Maricopa Indian Community (SRPMIC) — Cultural Resources Coordinator and Tribal Representatives

Tribal Involvement vs. Public Involvement — There Are Differences

Effective environmental justice practice requires an agency to reach out to specific minority or low-income populations to learn about their concerns, needs, and circumstances. This is usually done through some kind of targeted and expanded public involvement.

Indian tribes are sovereign nations, with governments that have jurisdiction over specific territories and individuals. According to the U.S. Constitution, court decisions, and various laws and regulations, tribal governments must be involved on a government-to-government basis in decision making on issues (such as transportation) that will affect them.

Tribal consultation is *not* the same as public involvement. Tribal governments must be formally notified of agency actions and proposals and should be given the same courtesies and opportunities for participation and review that are given to other governmental entities. Simply sending a letter or making a phone call to invite a tribe's participation is usually not sufficient — agencies should be sure that the contact is acknowledged and its purpose understood. Once formal contact has been made authorities from each side may designate others to carry on technical discussions or other day-to-day consultations. Documenting this ongoing contact, (*e.g.*, through an exchange of letters) is one good way to ensure that tribes are being respected and included in the transportation decision-making process. As indicated in U.S. Department of Transportation (U.S. DOT) Order 5301.1, correspondence from leaders of Federally recognized tribes should be treated "in the same manner as congressional correspondence as prescribed in the DOT Correspondence Manual."

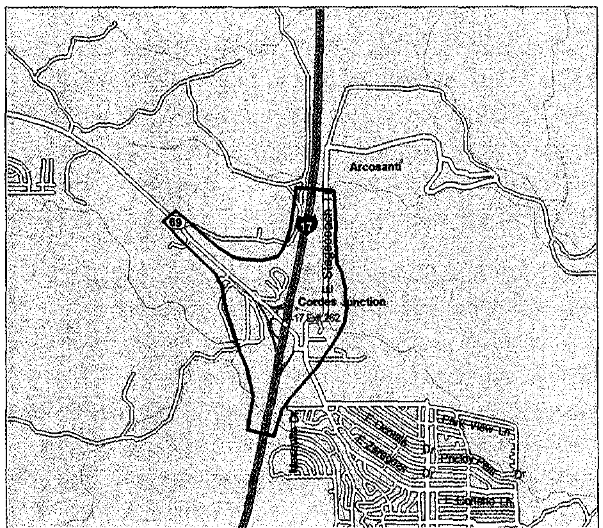
U.S. DOT Order 5301.1 also suggests that tribal representation *should* be sought in traditional public outreach efforts, such as meetings, negotiations, rulemaking efforts, advisory committees, and focus groups. Individual members of native tribes, as well as tribal officials, can participate in these forums. In addition to these opportunities (which can be part of any good public participation effort), DOT and its State transportation partners must recognize the rights of tribal governments to represent their interests as governments. This is an important distinction between tribal involvement and outreach to other populations affected by Title VI.

will grow as a result of increased development in the project area. Recreation and tourism are the largest components of the local economy. The Cordes Junction interchange provides access for numerous tourist attractions and recreational areas, such as the Fort Verde State Park and the Montezuma Castle National Monument. The Arcosanti community, also nearby, receives over 50,000 tourist visits annually. In addition to these attractions, thousands of visitors, truck drivers, and business travelers use I-17 and SR 69 enroute to other destinations in Arizona and neighboring States. Many travelers use services at the Cordes Junction interchange because of its central location between Flagstaff and Phoenix.

Growth in recreational and tourist travel, local residential populations, and travel-related business on the I-17 corridor are all contributing to increased congestion at this interchange.

What Happened

The existing I-17/SR 69 interchange is badly congested. Built in the early 1960s, the intersection now serves well over 10,000 cars on an average day,



The existing Cordes Junction interchange's design cannot handle future projected traffic volumes.

Snapshot of the Cordes Junction Area

Location:

- Cordes Junction interchange links Interstate 17 and Arizona State Route 69, about 40 miles north of Phoenix in Yavapai County, Arizona
- The area near the interchange is largely rural desert
- Two housing developments are near the site — Cordes Lakes and Spring Valley
- Arcosanti, a nearby tourist attraction, attracts more than 50,000 visitors a year

Population: 3,972 persons live in the two census tracts closest to the interchange

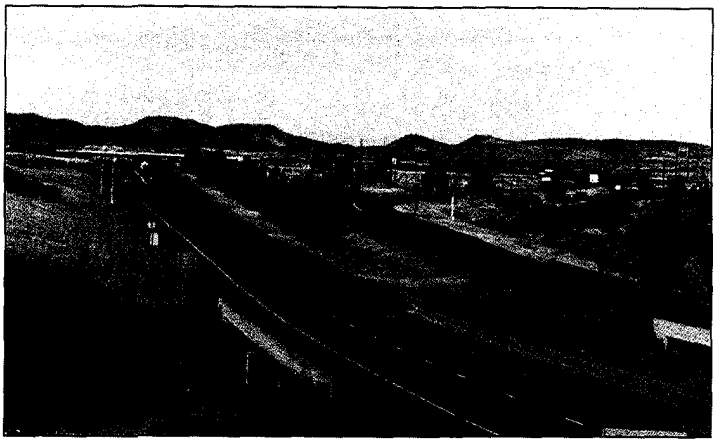
Racial and ethnic composition:

- White — 95.6 percent
- Hispanic — 9.45 percent
- American Indian — 1.9 percent
- African American — 0.3 percent
- Asian American — 0.4 percent
- Other — 0.3 percent

Persons living below the poverty line:

- Persons 18 and over – 13.5 percent

Source: 1990 U.S. Census



I-17/SR 69 traffic interchange looking north.

and planners predict that this volume of traffic will more than double by 2020. Because it uses an outdated intersection design, local traffic and through traffic are forced to mix, causing traffic congestion and delays. Businesses and residents have complained to both the Federal and State highway authorities, asking that the intersection be upgraded and improved.

Transportation Improvements and Cultural Preservation. After several years of prior study, the FHWA and the ADOT completed a Draft Environmental Assessment that compared the environmental impacts of alternatives including design solutions for addressing existing and future traffic volumes. As part of that EA, the agencies commissioned a professional consulting firm to conduct an archaeological assessment of the project area. This cultural resources assessment surveyed the project area to identify any historic, cultural, and/or traditional resources that might be affected by proposed improvements at Cordes Junction. As the project progressed and alternative alignments were considered, the FHWA requested additional cultural resources inventory surveys. These inventories focused on historic use of the area by European and the region's Indian populations. By the time the EA was drafted, the reports had identified several locations near the project that might have historic resources, but they concluded that these resources would not be affected by any of the proposed interchange alignments. ADOT and the FHWA informed the Arizona State Historic Preservation Office (SHPO) about these conclusions, and the SHPO concurred with the finding that these sites would be avoided. The Draft EA was released in October 1998. In August 1999, a supplemental archaeological survey at the site was conducted, and some additional potential tribal historic resources were identified.

Several State and Federal laws provide protection for cultural, historical, and traditional resources that might be affected by government action such as road repair and construction. In summer 1999, the regulations implementing one of those laws, the National Historic Preservation Act (NHPA), had been amended to place a

Project Chronology

1992-97
Arizona DOT evaluates the I-17/SR69 interchange and completes Alternatives Selection Report and environmental overview to determine the feasibility of converting to a full diamond interchange. Three alternatives are carried forward.

May 1998
First consultation between the FHWA and State Historic Preservation Officer.

October 1998
Draft Environmental Assessment (EA) produced, which proposes a preferred alternative.

August 1999
ADOT Environmental Planning Group, Historic Preservation Section, reviews EA. Regulations implementing Section 106 of the NHPA now require more *in-depth tribal consultation if tribe's historic resources* will be impacted, so seven tribes are given copies of the Archaeological Assessment for the interchange and asked for their review and comment.

October 1999
The Hopi Tribe and the Salt River Pima-Maricopa Indian Community ask to be more deeply involved in evaluating cultural resources at the site.

October 1999
ADOT staff and Salt River Pima-Maricopa Indian Community representatives visit site.

October 1999
ADOT staff archaeologist contacts the Salt River Pima-Maricopa Indian Community representatives to confirm the results of the site visits.

March 2000
ADOT staff and Hopi representatives conduct field visits at the site, noting expanded areas of prehistoric artifacts.

May 2000
ADOT staff archaeologist contacts the tribes to confirm results of the site visits.

major emphasis on the role of Federally recognized tribes, in the process of reviewing any Federal action that has an impact on historic resources linked to the tribe. The proper treatment of historic, cultural, and traditional resources associated with a tribe or minority group is an important aspect of environmental justice.

Ideally, transportation agencies should consult with local Federally recognized tribes at the earliest stages of a project like this, inviting them to participate in the scoping of the EA and the design of the archaeological assessment. In this case, regular tribal consultation did not occur until after these historic resource surveys for the project had been completed. Dr. Owen Lindauer, a staff archaeologist with ADOT's Environmental Planning Office, reviewed the August 1999 survey and realized that there were Register-eligible resources within the project area that could not be avoided. He also noted that local tribes had not yet been given the required opportunities for participation in the planning process. In an August e-mail to the project manager, Dr. Lindauer explained these concerns and recommended a plan for tribal participation.

At this point ADOT and FHWA worked together to identify local tribes with ancestral associations to the area that should be consulted about these resources. The FHWA sent letters to seven identified tribes, describing the interchange project, the archaeological findings, and the tribes' rights to participate in evaluating these sites. Several tribes responded to these letters, most emphasizing that the ADOT and FHWA had an obligation to carefully document and protect the cultural resources in the area. Most tribes that responded simply wanted to be allowed to review and comment on any reports or decisions related to these historical resources.

Tribal Involvement Deepens. By October 1999, two of the seven tribes had asked to participate more

fully in the process of evaluating the potential historic sites at the I-17/SR69 interchange. These tribes, the Hopi and the Salt River Pima-Maricopa Indian Community, toured the sites with Dr. Lindauer. The visits were intended to encourage tribal representatives (from both the tribal government and the tribal cultural resources offices) to communicate their thoughts and concerns about the historic resources at the site directly. Although some of the discussions leading up to the site visits were informal, the FHWA and the ADOT also made an effort to communicate formally (through letters and follow-up phone calls) with the tribal governments involved to keep them informed of project developments.

The bowl shown, classified by archaeologists as Gila Polychrome, is found in central Arizona including areas close to the Cordes Junction interchange. It dates back to the 14th century.

The Salt River Pima-Maricopa Indian Community visited the site October 1999, and the Hopi visit was in March 2000. While visiting the site just prior to the Hopi tribal tour, Dr. Lindauer noticed areas with scattered cultural materials not identified in the original cultural resources inventory distributed to the tribal representatives prior to their visit. As a result, the ADOT team provided the Hopi with updated information about the site during their visit, and subsequently informed the other tribes of these new discoveries. The tours gave the tribal representatives an opportunity to examine the significant areas of the site with ADOT staff. The Hopi Tribe sent a representative from its cultural preservation office, as well as elders from three tribal clans. As he had in the past, Dr. Lindauer paid the tribal elders for their assistance in reviewing the site. During their visit these representatives agreed that the locations identified in the cultural resources inventory (and those discovered just before the visit) could be

National Historic Preservation Act, Section 106

Expanded Opportunities for Tribal Involvement

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, 16 U.S.C. 470f, requires Federal agencies (and Federally funded State partners) to take into account the effects of their actions on historic properties. Historic properties are locations, structures, or objects that are listed on, or eligible for inclusion in, the National Register of Historic Places. The regulations implementing Section 106 of the NHPA were amended in June 1999, and the role of tribes in reviewing historic items of concern to them was clarified and strengthened.

The NHPA applies to *all* National Register-listed or -eligible historic properties, not just those of interest to tribes. While this case study focuses on tribal participation in NHPA implementation, the Section 106 regulations may also apply to other environmental justice issues. As the Impact Analysis for the regulations states, "The Section 106 process is a means of access for minority and low-income populations to participate in Federal decisions or actions that may affect such resources as historically significant neighborhoods, buildings, and traditional cultural properties." For further information on the NHPA Section 106 regulations, see 36 CFR Part 800, or review the regulations on the web at www.achp.gov/.

How the FHWA Can Help a State Pay for Tribal Consultation Under NHPA Section 106

In March 2000, a legal opinion by FHWA's Chief Counsel stated that, under certain specific circumstances, the FHWA *can* use Federal-aid funds to participate in such payments. The opinion concluded:

When a State so requests, FHWA may participate in eligible project-specific consultation costs and/or expenses incurred by a THPO [Tribal Historic Preservation Officer] or designated tribal representative. However, (1) FHWA participation is expressly limited to reimbursing those reasonable costs over and above general operating or overhead costs, (2) participation must be approved in advance, (3) FHWA's approval must be supported by an MOU or written contract and (4) prior to approval, the Division should make a determination that the requirements of 23 CFR 771.105(d) are satisfied.

Source: Excerpted from FHWA Office of Legal Counsel, HCC-1, *Legal Opinion Re: Federal-Aid Participation in Payments for Tribal Services Under the National Historic Preservation Act.*

archaeological sites, and they expressed a preference for project alternatives that did not impact these locations. Their greatest concern was that the sites might contain human remains. The Hopi representatives made it clear that burial sites are sacred to them.

The Salt River Pima-Maricopa Indian Community representatives had already expressed similar concerns. The tribe's cultural resources coordinator and a representative of the tribal government toured the site with the ADOT representative, making close observations of the archaeological evidence at the site. Pottery shards, ashy soil, and other evidence suggested to the tribal observers that burials might possibly be present at the locations near the interchange. The tribal representatives suggested that ADOT and the FHWA test the sites further to determine if they were eligible for listing in the National Register of Historic Places and indicated that they should conduct data recovery at sites determined to be Register eligible. The tribal representatives also recommended that the Arizona State Museum prepare a burial agreement, which would clearly define how human remains would be handled and buried if they were found at the site. The Salt River Pima-Maricopa Indian Community representatives expressed a preference for alternative alignments that did not impact these sites.

Building Trust. After the Cordes Junction site visits, ADOT's staff archaeologist discussed the day's events with each group of tribal representatives. The tribal representatives expressed specific concerns to the archaeologist, which were then verified by verbally reiterating each point with them. Later, these points were documented in writing. Copies of letters outlining each tribe's concerns were subsequently sent to the tribes. Although such an effort might seem redundant, it is an excellent way to build trust in a working relationship. The logic behind such careful communication is clear. State or Federal transportation officials will find themselves working with these tribal representatives again in the future. The quality of ADOT's interactions with tribes is an important component in this ongoing professional and personal relationship.

After the site visits, ADOT commissioned an Addendum to the original archaeological assessment. In this document, which was sent to the tribes for review, the boundaries of the two identified sites at the interchange were redrawn to reflect the broader extent of artifacts seen during the field visit with Hopi tribal representatives. Once the boundaries were redrawn, however, it became clear that the sites were now within the boundaries of the draft alternatives for the redesign of the Cordes Junction interchange. By this time the FHWA had begun to revise the EA and was considering new layouts for the Cordes Junction interchange. But, as the FHWA stated in a letter to the Salt River Pima-Maricopa Indian Community:

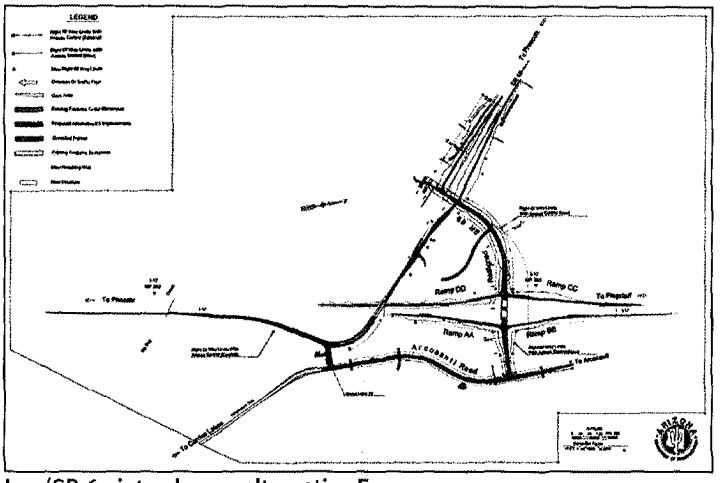
> *It is unlikely this site can be avoided given its location and therefore, this project would have an 'adverse effect' on a historic property as a*

result. FHWA would prepare a Memorandum of Agreement (MOA) to address the adverse effect to this property. However, because the preferred alternative has not yet been selected, FHWA will delay completing a draft MOA until a preferred alternative has been selected.

The FHWA recommended that these sites were eligible for listing as archaeological sites. The letters from the FHWA to the tribes formally asked them if the tribes concurred that the sites were Register-eligible. The tribes were also asked if they concurred that there would be an adverse effect on these resources. When archaeological sites that would be affected by a project are significant for the information they contain, the FHWA has an obligation to develop alternatives that will avoid, minimize, or mitigate adverse effects to those historic properties. If the sites were listed and adverse impacts could not be avoided, the FHWA and ADOT would have some specific obligations to document and preserve the material at the sites to the degree possible. The FHWA has an ongoing obligation to consult with the tribes, through their tribal historic preservation office, about how to resolve these adverse effects once they are identified.

An Uncertain Future. The original Draft EA, previously completed in October 1998, had identified a draft preferred alternative alignment for the I-17/SR 69 interchange that would affect these sites. Several public meetings and hearings were held on this alternative. As a result of these meetings, the FHWA and ADOT were presented with some new ideas about the interchange. By summer 2000, the FHWA and ADOT were revising the EA. The agencies are now considering new alignment alternatives that may avoid sites important to both the Hopi and the Salt River Pima-Maricopa Indian Community. The tribes' concerns were part of the public and intergovernmental review process that may result in a changed project.

Environmental Justice and the Weight of History. There has been a history of unfair and unequal treatment of Indian Tribes by Federal and State governments. Transportation practitioners and



I-17/SR 69 interchange alternative E3.

others can learn to be more fair and responsive to tribes. The NHPA and other laws give formal rights of participation and consultation to tribes, but those formal rights must be supplemented with an honest and open understanding of tribal needs and differing cultural perspectives. The ADOT and the FHWA are beginning to establish a good working relationship with many tribes in the region by actively listening to their concerns. It is that understanding, as much as any formal adherence to the requirements of laws and presidential orders, that will make it possible to achieve environmental justice when interacting with the tribes.

The Section 106 process is a means of access for minority and low-income populations to participate in Federal decisions or actions that may affect such resources as historically significant neighborhoods, buildings, and traditional cultural properties. The Council considers environmental justice issues in reviewing analysis of alternatives and mitigation options, particularly when Section 106 compliance is coordinated with NEPA compliance.

— *Federal Register*, Vol. 65, No. 133, July 11, 2000, p. 42835, Notice of Proposed Rulemaking for the Advisory Council on Historic Preservation

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This excavated pit house on State Route 69 (just a few miles to the west of I-17/Cordes Junction) is all that remains of the homes of the village that was discovered at the interchange.

Effective Environmental Justice Practices

Several effective environmental justice practices were demonstrated on this project:

- **Government-to-Government Tribal Relations.** The Federal and State government participants in this project were consistent about notifying and contacting tribal governments with current and ancestral associations to the area to inform them of the status of the project. They were particularly attentive to the need to make regular formal contact with the representatives of the tribal government to discuss important issues, rather than only contacting their counterparts within the tribal bureaucracy.
- **Regular Contact and Updates.** The FHWA and ADOT provided area tribes with information about, and opportunities to participate in the evaluation of historic, cultural, and traditional resources at the site. When site conditions changed, or when new information was discovered, it was relayed quickly — formally and informally — to the interested tribes. Tribal governments were regularly informed of the content of informal discussions (such as the discovery of a more extensive artifact scatter near the interchange) in ways that helped to build trust.
- **Sensitivity to Tribal Cultural Views.** Agency staff who interact regularly with the tribes are developing an evolving knowledge, awareness, sensitivity, and understanding of tribal concerns and viewpoints. This understanding can help transportation agencies more quickly and comprehensively assess the impacts of their plans both in the transportation systems planning and project development phases.

Challenges Ahead

The design and exact alignment of the proposed Cordes Junction/I-17 interchange have not yet been determined, therefore its impact on the areas of concern to the Hopi and Salt River Pima-Maricopa Indian Community is not yet known. The new alignment may have no impact on historic, cultural, or traditional resources. If the selected alignment does have a negative effect on areas that are historically or traditionally significant to the tribes, an MOA will have to be signed with these tribes to ensure that impacts on these sites are minimized or mitigated appropriately, and that the tribes are involved in the recovery and/or preservation of artifacts or remains.

Because of Arizona's rich archaeological and cultural heritage, it is very likely that these same agencies and tribes will have to work together regularly. Building and maintaining a respectful working relationship is therefore not just crucial for this particular project, it is necessary for the future.

Broader Challenges. Consultation on this project did not start as early as it should have, but it was successful once it was begun. The consultation activities described in this case study to involve tribes came about not as the result of a concern for environmental justice, but because of the requirements of Section 106 of the NHPA, which

strengthens tribes' voices in identifying, evaluating, and assessing the impacts of Federal actions on historic resources. Different tribes can have very different traditions, but for many, the protection of their cultural and natural heritage will be of pressing importance. An appeal for environmental justice should be expected when a region or site could be irreversibly and irretrievably disturbed by a transportation project.

Sensitivity to cultural differences is a hallmark of effective environmental justice practice. As with all cultural groups, tribes have distinct values, traditions, and needs. Understanding and responding to these needs requires planning practitioners to put aside their assumptions and to listen openly to tribal concerns. Cultivating this sensitivity is not always easy in the face of task deadlines and schedules, but it is a necessary part of the transportation planning process. Only by listening to and understanding tribal concerns, including those about environmental justice, can transportation professionals carry out the DOT's stated policy of designing solutions and tailoring programs that effectively respond to tribal transportation and cultural needs. That is a challenge that faces all practitioners who interact with Native Americans and their tribal governments.

Environmental justice concerns for tribes encompass more than access to and use of traditional cultural properties or items of cultural patrimony. Federal and State transportation agencies must make a greater effort to be knowledgeable, sensitive, and aware of the needs and heritage of tribes, and to incorporate that understanding into their activities. Informal conversations with transportation practitioners who were not involved in this particular case revealed the following challenges:

- Some Federal, State, and local transportation practitioners do not understand the requirements of a government-to-government relationship. Some discussions revealed an open and deep skepticism about the motives behind tribal involvement efforts to preserve unique tribal rights and resources. Their preservation goals were viewed more dimly as gambits for more control over resources.
- While some MPOs have successfully integrated tribal participation into their planning process, others have assumed that tribal involvement is primarily a Federal concern. MPOs need the active participation of both individuals and tribal governments to identify and address the transportation needs of Native Americans.

Funding Tribal Transportation Planning Efforts

As tribal governments enhance their planning capabilities, they can better represent their concerns and priorities in the transportation planning process. According to the *Indian Reservation Roads Program, Transportation Planning Procedures and Guidelines*, tribes can fund transportation planning and planning coordination efforts through four programs:

- *Indian Reservation Roads Program Funds* are allocated by Bureau of Indian Affairs (BIA) area offices for transportation improvements within or leading to Indian lands. They may be used for planning.
- *FHWA State Planning and Research and Metropolitan Planning Funds.* Tribal governments should consult with the State and Metropolitan Planning Organization (MPO) about the possibility of using these funds for tribal transportation planning.
- *Federal Transit Administration (FTA) State Planning and Research and Metropolitan Planning Funds.* Tribal governments should consult with the State and MPO about the possibility of using these funds for tribal transportation planning.
- *Public Lands Highway — Discretionary Funds* are available from the FHWA-Federal Lands Highway Office through the State Transportation Agencies (STA) for transportation planning that promotes and/or benefits tourism and recreational travel. Candidate projects on Indian reservations can be submitted to the STAs by the BIA or tribe.

Source: *Indian Reservation Roads Program, Transportation Planning Procedures and Guidelines.* Also see www.fhwa.dot.gov/flh/reports/indian/intro.htm

- Proactive tribal participation in statewide transportation planning is being successfully promoted in some States, but has not been a priority in others. Efforts to involve tribes in the early stages of transportation planning have been hampered by a lack of interest (sometimes on the part of agencies, sometimes on the part of tribes), a lack of knowledge, resources, or trust.

- Most tribes do not have the resources or the administrative infrastructure needed to be effective partners in the transportation planning process.

- Even if a State has no reservations within its borders, or a reservation is far from a project location, there may still be historic resources, such as traditional cultural properties, associated with a tribe. It is the Federal agency's responsibility to identify and contact such tribes.

Taken together, the issues cited above pose some special challenges and illustrate that tribal environmental justice can be a difficult issue. The history of bias and injustices toward Native Americans cannot be overcome without hard work. Native Americans are both U.S. citizens and members of sovereign, tribal nations — often with different religions and world views. To remove any gap in understanding, transportation practitioners and tribal representatives must continue to engage in serious, open dialogue in order to develop positive and open working relationships.

Lessons Learned

- The NHPA Section 106 requirements have increased formal contact between the FHWA, ADOT, and the tribes. The regular, often one-on-one conversations between tribal representatives and transportation officials have improved knowledge, awareness, competency, and understanding about tribal cultural issues and may lead to better tribal consultation in other areas.

- Early and frequent contact with the tribes helps ensure that their concerns about historic, cultural, and traditional resources are heard and understood.

- It is possible to make mistakes and still have a positive outcome. The key is to acknowledge the errors once they are discovered and take responsible steps to correct them in subsequent meetings and project documentation.

Benefits from Environmental Justice in Decision Making

For Tribes:

- The tribes involved were able to present their concerns, ensure these were understood, and guarantee that they will have a voice in the disposition of any sites or artifacts affected by this project.
- The site visits with tribal representatives revealed more extensive historic use of the site than had been previously identified. This improved the documentation of cultural materials in the project area.

For Agencies:

- Attention to the concerns of tribes with current or ancestral affiliations to the area ensured that the FHWA Division Office and Arizona DOT satisfied the letter and spirit of historic preservation laws.
- Compliance with historic preservation laws fostered improved communication among the tribal governments and Federal and State agencies.
- Meeting with tribal representatives improves the potential for identifying and documenting important cultural, historic, or traditional resources. Undertaken early in the process, these consultation efforts will help avoid projects and alignments that inadvertently impact historic, cultural, and traditional sites. Unanticipated discoveries during the construction phase cause delays, recriminations, and controversy and necessitate far more costly solutions.

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Cordes Junction/I-17 Traffic Interchange Draft Environmental Assessment, October 1998.

DOT Order 5610.2 *Environmental Justice in Minority Populations and Low-Income Populations.*

DOT Order 5301.1 *Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes.*

Executive Order 13084: *Consultation and Coordination with Indian Tribal Governments.*

FHWA Chief Counsel, *Legal Opinion Re: Federal-Aid Participation in Payments for Tribal Services Under the National Historic Preservation Act,* March 17, 2000.

Indian Reservation Roads Program, Transportation Planning Procedures and Guidelines. www.fhwa.dot.gov/flh/reports/indian/intro.htm

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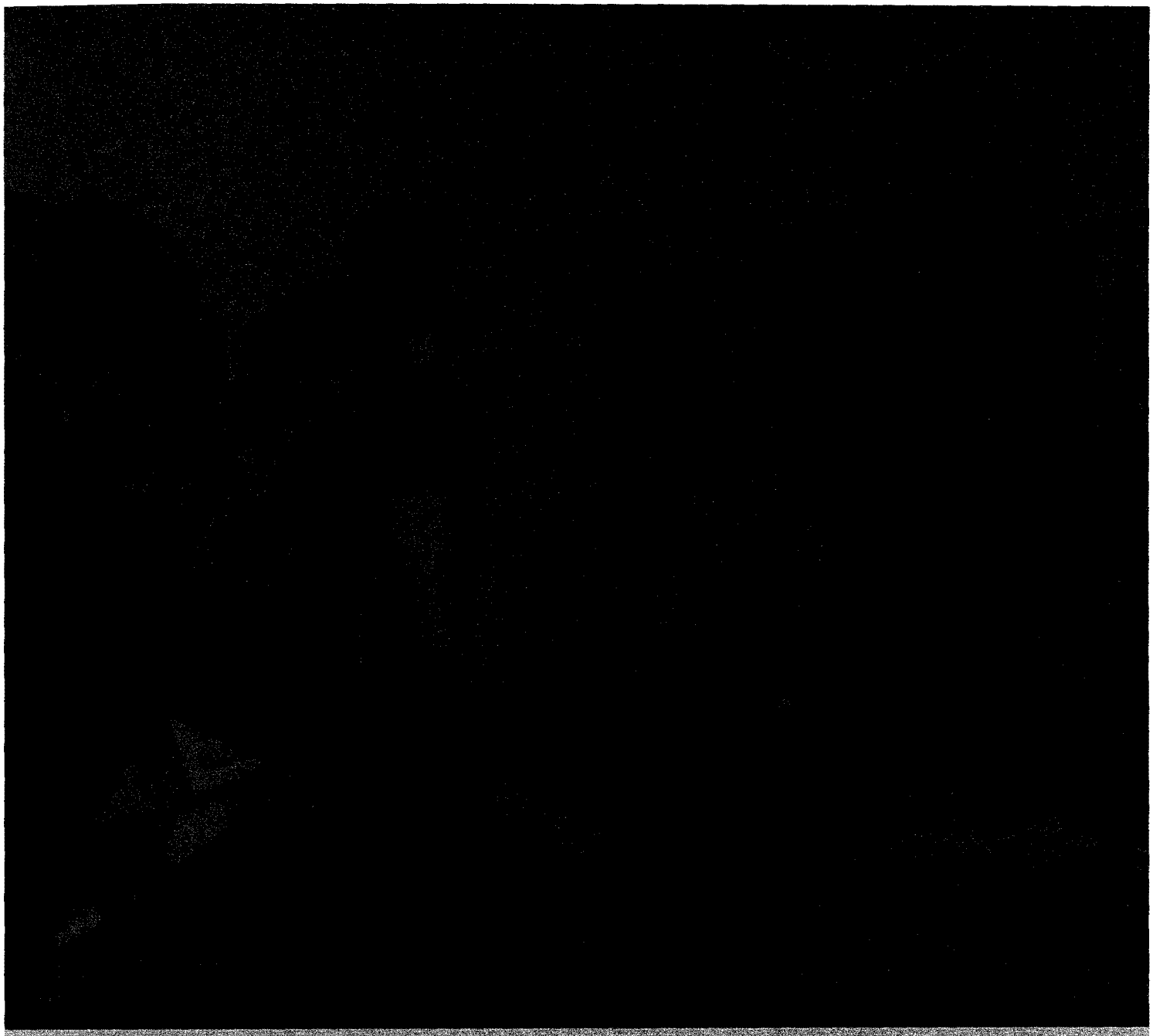
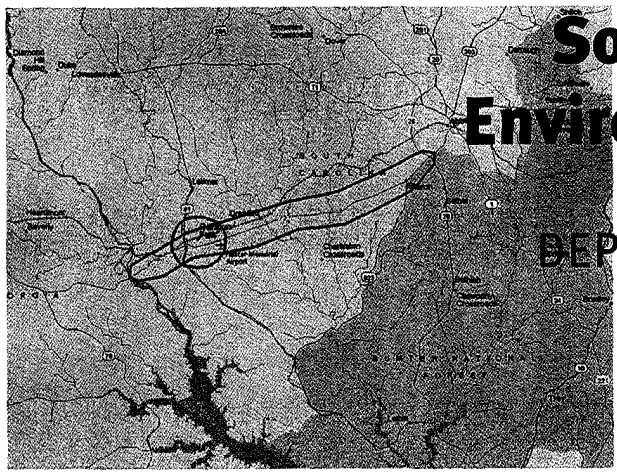


Community Impact Assessment and Public Involvement



South Carolina Route 72 Environmental Assessment

SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

Introduction

In 1921, the city fathers of Calhoun Falls approached the Abbeville County Highway Commission about paving the dirt road between the towns of Calhoun Falls and Abbeville. Their request was approved and construction began in 1922 on what is now SC 72. This small beginning became part of a larger plan by the Calhoun Highway Association to connect Atlanta, Georgia, with Raleigh, North Carolina. Construction began on the Georgia-Carolina Memorial Bridge over the Savannah River in spring 1926. It opened on Armistice Day, 1927. This bridge, located approximately 5 miles west of Calhoun Falls, linked Georgia with South Carolina.

Almost 80 years later, the South Carolina Department of Transportation (SCDOT) is proposing to widen approximately 15.5 miles of two-lane SC 72 from the South Carolina side of Richard B. Russell Lake, an impoundment of the Savannah River, through Calhoun Falls to SC 28, west of the town of Abbeville, in Abbeville County. This project is also part of a larger two-State, long-range plan to provide a multilane highway between Athens, Georgia, and Charlotte, North Carolina, to help attract industry and promote economic development. Calhoun Falls is more than 60 miles from the nearest interstate highway. Upgrading GA 72/SC 72 to a multilane highway would improve access to Calhoun Falls and make it a more attractive location for manufacturing and distribution facilities. Additionally, operational costs would be relatively inexpensive, and markets in Atlanta, Columbia, and Charlotte would be only about 2 hours away by truck.

Existing 2-lane Savannah Street through Calhoun Falls.

At least one of the six proposed alignments for this project would cut through a minority community in Calhoun Falls known as Bucknelly. SCDOT and the consultants it hired to conduct an environmental assessment (EA) wanted to involve this neighborhood in decision-making process about these road improvements, but they were initially unsure of the best ways to generate and maintain community participation. This case study shows how transportation professionals and political leaders worked to build this involvement. A transportation-based revitalization in the small town of Calhoun Falls may now be possible because of this leadership.

The Region and Community

Calhoun Falls, South Carolina, is located about 65 miles northwest of Augusta, Georgia, on the South Carolina/Georgia border. What is now Calhoun Falls was originally the eastern edge of Millwood, James E. Calhoun's plantation. The town began in 1891 with the coming of the railroads and grew with the dissolution of the Calhoun plantation in 1903. By 1907, Calhoun Falls was an incorporated town with a circular boundary that extended 1 mile from the intersection of Cox Avenue and Savannah Street, now SC 72. Cox Avenue began to develop as the commercial center of Calhoun Falls, while Savannah Street became the main thoroughfare connecting Calhoun Falls to Abbeville. In 1909, the town had its first industry, a cotton textile mill. Calhoun Mills became the town's largest employer and spawned the growth of several private cotton-ginning companies, a bank, and a hotel.

Most African Americans who moved from Millwood plantation into Calhoun Falls were former slaves or the children of former slaves. They settled in the southeastern portion of town in an area now known as Bucknelly. The area is located along the eastern side of one railroad and south of Seneca Street, which was one block south of Savannah Street. Middle-class whites lived along both sides of Savannah Street and for several blocks north of Savannah Street to the southern side of the mill village associated with Calhoun Mills. The mill was located along the northern side of the other railroad and the mill village, which was populated by white residents only, and straddled the railroad.

Snapshot of Calhoun Falls Community

Location:

Calhoun Falls, South Carolina, is a small town in a rural area near the South Carolina/Georgia border about 65 miles northwest of Augusta, Georgia, and sits on the shores of Richard B. Russell Lake, an impoundment of the Savannah River.

Population: 2,328

Racial composition:

- White - 52 percent
- African American - 47 percent
- Other - 1 percent

Median household income: $17,414

Poverty threshold for a family of four: $12,674

Households earning less than $15,000:

- White - 45 percent
- African American - 42 percent

Economy:

Originally on the eastern edge of an old plantation, Calhoun Falls still has cotton-related industries as its major employers.

Source: 1990 U.S. Census

African-American and white workers were forbidden by State law to work beside each other in the mill, so African Americans were generally relegated to working as either farmers or in menial jobs. During the early 1920s, Mr. Oscar Ellison, an African American raised in Calhoun Falls, began teaching African-American children in Bucknelly's one-room schoolhouse.

Much of what exists today in Calhoun Falls is a result of the growth that occurred during the 1950s and 1960s. Large areas north of Savannah Street were developed in the 1950s as Calhoun Mills and other businesses expanded. Since the 1960s, however, there has been little growth. Many of the

Community Building: Oscar Ellison's Legacy to Calhoun Falls

In 1924, South Carolina passed a law ensuring all white children would have a minimum 7 months of schooling per year. While this law did not apply to African-American children, it did provide enough money for Calhoun Falls to build a four-room schoolhouse in Bucknelly for African-American children. Oscar Ellison became the principal of this new school and his wife became one of its first teachers. By 1925, enrollment at what had become known as the Ellison School had grown to 184 students from Calhoun Falls and its surrounding areas.

His school was also an institution for advancement of his community. In 1929, Mr. Ellison reached out to his community by adding agricultural classes for African-American farmers. While no subjects were taught beyond the 10th grade, Mr. Ellison tutored some African-American high school students so they could go on to college. South Carolina would not award its first high school diploma to African Americans until 1930. Although the school had no kitchen facilities, Mr. Ellison improvised a lunch program in 1935 during the depression by taking a wagon to the train depot to pick up surplus government food. One of the neighboring families agreed to cook meals for the school in exchange for the leftovers.

By 1941, the Ellison School had an enrollment of more than 300 students and a staff of three to four teachers. Mr. Ellison served as the Ellison Elementary School principal through 1959.

I hope to leave a monument to my life when I pass on — a good school for my people in Calhoun Falls.

Oscar Ellison, Sr.

stores and businesses on Cox Avenue and Savannah Street have closed, many of the older houses have been torn down, and the mill village south of the railroad no longer exists.

Local schools integrated in the late 1960s and early 1970s. As a result, new elementary and high schools were built in the northern portion of the town, and the Ellison School and its adjoining recreation areas were converted into the Ellison Community Center. These changes allowed African-American high school students to attend school in Calhoun Falls rather than be bussed to the county's only African-American high school in Abbeville. The only elementary school in the town, however, was sited more than 1.5 miles from Bucknelly. In addition, the town built a new sewage treatment plant and a local electric utility built a large new substation. Both facilities are located within the Bucknelly community. The residents usually refer to the sewage lagoons as "Lake Seneca."

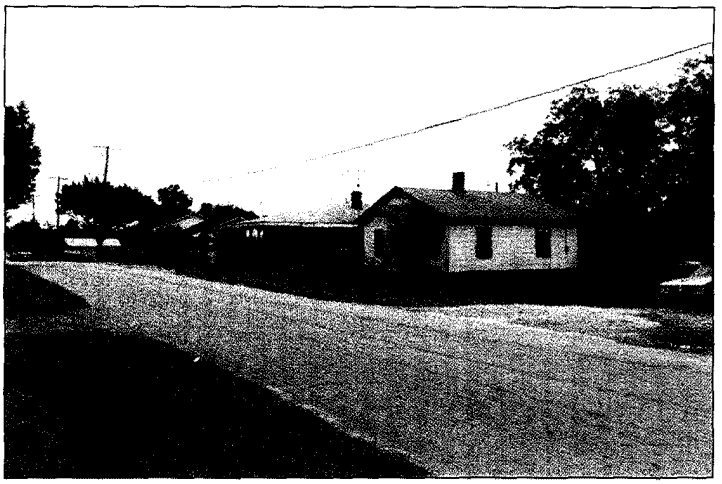
Richard B. Russell Lake was created in the mid-1970s by damming the Savannah River. Hopes that the lake would attract tourists for recreation and outdoor sporting have not been realized. Similarly, the South Carolina Department of Commerce has been unsuccessful in its efforts to develop a second-home golf and lakeside community in the northwest portion of the town over the last decade.

Since the early 1990s, Calhoun Falls has had an African-American mayor and the town's population is now estimated to be more than 50 percent African American. For the most part Seneca Street remains a dividing line between the African American and white communities and the railroad has become the dividing line between middle-class Calhoun Falls and the mill village. The mill remains the town's largest employer with approximately 500 employees. Today, the population of the town of Calhoun Falls is approximately 2,500. It has the second largest population of any incorporated municipality in Abbeville County.

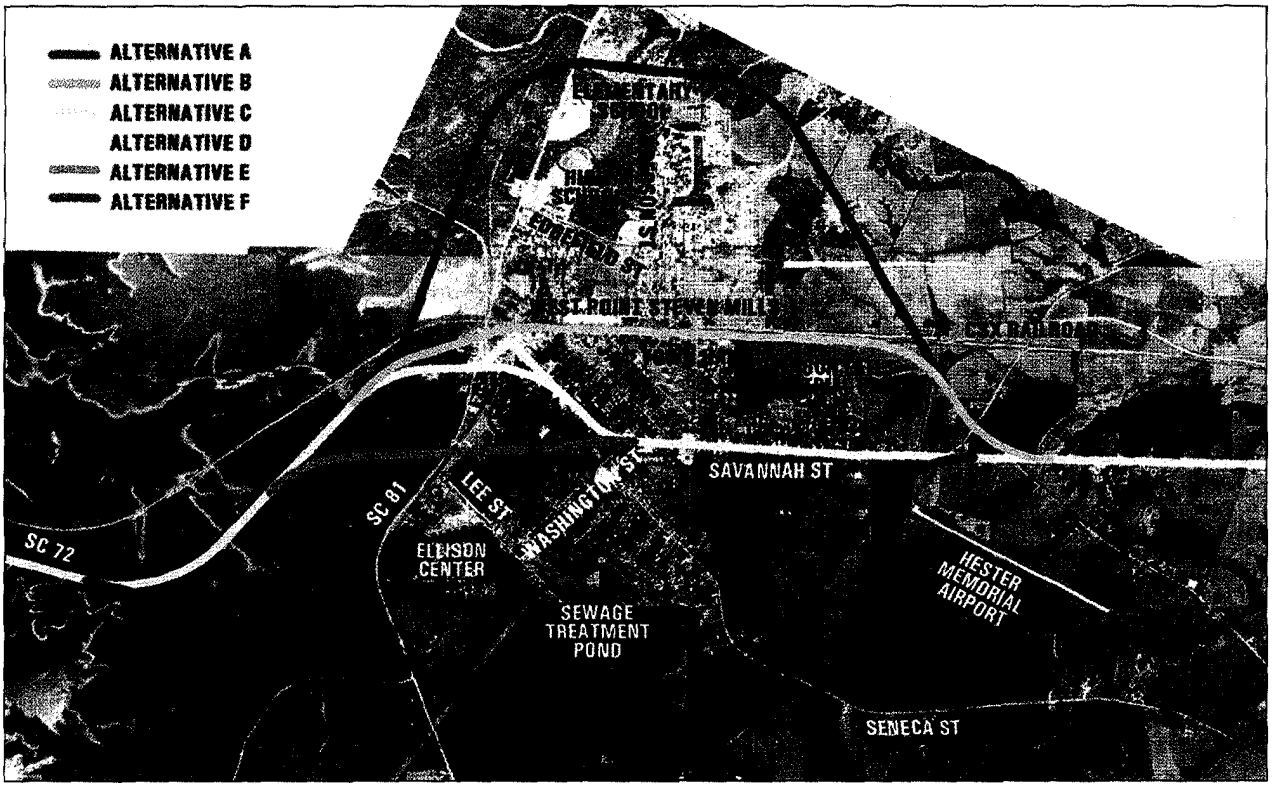
What Happened

In 1999, the SCDOT selected a consultant to prepare an Environmental Assessment under the National Environmental Policy Act, for widening 15.5 miles of 2-lane SC 72 from Richard B. Russell Lake, the western terminus, to SC 28, the eastern terminus. Calhoun Falls is located approximately 3 miles east of the lake and approximately 10 miles west of SC 28.

In early October 1999, the Federal Highway Administration (FHWA) and the SCDOT project team held kickoff meetings in Calhoun Falls and in Abbeville with representatives of both Calhoun Falls and Abbeville County. The purpose of the meetings was to provide an overview of the EA process and a schedule for the project, to solicit input from the town and county as to their needs and concerns, and to identify the best way to involve the residents in the process.



Lee Street in Bucknelly west of the Ellison Community Center.



Six alternatives for SC 72 through and around Calhoun Falls were presented to residents at public involvement workshops.

Project Chronology

October 1999
First meeting held with FHWA, SCDOT and their consultant (the project team), and representatives of the town of Calhoun Falls and Abbeville County. Alternatives are defined and the public involvement process is discussed.

October 1999
Consultant's field studies completed. Bucknelly community is identified and it is discovered that it will be divided by an alternative.

January 2000
Second meeting held with the project team and representatives from the town of Calhoun Falls and Abbeville County. The disproportionately high and adverse impacts to African-American residents in the Bucknelly community are discussed frankly. The project team decides to show residents the six alternatives.

February 2000
First series of workshops held in Calhoun Falls and Abbeville — only 11 African Americans are among the 156 residents who attend the workshops. These residents favor the yellow brick road and Abbeville County's purple southern bypass.

February 2000
Project team decides to hold an additional meeting — in the Bucknelly community — to draw more local community attendance.

April 2000
Bucknelly community meeting held and attended by 77 residents. Community favors the yellow brick road and does not want the community divided.

April 2000
Project team decides to carry the yellow brick road and Abbeville County's purple southern bypass further. Detailed engineering undertaken for these two alternatives.

June 2000
Second series of workshops held in Calhoun Falls at the town hall and at the Ellison Community Center. Yellow brick road is the overwhelming choice.

June 2000
Project team recommends the yellow brick road as the EA's Preferred Alternative.

September 2000
Public hearing planned to present findings.

While the town and the county wanted to improve SC 72 and agreed that the purpose of the project was to sustain and enhance economic development, they differed in how to accomplish this. The discussion began by presenting three alternatives for using some or all of the existing alignment of SC 72. Each alternative would affect residential and commercial structures along and/or off of SC 72. The mayor of Calhoun Falls agreed that it was important that SC 72 go through town, but he did not want to widen the existing roadway. He wanted the project not only to support the existing downtown and improve access to the mill, but also to maximize opportunities for increasing economic development at the town's existing industrial park and developing the second-home community. He suggested an alignment that would leave SC 72 west of SC 81, cross SC 81 at a new location between SC 72 and the railroad, skirt the northern edge of the downtown core, run south of the mill along the railroad and pass through the existing industrial park before returning to SC 72 east of the town limits.

The Abbeville County representatives wanted to bypass Calhoun Falls completely and proposed a new alignment that would leave SC 72 west of SC 81, cross SC 81 at a new location, continue south of the town limits, and return to SC 72 east of the town limits. They felt a bypass could open large undeveloped areas for industrial development without slowing the flow of traffic.

Given the wide range of alternatives, the project team recognized that public involvement workshops were essential to engage residents in the process. While

project-specific web sites had been used successfully in other rural areas to advertise these workshops and keep residents current with the project, they were not feasible in this case because of limited computer ownership and access. Instead, the team decided that newsletters would be a more appropriate way to reach the residents with project information. The town offered to include the newsletters as part of the mailing of its monthly water bills and to put up posters prior to each workshop. Because illiteracy was a potential issue for some residents, packets of newsletters and posters would also be sent to both white and African-American ministers who would be asked to make announcements from their pulpits on the Sunday before the scheduled public involvement workshops. In addition, notices would appear in the two local newspapers, although illiteracy could minimize the value of this tool and readership was thought be low in certain communities, thereby reducing the effectiveness of this tool.

In late October 1999, SCDOT's consultant conducted various field studies. Informal discussions with local residents provided crucial details for some of these studies. For example, during the week spent in the area, the project team ate breakfast at the Kuntry Kitchen, a small one-room, mom-and-pop eatery where millworkers stopped for coffee. The walls were filled with black and white photographs of Calhoun Falls in the 1920s, 1930s, and 1940s. Noticing new faces, the owner told the project team the stories behind each photograph and said the photographer still lived on Savannah Street. For a day, the photographer drove around town with the project team's architectural historian helping to date the age of buildings and identify who had lived or worked there. Similarly, a discussion with a retired mill employee at a local hardware store gave the project team information about two cotton mill landfills that was not recorded anywhere else.

It was during this field trip that the project team identified the Bucknelly community. Bucknelly is an historically African-American neighborhood situated along the eastern side of one of the town's railroads, and south of Seneca Street, which was one block south of Savannah Street. During this visit, the team realized that Bucknelly would be divided by one project alternative that widened existing SC 72 through town.

The Participants

- Federal Highway Administration, South Carolina Division
- South Carolina Department of Transportation
- Calhoun Falls Mayor and Town Council
- Calhoun Falls Chamber of Commerce
- Abbeville County Council
- Abbeville County Economic Development Board

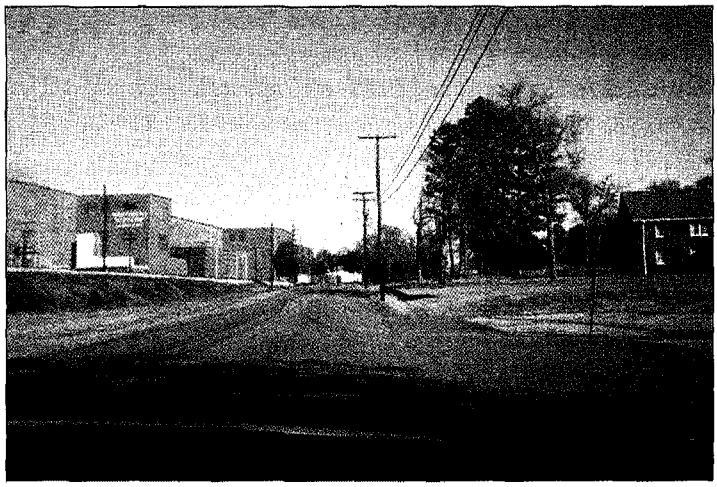
A second meeting was held in early January 2000 with representatives of Calhoun Falls and Abbeville County. The purpose of this meeting was to present the pros and cons of the six alternatives through and around Calhoun Falls; leave draft copies of the first newsletter for comments; and discuss the dates, places, and times for the first set of public involvement workshops. The six alternatives under consideration included a northern bypass, the mayor's alternative, three alternatives that used some or all of existing SC 72, and Abbeville County's southern bypass. Each alternative was discussed and the community-impact implications on Bucknelly were identified. It was decided that rather than eliminate any of the alternatives, the residents should be allowed to comment on all of the alternatives.

In order to attract residents from Calhoun Falls and those living between Calhoun Falls and Abbeville, it was decided that one workshop should be held in the western end of the project area (at the Calhoun Falls town hall), and one in the eastern end of the project area (at the Abbeville County Council chamber in the Opera House). Because Wednesday night is traditionally church night for some in the South, and

Friday night is the beginning of the weekend, Tuesday and Thursday were chosen for the workshops.

The workshops were carefully sited and scheduled to meet the needs of various populations. The workshop at town hall was held between 4:00 p.m. and 9:00 p.m. to accommodate elderly residents — who could visit and leave before dark — and two late shifts of workers from the nearby mill. The Abbeville workshop was held between 3:30 p.m. (again to accommodate the elderly) and 6:30 p.m. because the timing of mill shifts was less of an issue for Abbeville's workforce. The County Council chamber in the Abbeville Opera House was chosen because it was a well-known landmark.

Notices and articles in local newspapers, on posters, and in the newsletters publicized the first series of public involvement workshops. The posters were hung in the windows of shops and businesses and in other high-traffic areas, including near the trash dumpsters at the regional pick-up sites where county residents brought their trash. As planned, packets of newsletters and posters were sent to local ministers. The newsletter centerfold showed the six alternatives superimposed on an aerial photograph of the town. A letter of the alphabet and a color identified each of the alternatives. The mayor's alternative was labeled Alternative B and shown in yellow. Following the first set of workshops, this alternative became known among the project team as "the yellow brick road."



The Mayor of Calhoun Falls' suggested alignment, the yellow brick road, would widen Abbeville Street between the mill and the Northside Baptist Church.

The town had originally proposed including the newsletter in its monthly water bills, but by January 2000, it had adopted a postcard format for the bills. Using the town's water customer list and information obtained from the county tax assessor, the project team sent newsletters by first-class mail to 381 residents throughout the project area. The project team was able to refine its mailing list because the post office will return undeliverable first-class mail to the sender. Tax assessor information in Abbeville County was not computerized and could have been months out of date; ultimately, the project team had more faith in the water customer list because it was updated monthly.

At each workshop, residents were asked to sign in, received a comment sheet and newsletter, and were escorted to the displays. Members of the project team explained the displays and asked the residents to complete their comment sheets and return them during the workshop or by mail or fax. The Calhoun Falls workshop in was attended by 118 residents, 11 of whom were African American. Forty-seven comment sheets were returned. The yellow brick road was the preferred choice, with the Abbeville County's purple southern bypass a distant second. Many of the white residents living along existing SC 72 had placed stakes in their yards marking the proposed right-of-way. These residents attended the workshop as an organized group and were vocal about not wanting existing SC 72 widened through town. Only one resident opposed the alternative that would have divided the Bucknelly community.

No African Americans were among the 38 residents attending the workshop in Abbeville. The majority of these residents came because they were interested in an adjacent SCDOT project. As a result, only two residents returned comment sheets.

After the workshops, the project team decided that another way had to be found to engage the Bucknelly community. It was also decided that no further workshops needed to be held in Abbeville. The project team felt that it was important to actively involve the Bucknelly community because some of the proposed alternatives would generate disproportionately high and adverse effects upon its predominantly minority population. No one knew why so few African Americans attended the workshop. This question was not to be answered until a community meeting was held in Bucknelly.

In an attempt to obtain input, the project team decided to invite only the members of the Bucknelly community to a meeting at the Ellison Community Center. This meeting was scheduled from 5:00 p.m. to 9:00 p.m. the day after Easter Sunday. It was hoped that announcing the meeting from pulpits when churches would be full would increase attendance at a workshop held the very next day.

The project team used the town's water customer list and a list of the streets within the Bucknelly community to identify 209 residents. Bucknelly residents were sent a first-class letter signed by the mayor inviting them to attend the community meeting and stressing the importance of their participation. Approximately 10 percent of these letters were returned by the post office to the mayor's office as undeliverable. The mayor took the letters to the water authority and asked that addresses be checked against the customer list. They were found to be the same. Rather than remail the letters, the mayor hand delivered them to the Bucknelly residents. In addition, copies of the mayor's letter and copies of the first newsletter were sent to ministers at each of the four African-American churches in Calhoun Falls. On Easter Sunday, each of the ministers announced the Bucknelly community meeting from their pulpits.

Seventy-seven Bucknelly residents attended the community meeting at the Ellison Community Center, including, Henry Ellison, the youngest son of Oscar Ellison, for whom the Ellison School and later

Bucknelly residents came out in greater numbers for a workshop held at the nearby Ellison Community Center.

Community Center were named. While neither Mr. Ellison nor any of his family still live in Calhoun Falls, he returns to Bucknelly for special occasions. He was in town to award educational scholarships funded by the Ellison Foundation. Mr. Ellison was one of the first to arrive at the meeting and the last to leave. For most of the evening, he stood off to the side of the displays. As members of the community arrived, they sought him out to pay their respects. While he was an absentee patriarch, it was obvious that those middle aged and older held him in high esteem. Before the meeting, Mr. Ellison and the mayor had gone door to door urging the residents to attend the meeting.

In addition to the 77 Bucknelly residents, 4 white residents attended the community meeting "just to see if what the Bucknelly residents were being shown was different than what they had been shown at the earlier Calhoun Falls meeting." Forty comment sheets were returned. Project team members took special care to assist Bucknelly residents who had "left their glasses at home" by offering to write down their comments after they had been shown the displays on various alternatives. A tape recorder was also available to take oral comments, but there were none.

The Bucknelly community overwhelmingly preferred the yellow brick road alternative and did not want the community divided. After the Bucknelly meeting, the project team decided to drop four of the alternatives. Only the yellow brick road and Abbeville County's purple southern bypass alternatives were to be carried forward and studied in more detail.

More detailed engineering was undertaken during May and June 2000, the second newsletter was prepared and sent by first-class mail to 713 residents, and the second series of workshops was scheduled. The project team decided to hold workshops at both the Calhoun Falls town hall and the Ellison Community Center on a June afternoon and evening between 4:00 and 9:00 p.m. This was an opportunity for all communities to visit both locations if they chose and to see that the same information was presented at both locations.

The "Disproportionately High and Adverse Effects" Test — Recognizing Cumulative Effects

How does a transportation practitioner determine if a project or proposal is going to have "disproportionately high and adverse effects" on a low-income population or minority population? *Adverse* effects are all significant individual or cumulative health or environmental effects, including interrelated social and economic effects. If such effects are predominantly borne by a minority population or low-income population, or if those populations would suffer greater or more severe impacts than others, then the effects are disproportionate (for complete definitions, see DOT Order 5610.2 and FHWA Order 6640.23).

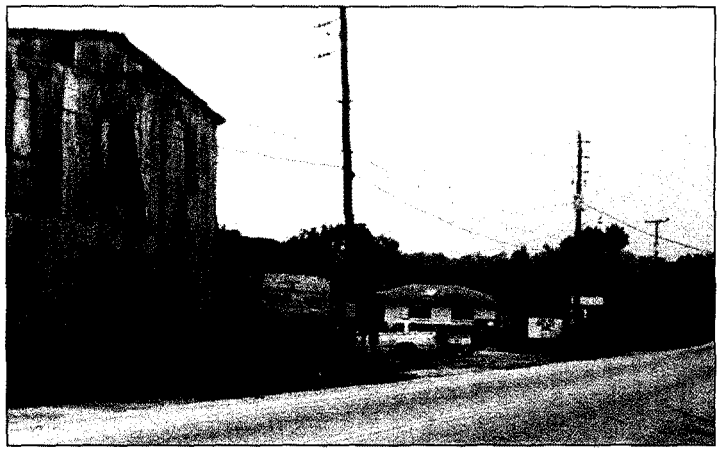
The public involvement process can be a revealing means for understanding how community perceptions, including mistrust of government, are shaped by a cumulative pattern of past public investments and facility sitings. It was not until one of the Bucknelly residents mailed in comments did the project team begin to understand the reluctance of the African American community to participate more fully in the process:

I strongly suspect, as I write you my comments concerning the various proposed routings of a four lane S.C. Hwy 72 thru the Calhoun Falls area, that you have already made your decision, and were just going thru the motions of giving the African-American community the illusion of thinking our input is being seriously considered, thus satisfying laws mandated by the federal government. Forgive me if I am skeptical, but in the past, we were never given the opportunity to give our input to something of this magnitude. The Ellison Center where the meeting was held, is where I attended elementary school. I was in the first grade when the historically precedent setting, Brown vs. Board of Education was passed (1952/53) by the U.S. Supreme Court, making it unconstitutional and against the law to have separate schools for the races. This law of the land was not enforced in our town until 1970. This caused me to be bussed from the 8th grade thru 12th grade 15 miles to Abbeville to the only Colored high school in the county, at the time, while passing the white high school that was only one mile from my home. So you see I am very skeptical for a myriad of reasons when it comes to we African-Americans being seriously considered in the decision making process. Currently as I write, the cesspool/waste treatment center for the town of Calhoun Falls sits right in the middle of OUR African-American residential community, NOT in the middle of the white community. We also had several meetings about this, and it still remains there. So I am sure you get my drift. However, the fact that you even went thru the motions to hear what we had to say, be it a sham or not, is in itself a milestone to us. Therefore, just in case you are seriously considering our comments this is what I have to say . . .

The post office returned 47 newsletters as undeliverable. These included ones sent to a street address when the resident had a post office box, or vice versa. The postmaster was kind enough to write the post office box number or street address on the returned newsletter so that the mailing list could be corrected and the newsletter remailed. At the second set of workshops, the residents were asked if they had a street address and a post office box. When names or addresses were illegible, web sites such as www.anywho.com were used to link names and addresses, but this only worked if the resident had telephone service.

Seventy-one African-American Bucknelly residents and six white residents from other parts of town attended the Bucknelly workshop. They returned 53 comment sheets. The workshop at town hall was attended by 68 residents, including 8 African Americans, and 19 comment sheets were returned. The residents at both workshops overwhelmingly wanted the yellow brick road because of what it could do for the town.

While the yellow brick road has adverse effects for some commercial businesses, it also presents an opportunity to address some areas in need of redevelopment. Study of the detailed engineering drawings had shown that the yellow brick road would affect 17 buildings on the northern edge of the downtown and 2 mobile homes. Almost half of buildings were vacant and the mobile homes could be moved. Because of the available vacant parcels in the downtown and the compensation that the owners would receive, it was believed that many of these owners would rebuild. One building involved was the town's garage for its garbage trucks. This building was in poor condition and would be replaced through the FHWA's Functional Replacement Program. The yellow brick road also changed the circulation within the downtown. This change would provide better access and improve emergency response time for the police and fire departments. As part of the design, the existing substandard railroad crossing at the mill would be upgraded and signalized, and both the mill and the town's existing industrial park would enjoy front-door, five-lane accessibility.



Buildings that will be taken by the new SC 72/SC 81 intersection west of downtown Calhoun Falls.

Following the second series of workshops, the project team met and decided that the yellow brick road should be the Environmental Assessment's preferred alternative.

Effective Environmental Justice Practices

This case study illustrates several effective practices related to community impact assessment and public involvement. Project team members left their offices and made several field visits to the study area and Calhoun Falls. The project team did what transportation professionals should do to *learn* about a community:

- **Walk Around.** By experiencing the community on a human scale, the project team was able to clearly identify the Bucknelly community and examine firsthand the potential effects of alternative alignments for SC 72.
- **Learn the History.** The African-American community in Bucknelly had a deep history, one

The "Disproportionately High and Adverse Effects" Test — More than a Desktop Exercise

The evaluation of disproportionately high and adverse impacts often begins at the planner's desk as a conventional analytical exercise using existing maps, aerial photographs, census, and other data. Combining this "desktop" data, some project impacts can be screened in advance. For example, some alternatives would require the taking of more houses in minority neighborhoods, while others would require the elimination of more open space.

The map, however, is not the territory. No area can be completely understood on the basis of maps and secondary data sets alone. Only when the SC 72 project team made field visits to Calhoun Falls did they begin to recognize the true impacts of the alternative alignments. The project team did what transportation professionals *should* do to learn about a community.

Making Choices: Do the Right Thing!

At any stage in the project development process, the transportation practitioner may be confronted with evidence that a program, policy, or activity that they are involved in has disproportionately high and adverse human health or environmental effects on a low-income or minority population. Further, they may discover that their project's adverse effects occur in a community already burdened with a disproportionate share of facilities that generate adverse human health or environmental effects. It's possible the practitioner may discover a pattern of such disparate effects or, even, discriminatory practices. For many transportation practitioners, such discoveries are uncomfortable; they fall outside the traditional concerns of a profession focused upon technical accuracy and analytical excellence. Still, the Calhoun Falls case offers some pointers about how to confront this dilemma and accept a call to personal responsibility:

- *Commit to Effective Public Involvement.* Budgeting for, and carrying out field visits and other local information gathering efforts is an important first step. Project budget constraints can press project managers or funders into taking shortcuts that reduce outreach efforts. However, allocating resources for these activities up-front can actually save money in the long run as problems are discovered and addressed.
- *Listen to Your Instincts.* The SC 72 project team leader was dismayed that so few African Americans turned out for the first community workshop. She reasoned, correctly, that a special outreach effort would more effectively draw Bucknelly residents into the decision-making process.
- *Promote Technical Approaches Sensitive to Community Input.* The preferred alignment for SC 72, "the yellow brick road," was developed by local leaders — not the project team. After talking to leaders and the community residents, however, the project team saw the wisdom of the alignment and recognized that its impacts were actually smaller than those of other alignments that took fewer existing buildings. Simply put, on the issues that mattered, the alignment fit more harmoniously into the community.
- *The "Disproportionately High and Adverse Effects" Test is NOT the Sole Criterion for Addressing Community Impacts.* Avoidance, minimization, and mitigation strategies are often used by the FHWA and its partners, even when the effects of a project are not considered significant. By attending even to apparently small impacts, project teams enhance community acceptance and promote context-sensitive solutions.
- *Go the Extra Mile.* Transportation projects are produced in a group setting, with many people sharing different responsibilities. When a professional identifies a potential environmental justice issue, it may be difficult to successfully bring it to the attention of the rest of the project team. Don't be deterred by this difficulty. Doing the right thing may not be easy, but it will result in better, more just, and more broadly supported transportation projects. And that should be everyone's professional goal.

often clouded by discrimination and disenfranchisement. The project team heard about some of these past problems firsthand. The team's visit to Calhoun Falls revealed a positive history as well, such as the importance of the Ellison School/Community Center and the role of the Ellison family as community leaders. Knowing these crucial facts helped the project team build successful community outreach and overcome initial community skepticism.

- **Tailor Public Involvement to Unique Local Needs.** With the help and encouragement of local officials, the project team ensured that community outreach efforts were targeted and accessible to everyone who might be affected by the project. The team made a particular point of making and maintaining contact with the Bucknelly community residents. Expanding upon traditional outreach efforts such as newsletters and workshops, the team took account of Bucknelly's unique needs and made sure that all residents were informed of the highway project. The team reached out to the community through the churches, took account of local problems such as illiteracy, and took advantage of the involvement of community leaders to encourage broad-based participation. Even the normally simple task of developing and maintaining a project mailing list was given extra scrutiny to ensure that the needs of Calhoun Falls' African-American community were being met.

- **Listen to Everyone's Story.** Communication with local officials, the general public, and the African-American residents of Bucknelly all helped the project team to better understand local needs. This successful outreach led directly to identifying a highway alignment that was widely approved by the public.

- **Let the Community Describe Its "Disproportionately High and Adverse Effects."** By listening to Bucknelly residents, project team members were able to learn about past "adverse impacts" on the minority population, like the siting of the town's wastewater treatment plant. This context was crucial for evaluating the direct, indirect, and cumulative effects of the highway proposal on the Bucknelly community.

Challenges Ahead

As this case study is written, the Environmental Assessment for the SC 72 improvement project is not yet complete. To fulfill the promise of their efforts so far, SCDOT and the project team must continue to reach out to and involve the Bucknelly community in project decision making. Efforts similar to those already undertaken will be necessary throughout the environmental review process. The ultimate design and construction of the improved roadway will also require extensive and inclusive public involvement. Those who worked on these early phases of the project must find ways to communicate their experiences and successes to those responsible for final design and construction of the roadway.

The case study also demonstrates how the perception (and reality) of past discrimination can affect public participation in a planning process. The Bucknelly community felt that it had been the town's dumping ground in the past, and residents were therefore quite skeptical of the project team's initial outreach efforts. Only a persistent and consistent pattern of contact and communication can overcome such past discrimination.

Lessons Learned

This case study has important implications for any transportation professional interested in improving the quality and value of public outreach in the transportation planning process.

- Begin to coordinate with local community representatives immediately and continue

Benefits of Environmental Justice in Decision Making

For the Public:

- The public developed a deeper understanding of, and support for transportation improvements in and around Calhoun Falls that they believed fit more harmoniously into the community.
- African-American residents from the Bucknelly community were encouraged to increase their involvement in the community impact assessment and transportation decision-making process.
- The project raised expectations among residents of the Bucknelly community for future consultation and consent on public works projects.

For the Agency:

- The approach improved communication between SCDOT and its constituents. Because of its outreach to the Bucknelly community, the project team developed a more complete understanding of the impacts of the various alternatives. Contact with local residents provided crucial pieces of information that improved the quality of the environmental assessment and informed the decision-making process.
- The preferred alternative was understood and supported by a strong majority of the community, including people whose voices had seldom been heard in prior decision-making efforts.

throughout the entire process. It is important to talk with these representatives on a frequent basis, even when there may be nothing new to tell, because they are the lifelines into the community.

- Good public involvement occurs on front porches, in living rooms, and under clotheslines. Planners must get out of the office and interact with the community, otherwise, there will be no public involvement.
- Understand that some residents of minority or low-income communities probably will not trust officials or planners immediately and, in some cases, there may never be trust. This should not diminish the dedication of the effort or the goal to be reached.

Establishing workshops, publicizing articles, involving churches, advertising in businesses, and making house-to-house visits were all skillful tactics for involvement. I learned that going the extra mile, establishing relationships, and having a determination for active participation will bring positive results.

– Johnnie Waller
Calhoun Falls Mayor

- Be willing to try anything when it comes to reaching the target audience. Use the web, public service announcements, the public broadcasting system, and newsletters or flyers. Put posters where people gather — grocery stores, trash dumpsters, bait shops, hardware store, banks, places of employment, restaurants, gas stations, schools, theaters, churches. Feed information to the local newspaper for articles, make project representatives available to them, and ensure that media know the time and location of public involvement meetings. Send mail by first-class rather than by bulk-rate permit so that mailings lists can be monitored and updated. Send information packets to the local ministers so they can make announcements from their pulpits. Because some in the target audience may be illiterate or not speak English, find ways to help them participate that will not embarrass them. For example, color-code the alternatives rather than labeling them just by name or letter. Listen to residents' responses to questions, and repeat their concerns back to them so they will know that their concerns have been heard. Visit places where community members spend time (hardware store, barbershop, gas station) and talk to them there. Pay particular attention to the obvious — what is seen — as well as what should be seen.

References

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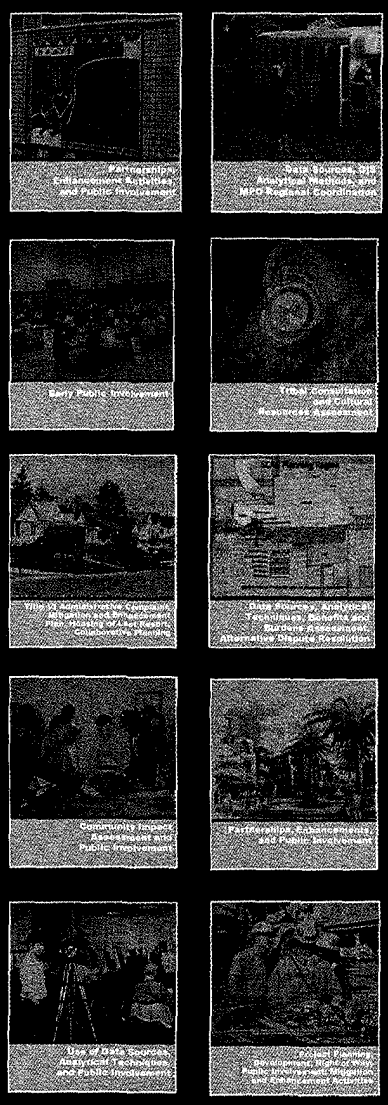
"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations."



The FHWA and FTA maintain a web site devoted to Environmental Justice. The web site contains these case studies and other technical assistance information on legislation and guidance, effective practices, resources, publications, and DOT contacts. To visit this web site: www.fhwa.dot.gov/environment/ej2.htm

Publication No. FHWA-EP-01-010