



# NEWS

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**FOR IMMEDIATE RELEASE**

## **PORTIONS OF EXCAVATED RED LINE TUNNELS BENEATH VERMONT/HOLLYWOOD ARE MISALIGNED, CORRECTIVE MEASURES ARE ORDERED**

The Metro Red Line tunnels now being excavated beneath Vermont Avenue and Hollywood Boulevard are out of alignment at certain points by as much as two feet and must be remined by the tunnel contractor, the MTA's Rail Construction Corporation (RCC) has reported.

The RCC has ordered the contractor to correct the misalignments before the permanent tunnel walls are built.

"The contractor is responsible for finishing the work within design specifications," said Edward McSpedon, MTA executive officer, construction, and RCC president. "Corrective measures must be taken at the contractor's expense, not at the taxpayer's expense."

RCC engineers have directed that an additional survey crew be assigned to the tunnelling job to expedite the realignment work.

"It's not uncommon for tunnel boring machines to go off alignment during construction," said Joel Sandberg, Segment 2 project manager. "As noted in the recent Cording Panel investigative report, this can be caused by a number of soil and mining conditions. However, the excavation of these tunnels has experienced more problems than we consider to be acceptable."

The RCC has been closely tracking the performance of Shea/Kiewit/Kenny, noting incidents of tunnel misalignment as far back as June, 1993. Shea/Kiewit/Kenny has been directed to submit plans to ensure that solutions to the problems are instituted in a timely fashion.

The MTA's construction management firm, Parsons-Dillingham, acting on behalf of the agency in February, replaced its resident engineer who was responsible for overseeing the work.

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Two parallel tunnels, each approximately six miles long, are being excavated and tunnelling should be completed this fall. At this point, just over half of the Hollywood/Vermont subway corridor has been excavated. The tunnel lining and tracks have not been constructed.

Located 60 to 90 feet below the surface, the tunnels are being excavated by specially designed boring machines weighing some 200 tons each. These machines push themselves through the earth with hydraulic jacks, creating a 22-foot diameter hole.

When corrected, the alignment variations will not affect the structural integrity or operational safety of the tunnels. Alignment adjustments are approved by the project's engineering management consultant and the MTA prior to implementation.

The alignment of a tunnel boring machine is determined using laser surveying equipment, which is checked by the contractor each day to ensure accuracy. Construction management inspectors also check the machine's alignment daily and file a report with the resident engineer, who evaluates the data and orders any necessary corrective measures.

Although the contractor has primary responsibility for ensuring proper alignment, Parsons-Dillingham's survey department independently verifies the alignment of the tunnels. To date, more than two-thirds of the tunnels excavated have been verified through this process.

Tunnel alignment adjustments are based on the contractor's survey data as verified by Parsons-Dillingham surveys. The firm conducts a second survey to ensure that the final tunnels will meet design specifications after the concrete tunnel floor is poured. A final survey is conducted after all tunnel concrete is in place, and prior to the installation of subway tracks.

The notice to Shea/Kiewit/Kenny concerning tunnel misalignments comes only a month after excavation was halted due to worker safety problems.

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On March 11, acting on a recommendation from Parsons-Dillingham, the RCC ordered all work halted in the Hollywood/Vermont tunnels following an accident that injured three Shea/Kiewit/Kenny employees.

During the three weeks work was suspended, the contractor was required to correct a number of safety violations and improve construction safety practices. One Vermont tunnel remains closed by order of the California Occupational Safety and Health Administration.

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