



Figure 8. New slope.



Figure 9. Trench for catching rocks.

have fallen onto the roadway. Maintenance personnel estimate that the number of rocks reaching the traveled way has been reduced by 80 percent and the maintenance costs have been reduced about 25 percent. No accidents have occurred at this location as a result of rocks since the correction.

The placement of the sand blanket resulted in reduced depth and storage capacity in the ditch. It is believed that had the original depth been maintained and the sand blanket incorporated the performance would have been even better. It has also been observed that the sand blanket becomes saturated and freezes, thereby losing its energy-absorbing characteristics. It is believed that pea gravel might provide a more satisfactory solution under these circumstances.

The presence of the trench adjacent to the freeway is considered a possible hazard, and it was constructed with some reservations. To date there have been no accidents as a result of its presence.

The results of the project have given the California Division of Highways increased knowledge and experience in the area of controlling rockfall.

BUILDING THE EAST RIVER DRIVE: LIFE WAS SIMPLER 30 YEARS AGO

We came across an article in an old issue of *The New Yorker Magazine* that brought home forcibly the difference between building a downtown expressway in prewar days and building one today. M. R. Werner, in an April 1941 article originally titled "A Reporter at Large: Through Thick and Thin," discusses the friendly cooperation existing between the authorities and public while the East River Drive in New York City was being built. The following excerpts are taken from this article, which is guaranteed to make any planner wish for the good old days!

Motoring on the East River Drive is a good deal like travelling on a carefully constructed and absolutely trustworthy roller coaster. For one moment you are at the water's edge; then you are high over the river, looking down at it; then you're plunged into a gay, white tunnel open on one side; then suddenly the traffic going the other way vanishes and slips along a deck over your head; then you're on a conventional two-way boulevard, back at the water's edge. The road clings to the edge of Manhattan Island like a Rocky Mountain trail.

When I talked to Stanley M. Isaacs, President of the Borough of Manhattan, whose office is responsible for the construction of the Drive, I found him inspirational and poetical about it. "It's more than a highway," he said; "it's a broad civic project. It offers advances to the whole community in speed and beauty." He gave me a booklet which his office had published for the occasion of the opening of the section between Forty-ninth and Ninety-second Street. It contained photographs under such rapturous headings as "Of Time and the River . . . and Stone and Steel" and "From Rock and Rubble and Water to a Road of Steel and Concrete."

From the Borough President's office, on the twentieth floor of the Municipal Building, I went up to the twenty-first floor to talk to Commissioner of Borough Works Walter D. Binger about the problems he and his associates had encountered. He told me that when, for instance, property owners along the East River heard the Borough President was planning to build another section of the East River Drive, from Forty-ninth to Ninety-second Street, they got the jitters. They knew that the city had the right to condemn property for public use. Most of the people who were living or doing business along the East River liked their homes and places of business and didn't want them condemned. Mr. Binger told me that the first thing he did was to have photographs taken, from a boat on the river, of the eighty-five pieces of private property fronting on the East River from Forty-ninth to Ninety-second Street. Then he had marked on the photographs a red line showing where the Drive would be in relation to each piece of property. He invited all the owners to come down to his office with their lawyers, consulting engineers, real-estate men, and anyone else they wanted. Mr. Binger gave each owner a copy of the photograph of his property to take home and study. Later on Mr. Binger sat down with the owners, one by one, and discussed amicably what the city could do in return for receiving riparian rights or right of access to the East River. Meanwhile, Mr. Isaacs was soothing the nerves of the First Avenue Association, which represents many of the property owners along the river. Both Mr. Isaacs and Mr. Binger emphasized to me that it was as important for the city not to destroy taxable values as it was for an individual not to have a source of income ruined. As soon as the property owners realized that they were going to be treated with consideration, many of them became cooperative and began to see potential advantages to themselves in the new Drive. Most of them, in fact, got actively enthusiastic.

Commissioner Binger made deals with the property owners whenever the city could offer something besides cash. All these deals were gone over by the Corporation Counsel and real-estate experts employed by the city, and each one had to be approved by the Board of Estimate. Mr. Binger made thirteen altogether.

The owners of the Beckman Campanile apartments on Fifty-first Street and River House on Fifty-second Street, for example, gave their riparian rights and allowed their private docks for the use of tenants' yachts and hydroplanes to be demolished. In return, the city built them new dock basins, and private bridges over the Drive. These are the Drive's only private pedestrian bridges, though there are several public overpasses to give citizens access to walks along the riverside. The new boat basins and bridges were leased to the owners of the apartment houses for a dollar a year for fifty years.

Two blocks north of River House, the Phipps estate owned two small reconstructed apartment houses on the East River which the city couldn't get around, over, or under. The city therefore demolished them. It also required some vacant land belonging to the Phipps estate. The estate and the city made a deal and the city put a roof over the Drive between Fifty-fourth and Fifty-fifth Street on which the Phipps estate can build a sixteen-story apartment house whenever it wants to. The only other house the city had to tear down between Forty-ninth and Ninety-second Street was one at 16 Sutton Square, owned by Mrs. Lillie Havemeyer. Mrs. Havemeyer was advised by friends and lawyers not to make any agreement, but to force the city to demolish her house and talk it all over later in court. Instead, she sat down with Commissioner Binger and they made a deal. He could tear down her house if the city paid the cost of building a new one—\$49,000—and gave her the air rights over the land she was relinquishing. This the city did. "She owns the site to heaven and the city owns it to hell," Mr. Binger told me. Mrs. Havemeyer is now living in a new brick house on the roof over the Drive at exactly the same spot she occupied before. The city also had some dealings with Miss Anne Morgan, who was travelling in Europe at the time, about those poplar trees. The city managed to get around all but one poplar in the garden back of her house in Sutton Place, but that one had to go because the roots had grown out into the land needed for the Drive. The city told her lawyers it would give her two Oriental plane trees in return for the poplar, the lawyers cabled her the offer, and she grabbed it.

The city also made a deal with the Farmers Feed Company, the old spent-malt concern, which is on the river at Seventy-sixth Street. The head of this firm is Charles F. Stehlin, an elderly, forthright man,

who, sitting at a roll-top desk in a large, old-fashioned office, told me that the spent-malt business was steady and on the whole good. The city made a deal by which he gave up his right of direct access to the river in return for a lease on a 140-foot dock for ten years at a dollar a year and an option for another ten years at \$3,473 a year. The company is building a bridge over the Drive, equipped with conveyor-belt machinery to carry the spent-malt into the plant and the dry feed out. Mr. Stehlin told me the bridge and equipment would cost him \$75,000. I asked him whether the lease on the dock was worth that much to him, and he said it wasn't quite, but didn't want any litigation. "You can't hold up progress," he remarked. He added that the city officials had been "damned polite and considerate." It was his first experience of doing business with the city in his long career, he said, and it had been a pleasure.

Mr. Pincus Rizack, engineer of the Forty-ninth-to-Ninety-second section of the Drive, took me through the tunnels which were built so Gracie Mansion would not be disturbed. As we walked along underground and watched the automobiles, he proudly pointed out the carbon-monoxide detectors and the exhaust fans that remove the foul air. Mr. Rizack told me that he had been brilliantly assisted in his work on the drive by Miss Gladys Tapman, one of the few women civil engineers in the United States.

The way things look now, the East River Drive will be finished by around the first of April, 1942. Its cost will total \$39,500,000. The courts have awarded \$1,354,408.66 to various property owners, but the Corporation Counsel thinks he will get \$180,000 of this back through appeals. Mr. Isaacs estimates that the city has saved about \$1,300,000 by making out-of-court agreements. The federal government, through the PWA, has contributed \$4,794,750, or forty-five percent of the cost of the section from Forty-ninth to Ninety-second Street. The city is bearing the rest of the cost of the entire project. Mr. Isaacs likes to think about an elevated express highway from Montgomery Street to the Battery, linking the Drive with the new Battery to Brooklyn tunnel, which will be ready in four years. The extension to the Battery would cost about \$5,500,000 and Mr. Isaacs is afraid not much federal money will be spent for anything except defense for some time. Incidentally, according to Mr. Binger, the decks of the East River Drive, made of twenty-seven-inch-thick slabs of concrete, will make fairly good bombproof shelters—in case.

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Arizona Proving Grounds Host Members of HRB's Vehicle Characteristics Committee

Three vehicle proving grounds located near Phoenix, Arizona, were visited by members of the Vehicle Characteristics Committee of the Highway Research Board during the committee's 1972 Midyear Meeting in late September.

Five members of the committee, along with HRB Assistant Executive Director Roy C. Edgerton, made their first stop at the proving grounds of the Ford Motor Company near Kingman, Arizona, where they were joined by local law enforcement and government officials for a demonstration of the testing program being carried out by Ford. This included the use of transducers to record traction characteristics of vehicles on the test track; vehicle handling demonstrations; wet and dry surface braking and handling testing; and exterior and interior noise testing. The committee members also toured the dynamometer laboratory, where they were shown testing in progress on exhaust emission procedures. Of special interest was the Mobile Automotive Environmental Laboratory, which provides complete testing facilities for the development and evaluation of automotive fuel systems at any geographical location having the desired hot weather conditions. The mobile laboratory provides controlled, refrigerated storage and blending and dispensing equipment for handling special purpose test fuels.