Rhodes College Digital Archives - DLynx

"Court Told Tunnels Through Park Would Be Record-Setting In Width"

Item Type	Article
Authors	Lollar, Michael
Publisher	Commercial Appeal
Rights	All rights reserved. The accompanying digital objects and associated documentation are provided for online research and access purposes. Permission to use, copy, modify, distribute and present this digital object and the accompanying documentation, without fee, and without written agreement, is hereby granted for educational, non-commercial purposes only. The Rhodes College Archives and Special Collections reserves the right to decide what constitutes educational and commercial use. In all instances of use, acknowledgement must be given to Rhodes College Archives Digital Repository, Memphis, TN. For information regarding permission to use this image, please email the Archives at archives@rhodes.edu.
Download date	2026-03-16 15:25:08
Link to Item	http://hdl.handle.net/10267/29437

OPE 18-31

Court Told Tunnels Through Park Would Be Record-Setting In Width

By MICHAEL LOLLAR

Underground tunnels to house the proposed 6-lane expressway through Overton Park would have to be two of the widest tunnels ever bored in the United States, a Missouri tunnel design expert said in federal court yesterday.

Charles M. Metcalf, vice president and chief engineer of a St. Louis engineering firm, said the only tunnel of comparable width is one now under construction beneath the mall of the Capitol in Washington.

He testified for the Tennessee Highway Department, implying that the cost of such an underground tunnel would not be justified to preserve Overton Park. He refused to estimate the cost of such a tunnel except to say, "It would be enormously expensive."

Under direct examination by J. Alan Hanover, attorney for the highway department, Mr. Metcalf also attacked the possible use of a "cut-and-cover" tunnel (partially submerged) through Overton Park.

He said a 4,200-foot cut-and-cover tunnel built all the way through the park would cost about 59 million dollars at 1971 prices.

And, he said, a 2,400-foot cut-and-cover tunnel, as proposed by Memphis architect Roy P. Harrover, would cost roughly 33 million dollars.

He also testified that maintenance costs for a 4,200-foot tunnel would "run around $400,000 a year, based on experience with other tunnels."

Mr. Metcalf said a bored (underground) tunnel, such as the one in Washington, would be dug with a circular "shield" 65 feet in diameter. "In other words," he said, "two holes, each 65 feet in diameter, would be bored, and each would carry three lanes of the six-lane highway through the park."

He said he has never seen a tunnel bored more than 42 feet in diameter.

Construction of such a tunnel would require construction of water wells to pump water away from the tunnel, preventing seepage into the tunnel during construction. "That," he said, "would lower the water table throughout the park."

Earlier, Dr. William Baker Jr., an engineering professor and chairman of biomedical engineering at Vanderbilt University, testified that noise from the expressway would not be noticeable inside the Overton Park Zoo.

He said existing mounds of earth built between animal pits and the right-of-way for Interstate 40 would shield the zoo from most noise.

"Noise is objectionable only if it exceeds 85 decibels (a measure of sound)," Dr. Baker said. He testified that a level of 75 decibels is "about like normal office noises."

He said he has conducted extensive tests inside the park using automobile horns to gauge sound levels. Under cross examination by John W. Vardaman, attorney for the Citizens to Preserve Overton Park and other plaintiffs, he said, "The noise level 150 feet from the highway would be about 75 decibels."

But, questioned by Michael Lackner, another attorney for the plaintiffs, he said persons walking on the proposed pedestrian ramp over I-40 would be "exposed to 95 to 100 decibels as they walked over the roadway." The "noise pain level" is 130 decibels, he said.

City Engineer Thomas Maxson later testified that it would not be feasible to depress the highway throughout the park, since that design would require the use of a siphon to divert Lick Creek under the roadway.

He said a siphon would, in turn, require the use of a reservoir to maintain water pressure in the siphon. A reservoir, he said, would be a pool of water about eight feet deep covering about 30 acres of park land.

Mr. Maxson, who has worked for the city for 47 years, said a siphon could create a malaria problem, since mosquitos breed in open pools of water. And, he testified, continuous maintenance would be required to keep the siphon clean and prevent it from stopping up.

"People pick up manhole covers on our city sanitary sewers," he said, "and drop everything in those from tricycles to bicycle chains."

He said he attended the meeting in April 1968 between City Council and state and federal highway officials, after which the council voted to approve the park route.

The plaintiffs contend that Lowell K. Bridwell, then federal highway administrator, told the council that if it did not approve the park route Memphis would get no expressway.

Dale Woodall, attorney for the intervening city defendants, asked Mr. Maxson if he recalled any such threats. "I don't," Mr. Maxson said, "but at that time we were working under a timetable for completion of the highway. The federal aid highway act was to expire in 1972, and he (Bridwell) said that if the park route were not approved the highway could be delayed. I felt it might be delayed beyond the expiration date."

Under the act, the federal government is obligated to pay 90 per cent of the highway construction cost. "The city couldn't afford to build its own highway," Mr. Maxon said.

Charles F. Newman, another attorney for the plaintiffs, later asked Mr. Maxson if there are not ways to deal with mosquitos in order to prevent malaria problems.

"Well, you could put oil on it (the water), but then you've got oil pollution," he said.

The trial will resume at 9:30 this morning, with the state expected to present officials of the L & N Railroad as its first witnesses.

C.A.
OCT. 28, 1971