



CHEROKEE METROPOLITAN DISTRICT

6250 Palmer Park Blvd., Colorado Springs, CO 80915-2842

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September 4, 2018

Jim Boulton
c/o Classic Homes
6385 Corporate Drive
Suite 200
Colorado Springs, CO 80919

Re: Residential Development – Midtown at Hannah Ridge
Commitment Letter #2018-12

Dear Mr. Boulton,

As requested, this letter is being provided as a formal Letter of Commitment by the Cherokee Metropolitan District (District) to provide municipal water and sewer service for the Midtown at Hannah Ridge residential development. The parcel of land is located within the District's service boundary and, therefore, the District stands ready and willing to provide water and sewer service for the specific property and uses detailed herein.

As of May 18, 2016, through a technical memorandum prepared by Forsgren Associates, the State Engineer's Office has confirmed that the District has a surplus of 453 acre feet per year of water available for new residential and commercial developments. Since May 18, 2016, the District has issued 108.597 acre feet per year of water commitments leaving a balance of 344.403 acre feet per year of water for future developments. The above-mentioned development requires 22.500 acre feet per year of water, which includes water for irrigation purposes, leaving the District with a water balance of 321.903 acre feet per year for future developments.

Regarding wastewater capacity, the District's Water Reclamation Facility (WRF) has the required capacity to meet the sewer demand for this development. The WRF is rated for 4.80 million gallons per day (MGD), of which 2.60 MGD is owned by the District and reserved for the District's customers. The District's current contribution to the WRF is 1.60 MGD, therefore, there is an excess of 1.00 MGD of treatment capacity available and 0.959 MGD of available capacity for future commitments. Based on the information received in the "Unit Water Demand Estimate – Hannah Ridge AA and BB" dated July 24, 2018 by John McGinn at JDS-Hydro Consultants, Inc., this development is estimated to discharge 12,636 gallons of wastewater per day (90 units x 2.16 persons/unit x 65 gpd/person) which

equates to 1.32 % of the available capacity of the WRF leaving 0.946 MGD of capacity available for future developments.

This water commitment is hereby made exclusively for this specific development project at this site, within the District, and must achieve appropriate zoning and a final plat land use entitlement from El Paso County Development Services within 12 months from the date of this letter; otherwise, the District may use this allocation for other developments requesting a water commitment for growth that stands ready to develop.

I trust that you find this letter sufficient to meet your needs and land use applications. If I may be of further assistance, please contact me at your convenience.

Best Regards,



Jonathon Smith
Water & Wastewater Collections Manager

Encl: Unit Water Demand Estimate – Hannah Ridge AA and BB
Concept Plan
Water Balance and Water Commitments

Ec: Amy Lathen, General Manager, Cherokee Metropolitan District

Memorandum

To: Jim Boulton, Classic Homes
From: John McGinn, PE
Date: July 24, 2018
Subject: Unit Water Demand Estimate—Hannah Ridge AA and BB

Based on the outline you provided, we evaluated the raw water requirement for the Hannah Ridge subdivision (specifically parcels AA and BB). We used home models 220 through 224 for the indoor criteria, and the limited described landscaping and outdoor use described in 3 below. We assume the subdivision is catering to low population households having very limited landscaping irrigation requirements. The projection includes a 7.5% raw water factor.

1. Housing/bedroom schedule; The homes are projected to be very moderate in size with zero to low maintenance yards.

Hannah Ridge Indoor Use Background Data

| House Style | Bedrooms | Baths | Sq Ft | Occupancy |
|-------------|----------|-------|--------|-------------|
| 220 | 2 | 2 | 1304 | 1.6 |
| 221 | 2 | 2 | 1792 | 1.6 |
| 222 | 2.5 | 2 | 1899 | 2 |
| 223 | 3.5 | 2.5 | 1996 | 2.8 |
| 224 | 3.5 | 2.5 | 2130 | 2.8 |
| | 2.700 | 2.200 | 1824.2 | 2.16 |

2. **Indoor use:** Based on house size, bedroom number and bathroom number, we project the occupancy to 2.16 persons per household, which as expected will be lower than the current El Paso County average of 2.6 persons per single family house. The indoor typical use for single family housing is 0.171 AF/SFE to 0.212 AF/SFE. Given the reduced occupancy, we expect the average indoor use to be **0.185 AF/SFE.**

3. **Outdoor use:** Landscaping of the lots will be strictly xeriscaping and the landscaping will be completed by the developer with covenants that do not allow deviation. We consider the covenants to be a crucial issue as this means that landscaping cannot be significantly varied by the homeowner. The landscaping will include minor drip system irrigation for trees and shrubs but no active turf grass. There will be a couple of outdoor spigots, so some extraneous limited outdoor use is expected, but outdoor use overall will be minimal.

Based on 350 SF of actual irrigation through drip system, and marginal extraneous outdoor use, we estimate a conservative effective irrigation area of 750 SF maximum. Using 32 inches per year for effective irrigation, the upper effective outdoor use is estimated to be 0.04591 AF /SFE rounded to **0.046 AF/SFE.**

4. Actual total water use; The combined indoor and outdoor use projected is a total of 0.185 plus 0.046 = 0.231 AF/SFE. This would be in terms of "water delivered to the doorstep". But a public water entity must consider the relative amount of raw water needed to deliver the above. Although Cherokee has a rather efficient treatment and delivery system (very little wasted water making water), we will still use a 7.5% raw water factor yielding 0.231 times 1.075 = **0.2483 rounded to 0.25 AF/SFE.**

It is our opinion that the District should **require 0.25 AF/SFE** on a raw water basis to deliver an estimated home use of 0.231 AF/SFE per year.



Water Balance and Water Commitments (Cherokee Metropolitan District)

| Development | Business Name | Address | Commitment Letter | |
|--|---|---|-------------------|------------------|
| | | | Letter # | Date Acre Feet |
| SEC Marksheffel Road and Constitution Avenue Phase #2 | SEC Marksheffel Road and Constitution Avenue Phase #2 | SEC Marksheffel Road and Constitution Avenue | 2015-01 | Expired -4.460 |
| Windermere Filing #1 | Windermere Subdivision Filing #1 | NEC Antelope Ridge Drive and N. Carefree Circle | 2015-02 | Expired -22.210 |
| Constitution Apartment Complex | Constitution Apartments | 6855 Constitution Avenue | 2016-01 | Expired -19.000 |
| Meadowbrook Crossing Subdivision | Meadowbrook Crossing | Meadowbrook Parkway and Highway 24 | 2017-01 | 5/4/2017 36.270 |
| Kum & Go Store #692 | Kum & Go | 6809 Space Village Avenue | 2017-02 | 9/8/2017 2.072 |
| Kum & Go Store #692 | Kum & Go | 6809 Space Village Avenue | 2017-02 | Revised -2.072 |
| Freedom Springs Apartment Complex | Freedom Springs | 734 Western Drive | 2018-01 | 2/22/2018 14.500 |
| Covert Ops Paintball | Covert Ops Paintball | 6425 E. Platte Avenue | 2018-02 | 3/22/2018 0.150 |
| Mule Deer Villas Subdivision | Mule Deer Villas | SEC Akers Drive and N. Carefree Circle | 2018-03 | 4/20/2018 36.250 |
| Mule Deer Villas Subdivision | Mule Deer Villas | SEC Akers Drive and N. Carefree Circle | 2018-03 | Revised -36.250 |
| Appaloosa Highway 24 Subdivision Filing #2 | Appaloosa Highway 24 Subdivision Filing #2 | SEC Amelia Street & Terminal Avenue | 2018-04 | 6/13/2018 1.247 |
| SEC Marksheffel Road and Constitution Avenue Phase #2 | SEC Marksheffel Road and Constitution Avenue Phase #2 | SEC Marksheffel Road and Constitution Avenue | 2018-05 | 7/6/2018 4.460 |
| Windermere Subdivision | Windermere | NEC Antelope Ridge Drive and N. Carefree Circle | 2018-06 | 7/6/2018 70.800 |
| Gardens at North Carefree Subdivision (Mule Deer Villas) | Gardens at North Carefree | SEC Akers Drive and N. Carefree Circle | 2018-07 | 8/3/2018 22.010 |
| Hannah Ridge at Feathergrass Filing #5 (LLC Water) | Hannah Ridge Filing #5 | NWC Akers Drive and Constitution Avenue | 2018-08 | 8/17/2018 25.690 |
| Hannah Ridge at Feathergrass Filing #6 (LLC Water) | Hannah Ridge Filing #6 | NWC Akers Drive and Constitution Avenue | 2018-09 | 8/17/2018 17.680 |
| Hannah Ridge at Feathergrass Filing #7 (LLC Water & CMD Water) | Hannah Ridge Filing #7 | NWC Akers Drive and Constitution Avenue | 2018-10 | 8/17/2018 34.020 |
| Space Village Filing #3 Lots #1, #2, #3 | Space Village Filing #3 Lots #1, #2, #3 | 6809 Space Village Avenue | 2018-11 | 8/29/2018 3.440 |
| Hannah Ridge AA and BB | Midtown at Hannah Ridge | NEC Akers Drive and Constitution Avenue | 2018-12 | 9/4/2018 22.500 |

Water Balance Beginning as of May 18, 2016 (AFY)

453.000

Water Committed since May 18, 2016 (AFY)

131.097

Water Balance Remaining for Future Commitments (AFY)

321.903