## Portland East Side CSO Tunnel

The Portland East Side CSO Tunnel ( 22 feet dia. X 6 miles long) ( $6.7 \mathrm{~m} \times 9.6 \mathrm{~km}$ ) is the largest of all Portland's projects. Final design was completed and shaft construction began in 2006, with scheduled comp letion by 2011. Seven shafts (49-60 feet dia. and 110-165 feet deep) are built to connect existing overflow pipes to the East Side CSO Tunnel and provide above-ground access. The tunnels will reduce $94 \%$ of the CSO after completion. Shurjoint was specified by the (JV) contractors, Kiewit-Bilfinger-Berger (KBB). The tunnel boring machine (TBM) started boring in May 2007. 1,100 pieces of 14 " \#R-88 Ring-Joint couplings were used to construct the 350 psi (.500" $/ 12.7$ mm wall) coarse slurry discharge. 1,100-16" \#R88 couplings will connect the Clean Slurry (Bentonite) piping which lubricates the TBM face.

## Iocation

Portland, Oregon, USA

year
-

2011
application
CSO (Combined Sewer Overflow)
productline

VSH Shurjoint
architect


7 shafts (49 feet-60 feet in diameter ( $15 \mathrm{~m}-18 \mathrm{~m}$ ) $\times 110$ feet-165 feet deep ( $34 \mathrm{~m}-50 \mathrm{~m}$ ) to be built


Eastside Combined Sewer Overflow Tunnel Boring Project - Portland,

Oregon, USA

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## Industry

