

Probabilistic Liquefaction Potential and Liquefaction-Induced Ground Failure
Maps for the Urban Wasatch Front: Phase III, Fiscal Year 2006

400 South CPT Investigation

Downtown Salt Lake City

USGS

University of Utah

ConeTech

Utah Liquefaction Advisory Group

Thursday March 1, 2007

Background

Offset in UDOT CPT Line at 400 South and 400 West

Salt Palace Convention Center Expansion

“Gravel Bar” at the Old Metropolitan Hall of Justice (Site of the Salt Lake City Library)

Investigation Goals and Objectives:

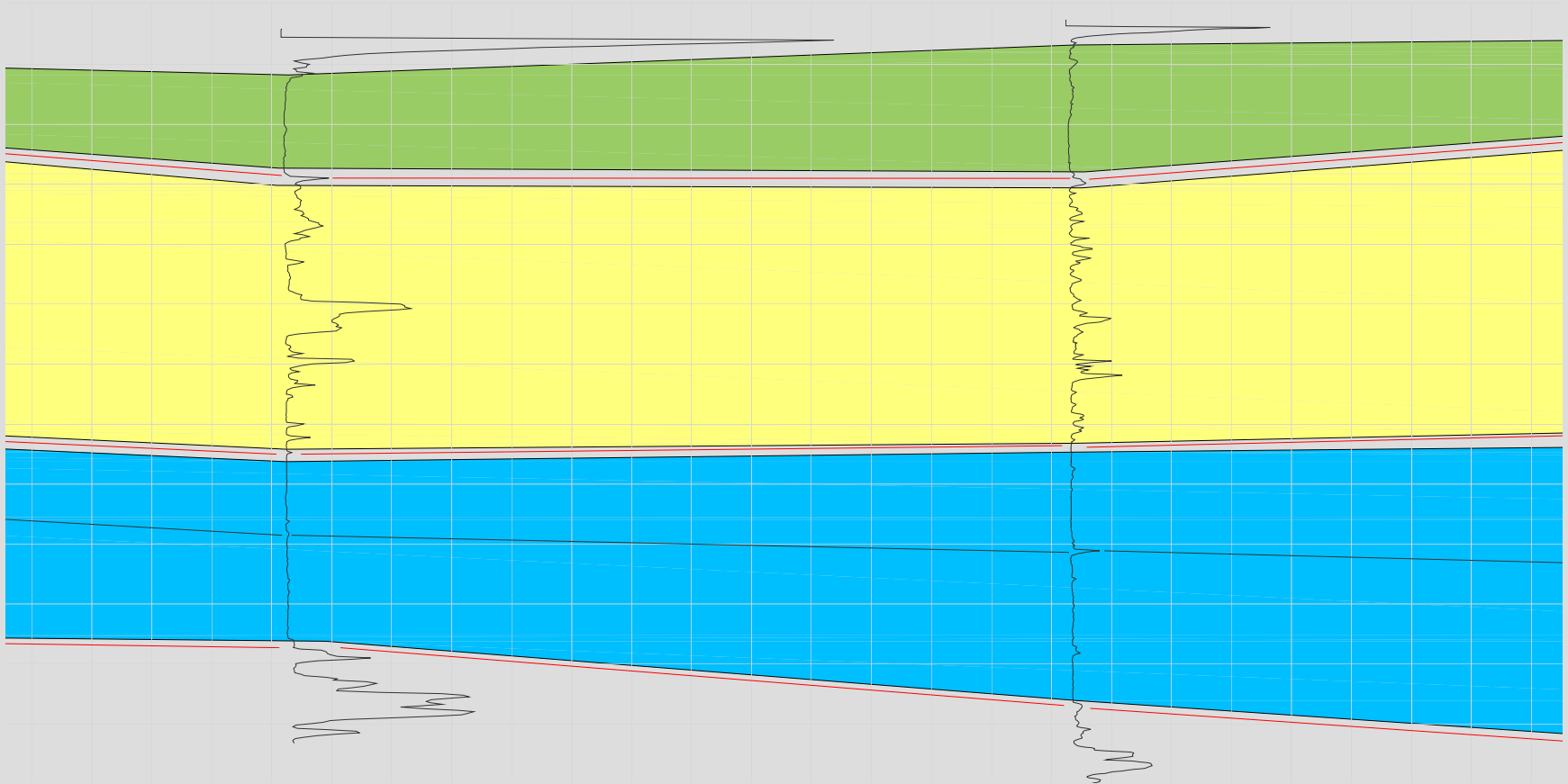
1. Confirm Vertical Offset Feature at 400 South and 400 West
2. Better define the Boundaries of the Faulting/Ground Displacement Zone Found Near the Southern Terminus of the Warm Springs Fault
3. Verify Stratigraphic Sequence and Potential Vertical Offset Near the “Gravel Bar” in the Old Metropolitan Hall of Justice
4. Perform Liquefaction and Lateral Spread Analyses at These Locales
5. Add CPT data to the ARC GIS Database and Mapping Effort

Utah Liquefaction Advisory Group
Thursday March 1, 2007

Investigative Approach

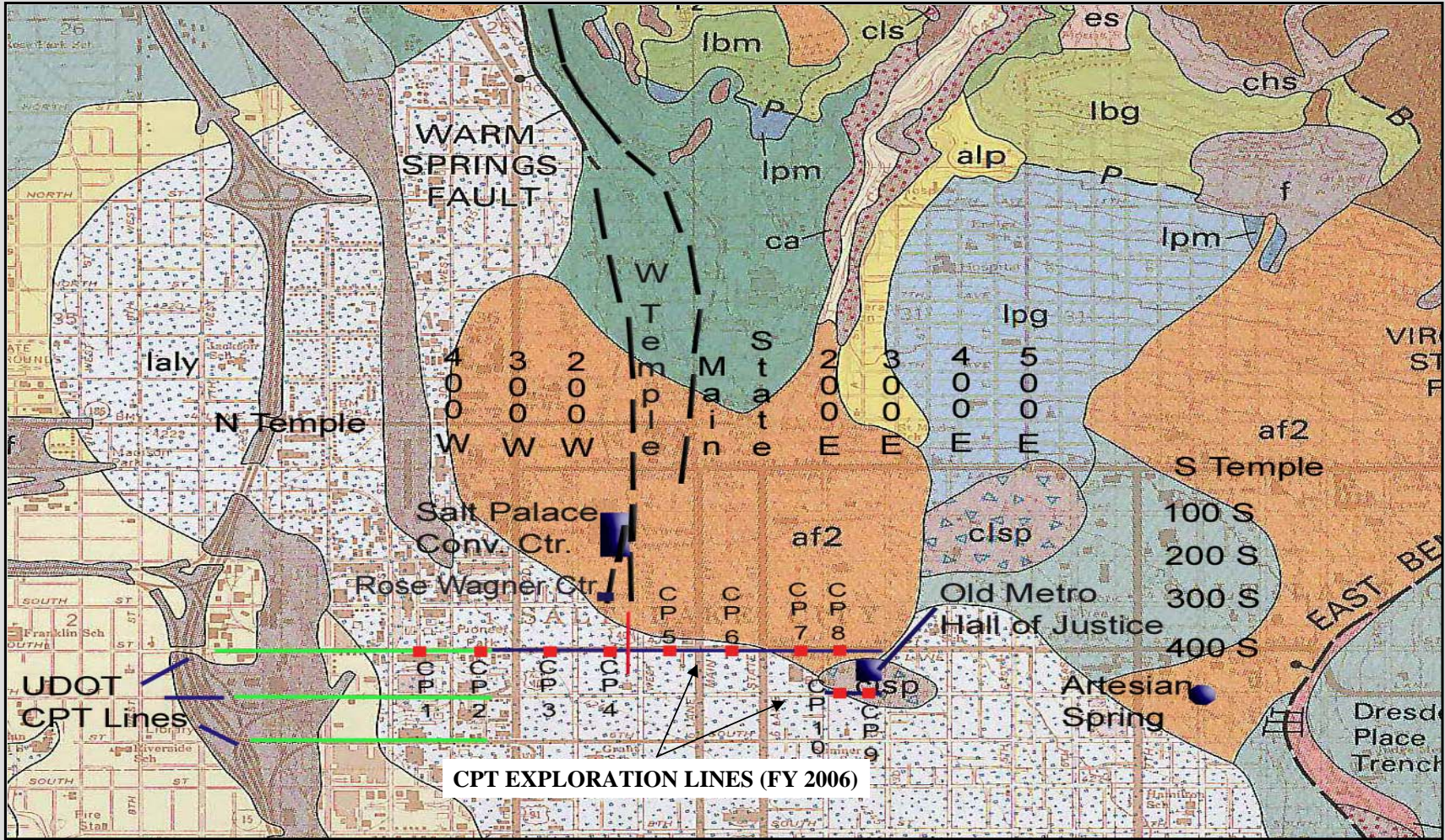
CP 2
343 W

CP 3
235 W



Utah Liquefaction Advisory Group
Thursday March 1, 2007

Site Exploration Map



CPT EXPLORATION LINES (FY 2006)

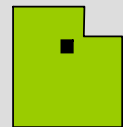
Base Map: Personius & Scott, 1992

■ Approximate CPT Sounding Locations

| | | | |
|--------------|-------|---------------|-------|
| CP 1 – 425 W | 400 S | CP 6 – 29 E | 400 S |
| CP 2 – 343 W | 400 S | CP 7 – 175 E | 400 S |
| CP 3 – 235 W | 400 S | CP 8 – 225 E | 400 S |
| CP 4 – 130 W | 400 S | CP 9 – 266 E | 500 S |
| CP 5 – 56 W | 400 S | CP 10 – 228 E | 500 S |

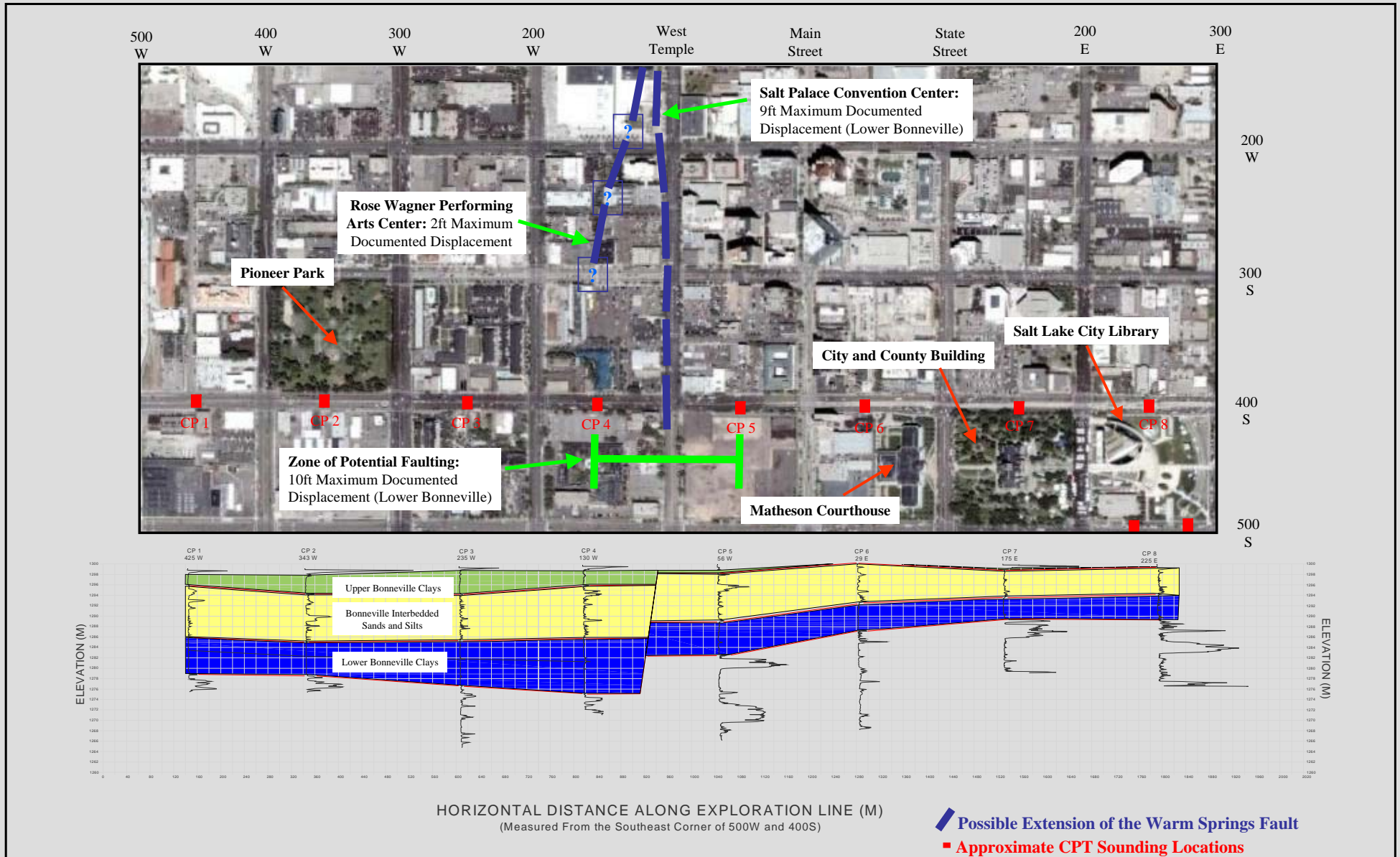


Not to Scale



MAP LOCATION

CPT Cross Section View



400 SOUTH CPT FENCE DIAGRAM

