

RAYMOND A. MOHL

The Interstates and the Cities: The U.S. Department of Transportation and the Freeway Revolt, 1966–1973

When construction began on the urban expressways of the new Interstate Highway System in the late 1950s, homes, businesses, schools, and churches began to fall before bulldozers and wrecking crews. Entire neighborhoods, as well as parks, historic districts, and environmentally sensitive areas, were slated for demolition to make way for new expressways. Highway builders leveled central city areas where few people had cars so that automobile owners from other places could drive to and through the city on the big, new roads. As one analyst of postwar America put it: “The desire of the car owner to take his car wherever he went no matter what the social cost drove the Interstate Highway System, with all the force and lethal effect of a dagger, into the heart of the American city.”¹ In response, citizen activists in many cities challenged the routing decisions made by state and federal highway engineers. This Freeway Revolt found its first expression in San Francisco in the late 1950s, and eventually spread across urban America. By the late 1960s, freeway fighters began to win a few battles, as some urban expressways were postponed, cancelled, or shifted to alternative route corridors.

The modest success of the Freeway Revolt of the 1960s is generally attributed to the persistence of grassroots, neighborhood opposition movements around the nation. Those movements no doubt had significant impact. However, the anti-expressway movement also must be located and interpreted within the wider context of the shifting political, legislative, and

bureaucratic environment in Washington, D.C., during the 1960s and early 1970s. Transportation policymaking at the congressional level, and especially in the House and Senate public works committees, responded to opposition movements, but also to many special-interest groups with much at stake. The executive branch also engaged in policymaking, as presidents Lyndon Johnson and Richard Nixon sent key transportation bills to the Congress or vetted others through the Bureau of the Budget. Executive and legislative action had important consequences, but this article argues that the crucial response to the Freeway Revolt took place at the level of policy implementation. Beginning in 1966, the new U.S. Department of Transportation (DOT), through its constituent agencies—the Federal Highway Administration and the Bureau of Public Roads—had responsibility for getting the interstates completed. But DOT leadership balanced that objective against the demonstrated negative impacts of building expressways in built-up urban areas. The first two secretaries of the DOT, Alan S. Boyd and John A. Volpe, along with high-level federal highway administrators, mediated highway disputes, promoted alternative methods of urban transit, advocated diversion of highway trust funds for other transportation uses, and made crucial shutdown decisions on several controversial urban expressways. Through policy and procedure manuals, federal highway agencies imposed new rules and regulations that curbed many of the excesses of state highway engineers. Many executive branch transportation bills were first written in the DOT. This article, then, focuses primarily on how the federal highway bureaucracy responded to the Freeway Revolt and charted new directions on controversial highway matters.

Interstate expressway construction took place within a highly contested political arena. Powerful lobby groups representing engineering firms, the heavy construction industry, trucking companies, construction and trucking unions, auto and oil companies—each had a huge stake in interstate highway policy, financing, and implementation. Other interest groups representing mass transit and railroads had a different set of interests, primarily seeking to defend declining forms of transportation in the automobile age. Big-city mayors had their own advocacy organizations—the National League of Cities and the U.S. Conference of Mayors—looking to federal policy on highways and mass transit as alternative means of dealing with massive traffic congestion and rescuing central cities threatened by suburbanization. Through the American Association of State Highway Officials, state highway agencies and engineers sought to shape road-building policy and financing. Urban planners lamented the dominant role of highway engineers in locating and building the interstates. Citizen, consumer, and community groups also challenged federal

transportation policy; they organized, lobbied, demonstrated, and litigated on such issues as highway safety, roadside beautification, environmental protection, housing demolition, and neighborhood integrity. All these disparate groups participated in the often-contentious discourse over the details and direction of the nation's transportation policy, complicating the work of those charged with building the interstates.

As the Freeway Revolt reached a high point in the early 1970s, new federal transportation initiatives signaled the way of the future—the diversion of some highway trust-fund monies to other transportation modalities, and the devolution of transportation decision-making from state and federal highway engineers to local metropolitan planning agencies. Federal highway officials paved the way for these significant changes. These new policy directions should be conceptualized as consistent with other key federal urban initiatives of the time—Model Cities and the community action programs of President Johnson's War on Poverty, as well as President Nixon's revenue-sharing program, which returned federal tax dollars to local governments through community development block grants. Evidence from federal highway agency records in the National Archives substantiates these patterns of diversion and devolution in federal transportation policy, providing an important corrective to traditional ways of interpreting the Freeway Revolt. Citizen protesters who packed hearings, picketed construction sites, and sat down in front of bulldozers had some high-level help in their fight against the destructive consequences of the urban interstates.

NEIGHBORHOOD DEMOLITION AND THE FREEWAY REVOLT

The 42,500-mile Interstate Highway System, mostly completed between 1956 and 1973, stimulated major patterns of change in the United States. President Eisenhower promoted the highway program as an important public works project that would keep the nation's economy on an even keel and prevent recession, but he never fully anticipated the enormous economic growth stimulated by a more efficient transportation system. The big new roads connected virtually all the nation's major cities and speeded long-distance travel by truck and automobile. The interstate system's urban expressways linked central cities with surrounding suburbs and facilitated auto commuting. They also promoted peripheral development, pushed out the metropolitan fringe to previously unimagined distances, and, as urban geographer Peter O. Muller wrote, essentially "turned the metropolis inside out." Lobbyists for powerful business and economic interests lined up in support of the 1956 interstate

highway legislation. Automobile manufacturers, oil companies, makers of cement and steel and rubber, construction firms and construction unions, truckers and teamsters, hotel, motel, and restaurant chains, big-city politicians and property owners, and many more—all recognized the significance of modern, high-speed, limited-access superhighways. Any remaining opposition to the interstate system withered when the federal government agreed to pick up 90 percent of construction costs through a new Highway Trust Fund, with the states contributing the remaining 10 percent. The state highway departments had responsibility for building the interstates, with oversight from the federal Bureau of Public Roads. In retrospect, no other legislative or domestic policy initiative of the 1950s brought as much lasting change to the nation as the Interstate Highway System.²

The interstates were good for the economy, the commuters and truckers, and the suburban developers and retailers, but they had a devastating impact on American cities. In Miami, a single massive interstate interchange of Interstate-95 took up forty square blocks and demolished the black business district and the homes of some 10,000 people. In New York City, the Cross-Bronx Expressway gouged a seven-mile trench through a primarily lower-middle-class Jewish community, ripping through a wall of apartment houses and dislocating thousands of families and small businesses. In Cleveland, a network of expressways displaced some 19,000 people by the early 1970s. A three-and-a-half-mile inner-city expressway in Pittsburgh forced 5,800 people from their homes. A Kansas City, Missouri, midtown freeway was routed through a Model City area and nearby neighborhoods, ultimately destroying 1,800 buildings and displacing several thousand residents. A planned but never built Inner Loop freeway in Washington, D.C., would have demolished 65,000 housing units. In Baltimore, Milwaukee, Indianapolis, and St. Paul, expressways plowed through black communities, reducing thousands of low-income housing units to rubble. And so it went across urban America, as the interstates penetrated the central cities. The Interstate Highway System, transportation scholar Alan Altshuler has written, “subjected cities—particularly older, high-density cities—to major surgery, on a scale without precedent in American history.”³

By the mid-1960s, the freeway revolt had spread to several dozen cities. In New Orleans, preservationists and neighborhood groups challenged a planned Riverfront Expressway that ran through the city’s historic French Quarter. In Baltimore, a biracial coalition of thirty-five neighborhood organizations called Movement Against Destruction conducted a long-running battle with business leaders and highway engineers who supported inner-city expressways through

black communities, historic districts, and the city's waterfront area. In Nashville, the I-40 Steering Committee worked to save the North Nashville black community from the highwaymen, eventually taking their argument to the federal courts, but unsuccessfully. Protesting the route of Interstate-85 through the Montgomery, Alabama, black community, a Property Owners Committee petitioned directly to President John F. Kennedy, with some modest success. In Washington, D.C., a biracial coalition called the Emergency Committee on the Transportation Crisis (ECTC) labeled freeways "an instrument of war against the urban population." ECTC often took to the streets to protest the thirty-eight interstate miles planned for the nation's capital—actions that contributed to the abandonment of almost all Washington's planned freeways. Anti-highway activists in Seattle formed several protest organizations to challenge expressway planning in that city. In Memphis, Citizens to Preserve Overton Park went all the way to the U.S. Supreme Court, successfully, to halt plans to build Interstate-40 through the center of one of the nation's largest urban wilderness parks.⁴ As Daniel P. Moynihan pointed out in 1970, "A bare fifteen years after the Interstate program commenced, it is just about impossible to get a major highway program approved in most large American cities."⁵

CONGRESSIONAL RESPONSE TO THE FREEWAY REVOLT

By the early 1960s, state and federal highway engineers confronted a changing political environment. Local discontent with the urban interstates began bubbling up to Congress in the early 1960s. In the Highway Act of 1962, at the urging of the Kennedy administration, Congress moved tentatively to curb some of the worst excesses of the highway builders and bring other voices to the decision-making process on interstate routing. The 1962 law, according to W. Lee Mertz, a career planner and administrator in the Federal Highway Administration, aimed "to lower the noise level on the urban interstate." Two provisions of the law were especially important. First, it required state road departments to work with local governments in developing "a cooperative, comprehensive, and continuing urban transportation planning process." The so-called 3-C mandates represented an early congressional move toward mass transit and the devolution of policy implementation, forcing state highway departments to consider alternative transit methods and rational land-use planning. A second important provision of the law required state highway departments to provide relocation assistance to displaced families and businesses. However, these new mandates for transportation planning and housing assistance did not become effective until July 1, 1965. Essentially,

state highway departments had almost three more years to push ahead with their interstate projects. Nevertheless, the new highway legislation established significant government mandates, relocation requirements, and planning principles, setting the stage for tougher highway legislation later in the decade.⁶

By the mid-1960s the rising Freeway Revolt had picked up steam in the national media and in Congress. Wolf Von Eckardt, the influential architectural critic of the *Washington Post*, added his support to the anti-expressway movement in his syndicated column. "There is a revolt against the senseless indignity of urban freeways ruining cities and parks," Von Eckardt wrote in 1966, "and on the federal level, at least, the highway builders are beginning to take it seriously." In one column, Von Eckardt quoted the April 1966 Senate speech of Pennsylvania senator Joseph S. Clark, a former mayor of Philadelphia: "It is time that Congress took a look at the highway program, because it is presently being operated by barbarians, and we ought to have some civilized understanding of just what we do to spots of historic interest and great beauty by the building of eight-lane highways through the middle of our cities." Other senators chimed in as well. In congressional speeches, Senators Clifford Case of New Jersey, Wayne Morse of Oregon, and Ralph Yarborough of Texas each criticized the bulldozer-steamroller approach of the highway builders.⁷

Intensified congressional concern about the impact of the urban interstates led to new restraints on the highway builders imposed by the Federal-Aid Highway Act of 1966. Pro-environmentalist Senator Ralph Yarborough, outraged that Texas highway engineers planned an expressway through San Antonio's Brackenridge Park, successfully attached an amendment to a highway appropriations bill that prohibited the construction of federally assisted highways through parks and historic sites unless all possible alternatives had been considered. Congress responded to rumbles of discontent among constituents about the urban interstates, and the Yarborough Amendment found its way into the final bill signed by President Johnson. The National Historic Preservation Act of 1966 contained similar restrictive language curbing federal projects that endangered officially designated historic sites. Both laws gave freeway fighters the tools they needed to litigate, postpone, and delay highway construction. In a few cases, such as San Antonio and Memphis, interstates slated to traverse parks eventually were shifted to alternative routes. After the Yarborough Amendment passed, even Federal Highway Administrator Rex Whitton, in his last year on the job, recognized that "the world has changed, and along with it the role of the highway builder."⁸

ALAN S. BOYD AND THE DEPARTMENT OF TRANSPORTATION

Another Great Society initiative in the mid-1960s altered the politics of highway building in significant ways. President Johnson pushed hard, and ultimately successfully, to create a cabinet-level Department of Transportation (DOT) as a means of modernizing the nation's fragmented transportation networks and stimulating economic growth, as well as to centralize control, budgeting, and decision-making within the executive branch. Given the multiple special interests involved, congressional passage was difficult. The president did not get all he wanted from Congress, especially the deregulation of transportation industries. Nevertheless, in October 1966, after considerable debate and arm-twisting, Congress approved the DOT bill, bringing together more than thirty separate agencies involved in transportation, including the Federal Aviation Administration, the Federal Railroad Administration, the Coast Guard, the National Transportation Safety Board, the Federal Highway Administration, and later the Urban Mass Transit Administration. Among many other innovations, the massive reorganization of federal transportation agencies altered the lines of power, authority, and decision-making for state and federal highway officials. The Bureau of Public Roads (BPR), formerly housed in the Department of Commerce, now became a subagency within the DOT's Federal Highway Administration (FHWA). Under this new structural arrangement, the BPR director reported to the Federal Highway Administrator and lost final decision-making authority on interstate highway location to the DOT secretary. The BPR had established a private preserve over many decades as the primary federal road agency, but now, under the DOT, the agency was subjected to a level of administrative supervision and control it had never before experienced. The DOT provided the start of something new in federal highway policy—an effort to provide a balanced or “multi-modal” transportation system in which highways comprised only one component of many transit alternatives. In addition, section 4(f) of the DOT legislation replicated the language of the Yarborough Amendment of the 1966 highway law protecting public parks and historic districts from federal transportation projects such as highways, now adding environmentally sensitive areas as well.⁹

The DOT's first secretary, Alan S. Boyd, faced a mammoth task in consolidating the new department's diverse units and dealing with their separate support and lobby groups in and out of Congress. Boyd had a varied career in several different state and federal transportation agencies, but he was not trained as a professional highway engineer like most of those in the BPR and the state highway departments. A native of Florida, an Air Force pilot in World

War II and during the Korean War, and a Miami lawyer, Boyd served in the 1950s as counsel for the Florida Turnpike Authority. He later chaired Florida's Railroad and Public Utilities Commission, where he dealt with railroad, truck, and bus operations. In 1959, President Eisenhower appointed Boyd to the Civil Aeronautics Board, where he developed expertise on aviation policy; from 1961 to 1965, Boyd chaired the CAB. In 1965, President Johnson tapped Boyd as Undersecretary of Transportation in the Commerce Department—the top transportation job in the federal bureaucracy. Johnson knew Boyd well from his work on the CAB and trusted his judgment. While serving in Commerce, Boyd also headed President Johnson's task force studying the feasibility of creating a cabinet-level Department of Transportation. Boyd's diverse background and expertise on various transportation modes led to his selection by Johnson to head the new department, where one of his main tasks was to push for additional congressional legislation deregulating railroads, airlines, trucking, maritime shipping, and bus operations. That same varied experience prepared Boyd to challenge basic BPR highway engineering strategy—that is, that transportation policy simply meant more highways, pouring more concrete and worrying about the consequences later. In one of his early public statements as DOT secretary, Boyd asserted his belief that expressways must be “an integral part of the community, not a cement barrier or concrete river which threatens to inundate an urban area.” From his earliest days as DOT secretary, Boyd often expressed concerns about the social and environmental impacts of the urban interstates, and he appeared committed to moderating the BPR's hard-nosed position on expressway routes through the nation's cities.¹⁰

Within a year of taking office at the DOT, Boyd had seemingly become the most effective national spokesman for the Freeway Revolt. On a speaking tour in 1967, Boyd must have shocked audiences of transportation officials in California and South Carolina by stating, “I think the so-called freeway revolts around the country have been a good thing.” He elaborated by urging more citizen involvement in highway decision-making and advocating a balanced transportation system. This way of thinking eventually led, by the 1970s, to the devolution of authority to the local level and the diversion of some highway trust-fund monies to mass transit. At a 1967 governors' conference in Albuquerque, Boyd criticized the narrow engineering approach to highways that “tended to select that route that will give us the straightest possible line at the lowest possible cost.” In a television interview in early 1968, Boyd sympathized with critics of the routing of the North Central Freeway in Washington, D.C., which had been shifted from an upscale white residential

corridor to a low-income black community. As Boyd stated at the time, “We’re going to have to find a better way to do it than to say we’re going to take the property of poor people and leave everybody else alone.” Freeway advocates soon began blaming Boyd for “inciting” Washington’s freeway revolt. On more than one occasion, Boyd recalled in a 2001 interview with historian Zachary Schrag, he told BPR administrators that “we’re going to have to change course here 180 degrees.” As chief spokesman for the DOT, Boyd challenged the entrenched technocratic and pro-highway culture of the BPR, as well as the often rigid and inflexible implementation of interstate highway construction.¹¹

BPR staffers resented the structural shift that reduced the authority of their agency. In May 1968, the same month that Boyd criticized the automobile culture and its freeway supporters, BPR director Francis C. Turner presented a vigorous defense of urban freeways at a highway safety seminar in Illinois. The highway builder, Turner insisted, was “no bull-dozing maniac in a black hat tearing everything apart just for the sport of it—or out of sadism or just plain cussedness.” Rather, urban highways were being built to satisfy “the demand for mobility which becomes greater every year.” He went on to defend the automobile as the ideal form of transportation. Turner also attacked the “new breed of amateur instant experts” opposed to highways, rejected the idea of subways in Washington, D.C., as a “magic carpet” substitute for expressways, and complained about misguided inner-city black opposition to BPR highway plans. The disconnect between Boyd and Turner, and between DOT and BPR, was obvious to most highway insiders at the time.¹²

Boyd further shook up the BPR highway establishment by appointing Lowell K. Bridwell as FHWA administrator. An Ohio newspaperman with the Scripps-Howard chain, Bridwell had been transferred in 1957 to the company’s Washington, D.C., office, where he wrote on national politics, especially transportation and urban issues. During this period, Bridwell covered the hearings of the Senate Rackets Committee, whose chief counsel was Robert F. Kennedy. In the process of writing about corruption in state highway programs, he got to know Kennedy and his aides. After John F. Kennedy was elected president in 1960, Bridwell was invited to join the administration, holding several mid-level transportation positions in the Commerce Department, culminating in 1965 as deputy to Undersecretary of Transportation Alan Boyd. As Federal Highway Administrator in the new DOT, Bridwell had a wider perspective on transportation issues than the more narrowly focused highway engineers in the BPR and the state highway departments. As the *Engineering News-Record* wrote on his confirmation as FHWA administrator, “Lowell Bridwell is a

different brand of cat from most of the engineering types who have much of the responsibility for running the federal-aid road program.”¹³

Boyd came to rely on Bridwell’s experience and good judgment. Like Boyd, Bridwell wanted to get the interstates completed, but he too displayed a new sensitivity on issues of expressway location and environmental damage caused by highway building. He was instrumental in pushing state road departments to move beyond sole reliance on engineering studies, cost-benefit forecasts, and traffic counts and to consider social and environmental impacts in the planning of urban expressways. “We have problems of a serious nature in at least 25 cities,” Bridwell told the *Engineering News-Record* in March 1968; “if we don’t step into these situations the highway people are going to take a beating.” In key highway disputes in Baltimore, Boston, Chicago, Seattle, Los Angeles, New Orleans, Philadelphia, Memphis, Washington, D.C., and elsewhere, Bridwell intervened, negotiated, threatened, cajoled, coerced, cancelled some routes, suggested alternatives, or recommended new studies of expressway routes. In Baltimore, when a group of architects advanced the idea of using an interdisciplinary team of urban planners, architects, sociologists, and historic preservationists, as well as engineers, to rethink the aesthetics of Baltimore’s interstate corridors, Bridwell jumped on the idea. The DOT subsequently promoted the “urban design concept team” approach elsewhere as a means of resolving difficult urban highway controversies. As it turned out, one of Bridwell’s main tasks as FHWA administrator was to curb the excesses of the highwaymen while also negotiating completion of the interstate system in cities where citizen activism had brought things to a halt.¹⁴

In his interview with Schrag, Boyd confirmed his basic disagreement with the technocratic thinking of the highway engineers. The highwaymen were highly competent professionals, Boyd noted, but “their view of life was that God’s greatest gift to America was concrete. They really believed that paving America was the greatest thing that could be done for America.” BPR and state highway engineers had enormous confidence in their own expertise, but they were unprepared for the upsurge of citizen opposition to the urban interstates. As Lee Mertz noted in retrospect, the highway engineers “blundered into this [freeway] revolt—they did not anticipate it.” By contrast, Boyd was committed to completing the interstate system, but he also wanted highways that had community support, that protected the environment, and that took into consideration the full range of urban political and social conditions. To achieve these goals, the new DOT secretary had to follow the new legislative mandates, curb the excesses of highway engineers, modify FHWA policies and procedures, mollify the freeway revolters, work persuasively with

Congress, especially its public works committees, and make tough decisions on interstate trouble spots.¹⁵

TROUBLE SPOTS AND POLICY SHIFTS

The DOT became operational in April 1967. By that time some 24,000 miles of interstate highway had been completed, a little more than half of the system's total projected mileage of 41,000 (later increased to 42,500 miles). Noncontroversial rural segments of the system comprised much of the remaining mileage. However, some of the toughest mileage that remained unfinished—probably fewer than 300 miles in all—was slated to traverse heavily built-up urban areas now rife with popular discontent and protest movements. By the fall of 1967, articles in major urban newspapers and popular magazines highlighted these unresolved interstate controversies. As the *New York Times* noted, “The storms that are currently raging in Cleveland, in New Orleans, in Nashville, in Cambridge, are only typical of a great many other cities, where highway construction has caused tremendous social and economic dislocations.” In those and other cities, highway engineers planned interstates for dense urban neighborhoods, parks, historic districts, environmentally sensitive areas, even upper-crust white suburbs. The multiplying expressway controversies stimulated the Senate Public Works Committee to begin hearings on the issue, suggesting a new level of political concern over the highway builders' vision. Most often, the *New York Times* went on, “It is in the ghettos where the impact hits hardest,” as the highway builders “have driven slum dwellers out of the only habitations they had, with little or no effort to relocate them.”¹⁶

Federal highway administrators in DOT worried about the hard-line approach of the state highway departments in local expressway disputes. “The main problem,” Federal Highway Administrator Bridwell noted, “is to get the State highway departments to work closely with the cities and communities. ... Unless there is real cooperation on the part of the State highway officials, the effort never gets going enough to provide alternatives.” Moreover, the BPR was considered “inflexible” on interstate routing, usually backing up the state highway departments and trying to ride out controversies while construction moved forward. But it was becoming more difficult to hold the line, as Turner confided to Bridwell in June 1967: “In the past, we expected opposition to disappear when a final location decision was made. This no longer is the case. Opponents to routings press for new decisions even after contracts are let.”¹⁷

In mid-1967, faced with mounting local opposition to urban route locations, Boyd directed Bridwell to keep him informed of disputed highway situations as they developed and before any decisions were made. Boyd wanted “a continuing flow of information ... on the status of controversial projects, whether or not a decision is imminent.” Interestingly, Boyd directed that such reports include the “political implications” of the highway route and of any alternatives. Paul Sitton, the DOT deputy undersecretary who shared Boyd’s views on freeways, coordinated the reporting process for Boyd on the troubled interstate locations. The idea was that these files could be updated regularly, thus permitting Boyd and the DOT generally to react in a timely fashion, develop alternative solutions, and make effective, informed decisions before local controversies reached “crisis stage.”¹⁸

By the end of 1967, FHWA regional administrators were sending in monthly reports on several dozen interstate “trouble spots” and “problem areas.” Almost all the trouble spots involved local opposition to residential displacement and community destruction. Several reports detailed freeway projects that destroyed central-city black communities, a matter of heightened concern in the midst of the civil rights era. Taken together, over a period of two years the trouble reports provided a remarkable account of an urban highway program with deep problems—a conclusion confirmed by ongoing critical media coverage of the interstate program.¹⁹

Creation of the DOT coincided with the Freeway Revolt’s high tide. Interstate location problems in the cities had reached crescendo stage. Boyd and Bridwell came to the DOT with an interest in promoting multiple transportation modes, decentralizing decision-making, and a sympathetic attitude toward freeway opponents. Symptomatic of these positions, Boyd hired a leading Washington, D.C., anti-freeway activist, Peter Craig, as a DOT litigation attorney. As a cabinet appointee, Boyd met biweekly with President Johnson and had his full support. Boyd recognized the shifting political currents of the time and worked effectively with congressmen of various persuasions on highway matters; one journalist characterized the “affable” Boyd as “a king of confidence.” He was especially conscious of the racial and civil rights implications of pushing expressways through inner-city black neighborhoods. Following the mandate of the 1966 law creating DOT, he was also paying close attention to the environmental impacts of various disputed highway locations. At the same time, Boyd sought to carry out President’s Johnson’s commitment to getting the interstate system completed. Instituting the reporting system on trouble spots was one way of getting a handle on problematic projects and locations. But when the time came to cancel a troubled highway route, Boyd

made the tough decision. One such instance involved the long-simmering controversy over the Three Sisters Bridge linking planned expressways on either side of the Potomac River in Washington, D.C. In January 1969, in the final days of the Johnson administration, Boyd removed the Three Sisters Bridge and another D.C. freeway from the approved interstate list, effectively killing the project (although pro-highway congressmen tried almost immediately to revive it). The decision to cancel the Three Sisters Bridge was hailed nationally as a great victory for the Freeway Revolt.²⁰

Boyd took other steps as well to manage the interstate crisis. Relocation issues dominated just about all the troubled urban expressways. Consequently, Boyd promoted important changes in highway policy implementation. In 1968, the Federal Highway Administration issued a new policy and procedure manual requiring two public hearings on interstate routes—one on highway corridor location and a second on more specific design issues. State highway officials, and many in the BPR, almost uniformly opposed the two-hearing regulation, but newspaper editorials around the nation praised the new policy. Local appeals to the FHWA challenging route decisions now delayed land acquisition or construction until final DOT administrative review. Subsequent legal action could delay or postpone highway construction even longer.²¹

Litigation issues concerned Boyd. By 1967, when the DOT became operational, many disputed urban interstates had already ended up in the courts. The cooperative planning mandates of the Highway Act of 1962 and the section 4(f) provisions of the DOT Act of 1966 protecting parks and historic sites created litigation opportunities for anti-freeway groups. Boyd asserted that the DOT would comply with all of the new mandates. He assigned John Robson, general counsel of the DOT, to keep the agency on the right side of the law. The problem, of course, was the decentralized nature of the interstate building process, where state highway departments selected routes and let construction contracts. In an October 1967 speech to legal officers of the American Association of State Highway Officials, Robson reported that the DOT had some 260 lawyers, about 25 percent of them working on highway issues. Robson noted the rising number of anti-highway lawsuits and expected that they would increase further as the interstates pushed into the city centers. He accepted the principle that citizens could challenge DOT highway decisions, but he urged state highway departments to use the two-hearing procedure more effectively in working out local compromises, thus preventing court challenges. Another issue of contention stemmed from the Civil Rights Act of 1964 and a subsequent Executive Order by President Johnson that required equal-opportunity hiring on all federal construction contracts.

Robson pointed out in his speech to the state highway attorneys that Boyd intended “to implement that policy to the hilt.” On all three issues—prior planning, protection of parks and historic sites, and equal-opportunity hiring—the DOT made it clear that it would support the legal mandates, even at the cost of slowing highway construction or canceling state-planned expressways.²²

In the last year of the Johnson administration, the Federal-Aid Highway Act of 1968 reflected further efforts to reconcile housing demolition with highway construction. The bill originated in the DOT, and it was heavily promoted by Bridwell in congressional hearings. The new law required that states provide decent, safe, and sanitary relocation housing prior to property acquisition for highway routes—the same requirements that had been in place for federally sponsored urban-renewal projects since the 1950s. Under the 1968 highway legislation, considerable federal funding, diverted from the Highway Trust Fund, was made available to states for moving expenses, housing relocation, and housing and rent supplements. Each state was required to enact enabling legislation by July 1970 in order to qualify for additional federal highway funding. As Bridwell put it in a speech at a Highway Research Board Conference, “If we can’t find housing, we can’t build highways.” The 1968 highway legislation also contained an urban-impact amendment that required state and local highway planners to consider the social, economic, and environmental effects of highway projects, as well as compatibility with established community planning goals. Thus, the Highway Act of 1968 and subsequent legislation, such as the Uniform Relocation Assistance Act of 1970, required more careful attention to interstate routing and housing relocation than ever before. This included compliance with provisions of the Civil Rights Act of 1964 and the Fair Housing Act of 1968. The decentralized nature of the highway program resulted in uneven implementation at the state level, and there never seemed to be enough replacement housing for all those dislocated, but the new federal mandates dramatically altered the highway-building landscape.²³

Finally, the DOT under Boyd and Bridwell directly challenged the highway lobby and the state highway departments in significant ways. The Highway Trust Fund was seemingly inviolable, but by 1968 Boyd had persuaded Congress to approve a limited diversion of Trust Fund dollars for urban fringe parking, traffic safety innovations, and housing relocation payments. The many components of the highway lobby expressed its collective outrage, but the bill squeezed through Congress, although that body felt obligated to state that “it is the sense of the Congress that the integrity of the Highway Trust

Fund be maintained and that it be free from impoundments and diversions of funds.” Nevertheless, it was clear that diversion had taken place. On several occasions, President Johnson had already withheld distribution of Trust Fund monies to the states, justifying these actions as necessary to balance the budget or combat inflation during the Vietnam War, and some in the Bureau of the Budget had actually called for the termination of the Highway Trust Fund. The highway lobby found these diversion actions “intolerable,” but new precedents had been established, setting the stage for future diversions. In addition, in speeches and news conferences around the country, Boyd consistently pushed the state highway departments to recognize the need for urban mass transit and a balanced transportation system.²⁴

Engineers unsympathetic to mass transit ran the state highway departments and that problem eventually led to the shifting of transportation decision-making to regional or regional planning bodies. The 1962 Highway Act mandated metropolitan transportation planning, but in many states the road departments continued to fulfill that function. By the mid-1960s federal mandates for local/metropolitan planning, such as those required for highways, urban renewal, and model cities, resulted in the formation of substate or regional planning agencies known as Councils of Government (COGs). The COGs provided a new layer of metropolitan or area-wide planning review and decision-making on such federally funded programs as highway building, mass transit, and airport development. The Johnson administration and the DOT looked to the emerging COG’s (some 300 COGs had sprouted around the nation by 1971) as a means of developing balanced mass-transit systems in sprawling metropolitan areas. The devolution of authority represented by the COGs also provided a way around the state highway departments and their traditional addiction to asphalt and concrete. The rise of the COGs also paralleled the emergence of state Departments of Transportation—“little DOTs,” some fifteen of them by 1971. These new administrative agencies reflected a growing public recognition of the interconnectedness of various transportation modes mostly ignored by state highway departments. They also led, construction trade journal *Roads and Streets* complained, to a “dilution of highway dept. clout.” Governors in the big urban states sought greater power and flexibility on transport issues beyond the expertise of state highway engineers. State highway departments had begun losing authority or they were absorbed into new state DOTs, while Congress began diverting some Highway Trust Funds to metropolitan communities for mass transit and airport modernization. By the end of the 1960s, congressional legislation and DOT administrative actions had responded to the Freeway Revolt, marginalizing the authority

of state highway engineers but creating new mechanisms and funding for citizen involvement in transportation planning and implementation.²⁵

JOHN A. VOLPE AND THE DEPARTMENT OF TRANSPORTATION

Richard Nixon's presidential victory in the election of 1968 led to an administrative shake-up in the DOT. New DOT secretary John A. Volpe had been a building contractor, public works director and governor of Massachusetts, and federal highway administrator during the Eisenhower administration. Francis C. Turner, a professional highway engineer and former BPR director, took over from Lowell Bridwell as head of the Federal Highway Administration. Unlike their predecessors, one contemporary analyst wrote, both Volpe and Turner "carried reputations as hard-line road builders." Typically perhaps, while governor of Massachusetts, Volpe urged Congress to increase interstate highway mileage by another 41,000 miles by 1985, effectively doubling the size of the interstate system to accommodate projected traffic increases. With Volpe, one journalist noted, "The highwaymen have good reason to assume that Happy Days Are Here Again." Many critics expected that, as DOT secretary, Volpe would "pave the country" or drop a "concrete curtain" on urban America. Famed Harvard economist John Kenneth Galbraith, an activist opponent of Boston's planned Inner Belt Expressway, declared to a television audience that Volpe was "a most compulsive road builder ... and if we don't keep an eye on him in Washington he'll cover the country with concrete." Similarly, Turner was said by critics to harbor a "bulldozer bias." Over several decades in the BPR, he consistently adhered to the single-minded goal of pouring concrete and building bigger highways, and observers generally expected more of the same. Highway lobbyists, according to *Christian Science Monitor* reporter Lyn Shepard, looked to Volpe and Turner to "stamp out" the freeway revolt and "get the show on the road again."²⁶

Things did not work out exactly that way. President Nixon initially asserted interest in developing a coordinated urban policy, reflected in his appointment of Harvard professor Daniel P. Moynihan as urban adviser and in the creation of the Urban Affairs Council, headed by Moynihan. As early as 1960, Moynihan had written critically about the interstate system and about the lack of metropolitan transportation planning, especially for mass transit, calling it "lunatic" to "undertake a vast program of urban highway construction with no thought for other forms of transportation." Moynihan also disparaged the prevailing automobile culture: "More than any other single factor, it is the automobile that has wrecked the Twentieth-Century American city,

dissipating its strength, destroying its form, fragmenting its life.” Reflecting this position, Moynihan, along with Galbraith, had been involved in the 1960s citizens movement that challenged Boston’s Inner Belt Expressway through Cambridge. In the postelection transition period, Nixon appointed a Transportation Task Force to advise on urban policy issues, which in due course recommended several Moynihan-type reforms—more mass transit, a “public transportation trust fund,” and more careful planning of urban expressways. In a 1969 article on national urban policy, Moynihan also advocated new metropolitan forms of government that could more effectively implement federal programs. Moynihan opposed destructive urban freeways, supported trust-fund diversion, and welcomed the downward shift of authority, which soon came with Nixon’s proposed revenue-sharing plan. However, Nixon eventually tired of internal urban policy debates. Within nine months, he shifted domestic policy control to White House adviser John Ehrlichman, and the Urban Affairs Council seemingly went out of business. Moynihan spent another year at the White House, mostly working on his family assistance welfare reform. In December 1970, he returned to Harvard, leaving urban issues to a few cabinet members such as Volpe and HUD secretary George Romney. But at the outset of the Nixon administration, urban policy, transportation policy, and the American city seemed high on the domestic agenda. More specifically, as journalist Richard Reeves has written, Nixon and Moynihan “shared a desire to drive social welfare decision-making power down from Washington to the states, to municipalities, to individuals,” and in the process “diminishing the power of the Washington bureaucrats.” Moynihan helped Nixon conceptualize the devolution of authority, whether in welfare policy or transportation planning.²⁷

As DOT secretary, Volpe quickly came to realize that an important mission of his agency was to build a balanced, intermodal transportation system. One month into his new job, Volpe hinted at a change of heart in an interview with *Highway User*, a trade journal representing highway interests, stating that “a balanced system of freeways and rail transit is urgently needed and ... it should go forward as expeditiously as possible.” In a 1972 report based on interviews and insider access, political scientist Edwin A. Bock concluded that “in the first half year in office, Volpe and his men were highly responsive to cues and suggestions from the vicinity of the President.” For starters, this meant an emphasis on mass transit, as well as a less-destructive and more environmentally sensitive highway program. In one of his first speeches, Volpe uncharacteristically followed the Boyd-Moynihan line of analysis by questioning “the survival of the automobile in the centers of our largest cities.”

The car and the highway, Volpe suggested, needed to be “tallied against other community and individual values—the need for elbow room, clean air, stable neighborhoods, more park land, and many others. So far, we have sought sheer mobility above every other consideration; other needs have been neglected, and the social equation is clearly out of balance.” As Bock noted at the time, because of his background as a public works builder, Volpe recognized “the need to overcome [his] public image as a highway zealot.”²⁸

For his part, Turner had spent almost forty years in the BPR. A hardened highwayman, he found policies pursued by Boyd and Bridwell in the DOT difficult to swallow. In an oral history interview for the LBJ Library in November 1968, Turner expressed criticism of DOT leadership, presumably that of Boyd and Bridwell: “There has been, in my opinion, a considerable feeling in the new department, in many of the places where decisions are made, that the highway program is responsible for many of the evils of the world, not only in the transportation field but elsewhere as well.” The resulting “antipathy toward the highway program,” Turner complained, jeopardized the Highway Trust Fund, making it vulnerable to those who wanted to divert highway dollars to mass-transit programs. Not only was Turner critical of Boyd’s DOT leadership, but he often denigrated rail mass transit, preferring enhanced bus systems, or “rubber-tire transit,” that utilized highways. In a transition meeting after Nixon’s election, Boyd urged Volpe not to appoint Turner as federal highway administrator because, as he told Schrag, “Frank is just so dead-set on building concrete.” Volpe responded that he had already offered the job to Turner. Interestingly, after a subsequent meeting with Alan Boyd, Moynihan warned Nixon in the early weeks of his administration that the Turner appointment “has the makings of a grave mistake” because of Turner’s predilection toward highway building at the expense of the cities. Nixon assistant BOB Haldeman responded that “It can be stopped,” but Turner was appointed anyway.²⁹

Confronted with new political realities as federal highway administrator, Turner made a partial public turnabout. For example, in a March 1969 speech to midwestern state highway officials, Turner sounded a lot like Alan Boyd on relocation issues. The nationwide urban freeway revolt, he noted, made housing relocation “a subject of increasing concern in Congress.” Turner committed the resources of the FHWA to assisting the states in complying with relocation provisions of the 1968 highway act. He suggested the need to work with HUD to annually determine housing demand. If demand exceeded supply, HUD would seek authority and funding to “bridge the gap.” Turner also urged the states to develop their own plans for replacement housing,

possibly so that they would not draw on Highway Trust Fund monies. Turner ended his speech with a warning to state highway officials: “We have a problem here to solve, one of first-rate importance. Unless we solve it and do so quickly and adequately, we run the risk of having our highway program come to a halt, and I’m sure nobody wants that to happen.” Turner wanted to keep the interstate program on track at all costs, even if it meant publicly moderating somewhat the uncompromising, hard-line engineering approach that had always prevailed in the past. John Burby, one of Alan Boyd’s DOT staffers, in his book *The Great American Motion Sickness* (1971), suggested that Volpe put Turner on a short leash, and that his appointment “carried with it strings which forbade him to go beyond the Secretary’s positions on highways in published speeches.” Nevertheless, Turner regularly attacked what he called the “anti-highway lobby,” and he consistently urged Volpe to hold the line on controversial urban expressways.³⁰

To advise on these now-more-compelling transportation issues, Volpe tapped Seattle mayor James D. Braman as Assistant DOT Secretary for Urban Systems and Environment—a new position created to handle the urban “trouble spots.” Braman was a high-school dropout who became a carpenter, a Navy officer in World War II, then a lumber and hardware dealer in the postwar era. He got into politics in the 1950s as a fiscal conservative, served ten years on the Seattle city council, then five more years as mayor. As mayor, he successfully fought state highway department plans for an expressway and a massive interchange that would have traversed a park and destroyed black housing, promoting a mass-transit system instead. The Seattle mayor had characterized highway interests as “the enemy camp.” Mayor Braman also became heavily involved in the activities of the National League of Cities and the U.S. Conference of Mayors. By the late 1960s, both organizations strongly supported urban mass transit financed by a trust fund similar to the mechanism that paid for the interstates. In February 1968, Seattle voters rejected a bond issue for mass transit, a defeat Braman attributed to limited federal support for urban-transit projects. Subsequently, Braman played a major role in getting the National League of Cities behind the transit trust-fund idea, then embarked on a national campaign to promote it. President Nixon’s domestic policy adviser, John Ehrlichman, a Seattle lawyer, had worked with Braman on a local highway fight, a connection that led to Braman’s appointment to Nixon’s advisory Transportation Task Force and then to the DOT position. Braman had national stature on mass-transit issues, and he was perceived as “a friend in court for the mayors who are fussy about roads cutting through their cities.” It was clear, political scientist Edwin A. Bock has written, “that

Volpe had taken onto his team one of the most vigorous environmental critics of highways and automobiles.” Volpe hoped that the Seattle mayor would help shape a new transportation policy, but Braman’s major interest in taking the new DOT job was in getting a mass-transit trust-fund bill through Congress.³¹

The mass-transit issue surged to the surface during Volpe’s first year at DOT. At that point, the freeway revolt had bogged down highway construction in about twenty-five cities and a slew of new books and articles attacked the urban interstates. Automobile traffic congestion clogged city streets, even where freeways had been built. Big-city mayors had been clamoring for years for more federal support for deteriorating public transit systems. Braman was making the same case inside the DOT. Moynihan also urged the DOT to consider preparing a mass-transit trust-fund legislative package and told Volpe that President Nixon was “enthusiastic” about such a proposal. Moynihan’s Urban Affairs Council took up the issue, conceding that cities needed transit alternatives to automobiles but disagreeing on the funding mechanism. Volpe the highway builder embraced mass transit long before the *Wall Street Journal*, in June 1971, reported it to be his “number one priority.” However, a debate raged within the administration and the DOT about how to pay for enhanced urban transit. Braman relentlessly pushed the mass-transit trust-fund idea, while other top DOT people feared taking on the powerful highway lobby, which was highly protective of its designated annual funding. The unpolitic Braman confronted Volpe on the trust fund, threatened to resign several times, and eventually convinced the DOT secretary to back the idea. In the fall of 1969, the DOT sent the draft of a transit trust-fund bill to the White House. Volpe and Braman subsequently presented the concept at a cabinet meeting, but the trust-fund idea never got past the Bureau of the Budget (BOB) and President Nixon’s closest advisers, especially famed economist Arthur F. Burns, soon appointed by Nixon to head the Federal Reserve Board. Burns and the BOB disliked the trust-fund mechanism, including the Highway Trust Fund, because it limited the president’s discretionary spending authority.³²

The mass-transit trust fund was shot down again the following year. Instead, the Urban Mass Transportation Assistance Act of 1970 authorized \$10 billion from general appropriations over twelve years for urban transit, beginning in 1971. Some of that funding went for subways in a few cities, some for enhanced bus transportation. In 1972, in hearings before the House Subcommittee on Roads, Volpe suggested that Highway Trust Fund money might be diverted to a “single urban fund” to finance alternative transportation projects

and modes, but the highway lobby mobilized once more to defeat diversion. A year later, the Federal-Aid Highway Act of 1973 opened the gate to diversion for the first time, but the gains were limited: \$200 million for buses in 1975 and \$800 million for rail transit and buses in 1976. But the law authorized an additional \$3 billion for the Urban Mass Transportation Administration (UMTA) from general revenues. Another complex provision of the new law enabled local communities to cancel planned freeways and receive equivalent funding for mass transit from the federal government's general fund, not the Highway Trust Fund.³³

In some ways, the Federal-Aid Highway Act of 1973 represented the culmination of the Freeway Revolt. Some contemporary transportation analysts reported that anti-freeway lobbying, especially by the Highway Action Coalition, an umbrella group representing dozens of local organizations, had heavily influenced passage of the 1973 legislation. In an interview with historian John Greenwood, FHWA planner Lee Mertz recalled the contemporary scene in Washington: "The Congress was subjected to all kinds of pressure from outside of the highway community—interest groups and the Highway [Action] Coalition, urban officials and environmentalists and God knows what. ... Mass transit exponents surely were there. The sheer size of the urban interstate highway program and the apparent rigidity of the decision-making structure drew antagonists like flies!" However, at the end of the decade, transportation scholar Alan Altshuler (who served as secretary of transportation in Massachusetts in the early 1970s) provided an alternative explanation: highway supporters in and out of Congress sought "to return disputes about highway-transit tradeoffs firmly to the local level," while at the same time maintaining the integrity of the Highway Trust Fund. According to Altshuler, the freeway revolters and mass-transit advocates were "minority actors who achieved influence largely by maximizing their nuisance potential." Altshuler may be right. Mass-transit funding over three years following the 1973 highway act totaled \$1 billion (not counting the UMTA appropriation), but highway spending from the trust fund over the same period amounted to \$19 billion. Local governments got control of some transportation funding, but the disparity between transit and highway expenditures continued for several more decades. The major shift in emphasis came with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which provided some \$150 billion for highways and mass transit over six years, most of it spent locally at the discretion of metropolitan planning organizations (MPOs). Daniel P. Moynihan, now a U.S. senator from New York, reappeared on the national stage and played a key role in the ISTEA congressional debates, especially

in determining funding levels and in locating the decision-making authority locally—a position he had advocated two decades earlier as President Nixon's urban affairs adviser. In the early 1970s, however, despite Volpe's conversion to mass transit, congressional infighting and highway lobbying kept the road builders in business and the American driver on the road.³⁴

Mass transit was not the only subject on Volpe's mind. Soon after taking office, the DOT secretary confronted several highly publicized "trouble spots" on the interstate map, with the nationally controversial New Orleans Riverfront Expressway at the top of the list. The New Orleans fight dated back to 1946, when New York's Robert Moses submitted a highway plan to the Louisiana State Highway Department that included an elevated expressway along the waterfront separating the historic French Quarter from the Mississippi River. The debate began heating up in the late 1950s and intensified in the 1960s, when numerous anti-expressway groups organized against the city's civic elites, who had supported the river road as a way of revitalizing downtown New Orleans. The original plan called for an elevated expressway, but Lowell Bridwell intervened and approved a "ground-level" freeway for part of the route as a compromise. Hostile to the elevated road, some expressway opponents initially accepted the ground-level concept, but most later pushed for a tunnel version or no highway at all. "Dig It or Dump It," argued the anti-freeway activists. The New Orleans freeway fight attracted national attention. The debate filled the pages of magazines and newspapers, and several lawsuits had already been filed by the time Volpe took over DOT. In June 1969, Volpe sent Braman to New Orleans for a final administrative review. Braman met one morning with city and state leaders who supported the road plan, walked the highway route at noon, and then met with representatives of opposition groups in the afternoon. On his return to Washington, Braman reported that the opposing positions were "irreconcilable" and then recommended that an alternate route be found for the New Orleans expressway.³⁵

New Orleans provided a significant test case for the new leaders at DOT. Volpe had already been speaking out on mass transit and the need to protect cities from indiscriminate highway building. Braman had been on the job for only two months and his views on urban issues still carried considerable weight. At the time, Moynihan was actively promoting new urban thinking during long conversations with President Nixon in the Oval Office. The Advisory Council on Historic Preservation, established by the Historic Preservation Act and composed of some cabinet members and ten preservation leaders, had urged an alternate route to protect the French Quarter. Also important, however, were pending legal challenges to the Riverfront Expressway. These

suits marshaled credible evidence that the river road had been promoted and approved without regard to the 3-C planning requirements of the Highway Act of 1962, the Yarborough Amendment of the Highway Act of 1966, Section 4(f) regarding historic sites of the DOT Act of 1966, and the essential restrictions of the Historic Preservation Act of 1966. The crucial point here was that in 1965, Interior secretary Stewart Udall had designated the entire French Quarter as a historic district. DOT lawyers also chimed in on the Riverfront Expressway, pointing out the legal ramifications of the existing riverfront plan and the merits of the legal challenges to it. The litigation, DOT lawyer Alfred G. Vigderman wrote to Volpe, “could cause considerable further delay in the program if not resolved expeditiously.” If the Advisory Council on Historic Preservation disapproved the existing route, Vigderman continued, “we should consider abandoning the entire riverfront expressway project.” With the exception of FHWA administrator Turner, no one in Volpe’s immediate circle found anything to like in the New Orleans expressway. Within a few weeks of Braman’s New Orleans visit, Volpe announced cancellation of the Riverfront Expressway, citing that its completion “would have seriously impaired the historic quality of New Orleans’ famed French Quarter.” Volpe also transferred the river road’s funding to an outer beltway—labeled the Dixie Freeway—across the Mississippi River that had been heavily promoted for several years by Louisiana congressman Hale Boggs. Like the Riverfront Expressway, the Dixie Freeway was never built.³⁶

Defying expectations, Volpe followed the New Orleans decision by canceling a number of other controversial urban interstate segments. As governor of Massachusetts, Volpe had strongly supported Boston’s Inner Belt Expressway that cut through a dense housing corridor in Cambridge. Throughout the 1960s, citizens movements forced numerous delays and restudies of the projected route, followed in early 1970 by a moratorium on highway building in the Boston area ordered by Governor Francis Sargent. Inner Belt opponents effectively built an impressive base of political support that included U.S. House Speaker John McCormick, Senator Edward Kennedy, and Congressman Tip O’Neill—all from Massachusetts. Now DOT secretary, Volpe quickly recognized that local support for the Inner Belt had dissipated. In a move endorsed by Braman, Volpe eventually approved a costly new highway study requested by Governor Sargent, essentially killing the Inner Belt Expressway.³⁷

The pattern of decision-making applied in New Orleans and Boston prevailed elsewhere as well. In San Antonio, the DOT altered the interstate route that would have bisected Brackenridge Park. In Memphis, after the

U.S. Supreme Court questioned whether the DOT had considered all feasible alternatives to the Overton Park route of Interstate-40 and returned the case to a lower court, Volpe permanently canceled the 3.7-mile expressway. In other cities, the *Boston Globe* noted in 1971, Volpe seemed “increasingly willing to let local support—or opposition—decide the future of the remaining urban links in the 42,000 mile interstate system.” In this, he apparently had the support of the Nixon White House. The *Wall Street Journal* reported in June 1970 that “top White House domestic affairs staffer John Ehrlichman repeatedly urged Mr. Volpe to make antihighway decisions whenever necessary.” Consequently, with Volpe’s support or acquiescence, Baltimore, Chicago, Seattle, New York City, Philadelphia, Cleveland, Detroit, Milwaukee, Pittsburgh, Providence, and Washington, D.C., among other cities, elected not to build controversial expressways. In these and other cases, Volpe followed the mandates of the restrictive highway legislation enacted in the 1960s, as well as the National Environmental Policy Act of 1969 (NEPA), which added environmentally sensitive areas to the list of prohibited places for federal highways and required environmental-impact studies for all federal construction projects. NEPA baffled the highway engineers throughout the 1970s and became the most effective legal weapon for the freeway fighters. Volpe recognized the significance of NEPA, stating in 1970 that “freeways that adversely affect our environment cannot be built.” As it turned out, John Volpe exceeded even Alan Boyd as a freeway terminator.³⁸

Volpe’s conversion from highway builder to mass-transit advocate and environmental protector at first mystified and then angered his old friends in the highway lobby. “Remember John A. Volpe, “asked the *Boston Globe* in 1971, “king of the open road, builder of mighty highways, the Joe Frazier of asphalt?” Less than two years into the DOT job, the *Globe* reported that “Volpe now stands accused of being a traitor to his class, having been drummed out of the highwaymen’s corps” by the road lobby. Highway builders were reported as “terrified” that Volpe’s support for mass transit and a balanced transportation system meant a lot less money for highways. “Highway officials fear loss of influence,” the *Engineering News-Record* reported in November 1970, noting deep concerns about the diversion of highway trust funds to mass transit and the consequent shrinkage of the “highway breadline.” In March 1971, the powerful Highway Users Federation, a coalition of industry and pro-highway associations, publicly criticized Volpe’s “alarming” anti-highway bias. *Transport Topics*, the weekly trade journal of the American Trucking Association, embarked on a long editorial campaign in the early 1970s condemning the DOT’s apparent plans for trust-fund diversion. Volpe’s support

for mass transit and his decisions canceling controversial freeways, the *Wall Street Journal* reported in 1970, “are alarming roadbuilders, who expected a clear path when Mr. Volpe joined the Nixon Cabinet.” According to Burby, the U.S. House Public Works Committee’s chief attorney complained about the new regime at DOT: “We used to think the attitude downtown was bad in Alan Boyd’s day, but this Administration is *totally* anti-highway.” Volpe generally ignored the criticism. He accepted guidance from Nixon aides, grew in the job, and developed a wider perspective on transportation policy.³⁹

Disputes continued within the DOT, however, primarily between Braman and Turner. According to Mertz, “The chemistry between Frank Turner and Mayor Braman was really bad. Neither liked the other very much.” Braman served as a high-level adviser to Volpe, but he felt marginalized without any operational authority. Disappointed over the failure of the mass-transit trust-fund proposal that he had worked so hard for in 1969, but pleased with the urban mass-transit legislation of 1970, Braman resigned in October of that year and returned to Seattle. Back home, he complained to the Seattle newspapers about all the “skirmishing” with the highway lobby. At the same time, he took credit for some of the expressway cancellations and claimed that he had won “the battle for the secretary’s [Volpe’s] mind.” Meanwhile, FHWA administrator Turner, a career road engineer who had been close to the highway lobby for decades, increasingly found himself at odds with his old friend, John Volpe. Along with most state and federal highway engineers, Turner resented and resisted the changes imposed by new congressional mandates and DOT policy shifts under Boyd and Volpe. Discouraged by the DOT’s policy direction, Turner retired in 1972, but then immediately went to work as a staff consultant to the U.S. House Public Works Committee, a powerful protector of highway funding. In this new role, Turner worked against the mass-transit provisions of the Federal-Aid Highway Act of 1973. Volpe himself resigned from the DOT in early 1973 after President Nixon appointed him ambassador to Italy. Later that year, Congress broke open the Highway Trust Fund for some mass-transit uses, initiating a new phase in the development of U.S. transportation policy.⁴⁰

By 1973, the Freeway Revolt had seemingly run its course. Many troubled interstates were never built, or warring parties agreed on compromise or alternative routes. New and restrictive legislation in the 1960s imposed constraints on the highway builders for the first time. At every step along the way, powerful interest groups lined up to shape congressional outcomes. Any effort to tinker with the Highway Trust Fund or divert any portion of the

billions allocated for road building to other uses created outrage among the so-called road gang. Congressional legislation set transportation policy, but after 1966 the new Department of Transportation took on the responsibility of policy implementation. In that role, the DOT had considerable flexibility in mediating highway disputes, issuing rules and regulations or policy and procedure manuals for state highway departments, and terminating some troublesome expressway segments. Over time, the DOT challenged entrenched highway interests, advocated diversion of Highway Trust Fund money to urban mass transit, and supported the downward shift of transportation decision-making.

Recent scholarly literature on American politics has focused on the historic tensions between the powerful role of the national state and the persistence of local authority. Historians of American political development have sketched out the patterns of a constantly evolving “complex federalism,” a system structured around a politics of contestation and accommodation over such matters as education, social welfare, civil rights, public works policy, and highway building, among other issues. “States and localities,” historian Thomas J. Sugrue has written, “became battlegrounds over the meaning and implementation of federal policies.” Building the interstate highway system was an administratively complex matter that involved all three levels of government in the United States. The state highway departments planned the routes—sometimes with local input—and then built the roads. The federal government provided most of the money, as well as fiscal and administrative oversight and final approvals, at first through the BPR and after 1966 through the DOT. But the structure of authority at the state level was unable to accommodate rising citizen protest. With their aura of professional expertise, highway engineers rejected public opinion as a guide for road building. Controlled by the engineers, state highway departments resisted change from above and below, persisting in pouring concrete. President Johnson promoted establishment of the DOT to bring many disparate agencies under a unified authority. The DOT had many missions, but one goal was to develop a rational and national transportation policy that might be implemented locally, as initially envisioned by the 3-C requirements of the Highway Act of 1962. DOT officials—Boyd and Bridwell, and then Volpe and Braman—sought to bring order out of the chaos of urban expressway building and to encourage alternative transit modes. They also sought to nurture community-based transportation planning agencies, such as the COGs and subsequent metropolitan planning organizations, countering unresponsive state highway agencies. Ironically, they used centralizing power to achieve the decentralizing goals

of diversion and devolution, making it possible for the federal government to respond effectively to the Freeway Revolt.⁴¹

University of Alabama at Birmingham

NOTES

1. Carl Solberg, *Riding High: America in the Cold War* (New York, 1973), 257.
2. Peter O. Muller, "Transportation and Urban Form: Stages in the Spatial Evolution of the American Metropolis," in *The Geography of Urban Transportation*, ed. Susan Hanson, 2d ed. (New York, 1995), 43; Mark I. Gelfand, *A Nation of Cities: The Federal Government and Urban America, 1933–1965* (New York, 1975), 222–30; Mark H. Rose, *Interstate: Express Highway Politics, 1941–1956* (Lawrence, Kans., 1979); American Association of State Highway and Transportation Officials, *The States and the Interstates* (Washington, D.C., 1991); Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* (New York, 1997); Jane Holtz Kay, *Asphalt Nation: How the Automobile Took Over America and How We Can Take It Back* (New York, 1997).
3. Raymond A. Mohl, "Planned Destruction: The Interstates and Central City Housing," in *From Tenements to the Taylor Homes: In Search of an Urban Housing Policy in Twentieth-Century America*, ed. John F. Bauman, Roger Biles, and Kristin Szylvian (University Park, Pa., 2000), 226–45; Raymond A. Mohl, "Stop the Road: Freeway Revolts in American Cities," *Journal of Urban History* 30 (July 2004): 674–706; Alan Altshuler and David Luberoff, *Mega-Projects: The Changing Politics of Urban Public Investment* (Washington, D.C., 2003), 83.
4. Richard O. Baumbach Jr. and William E. Borah, *The Second Battle of New Orleans: A History of the Vieux Carre Riverfront-Expressway Controversy* (Tuscaloosa, Ala., 1981); Douglas H. Haeuber, *The Baltimore Expressway Controversy: A Study in the Political Decision-Making Process* (Baltimore, 1974); John E. Seley, "The Kink in Nashville's Interstate-40," in *The Politics of Public-Facility Planning*, ed. John E. Seley (Lexington, Mass., 1983), 57–66; George W. Curry and the Property Owners Committee, A Petition Appeal [Montgomery, Ala.], 28 April 1960, Bureau of Public Roads Records (hereafter cited as BBP Records), RG 30, General Correspondence, 1912–65, box 1665, U.S. National Archives II, College Park, Maryland; Vera Hirschberg, "Forces Gather for Stormy Debate over Highways with Trust Fund as Lightning Rod," *National Journal* 2 (6 June 1970): 1206; BOB Levey and Jane Freundel Levey, "Lost Highways: The Plan to Pave Washington, and the People Who Stopped It," *Washington Post Magazine*, 26 November 2000, 10–26; Margaret Cary Tunks, *Seattle Citizens Against Freeways: Fighting Fiercely and Winning Sometimes* (Kearney, Nebr., 1999); Richard Henry Ginn, "Interstate-40 Through Overton Park: A Case Study of Location Decision-Making" (M.S. thesis, University of Tennessee, 1970).
5. Daniel P. Moynihan, "Policy vs. Program in the '70s," *The Public Interest* 20 (Summer 1970): 94.
6. John Greenwood, interview with W. Lee Mertz, 5 and 12 March 1988, typescript, 49–50, 96, Interstate Highway Research Project, Public Works Historical Society, copy in author's possession; Norman Beckman, "Impact of the Transportation Planning Process,"

Traffic Quarterly 20 (April 1966): 159–73; Thomas A. Morehouse, “The 1962 Highway Act: A Study in Artful Interpretation,” *Journal of the American Institute of Planners* 35 (May 1969): 160–68; Walter K. Johnson, “The 1962 Highway Act: Its Long-Term Significance,” *Urban Law Annual* 3 (1970): 57–64.

7. Wolf Von Eckardt, “Battle of New Orleans: Turning Point in the Freeway War,” *Washington Post*, 26 June 1966; Joseph S. Clark, “Cities Revolt Against the Expressway,” *Congressional Record-Senate*, 89th Cong., 2d sess., 6 April 1966, 7873–74; Baumbach and Borah, *Second Battle of New Orleans*, 102–8.

8. Monte Latimer Monroe, “Lone Star Environmentalist: U.S. Senator Ralph W. Yarborough” (Ph.D. diss., Texas Tech University, 1999), 78–84; Ralph Yarborough, “Congress Must Act to Preserve America’s Parks from Destruction by Highways,” *Congressional Record-Senate*, 89th Cong., 2d sess., 23 June 1966, 14073–74; Ralph W. Yarborough, “Congress Takes Historic Action Creating National Policy of Preserving Parks and Historic Sites from Destruction by Highways,” *Congressional Record-Senate*, 89th Cong., 2d sess., 29 July 1966, 16843–56; Rex M. Whitton, “Speech at the Twentieth Annual Meeting and Preservation Conference of the National Trust,” Philadelphia, 7 October 1966, in Mark P. Lowrey Papers, box 47-5, File 4, Louisiana and Special Collections Department, Earl K. Long Library, University of New Orleans, New Orleans.

9. James MacGregor Burns, *To Heal and to Bind: The Programs of President Lyndon B. Johnson* (New York, 1968), 326–45, for Johnson’s 1966 Transportation Message to Congress; Joseph A. Califano, *A Presidential Nation* (New York, 1975), 27–29, 50–51; Joseph A. Califano, *The Triumph and Tragedy of Lyndon Johnson* (New York, 1991), 122–26; Robert Dallek, *Flawed Giant: Lyndon Johnson and His Times, 1961–1973* (New York, 1998), 313–17; Mark H. Rose, Bruce E. Seely, and Paul F. Barrett, *The Best Transportation System in the World: Railroads, Trucks, Airlines, and American Public Policy in the Twentieth Century* (Columbus, 2006), 134–50; David G. McComb, interview with Lowell K. Bridwell, 17 October 1968, pp. 14–21, Lyndon B. Johnson Library Austin, Texas; Grant M. Davis, *The Department of Transportation* (Lexington, Mass., 1970); Alan S. Boyd, “The U.S. Department of Transportation,” *Journal of Air Law and Commerce* 33 (Spring 1967): 225–33; Alan S. Boyd, “The Federal Department of Transportation,” *Traffic Quarterly* 21 (October 1967): 467–69.

10. David G. McComb, interviews with Alan S. Boyd, 20 November and 18 December 1968, Lyndon B. Johnson Library “Planes, Trains, Ships, Roads: An Official Look Ahead” [Interview with Alan S. Boyd], *U.S. News and World Report*, 24 January 1966, 48–51; John Burby, *The Great American Motion Sickness: Or Why You Can’t Get There from Here* (Boston, 1971), 44–57.

11. Alan S. Boyd, “Speech before Transportation Task Force of the State of California,” Los Angeles, 6 September 1967, Federal Highway Administration Records (hereafter cited as FHWA Records), RG 406, General Subject File, box 14, U.S. National Archives II, College Park, Maryland; Alan S. Boyd, “Speech before South Carolina Governor’s Transportation Conference,” Columbia, 29 November 1967, FHWA Records, RG 406, General Subject File, box 14; Alan S. Boyd, “Speech before Third Annual Rocky Mountain States Governor’s Conference,” Albuquerque, 7 September 1967, FHWA Records, RG 406, General Subject File, box 14; Lyn Shepard, “U.S. Traffic Chief Defends Roles of Railroads and Highways,” *Christian Science Monitor*, 6 June 1968, 15; Zachary Schrag, transcript of telephone interview with Alan S. Boyd, 2 October 2001, p. 2, copy in author’s possession.

12. Francis C. Turner, "The Highway Program Faces New Challenges: Speech at Illinois Editors' Highway Safety Seminar," Rocton, Illinois, 3 May 1968, FHWA Records, RG 406, Lowell K. Bridwell Files, box 16; Robert Janus, "Transportation: No Policy, No System," *Washington Monthly* 1 (April 1969): 49; Burby, *The Great American Motion Sickness*, 46. On the discomfort and difficulty of state and federal highway engineers in adapting to a changing social environment unfriendly to building highways, see Mark H. Rose and Bruce E. Seely, "Getting the Interstate Built: Road Engineers and the Implementation of Public Policy, 1955–1985," *Journal of Policy History* 2, no. 1 (1990): 23–55.

13. McComb interview with Bridwell, 17 October 1968; "Lowell Bridwell: Urban Highways Are the Big Challenge," *Engineering News-Record* (21 March 1968): 129; Burby, *The Great American Motion Sickness*, 54–55. On corruption in the highway construction program, see Stanley Meisler, "The Federal Highway Program: Super-Graft on Superhighways," *The Nation* 192 (1 April 1961): 275–79.

14. "Lowell Bridwell," *Engineering News-Record*, 129; Donald L. O'Connor, "Road Planners Must Weigh Social Aspects, Bridwell Says," *Transport Topics* (18 September 1967): 6; Priscilla Dunhill, "The Freeway versus the City," *Architectural Forum* 128 (January–February 1968): 72–77; Priscilla Dunhill, "Reconciling the Conflict of Highways and Cities," *The Reporter* 38 (8 February 1968): 21–23; Ronald G. Shafer, "Freeways and Cities," *Wall Street Journal*, 27 June 1968; McComb interview with Bridwell, 28–31; "Proceedings of Meeting on Baltimore Expressway System," 12 December 1968, FHWA Records, RG 406, Francis C. Turner Files, box 15; Alan Lupo, Frank Colcord, and Edmund P. Fowler, *Rites of Way: The Politics of Transportation in Boston and the U.S. City* (Boston, 1971), 19–20, 38–39, 109, 185; Lewis, *Divided Highways*, 202–6; Norman Klein, "Baltimore Urban Design Concept Team," *Highway Research Record* 220 (1968): 11–20.

15. Schrag interview with Boyd, 2 October 2001, p. 2; Greenwood interview with Mertz, 5 March 1988, p. 37; Dunhill, "The Freeway versus the City," 73; Burby, *The Great American Motion Sickness*, 44–57.

16. "Wall-to-Wall Concrete," *New York Times*, 17 November 1967; Homer Bigart, "U.S. Road Plans Periled by Rising Urban Hostility," *New York Times*, 13 November 1967; "Urban Expressway Projects May be Delayed by Opposition," *St. Louis Post-Dispatch*, 26 November 1967; "Trouble Ahead for Freeways in Cities," *U.S. News and World Report*, 4 April 1966, 8; Charles E. Alverson, "Beauty and the 'Beasts': Foes of Urban Freeway Expansion Score More Successes," *Wall Street Journal*, 11 May 1966; William G. Wing, "The Concrete Juggernaut," *Audubon* 67 (July–August 1966): 266–72; "The War over Urban Expressways," *Business Week*, 11 March 1967, 4–5; Priscilla Dunhill, "When Highways and Cities Collide," *City* 1 (July 1967): 48–54; B. Drummond Ayers Jr., "White Roads Through Black Bedrooms," *New York Times*, 31 December 1967; *Urban Highways: Hearings before the Subcommittee on Roads of the Committee on Public Works*, U.S. Senate, 90th Cong., 1st sess., Part One, November 1967; 2d sess., Part Two, May 1968 (Washington, D.C., 1968).

17. J. R. Abernathy to File, 19 July 1967, FHWA Records, RG 406, BPR Files, box 6; Francis C. Turner to Lowell K. Bridwell, 8 June 1967, FHWA Records, RG 406, BPR Files, box 2.

18. Alan S. Boyd to Lowell K. Bridwell, 5 July 1967, FHWA Records, RG 406, BPR Files, box 2; Paul Sitton to Lowell K. Bridwell, 1 August 1967, FHWA Records, RG 406, BPR Files, box 6.

19. Harry E. Stark to All Division Engineers, 15 November 1967, FHWA Records, RG 406, Central Correspondence, 1968–69, box 103; “A Rising Furor over Superhighways,” *U.S. News and World Report*, 27 November 1967, 14; “Revolt Against Tearing Up Cities,” *U.S. News and World Report*, 11 March 1968, 68–70; “Fighting the Freeway,” *Newsweek*, 25 March 1968, 64–65; Lyn Shepard, “Freeway Revolt,” *Christian Science Monitor*, ten-part series, 4, 6, 11, 13, 18, 20, 25, 27 June, and 2, 9 July 1968; Ronald G. Shafer, “Freeways and Cities,” *Wall Street Journal*, 27 June 1968; Lisa Hirsch and Louise Campbell, “Roads,” *City* 2 (September–October 1968): 27–34; Richard Whalen, “The American Highway: Do We Know Where We’re Going?” *Saturday Evening Post*, 14 December 1968, 22–27, 54–64.

20. Alan S. Boyd to Jennings Randolph, 19 July 1968, *Congressional Record—Senate* (29 July 1968), S9681; *Washington Post*, 8 November 1967; “A Brake to the Bulldozer,” *New York Times*, 21 February 1968; Schrag interview with Boyd, 2 October 2001, 7, 13–14, 20–22; Dunhill, “The Freeway versus the City,” 73; Ben Kelley, *The Pavers and the Paved* (New York, 1971), 116–17; Helen Leavitt, *Superhighway—Superhoax* (New York, 1970), 91–109; Zachary M. Schrag, “The Freeway Fight in Washington, D.C.: The Three Sisters Bridge in Three Administrations,” *Journal of Urban History* 30 (July 2004): 648–73. See also Zachary M. Schrag, *The Great Society’s Subway: A History of the Washington Metro* (Baltimore, 2006), which links freeway fights and mass transit.

21. Howard A. Heffron to Lowell K. Bridwell, 23 September 1968, FHWA Records, RG 406, Turner Files, box 7; Francis C. Turner to Lowell K. Bridwell, 23 September 1968, FHWA Records, RG 406, Turner Files, box 7; “Right-of-Way for People,” *New York Times*, 21 November 1968; “Cry, Havoc!” *Providence Journal*, 25 October 1968; “Stop Signs for the Highway Lobby?” *New York Post*, 1 November 1968.

22. John Robson, “Speech before the Committee on Legal Affairs at the Fifty-third Annual Meeting of the American Association of State Highway Officials,” Salt Lake City, 17 October 1967, Department of Transportation Records (hereafter cited as DOT Records), RG 398, General Correspondence, 1967–72, box 15, U.S. National Archives II.

23. Lowell K. Bridwell, “Speech before Highway Research Board Conference on Joint Development and Multiple Use of Transportation Rights of Way,” Washington, D.C., 15 November 1968, FHWA Records, RG 406, Turner Files, box 18; J. A. Swanson to Regional Federal Highway Administrators, 7 February 1969, FHWA Records, RG 406, Central Correspondence, 1968–69, box 1; John R. Jamieson to Richard F. Lally, 6 November 1968, FHWA Records, RG 406, Central Correspondence, 1968–69, box 1.

24. “Boyd Assures Strong Part for States on Transport Policy,” *Transport Topics* (18 September 1967): 17; “Congress Passes Highway Act, Interstate System Enlarged,” *Transport Topics* (5 August 1968): 1, 8; John D. Miles, “Record Outlay for Highways Wins Approval,” *Transport Topics* (2 September 1968): 1, 4.

25. Greenwood interview with Mertz, 12 March 1988, p. 79; Melvin B. Mogulof, *Governing Metropolitan Areas: A Critical Review of Councils of Government and the Federal Role* (Washington, D.C., 1971); and Mark H. Rose, “Reframing American Highway Politics, 1956–1995,” *Journal of Planning History* 3 (August 2003): 212–36, which points to the importance of the COGs and later metropolitan planning organizations (MPOs) in implementing the Intermodal Surface Transportation Act of 1991 (ISTEA). On governors and state DOTs, see “Washington News Letter,” *Roads and Streets* 111 (January 1968): 15; “Washington News Letter,” *Roads and Streets* 112 (March 1969): 16; “Washington News Letter,” *Roads and Streets* 112 (November 1969): 17–18; James W. Bennett Jr. and William J. DeWitt,

"The Development of State Departments of Transportation—A Recent Organizational Phenomenon," *Transportation Journal* 12 (Fall 1972): 5–14; Harry R. Hughes, "Emerging State Departments of Transportation," *Transportation Research Record* 524 (1974): 1–3.

26. Kenneth R. Geiser, *Urban Transportation Decision Making: Political Processes of Urban Freeway Controversies* (Cambridge, Mass., 1970), 239; George Denison and Kenneth Y. Tomlinson, "Let's Put the Brakes on the Highway Lobby," *Reader's Digest* 94 (May 1969): 102; Lupo et al., *Rites of Way*, 185–86; David Hapgood, "The Highwaymen," *Washington Monthly* (March 1969): 78; Janus, "Transportation," 49; "Galbraith Sees U.S. 'Paved with Concrete,'" *Tarrytown [N.Y.] Daily News*, 12 December 1968; "Roadmaster Volpe," *New Republic* 160 (May 10, 1969): 7; Lyn Shepard, "Volpe and Turner Predicted for Nixon Transportation Team," *Christian Science Monitor*, 23 November 1968.

27. Daniel P. Moynihan, "Toward a National Urban Policy," *The Public Interest* (Fall 1969): 3–20; Daniel P. Moynihan, "New Roads and Urban Chaos," *The Reporter* 22 (14 April 1960): 13–20, at p. 19; David and Nadine Nowlan, *The Bad Trip: The Story of the Spadina Expressway* (Toronto, 1970), 93, quoting Moynihan; John Osborne, "Moynihan at Work in the White House," *New Republic* 160 (22 March 1969): 11–13; "Report of the President-Elect's Task Force on Transportation," 5 January 1969, Daniel P. Moynihan Papers, box 305, folder 8, Library of Congress, Washington, D.C.; Richard Reeves, *President Nixon: Alone in the White House* (New York, 2001), 44–46, at p. 46. On Moynihan's brief stint in the Nixon White House, see Douglas Schoen, *Pat: A Biography of Daniel Patrick Moynihan* (New York, 1979), 144–86; Stephen Hess, "The Federal Executive," in *Daniel Patrick Moynihan: The Intellectual in Public Life*, ed. Robert A. Katzmann (Washington, D.C., 1998), 113–23; Tevi Troy, *Intellectuals and the American Presidency: Philosophers, Jesters, or Technicians?* (Lanham, Md., 2002), 75–112; Godfrey Hodgson, *The Gentleman from New York: Daniel Patrick Moynihan: A Biography* (Boston, 2000), 149–81.

28. "Secretary Volpe Tells Where He Stands," *Highway User* (February 1969): 19; Edwin A. Bock, "Preparing and Clearing the Urban Mass Transit Act of 1970," typescript, 1972, 16, 17, DOT Records, RG 398, General Correspondence, 1967–72, box 319 [Bock's report was subsequently published: Edwin A. Bock, *Between Mayors and Nixon: Secretary Volpe's Mass Transit Bill* (Syracuse, 1980)]; "Autos Can't Rule in Cities, Volpe Warns Motoring Public," *Transport Topics* (17 March 1969): 1–2; "How to Cure Traffic Jams: Interview with John A. Volpe," *U.S. News and World Report*, 9 June 1969, 62–67; "Volpe Says U.S. Can't Continue to Rely on Auto," *Transport Topics* (26 January 1970): 1, 21; Janus, "Transportation," 38–40; Alan L. Dean and James M. Beggs, "The Department of Transportation Comes of Age: The Nixon Years," *Presidential Studies Quarterly* 26 (Winter 1996): 209–15; John A. Volpe, "The Future of Transportation," *State Government* 43 (Autumn 1970): 207–10; Burby, *The Great American Motion Sickness*, 57–59.

29. David G. McComb, interview with Francis C. Turner, 12 November 1968, pp. 23, 26–27, Lyndon B. Johnson Library, Austin, Texas; Schrag interview with Boyd, 22; Janus, "Transportation," 49; Shepard, "Volpe and Turner"; Bruce E. Seely, "Francis C. Turner: Father of the U.S. Interstate Highway System," *TR News* 213 (March–April 2001): 5–14; D. C. Oliver, "In the Footsteps of a Giant: Francis C. Turner and Management of the Interstate," *Transportation Quarterly* 48 (Spring 1994): 199–220; Daniel P. Moynihan, Memorandum of Conversation [with Alan Boyd], 6 January 1969, Moynihan Papers, box 305, folder 13; Daniel P. Moynihan to Richard M. Nixon, 30 January 1969, with Haldeman notation, Moynihan Papers, box 242, folder 9.

30. Francis C. Turner, "Highway Relocation Assistance: Speech to Mississippi Valley Conference of State Highway Departments," Chicago, 20 March 1969, FHWA Records, RG 406, Central Correspondence, 1968–69, box 129; Janus, "Transportation," 49; Burby, *The Great American Motion Sickness*, 306; Judith Robinson, "Opposition to Urban Highway Projects Prompts Broadened Relocation Policy," *National Journal* 2 (28 February 1970): 438–40. For Turner's sustained defense of highway building and attack on mass transit, see "Turner Sharply Rebutts 'Myths' Spread by Anti-Highway Groups," *Transport Topics* (10 November 1969): 1, 21; "Metros Not Answer to Urban Traffic, Turner Emphasizes," *Transport Topics* (31 August 1970): 1, 19; Francis C. Turner, "Highways 'Simply Irreplaceable,'" *Transport Topics* (16 August 1971): 1, 40.

31. Janus, "Transportation," 49; James D. Braman, "Rapid Transit and Urban Survival," speech typescript, 29 November 1967, DOT Records, RG 398, General Correspondence, 1967–72, box 4; Bock, *Between Mayors and Nixon*, 6, 14; Kathleen Kilgore, *John Volpe: The Life of an Immigrant's Son* (Dublin, N.H., 1987), 177; William W. Prochnau, "Mayor Braman Appointed to U.S. Transportation Post," *Seattle Times*, 7 February 1969; Michael J. Parks, "Braman Outlines Scope of New Federal Duties," *Seattle Times*, 7 February 1969; Wolf Von Eckardt, "Victory in New Orleans," *Washington Post*, 19 July 1969; Burby, *The Great American Motion Sickness*, 97, 112, 128; William Lilley, "Urban Interests Win Transit Bill with 'Letter-Perfect' Lobbying," *National Journal* 2 (19 September 1970): 2027–28.

32. Chris Welles, "Bitterest Fight: New Mass Transit vs. More Highways," *Life* 62 (12 May 1967): 39; Ronald A. Buel, "In Transit with the Road Lobbyists," *Wall Street Journal*, 27 June 1968; Donald Janson, "Expressway Construction Lags as Officials Heed Urban Outcry," *New York Times*, 15 February 1970; Daniel P. Moynihan to John A. Volpe, 11 April 1969, DOT Records, RG 398, General Correspondence, 1967–72, box 319; Urban Affairs Council, "Report on Public Transportation," 27 June 1969, Moynihan Papers, box 265, folder 8; Urban Affairs Council, "Minutes, Fourteenth Meeting," 27 June 1969, Moynihan Papers, box 265, folder 8; Ronald G. Shafer, "Unclogging the Jam: Administration Stresses Mass Transit as Cure for Urban Traffic Ills," *Wall Street Journal*, 21 May 1969; Bock, *Between Mayors and Nixon*. For the wave of books critical of the urban interstates, see A. Q. Mowbray, *Road to Ruin: A Critical View of the Federal Highway Program* (Philadelphia, 1969); Helen Leavitt, *Superhighway-Superhoax* (Garden City, N.Y., 1970); George Laycock, *The Diligent Destroyers* (New York, 1970); John Burby, *The Great American Motion Sickness: Or Why You Can't Get There from Here* (Boston, 1971); Ben Kelley, *The Pavers and the Paved* (New York, 1971); Kenneth R. Schneider, *Autokind vs. Mankind* (New York, 1971); Alan Lupo, Frank Colcord, and Edmund P. Fowler, *Rites of Way: The Politics of Transportation in Boston and the U.S. City* (Boston, 1971); Richard Hebert, *Highways to Nowhere: The Politics of City Transportation* (Indianapolis, 1972); Ronald A. Buel, *Dead End: The Automobile in Mass Transportation* (Englewood Cliffs, N.J., 1972); John Jerome, *The Death of the Automobile: The Fatal Effect of the Golden Era, 1955–1970* (New York, 1972).

33. "Volpe Endorses Plan to Negate U.S. Trust Fund," *Transport Topics* (20 April 1970): 1, 7; Vera Hirschberg, "Forces Gather for Strong Debate over Highways with Trust Fund as Lightning Rod," *National Journal* 2 (6 June 1970): 1193–207; Lilley, "Urban Interests Win Transit Bill," 2021–29; Denis Hayes, "Can We Bust the Highway Trust?" *Saturday Review* 54 (5 June 1971): 48–53; Jesse H. Merrell, "Volpe Proposes Busting Road Trust Fund," *Transport Topics* (20 March 1972): 1, 16; "Volpe Snarls Highway Trust Traffic," *Environmental Action* (1 April 1972): 7; William V. Shannon, "The Untrustworthy Highway Fund," *New York Times*

Magazine, 15 October 1972, 31, 120–32; Peter Harnick, “We Busted the Highway Trust Fund,” *Environmental Action* (4 August 1973): 3–4. See also George M. Smerk, “Highway Act of 1973: What’s in It for Mass Transit?” *Passenger Transport* (10 August 1973): 4–5; George M. Smerk, “Operating Subsidies for Urban Mass Transportation,” *Traffic Quarterly* 28 (October 1974): 603–18; George M. Smerk, *The Federal Role in Urban Mass Transportation* (Bloomington, 1991), 108–23.

34. Greenwood interview with Mertz, 12 March 1988, p. 94; Alan Altshuler, James P. Womack, and John R. Pucher, *The Urban Transportation System: Politics and Policy Innovation* (Cambridge, Mass., 1979), 19–42, at p. 38. On the role of the Highway Action Coalition, see Michael J. Malbin, “Long Deadlock Ends in Compromise Opening Highway Trust Fund for Mass Transit,” *National Journal* 5 (11 August 1973): 1170. On ISTEA, see Rose, “Reframing American Highway Politics.”

35. James D. Braman to John A. Volpe, 12 June 1969, DOT Records, RG 398, General Correspondence, 1967–72, box 99; Wolf Von Eckardt, “The Vieux Carré: A New Life,” *Washington Post*, 20 February 1969; Wolf Von Eckardt, “Victory in New Orleans,” *Washington Post*, 19 July 1969; Bill Bryan, “NO ROAD: Volpe Transfers U.S. Funds to Outer Beltway,” [New Orleans] *Vieux Carré Courier*, 4 July 1969; William M. Blair, “Volpe Vetoes a Freeway to Save French Quarter in New Orleans,” *New York Times*, 10 July 1969; Baumbach and Borah, *Second Battle of New Orleans*, 184–206; Beverly H. Wright, “New Orleans Neighborhoods Under Siege,” in *Just Transportation: Dismantling Race and Class Barriers to Mobility*, ed. Robert D. Bullard and Glenn S. Johnson (Gabriola Island, B.C., Canada, 1997), 121–44; Ari Kelman, *A River and Its City: The Nature of Landscape in New Orleans* (Berkeley and Los Angeles, 2003), 197–221.

36. Louis F. Oberdorfer, “Memorandum for Honorable Lowell Bridwell Re: New Orleans Riverfront Expressway,” 13 April 1967, DOT Records, RG 398 General Correspondence, 1967–72, box 45; Russell E. Train to John Volpe, 12 June 1969, DOT Records, RG 398, General Correspondence, 1968–72, box 306; Alfred G. Vigderman to John A. Volpe, 5 February 1969 and 3 March 1969, DOT Records, RG 398, General Correspondence, 1967–72, box 99.

37. “Trouble for Freeways,” *U.S. News and World Report* (11 August 1969): 76–77; Albert R. Karr, “Halting Highways: Volpe Stiffens Stand on Roads That Disrupt Housing, Scenic Sites,” *Wall Street Journal*, 7 April 1970; Albert R. Karr, “Mr. Volpe’s Surprising Achievements,” *Wall Street Journal*, 25 May 1971; Martin F. Nolan, “Volpe Alarms Roads Lobby,” *Boston Globe*, undated clipping, c. 1971, in Movement Against Destruction Collection, Series VIII, box 1, University of Baltimore; Dean and Beggs, “The Department of Transportation Comes of Age,” 209–15; John G. Wofford, “Participatory Planning for Boston Metro-area Transportation,” *Civil Engineering* 43 (April 1973): 78–81; Gordon Fellman and Barbara Brandt, *The Deceived Majority: Politics and Protest in Middle America* (New Brunswick, N.J., 1973), 57–90; Allan K. Sloan, *Citizen Participation in Transportation Planning: The Boston Experience* (Cambridge, Mass., 1974).

38. Virginia Fairweather “San Antonio: Classic ‘Stop the Freeway’ Case,” *Civil Engineering* 43 (July 1973): 59–61; “Volpe Reprieves Overton Park,” *Audubon* 75 (March 1973): 122; “Interstate Routes Stop in Several Major Cities,” *The Concrete Opposition* (March 1973): 1, 8; Nolan, “Volpe Alarms Roads Lobby”; Karr, “Halting Highways”; John A. Volpe, Internal Memorandum on “The Environmental Policy,” 26 February 1970, Movement Against Destruction Collection, Series VII, box B1; Russell E. Train, “The Environmental

Record of the Nixon Administration,” *Presidential Studies Quarterly* 26 (Winter 1996): 185–96. Regarding NEPA’s impact on the highway engineers, Lee Mertz stated in his interview with John Greenwood: “Then in 1969, out of left field, the Environmental Policy Act came onto the scene. I am puzzled to this day where it came from. It arrived with no warning. There were no hearings that I know about. There was no public debate or debate in the Congress. Just all of a sudden, boom. There it was. Nobody knew what it meant.” See Greenwood interview with Mertz, p. 79.

39. Nolan, “Volpe Alarms the Roads Lobby”; “Highway Officials Fear Loss of Influence,” *Engineering News-Record* 185 (19 November 1970): 19–20; “Highway Users Federation Hits Volpe’s ‘Alarming’ Road Bias,” *Transport Topics* (1 March 1971); “A Trust Fund Grab,” *Transport Topics* (30 June 1969): 6; “Trust Fund Showdown,” *Transport Topics* (22 September 1969): 8; “The Diversion Refrain,” *Transport Topics* (20 July 1970): 16; “Embattled Trust Fund,” *Transport Topics* (3 August 1970), 18; “Trust Fund Attacked,” *Transport Topics* (17 August 1970): 14; “Breaking the Trust Fund,” *Transport Topics* (29 March 1971): 10; Karr, “Halting Highways”; Burby, *The Great American Motion Sickness*, 307; Kilgore, *John Volpe*, 170–98.

40. Greenwood interview with Mertz, pp. 77–79, at p. 79; Marty Loken, “Braman Tells of Battling Roadbuilders,” *Seattle Times*, 26 November 1970; “Highway Expediency Stirs Braman’s Wrath,” *Seattle Post-Intelligencer*, 23 October 1970; “FHWA Chief Rips Proposal to ‘Rob’ Highway Trust Fund,” *Transport Topics* (7 June 1971): 7; Albert R. Karr, “The Highway Lobby Aims to Prove There Is No Highway Lobby,” *Wall Street Journal*, 17 February 1972; Seely, “Francis C. Turner,” 10; David E. Rosenbaum, “Lobbyists Powerful in Road Fund Battle,” *New York Times*, 24 October 1972.

41. Thomas J. Sugrue, “All Politics Is Local: The Persistence of Localism in Twentieth-Century America,” in *The Democratic Experiment: New Directions in American Political History*, ed. Meg Jacobs, William J. Novak, and Julian E. Zelizer (Princeton, 2003), 301–26, at p. 302. For “complex federalism” as it applied to highway policy in one state, see Michael R. Fein, *Paving the Way: New York Road Building and the American State, 1880–1956* (Lawrence, Kans., 2008). See also Califano, *Presidential Nation*, 24–29; Alan A. Altshuler and Robert W. Curry, “The Changing Environment of Urban Development Policy—Shared Power or Shared Impotence?” *Urban Law Annual* 10 (1975), 3–41; Hugh Hecl, “The Sixties’ False Dawn: Awakenings, Movements, and Postmodern Policymaking,” *Journal of Policy History* 8, no. 1 (1996): 34–63; Sidney M. Milkis, “Remaking Government Institutions in the 1970s: Participatory Democracy and the Triumph of Administrative Politics,” *Journal of Policy History* 10, no. 1 (1998): 51–74; Rose, “Reframing American Highway Politics.”