

**DRAINAGE REPORT LETTER**

**YES COMMUNITIES  
ANTELOPE RIDGE MANUFACTURED HOME PARK  
PREVIOUSLY KNOWN AS “CHATEAU AT ANTELOPE RIDGE”**

**RESIDENTIAL LOT RELOCATION**

**PLANNED UNITY DEVELOPMENT 98-003  
CITY OF COLORADO SPRINGS, COLORADO**

Submitted by:

**YES Antelope Ridge, LLC**  
5050 S. Syracuse Road, Suite 1200  
Denver, CO 80237

Date:

January 27, 2025

# STATEMENT AND SIGNATURES

## Design Engineer's Statement:

The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the County for drainage reports and said report is in conformity with the applicable master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this report.

*Craig P. Schellbach*  
\_\_\_\_\_  
Craig P. Schellbach; Colorado PE # 64519

1/27/2025  
Date

## Owner/Developer's Statement:

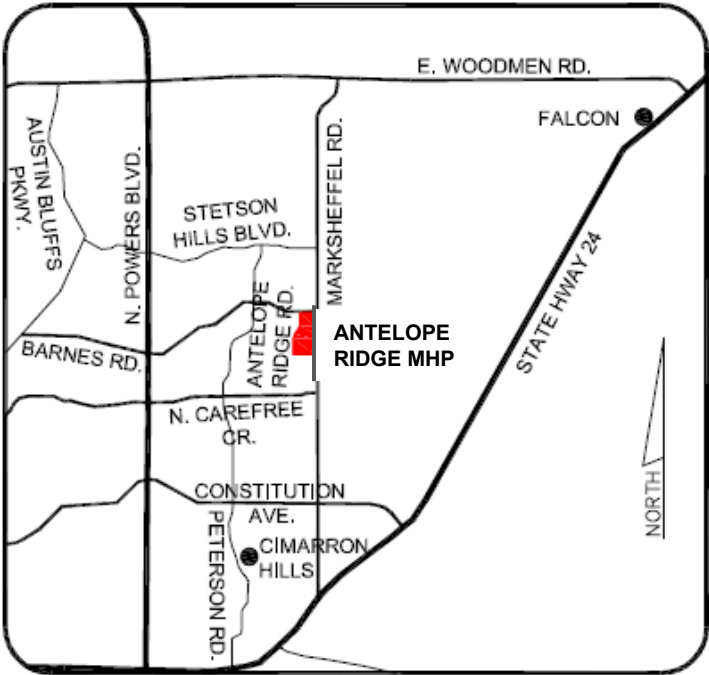
I, the owner/developer have read and will comply with all of the requirements specified in this drainage report and plan.

*Karen Hamilton*  
\_\_\_\_\_  
Karen Hamilton, COO  
YES Antelope Ridge, LLC  
5050 S. Syracuse Street  
Suite 1200  
Denver, CO 80237

01/29/25  
Date

# GENERAL PROPERTY DESCRIPTION

The Antelope Ridge Manufactured Home Park is a 74.3-Acre property consisting of single family manufactured homes. The property is situated on the east side of Colorado Springs and is bounded by Barnes Road on the north, Marksheffel Road on the east, Windermere single family subdivision on the south, and Antelope Ridge Drive on the west. Access to the property is via two separate driveway connections off Antelope Ridge Drive. The property location is further delineated in the vicinity map below:



**VICINITY MAP**  
Antelope Ridge Manufactured Home Park

The community was initially established in 1998 and was originally known as Hilltop Villages and renamed shortly thereafter to Chateau at Antelope Ridge. The community was purchased by YES Communities (YES) in 2016.

The development contains 338 residential pad sites for manufactured / modular homes, a leasing office, open space, playground and pool amenities. Residential lots (sites) within the community for the placement of manufactured homes are the property of YES and are leased to the respective residents. All roads and drainage facilities within the property are designated as private. They are monitored and maintained by YES.

# GENERAL EXISTING DRAINAGE CHARACTERISTICS

## On Site:

Drainage runoff originating within the limits of the property is conveyed via surface flow from the residential lots to the adjacent interior street and storm drain network, and to a central drainage channel that runs to the south through the middle portion of the property. The channel directs flow to a storm water detention basin located adjacent to the south limits of the developed area as further described below. The interior storm drain network is comprised of curb inlets within the street paving, connected to underground piping discharging to the central channel at various locations.

## Off Site:

Drainage runoff from areas outside of the property limits originates from the adjacent Antelope Ridge Drive right-of-way on the west, and the adjacent Barnes Road right-of-way on the north, along with the commercially developed property to the north of Barnes Road. Runoff from Antelope Ridge Drive on the west is conveyed into storm drain piping that extends east into the property and discharges into the central drainage channel. The Barnes Road and commercial property to the north discharge runoff into a channel that traverses through the northeast corner of the Antelope Ridge property and then runs to the south within an easement adjacent and parallel with the west side of Marksheffel Road. This channel bypasses the remainder of the Antelope Ridge property and discharges to an existing storm water detention basin situated on the south side of the property. The developed portions of the Antelope Ridge property do not drain into the Marksheffel Road channel.

The detention basin is partially within the YES owned property that is designated as Tract A, Chateau at Antelope Ridge, Filing No. 2, Schedule #5329111002. The basin also accommodates runoff generated from the Windermere residential development to the south, as developed in 2021-23-time frame. The detention basin discharges to an unnamed drainage tributary which extends to the southeast, under Marksheffel Road, and ultimately to East Fork Sand Creek. The detention basin was modified with the Windermere development including further evaluation and verification of proper capacity and function to accommodate the runoff being direct to it as per El Paso County requirements.

# GENERAL PROPOSED DRAINAGE CHARACTERISTICS

The purpose of this submittal is for the relocation of one of the residential lots within the community. As proposed, the revision will require that lot number 321 (address 4055 Gray Fox Heights), located in the west central portion of the property, is to remain vacant and utilized for access to the green space area within the central interior of the community.

Additionally, lot number 87 (address 4330 Gray Fox Heights), and located in the southeast corner of the property, is to be reconfigured to accommodate 2 home sites. The lot area will be redesignated as lots 87 and 87A with addresses 4330 and 4334 Gray Fox Heights, respectively. This change will not increase the number of home sites as approved in the existing PUD as it entails a relocation of an existing home space only. These proposed changes are illustrated in **Exhibit A**, as attached.

### **On Site:**

Existing lot 321 is approximately 0.125-acres in size. Existing lot 87 is approximately 0.3-acres in size. Both lots were included in the original development drainage report dated December 18, 1998 as prepared by URS Geiner Woodward Clyde (Project no. 67-00042212). Assigned runoff coefficients for all residential lots within the development including 87 and 321 were 0.60 and 0.70 for the 5 and 100-year storm events respectively. These figures were used in development of the original drainage plan and sizing of the downstream detention basin. They correspond and agree with the current Drainage Criteria Manual of El Paso County, Table 5-1; Recommended Average Runoff Coefficients and Percent Impervious, figures. Specifically, figures associated with residential development of 1/8-Acre or less with an Impervious Percentage of 65% were applied.

With the changes as proposed, lot 321 will remain undeveloped. As such, the applicable runoff coefficient will correspond to a Pasture/Meadow characteristic. The prescribed coefficient of runoff is 0.25 for the 10 year and 0.35 for the 100 year events per Table 5-1.

Lot 87, at 0.3-acres is approximately 0.5-acres larger than 2 typical lots within the development. The Site Grading and Drainage plan for this lot is provided in **Exhibit B** as attached. Impervious surface calculations for the placement of two homes within the space have determined an impermeability of 46% as included with the exhibit. This is less than the 65% figure listed in Table 5-1, corresponding to the original design calculations. The impermeability percentage falls closer to a residential 1/4 -acre lot size. A conservative estimate of the applicable runoff coefficient for the lot is 0.55 for the 10 year and 0.65 for the 100 year events.

**Exhibit C**, attached, incorporates the original drainage area map for the development as included with the original design report from 1998. Additional information concerning the detention pond and adjacent property on the south have been added along with note of the revised runoff coefficients associated with the proposed lot relocation. The overall development was graded in accordance with this plan. The lot relocation and subsequent site construction will not alter the direction of runoff or the boundaries of the separate drainage areas as currently existing.

As shown, lot 321 is within Drainage Area D, with runoff directed to design point 6. Total runoff rates to design point 6 will be slightly reduced due to the lower runoff coefficient associated with the undeveloped lot. With regard to lot 87, the north 0.2-acres will remain within Drainage Area R, with runoff directed to design point 21. The south 0.1-acres will remain within Drainage Area S, with runoff direct to design point 22. Total

runoff rates to these two design points will be slightly reduced due to the lower runoff coefficients associated with the lot development as proposed. These conclusions are noted in the comments section of the Runoff Coefficient Revision table located at the bottom of Exhibit C.

### **Off Site:**

As noted, all runoff from the Antelope Ridge development is conveyed to the existing detention pond facility located on the south side of the property. No changes to the pond or any other offsite area are proposed. The pond is adequately sized to accommodate runoff from full development of the community, along with that contributed from the commercial area to the north of Barnes Road, and the recently constructed Windermere residential community on the south. Recent review and evaluation of the pond was performed during the design and permitting programs for Windermere. This review confirmed that the pond facilities including all inlet and outlet control structures and storage capacities were adequate and in compliance with El Paso County drainage criteria.

## **HYDROLOGIC CALCULATIONS**

Per the above noted evaluation, relocation of the lot 321 within the community will result in the generation of less runoff from rainfall events, than what the development was originally designed and approved for. This is due to the lower runoff coefficients that will exist with the revisions as proposed. Since the proposed changes will not result in an increase in discharge to the onsite storm water facilities and the storm water detention pond on the south side of the community, no additional hydrologic calculation are necessary.

## **DRAINAGE FEES**

As this proposed lot relocation will not increase drainage runoff rates, it is not anticipated that there will be any applicable drainage fees associated with the change. However, all impact fees for utilities and other infrastructure including those related to drainage ordinances/resolutions, and applicable basin fees that are normally assessed, will be paid at the time of house permitting for lot 87 and 87A.

### **Attachments:**

- Exhibit A – Community Map with Proposed Lot Relocations
- Exhibit B – Lot 87 and 87A Site Grading and Drainage Plan
- Exhibit C – Drainage Area Map

# EXHIBIT A

# Antelope Ridge



4001 Gray Fox Heights  
Colorado Springs, CO 80922

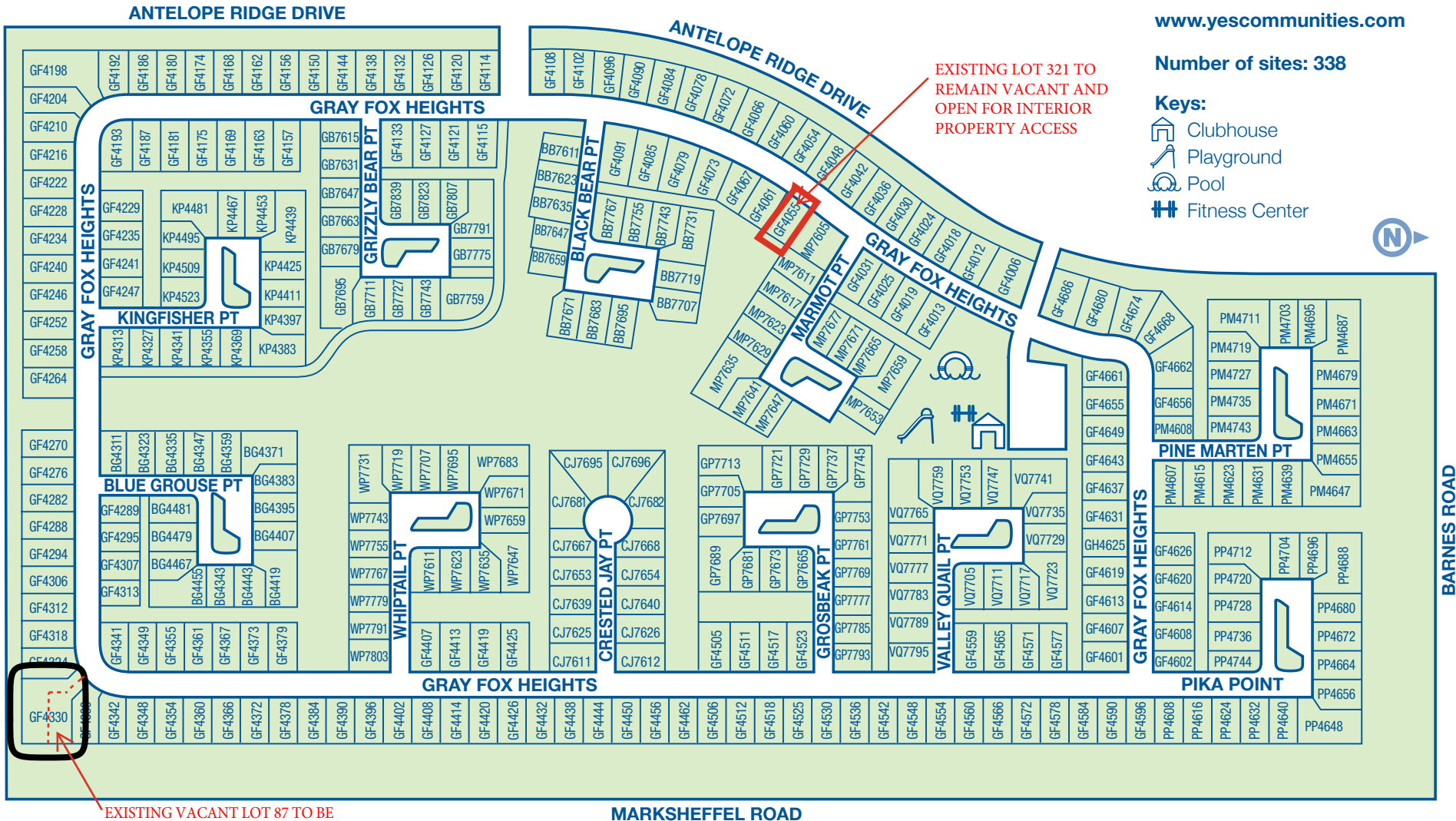
719.573.1200 ph

Visit us online at:  
[www.yescommunities.com](http://www.yescommunities.com)

Number of sites: 338

**Keys:**

- Clubhouse
- Playground
- Pool
- Fitness Center



EXISTING VACANT LOT 87 TO BE  
CONVERTED TO TWO RESIDENTIAL  
HOME SITES DESIGNATED AS LOTS 87  
AND 87A.

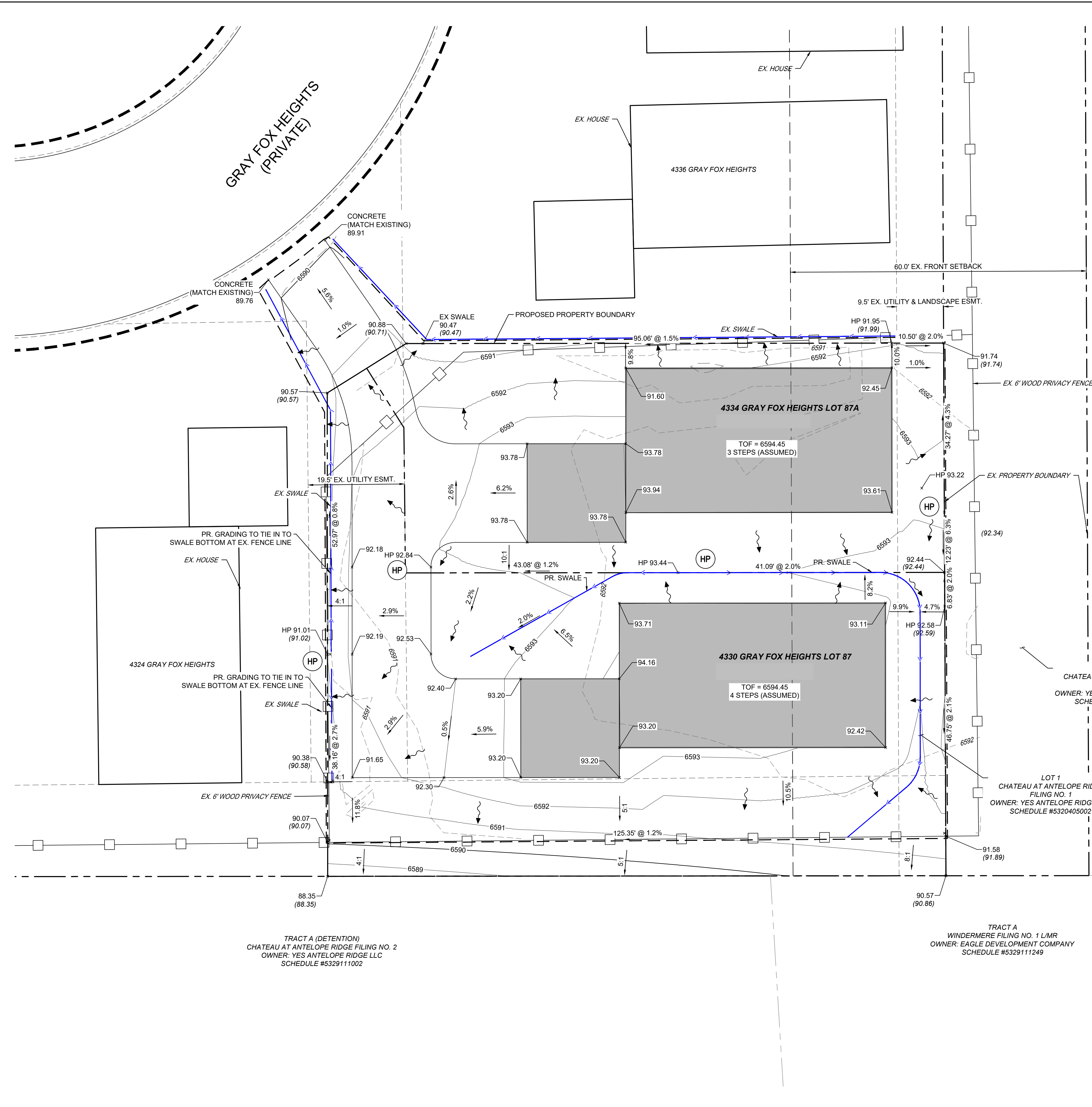
EXISTING LOT 321 TO  
REMAIN VACANT AND  
OPEN FOR INTERIOR  
PROPERTY ACCESS



BARNES ROAD

MARKSHEFFEL ROAD

FILE LOCATION: S:\23.1422.001 ANTELOPE RIDGE EROSION SURVEY\1000 CAD\1004 PLAN SET\DEVELOPMENT PLANNING\01.DWG



**GRADING LEGEND**

- PROPERTY BOUNDARY LINE
- ADJACENT PROPERTY LINE
- EASEMENT BOUNDARY LINE
- CONCRETE CURB & GUTTER
- PROPOSED CONTOURS
- EXISTING CONTOURS
- GRADING LIMITS
- SLOPE ARROW
- HIGH POINT / LOW POINT
- PEDESTRIAN PATH OF TRAVEL (ADA ROUTE)
- SWALE
- \*PROPOSED SPOT ELEVATION
- \*EXISTING SPOT ELEVATION

\*NOTE:  
ADD 6500' TO ALL TRUNCATED SPOT ELEVATIONS

**IMPERMEABLE SURFACE SUMMARY**

TOTAL LOT AREA: 0.3-ACRES OR 13,068 SF

**IMPERMEABLE SURFACES:**

ROOF TOPS: 3,968 SF  
PAVEMENT: 2,094 SF  
TOTAL: 6,062 SF

**PERCENT IMPERMEABLE:**

$(6,062 / 13,068) \times 100 = 46.4\%$

TRACT A  
CHATEAU AT ANTELOPE RIDGE  
FILING NO. 1  
OWNER: YES ANTELOPE RIDGE LLC  
SCHEDULE #5329111002

LOT 1  
CHATEAU AT ANTELOPE RIDGE  
FILING NO. 1  
OWNER: YES ANTELOPE RIDGE LLC  
SCHEDULE #5320405002

TRACT A  
WINDERMERE FILING NO. 1 LMR  
OWNER: EAGLE DEVELOPMENT COMPANY  
SCHEDULE #5329111249

TRACT A (DETENTION)  
CHATEAU AT ANTELOPE RIDGE FILING NO. 2  
OWNER: YES ANTELOPE RIDGE LLC  
SCHEDULE #5329111002

CONSULTANTS:  
PLANNER/ LANDSCAPE ARCHITECT/ CIVIL ENGINEER:  
**Matrix**  
2435 RESEARCH PARKWAY, SUITE 300  
COLORADO SPRINGS, CO 80920  
PHONE: (719) 575-0100  
FAX: (719) 575-0208

OWNER/DEVELOPER:  
**YES! COMMUNITIES**  
4001 GRAY FOX HEIGHTS 317.587.0460

APPROVAL:

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PROJECT:  
LOT 1 AT CHATEAU AT ANTELOPE RIDGE FILING NO. 1

SEPTEMBER 2023

REVISION HISTORY:

NO.	DATE	DESCRIPTION	BY

DRAWING INFORMATION:

PROJECT NO: 23.1422.001

DRAWN BY: CVW

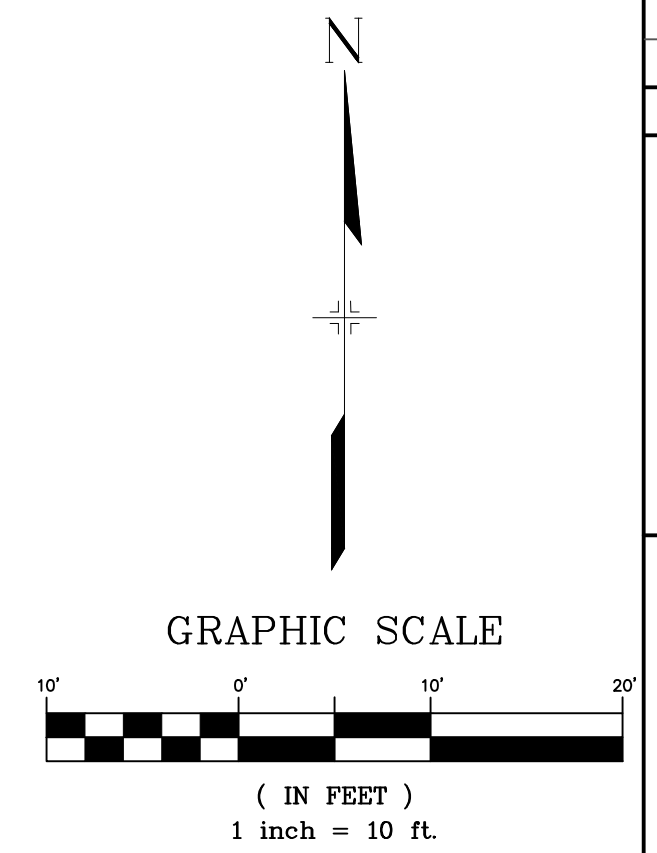
CHECKED BY: NMS

APPROVED BY: NMS

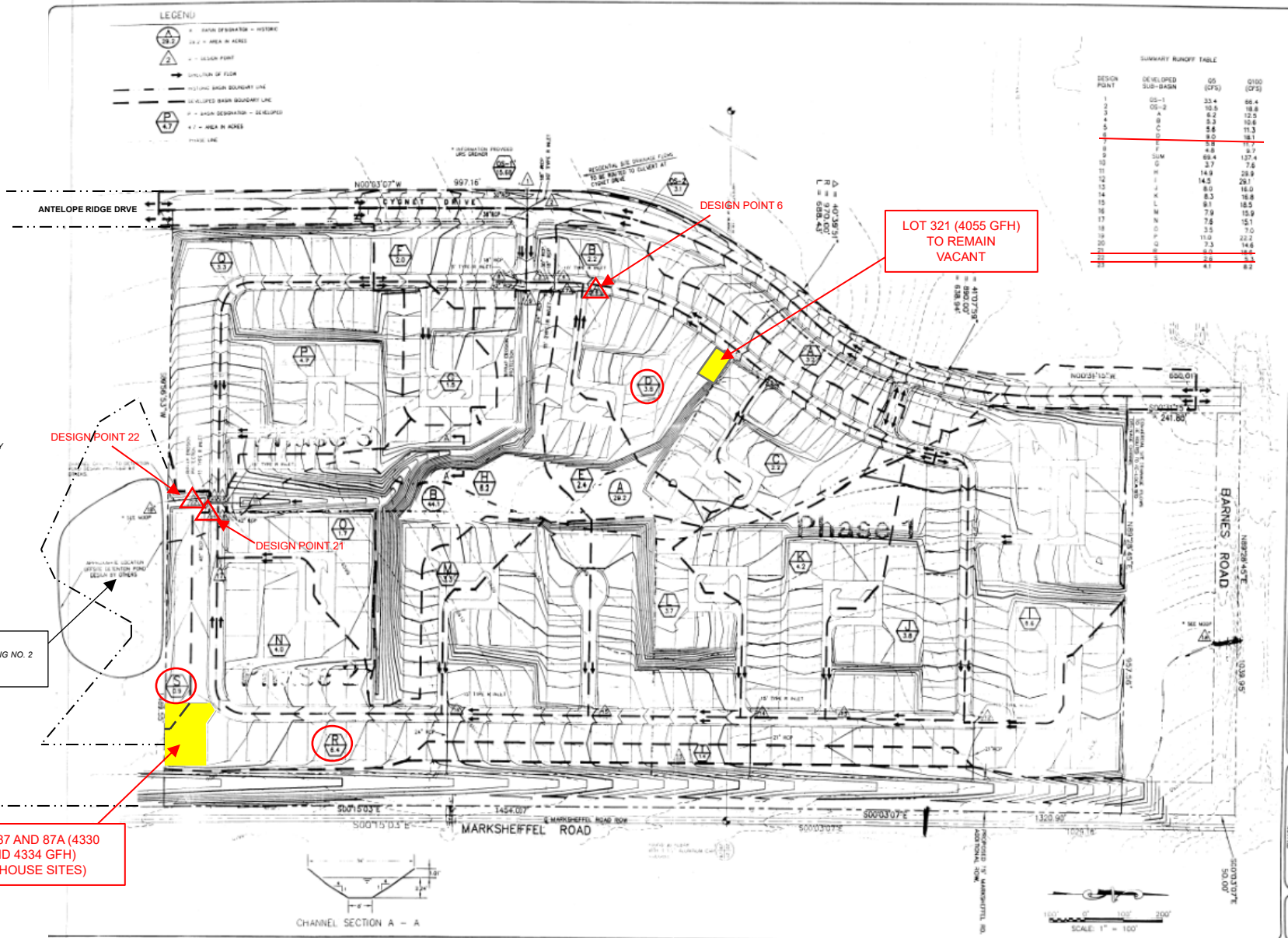
SHEET TITLE:

**EXHIBIT B**  
**GRADING PLAN**

**GR01**  
**SHEET 1**







SUMMARY RUNOFF TABLE

DESIGN POINT	DEVELOPED SUB-BASIN	CS (CFS)	CS10 (CFS)
1	CS-1	33.4	66.4
2	CS-2	10.0	18.6
3	CS-3	6.2	12.2
4	CS-4	5.3	10.6
5	CS-5	5.6	11.3
6	CS-6	9.0	18.1
7	CS-7	4.8	9.7
8	SUM	69.4	137.4
9	G	3.7	7.6
10	H	14.9	29.9
11	I	14.5	29.1
12	J	8.0	16.0
13	K	8.3	16.8
14	L	8.1	16.5
15	M	7.9	15.9
16	N	7.6	15.1
17	O	3.5	7.0
18	P	11.0	22.2
19	Q	2.0	4.0
20	R	2.6	5.2
21	S	4.4	8.8
22	T	1.1	2.2

DRAINAGE AREA RUNOFF COEFFICIENT REVISIONS

DA	TOTAL AREA (AC)	DESIGN POINT	AFFECTED AREA	"C" PER ORIG. DESIGN 10YR. / 100YR.	"C" PER REVISION 10YR. / 100 YR.	COMMENTS
D	3.8	6	0.12	0.6 / 0.7	0.25 / 0.35	NET REDUCTION IN FLOW TO DESIGN POINT 6
R	6.4	21	0.2	0.6 / 0.7	0.55 / 0.65	NET REDUCTION IN FLOW TO DESIGN POINT 21
S	0.9	22	0.1	0.6 / 0.7	0.55 / 0.65	NET REDUCTION IN FLOW TO DESIGN POINT 22

**EXHIBIT C**  
**YES ANTELOPE RIDGE**  
**DRAINAGE AREA MAP**  
 DENOTING LOTS 87 AND 321  
 USAGE REVISIONS

DATE: \_\_\_\_\_

REVISIONS:

NO.

DESCRIPTION

**Antelope Ridge**  
 El Paso County, Colorado.  
 Preliminary Drainage Plan

**DDI**  
 DEVELOPMENT SERVICES GROUP, INC.  
 1184 Huron Street, Suite 113  
 Colorado Springs, CO 80904  
 (303) 291-8200 • Fax (303) 405-0917

DATE: 11/15/2017  
 DRAWN BY: JTB  
 CHECKED BY: JTB  
 PROJECT: Antelope Ridge

sheet no.  
 1 of 1