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.

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.

Members of the Vehicle Characteristics Committee and other visitors watch a demonstration of vehicle handling at the Ford Motor Company proving grounds near Kingman, Arizona.

The tour of the Ford facilities ended with 2 technical presentations on the subjects of tire-road traction modes and measurement methods and of determination of accumulated loads in structures by periodic measurements.

On the following day the group visited the Dynamic Science Division of Ultrasystems, Inc., which is a diversified contract research and development organization founded in 1960.

The Dynamic Science engineering facility is located on a 157-acre site 20 miles north of downtown Phoenix. The facility features a 2-mile oval track, a 600-ft-diameter skid pad, and a 1,200-ft monorail crash system. The facility is now being expanded to include a 110-ft drop tower, an engineering and office building (12,000 square feet), and an ultramodern instrumentation laboratory and mechanical shop (14,000 square feet).

The highlight of the facility tour was a demonstration barrier crash of a small foreign-made passenger car on the 1,200-ft monorail crash system. The rear-engine car was occupied by 2 anthropomorphic dummies, in the driver and front passenger positions, and was towed into the barrier at a speed of 40 mph. The crashed vehicle was examined by members of the committee, local government officials, and representatives of the Ford Motor Company and General Motors Corporation.

One of the highlights of the tour of the Dynamic Science engineering facility was this demonstration barrier crash of a small foreign car. The 2 anthropomorphic dummies were "killed" in the 40-mph impact.

The technical presentation made to the committee covered several ideas of automotive engineering effort and was based on programs conducted or currently being conducted by Dynamic Science for the National Highway Traffic Safety Administration. The presentation was in the form of technical papers on structural crashworthiness and on experimental safety vehicle testing and evaluation.

A novel feature of the General Motors Desert Proving Ground is this water facility, which has many applications in checking vehicle handling, waterproofing, and related subjects.

On the third and final day, the committee members, along with state and Phoenix area officials, met at the General Motors Desert Proving Ground near Mesa, Arizona. A combination slide-movie presentation was given by Dale Johnson, manager of engineering operations at the Proving Ground, and covered highlights of Proving Ground activities in general and acquainted the visitors with GM's other testing facilities.

The committee and visitors were toured through the laboratories where specialized equipment for measuring vehicle and component performance was demonstrated.

A tour of the test road system followed where the visitors viewed vehicle tests typical of those conducted at this facility.

The Vehicle Characteristics Committee is chaired by Robert L. Ullrich, director of the Motor Equipment Research and Technical Division of the U. S. General Services Administration. The committee, which operates within the Board's Group 3, is charged with the consideration of vehicle characteristics and vehicle performance factors related to safe, efficient, and economic operation of highway facilities.