



Water Engineering: Distribution and Conveyance

- Large Dia. Lines
- Aerial Waterlines
- Open Cut and Pipe Bursting
- Directional Bores
- Appurtenances

WEI has designed many capital improvement water line extensions. Projects have included pressure water mains and gravity flow lines up to 30" in diameter, aerial lines over drainageways and rivers, directional bores both with and without casing pipe under highways, canals, and congested utility corridors. Designs include new and replacement lines and connections, temporary surface lines, open trench and pipe bursting, meters, system interconnections, PRV's and PSV's, air release valves, and associated facilities such as tanks and booster stations.

Selected Projects

32 Road Waterline: Phase 2 Design, Mesa County, CO

Involved approximately 9000 LF of 12" waterline, two directional bores with steel casing, one under a CDOT Hwy and another under a canal, combination air valves, and miscellaneous work. Project is in CDOT ROW.

1998, 1999, & 2000 Waterline Replacement Projects, Grand Jct., CO

In three projects, each consisting of many upgrade locations, designed over 46,500 lineal feet of both open trench and pipe bursting waterline. Involved design and coordination of over 800 service switchovers and many main reconnections. Part of the project was in interstate business loop I-70B.

Raw Water Supply, Central City, CO

Design of over six mile raw water supply line for the mountain community of Central City in an old 15' easement that the Forest Service would not allow to be expanded for waterline reconstruction, even temporarily for construction except at only a few locations for staging and turn-around. Special design considerations were track mounted rock trenchers, fusion bonded HDPE pipeline, and other special provisions for environmental protection.

32 Road Waterline: Phase 1 Segments A, B, and C Design & Segment B Construction Services, Mesa County, CO

Provided design and construction engineering and inspection services on project involving 11,263 LF 10" through 12" waterline, 759 LF directional bore, 297 pipe suspended on CDOT bridge, combination air valves, an interconnection between two water purveyors, and miscellaneous work. Project is in CDOT ROW.

Peach Street Reconstruction: Phase II, Fruita, CO

As part of designing road reconstruction, designed 2116' of waterline with 8 services, and provided construction oversight.

South Avenue Reconstruction 5th St. to 9th St., Grand Junction, CO

As part of roadway redesign, designed new waterline with fire hydrants. Special challenges were other utilities in the same street - two active waterlines, 24", 21", & 15" parallel combined sewers with design of combined sewer separation using existing lines plus a new 48" storm drain, medium pressure 10" and high pressure 12" gas lines, two banks of underground electric, overhead high voltage lines, irrigation pipeline, and underground telephone, all in 80' of R.O.W.

