

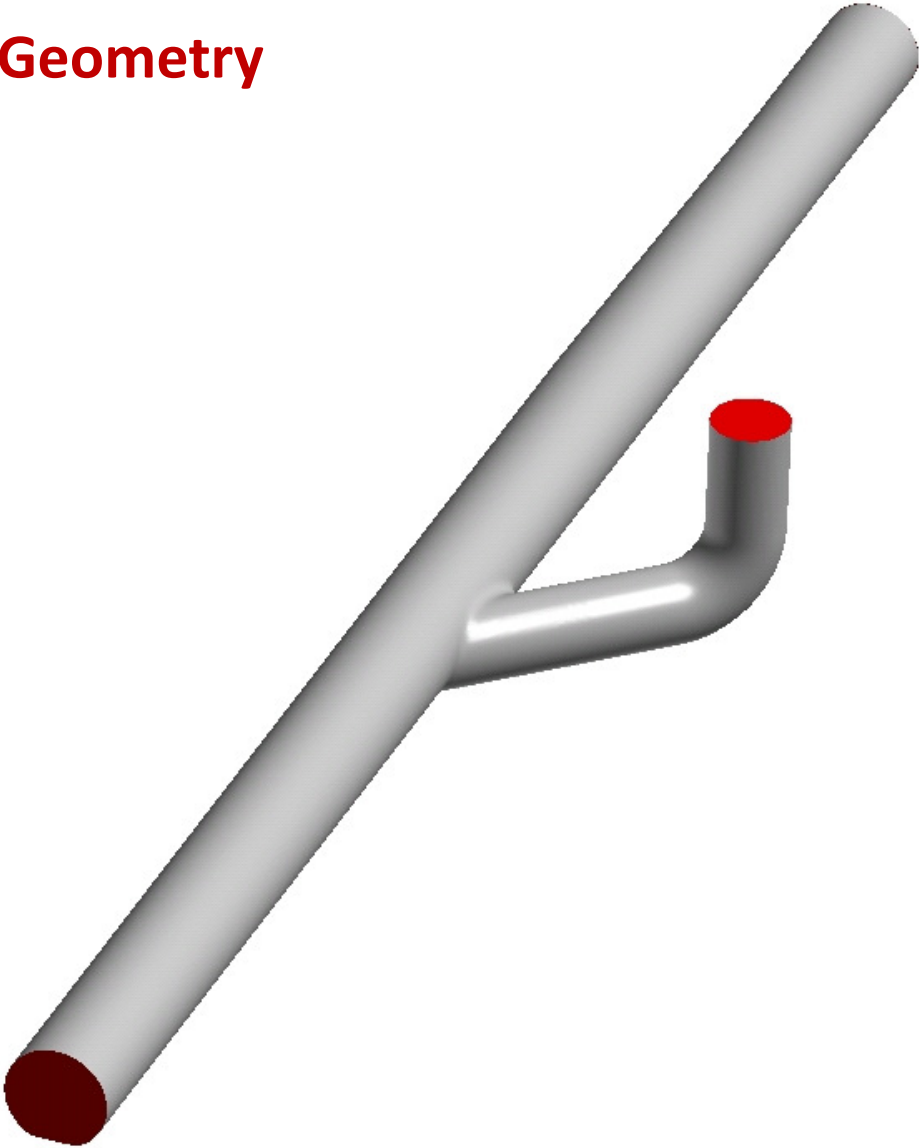
CFD Modeling and Simulation for the Waller Creek Tunnel/8th St. Lateral Junction

Preliminary Results
(August 2008)

By:

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CFD Model Geometry

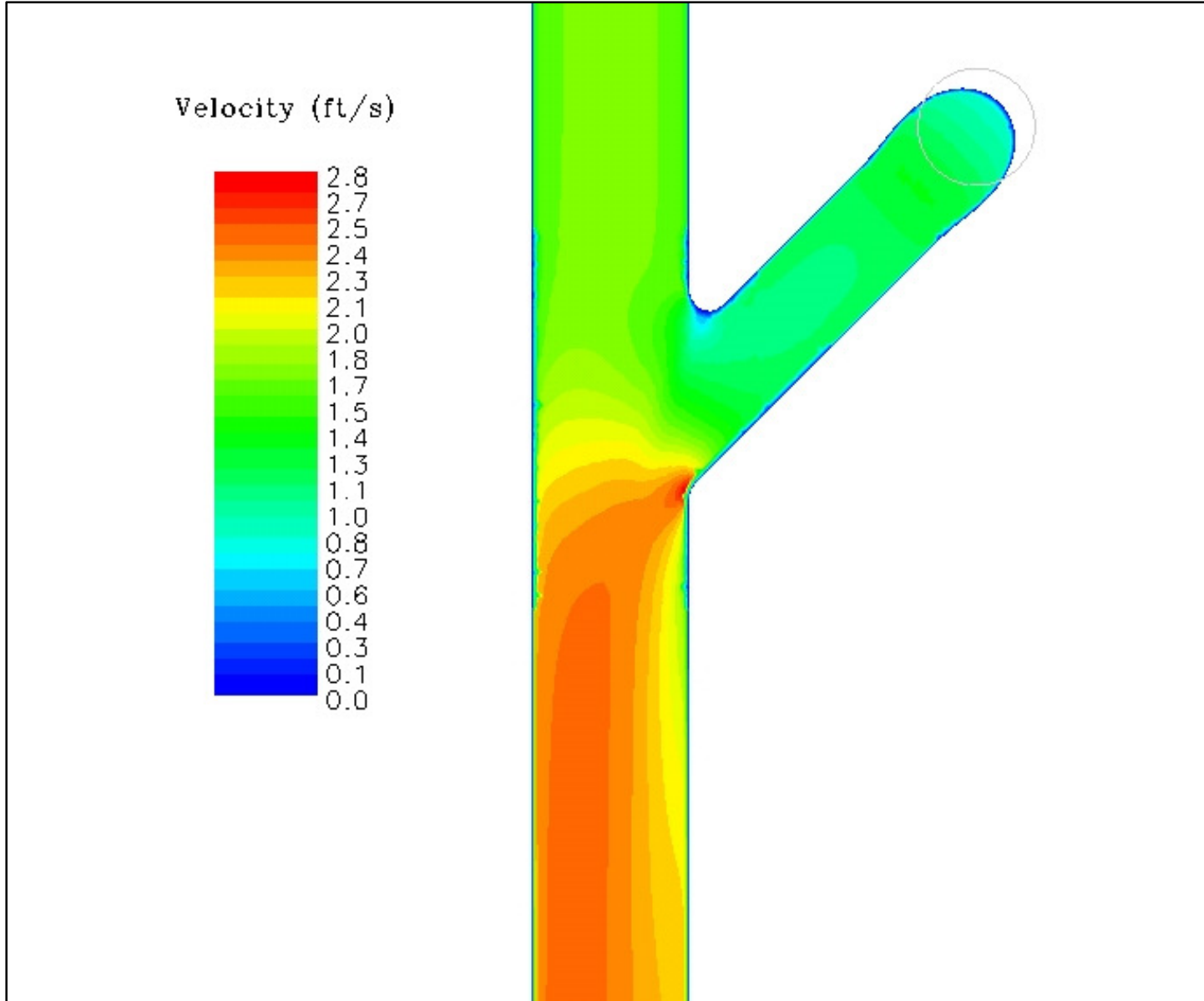


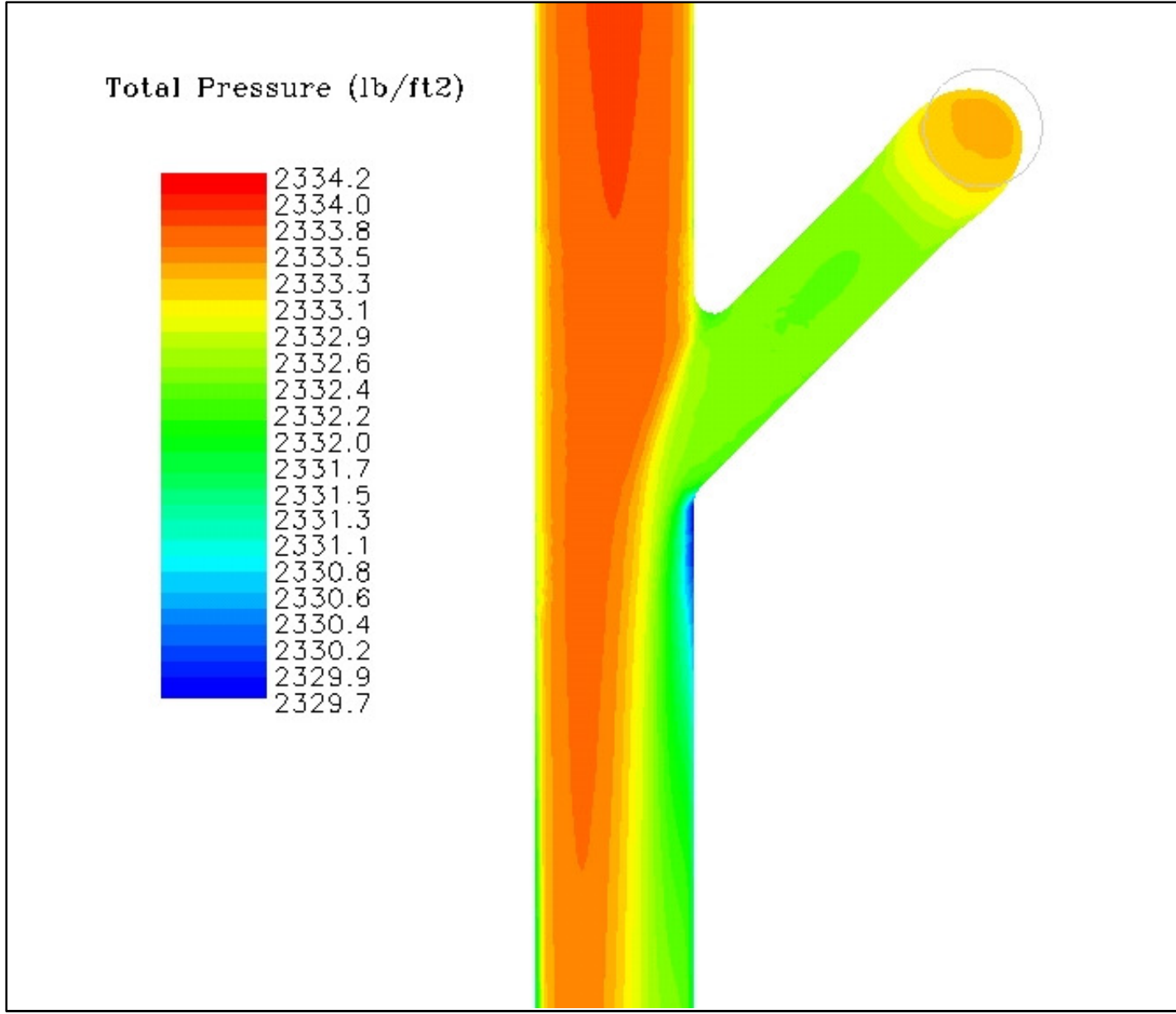
Flow Scenarios:

		Waller Creek (WC) Tunnel Flow Scenarios					
		1 yr	2 yr	5 yr	10 yr	100 yr	500 yr
Return Period		1 yr	2 yr	5 yr	10 yr	100 yr	500 yr
Proposed - Lag Tunnel / Peak Intervening Flow (8th Street Lateral Junction)	Tunnel Flow (12th St. Inlet)	632	979	1972	2743	4693	6208
	8th St. Connector Tunnel Flow	260	335	547	700	1258	1701
	% Flow of 8th St. Connector Tunnel	41.1%	34.2%	27.7%	25.5%	26.8%	27.4%
Proposed - Lag Tunnel / Peak Intervening Flow (4th Street Lateral Junction)	Tunnel Flow (12th St. Inlet + 8th St. Inlet)	892	1314	2519	3443	5951	7909
	4th St. Connector Tunnel Flow	194	239	361	447	763	1015
	% Flow of 4th St. Connector Tunnel	21.7%	18.2%	14.3%	13.0%	12.8%	12.8%

**Lag Tunnel / Peak Intervening Flow
(8th Street Lateral Junction)**

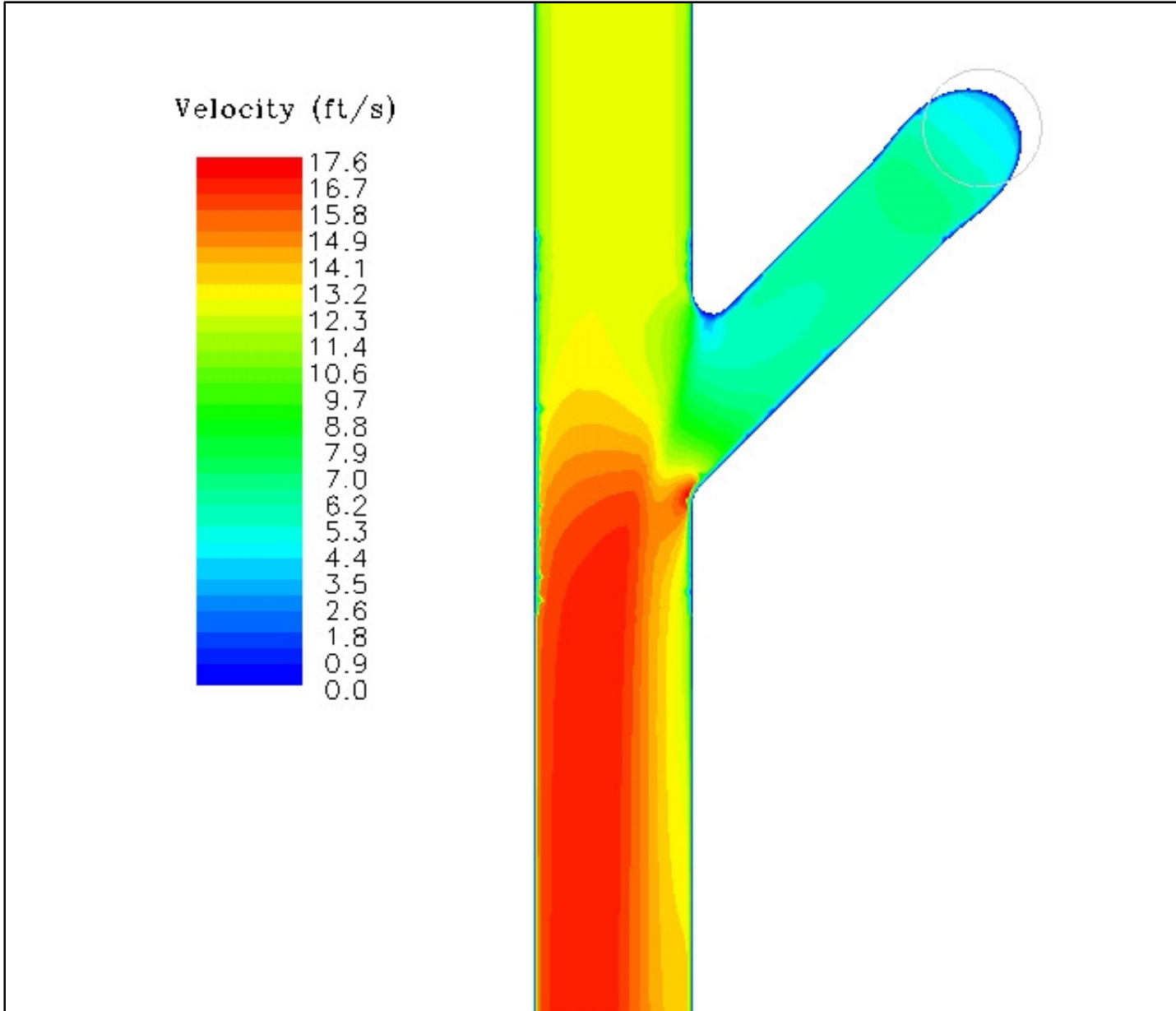
1 Year Return Period



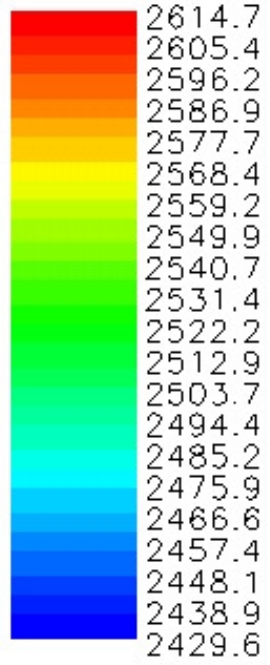


**Lag Tunnel / Peak Intervening Flow
(8th Street Lateral Junction)**

100 Year Return Period



Total Pressure (lb/ft²)



END