CANDLELIGHT CREST SUBDIVISION
UTILITY REPORT

PREPARED FOR

Prominent Residential Properties
11919 W I70 Frontage Road, North Unit 104
Wheat Ridge, CO 80033

and

CND, LLC.
5700 Indiana Street
Golden, CO 80403

PREPARED BY

KT ENGINEERING

KT Engineering, LLC
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DATE

June 10, 2013

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A) RESIDENTIAL POTABLE WATER DESIGN FLOWRATES

B) RESIDENTIAL SANITARY SEWER DESIGN FLOWRATES

I. GENERAL LOCATION AND DESCRIPTION

A) GENERAL LOCATION

The Candlelight Crest project is located on the southeast corner of West 58th Avenue and Indiana Street in Jefferson County. The site is within the SW ¼ and of section 7, Township 3 South, Range 70 West of the 6th p.m. Adjacent streets include West 58th Avenue to the north and Indiana Street to the west. The existing Candlelight Valley Subdivision borders the site on the east and south.

B) DESCRIPTION OF PROPERTY

The project is a combination of two land owners; the Prominent Residential Properties property and the Charlane Oswald property with a total acreage of 12 acres. The majority of the property consists of pasture land consisting of short native grasses. An existing residence is located on the south half of the property. A proposed 26 lot residential subdivision is planned for the Property.

C) DESIGN CRITERIA

All potable water and sanitary sewer systems have been designed in accordance with *North Table Mountain Water & Sanitation District's Design Standards and Specifications*. Water flow parameters and peak factors were used to analyze the proposed system and are shown in the Appendix of this report. These flow rates were used to determine Average Day demands as well as Peak Day demands and Peak Hour demands. For the water system design, an average daily flow of 175 gallons per day per capita was used along with peak factors of 2.5 for Peak Day factor, and 4.0 for Peak Hour factor. The sanitary system design used an average daily flow of 85 gallons per day per capita was used along with peak factors of 2.5 for Peak Day factor, and 4.0 for Peak Hour factor.

II. POTABLE WATER SYSTEM DESIGN

D) OVERALL SYSTEM

The proposed water system will serve 26 single-family detached units. Individual lots will connect via a meters and services line to proposed water mains that will be constructed within the streets of this development. 8-inch mains will be looped though the site and connect to existing at two locations.

Construction plans for the water system will be reviewed and approved by the North Table Mountain Water and Sanitation District. The proposed design provides adequate capacities for internal water demands.

III. SANITARY SEWER SYSTEM DESIGN

E) OVERALL SYSTEM

The proposed sanitary sewer system will serve 26 single-family detached units. Individual lots will connect via 4-inch service lines to proposed sewer mains that will be constructed within the streets of this development. 8-inch mains will looped though the site and connect to an existing sewer main in West 60th lane.

Construction plans for the sanitary sewer system will be reviewed and approved by the North Table Mountain Water and Sanitation District. The proposed design provides adequate capacities for internal sewer demands.

APPENDIX

Residential Wastewater Design Flowrates

Planning Area	Land Use	Area (acres)	Number of Units	Density (DU/Ac.)	Population Density (persons/unit)	Flow (GPD/capita)	Average Daily Flow (GPD)	Average Daily Flow (cfs)	Peak Day Factor	Peak Daily Flow (GPD)	Peak Flow (cfs)
A	SF	12	26	2.2	2.8	85	13,407	0.021	4.0	53,629	0.083

Residential Potable Water Design Flowrates

Planning Area	Land Use	Area (acres)	Number of Units	Density (DU/Ac.)	Population Density (persons/unit)	Potable Flow (GPD/capita)	Average Daily Flow (GPD)	Peak Day Factor	Peak Daily Flow (GPD)	Peak Daily Flow (GPM)	Peak Hour Factor	Peak Hour Flow (GPD)	Peak Hour Flow (GPM)
A	SF	12	26	2.2	2.8	175	12,740	2.50	31,850	22.12	4.00	127,400	88