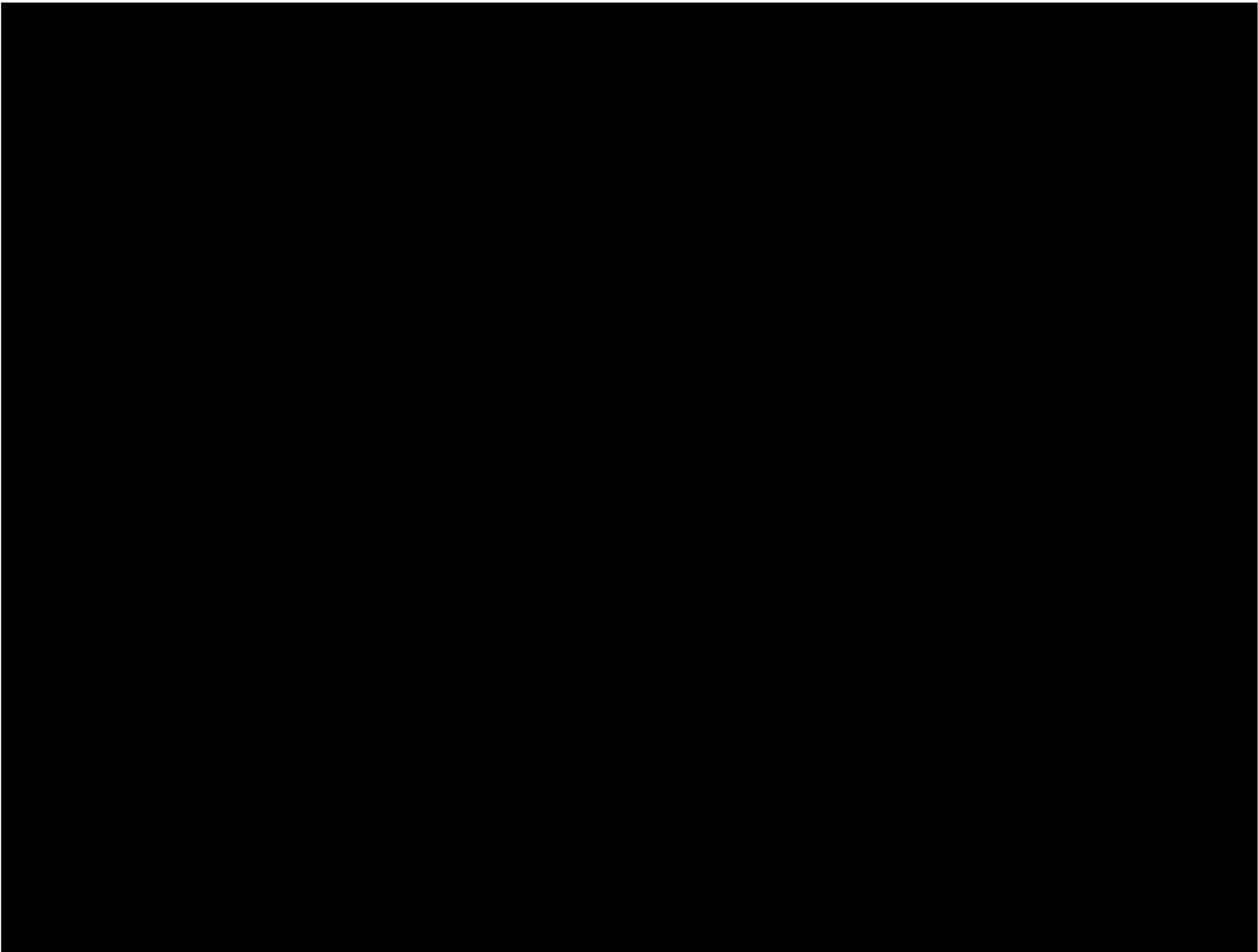




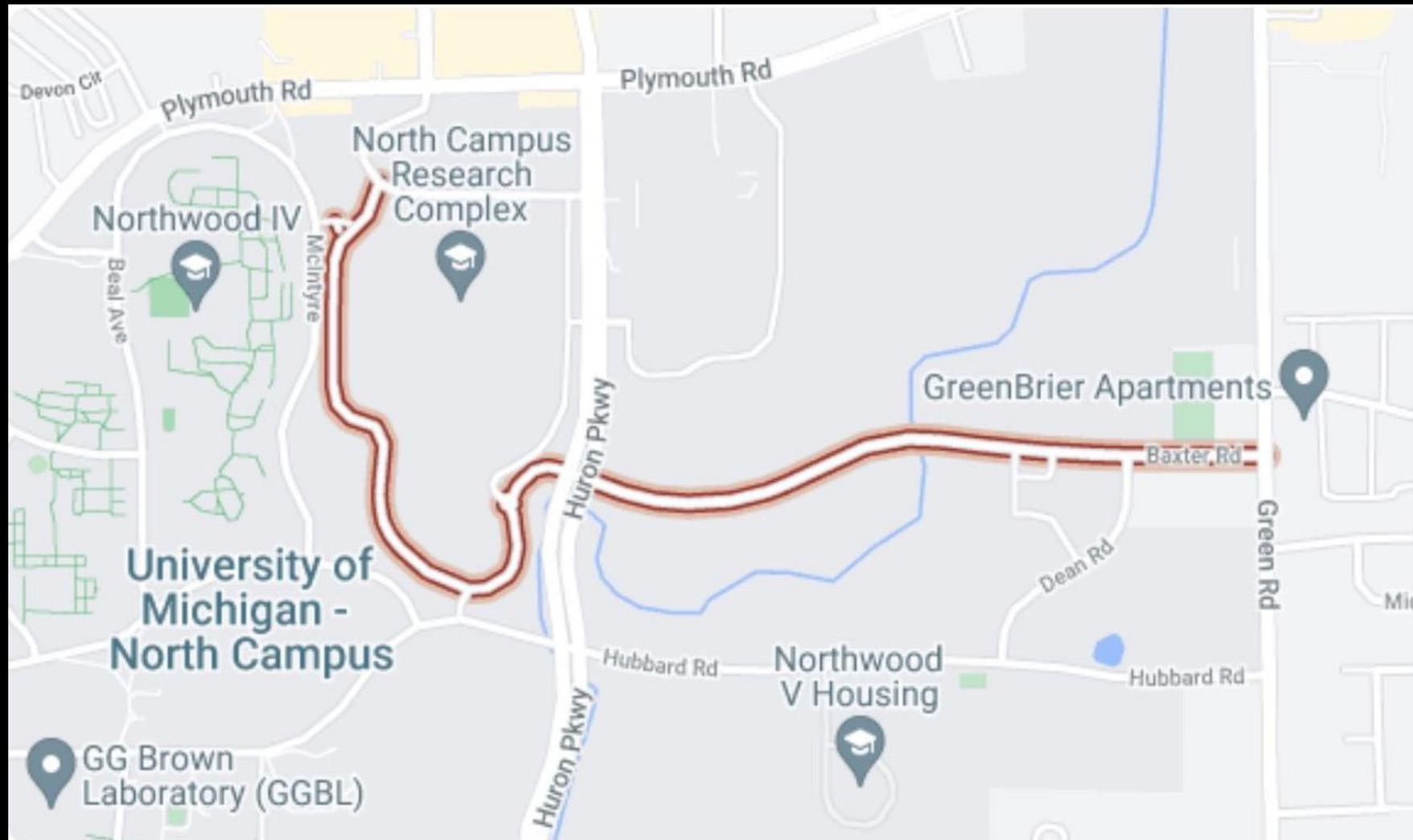
Safety...?

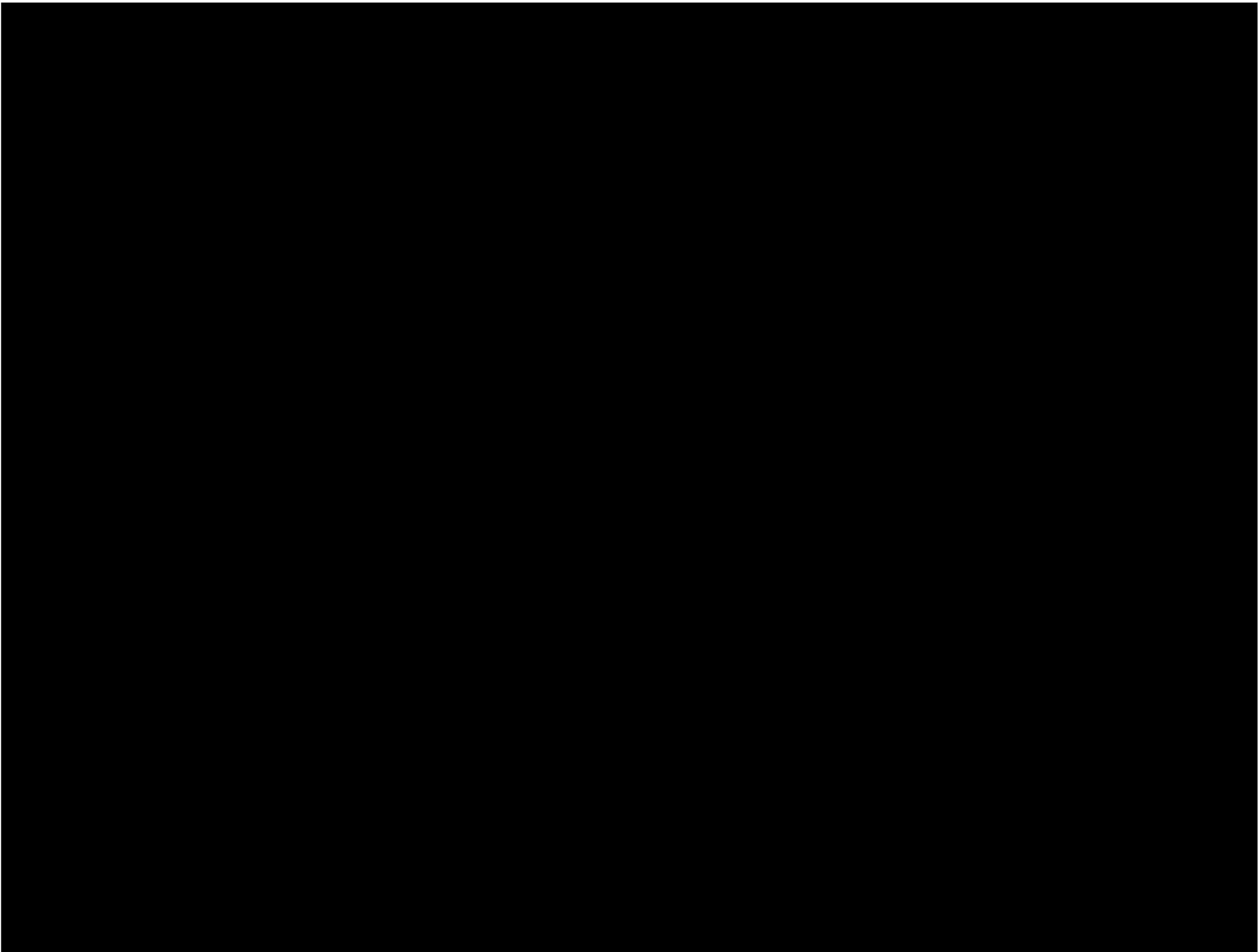
Daniel Stern · DVN Chief Editor









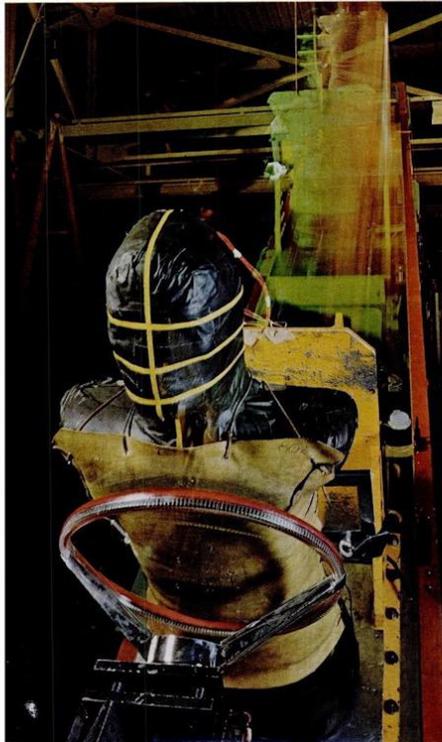


Head-cracking Assault on the Problem of Car Safety



DASHBOARD TEST. A dummy skull made of rubbery plastic crashes into dashboard of Ford's Deanevan testing grounds to simulate a passenger's head being thrown violently forward in a collision. Instruments behind skull measure impact. Dash is covered with thick plastic padding being tested to measure its ability to prevent laceration and absorb impact.

STEERING WHEEL TEST. An 80-pound Ford dummy moves down metal slide. Then the sled stops, the dummy's chest snaps forward and smacks into steel-and-plastic steering wheel. This test simulates a 20-mph collision. Wires attached to steering wheel measure its ability to withstand body impact and keep body from being impaled on steering column.



Detroit last week resounded to the crack and thump of heads hitting dashboards, bodies bouncing from steering wheels and autos ramming concrete walls. The victims were dummies and the autos were test cars engaged in safety research. But pervading this contrived destruction was an air of grim intensity. The long love affair of America with its automobile had been chilled by charges that the car, traditionally only a blameless bystander in auto accidents, is really the archvillain. Books, newspaper stories, congressional hearings seemed bent on exposing the auto as a death trap filled with lethally sharp edges and dangerous mechanical defects. Manufacturers' callbacks of models for mechanical correction got front-page headlines.

Though some criticism has become extreme, nobody in Detroit was talking of new models only in terms of styling and power. The air was filled with talk about safety devices. Auto makers had strongly objected to government safety regulations. But President Johnson, cracking some heads in his own way, told top car executives face to face that this opposition was "picayunish" and warned that "we can no longer tolerate unsafe automobiles." Reversing the industry position a Ford spokesman last week called for "effective and forceful governmental machinery" to set up "legally binding" safety standards.

Auto engineers can do little to improve the driver, a major cause of most collisions. But they are working to mollify the "second collision"—the slamming of passengers into the car's interior after it has crashed. This fall's models will have as standard (monopsonal) modifications such safety items as collapsible steering wheels, dual brakes, back-up lights, padded dashboards. Bigger changes will come the following year, and the government is considering imposing many more changes for later cars.

A windshield that bends—and other ideas to avert injury

While the federal government has assumed more and more authority over other forms of transportation, it has left the auto industry generally alone. Nobody wanted to tamper with a \$77 billion business responsible for one out of every seven jobs in the country—and one that put out such a widely admired product. But in recent years the American consumer has become more conscious of the quality of the things he buys and more insistent that someone—usually the government—protect him from dangers he cannot ferret out himself. This state of mind was intensified with the thalidomide drug scandal of 1962 and the insecticide scare touched off by Rachel Carson. Congressmen found out that they could attract votes by assuming the role of the consumer's champion.

When charges of unsafe cars arose—particularly in such emotional incidents as Ralph Nader's *Unsafe at Any Speed*—federal officials vied to see who could become most outraged by Detroit's alleged inadequacies. The public enjoyed watching \$500,000-a-year auto executives sit uncomfortably through unfriendly congressional hearings. "It is only natural for us common people to enjoy a chuckle or a sneer," wrote a New York *Daily News* columnist about the spectacle. And congressmen were bombarded with irate letters complaining about everything from overflowing gas tanks to squeaking doors. Sales of the General Motors Corvair dropped more than 50% after widely publicized criticism, on safety grounds, of the 1963-1963 models.

In this new atmosphere, there was no doubt that safety standards would be imposed by the government. The car industry's sudden change of mind in accepting the whole idea of federal controls was an attempt to make the best of a bad situation. "We feel we can live better with what we are proposing than with something inflicted on us against our will," said a high auto official. In addition, most cars' safety features have up to now been optional and difficult to sell, partly because the customer



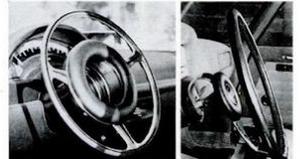
DETROIT'S DECISION. John Bugas of Ford announces that major auto-makers agree to safety regulations. In back: GM's George Russell (left), American Motors' Bernard Chapin, Chrysler's Harry Chesebrough.

is more attracted by style, power and ease of driving and partly because salesmen, until recently, have had little incentive to emphasize safety. When safety is mandatory, the customer will have to take it—and pay for it. Nevertheless, the automakers stated some hard-headed reservations and recommended guidelines to limit federal action, which led well-known Detroit critic Senator Abraham Ribicoff to call the turnabout "more tactical than real."

Whatever safety standards eventually emerge from Congress, their main thrust will be to strengthen the integrity of the passenger compartment. Safety experts envision a compartment that will be fireproof, protected from the engine by a downward-slanting forward wall. The front and rear end will be made less rigid so that they can collapse in a collision and absorb the shock instead of passing it on to the passenger section. All interior knobs and controls will be recessed, the dashboard will be made smaller or even vanish, and thick padding will cover everything. There will be belts and harnesses so that every passenger can be securely strapped in—provided he takes the trouble. Outside, roll-over bars will afford protection in overturning and bumpers that wrap around will absorb small shocks. Covering the exterior of the car will be many multi-colored indicator lights to inform nearby autos about almost everything the driver is doing except what symphony orchestra he is putting on his stereo tape set.



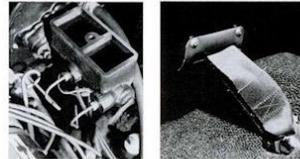
SAFETY DREAM. Car proposed by New York State is so low it needs periscope to see over hills and other cars.



FUTURE WHEELS. Two steering wheels were designed in Italy. Large padded one (left) distributes weight of a body knocking into it. Leather-covered wheel (right) is mounted on spoke of spring steel, yields on impact.



DOORS AND SEATS. Futuristic Italian car has safety doors that slide back on runners and won't fly open on curve. Lightly padded Italian four-seater seats have rock rests to keep a passenger's back from snapping back.



DUAL BRAKES. Pioneered by American Motors, the master brake cylinder is double. If one fails, the other works.

HEAVIER ANCHORS. Seat belts are more firmly anchored to the floor-iron and made from stronger material.

