

A weekly report from the office of the CEO

February 28, 1994



To quote the experts' reports, the tunnels between Union Station and MacArthur Park are "structurally adequate" and can withstand earthquakes "without collapse or significant structural damage." But the bottom line means so much more. We convened an independent panel to assess the tunnel's integrity, and by doing so, set the ground rules that at the MTA, integrity in government begins here.

s you know, the three-member panel, headed by University of Illinois civil engineering Professor Edward J. Cording, released its final report on Wednesday.

A separate outside audit of the project management practices during Segment I's construction, which was prepared by the construction claims management firm of Barba-Arkhon, International, Inc. was also made public last week.

# Key Findings

The key findings of Dr. Cording's panel are:

- Cracking as a result of shrinkage in concrete tunnels is not uncommon, and the concrete material in our tunnels is of acceptable strength and quality.
- The Northridge earthquake was an excellent test.

  Some cracks near tunnel cross passages were

  widened slightly. The experts told us this is a typical phenomenon in an earthquake.
- Groundwater leakage exceeds the design limits in some spots, which over time may cause minor corrosion where the leaks occur, but that is not unusual; additional grouting and minor repairs are to be expected over the life of any tunnel.
- There were additional areas where the walls and

the inner reinforcement of the tunnel's crown were not as thick as originally specified; again, the experts emphasized the overall structural integrity. "From the results of our studies," said Mr. Cording, "6 inches of concrete will do the job."

- There were some voids found in the crown of the tunnel between the concrete liner and the plastic membrane (HDPE) designed to guard against water leakage. Additional grouting can correct this.
- There are some areas in the lining where additional reinforcement bars were not used. The panel reported that this, too, was not cause for concern; that additional bars are not necessary for the lining to perform better under fixed loads or during earthquakes.

# **Construction Management Review**

The consultant was a joint venture of The Ralph M. Parsons Company, DeLeuw, Cather & Company, and Dillingham Construction N.A., Inc., known collectively as PDCD. The client was originally SCRTD, who oversaw this project until 1990 when RCC took it over.

Barba-Arkhon's construction management audit specifically detailed the lack of support and communication between the inspector and resident engineer (R.E.) on one contract, saying the R.E. failed to initial each inspection report after reviewing it for content



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and completeness. The R.E., said the report, did not acknowledge his review or address issues raised within at least 50% of these reports — which in many instances contained information about deficient or non-conforming work that was not explained, resolved or noted in the product. That individual no longer works for PDCD.

The audit also found a lack of communication between the construction management consultants and the client.

#### **Lessons Learned**

Since then, PDCD, which was reconfigured as Parsons-Dillingham, put a new management team into place. According to the audit, many of the communication problems, duplications of effort, and other difficulties encountered in Segment 1's construction, have since been eliminated or resolved in Segment 2. The audit commended RCC's management environment, and the overall benefit of its "lessons learned" program.

#### A Remedy in the Works

Dr. Cording's panel recommended additional grouting to fill gaps between the concrete tunnel liner and its polyethylene membrane, emphasizing areas of the crown "to enhance durability and minimize the migration of water..." The panel also recommended continued chemical grouting of individual cracks, and continued monitoring of the water leakage.

We will take immediate steps to correct the tunnel problems. We're asking the construction firm of Tutor-Saliba Corporation, which built the first Red Line segment, and the Parsons-Dillingham construction management firms to undertake these improvements or reimburse us.

Finally, my office will undertake an evaluation of Parsons-Dillingham's performance on work currently under way.

### Water Leakage and Hydrogen Sulfide

There's been some concern lately about increased levels of hydrogen sulfide in the subway tunnels. It was Dr. Cording's opinion that "it's coming in with the water," and that additional grouting will do much to alleviate both problems. In fact, Dr. Cording speculated that the coring done by the panel itself while examining the tunnel's crown could have effected the release of some additional hydrogen sulfide. I'm confident that this situation will also be relieved as we proceed with our plan for increased grouting.

## Keep Up the Good Work

I want to thank all of you who've personally worked hard on the Red Line to make it the quality system that it is — and for your continued dedication and constant improvement as we keep it moving along on schedule.

#### **Meetings for former SCRTD Employees**

In other matters, since I've previously met with former LACTC employees, I want the same opportunity to meet with former SCRTD employees to go over merger-related issues, including Social Security. Any employee who wants to attend these meetings at either building may do so. My meeting with employees at the 425 Building has been rescheduled for March 15 at 11:00 a.m. in the Board Room on the 2nd Floor.

### **Social Security Update**

At last week's MTA board meeting, the Board voted to continue advancing the social security contribution for former LACTC employees pending a decision from the IRS.

We hope to have an answer by the time the merged benefit package is to be presented at the April board meeting for review and/or action. Meanwhile, Michael Gonzalez at extension 4-7476 is available to answer your questions.

### **Consolidated Payroll and Holidays**

Speaking of the benefits package, we are working on a proposal to take to the Board in April. The proposal will incorporate the Foster Higgins findings, along with the input received from the employee focus groups. I plan to have in place by the end of the fiscal year a consolidated payroll and holiday schedule. I'm asking for your continued patience as we keep chipping away the many merger-related issues.

### **Division 7 Rollout**

By the way, I was very impressed with the women and men of Division 7 in West Hollywood on Feb. 16. I was there at five in the morning to see, first-hand, the rollout. Thank you, Division 7 staff, for making me feel so welcome.

- Franklin White

I welcome your comments and questions in response to **CEO Report**, which is designed to provide employees with direct communication with my office. Please contact either of my Special Assistants, Michael Gonzalez at 244-7476, or Phyllis Tucker at 244-6191. Also, employees can fax comments to 244-6014.

### A publication of the MTA CEO's Office

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