



## **GARY E. WELP, P.E., CFM**

SENIOR PROJECT MANAGER



### **EDUCATION**

#### **B.S., Civil Engineering**

University of Colorado at Denver (1993)

### **PROFESSIONAL REGISTRATION**

**Registered Professional Engineer: Colorado  
Certified Floodplain Manager (CFM)**

### **PROFESSIONAL EXPERIENCE**

Mr. Welp has over 27 years of civil engineering design and management experience in master drainage studies, regional drainage, water systems, utility pipelines, and sewer interceptors, and residential and commercial subdivisions. Mr. Welp's responsibilities include hydraulic analysis, drainage studies, floodplain studies, development review, and design of drainage and municipal projects for the company. He is proficient in the use of Adobe Acrobat and Reader, AutoCAD, Haestad StormCAD, NeoUDSewer, HydroPond, CUHP, EPA SWMM 5.0, HEC-RAS, HEC-HMS, Haestad Culvertmaster and Haestad FlowMaster.

- *On-Call Engineer and Development Review, Town of Buena Vista, Colorado.* Project manager for providing on-call staff support services to the town. This includes all aspects of the development review process, from pre-application, engineering review, referral agency coordination, and applicant and developer correspondence. Project manager for the creation of a Development Handbook, which lays out the engineering standards for development within the town. Created Master Drainage Studies for both east and west of Highway 24. Provides review of applications within the town's floodplain.
- *Development Review, City of Littleton.* Project Manager. Assists the City's Public Works Department with the review of drainage reports, site development plans, subdivision exemptions, stormwater management plans, construction plans and erosion control plans. Prepares comment letters and PDF redline comments and attends meetings or site visits with applicants or their engineers.
- *District Engineer, Westridge Sanitation District, Jefferson County, Colorado.* Project manager for the design and construction management of annual improvements projects, and the administration of annual maintenance and videoing. This work also includes development review from the City of Wheat Ridge and review and construction administration for proposed commercial additions/improvements within the district.
- *District Engineer, Deer Creek Metropolitan District, Jefferson County, Colorado.* Project manager for the design and construction management of annual district maintenance projects, and the administration of storm sewer maintenance and videoing.

- *District Engineer, Highland Park Metropolitan District, Arapahoe County, Colorado.* Project manager for the maintenance of the district's pond systems and infrastructure.
- *District Engineer, Lincoln Park Metropolitan District, Douglas County, Colorado.* Project manager for engineering and construction management services for the district, including administration of and annual reporting for the district's MS4 permit. Project manager for maintenance projects, such as sidewalk rehabilitation and fence replacement. Project manager for a trail improvement project, including coordination and approval through CDOT and Jefferson County.
- *Storm Drainage Improvements, Conservatory Metropolitan District, Arapahoe County, Colorado.* Project manager for the design and construction administration of storm drainage improvements to the district's Water Quality Control Ponds 6 and 7, including permitting through the City of Aurora.
- *2020 Water Distribution Project, East Alamosa Water and Sanitation District, Alamosa, Colorado.* Project engineer for the design of improvements to the district's drinking water distribution system and associated components, including 12,627 LF of 6" water main.
- *Asset Inventory Report, Town of Center, Colorado.* Project engineer for the creation of an asset inventory for the town. This report summarized the inventory, overall age, and condition of each of the capital assets owned and operated by the town. Provided prioritization of improvements and/or replacements of any aging, damaged or otherwise insufficient assets.
- *US 160 and SH 17 Intersection Project, East Alamosa Water and Sanitation District, Alamosa, Colorado.* Project manager for the design and construction management for the replacement of 675 LF of 8" sanitary sewer and four manholes. This work was completed in partnership with CDOT.
- *2019 Roadway Repairs Project, Lincoln Park Metropolitan District, Douglas County, Colorado.* Project manager for the transfer of ownership for all district roadways to Douglas County. This project included contract document creation and bidding, and construction administration for all improvements to the roadways, sidewalks, cross pans, and curb and gutter.
- *Access in CDOT Right of Way and Gravel Access Road Extension, Rio Grande County, Colorado.* Project manager for the design and construction administration of access to Flying W Ranch from State Highway 160 and extension of the gravel access road on the property. This included coordination with Colorado Department of Transportation (CDOT) for an Access Permit, Notice to Proceed and culvert installation and coordination with San Luis and Rio Grande Railroad Company for a railroad crossing.
- *RedHawk Filing No. 3, Phase 5, Castle Rock, Colorado.* Project manager for 29-lot subdivision within the Red Hawk Filing No.3. The project consists of roadway, sanitary sewer, water line design and regional detention pond improvements.
- *Legends Club Subdivision, Douglas County, Colorado.* Project Manager for the design and grading layout for a minor development with four single-family home lots. Provided construction drawings, a Phase III Drainage Report, grading, erosion and sediment control report and plans and coordination with Douglas County.
- *Elm Road Reconstruction, Brush!, Colorado.* Project Manager for the reconstruction of Elm Road to address drainage issues, provide paved roadway and ADA compliance for non-conforming sidewalks, handicapped ramps and crosspans.

- *Meadows Filing No. 20 Phase 2, Area 2, Plat Amendment 7, Oakwood Cluster West, Castle Rock, Colorado.* Project Manager for the re-plat and construction plans for 56 lots of residential cluster homes within the Meadows No. 20 development. The project consisted of the re-use and development of previously installed infrastructure, adjacent to regional detention pond.
- *2013 Flood Mitigation, Nederland, Colorado.* Project Manager is providing the Town of Nederland design and construction management assistance for recovery from the 2013 flooding and coordination with FEMA in the contractual aspects of project funding. The project consists of removal of 2900 tons of material to restore road to pre-flood conditions and to also mitigate future flooding event by improving the drainage system and installing a series of new culverts.
- *Meadows Filing No. 20 Parcel D and E, Castle Rock, Colorado.* Project Manager for the re-plat and construction plans for 50 lots of residential cluster homes within the Meadows No. 20 development. The project consisted of the re-use of previously installed infrastructure, next to a community pool site.
- *Meadows Filing No. 20 Phase 1B and 2B, Castle Rock, Colorado.* Project Manager for the re-plat and construction plans for 137 lots of residential cluster homes within the Meadows No. 20 development. The project consisted of the re-use of previously installed infrastructure, a new park and new roadway layout.
- *East Alamosa Water and Sanitation District, Alamosa, Colorado.* Re-design, replacement and approval of the District's two primary lift stations and the proposed rehabilitation of the portions of the District's water system and sewer system.
- *Town of Buena Vista, Colorado.* Project Manager. Master Drainage Reports for the east side of the Town tributary to the Arkansas River and the west side of the Town tributary to Cottonwood Creek.
- *Berkeley Homes, Parker, Colorado.* 33 lot subdivisions. Construction management to facilitate construction and construction of sub-dividers for developer and new infrastructure and development in Parker, Colorado.
- *Massey Draw Erosion Mitigation Drainageway Restoration Project.* Project Manager. The project was the restoration of to major trail crossing in Massey Draw that had severely eroded. The mitigation included the installation of new culverts, grouted drop structure, grouted slope protection and site stabilization and re-grading. The project required coordination with ACOE, UDFCD, Jefferson County and the Foothill Park and Recreation District.
- *Development Plan for Colorado Motor Sports Park in Deer Trail, Colorado.* Project Manager. The development plan studies 243 acres of on-site proposed raceway, enclosed grandstands and 2000 space parking lot that included developed and undeveloped areas off-site as it may impact regional detention ponds.
- *Redhill Forest POMWACA PER and EA, Fairplay, Colorado* Project Manager. The Study covers the entire subdivision and the securing funding through USRDA for the replacement of 40-percent of the water lines that were incorrectly installed and froze on a regular basis.
- *East Alamosa Water and Sanitation District Capital Improvement Master Plan.* Project Manager. The Study the entire district and studies the conditions of the water lines, sewer lines and lift station to provide a program of maintenance and replacement of aging infrastructure within the District.

- *McCully and Schell Floodplain Analysis, Weld County, Colorado* Project Manager. The Study provide analysis of the existing and proposed floodplain and established a floodway for approximately two miles of Boulder Creek near WCR 20 ½.
- *Master Drainage Study for High Plains Raceway, Colorado Amateur Motor Sports Association.* Project Engineer. The Study encompassed 900 acres of on-site proposed raceway developed and undeveloped off-site as it may impact regional detention ponds and a major drainageway.
- *Bond Park Phases I and III, Estes Park, Colorado.* Project Manager. This project included: storm sewer, channelization and infiltration system; underground conduit bank for irrigation control wires, utilities, fiber options, and electrical system; replacing asphalt pavement; eliminating curb and gutter; 3-foot high rock boulder bollards, curvilinear roadway, sidewalks, and planters.
- *20-Mile Regional Detention Pond, Parker, Colorado.* Project Engineer. Designed, performed modeling and coordinated the 50 ac-ft storm detention facility for the Urban Drainage and Flood Control District and the Town of Parker.
- *Sulphur Gulch Drainageway Improvements, Parker, Colorado.* Project Manager/Engineer. Performed hydraulic and HEC-RAS analysis for extensive improvements at the confluence with Cherry Creek. The project was in Prebles Jumping Mouse habitat and required environmental permitting. Also performed construction services for this project.
- *CLOMR and LOMR – 6400 South Tributary, Castle Rock, Colorado.* Project Manager/Engineer. Performed hydraulic and HEC-RAS analysis needed to complete the conditional letter of map revision for the Red Hawk subdivision.
- *Zone 3 High-Pressure 30-inch Water Transmission Pipeline – Parker Water and Sanitation District, Parker, Colorado.* Project Manager for 49,000 LF of 30-inch water transmission main. High-pressure (300 psi) transmission main connecting two separate 5 MG tanks to the water system via pressure-reducing vaults. The project required design and construction within limited rights-of-way, two major roadway bores, and river crossings at Cherry Creek and Oak Gulch. Coordinated with geotechnical and environmental sub-consultants, and utility companies.
- *West Interceptor – Parker Water and Sanitation District, Parker, Colorado.* The West Interceptor is a 14,000 LF 30-inch to 18-inch sanitary sewer along the banks of Cherry Creek in Douglas County. In addition to the design function, the project was in Prebles Jumping Mouse habitat and required extensive environmental permitting.
- *General Engineering Services, Deer Creek Metropolitan District, Highland Park Metropolitan District, Green Valley Metropolitan District.* Project Manager for general services regarding metropolitan district operation. Duties include planning, estimating anticipated capital expenditures, fee optimization, and project oversight for construction of major facilities within the District.
- *20 Mile Effluent and Raw Water Lines, Phase I & II, Town of Parker and Urban Drainage and Flood Control District.* Project Engineer. Produced plans and specifications for effluent and raw water lines consisting of 23, 000 LF of 16-inch pipe, 3,000 LF of 24-inch pipe and 2,000 LF of 12-inch pipe. Facilities interconnect the wastewater treatment plant and proposed well facilities to the existing effluent pond.

#### **DRAINAGE ENGINEERING**

- Storm Drainage Improvements, Conservatory Metropolitan District, Arapahoe County, Colorado
- RedHawk Filing No. 3, Phase 5, Town of Castle Rock, Colorado

- Legends Club Subdivision, Douglas County, Colorado
- Meadows Filing No. 20, Upland Park, Town of Castle Rock, Colorado
- Meadows Filing No. 20, Amendment 7, Town of Castle Rock, Colorado
- Meadows Filing No. 20 Casing Pipe
- Meadows Filing No. 20 – Phases 1 to 4
- Meadows Filing No. 20 Phase IB, Town of Castle Rock, Colorado
- Meadows Filing No. 20, Town of Castle Rock, Colorado
- Meadows Town Center, Town of Castle Rock, Colorado
- Bromley Park Storm Drainage Master Plan – Channel and Detention Design, Bromley Park
- Final Drainage Study for Bromley Park Filing No. 4, Filing 101, and Filing 203, City of Brighton
- Phase III Drainage Study for Stonegate Roads Phase I & II, Douglas County
- Trinidad Master Drainage Plan and Major Channel Analysis, City of Trinidad
- Highlands Ranch Filing No. 118, 118L, 118K, 134, and Floodplain Study, Douglas County
- Highlands Ranch Golf Course Clubhouse, Douglas County
- Longs Way Tributary Regional Detention Pond Design and Specifications
- Cottonwood OSP Basin Mapping, Town of Parker
- Coal Creek Floodplain Mapping, Town of Superior

**TECHNICAL MANUAL REVIEW AND MANUAL REVISION FOR SEVERAL MUNICIPALITIES IN COLORADO:**

- Town of Parker, Storm Drainage and Environmental Criteria Manual
- Town of Parker, Trails, Parks, and Open Space Manual
- Town of Hudson, Drainage Manual
- Town of Dacono, Drainage and Construction Manual
- City of Trinidad, Storm Drainage Design Criteria Manual
- Town of Superior, Storm Drainage Design Criteria Manual
- Clear Creek County, Standard and Criteria Manual
- City of Leadville, Criteria and Construction Standards
- City of Littleton, Storm Drainage and Criteria Manual
- Town of Buena Vista, Development Handbook

In the Denver area, Mr. Welp has also aided in the preparation of numerous drainage studies for Highlands Ranch, Cross Creek, Red Hawk, Meadows, Colorado Technical Center and Bromley Park.

**TECHNICAL DEVELOPMENT REVIEW FOR MUNICIPALITIES IN COLORADO:**

Mr. Welp assists with on-call development review services to a wide variety of municipalities and special districts. He is well versed at reviewing land development documents, drainage and erosion control plans and reports, and floodplain applications. He has or is currently providing development review for the following municipalities:

- City of Brighton
- City of Brush!
- City of Leadville
- City of Littleton
- City of Sheridan
- Clear Creek County
- Grand County
- Lincoln Park Metropolitan District
- Paintbrush Hills Metropolitan District
- Rio Grande County
- Town of Bennett
- Town of Dacono
- Town of Buena Vista
- Town of Gilcrest
- Town of Hayden
- Town of Kersey
- Town of Lochbuie
- Town of Parker
- Town of Red Cliff
- Town of Superior
- Westridge Sanitation District