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Principals

Narender Kumar, P.E.
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Current Projects

Colorado Rapids Soccer Stadium

Client: Kroenke Soccer Stadium, LLC

South Platte Aurora Water Line

Client: MWH Americas

Winter Park Ski Area ReDevelopment

Client: Intrawest Placemaking

144th & I-25 Interchange

Client: Felsburg Holt & Ullevig

Tollgate Casino & Parking Garage, Central City

Client: CC Tollgate, LLC

News @ K + A

January 2006

Erickson Retirement Community

Erickson Communities has begun development of Wind Crest, a full-service, maintenance-free retirement community to be constructed on an approximately 150-acre site located southeast of the intersection of Santa Fe Drive and C-470 in Douglas County, Colorado. The initial phase of the Wind Crest development is slated to open in the spring of 2007 and the overall development is to be completed by 2015.

The Wind Crest development will consist of a total of more than 1,000 residential units in three interconnected communities, each including four multi-level residential buildings and a community building as well as at-grade parking areas and associated roadways. The development will also include two multi-level parking structures, an assisted living/extended care complex with over 250 units, a chapel, a maintenance facility, and an extensive network of sidewalks and paved pathways. The buildings will all be connected by climate-controlled, elevated walkways.

Subsurface conditions at the Wind Crest site are variable, generally ranging from relatively thick, predominantly silty sands across the western portion of the site to expansive hard clays and relatively shallow claystone bedrock across the eastern portion. Building foundations in the western portion of the site will consist of shallow spread footings supported on natural sands and/or up to about 20 feet of compacted select structural fills consisting of on-site natural sands. Building foundation systems within the eastern portion of the site will include shallow spread footings and drilled piers extending into the claystone bedrock.

Kumar & Associates was selected to be an integral part of the design team in Mid-2005, and to provide construction observation and materials testing services for the overall project. Construction services will include monitoring mass earthwork operations, which will involve the excavation, placement, and compaction of over 300,000 cubic yards on-site soils, and monitoring the settlement of deep select structural fills prior to initiation of building construction.

Submitted by Wade Gilbert, P.E.

K+A celebrated the opening of our new Colorado Springs building with an open house for staff, friends, and clients on November 17, 2005.



American Furniture Warehouse, Firestone, Colorado

Kumar & Associates, Inc. was retained by Opus Northwest and American Furniture Warehouse to provide geotechnical engineering design services and construction materials testing for the proposed American Furniture Warehouse showroom located at the southeast corner of Firestone Boulevard and Interstate Highway 25 in Firestone, Colorado. The building is approximately 400,000 square feet in size with approximately 30 acres of paved parking. It was planned to raise the building slab level by placing 5 to 10 feet of fill across the site.

The site is located in the St. Vrain Creek valley and exploratory borings encountered 5 to 10 feet of lean to fat clay overlying alluvial sand and gravel. Bedrock occurred at depths of 20 to 25 feet below the ground surface. Ground water was encountered at depths of about 5 feet. The clay was determined to exhibit a low swell potential above the ground water level and was moderately to highly compressible below the ground water level. Both conditions had to be considered in preparation of foundation and floor slab recommendations.

Due to the proposed site grading, relatively deep occurrence of bedrock and shallow ground water, spread footings were selected for support of the structure. Recommendations were presented for pre-consolidating the compressible soils by placement of a soil surcharge fill. Approximately 8 to 15 feet of soil surcharge was placed on the building pad. The depth of surcharge varied with variations in the foundation loading conditions. Temporary survey monuments were installed by K+A and were periodically monitored by a surveyor. As predicted, the monitoring indicated that most of the settlement occurred during fill placement.

We recommended the surcharge soils be removed after approximately 8 weeks. The surcharge soils were removed and used as overlot fill in other parts of the development. A total of approximately 1 million cubic yards of fill was placed at the site. The majority of fill material was imported from a nearby aggregate pit. The photos below present a wide view of the building pad with surcharge in-place.

Submitted by Roger Barker



K+A Adopts a Family for the Holidays

Every year, K+A employees have contributed to various area charities for children, but this year we decided to help a needy family have an especially merry Christmas by adopting them through Community L.I.F.T, a United Way agency. We were assigned a single mom with a 12 year-old daughter and a six year-old son. K+A employees purchased gifts of clothing and toys, and supplied the mom with grocery store gift certificates. We delivered our gifts a few days before Christmas to a very appreciative mom and to two very excited children. We look forward to helping another family next year!



For more information about K+A please see our website
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