

Vancouver Geotechnical Society

A Local Section of the Canadian Geotechnical Society

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NOTICE OF TECHNICAL PRESENTATION

Thursday, 13 April 2023

TOPIC: Lessons Learned from the SR-99 Highway Tunnel Project in Seattle, Owner's

Perspective

SPEAKER: Gregg Korbin, Ph.D. – Geotechnical Consultant

Gregg Korbin graduated from University of California, Berkeley with a Ph.D. in Geological Engineering in 1975. In 1995 there was an opportunity to consult on the South Bay Ocean Outfall, the first use of an Earth Pressure Balance Machine (EPBM) in North America. With the increased use of pressure face Tunnel Boring Machines (TBMs) most consulting over the last 25 years has been in this area of tunneling. Noteworthy projects include Portland East Side and Westside Combined Sewer Overflows (CSOs), Port of Miami, Lake Mead Intake No.3, the SR-99 highway tunnel in Seattle, and Metro Vancouver's water tunnel projects for seismic upgrade. Gregg Korbin has served on more than 60 technical and dispute resolution boards over the last 45 years.

CONTENT:

The SR-99 highway tunnel under the city of Seattle was designed to replace the waterfront viaduct damaged by the Nisqually earthquake. At time of bid, the 17.5 m diameter EPBM manufactured by Hitachi was the world's largest TBM. The speaker was a member of Washington State Department of Transportation's (WSDOT's) technical review board from design through construction (2009 to 2017). The project faced many technical challenges, and despite a difficult start up, it ended up setting a new standard for the soft ground tunneling industry in terms of ground control and monitoring methodologies. The technical presentation will be from the owner's perspective. Topics include design and contract approach, TBM issues related to manufacturing, breakdown and rebuild, the management change, TBM performance and ground response from mining, and the court case, as well as the contribution of WSDOT's technical review board.

DETAILS: Location: Grand B Ballroom, Executive Hotel, 4201 Lougheed Highway, Burnaby, BC V5C 3Y6

Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar) **Technical Presentation**: 6:30 to 7:30 pm (No need to RSVP)

Dinner: 8:00 pm (\$20 will be charged for dinner). If you would like to stay for dinner, please RSVP to Ali

Jahanfar via email (ali.jahanfar@stantec.com) or at the door.