PEREGRINE FIRE
Consulting, Engineering, Advocacy

October 15, 2026

Adam Doyle
Land Development Manager
Flying Horse North Development
2138 Flying Horse Club Dr.
Colorado Springs, CO 80921
adam@fhdev.com

RE: Flying Horse North Filings No. 8 – Fire Protection Report

Dear Adam,

Peregrine Fire has been retained to provide review and fire protection engineering consulting services for the Flying Horse North development.

Over the past 2 years, several reports regarding this development have been tendered with the intent of meeting El Paso County Land Development Code (LDC) and fire code requirements for available water supply.

In April, 2026, El Paso County passed Resolution 26-139 which adopted a county wide fire code, specifically, the 2021 International Fire Code. This, along with conversations held with the Black Forest Fire Rescue District (BFFR) have resulted in an alternate form of approved water supply, compared to what was submitted and approved in September 2025.

This letter report addresses the placement and reliance on a single pressurized fire hydrant, fed from the Sundance distribution line, as an alternate to two (2) cisterns with a combined volume of over 196,800 gallons for the Flying Horse North Filing No. 8 only. Fire Service is to be provided by BFFR. The Filing that is the subject of this report is summarized below; acreage is rounded up to the nearest acre.

- Filing 8 is a 156 acre development consisting of 50 lots located to the south of Filing 5 off of Old Stagecoach Rd.

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Overview

The currently submitted and approved plans required 196,800 gallons of stored water for Filing 8. A review of the most current EPC code requirements permits the use of pressurized water sources delivering a minimum flow rate of 250 gpm for 2 hours (or 30,000 gallons total volume) for parcels located not more than 2 miles from such a source.

This letter provides the justification, based on the most recent adopted code requirements by El Paso County, to make the following modifications to existing infrastructure and considerations of existing resources to accomplish this goal. Namely:

1. Hydrant 21, which has been relocated to a pull-off located off of Old Stagecoach Rd, will cover every portion of Filing 8 as it is centrally located so that no point in the development is more than 1.43 miles driving distance from this hydrant. This meets the maximum driving distance of 2 miles, as stated in the EPC LDC.
2. The existing pump house provides a backup source of water and alternate draw source, located approximately 1/3 of a mile west of Hydrant 21.

El Paso County Land Development Code Requirements

The El Paso County Land Development Code (LDC) Section 6.3.3, Fire Protection and Wildfire Mitigation, requires the following:

- A Water Supply provided by either a municipal hydrant system, or where hydrants are not provided, a system conforming to NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting*.
- Automatic fire protection as required for buildings in accordance with the building code adopted by the Pikes Peak Regional Building Department.
- For areas without a central water system, "fire cisterns shall be provided in planned building areas which are not served by hydrants, unless the Fire Authority has recommended and the approval authority has approved an alternate fire protection water supply system."
- "Cisterns shall be designed for the largest building allowed by zoning in the worst-case hazard and construction class."
- Cisterns shall have a total capacity equal to:
    - 300 gallons per acre within the subdivision, plus
    - 3,000 gallons per dwelling unit, whichever is greater.
- Cisterns shall have access via dedicated turnarounds located no more than 50 feet from the cistern and access to a "standpipe" within 8 feet. By standpipe, we understand this to mean a hose connection with specified hose thread as required by the servicing fire district or department.
- Dry hydrants, when used, must be accessible under all weather conditions, have a clearance of 20 ft on each side, located a minimum of 100 ft from any structure, be protected from vehicular damage, and be visible from the roadway with reflective markings. Additional installation and performance as per NFPA 1142.
- A new provision via El Paso County Resolution 26-202, adopted June 24, 2026, which amends the LDC Section 6.3.3, provides the following for Areas without a Central Water Source:

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- (C)(1)(d)(i)e. **Alternative Fire Protection Water Supply**

  The County or Fire District, when located within the boundaries of a Fire District, may determine that a cistern or dry hydrant is not required upon an evaluation of recognized water supplies from a qualified professional including the applicable Fire District. Alternative water supply must be capable of providing 250 gpm fire flow, and maintain the fire flow, without interruption, for 2 hours. The water supply shall not be more than two (2) miles travel distance from any vehicle entrance to a parcel that is served by the water supply.

Existing Infrastructure

Cherokee Water Sundance & Frank Rd. Receiving Tanks

An existing 500,000 gallon water tank, owned and operated by the Cherokee Water District, and known as the Sundance Receiving Tank, sits approximately 1/3 of a mile north of Old Stage Coach Road and ¾ of a mile west of Black Forest Road. This tank was installed in 2013 and feeds a series of hydrants as shown in the attached drawing[1].

We further understand from the Cherokee Water District that the transmission line running south from Sundance feeds into the Frank Rd. tank, located at Frank Rd & Swan Rd. This 2-million gallon tank sits at 7,700 ft and gravity feeds back towards the Sundance Tank and further south as well. Per Cherokee Water, the Frank Rd. tank typically varies between 1M and 2M gallons.

Lastly, we understand from Cherokee Water that the Sundance pump station has three (3) 1,600 gpm pumps which can offer up to 4,800 gpm, but that typical normal flow is around 500 gpm to service demand.

The underground transmission pipe between the two tanks is 24-inch DIP and serves several hydrants. This system and its associated hydrants is intended for emergency use only and is therefore not considered a central water system, as defined in the LDC as stated above.

The intended compliance route per the LDC is therefore to meet the minimum requirements for dry hydrants being provided from an "approved fire protection water supply system" meeting the requirements of the newly adopted "Alternative Fire Protection Water Supply".

Hydrant 21, relocated to the north side of Old Stage Coach Rd sits at the center of the development in between previously approved Filings 4 and 5. Vehicle access meeting the requirements of the LDC will be provided. This hydrant provides pressurized water from a 400 ft 6-inch stub off the 24-inch distribution line. At an elevation of 7,550 ft, the hydrant provides a minimum static pressure of 60 psi and well over 250 gpm.

A flow test for Hydrant 21, conducted on September 2, 2026 by the Cherokee Water District is shown on the following page and results in the following:

Static:	60 psi
Residual:	11 psi
Flow:	1270 gpm

The above demonstrates that this hydrant has enough capacity to provide 250 gpm at a positive head of well over 20 psi. In fact, at 20 psi, the hydrant has a capacity of 1,138 gpm.

[1] Sundance Ranch Water Supply Project, Cherokee Metropolitan District, NV5 Engineering, 2013.

Cherokee Metropolitan District

FIRE FLOW TEST

TYPE (circle one): NEW / EXISTING

DATE: 9-2-26 TIME: 4

LOCATION SD 21

NEAREST GROUND STORAGE TANK: SD/Frank TANK LEVEL: 9.72/22.21 ft

NEAREST BOOSTER STATION: SD (gravity) BOOSTER FLOW: 0 GPM

PRE-FIRE FLOW TEST (NEW LINES ONLY)

CHARGE TIME START:_____ FINISH:_____

BLOW OFF TIME START:_____ FINISH:_____

STATIC PRESSURE TEST (2hr min) START:_____ FINISH:_____

COLIFORM TEST COLLECT DATE:_____ TC RESULT:____ EC RESULT:____

RESIDUAL HYDRANT

LOCATION SD 20 HYDRANT ID: SD 20

STATIC LINE PRESSURE: 55-60 PSI DYNAMIC LINE PRESSURE: 57 PSI

FLOW HYDRANT

LOCATION SD 21 HYDRANT ID: SD 21

FLOW: 1270 GPM PRESSURE: 11 PSI

Results taken from gauge on the Big Boy Pitoless Hose Monster

TAKEN BY: _____

REVIEWED BY: _____

RESULTS SENT TO: CMD Engineering, CMD Distribution Drive, _____

_____

Figure 1: Flow test results for Hydrant 21

Flying Horse North Irrigation Reservoir

An irrigation reservoir with pump house sits just west of proposed Filing #5. The pump house takes suction from an existing 7-acre reservoir that is used for golf course irrigation.[2] Per the Embankment Design Report, the intake for the pump sits near the bottom of the reservoir at an elevation of 7,511 ft and the reservoir is designed to be able to be drained down to an elevation of 7,515.67 ft. The reservoir is designed to have a water surface elevation (WSE) of 7531 ft.

Therefore, taking the most conservative approach in that the reservoir has been drained, subtracting the dead volume of 1.74 acre-feet from the minimum drained volume of 12.78 acre-feet, the pumps have an available supply of 11 acre-feet of water, which is equivalent to:

$$11\ acre \cdot feet\ \times 325{,}851 \frac{gallons}{acre \cdot foot} = 3{,}584{,}000\ gallons$$

Table 5.4: Storage Capacity Table

Elevation NGVD 1929	Area (Acres)	Storage Volume (Ac. Ft.)
*7510.0	1.51	0.00
*7511.0	1.99	1.74
*7512.0	2.52	3.99
*7513.0	2.85	6.68
*7514.0	3.05	9.63
*7515.0	3.26	12.78
7516.0	3.48	16.15
7517.0	3.70	19.74
7518.0	3.93	23.56
7519.0	4.16	27.60
7520.0	4.40	31.88
7521.0	4.64	36.40
7522.0	4.88	41.16

Figure 2: Snip from Classic FHN Irrigation Reservoir Embankment Design Report, 2018

The pump house currently has three (3) 750 gpm pumps with a fourth pad for future install, providing a total current capacity of up to 2,250 gpm at 110 psi rated net head and future total capacity of 3,000 gpm. The pump house is directly accessible from Old Stagecoach Rd.

Should the power to the pumps be interrupted, a dry hydrant has been installed for emergency hard suction. While this is less desirable than a pressurized source, it nonetheless offers convenient access to a large volume source. See below for a photo.

[2] Flying Horse North Irrigation Reservoir Embankment Design Report, Classic Consulting Engineers & Surveyors, August 2018.



Figure 3: Pump House located at 6570 Old Stagecoach Rd.

With a conservative capacity of 3.5 million gallons from the reservoir and 1.5 million gallons from the Cherokee Water District, the development has access to no less than 5 million gallons within 1-½ miles of all portions of the development, which exceeds the most demanding volume required by the LDC of approximately 1 million gallons.

Discussion

The existing infrastructure provides ample fire water volume capacity for BFFR to draw water from during a fire emergency, meeting the volume requirements of NFPA 1142 and the LDC. All sources discussed herein offer a pressurized water source which can be drawn from using either engines or water tenders from BFFR or responding mutual aid companies.

The pressurized water source is far superior to a static cistern source for the following reasons:

1. Any responding company can draw from the source and does not require dry suction.
2. All responding companies are familiar with pressurized hydrants.
3. Less time is needed to connect and draw water.

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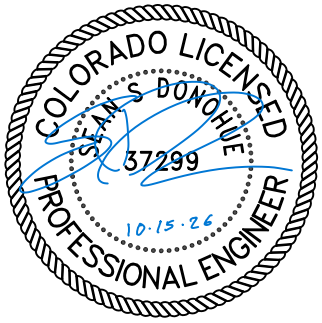
Conclusion

In conclusion, providing pressurized water sources as detailed in this report in lieu of cisterns meets the requirements of the El Paso County Land Development Code for fire protection access and water and we offer this document as an addendum to specifically address water capacity and distance from parcels to the water source not exceeding 2 miles.

Peregrine Fire appreciates the opportunity to be of service to Flying Horse North Development. Should you have any questions or concerns, please contact me directly at (719) 355-5290 or via email at sean@peregrinefire.com.

Sincerely,

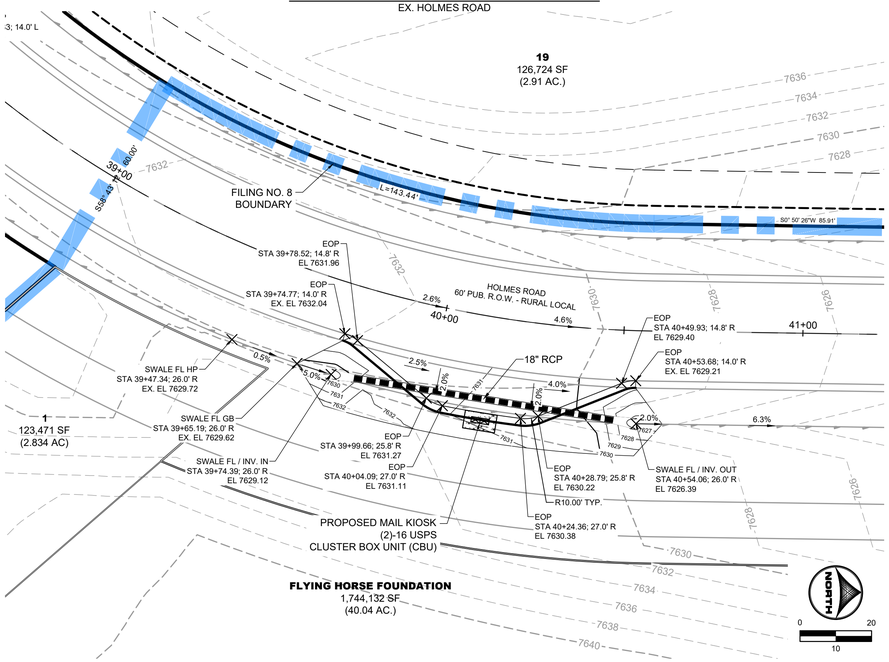
Peregrine Fire



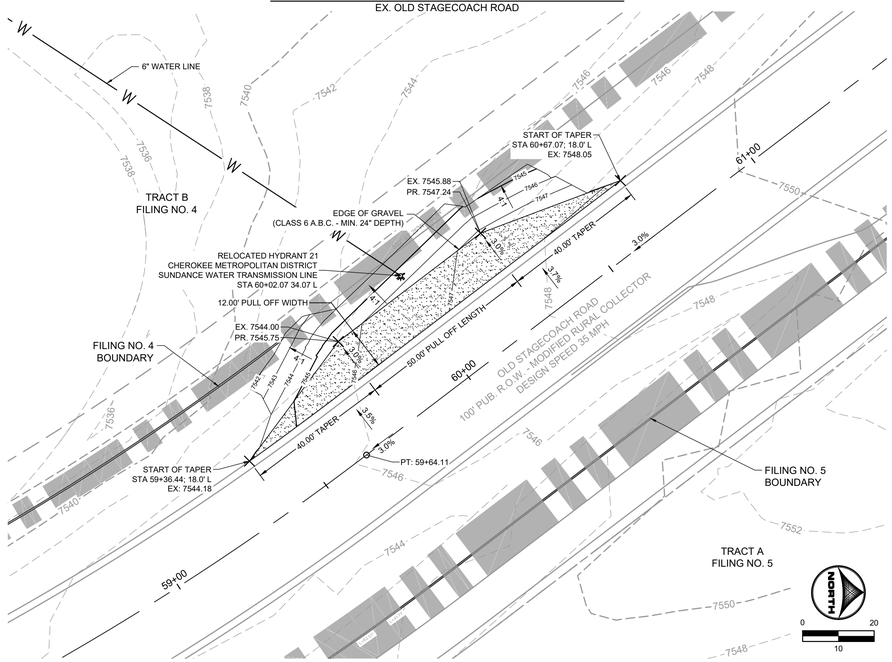
Sean S Donohue, PE, FSFPE
President ∫ Fire Protection Engineer

DOMBROWSKI, COLIN, 11/11/2026 1:35 PM

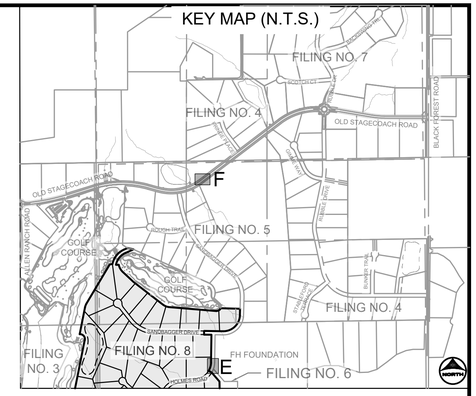
MAIL KIOSK PULL-OFF DETAIL E



SD HYDRANT 21 PULL-OFF DETAIL F



KEY MAP (N.T.S.)



HR GREEN Xrefs: xv-row-1030; xv-dsgn-1030; xg-l-dh01-1030,280; xc-dsgn-250; xc-row-030,250; xc-row-030,270; xc-dsgn-270; key_map_F7; xc-dsgn-260-Trisha; xc-dsgn-240; xc-util-030,240; xc-row-030,240

PCD FILE NO.: SF2531

DRAWN BY: RDL	JOB DATE: 11/11/2026	BAR IS ONE INCH ON OFFICIAL DRAWINGS.	
APPROVED: RDL	JOB NUMBER: 211030.270	0 1"	
CAD DATE: 11/11/2026		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
CAD FILE: J:\2021\211030\CAD\Dwgs\C\Filing_No_8\Streets_Intersection_Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
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COLORADO SPRINGS, CO 80920
PHONE: 719.300.4140
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FLYING HORSE NORTH FILING NO. 8
PRI #2, LLC.
EL PASO COUNTY, CO

CONSTRUCTION DRAWINGS
INTERSECTION DETAILS

SHEET ST