## CASE SUMMARY Regular Agenda

PC Hearing Date: November 9, 2022

BCC Hearing Date: December 6, 2022

21-133812RZ Rezoning

Case Name: 14320 W 50<sup>th</sup> Avenue ODP

Owner/Applicant: Redwood, LLC, a Colorado Limited Liability Company

**Location:** 14320 W 50<sup>th</sup> Avenue

Section 18, Township 3 South, Range 69 West

**Approximate Area:** 4.19 Acres

Purpose: To Rezone from Agricultural-Two (A-2) to Planned Development (PD) to

allow for the future subdivision of the property into 10 lots for single-

family detached units.

Case Manager: Sara Kohles

Applicant Team Presenters: To be determined.

Issues: None.

Recommendations:

Staff: Recommends APPROVAL

Interested Parties: None.

Level of Community Interest: Medium

General Location: W 50th Avenue, east of Indiana Street, west of Eldridge Street

Case Manager Information: Phone: 303-271-8734 e-mail: <a href="mailto:skohles@jeffco.us">skohles@jeffco.us</a>

## Jefferson County Land Use Case Management CASE DATES SUMMARY

December 6, 2022

Case Number: 21-133812RZ Case Type: **Rezoning (rehearing)** 

Pre-application Meeting Date: July 29, 2021

Community Meeting Date: August 30, 2021

Applicant Makes Complete Submittal: September 21, 2021

Case Sent on First Referral: October 12, 2021

All Responses Provided to Applicant: November 8, 2021

Case Sent on Second Referral: November 29, 2021

All Responses Provided to Applicant: December 7, 2021

Determination That Case Should Proceed to Rehearing: August 9, 2022

Rehearing Case Sent on First Referral: October 13, 2022

Rehearing Responses Provided to Applicant: November 2, 2022

Planning Commission Hearing: November 9, 2022

Planning Commission Determination: Recommends Approval

County Staff Determination: Recommends Approval

Applicant's Request: Rezone from Agricultural-Two (A-2) to a Planned Development (PD) that follows Residential-One A (R-1A) standards, with a restriction on the maximum number of lots (ten single-family residential).

#### Staff Report Summary



100 Jefferson County Parkway, Suite 3550, Golden, CO 80419 303-271-8700 planning.jeffco.us | pzweb@jeffco.us

| Case Number: |  |
|--------------|--|
| 21-133812R7  |  |

#### Summary of Process

- The Staff evaluation of an application will be presented at the required Planning Commission and Board of County Commissioners' Hearings.
- The Planning Commission will review the evidence and will make a recommendation to the Board of County Commissioners.
- The final decision on the request will be made by the Board of County Commissioners.

#### Case Summary

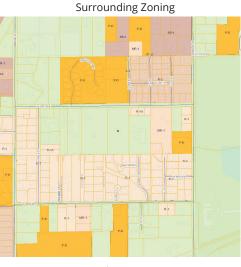
Rezone from Agricultural-Two (A-2) to a Planned Development (PD) that follows Residential-One A (R-1A) standards, with a restriction on the maximum number of lots (ten single-family residential).

| Purpose                     |                             |                            |                    |            |                   |             |
|-----------------------------|-----------------------------|----------------------------|--------------------|------------|-------------------|-------------|
| 14320 W 50th Avenue OE      | )P                          |                            | Sara Kohles        | ;          | September         | 21, 2021    |
| Case Name                   |                             |                            | Case Manage        | er         | Formal Subr       | nittal Date |
| July 29, 2021               | August 30, 2021             | November 9, 2022           | December 6, 2      | 022        | Subdivision Plat  |             |
| Pre-Application Date —      | Community Meeting Date —    | ▶ PC Hearing Date →        | BCC Hearing Da     | te         | Next Process      |             |
| Mike Chadwick               |                             | Redwo                      | od, LLC, a Colorad | do limited | liability company |             |
| Applicant/Representative, c | heck if same as owner: 🗌    | Owner                      |                    |            |                   |             |
| 14320 W. 50th Avenue        | Golden                      | 80403                      | 4.19 acres         | 18         | 3S                | 69W         |
| Property Address            | City                        | Zip                        | Area ≈             | Section    | Township          | Range       |
| 39-183-07-056               | W 50th Avenue, east of Indi | ana Street, west of Eldrid | ge Street          |            |                   |             |
| Pin                         | General Location            |                            |                    |            |                   |             |

#### Land Use and Zoning







| Existing Land Use:      | Existing Zoning: | CMP Recommended Land Use:             | Requested Zoning:   |  |
|-------------------------|------------------|---------------------------------------|---------------------|--|
| Vacant land             | Agricultural-Two | density of 2.5 dwelling units/acre    | Planned Development |  |
| Plan Area: North Plains |                  | Number of citizens at Community Mee   | _<br>tings:         |  |
| PC Recommendations:     |                  | Level of Community Interest: Moderate |                     |  |
| Key Issues: None.       |                  |                                       |                     |  |

#### Criteria for Rezoning:

- a. The compatibility with existing and allowable land uses in the surrounding area.
- b. The degree of conformance with applicable land use plans.
- c. The ability to mitigate negative impacts upon the surrounding area.
- $\mbox{\it d}.$  The availability of infrastructure and services.
- e. The effect upon the health, safety, and welfare of the residents and landowners in the surrounding area.

| <b>/</b>    | O | $\approx$ |
|-------------|---|-----------|
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|             |   |           |

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| $\boxtimes$ |  |
|             |  |

It was moved by Commissioner **Spencer** that the following Resolution be adopted:

#### BEFORE THE PLANNING COMMISSION COUNTY OF JEFFERSON STATE OF COLORADO

#### November 9, 2022

#### RESOLUTION

**21-133812RZ** Rezoning

Case Name: 14320 W 50th Avenue ODP

**Owner/Applicant:** Redwood, LLC, a Colorado Limited Liability Company

**Location:** 14320 W 50th Avenue

Section 18, Township 3 South, Range 69 West

**Approximate Area:** 4.19 Acres

Purpose: To Rezone from Agricultural-Two (A-2) to

Planned Development (PD) to allow for the future subdivision of the property into 10 lots

for single-family detached units.

Case Manager: Sara Kohles

The Jefferson County Planning Commission hereby recommends **APPROVAL**, of the above application, on the basis of the following facts:

- 1. That the factors upon which this decision is based include evidence and testimony and staff findings presented in this case.
- 2. The Planning Commission finds that:
  - A. The proposed single-family detached residential land use is compatible with the existing and allowable single-family residential uses in the surrounding area. The Rezoning would allow 10 single-family residential lots on approximately 4.19 acres, which density is consistent with that of the surrounding land uses.
  - B. The proposal is in general conformance with the Comprehensive Master Plan (Plan). The proposal adheres to the Plan density recommendation of 2.5 dwelling units per acre. All other applicable goals and policies of the Plan have also been met.
  - C. The ability to mitigate the negative impacts of the proposed land use upon the surrounding area have been considered, and no negative impacts were identified.
  - D. The subject property is served by the Fairmount Fire Protection District and the North Table Mountain Water and Sanitation

Jefferson County Planning Commission Resolution Case #22-133812RZ November 9, 2022 2 of 2

District. Law enforcement services are provided by the Jefferson County Sheriff's Office. Existing infrastructure and services are adequate and available to serve the proposed land use.

E. The proposed land use will not result in significant impacts to the heath, safety, and welfare of the residents and landowners in the surrounding area.

Commissioner **Duncan** seconded the adoption of the foregoing Resolution, and upon a vote of the Planning Commission as follows:

| Commissioner | Rogers   | aye |
|--------------|----------|-----|
| Commissioner | Spencer  | aye |
| Commissioner | Jost     | aye |
| Commissioner | Duncan   | aye |
| Commissioner | Stephens | aye |

The Resolution was adopted by **unanimous** vote of the Planning Commission of the County of Jefferson, State of Colorado.

I, Kimi Schillinger, Executive Secretary for the Jefferson County Planning Commission, do hereby certify that the foregoing is a true copy of a Resolution duly adopted by the Jefferson County Planning Commission at a regular hearing held in Jefferson County, Colorado, November 9, 2022.

Kimi Schillinger Executive Secretary

# STAFF REPORT

#### 1. SUBJECT REQUEST

This is a rehearing for 14320 W 50<sup>th</sup> Avenue Official Development Plan (ODP). The original hearings took place in early 2022 when the case was denied by the Board of County Commissioners (BCC) 2-1 on February 22, 2022. On August 9, 2022, the BCC approved the applicant's petition for rehearing.

The applicant is requesting to Rezone this property from Agricultural-Two (A-2) to a Planned Development (PD) that follows Residential-One A (R-1A) standards, with a restriction on the maximum number of lots and a provision to protect the existing irrigation channel. The proposed zoning would allow for a single-family residential development with up to 10 detached single-family dwellings on the approximately 4.19-acre parcel.

#### 2. CONTEXT



Figure 1. Property Location.

The subject property is in the plains of northern Jefferson County, north of State Highway 58, east of McIntyre Street, west of Eldridge Street, with frontage on the south side of W 50<sup>th</sup> Avenue. It is lot 20 of the Wheat Ridge Gardens subdivision, recorded in Plat Book 2, Page 24 A on April 29, 1976. The area surrounding the property is primarily residential, with a mixture of architecture, ranging from older agricultural-type and ranch-style homes to newer two-story residences. There are agricultural uses adjacent to the subject property on both sides (east/west).

Since the case was denied in February 2022, the applicant has revised the proposal. Instead of rezoning to allow 12 lots, the applicant is requesting to allow 10 lots. This brings the proposal into conformance with the Comprehensive Master Plan.

### 3. SURROUNDING ZONING/LAND USE

|        | Adjacent Zoning  | Land Use                                   |
|--------|--|--|
| North: | Planned Development (PD) Termentozzi Official Development Plan (ODP) follows Suburban Residential-One (SR-1) regulations | Single-Family Home and Agricultural        |
| South: | Residential-One (R-1)  | Single-Family Residential                  |
| East:  | A-2  | Single-Family Residential and Agricultural |
| West:  | A-2  | Single-Family Residential and Agricultural |

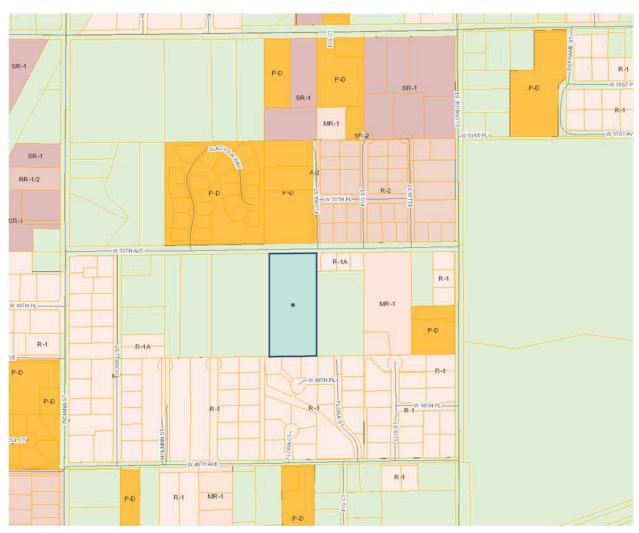


Figure 2. Existing Zoning.

| 4. SUMMARY | OF PROPOSED | CHANGES |
|------------|-------------|---------|
|------------|-------------|---------|

|                     | Current Zoning – A-2  | Proposed Zoning - PD                                       |
|---------------------|-----------------------|--|
| Land Use            | Vacant Land           | Single-Family Dwellings                                    |
| Minimum<br>Lot Size | 10 Acres              | 9,000 square feet  |
| Setbacks -          | 50-foot front setback | 20-foot front setback                                      |
| Primary             | 30-foot side setback  | 5-foot side setback with a total of 15 feet for both sides |
| Structures          | 50-foot rear setback  | 10-foot rear setback                                       |

The proposed PD zone district would follow R-1A standards with a maximum of 10 single family residential lots. If the rezoning is approved, the applicant's intention is to pursue a subdivision of land, in accordance with the County's Preliminary and Final Plat process. Based on the size of the subject parcel (approximately 4.19 acres) and the minimum lot size requirement in R-1A (9,000 square feet), the applicant could create 20 lots, whereas the written restrictions would limit the number of lots to 10.

The proposed change in zoning from A-2 to PD that follows R-1A (with modifications) would change the land use entitlements, as well as the lot and building standards. R-1A properties do not allow agricultural uses.

#### 5. TRANSPORTATION

An engineered transportation analysis was required with this Rezoning application and indicated a minimal increase in traffic based on the previously proposed allowance of 12 single family dwellings. Since the applicant is now proposing fewer dwelling units, it is not necessary to provide a new transportation analysis. The applicant used the traffic assumptions from the Institute of Transportation Engineers (ITE) for single family uses (Land Use 210). Using single family uses, the analysis resulted in a total of 113 vehicular trips per day with 9 peak AM trips and 12 peak PM trips. With such a low trip generation, staff finds that the impacts to the surrounding road network will be minimal and can be incorporated in the street network. Specific access and street standards will be evaluated at the time of Preliminary and Final Plat. There are no staff concerns related to transportation.

## 6. CRITERIA FOR DECISIONS FOR PLANNED DEVELOPMENT REZONING APPLICATIONS

Section 6 of the Zoning Resolution states, in reviewing Rezoning and Special Use applications, the Planning Commission and the Board of County Commissioners may consider the following criteria:

- a. The compatibility with existing and allowable land uses in the surrounding area.
- ✓ b. The degree of conformance with applicable land use plans.
- c. The ability to mitigate negative impacts upon the surrounding area.
- d. The availability of infrastructure and services.
- e. The effect upon the health, safety, and welfare of the residents and landowners in the surrounding area.

#### a. The compatibility with existing and allowable land uses in the surrounding area.

Staff finds that the proposed PD zone district for single-family detached residential uses is compatible with both existing and allowable residential uses in the surrounding area. Properties to the north and south have similar zoning restrictions, including land use, lot size, and setback requirements. The properties to the west and east of this parcel are zoned A-2 but are considered to have non-conforming lot sizes as none of the parcels meet the 10-acre minimum lot size requirement. Due to the subject property's proximity to other properties with varying lots sizes and uses, the request is compatible with existing and allowable land uses in the surrounding area.

#### b. The degree of conformance with applicable land use plans.

The Comprehensive Master Plan (CMP), an advisory document required by State statute, contains Goals and Policies that are used to guide land use decisions. The Area Plans section of the CMP contains supplementary policies and land use recommendations for evaluation.

|   | Summary  |  | rms wit  | th CMP? |
|---|--|--|----------|---------|
|   |  |  | 0        |         |
| Land Use                                | The CMP discusses the need for a variety of uses to create a vibrant, enduring community. The Plan encourages diverse communities in which to live, work, and enjoy outdoor recreation.  |  | <b>/</b> |         |
| Physical<br>Constraints                 | The CMP describes physical constraints as those physical features that due to safety concerns may potentially restrict where and how development occurs. Physical Constraints include geologic hazards and constraints, floodplains, wetlands, wildfire, radiation, landfills, abandoned mines, and wildlife habitat |  | <b>~</b> |         |
| Community<br>Resources                  | The CMP contains policies that relate to historic structures or sites, scenic corridors, natural features, air quality, light, odor and noise pollution, open space and trails.  |  | <b>/</b> |         |
| Infrastructure<br>Water and<br>Services | The CMP describes the importance of new developments having adequate Transportation, Water and Wastewater, and Services.   |  | <b>/</b> |         |

Staff concludes that the subject request is in general conformance with the applicable goals and policies of the Comprehensive Master Plan.

Land Use: The subject property is located within the North Plains Area Plan of the CMP and is recommended for residential land uses with a density up to 2.5 dwelling units per acre. The proposed ODP follows R-1A standards, which requires a minimum lot size of 9,000 square feet and has a restriction on the number of parcels allowed within the development: 10 single-family lots. Per the CMP, the maximum recommended number of units on 4.19 acres is 10 (2.39 dwelling units per acre) so the proposal conforms with the Plan density recommendations.

Additionally, per the CMP, new developments should ensure compatibility to the surrounding existing and allowable land uses.

Physical Constraints: There are no identified geologic hazards or mapped floodplains on the property, and it is not in an identified high Wildlife Quality Habitat Area. In regard to wildlife, Colorado Parks and Wildlife was contacted about this case but did not provide comment. Staff did not identify any physical constraints. The request is in conformance with the Physical Constraints section of the CMP.

Community Resources: There are no identified community resources on the subject property or in the vicinity that would be affected by this request. While the existing irrigation channel is not an identified visual resource, the written restrictions do require the protection of a 30-foot-wide buffer along this channel. This will help break up the development and provide some mitigation of visual impacts. The request is in conformance with the Community Resources section of the CMP.

Infrastructure, Water and Services: Existing infrastructure and services are adequate to support the proposed Rezoning. Traffic would have a minimal increase on this property, and road improvements will be evaluated at the time of Preliminary and Final Plat. The subject property receives fire protection from the Fairmount Fire Protection District; the fire protection district provided a will serve letter for this Rezoning request. The Jefferson County Sheriff's Office provides emergency services for this property. The subject property is located within the North Table Mountain Water and Sanitation District. Water and sewer service are available, and the subject property is eligible for service subject to the District's conditions at time of development. The District does not have requirements for rezoning.

#### c. The ability to mitigate negative impacts upon the surrounding area.

Staff has not identified unmitigated negative impacts of this request. While there is an increase to the number of dwelling units allowed on the approximate 4.19-acre parcel, the requested PD zoning aligns with the character and existing uses of the surrounding properties. Further, and as stated above, the written restrictions also require the preservation of a 30-foot strip of land along the existing irrigation channel.

#### d. The availability of infrastructure and services.

As discussed above, staff's analysis found that existing infrastructure and services are adequate and available to support the proposed rezoning request.

## e. The effect upon health, safety, and welfare of the residents and landowners in the surrounding area.

The proposed land use will not result in significant impacts to the health, safety, and welfare of the residents and landowners in the surrounding area. No unmitigated deleterious effects relating to the proposed Rezoning have been identified.

#### 7. COMMERCIAL MINERAL DEPOSITS

No known commercial mineral deposits exist on the subject property.

#### 8. COMMUNITY MEETING

A Community Meeting was held virtually on August 30, 2021, before a formal application was submitted for the applicant's original request of 12 single family dwellings. Under Section 6.15 of the Zoning Resolution,

another Community Meeting was not required for a rehearing. At the Community Meeting, there were approximately 40 individuals in attendance. The applicants proposed the development of this parcel to allow for 18 duplexes. Community members expressed concerns about this request, stating that they did not want to see more housing in this area. Those in attendance suggested that the proposed density was too high, and that this parcel should be left vacant for wildlife and viewsheds. After hearing this response to the proposed development, the applicants revised their proposal to allow for 12 single family dwellings. Full details of the Community Meeting are available in the case packet. The amended application submitted for this rehearing seeks approval for 10 single family dwellings.

#### 9. COMMUNITY/REFERRAL RESPONSES

During the processing of this rehearing Rezoning application, Staff received no comment from the community.

#### 10. AGENCY REFERRAL RESPONSES

This application was sent on one referral to nine Jefferson County Departments & Divisions, 13 external agencies, and 11 registered associations (please see the first referral matrix and HOA mailing list in the case packet for more information). Referral agencies did not express concerns about this proposal, and there are no known outstanding issues with the referral agencies.

#### 11. NOTIFICATION

Notification of the proposed development was provided in accordance with the Zoning Resolution. Please see the attached Notification Summary for more information.

#### 12. POST HEARING REVIEW

If the Rezoning is approved, the post hearing review shall be in accordance with the Zoning Resolution as follows:

Planned Development: The applicant shall have 28 days after Board of County Commissioner's approval to submit a 'clean' copy of the approved red-marked ODP and pay the recordation fees. The Case Manager will have 7 days to review the submitted ODP. If the revisions have been made in accordance with the approval conditions, Staff will affirm and record the ODP documents, as appropriate. If the submitted documents are not in conformance with the approved red-marked ODP, the red-marked ODP shall be recorded.

#### 13. SUBSEQUENT PROCESSES

If the Rezoning is approved, the applicant would be required to submit a Preliminary and Final Plat (Plat) to develop the proposed single-family detached use on the Property. The Plat process involves an intensive review of the applicant's proposed lot layout, construction documents, grading, drainage, parking, and other plans for compliance with the Official Development Plan, Zoning Resolution, Land Development Regulation, Transportation Design & Construction Manual, and the Storm Drainage Design & Technical Criteria. If the Plat is approved, the applicant would then apply for Building Permit(s) for the single-family homes.

#### SUMMARY OF STAFF ANALYSIS AND RECOMMENDATION

Staff's analysis concludes that the proposed Rezoning from A-2 to a PD following R-1A with a maximum or 10 dwelling units is in general conformance with the land use recommendation and policies of the CMP. No potential negative impacts to the surrounding community or wildlife were identified, and infrastructure and services are in place to support the use. This application meets all Rezoning criteria specified in the Zoning Resolution. Staff has no unresolved issues related to this Rezoning application. Based upon this and the findings below, staff recommends APPROVAL of the proposed rezoning.

#### **FINDINGS:**

Based on the analysis included in this report, staff concludes that the proposal satisfactorily addresses each of the criteria below which the Board of County Commissioners may consider, as detailed in subsection 6 of this staff report.

- 1. The proposed single-family detached residential land use is compatible with the existing and allowable single-family residential land uses in the surrounding area. The Rezoning would allow 10 single-family residential lots on approximately 4.19 acres, which density is consistent with that of the surrounding land uses.
- 2. The proposal is in general conformance with the Comprehensive Master Plan (Plan). The proposal adheres to the Plan density recommendation of 2.5 dwelling units per acre. All other applicable goals and policies of the Plan have also been met.
- 3. The ability to mitigate the negative impacts of the proposed land use upon the surrounding area have been considered, and no negative impacts were identified.
- 4. The subject property is served by the Fairmount Fire Protection District and the North Table Mountain Water and Sanitation District. Law enforcement services are provided by the Jefferson County Sheriff's Office. Existing infrastructure and services are adequate and available to serve the proposed land use.
- 5. The proposed land use will not result in significant impacts to the health, safety, and welfare of the residents and landowners in the surrounding area.

#### PLANNING COMMISSION:

Planning Commission Recommendation (Resolution dated November 9, 2022 attached):

| Approval                 | X (5-0) |
|--------------------------|---------|
| Approval with Conditions |         |
| Denial                   |         |

The case was scheduled on the regular agenda of the Planning Commission hearing, based on it being a rehearing process. One resident testified in opposition to the rezoning. The resident was concerned with the compatibility of the proposed single-family homes with the existing character of the community, poor drainage on the subject property, and changing mountain views from his property.

The Planning Commission discussed the resident's testimony and ultimately decided that the proposed rezoning is compatible with the surrounding area. The Planning Commission acknowledged that the Fairmount area is experiencing new development and is in transition in a manner recommended by the CMP.

The Planning Commission unanimously recommended the case for approval without any revisions to the proposed Official Development Plan.

#### **BOARD of COUNTY COMMISSIONERS ACTION:**

The Board of County Commissioners is charged with reviewing the request, staff report, and Planning Commission recommendation, receiving testimony and evidence on the application, and approving or denying the request.

COMMENTS PREPARED BY:

BCC Hearing: December 6, 2022

Sara Kohles

Sara Kohles Planner November 29, 2022

# PROPOSED ZONING

#### 14320 W 50<sup>th</sup> AVENUE ODP Rezoning Case # 21-133812 RZ

#### A. Intent

The purpose of this Rezoning is to rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for a maximum of 10 single family units.

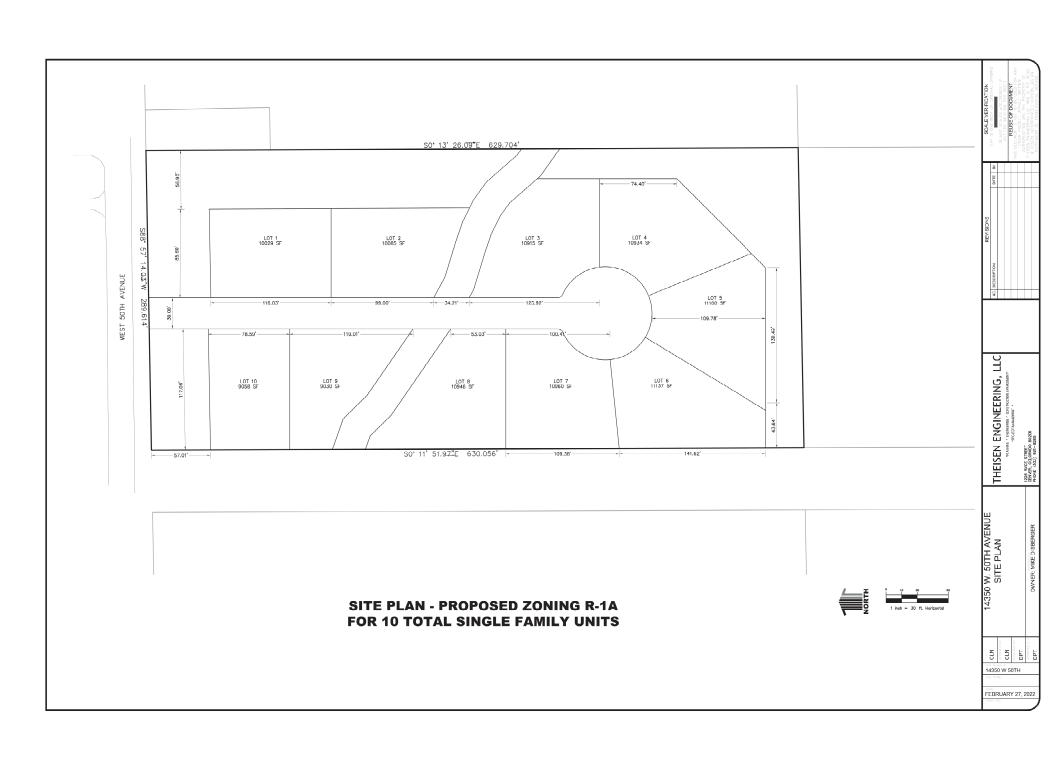
#### **B.** Written Restrictions

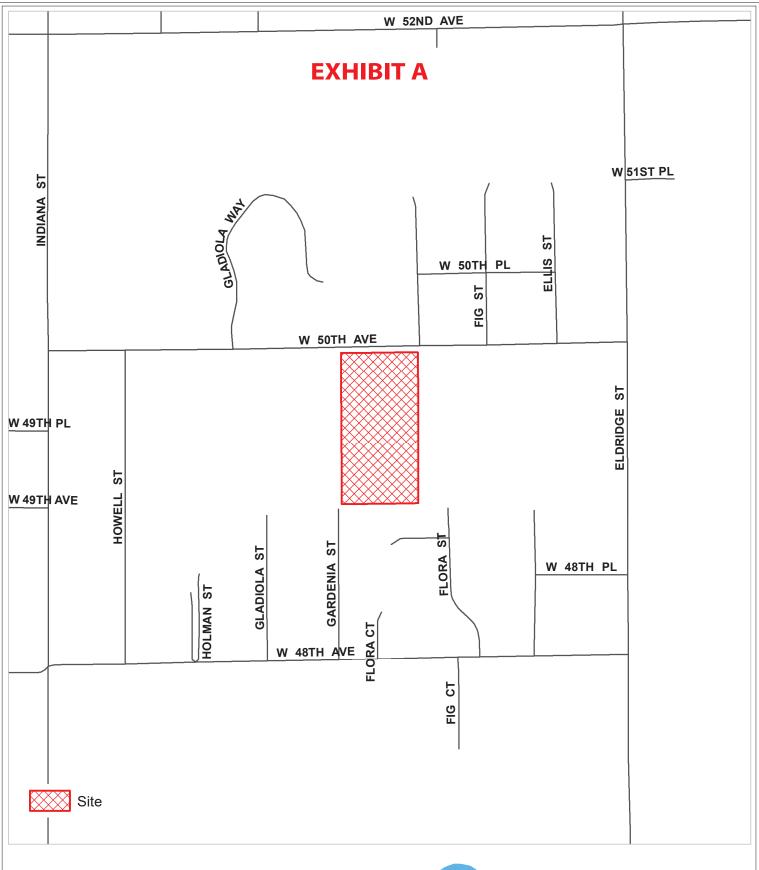
All of the uses and standards of the Residential-One A (R-1A) Zone District and other applicable sections of the Zoning Resolution shall apply to the property as shown on the graphic attached hereto as Rezoning Exhibit A and the legal description attached hereto as Exhibit B, with the following modifications:

- 1. Maximum of 10 Single Family Units
- 2. At the time of Plat, any roads shall be either dedicated as public Right-of-Way or placed in a separate tract.
- 3. A 30-foot wide buffer centered on the irrigation channel shall be preserved as a "no build area."

#### APPROVED FOR RECORDING:

| This Official De    | evelopment Plan, titled 14320   | W 50 <sup>th</sup> Avenue ODP, was approved the |
|---------------------|---------------------------------|---|
|                     | day of                          | 2022, by the Board of County Commissioners, of  |
| the County of       | Jefferson, State of Colorado a  | nd is approved for recording.                   |
| The owner of t      | the property, at the time of ap | oproval was:                                    |
| By: Jefferson C     | County Planning and Zoning Di   | irector   |
| Signature:<br>Date: |                                 | -<br>-  |





Case Number: 21-133812RZ

Location: Section 18, T3S, R69W





#### **EXHIBIT B**

Case No. <u>21-133812RZ</u>

Legal Description

| Is there ar | cation of Property 14320 West 50 <sup>th</sup> Avenue n existing structure at this address? | YesX No                             |
|-------------|---|-------------------------------------|
|             | Lot or Plot 20,<br>Wheat Ridge Gardens,<br>County of Jefferson,<br>State of Colorado        |                                     |
| 1           | And   |                                     |
|             | East half of vacated right-of-way indicated on Plat book State of Colorado                  | 224, Page 433, County of Jefferson, |
| (           | Containing 4.62 Acres, more or less.  |                                     |
|             |   |                                     |
|             |   |                                     |

Section 18 Township 3 S. Range 69 W.
Calculated Acreage 4.62 Acres Checked by: Ben Hasten
Address Assigned (or verified) 14320 West 50<sup>th</sup> Avenue

#### Section 30 - Residential District

(orig. 3-26-13)

#### A. Intent and Purpose

- The Residential Districts are intended to provide areas for residential development and includes single-family dwellings, two-family dwellings, duplexes, townhomes and multi-family dwellings, where allowed. (orig. 3-26-13)
- Contained in this section are the allowed land uses, building and lot standards (including minimum setbacks) and other general requirements for each specific residential zone district. (3-26-13)
- 3. The Residential Zone Districts are divided as follows: (orig. 3-26-13)
  - a. Residential-One (R-1)
  - b. Restricted Residential (RR)
    - (1) Restricted Residential Quarter Acre (RR-1/4)
    - (2) Restricted Residential One Half Acre (RR-1/2)
    - (3) Restricted Residential One Acre (RR-1)
    - (4) Restricted Residential Two Acre (RR-2)
    - (5) Restricted Residential Five Acre (RR-5)
    - (6) Restricted Residential Ten Acre (RR-10)
  - c. Residential-One A (R-1A)
  - d. Residential-One B (R-1B)
  - e. Residential-One C (R-1C)
  - f. Residential-Two (R-2)
  - g. Residential-Three (R-3)
  - h. Residential-Three A (R-3A)
  - i. Residential-Four (R-4)

#### **B.** Permitted Uses (orig.3-26-13; am. 7-17-18)

| Use  | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|--|-----|----|------|------|------|-----|-----|------|-----|
| Single-family dwelling   | Χ   | Χ  | X    | X    | X    | Х   | Χ   |      |     |
| Two-family dwelling or duplex  |     |    |      |      |      | Х   | Х   | Х    |     |
| Multi-family dwelling or townhome  |     |    |      |      |      |     | Х   | Х    |     |
| Multi-family dwelling (20 dwelling units to 50 dwelling units per acre).   |     |    |      |      |      |     |     |      | Х   |
| Religious Assemblies and related uses, parish house and/or parsonage.  |     |    |      |      |      |     | Х   | Х    | Х   |
| Private nonprofit museum   |     |    |      |      |      |     | Х   | Х    | Х   |
| Parochial or private schools. Not included are private vocational, trade or professional schools, schools of art, music or dance and schools for subnormal or mentally disturbed adults. |     |    |      |      |      |     | X   | Х    | x   |
| Colleges; not included are private vocational, trade or professional schools, schools of art, music or dance and schools for subnormal or mentally disturbed adults.                     |     |    |      |      |      |     |     |      | x   |

| Use  | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|--|-----|----|------|------|------|-----|-----|------|-----|
| State licensed daycare or large day –care home or preschool or nursery.  |     |    |      |      |      |     | X   | Χ    | х   |
| Group Home for up to 8 aged persons not located within 750 ft of another such group home; state licensed group home for up to 8 developmentally disabled persons not located within 750 ft of another such group home; state licensed group home for up to 8 mentally ill persons not located within 750 ft of another such group home or group home for the aged or developmentally disabled persons. | X   | X  | X    | X    | X    | X   | X   | X    | X   |
| Public park, Class I public recreation facilities.   | Х   | Х  | Х    | Х    | Х    | Х   | Х   | Х    | Х   |
| Class II public recreation facility  |     |    |      |      |      |     | Х   | Х    | Х   |
| Homes for the aged and nursing homes   |     |    |      |      |      |     | Χ   | Х    | Х   |
| Hospital, nursing homes and clinics but not including institutions exclusively for the mentally disturbed, or for contagious or infectious diseases.   |     |    |      |      |      |     |     |      | х   |
| Telecommunications Land Uses shall comply with the provisions of the Telecommunications Uses Section of this Zoning Resolution.  | Х   | Х  | Х    | Х    | Х    | Х   | Х   | Х    | х   |
| Energy Conversion Systems (ECS) land uses shall comply with the provisions of the Alternative Energy Resources Section of the Zoning Resolution.   | X   | Х  | X    | X    | X    | Х   | X   | X    | х   |

#### **C. Accessory Uses** (orig.3-26-13; am. 7-17-18)

| Use   | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|---|-----|----|------|------|------|-----|-----|------|-----|
| Private garage, mini structure, storage shed  | Х   | Х  | X    | Х    | Х    | Х   | Х   | Χ    | Х   |
| Private greenhouse and nursery, noncommercial conservatory for plants and flowers.  |     |    |      |      |      |     |     |      |     |
| Private poultry house and pigeon coop with no more than 400 square feet of floor area; private rabbit and chinchilla hut with no more than 100 square feet of floor area. | X   |    |      |      |      |     |     |      |     |
| Private building or kennel for housing dogs, cats and similar domestic pets. <sup>1</sup>   | Х   | Х  | Х    | Х    | Х    | Х   | Х   | X    |     |
| Private stable and/or barn for keeping horses, cattle, sheep, goats or other similar domesticated animals. See general requirements below.                                | х   |    |      |      |      |     |     |      |     |
| Home Occupations provided the requirements and conditions of the Board of Adjustment or the Home Occupation Section of the Zoning Resolution have been met.               | х   | Х  | Х    | Х    | Х    | х   | х   |      |     |

| Use   | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|---|-----|----|------|------|------|-----|-----|------|-----|
| Accessory Uses per the Accessory Use Section of the Zoning Resolution.                          | Х   | Х  | X    | Х    | Х    | Х   | Х   | X    | Х   |
| Commercial service activities, which are accessory to the main use of the building <sup>2</sup> |     |    |      |      |      |     |     |      | X   |

<sup>&</sup>lt;sup>1</sup> But not including horses, cattle, sheep, goats, chickens, ducks, geese or other fowl. The maximum total number of dogs, cats and similar domestic pets which may be kept shall be 3. Offspring of domestic pets may be kept until weaned.

- a. Is subordinate to and serves the principal building or principal use.
- b. Is subordinate in area, extent, or purpose to the principal building or principal use served.
- c. Contributes to the comfort, convenience, or necessity of occupants of the principal building or principal use served
- d. Is located on the same lot as the principal building or principal use served.

#### **D. Special Uses** (3-26-13)

The following uses shall be permitted only upon review by the Planning Commission and approval by Board of County Commissioners: (orig. 3-26-13; am. 7-17-18)

| Use  | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|--|-----|----|------|------|------|-----|-----|------|-----|
| Religious Assemblies and related uses, parish house and/or parsonage.  | Х   | Х  | X    | X    |      | Х   |     |      |     |
| Private nonprofit museum   | Х   | Х  | Х    | Х    |      | Х   |     |      |     |
| Cable Television reception station   | Х   | Х  | Х    | Х    | Х    | Х   | Х   | Х    | Χ   |
| Water supply reservoir and irrigation canal  | Х   | Х  | Х    | Х    | Х    | Х   | Х   | X    |     |
| A group living facility, other than homes for social rehabilitation, or a home where up to 6 unrelated individuals are living together, that is occupied by more than one registered sex offender.   | x   | X  | х    | х    | х    | X   | x   | Х    | X   |
| Group, foster or communal home, residential treatment center, community residential home, home for social rehabilitation, assisted living residence, personal case boarding home, specialized group facility, receiving home for more than 4 foster home residents, residential child care facility or shelter from domestic violence, licensed or certified by state if applicable, in which 7 or more residents who are not legally related live and cook together as a single housekeeper unit not located within 750 ft of another similar type home or shelter. | x   | ×  | ×    | ×    | ×    | ×   | x   | x    | X   |

<sup>&</sup>lt;sup>2</sup> May be conducted, provided said use is contained within the main building. Cafeterias, offices, studios and personal services such as beauty parlors, barber shops, laundry pick-up stations and pharmacies may be conducted. However, the sum total of commercial uses may not exceed more than 10 percent of the floor area of any single building or structure. The entrance to any such accessory business will be from inside the building. Such accessory use is one which:

| Use  | R-1 | RR | R-1A | R-1B | R-1C | R-2 | R-3 | R-3A | R-4 |
|--|-----|----|------|------|------|-----|-----|------|-----|
| Group home for the aged, group home for the developmentally disabled, group home for the mentally ill persons, licensed or certified by the state if Group home for the aged, group home for the developmentally disabled, group home for the mentally ill persons, licensed or certified by the state if applicable, in which 9 or more residents who are not legally related live and cook together as a single housekeeper unit, where such home is not located within 750 ft of another similar type home, licensed or certified by the state if applicable. | X   |    | X    | X    | X    | X   | X   | X    | X   |
| State licensed daycare center or preschool or nursery  | Х   | Х  | Х    | Х    | Х    | Х   |     |      |     |
| Parochial or private schools. Not included are private vocational, trade or professional schools, schools of art, music or dance and schools for subnormal or mentally disturbed adults. Exceptions listed above shall not preclude home occupations authorized by the Board of Adjustment or the Home Occupations Section of this Zoning Resolution.  | ×   | ×  | X    | Х    | Х    | ×   |     |      |     |
| Home for social rehabilitation or adjustment for up to 10 residents plus staff, not located within 750 ft. of another similar facility.  |     |    |      |      |      |     | Х   |      |     |
| Oil and gas drilling and production subject to the Drilling and Production of Oil and Gas Section of this Zoning Resolution, except where located within a subdivision platted and recorded in the records of the Clerk and Recorder.  | Х   | Х  | X    | X    |      | Х   | Х   | X    | Х   |
| Class I or II commercial recreational facility. Class II public recreational facility.   | Х   | х  | Х    | Х    |      | Х   | Х   | Х    | Х   |

#### E. Lot and Building Standards (orig. 3-26-13; am. 7-17-18)

|           |   | Front Setback                            |   |  |  |  |  |  |  |  |
|-----------|---|--|---|--|--|--|--|--|--|--|
| Districts | Primary Structure/<br>Garages (attached or<br>detached) | Adjacent to Arterial                     | All Other Accessory Structures                                      |  |  |  |  |  |  |  |
| R-1       | 20 ft.  | 30 ft.                                   | Housing Livestock – 100 ft.  All Other Accessory Structure – 50 ft. |  |  |  |  |  |  |  |
| R-1A      | 20 ft.  | 30 ft.                                   | 50 ft.  |  |  |  |  |  |  |  |
| R-1B      | 20 ft.  | 30 ft.                                   | 50 ft.  |  |  |  |  |  |  |  |
| R-1C      | 12 ft. (living space)<br>20 ft. (garage)                | 18 ft. (living space)<br>30 ft. (garage) | 30 ft.  |  |  |  |  |  |  |  |
| R-2       | 20 ft.  | 30 ft.                                   | 20 ft.  |  |  |  |  |  |  |  |

|           |   | Front Setbac         | k                              |
|-----------|---|----------------------|--------------------------------|
| Districts | Primary Structure/<br>Garages (attached or<br>detached) | Adjacent to Arterial | All Other Accessory Structures |
| R-3       | 20 ft.  | 30 ft.               | 50 ft.                         |
| R-3A      | 20 ft.  | 30 ft.               | 50 ft.                         |
| R-4       | 40 ft.  | 40 ft.               | 40 ft.                         |
| RR-1/4    | 20 ft.  | 20 ft.               | 20 ft.                         |
| RR-1/2    | 30 ft.  | 30 ft.               | 30 ft.                         |
| RR-1      | 30 ft.  | 30 ft.               | 30 ft.                         |
| RR-2      | 30 ft.  | 30 ft.               | 30 ft.                         |
| RR-5      | 50 ft.  | 50 ft.               | 50 ft.                         |
| RR-10     | 75 ft.  | 75 ft.               | 75 ft.                         |

| Districts |                                       | Side Setback <sup>1</sup>   |                      |
|-----------|---------------------------------------|-----------------------------|----------------------|
| Diotrioto | All Structures                        | Adjacent to local/collector | Adjacent to arterial |
| R-1       | 15 ft.                                | 20 ft.                      | 30 ft                |
| R-1A      | 5 ft. min (15 ft. total) <sup>2</sup> | 20 ft.                      | 30 ft.               |
| R-1B      | 5 ft.                                 | 20 ft.                      | 30 ft.               |
| R-1C      | 5 ft.                                 | 15 ft.                      | 20 ft.               |
| R-2       | 5 ft. min (15 ft. total) <sup>2</sup> | 20 ft.                      | 30 ft.               |
| R-3       | 5 ft. <sup>3</sup>                    | 20 ft                       | 30 ft.               |
| R-3A      | 5 ft. <sup>3</sup>                    | 20 ft.                      | 30 ft.               |
| R-4       | 30 ft.                                | 30 ft.                      | 30ft.                |
| RR-1/4    | 10 ft.                                | 20 ft.                      | 20 ft.               |
| RR-1/2    | 20 ft.                                | 30 ft.                      | 30 ft.               |
| RR-1      | 30 ft.                                | 30 ft.                      | 30 ft.               |
| RR-2      | 30 ft.                                | 30 ft.                      | 30 ft.               |
| RR-5      | 50 ft.                                | 50 ft.                      | 50 ft.               |
| RR-10     | 50 ft.                                | 75 ft.                      | 75 ft.               |

<sup>&</sup>lt;sup>1</sup>For a two-family dwelling, no side setback shall be required where there is a common wall shared between buildings on adjacent lots.

<sup>&</sup>lt;sup>3</sup> The minimum side setback for a single-family dwelling, two-family dwelling, duplex, townhome, or multi- family dwelling with 1 story, shall be 5 feet on each side. The minimum side setback for any other main building shall be 10 feet on each side.

|           |                   |                             | Rear Se  | etback           |                        |  |
|-----------|-------------------|-----------------------------|----------|------------------|------------------------|--|
| Districts | Single-<br>Family | Two-<br>Family or<br>Duplex | Townhome | Multi-<br>Family | Other Main<br>Building | Detached Garage or Other Accessory Structure |
| R-1       | 5 ft.             | n/a                         | n/a      | n/a              | 5 ft.                  | 5 ft.  |
| R-1A      | 10 ft.            | n/a                         | n/a      | n/a              | 10 ft.                 | 5 ft.  |
| R-1B      | 10 ft.            | n/a                         | n/a      | n/a              | 10 ft.                 | 5 ft.  |
| R-1C      | 10 ft.            | n/a                         | n/a      | n/a              | 10 ft.                 | 5 ft.  |
| R-2       | 5 ft.             | 5 ft.                       | n/a      | n/a              | 5 ft.                  | 5 ft.  |
| R-3       | 5 ft.             | 5 ft.                       | 10 ft    | 10 ft.           | 10 ft.                 | 5 ft.  |
| R-3A      | 10 ft.            | 10 ft.                      | 10 ft.   | 10 ft.           | 10 ft.                 | 10 ft.                                       |
| R-4       | n/a               | n/a                         | n/a      | 30 ft.           | 30 ft.                 | 30 ft.                                       |
| RR-1/4    | 20 ft             | n/a                         | n/a      | n/a              | 20 ft                  | 20 ft  |
| RR-1/2    | 20 ft.            | n/a                         | n/a      | n/a              | 20 ft.                 | 20 ft.                                       |
| RR-1      | 20 ft.            | n/a                         | n/a      | n/a              | 20 ft.                 | 20 ft.                                       |
| RR-2      | 30 ft.            | n/a                         | n/a      | n/a              | 30 ft.                 | 30 ft.                                       |
| RR-5      | 50 ft.            | n/a                         | n/a      | n/a              | 50 ft.                 | 50 ft.                                       |
| RR-10     | 50 ft.            | n/a                         | n/a      | n/a              | 50 ft.                 | 50 ft.                                       |

<sup>&</sup>lt;sup>2</sup> Each side setback must be a minimum of 5 feet, and both side setbacks added together must equal 15 feet or more.

|           | Building S                                       | Separation                    | Building Height      |                           |  |  |  |  |
|-----------|--|-------------------------------|----------------------|---------------------------|--|--|--|--|
| Districts | Between<br>Townhome or<br>Multi-family<br>Groups | From Building on Adjacent Lot | Primary<br>Structure | Multi-Family<br>Structure | All Other<br>Accessory<br>Structure <sup>1</sup> |  |  |  |
| R-1       | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| R-1A      | n/a  | 15 ft.                        | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| R-1B      | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| R-1C      | n/a  | n/a                           | 30 ft.               | n/a                       | 25 ft.   |  |  |  |
| R-2       | n/a  | 15 ft.                        | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| R-3       | 25 ft.   | n/a                           | 35 ft.               | 45 ft.                    | 25 ft.   |  |  |  |
| R-3A      | 25 ft.   | n/a                           | 35 ft.               | 45 ft.                    | 25 ft.   |  |  |  |
| R-4       | 30 ft. <sup>2</sup>                              | n/a                           | 80 ft.               | 80 ft.                    | 25 ft.   |  |  |  |
| RR-1/4    | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| RR-1/2    | n/a  | n/a                           | 35ft                 | n/a                       | 25 ft.   |  |  |  |
| RR-1      | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| RR-2      | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| RR-5      | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |
| RR-10     | n/a  | n/a                           | 35 ft.               | n/a                       | 25 ft.   |  |  |  |

<sup>&</sup>lt;sup>1</sup> No such building shall exceed the lesser of the height indicated or the height of the primary structure.

| Districts | Lot Size                  |  |             |          |              |  |
|-----------|---------------------------|--|-------------|----------|--------------|--|
|           | Single-Family<br>Dwelling | Two-Family<br>Dwelling   | Duplex      | Townhome | Multi-Family |  |
| R-1       | 12,500 s.f.               | n/a  | n/a         | n/a      | n/a          |  |
| R-1A      | 9,000 s.f.                | n/a  | n/a         | n/a      | n/a          |  |
| R-1B      | 7,500 s.f.                | n/a  | n/a         | n/a      | n/a          |  |
| R-1C      | 4,500 s.f.                | n/a  | n/a         | n/a      | n/a          |  |
| R-2       | 9,000 s.f.                | 12,500 s.f.<br>min. develop<br>area and 5,000<br>s.f. min lot<br>area per unit | 12,500 s.f. | n/a      | n/a          |  |

| Districts | Lot Size                   |   |             |  |   |  |
|-----------|----------------------------|---|-------------|--|---|--|
|           | Single-Family<br>Dwelling  | Two-Family<br>Dwelling  | Duplex      | Townhome   | Multi-Family  |  |
| R-3       | 7,500 s.f.                 | 3,000 s.f. min.<br>develop area<br>and 1,500 s.f.<br>min lot area<br>per unit | 9,000 s.f.  | 12,500 s.f. min.<br>develop area<br>and 2,000 s.f.<br>min lot area per<br>unit | 12,500 s.f. min.<br>develop area and<br>2,000 s.f. min lot<br>area per unit |  |
| R-3A      | n/a                        | 4,000 s.f. min.<br>develop area<br>and 2,000 s.f.<br>Min lot area<br>per unit | 12,500 s.f. | 4,000 s.f. min.<br>develop area<br>and 2,000 s.f.<br>Min lot area per<br>unit  | 12,500 s.f. min.<br>develop area and<br>3,000 s.f. min lot<br>area per unit |  |
| R-4       | n/a                        | n/a   | n/a         | n/a  | 1 acre min develop<br>area and 850 s.f. Min<br>lot area per unit            |  |
| RR-1/4    | ½ acre<br>(10,890 s.f.)    | n/a   | n/a         | n/a  | n/a   |  |
| RR-1/2    | ½ acre (27,180<br>s.f.)    | n/a   | n/a         | n/a  | n/a   |  |
| RR-1      | 1 acre (43,560<br>s.f.)    | n/a   | n/a         | n/a  | n/a   |  |
| RR-2      | 2 acres (87,120<br>s.f.)   | n/a   | n/a         | n/a  | n/a   |  |
| RR-5      | 5 acres (217,800<br>s.f.)  | n/a   | n/a         | n/a  | n/a   |  |
| RR-10     | 10 acres<br>(435,600 s.f.) | n/a   | n/a         | n/a  | n/a   |  |

#### F. Fences

- 1. Maximum fence height: 6 feet. (orig. 3-26-13)
- 2. No fence more than 42 inches in height of any type shall be permitted within the front setback line and the front lot line. (orig. 3-26-13)
- 3. No barbed wired or electric fence shall be permitted in this zone district. (orig. 3-26-13)
- 4. On adjacent lots where allowed fence heights differ, the lower height restriction shall govern. (orig. 3-26-13)

#### G. General Requirements

- 1. Corner lots must comply with the vision clearance triangle requirements. (orig. 3-26-13; am.7-17-18)
- 2. No structure may be erected, placed upon or extend over any easement unless approved in writing by the agency or agencies having jurisdiction over such easement. (orig. 3-26-13)

#### H. Animals

- Manure shall not be allowed to accumulate so as to cause a hazard to the health, safety or welfare of humans and/or animals. The outside storage of manure in piles shall not be permitted within 100 feet of the front lot line and shall conform to the side and rear setback requirements of a dwelling. (orig. 3-26-13)
- 2. Stallions and bulls shall be kept in a pen, corral or run area enclosed by a 6-foot chain link fence, or material equal or greater in strength, except when it is necessary to remove them for training, breeding or other similar purposes. (orig. 3-26-13)

3. Where allowed the keeping of horses, cattle, sheep, goats, or other similar domesticated animals shall be kept in a fenced area. The total number of animals, listed above, is limited as follows. (orig. 3-26-13)

The minimum square footage of open lot area available to the animals, shall be 9,000 square feet for the first animal and 6,000 square feet for each additional animal. The total number of such animals that may be kept shall not exceed 4 per 1 acre; except that offspring of animals on the property may be kept until weaned. (orig. 3-26-13; am. 7-17-18)

# **MAPS**

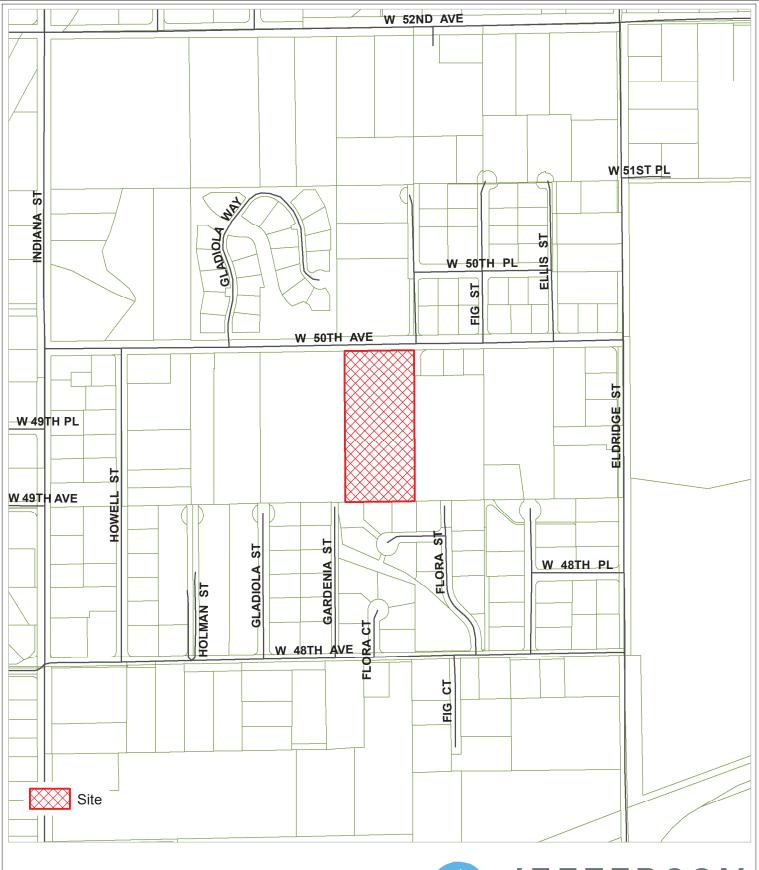


Case Number: 21-133812RZ

Location: Section 18, T3S, R69W







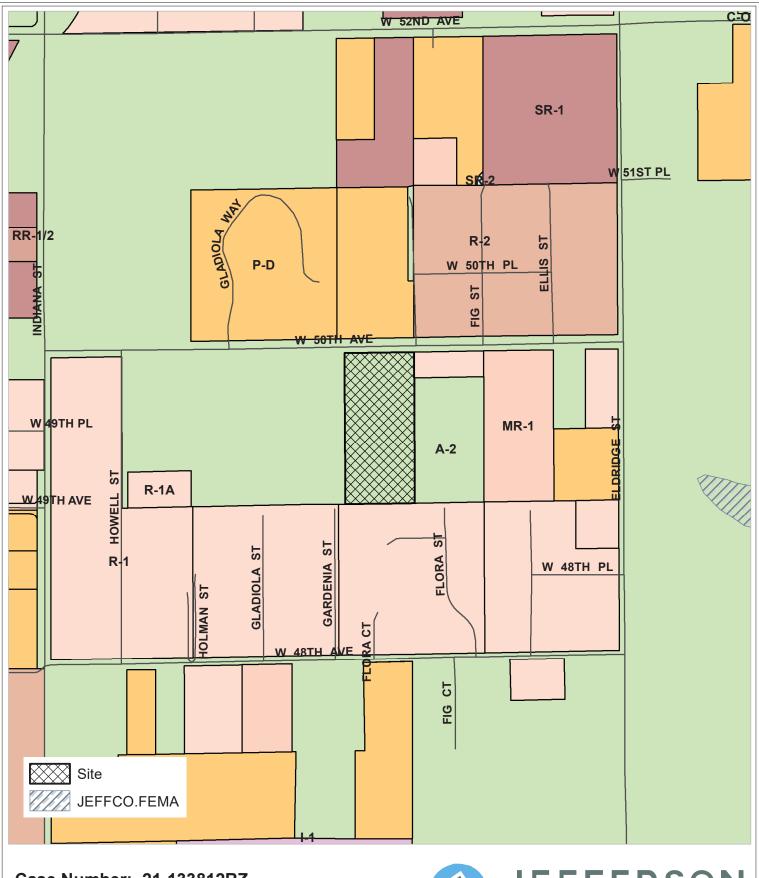
**Case Number: 21-133812RZ** 

Location: Section 18, T3S, R69W









Case Number: 21-133812RZ Location: Section 18, T3S, R69W





#### Legal Description

| Street Location of Property 14320 West 50 <sup>th</sup> Avenue Is there an existing structure at this address? | YesX No |
|--|---------|
| Type the legal description and address below.  |         |
|  |         |
|  |         |
|  |         |
| Lot or Plot 20, Wheat Ridge Gardens, County of Jefferson,  |         |
| State of Colorado  Containing 4.19 Acres, more or less   |         |
|  |         |
|  |         |
|  |         |
|  |         |
|  |         |
|  |         |
|  |         |
|  |         |

Section 18 Township 3 S. Range 69 W.
Calculated Acreage 4.19 Acres Checked by: Ben Hasten
Address Assigned (or verified) 14320 West 50<sup>th</sup> Avenue

# COMMUNITY MEETING SUMMARY



100 Jefferson County Parkway, Suite 3550, Golden, Colorado 80419-3550 303.271.8700 • Fax 303.271.8744 • https://jeffco.us/planning-zoning

#### **COMMUNITY MEETING SUMMARY**

| Case Number  | Meeting Date                   | Approx. # of Citizens        | # Signed in                        |  |  |  |
|--|--------------------------------|------------------------------|------------------------------------|--|--|--|
| 21-127665 CMT  | 8/30/2021                      | 40                           |                                    |  |  |  |
| Meeting Location   |                                |                              |                                    |  |  |  |
| Virtual CMT - Microsoft Teams  |                                |                              |                                    |  |  |  |
| Subject Property   |                                |                              |                                    |  |  |  |
| 14320 W 50th Avenue  |                                |                              |                                    |  |  |  |
| Property Owner Applicant/Representative  |                                |                              |                                    |  |  |  |
| Redwood LLC  |                                | David Theisen                |                                    |  |  |  |
|  |                                |                              |                                    |  |  |  |
| Summary of the Applicant's Presentation  | n                              |                              |                                    |  |  |  |
| Community Meeting to discuss rezoning from Agricultural-1 (A-1) to Residential-2 (R-2) to develop up to 18 single-family attached residences |                                |                              |                                    |  |  |  |
| Information Presented/Format of the M  | leeting                        |                              |                                    |  |  |  |
| Conceptual site plan of development  |                                |                              |                                    |  |  |  |
| Overall Impression/Tone of Meeting   |                                |                              |                                    |  |  |  |
| Generally critical/negative. Neighbors expressed concerns about density, traffic, loss of open space/views, wildlife impacts                 |                                |                              |                                    |  |  |  |
| Main Points/Issues Raised by Citizens/Applicant's Response   |                                |                              |                                    |  |  |  |
| Density of proposed residences exceeds Comprehensive and Area Plan recommendations, perceived as too dense for the context                   |                                |                              |                                    |  |  |  |
| Duplexes not aligned with character of existing development  |                                |                              |                                    |  |  |  |
| Roads lack sidewalks and additional traffic from proposed development would make walking in area more hazardous                              |                                |                              |                                    |  |  |  |
| Concern about potential golden eag<br>development  | gle nest on property and gener | ral loss of open space and v | iews which could be caused by this |  |  |  |
|  |                                |                              |                                    |  |  |  |

# REFERRAL COMMENTS

#### Kimiko Schillinger

**Subject:** FW: 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

<nseymour@co.jefferson.co.us>; Mike Schuster <mschuste@co.jefferson.co.us>; Ross Klopf <rklopf@co.jefferson.co.us>; Pat OConnell co.jefferson.co.us>; Felicity Selvoski <fselvosk@co.jefferson.co.us>; Kayla Bryson <kbryson@co.jefferson.co.us>; Heather Gutherless <hgutherl@co.jefferson.co.us>; Russell Clark <rclark@co.jefferson.co.us>; Sara Kohles <skohles@co.jefferson.co.us>; Kai Perea <kperea@co.jefferson.co.us>; Mark Weiden <mweiden@co.jefferson.co.us>; Michaelyne Baldwin <mbaldwin@co.jefferson.co.us>; Lindsay Townsend <ltownsen@co.jefferson.co.us>; Mike Vanatta <mvanatta@co.jefferson.co.us>; Ramey Fox <rfox@co.jefferson.co.us>; Nancy York <nyork@co.jefferson.co.us>; Jones, Kayla <kayla jones3@comcast.com>; wendy@ntmwater.org; bart@ntmwater.org; ripatenco@fairmountfire.org; ablackmore@prospectdistrict.org; mhanson@prospectdistrict.org; asummers@drcog.org; gchiapella@drcog.org; treed@jeffco.k12.co.us; rhuxley@jeffco.k12.co.us; Matthew.Hanks@jeffco.k12.co.us; Supt@jeffco.k12.co.us; Elizabeth Stoner <estoner@co.jefferson.co.us>; Public Health EH Land Use <PublicHealthEHLandUse@co.jefferson.co.us>; George, Donna L < Donna.L.George@xcelenergy.com>; jgutierrez@summitutilitiesinc.com; twinkel@coloradonaturalgas.com; platreview@lumen.com; sarah.brucker@state.co.us; joanna.williams@state.co.us; matt.martinez@state.co.us; bjhanse2@gmail.com; luannkswim@gmail.com; pp925847@yahoo.com; dave@gcpaint.com; cici@acmhoa.com; meredith@kchoa.com; mthanson@earthlink.net; franevers@centurylink.net; etomandjudy@centurylink.net; codychristman@ymail.com; huebels@aol.com; mpoolet@gmail.com; jklitz@comcast.net; jscott@firstrounders.com; enoyes@mbpros.net; edeegail@yahoo.com; donaldgparker@gmail.com; secretary@orchardhoa.org; president@orchardhoa.org

From: P&Z Admin

**Sent:** Monday, October 17, 2022 10:25 AM

Subject: 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

#### **ELECTRONIC REFERRAL**

#### JEFFERSON COUNTY, COLORADO

Documents related to a <u>Rezoning</u> rehearing have been submitted to Jefferson County Planning and Zoning. This case is beginning the <u>referral</u> part of the rehearing process, and your agency's comments are requested. Please review the specific electronic documents related to the referral found <u>here</u>. Comments should be submitted <u>via e-mail</u> to the case manager by the due date below.

Case Number: 21-133812RZ Case Name: 14320 W 50<sup>th</sup> Ave

General Location: West 50th Avenue, west of Eldridge Street

Case Type: Rezoning

Purpose: To Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for the future subdivision of the

property into 10 lots for single-family detached units.

Case Manager: Sara Kohles, 303-271-8734, <a href="mailto:skohles@jeffco.us">skohles@jeffco.us</a>

Comments Due: October 28, 2022

Additional information related to this case can be viewed <u>here</u>. Some of the links on this page that may be helpful are the links to the case file (<u>public documents</u>), to the Jeffco mapping system (<u>jMap</u>) and to the case tracking system (<u>general application details</u>).

In your comments, please indicate whether an additional referral is needed.

Jeffco:

Addressing Cartography

Engineer (Development Review)

Geologist

Historical Commission

Long Range

Planner (Development Review) Road and Bridge District 1

Transportation and Engineering

Open Space Public Health External:

Comcast

North Table Mountain Water & Sanitation

Fairmount Fire Protection District Prospect Recreation & Park District **Denver Regional Council of Governments** 

JeffCo Schools Public Service Company/Xcel

Colorado Natural Gas Company

CenturyLink/LUMEN

Division of Water Resources

Colorado Parks & Wildlife (plains)

HOA:

Applewood POA

Brookfield Acres HOA Candlelight Valley HOA

Eagle Pointe HOA

Fairmount Improvement Assn Jefferson County Horse Council

Marriott Orchard HOA

Plan Jeffco

Rolling Hills East HOA Save The Mesas Inc

The Orchard HOA



#### Right of Way & Permits

1123 West 3<sup>rd</sup> Avenue Denver, Colorado 80223 Telephone: **303.571.3306** Facsimile: 303. 571.3284 donna.l.george@xcelenergy.com

October 31, 2022

Jefferson County Planning and Zoning 100 Jefferson County Parkway, Suite 3550 Golden, CO 80419

Attn: Sara Kohles

Re: 14320 West 50th Avenue Rezone, Case # 21-133812RZ

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the request for the **14320 West 50th Avenue Rezone**. Please be advised that Public Service Company has existing overhead and underground electric distribution facilities along the south, east, and north property lines within this proposed rezone. Public Service Company has no objection to this proposed rezone, contingent upon PSCo's ability to maintain all existing rights and this amendment should not hinder our ability for future expansion, including all present and any future accommodations for natural gas transmission and electric transmission related facilities.

For future planning and to ensure that adequate utility easements are available within this development and per state statutes, PSCo requests that the following language or plat note is placed on the preliminary and final plats for the subdivision:

Six-foot (6') wide dry utility easements are hereby dedicated on private property adjacent to each front lot line of each lot and eight-foot (8') on each rear lot line of each lot in the subdivision. In addition, eight-foot (8') wide dry utility easements are hereby dedicated around the <u>perimeter</u> of tracts, parcels and/or open space areas. These easements are dedicated to Jefferson County for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via <a href="mailto:xcelenergy.com/InstallAndConnect">xcelenergy.com/InstallAndConnect</a>. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.

For additional easements that may need to be acquired by separate document for new facilities, the Designer must contact a Right-of-Way and Permits Agent.

As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.

Donna George Right of Way and Permits Public Service Company of Colorado dba Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

--{EXTERNAL}-- Re: [EXTERNAL] Rezoning agricultural land in Jefferson County CO - 14320 W 50th Ave Golden CO

Williams, Jen (she/her) <jennifer\_williams@fws.gov>

Mon 10/31/2022 4:48 PM

To: Sara Kohles <skohles@co.jefferson.co.us>

CAUTION: This email originated from outside Jefferson County Government. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Sarah,

Yes, you are correct; the Service does not need to review projects for administrative changes like rezoning.

Thank you,

Jen

Dr. Jen Williams (<a href="she/her[cultureamp.com">she/her[cultureamp.com</a>])
Fish and Wildlife Biologist
Colorado Ecological Services Field Office
134 Union Blvd
Lakewood CO 80228
303-236-4758
jen williams@fws.gov

## I changed my text format for accessibility purposes. Size 14 with Arial or Verdana fonts are the most legible.

From: Sara Kohles <skohles@co.jefferson.co.us>

Sent: Monday, October 31, 2022 4:27 PM

To: Williams, Jen (she/her) < jennifer williams@fws.gov>

Subject: [EXTERNAL] Rezoning agricultural land in Jefferson County CO - 14320 W 50th Ave Golden CO

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello Jennifer,

My colleague reached out to you earlier this year (correspondence attached). The property in question was denied the original rezoning application and is going to a rehearing in November to allow 10 single family residential lots instead of 12 lots. Is the U.S. Fish and Wildlife response for a rezoning the same as

it was earlier this year? It sounds like you are primarily concerned with actual construction and development, not rezoning.

Just want to double check in case it comes up during the hearing process.

Best,

#### Sara Kohles

Planner

**Jefferson County** 

100 Jefferson County Parkway Suite 3550 Golden, CO 80419 P: 303-271-8734 skohles@jeffco.us



www.jeffco.us/Planning-and-Zoning/ [gcc02.safelinks.protection.outlook.com]

Planning and Zoning is open to the public and appointments are strongly encouraged. Virtual and in-person appointments are available Monday through Thursday. County offices are closed on Fridays. Please schedule <a href="mailto:appointments">appointments</a> [gcc02.safelinks.protection.outlook.com] and submit <a href="mailto:applications">applications</a> [gcc02.safelinks.protection.outlook.com] online. Go to <a href="mailto:planning.jeffco.us">planning.jeffco.us</a> [gcc02.safelinks.protection.outlook.com] for more information.

#### --{EXTERNAL}-- FW: 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

Wendy Weiman < Wendy@ntmwater.org >

Fri 10/21/2022 12:02 PM

To: Sara Kohles <skohles@co.jefferson.co.us>

CAUTION: This email originated from outside Jefferson County Government. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Sara,

There were no water or sewer plans, therefore the District has no comment.

Thank you!

Wendy

Wendy M. Weiman, P.E.

Project Engineer

#### **North Table Mountain Water & Sanitation District**

14806 W. 52nd Avenue Golden, Colorado 80403 Tel (303)279.2854 Ext. 306

Fax (303) 279-2865

Email - wendy@ntmwater.org www.ntmwater.org [ntmwater.org]

**From:** P&Z Admin [mailto:PZAdmin@co.jefferson.co.us]

Sent: Monday, October 17, 2022 10:25 AM

Subject: 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

#### ELECTRONIC REFERRAL

#### JEFFERSON COUNTY, COLORADO

Documents related to a <u>Rezoning</u> rehearing have been submitted to Jefferson County Planning and Zoning. This case is beginning the <u>referral</u> part of the rehearing process, and your agency's comments are requested. Please review the specific electronic documents related to the referral found <u>here</u>. Comments should be submitted <u>via email</u> to the case manager by the due date below.

Case Number: 21-133812RZ Case Name: 14320 W 50<sup>th</sup> Ave

General Location: West 50th Avenue, west of Eldridge Street

Case Type: Rezoning

Purpose: To Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for the future subdivision of

the property into 10 lots for single-family detached units.

Case Manager: Sara Kohles, 303-271-8734, skohles@jeffco.us

Comments Due: October 28, 2022

Additional information related to this case can be viewed <u>here</u>. Some of the links on this page that may be helpful are the links to the case file (public documents), to the Jeffco mapping system (jMap) and to the case tracking



### **P&Z REFERRAL T&E RESPONSE**

| To: Kayla Bryson                 | From: Transportat   | _           | ineering   | Amanda Attempt Result & Attachments:   |
|----------------------------------|---|-------------|------------|--|
| Case #:21-133812 RZ              | <b>Due Date:</b> October<br>14320 W. 50 <sup>th</sup> Ave |             |            | ☐ Comments Sent (no further review)  |
| Case Name, Address, or PIN:      | 14320 W. 50° AVE  | enue        |            | <ul><li>☐ Comments Sent (request re-review)</li><li>☒ No Comment (no further review)</li></ul> |
|                                  |   |             |            | △ No comment (no further review)   |
| Drainage                         |   |             |            |  |
| ☐ T&E is currently working on    | a project in the area                                     | a. See atta | ched info  | ormation.  |
| ☐ No concerns.                   |   |             |            |  |
| ☐ Other Notes:                   |   |             |            |  |
|                                  |   |             |            |  |
|                                  |   |             |            |  |
|                                  |   |             |            |  |
| Right-of-Way / Roadwa            | y Corridor Expa   | insion Pi   | rojects    |  |
|                                  |   |             |            | ☑ Corridor Projects / ROW  |
| ☐ Land owner will need to refu   | •   |             | OW purch   |  |
| ·                                | ·   |             | •          | approved and released for construction.  |
| ☐ Documentation attached         |   |             |            |  |
|                                  |   |             |            | sched with required width / area.  |
|                                  |   | eferred, du | ue to plar | nned construction by the county. Please have   |
| the applicant submit a cost es   | stimate.  |             |            |  |
| No Concerns.                     |   |             |            |  |
| ☑ Other Notes:                   |   | c           |            | (00) (   |
| Right of way dedication may be   | e required at time o                                      | f site deve | lopment    | process. (30' from existing centerline)  |
|                                  |   |             |            |  |
|                                  |   |             |            |  |
| Traffic Operations / Tra         | nsportation Pla   | nning       |            |  |
| Trainic Operations / Trai        | Included in   | Revie       | wed        |  |
|                                  | referral  | No          | Yes        | ☐ Transportation Figure Transportation Engineering   |
| Traffic Study                    |   |             |            |  |
| Signage & Striping Plan          |   |             |            |  |
| Traffic Signal Plans             |   |             |            |  |
| <b>Trails or Sidewalks</b>       |   |             |            |  |
| Street / Road Plans              |   |             |            |  |
| ☑ No Concerns.                   |   | ·           | •          |  |
| ☐ Other Notes:                   |   |             |            |  |
| No concerns. The surrounding     | network can absorb  | the traffic | generat    | ed from 10 SFH. Access locations, parking,   |
| sidewalks, and other specific in | nprovements will be                                       | e evaluated | d at time  | of platting.   |
|                                  |   |             |            |  |
|                                  |   |             |            |  |



**MEMO** 

TO: Sara Kohles

Jefferson County Planning and Zoning Division

FROM: Tracy Volkman

Jefferson County Environmental Health Services Division

**DATE:** October 17, 2022

**SUBJECT:** Case #21-133812 RZ

14320 W 50th Avenue

The applicant has met the public health requirements for the proposed rezone of this property. Jefferson County Public Health's comments remain unchanged.

We still encourage that an active living concept or feature be included in the proposed development. See active living section below.

#### PROPOSAL SUMMARY

Rezone 4.19 acres from Agricultural-1 to Residential-1A to allow 10 single family dwelling units for this proposed development.

#### COMMENTS

Jefferson County Public Health (JCPH) provided comments on July 20, 2021 regarding a preapplication case and on October 13, 2021 regarding the rezoning of this case. We have rereviewed the public health documents submitted by the applicant for this rezone process and have the following comments:

The applicant must submit the following documents or take the following actions prior to a ruling on the proposed rezone of this property. NOTE: Items marked with a "✓" indicate that the document has been submitted or action has been taken. Please read entire document for requirements and information. Please note additional documentation may be required. Failure to provide required documentation may delay the planning process.

REZONING REQUIREMENTS (Public Water & Public Sewer Systems)

| ✓ | Date Re-<br>Reviewed | Required Documentation/Actions   | Refer to Sections |
|---|----------------------|--|-------------------|
| ✓ | 10/17/2022           | Submit a will serve/proof of services letter from the Water and Sanitation District to provide proof of public water and sewer services in accordance with the Jefferson County Zoning Resolution and Land Development Regulation (LDR) Section 21 & 22. | Water/Wastewater  |

| ✓        | Date Re-<br>Reviewed | Required Documentation/Actions  | Refer to Sections                |
|----------|----------------------|---|----------------------------------|
| <b>✓</b> | 10/17/2022           | Submit a notarized Environmental Questionnaire and Disclosure Statement in accordance with the Jefferson County Zoning Resolution and Land Development Regulation (LDR) Section 30. | Environmental Site<br>Assessment |

#### WATER/WASTEWATER (LDR 21 & 22)

The applicant provided a certificate of water/sewer availability signed by the North Table Mountain Water and Sanitation District dated July 14, 2021 stating that public water and sewer service is available to the proposed development.

#### **ENVIRONMENTAL ASSESSMENT (LDR 30)**

JCPH has reviewed the Environmental Questionnaire and Disclosure Statement. The applicant checked "No" on all categories of environmental concern on the cover sheet. From this information, it does not appear that any recognized environmental conditions exist which would negatively impact the property.

#### SENSORY IMPACT ASSESSMENT (LDR 26)

Although not required for the rezone process, JCPH reviewed the Sensory Impact Report dated September 17, 2021. This report complies with requirements set forth in Section 26 of the Jefferson County Land Development Regulation.

#### **ACTIVE LIVING**

JCPH strongly encourages the developer to consider some active living concept such as a central gathering area (gazebo), a community garden or some other built environment component that can foster social connectedness and community interaction. These amenities can promote public health by creating a sense of well-being in the future residents of the proposed development.

JCPH would also strongly encourage the developer to consider how the proposed development is designed in relation to a carefully planned built environment that would encourage physical activity, such as walking, biking and other modes of physical transportation (skateboards, scooters, roller blades, etc) other than just the automobile. This can lead to reduced vehicle miles travelled and can help decrease air pollution. It can also foster and promote positive health behaviors by allowing people to choose an active mode of transportation other than the automobile.

#### **AIR**

Land development activities that are less than 25 contiguous acres and less than 6 months in duration are exempt from permitting and do not need to report air emissions to the Air Pollution Control Division. However, the developer must use sufficient control measures and have a dust control plan in place to minimize any dust emissions during demolition, land clearing and construction activities. This department will investigate any reports of fugitive dust emissions from the project site. If confirmed, a notice of violation will be issued with appropriate enforcement action taken by the State.

Please be advised that a vehicle tracking pad or equivalent should be placed at egress points to prevent off property transport of materials during construction.

#### **RADON**

As of January 2019, to address the health hazard associated with radiation from radon gas, all new residential construction in Jefferson County must have a radon mitigation system installed in accordance with the Land Development Regulation Section 27 and the International Residential Code, Appendix F.

NOTE: These case comments are based solely upon the submitted application package. They are intended to make the applicant aware of regulatory requirements. Failure by Jefferson County Public Health to note any specific item does not relieve the applicant from conforming to all County regulations. Jefferson County Public Health reserves the right to modify these comments, request additional documentation, and or add appropriate additional comments.





#### LONG RANGE REVIEW MEMO

Date: October 23, 2022

To: Sara Kohles, Planner

From: Felicity Selvoski, Planner

Case number: 21-133812RZ - rehearing

Address/AIN: 14320 W 50<sup>th</sup> Ave

Purpose: To rezone 4.19 acres from A-1 to PD, allowing a maximum of 10 dwelling units

#### Applicable Comprehensive Master Plan Sections

| Land Use                                   | Physical<br>Constraints  | Community Reso               | urces Infrastructure,<br>Water & Service | Area Plan            |
|--|--------------------------|------------------------------|--|----------------------|
| All<br>Development                         | General                  | Historic Resource            | <u>Transportatio</u>                     | North Plains         |
| Business and<br>Industry                   | Geologic<br>Hazards      | Visual Resources             | Water and<br>Wastewater                  | Central Plains       |
| Housing                                    | Floodplains              | Air, Light, Odor, a<br>Noise | nd Water Storage                         | South Plains         |
| Mixed-Use                                  | <u>Wildfire</u>          | Open Space                   | Other Utilities                          | North<br>Mountains   |
| Community<br>Uses                          | Radiation                | Recreation and T             | rails Services                           | Central<br>Mountains |
| Livestock                                  | <u>Landfills</u>         | Recreation and Tourism       | Special<br>Districts                     | Evergreen            |
| Renewable &<br>Alternative<br>Energy       | <u>Mines</u>             |                              |  | <u>Indian Hills</u>  |
| Extractive<br>Resources                    | Wildlife &<br>Vegetation |                              |  | Conifer/285          |
| Solid Wastes<br>and Hazardous<br>Materials |                          |                              |  |                      |
| Activity Centers                           |                          |                              |  |                      |
| <u>Site Design</u>                         |                          |                              |  |                      |

#### Key Issues:

• No further issues.

#### Land Use Recommendation

- The property is located in Area 10 of the North Plains Area. This area recommends a density of 2.5 dwelling units per acre.
- The applicant has revised their zoning proposal to be a Planned Development. This Planned Development will restrict the number of homes to 10 which will be a density of 2.38 dwelling units per acre.

#### Land Use

- The Housing section discusses a variety of housing options and also discusses using transitional lot sizes and incorporating setbacks and buffers, with density being able to increase as the quality of site design increases. (CMP p. 24)
  - o The applicant has increased the site design and modified the lot layout to address possible issues with compatibility.



Planning and Zoning 100 Jefferson County Parkway Ste. 3550 Golden, CO 80419 303.271.8700 | jeffco.us pzweb@jeffco.us

#### PLANNING ENGINEERING MEMORANDUM

TO: Kayla Bryson, Case Manager

FROM: Nathan Seymour, Planning Engineering

**DATE**: December 7, 2021

**RE**: 21-133812RZ; Rezoning from A-1 to R-1A at 14320 W. 50<sup>th</sup> Avenue

I have reviewed the application documents and provided the comments below. These comments are based upon the requirements of the Jefferson County Zoning Resolution (ZR), the Transportation Design and Construction Manual (Transportation Manual), the Land Development Regulation (LDR), and the Storm Drainage Design and Technical Criteria (Drainage Criteria).

#### TRANSPORTATION ANALYSIS

1. Transportation Analysis: The proposed Rezoning is anticipated to generate a maximum of 113 daily trips, 9 am peak and 12 PM peak trips based on a total of 12 dwelling units. Planning Engineering has no outstanding concerns or comments based on the intended use and trip generation.

#### PHASE I DRAINAGE REPORT

1. Phase I Drainage Report and Plan: This property is traversed by a major drainageway. The Drainage Report describes conceptual feasibility and design characteristics of the proposed development. Please note that all final design will be required to be reviewed/approved at the time of Preliminary and Final Plat. It is difficult to determine the conceptual feasibility until final design plans and a Phase III drainage report are provided, therefore this conceptual plan is subject to change. At this time, I have one minor comment which is shown on the attached redmark print. Please review and update as needed.

#### **FUTURE REQUIREMENTS**

- 1. <u>Plat:</u> The applicant needs to be aware that prior to building permit and/or lot sale a Plat is required in accordance with the Section 6 of the Land Development Regulation.
  - Access locations, parking, sidewalks, and other specific improvements will be evaluated at time of Preliminary and Final Plat.
  - Phase III Drainage Report
- 2. <u>Land Disturbance Permit:</u> A Land Disturbance Permit will be required for the proposed construction of each individual lot. See Section 16 of the Zoning Resolution to determine whether a Grading Permit or Notice of Intent is applicable.

If you wish to set up a meeting to discuss the above comments, or if you have any questions regarding these comments, please contact me at nseymour@jeffco.us or 303-271-8751.

Sincerely,

Nathan Seymour, Civil Planning Engineer

## ADDRESSING

## **MEMO**

To: Sara Kohles FROм: Christine Derby

SUBJECT: 21-133812RZ 14320 West 50<sup>th</sup> Avenue

DATE: October 20, 2022

Addressing offers the following comments on this proposal:

- 1. The purpose of this Rezoning is to Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for a maximum of 10 single family units.
- 2. Access is off West 50<sup>th</sup> Avenue.
- 3. There is a valid existing address, 14320 West 50<sup>th</sup> Avenue, in the addressing database. This address will not change with this Rezoning but may change with future development.

Please let me know if you have any questions.

## --{EXTERNAL}-- RE: [EXTERNAL EMAIL] 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

Justin Gutierrez <JGutierrez@Summitutilitiesinc.com>

Tue 10/18/2022 8:12 AM

To: Sara Kohles <skohles@co.jefferson.co.us>

CAUTION: This email originated from outside Jefferson County Government. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Sara,

Colorado Natural Gas does not own any facilities or appurtenances in this location and has no objection to the Rezoning of 14320 W 50<sup>th</sup> Ave.

Thanks,

Justin Gutierrez
Engineer II
Summit Utilities, Inc.
jgutierrez@SummitUtilitiesInc.com

Office: (720) 981-2123 [x1187]

From: P&Z Admin <PZAdmin@co.jefferson.co.us> Sent: Monday, October 17, 2022 10:25 AM

Subject: [EXTERNAL EMAIL] 21-133812RZ ELECTRONIC REFERRAL FOR REZONING

#### **ELECTRONIC REFERRAL**

#### JEFFERSON COUNTY, COLORADO

Documents related to a <u>Rezoning</u> rehearing have been submitted to Jefferson County Planning and Zoning. This case is beginning the <u>referral</u> part of the rehearing process, and your agency's comments are requested. Please review the specific electronic documents related to the referral found <u>here</u>. Comments should be submitted <u>via email</u> to the case manager by the due date below.

Case Number: 21-133812RZ Case Name: 14320 W 50<sup>th</sup> Ave

General Location: West 50th Avenue, west of Eldridge Street

Case Type: Rezoning

Purpose: To Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for the future subdivision of

the property into 10 lots for single-family detached units.

Case Manager: Sara Kohles, 303-271-8734, skohles@jeffco.us

Comments Due: October 28, 2022

Additional information related to this case can be viewed <u>here</u>. Some of the links on this page that may be helpful are the links to the case file (<u>public documents</u>), to the Jeffco mapping system (<u>jMap</u>) and to the case tracking system (<u>general application details</u>).

In your comments, please indicate whether an additional referral is needed.

| <u>Jeffco</u> : | External: | HOA: |
|-----------------|-----------|------|
|-----------------|-----------|------|

## NOTIFICATION SUMMARY + PUBLIC / HOA COMMENTS

#### **Notification Summary**



100 Jefferson County Parkway, Suite 3550, Golden, CO 80419 303-271-8700 planning.jeffco.us | pzweb@jeffco.us

| Case Number | 21-133812RZ |
|-------------|-------------|
|-------------|-------------|

As a requirement of the Jefferson County Zoning Resolution, the following Level 1 notification was provided for this proposal.

1. Notification of this proposed development was mailed to property owners within a 500 ft radius of the site and Registered Associations located within a one mile radius of the site.

These radii are shown on the maps below. The initial notification was mailed at the time of the first referral. Additional notification was mailed 14 days prior to the Planning Commission Hearing identifying the scheduled hearings dates for both the Planning Commission and the Board of County Commissioners.

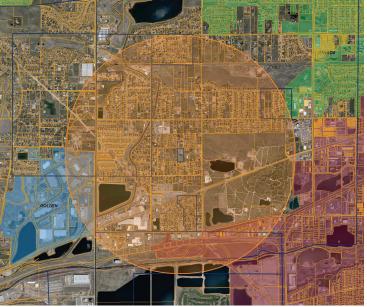
- 2. Sign(s), identifying the dates of the hearings before both the Planning Commission and the Board of County Commissioners, were provided to the applicant for posting on the site. The sign(s) were provided to the applicant with instructions that the site be posted 14 days prior to the Planning Commission Hearing.
- 3. Notification of the hearings before the Planning Commission and the Board of County Commissioners was published in the West Jeffco Hub .

Lists of the specific property owners and registered associations that received notification are attached to this summary.

#### **Property Owners**

#### Registered Associations





### **HOA Report**

#### Jefferson County Colorado Planning and Zonning

Home Owners Associations within 1 miles of 39-183-07-056

**Subject Properties** 

AIN/Parcel ID: 39-183-07-056, PIN/Schedule: 300197189

Owner: **REDWOOD LLC**<u>Property Address</u>

VACANT LAND , , CO

<u>Mailing Address</u>

5040 ACOMA ST , DENVER, CO 80216

#### 11 HOA within 1 miles of subject properties

HOA Name: APPLEWOOD POA, Area: Central Plains, Amanda RSN: 757291

Contact: **BRIAN HANSEN**, Phone Numbers: , **7204704304**, Website:

Board Members: Brian Hansen, , Will Musser, Luann Swim,

Mailing Address:

2750 ELDRIDGE ST, GOLDEN CO 80401

HOA Name: **Brookfield Acres Homeowners Association**, Area: , Amanda RSN: **1002514** Contact: **c/o Paul Pronsati**, Phone Numbers: **7203082604**, **3038864165**, Website:

Board Members: David Call, LeAnne Stauffer, Paul Pronsati, David Call, LeAnne Stauffer

**Mailing Address:** 

15309 W 55th Ave, GOLDEN, CO 80403

HOA Name: CANDLELIGHT VALLEY HOA, Area: N PLAINS, Amanda RSN: 757473

Contact: C/O LAKEWOOD REALTY CO, Phone Numbers: 3032334646, , Website: www.candlelightvalley.org

Board Members: John Stebbins, Sharla Martinez, Brian Fitzler, ,

Mailing Address:

9250 W 5TH AVE, LAKEWOOD CO 80226

HOA Name: EAGLE POINTE HOA, Area: N PLAINS, Amanda RSN: 757426

Contact: C/O MEREDITH THAYER, Phone Numbers: 3039336279, , Website: www.eaglepointhoa.org

Board Members: Richard Peterson, George Smith, Steven Parker, Jack Kingery, David Peak

**Mailing Address:** 

P O BOX 270487, LITTLETON CO 80127

HOA Name: FAIRMOUNT IMPROVEMENT ASSN, Area: N PLAINS, Amanda RSN: 757323

Contact: FLORA A ANDRUS, Phone Numbers: 3032788660, 3033849415, Website: www.fairmontimprovementassociation.org

Board Members: Flora A. Andrus, Lavonne Wise, Mike Hanson, Debra Berg, Bruce Blakeslee, Kay Rowland, Beverly Wood, John Jurbale

Mailing Address:

4790 EASLEY RD, GOLDEN CO 80403

HOA Name: JEFFERSON COUNTY HORSE COUNCIL, Area: ALL AREAS, Amanda RSN: 757337

Contact: , Phone Numbers: 3038174818, , Website: jeffcohorse.com

Board Members: Don McDougal, Barb Suggs, Andrea Raschke, Andrea Raschke, Terry Liekhus

**Mailing Address:** 

,

HOA Name: MARRIOTT ORCHARD HOA, Area: N PLAINS, Amanda RSN: 757478 Contact: CODY CHRISTMAN, Phone Numbers: 7203831968, 3032790991, Website: Board Members: Cody Christman, Bob Huebel 303-279-0991, , Debbie Herblan,

Mailing Address:

15264 W 51ST PLACE, GOLDEN CO 80403

HOA Name: PLAN JEFFCO, Area: , Amanda RSN: 984263

Contact: C/O MICHELLE POOLET, Phone Numbers: 3035261348, 7208394336, Website: www.planjeffco.org

Board Members: John Litz, Peter Morales, Michelle Poolet, Peter Morales, John Litz, Bette Seeland

**Mailing Address:** 

24396 CODY PARK ROAD, GOLDEN, CO 80401

HOA Name: **ROLLING HILLS EAST HOA**, Area: **N PLAINS**, Amanda RSN: **757470** Contact: **C/O JAMES A SCOTT**, Phone Numbers: **3039813010**, **3032151030**, Website:

Board Members: Evan Noyes, , James A Scott, James A Scott,

**Mailing Address:** 

2941 KENDRICK ST, GOLDEN CO 80401

HOA Name: **SAVE THE MESAS INC**, Area: **N PLAINS**, Amanda RSN: **757475** Contact: **c/o Edee Gail**, Phone Numbers: **3032794549**, **3032794549**, Website:

Board Members: Don Parker, Edee Gail, Don Parker, Anne Hedberg, Mary Parker, Marjie Harbrect

**Mailing Address:** 

305 LOOKOUT VIEW DR, GOLDEN CO 80401

HOA Name: THE ORCHARD HOA, Area: N PLAINS, Amanda RSN: 757441

Contact: , Phone Numbers: 3033253020, 3038152502, Website: www.orchardhoa.org
Board Members: Justice Keller, Leslie Rutherford, William Brown, William Brown, Tim Raub

Mailing Address:

14170 W 44TH PL, GOLDEN CO 80403

REDWOOD LLC 5040 ACOMA ST DENVER, CO 80216 NOLTING HOLLY L A 14185 W 50TH PL GOLDEN, CO 80403 BORDEN AMBER L 14205 W 50TH PL GOLDEN, CO 80403

SCHMUCKER ERIC B

14295 W 50TH PL GOLDEN, CO 80403 **HALLIGAN ROBERT WAYNE Jr** 

5025 FIG ST GOLDEN, CO 80403 **BLACK GREGORY JAMES** 

14280 W 50TH PL GOLDEN, CO 80403

WEIMAN KEVIN

5020 FLORA ST GOLDEN, CO 80403 **CATHCART DAVID SCOTT** 

14195 W 50TH AVE GOLDEN, CO 80403 **HENRY MATTHEW ALLEN** 

14185 W 50TH AVE GOLDEN, CO 80403

**BUZZ TRUST** 

14175 W 50TH AVE GOLDEN, CO 80403 **CHEVAIRE JOHN W** 

5030 FIG ST GOLDEN, CO 80403 **MAXHEIMER HELGA** 

14150 W 50TH PL GOLDEN, CO 80403

JOHNSTON RICKY LEE

17159 W 57TH PLAC GOLDEN, CO 80403 **CORBIN CHARLES** 

4230 EASLEY RD GOLDEN, CO 80403 RAJCHEL SYDNEY

12803 W 84TH PL ARVADA, CO 80005

MARRANZINO MICHAEL A

5061 FLORA ST GOLDEN, CO 80403 TERMENTOZZI TAMMY L

14275 W 50TH AVE GOLDEN, CO 80403

**ERIN K WADE LIVING TRUST** 

5055 GLADIOLA WAY GOLDEN, CO 80403

**CLIDENCE JEFF** 

5065 GLADIOLA WAY GOLDEN, CO 80403 **HAASE SUSAN** 

5094 GLADIOLA WAY GOLDEN, CO 80403 SORENSEN DANIEL R

5084 GLADIOLA WAY GOLDEN, CO 80403

**REES MEGAN D** 

5074 GLADIOLA WAY GOLDEN, CO 80403 **CLENDINNING BRENT R** 

5064 GLADIOLA WAY GOLDEN, CO 80403 MARINO VALMARIE

5054 GLADIOLA WAY GOLDEN, CO 80403

MARY ANN MARK FAMILY TRUST

5018 GLADIOLA WAY GOLDEN, CO 80403 PHILLIPSON BARBARA J

5014 GLADIOLA WAY GOLDEN, CO 80403 BASHFORD GORDON V

5008 GLADIOLA WAY GOLDEN, CO 80403

**CHRISTIE SMITH BIBEAU TRUST** 

5004 GLADIOLA WAY GOLDEN, CO 80403 **COTTAGES ON FAIRMOUNT LANE HOA** 

283 COLUMBINE ST 166 DENVER, CO 80206 **DUNN JERRY L** 14550 W 50TH AVE GOLDEN, CO 80403 **KUETTEL TED** 4820 HOLMAN ST GOLDEN, CO 80403 TRUDI KUETTEL LIVING TRUST 14515 W 48TH AVE GOLDEN, CO 80403 BOYLE CHARLINE D 14475 W 48TH AVE GOLDEN, CO 80403

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MILLER FAMILY TRUST 14425 W 48TH AVE GOLDEN, CO 80403

MILLER FAMILY TRUST 14425 W 48TH AVE GOLDEN, CO 80403 HILL PETER C 14450 W 50TH AVE GOLDEN, CO 80401 MICHAL DONALD H 4853 FLORA CT GOLDEN, CO 80403

PETTY JEFFREY L 4883 FLORA CT GOLDEN, CO 80403 MILLSAPPS SCOTT 4882 FLORA CT GOLDEN, CO 80403 COX PAUL B 4852 FLORA CT GOLDEN, CO 80403

SCHARF KYLE 4835 ELLIS ST GOLDEN, CO 80403 STROUP CLARA M 4845 ELLIS ST GOLDEN, CO 80403 4875 ELLIS ST GOLDEN, CO 80403

BURR CYDNEY DANIELLE 4905 ELLIS ST GOLDEN, CO 80403 CHARLES & PEGGY MILLIGAN 2014 REVOCABLE 14300 W 50TH AVE GOLDEN, CO 80403 **KENNEDY JOHN T** 14290 W 50TH AVE GOLDEN, CO 80403

MOSLEY JERRY L 14256 W 50TH AVE GOLDEN, CO 80403 LITTLE JAMES NATHAN 9167 WINTERCOVE COMMERCE TOWNSHIP, MI 48382 FARQUHAR DAWN R 14050 W 50TH AVE ARVADA, CO 80004

LOUIS VIGIL SUBDIVISION FILING NO 2 HOMEO

4860 FLORA ST GOLDEN, CO 80403 LOUIS VIGIL SUBDIVISION FILING NO 2 HOMEO 4860 FLORA ST GOLDEN, CO 80403 PETERS JASON 14332 W 48TH PL GOLDEN, CO 80403

#### **ROBINSON MATTHEW PHILLIP**

14362 W 48TH PLAC GOLDEN, CO 80403

#### HAMM DAVID TODD

14382 W 48TH PLAC GOLDEN, CO 80403

#### **REIMANIS FAMILY TRUST**

14383 W 48TH PL GOLDEN, CO 80403

#### **HENDERSON GARY L**

14373 W 48TH PL GOLDEN, CO 80403

#### **ELLEN ROLLINS REVOCABLE TRUST**

14363 W 48TH PL GOLDEN, CO 80403

#### **KELLER JAMES LAWSON**

14333 W 48TH PLAC GOLDEN, CO 80403

#### JEFFERSON COUNTY

100 JEFFERSON COUNTY PKWY GOLDEN, CO 80419

#### **WATERS GREGORY**

4820 FLORA ST GOLDEN, CO 80403

#### SHARP JOHN R

4840 FLORA ST GOLDEN, CO 80403

#### KRUMHOLZ RICHARD A

4860 FLORA ST GOLDEN, CO 80403

#### SHELTON ROSS KENDRICK

4880 FLORA ST GOLDEN, CO 80403

# **CURRENT ZONING**

#### **Section 33 - Agricultural District**

(orig. 3-26-13)

#### A. Intent and Purpose

- 1. The Agricultural Zone Districts are intended to provide for limited farming, ranching and agriculturally related uses while protecting the surrounding land from any harmful effects. (orig.3-26-13)
- 2. Contained in this section are the allowed land uses, building and lot standards (including minimum setbacks) and other general requirements for each specific agricultural zone district. (orig.3-26-13)
- 3. The Agricultural Zone Districts are divided as follows: (orig.3-26-13)
  - a. Agricultural-One (A-1)
  - b. Agricultural-Two (A-2)
  - c. Agricultural-Thirty-Five (A-35)
- 4. A revision in March, 1972, increased the minimum land area for the Agricultural-One district to 5 acres. (orig.3-26-13)
- 5. A revision in March, 1972, increased the minimum land area for the Agricultural-Two district to 10 acres. (orig.3-26-13)

#### **B. Permitted Uses** (orig. 3-26-13; am. 7-17-18)

| Uses  | A-1 | A-2 | A-35 |
|---|-----|-----|------|
| Single Family Dwelling, Barn, Stable, Silo, Corral, Pens, and Runs.   | X   | Х   | Х    |
| General Farming, including grains, fruit, vegetables, grasses, hay, livestock raising, and the keeping and boarding of horses. See general requirements below.  | Х   | Х   | X    |
| Poultry hatcheries and farms, fish hatcheries and dairy farms.  | Х   | Х   | Х    |
| Greenhouse and nursery, including both wholesale and retail, provided products sold are raised on the premises.   | Х   | Х   | X    |
| Forestry farming, including the raising of trees for any purpose.   | Х   | Х   | Х    |
| Fur farm and raising of rabbits, chinchillas and other similar animals.   | Х   | Х   | Х    |
| Public Park, Class I public recreation facilities, Class II public recreation facilities are permitted only if the site is in compliance with the current minimum lot size requirement.   | Х   | Х   | Х    |
| Veterinary hospital   | Х   | Х   | Х    |
| Cemetery, mausoleum, mortuary and related uses.   | Х   | Х   | Х    |
| Beekeeping operations   | Х   | Х   | Х    |
| Oil and gas drilling and production subject to the Drilling and Production of Oil and Gas Section of this Zoning Resolution, except where located within a subdivision platted and recorded in the records of the Clerk and Recorder. | Х   | Х   | ×    |
| Telecommunications Land Uses shall comply with the provisions of the Telecommunications Uses Section of this Zoning Resolution.   | Х   | Х   | X    |
| Energy Conversion Systems (ECS) land uses shall comply with the provisions of the Alternative Energy Resources Section of the Zoning Resolution.  | Х   | Х   | Х    |
| Water supply reservoir and irrigation canal   | Х   | Х   | Х    |

#### **C.** Accessory Uses (orig. 3-26-13; am. 7-17-18)

| Uses  | A-1 | A-2 | A-35 |
|---|-----|-----|------|
| Accessory structures including private garage, and storage sheds  | X   | X   | X    |
| Roadside stand for operation during not more than 6 months in each year for the sale of farm products raised or produced on the premises, provided such stands are located no less than 30 feet distance from any street, highway, or right-of-way line.  | Х   | Х   | х    |
| Private building and kennels for housing dogs, cats or similar domestic pets. On legal non-conforming lots or parcels smaller than the minimum lot size, the maximum total number of dogs, cats and similar domesticated pets which may be kept shall be 3. Litters of puppies or kittens may be kept until weaned. | X   | X   | Х    |
| Temporary storage of defensible space equipment and debris associated fuel break and forest management thinning in accordance with defensible space, fuel break and forest management programs as specified in this Zoning Resolution and Land Development Regulation.  | х   | Х   | Х    |
| Home Occupations provided the requirements and conditions of the Board of Adjustment or the Home Occupations Section of this Zoning Resolution are met.   | Х   | Х   | Х    |
| Accessory uses per the Accessory Use Section of the Zoning Resolution.  | Х   | Х   | X    |

#### **D. Special Uses** (orig. 3-26-13; am. 7-17-18)

| Uses   | A-1 | A-2 | A-35 |
|--|-----|-----|------|
| Sewage treatment plant   | Χ   | Х   | Х    |
| Religious Assemblies and related uses, rectory, parish house and schools.  | Х   | Х   | Х    |
| Radio, television and microwave transmission and relay towers and equipment; meteorological data collection towers and equipment; low power, micro-cell and repeater telecommunications facilities, including antenna and towers.  | Х   | Х   | х    |
| Cable television reception station   | X   | X   | X    |
| A group living facility, other than homes for social rehabilitation, or a home where up to 6 unrelated individuals are living together, that is occupied by more than one registered sex offender.   | Х   | Х   | X    |
| Group, foster or communal home, residential treatment center, community residential home, home for social rehabilitation, assisted living residence, personal case boarding home, specialized group facility, receiving home for more than 4 foster home residents, residential child care facility or shelter from domestic violence, licensed or certified by state if applicable, in which 7 or more residents who are not legally related live and cook together as a single housekeeper unit not located within 750 ft of another similar type home or shelter. | X   | X   | X    |
| State licensed daycare center or preschool or nursery.   | Х   | Х   | Х    |
| Arborist or tree service   | Χ   | Χ   | Х    |
| Natural resource transportation and conveyance systems   | Χ   | Х   | Х    |
| Public Kennel or cattery   | Χ   | Х   | Х    |
| Public riding academy or stable  | Х   | Х   | Х    |
| Camps, campgrounds, picnic grounds, and lodges or other similar facilities. Specific conditions and limitations for use, including maximum periods of visitor occupancy and types or maximum numbers of occupied vehicles or sites, will be established as terms of the Special Use approval.  | X   | X   | Х    |
| Oil and gas drilling and production, where located within a subdivision platted and recorded in the records of the Clerk and Recorder. Such operations shall conform to the standards contained in the Drilling and Production of Oil and Gas Section of the Zoning Resolution, except as modified in the resolution approving the Special Use.  | Х   | Х   | Х    |
| Class I, II, III Commercial Recreational Facilities. Class II public recreational facilities on sites which do not meet the current minimum lot size requirement. Class III public recreational facilities.  | Х   | Х   | Х    |

| Uses   | A-1 | A-2 | A-35 |
|--|-----|-----|------|
| Limited sawmill operation use in support of defensible space, associated, fuel break, forest insect and disease control, and forest management programs as required under the Zoning Resolution and Land Development Regulations.                            | Х   | X   | X    |
| Trap, skeet or rifle range   |     | Х   | Х    |
| Recycling transfer station, Type I or Type II: the facility shall only accept trees and slash generated from local efforts associated with regulatory/ voluntary defensible space, fuel break and forest management plans, and Pine Beetle control programs. |     | X   | х    |
| Dangerous and wild animal ranching, training, sales and exhibition provided that the property is 10 acres or greater and such use is in compliance with the General Provisions and Regulations Section of this Zoning Resolution.                            |     | Х   | X    |

#### E. Lot and Building Standards (orig. 3-26-13; am. 7-17-18)

|                             |                                  |                        | Front Setback  |
|-----------------------------|----------------------------------|------------------------|--|
| Districts                   |                                  | Structure/All<br>rages | All Other Accessory Structures   |
| A-1, <mark>A-2,</mark> A-35 | 50 ft.                           |                        | Livestock – 75 ft.<br>Pens/Runs/Structures¹ – 100 ft.<br>All Other Accessory Building – 50 ft. |
|                             |                                  |                        | Side Setback   |
|                             | Primary Structure/All<br>Garages |                        | All Other Accessory Structures   |
|                             | Side                             | Side to Street         |  |
| A-1, <mark>A-2,</mark> A-35 | , <b>A-2, A-35</b> 30 ft. 50 ft. |                        | Livestock – 75 ft.<br>Pens/Runs/Structures¹ – 100 ft.<br>All Other Accessory Building – 50 ft. |
|                             |                                  |                        | Rear Setback   |
|                             | Primary Structure/All<br>Garages |                        | All Other Accessory Structures   |
| A-1, <mark>A-2,</mark> A-35 | 5                                | 0 ft.                  | 50 ft.   |

<sup>&</sup>lt;sup>1</sup> Applied to all pens, runs, and structures utilized for fur farms, poultry farms, kennels and catteries.

| Districts | Building Height | Lot Size (see a & b below) |
|-----------|-----------------|----------------------------|
| A-1       | 35 ft.          | 5 Acre (217,800 s.f.)      |
| A-2       | 35 ft.          | 10 Acre (435,600 s.f.)     |
| A-35      | 35 ft.          | 35 Acre (1,524,600 s.f.)   |

#### 1. Lot Standards

- a. The minimum lot area for any use permitted in this district shall be the lot size stated above unless the lot falls within the provisions set forth in the Non-Conforming Lot Size provision below. (orig.3-26-13; am. 7-17-18)
- b. The minimum lot area for a lot developed through the rural cluster process shall be as set forth in the Land Development Regulation. (orig.3-26-13)

#### F. Fences

- 1. Maximum Fence Height: 7 feet. (orig.3-26-13)
- 2. Fences over 42 inches in height are allowed within the front setback. (orig. 7-17-18)

- 3. Electric fences are permitted provided the electrical fence device is in compliance with Colorado State Department of Agriculture specifications. No electric fence is allowed as boundary or perimeter fence on lot lines abutting residential zone districts. (orig.3-26-13)
- 4. On adjacent lots where allowed fence heights differ, the lower height restriction shall govern. (orig.3-26-13)

#### G. General Requirements

- 1. Corner lots must comply with the vision clearance triangle requirements as specified in the Definitions Section of this Zoning Resolution. (orig.3-26-13)
- 2. No structure may be erected placed upon or extend over any easement unless approved in writing by the agency or agencies having jurisdiction over such easement. (orig.3-26-13)

#### H. Animals

- 1. Manure shall not be allowed to accumulate so as to cause a hazard to the health, safety or welfare of humans and/or animals. The outside storage of manure in piles shall not be permitted within 100 feet of the front lot line and 50 feet of the side and rear lot lines. (orig.3-26-13)
- 2. Stallions shall be kept in a pen, corral or run area enclosed by a 6 foot chain link fence, or material equal or greater in strength, except when it is necessary to remove them for training, breeding or other similar purposes. (orig.3-26-13)
- 3. On legal non-conforming lots or parcels smaller than the minimum lot size, the following is the density per acre limitation for horses, mules, donkeys, sheep, cattle, goats, swine, buffalo, and other large domesticated animals: (orig.3-26-13; am. 7-17-18)
  - a. The minimum square footage of open lot area, available to animals, shall be 9,000 square feet for the first animal and 6,000 square feet for each additional animal. The total number of such animals that may be kept shall not exceed 4 per 1 acre. (orig.3-26-13; am. 7-17-18)
  - b. Offspring of animals on the property may be kept until weaned. (orig.3-26-13)

#### I. Non-conforming Lot Size

- 1. Planning and Zoning shall only permit the use of any unplatted Agricultural-One, Agricultural-Two, or Agricultural-Thirty-Five zoned tract or parcel that is less than 5 acres, 10 acres, or 35 acres respectively, provided that all of the following provisions are met. (orig. 9-6-77; am. 11-6-79; am. 6-16-80; am. 7-2-97; am. 12-17-02; am. 3-3-15; reloc. & am. 7-17-18)
  - a. The parcel, tract or lot existed in its current configuration prior to March 6, 1972. (orig. 9-6-77; am. 6-16-80; reloc. & am. 7-17-18)
  - b. The property is 1 acre in size or greater. (orig. 6-16-80; reloc. 7-17-18)
  - Use of the property shall conform with current use regulations in effect for the respective Agricultural-One, Agricultural-Two, and Agricultural-Thirty-Five Zone Districts. (orig. 9-6-77; am. 7-2-97; reloc. & am. 7-17-18)
  - d. Any new construction or structural alteration shall conform with current setback and height regulations in effect for the respective Agricultural-One, Agricultural-Two, and Agricultural-Thirty-Five Zone Districts. (orig. 9-6-77; am. 7-2-97; reloc. 7-17-18)
  - e. Requirements of Public Health for water and sanitation shall be complied with prior to the Building Permit being issued. (orig. 9-6-77; am. 12-17-02; am. 4-20-10; reloc. 7-17-18)

- 2. Planning and Zoning shall only permit the use of any Agricultural-One, Agricultural-Two, or Agricultural-Thirty-Five zoned lot which was platted without County approval provided that the provisions of paragraphs I.1.a through I.1.e above, are complied with. (orig. 6-16-80; am. 7-2-97; am. 12-17-02; am. 3-26-13; am. 3-3-15; reloc. & am. 7-17-18)
- 3. Planning and Zoning shall only permit the use of any Agricultural-One, Agricultural-Two, or Agricultural-Thirty-Five zoned lot which was platted with County approval prior to time said lot was zoned, provided that the provisions of paragraphs I.1.b. through I.1.e. above, are complied with. (orig. 6-16-80; am. 7-2-97; am. 12-17-02; am 3-26-13; am. 3-3-15; reloc. & am. 7-17-18)
- 4. Planning and Zoning shall only permit the use of any zoned lot which was platted with County approval subsequent to the date it was zoned provided that the provisions of paragraphs I.1.c. through I.1.e. above, are complied with. (orig. 6-16-80; am. 7-2-97; am. 12-17-02; am 3-26-13; am. 3-3-15; reloc. & am. 7-17-18)

## ADDITIONAL CASE DOCUMENTS

Commissioner Kraft-Tharp moved that the following Resolution be adopted:

#### BEFORE THE BOARD OF COUNTY COMMISSIONERS

#### OF THE COUNTY OF JEFFERSON

#### STATE OF COLORADO

#### RESOLUTION NO. CC22-207

RE: Development and Transportation - Planning and Zoning - Petition for Rehearing of Rezoning Case #21-133812RZ, 14320 W 50th Avenue

WHEREAS, on February 22, 2022, the Board denied Rezoning Case No. 21-133812RZ (14320 W 50th Avenue Official Development Plan); and

WHEREAS, the denied application sought to rezone the subject property from Agricultural-Two (A-2) to Planned Development (PD) to allow a maximum of 12 lots for single-family detached dwelling units at a density of 2.86 dwelling units/acre, where 2.5 dwelling units/acre is recommended by the Comprehensive Master Plan (CMP);

WHEREAS, pursuant to Section 6.C.15 of the Zoning Resolution, upon denial of a Rezoning application, the applicant may petition the Board within 1 year of the Board's decision, requesting a rehearing of its application if there is a substantial change. The Board of County Commissioners, at its sole discretion, may grant a petition for rehearing where it determines that a substantial change is being proposed that could significantly affect one or more of the reasons for denial of the original case; and

WHEREAS, On April 21, 2022, the Applicant petitioned the Board for a rehearing of its application to rezone the subject property from A-2 to PD to allow a maximum of 10 lots for single-family detached dwelling units at a density of 2.5 dwelling units/acre, in accordance with the density recommendation in the CMP; and

WHEREAS, the Applicant proposes a change to the application that could significantly affect one or more of the reasons for denial of the original case. NOW, THEREFORE, BE IT RESOLVED that the Board GRANTS the Applicant's petition for rehearing re Case No. 21-133812RZ. August 9, 2022

BE IT FURTHER RESOLVED that the Board directs Planning and Zoning staff to determine any referrals that will be needed to allow the appropriate review of the proposed changes, to set the dates and time for the hearings on the amended application before the Planning Commission and Board of County Commissioners, and to provide public notice of the hearings as set forth in the Zoning Resolution for Rezoning cases.

Commissioner Dahlkemper seconded the adoption of the foregoing Resolution. The roll having been called, the vote was as follows:

Commissioner Tracy Kraft-Tharp Aye
Commissioner Lesley Dahlkemper Aye
Commissioner Andy Kerr, Chairman Aye

The Resolution was adopted by unanimous vote of the Board of County Commissioners of the County of Jefferson, State of Colorado.

Dated: August 9, 2022

#### Michael J. Chadwick, AICP

303-807-1197 mike@chadwickplanning.com 8220 Holland Court Arvada, CO 80005

#### Chadwick Land Use Entitlements Co.

April 21, 2022

To: Russell Clark Planning Manager

RE: 21-133812RZ, 14320 W. 50<sup>th</sup> Ave.

#### Dear Russell,

On behalf of my client, Redwood LLC, we would like to formally request a rehearing of this case that was denied by the Board of County Commissioners on February 22, 2022, based on a substantial change to the request. As you will remember, our request was to allow 12 DU's on 4.19 acres following the R1-A zone district criteria. The density for this request was 2.86 DU's/ acre where the Comprehensive Master Plan recommended 2.5 DU's. The case was heard by the Planning Commission on January 26, 2002, where we received recommendation for approval to the BCC.

The Planning Staff report detailed that we met all the criteria for the rezoning even though we were requesting a 0.36 increase in density in that request, and recommended approval of the request. However, during the BCC hearing there were concerns brought up concerning the density, drainage on the site and more particularly flooding of adjacent properties, wildlife concerns, and compatibility with the surrounding community.

After the denial in the BCC hearing, we have regrouped and have reduced the number of DU's to 10 on this 4.19-acre parcel which will result in a density of 2.386 DU's/acre, well within the CMP's recommendations, and have made further adjustments to the site plan and have considered the other concerns which lead to the denial of the request.

One of the largest issues raised by adjacent neighbors was the amount of surface and groundwater present, and issues that this has caused on neighboring properties. Redwood LLC has been working with the Olivet Cemetery staff to repair a 15" irrigation pipe that conveys flows from further to the west, through the subject property, and into the ponds on the cemetery grounds. The repair of this pipe has caused a drastic increase in volume in water reaching the cemetery ponds and has resulted in the southernmost area of this parcel and surrounding properties to dry out.

Additionally, we have reviewed the issue of the wildlife corridors and site layout to provide a product that is more compatible with the surrounding properties. The site is bisected by an irrigation ditch that runs west to east across the property. As part of the planning for onsite detention and wildlife use of the irrigation ditch area, we are proposing a 30-foot-wide easement along the irrigation ditch that will tie into areas on the north, south, and east sides of the project to provide for drainage facilities, and wildlife corridors.

The proposed site layout has been altered with the reduction of the 2 DU's. This will alleviate concerns from the adjacent property owner directly south of the property as they were concerned that headlights from vehicles traveling south on the proposed street would shine directly into their home. The adjusted layout will propose a home at the direct southern end of this road which will buffer the lights from shining directly into this home.

In terms of increased compatibility, the proposed lots north of the irrigation ditch will be closer to the R1-A zone district of 9,000 square feet to match those properties on the northeast corner of the subject parcel, and the lots south of the irrigation ditch will be larger to match the lot sizes more closely in the Louis Vigil subdivision adjacent to the southern border of the property. Lastly, the area along the east side of the property that is set aside for drainage facilities will also create a buffer to the agriculturally zoned property to the east.

We have thoughtfully listened to the concerns that were raised in hearing, and I believe we have successfully amended our request to provide a substantial change from what was originally proposed. Therefore, we humbly request that Staff recommend to the BCC to approve a rehearing for the rezoning proposed on this property.

Sincerely,

Michael J. Chadwick Michael J. Chadwick, AICP

President

Chadwick Land Use Entitlements Co.

#### Commissioner Dahlkemper moved that the following Resolution be adopted:

#### BEFORE THE BOARD OF COUNTY COMMISSIONERS

#### OF THE COUNTY OF JEFFERSON

#### STATE OF COLORADO

#### RESOLUTION NO. CC22-041

| Case Number:     | 21-133812RZ   |
|------------------|---|
| Owner/Applicant: | Redwood, LLC, a Colorado limited liability company  |
| Location:        | 14320 W 50th Avenue<br>Section 18, Township 3 South, Range<br>69 West   |
| From:            | Agricultural-Two (A-2)  |
| To:              | Planned Development (PD)  |
| Purpose:         | To Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for the future subdivision of the property into 12 lots for single-family detached units |
| Today's Action:  | Deny  |

WHEREAS, Redwood, LLC, a Colorado limited liability company filed an application with the Planning and Zoning Division of Jefferson County to Rezone from Agricultural-Two (A-2) to Planned Development (PD) to allow for the future subdivision of the subject property into 12 lots for single-family detached units; and

4.19 Acres

Approximate Area:

WHEREAS, a public hearing was held by the Jefferson County Planning Commission on January 26, 2022, at which time the Planning Commission by formal resolution recommended approval; and

WHEREAS, after notice as provided by law, a public hearing was held by this Board on February 22, 2022; and

WHEREAS, based on the study of the Comprehensive Master Plan and the Zoning Resolution, recommendations of the Jefferson County Planning Commission, recommendations of the Jefferson County Planning and Zoning Division, comments of public officials and agencies, and testimony and written comments from all interested parties, this Board finds as follows:

- 1. That proper posting, publication and public notice were provided as required by law for the hearings before the Planning Commission and the Board of County Commissioners of Jefferson County and the Planning and Zoning case file is hereby incorporated into the record.
- 2. That the hearings before the Planning Commission and the Board of County Commissioners were extensive and complete, that all pertinent facts, matters and issues were submitted and that all interested parties were heard at those hearings.
- 3. The proposed single-family detached residential land use is not compatible with the existing and allowable agricultural land uses in the surrounding area.
- 4. The proposal is not in general conformance with the Comprehensive Master Plan (Plan). The proposal provides for residential land uses, as recommended in the Plan, but at higher density than recommended. The applicant has not satisfactorily addressed the three criteria for proposals out of conformance with the Plan because the impacts associated with the proposed land use have not been addressed and the proposed development is not consistent with the community character.
- 5. The applicant has not mitigated the negative impacts of the proposed land use upon the surrounding area. The ODP does not set forth adequate measures to minimize the impact of the increased density on the surrounding area, including impacts to wildlife, and agricultural uses.
- 6. The proposed land use will result in impacts to the health, safety, and welfare of the residents and landowners in the surrounding area.
- 7. The proposed land use is not consistent with the purpose statement in the Zoning Resolution and state law.

- 8. That each of the factors set forth above is adequate independently to support this resolution.
- 9. The subject property is served by the Fairmount Fire Protection District and the North Table Mountain Water and Sanitation District. Law enforcement services are provided by the Jefferson County Sheriff's Office. Existing infrastructure and services are available to serve the proposed land use.
- 10. No known commercial mineral deposits exist on the subject property.

NOW, THEREFORE, BE IT RESOLVED that Rezoning Case No. 21-133812RZ to rezone from Agricultural-Two (A-2) to Planned Development (PD) the following described unincorporated area of Jefferson County, attached hereto as Exhibit A and incorporated herein, be and hereby is DENIED.

Commissioner Kerr seconded the adoption of the foregoing Resolution. The roll having been called, the vote was as follows:

| Commissioner Lesley Dahlkemper     | Aye |
|------------------------------------|-----|
| Commissioner Tracy Kraft-Tharp     | Nay |
| Commissioner Andrew Kerr, Chairman | Aye |

The Resolution was adopted by majority vote of the Board of County Commissioners of the County of Jefferson, State of Colorado.

I, Julia Sorensen, Deputy Clerk to the Board of County Commissioners do hereby certify that the foregoing is a true copy of a Resolution duly adopted by the Board of County Commissioners at a regular hearing held in Jefferson County, Colorado on February 22, 2022.

Deputy Clerk to the Board

#### **EXHIBIT A**

Case No. <u>21-133812RZ</u>

Legal Description

| Street Location of Property_ 14320 West 50 <sup>th</sup> Avenue Is there an existing structure at this address?  Type the legal description and address below. | Yes <u>X</u> No |
|--|-----------------|
| Lot or Plot 20,<br>Wheat Ridge Gardens,<br>County of Jefferson,<br>State of Colorado   |                 |
| Containing 4.19 Acres, more or less  |                 |
|  |                 |

Section 18 Township 3 S. Range 69 W. Calculated Acreage 4.19 Acres Checked by: Ben Hasten Address Assigned (or verified) 14320 West 50<sup>th</sup> Avenue





June 24, 2021

FFPD-FP-012-21

David Theisen, dtheisen22@hotmail.com 303-921-8285

Re: Will Serve

14320 W 50<sup>th</sup> Ave Golden, CO 80403

#### To whom it may concern:

The property identified above is protected by the Fairmount Fire Protection District (FFPD). Fire Protection Services will be provided if minimum requirements of the International Fire Code, 2018 edition, including adopted amendments, are met.

Permits from the Fairmount Fire Protection District are required for private roads and driveway(s), core and shell, tenant improvements, all installation and maintenance of automatic fire detection and fire suppression systems, solar photovoltaic systems, radio amplification, underground fire line and the storage of hazardous materials.

FFPD reserves the right to provide additional comments/requirements if any needed plans are submitted and reviewed per applicable codes and amendments.

If you need additional information or have questions or concerns, please contact myself at the Fairmount Fire and Life Safety Division via the contact numbers found in this letter.

Respectfully yours,

Buy He --

Brycen Hammer, Fire Inspector Fairmount Fire Protection District bhammer@fairmountfire.org

cc: file







#### **CERTIFICATION OF WATER AND SEWER AVAILABILITY**

July 14, 2021

Jefferson County Planning Department Foothills Office Park 100 Jefferson County Parkway, Suite 3550 Golden, CO 80419-3550

RE: 14350 W 50<sup>th</sup> Avenue, Jefferson County

Jefferson County:

Pursuant to paragraph 5.4 of the Rules and Regulations, North Table Mountain Water and Sanitation District has reviewed the above referenced rezoning application and finds that the property which is the subject of said application is within the boundaries of the District, water and sewer service is available, and the referenced property is therefore eligible for such service, subject to the following:

- Water service is available within the District and the developer must provide all facilities required to serve the development. No specific quantity or pressure is guaranteed.
- 2. No water or sewer service will be considered until the developer submits detailed plans for water and sewer construction to serve the development and such plans shall be approved by the District Engineer.
- 3. Sewer service is available within the District to serve the development. No specific capacity or location guaranteed.
- 4. No specific fire flow is guaranteed.
- 5. Agreement on the part of the applicant to comply with all rules, regulations and engineering requirements of the District, in effect at the time the District approves the tap application. In the interest of water conservation, District may enact rules and regulations governing the installation and use of landscaping on the property described.

- 6. Payment of all fees and charges levied, assessed, or collected by the District, in effect at the time the District approves the tap application.
- 7. Expires 2 (two) years from the date the Certificate is issued.

As of the date of this letter, there are no limitations on issuance of water or sewer taps, however, by reasons of drought conditions, District does not and can not guarantee issuance of water taps which may be applied for in the future.

This letter has been reviewed with the Board of Directors and represents the District's position in this matter.

Sincerely,

Bart Sperry, P.E.

District Manager/Engineer

LANTZ ASSOCIATES, LLC 13335 W 72nd Cir Arvada, Co 80005 303-887-3714 303-423-4949 fax FredLantz@comcast.net

September 14, 2021

Mike Disberger Redwood LLC 5040 Acoma St Denver, CO 80216

RE: 14320 W 50th Ave

Dear Mike,

This is a Trip Generation report for your proposed residential development at 14320 W 50th Ave in Jefferson County, CO. This is between Eldridge St and Indiana St on the south side of 50th Ave. The site is shown below in Figure 1.



Figure 1 – Site Location

The proposed development consists of a maximum of 12 single-family homes. To estimate the number of trips that the proposed development will generate, the ITE *Trip Generation Manual*, 10<sup>th</sup> *Edition* will be used. The following tables show the Trip Generation Rates and the Number of Trips that will be generated.

|      |                        |             | Trip Generation Rates |       |           |       |       |          |       |
|------|------------------------|-------------|-----------------------|-------|-----------|-------|-------|----------|-------|
| ITE  | Landillaa              | Lloit Doile |                       | AN    | ∕l Peak H | our   | PIV   | l Peak H | our   |
| Code | Land Use               | Unit        | Daily                 | Enter | Exit      | Total | Enter | Exit     | Total |
| 210  | Single-Family Detached | DU          | 9.44                  | 0.185 | 0.555     | 0.74  | 0.62  | 0.37     | 0.99  |

|      |                        |            |       |       | Gene     | erated Tri | ps    |          |       |
|------|------------------------|------------|-------|-------|----------|------------|-------|----------|-------|
| ITE  | Londillon              | Ci-o Doilu |       | AN    | 1 Peak H | our        | PN    | 1 Peak H | our   |
| Code | Land Use               | Size       | Daily | Enter | Exit     | Total      | Enter | Exit     | Total |
| 210  | Single Family Detached | 12 DU's    | 113   | 2     | 7        | 9          | 8     | 4        | 12    |

As the above table indicates, the development is expected to generate 113 daily trips, 9 AM peak hour trips and 12 PM peak hour trips. The existing roadway system can easily accommodate this small number of additional trips.

The development will be served by a cul-de-sac that intersects with 50th Ave. The cul-de-sac and the lot layout have not been finalized at this time. 50th Ave is classified as a Collector St on the Jeffco Major Thoroughfare Plan. The 50th Ave street section has been established at the development and no road widening is expected.

Due to the low volumes projected (less than 1000 ADT and peak hour less than 100 vph), the development only needs to provide this Trip Generation Report as required by the County's standards.

Sincerely yours,

Fred Lantz, PE



Planning & Property Department 809 Quail Street, Building 4 Lakewood, Colorado 80215 (303) 982-2584

November 2, 2021

Kayla Bryson, Case Manager Jefferson County Planning and Zoning Department 100 Jefferson County Pkwy, Ste. 3550 Golden, Colorado 80419

RE: 14320 W 50th Ave

Dear Kayla,

Thank you for information regarding the referenced case currently under review. Jeffco Public Schools has attached comments regarding this referral.

Should you need additional information, please contact me.

Sincerely,

Jeffco Public Schools

Watt Hanks

Matt Hanks GIS Manager



#### PLANNING COMMENTS

Date: November 2, 2021

Subdivision Name: 14320 W 50<sup>th</sup> Ave Location: 14320 W 50<sup>th</sup> Ave

Status: Rezoning Planner: Kayla Bryson

Jeffco Schools Contact: Matt Hanks, 303-982-2354

|                          | ELEMENTARY | MIDDLE   | HIGH     | TOTAL    |
|--------------------------|------------|----------|----------|----------|
| Dwelling Units           | Yield      | Yield    | Yield    | Yield    |
| 12 SFD                   | 0.43       | 0.26     | 0.26     | 0.95     |
|                          | Students   | Students | Students | Students |
| Total from this proposal | 5          | 3        | 3        | 11       |

The effect on JEFFCO Schools is unknown at this time. As the development progresses and more facts are known, the district will be able to anticipate the effect on classroom and school facilities that would be generated from this proposal.

The current school assignments for students generated from this development are:

Fairmount Elementary School (K-5) - 15975 W 50th Ave, Golden, CO 80401

Drake Middle School (6-8) - 12550 W 52nd Ave, Arvada, CO 80002

**Arvada West High School (9-12)** – 11595 Allendale Dr, Arvada, CO 80004 Note: School assignments are for the current school year and may be subject to change.

| School      | *2020-21<br>Student<br>Membership | *2021-22<br>Projected<br>Membership | *2022-23<br>Projected<br>Membership | Adjusted 2022-23 Projected Membership to include Development | **<br>Applied<br>Capacity | Applied<br>Capacity<br>less 2022-23<br>Adjusted<br>Projection |
|-------------|-----------------------------------|-------------------------------------|-------------------------------------|--|---------------------------|---|
| Fairmount   | 586                               | 593                                 | 605                                 | 610  | 660                       | 50  |
| Drake       | 927                               | 931                                 | 895                                 | 898  | 1,242                     | 344   |
| Arvada West | 1,825                             | 1,824                               | 1,849                               | 1,852  | 1,882                     | 30  |

Sources: \*Membership Projections Report (March 2021), \*\*Summary of Findings (March 2021)

Effective the date of this report, Applied Capacity for Fairmount Elementary, Drake Middle, & Arvada West High is sufficient to house students from this development. This development will be further evaluated as a part of the Jeffco School's overall review of the north area development picture.

At this time, Jeffco Schools requests fees-in-lieu from the developer. Such fees would be held in escrow accounts for future application by the District in accordance with our procedures and Jefferson County Regulations.

 $cc: R: FAC\CMFPD\GIS\Subdivisions\2021\ Referrals\Jefferson\ County\14320W50th Ave \20211102\_14320W50th Ave \Cmts. docx \ Referrals\Ave\Cmts. docx \ Refer$ 

## WEST 50TH DEVELOPMENTS PHASE I DRAINAGE REPORT

**NOVEMBER 2021** 

For: REDWOOD, LLC

## WEST 50TH DEVELOPMENTS PHASE I DRAINAGE REPORT Page i of ii

#### **ENGINEER'S STATEMENT:**

I hereby certify that this report and plan for the Phase I drainage design of the development, West 50th Developments, was prepared by me (or under my direction supervision) in accordance with the provisions of the Jefferson County Storm Drainage Design and Technical Criteria and applicable parts of Mile High Flood District's formally Urban Drainage Storm Drainage Criteria Manual for the owners thereof.



David P. Theisen, P.E. Date
State of Colorado No. 41115
For and on behalf of Theisen Engineering, LLC.

#### **OWNER'S STATEMENT:**

The Owner (Mike Disberger) hereby certifies that the drainage facilities for West 50th Developments will be constructed according to the design presented in this report. I understand that Jefferson County does not and will not assume liability for drainage facilities designed or reviewed by my engineer. I also understand that Jefferson County relies on the representations of others to establish that drainage facilities are designed and built in compliance with applicable guidelines, standards, or specifications. Review by Jefferson County can therefore in no way limit or diminish any liability which I or any other party may have with respect to the design or construction of such facilities.

| Owner | : REDWOOD, LLC                    |  |
|-------|-----------------------------------|--|
|       |                                   |  |
| Ву:   |                                   |  |
| -     | Mike Disberger, as Member/Manager |  |
| Date: |                                   |  |

#### PHASE I DRAINAGE REPORT

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#### PHASE I DRAINAGE REPORT

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#### **SCOPE**

This report discusses the historic and proposed design for the West 50th Developments drainage improvements. The intent of this report is to present the design details for the drainage facilities within the project site. This report includes hydrologic and hydraulic calculations, tables and graphs and exhibits showing drainage basins, routing, and proposed storm improvements.

#### A. INTRODUCTION

- 1. Location
  - a. The proposed West 50<sup>th</sup> Development Project located at 14350 West 50<sup>th</sup> Avenue.
  - b. The project is located south of existing W. 50<sup>th</sup> Avenue between Eldridge Street on the east and Indiana Street on the west.
  - c. The project is located in unincorporated Jefferson County in the State of Colorado.
  - d. The project is legally described as: Lot 20, Wheat Ridge Gardens situated in the SW ¼ of Section 18, Township 3 South, Range 69 West, 6<sup>th</sup> Principal Meridian.
  - e. More specifically the project, is bounded to the north by existing West 50<sup>th</sup> avenue and existing single-family residence subdivision, to the west by an existing single-family residence on an agricultural zoned parcel, to the south by existing single-family residence subdivision, and to the east by an existing single-family residence on an agricultural zoned parcel and a single-family residence subdivision.
  - f. See the Vicinity Map located in Appendix A.

#### 2. Proposed Development

a. The property is currently zoned a-1 but is in the process to be rezoned to R-1A zone district as part of this development project.

#### B. HISTORIC DRAINAGE

- 1. Description of Property
  - a. The site is approximately 4.19 acres in size
  - b. The property is currently developed as agricultural land with small barn, equipment storage, hay field, and pastureland.
  - c. The property is divided by an existing irrigation channel that flows west to east, creating two distinct drainage basins one north of the existing irrigation channel and one south of the existing irrigation channel.
  - d. The property also has an irrigation pipeline along is southern property line. The irrigation pipe is perforated tile pipe that collects and drains groundwater from the property.
  - e. The drainage area north of the irrigation channel will be called Basin A for the purpose of this report. Basin A is generally flat varying from 0 2 percent with the runoff generally flowing by overland sheet flow from west to east. The neighboring property to the west contributes runoff by sheet flow onto the site and neighboring property to the north contributes runoff onto the site through an existing 18" culvert crossing West 50<sup>th</sup> Avenue. Drainage historically leaves Basin A along the west property line through an existing 12" HDPE storm pipe and an existing concrete tile pipe.
  - f. The drainage area south of the irrigation channel will be called Basin B for the purpose of this report. Basin B is generally flat varying from 0 2 percent with the runoff generally flowing by overland sheet flow from northwest to southeast. The neighboring property to

#### PHASE I DRAINAGE REPORT

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the west contributes runoff by sheet flow onto the site. Drainage historically leaves Basin B at the southwest corner of the property through an existing 12" PVC storm pipe and small amounts of runoff are intercepted as ground water flow by the existing irrigation's perforated tile pipe in that area.

- g. National Resources Conservation Service (NRCS) Site Soil Mapping Units list the site as being 100 percent Loveland variant gravelly sandy loam, and 100 percent of the site is identified as being Hydrologic Soil Group B.
- h. The project development is entirely within Zone X as shown on Flood Insurance Rate Map panel 08059C0212F, effective date February 5, 2014.
- i. The proposed use for this site is 12 single-family residential units.
- j. See Appendix A for Soil and FEMA maps.

#### C. DESIGN CRITERIA

#### 1. Regulations

- a. In accordance with the previously approved Fairmont Master Drainage Plan requirements, during the platting phase of this development an easement or parcel of land approximately 38' wide along the northern property line and along the eastern property line from the northeastern corner of the property to a distance of approximately 100 feet southernly to the point of historic drainage discharge of this drainage area will be set aside or dedicated to the future addition of master planned drainage facilities. During the plat approval phase of this development, it will be determined if interim or permanent master planned drainage improvements will be included with this projects construction plans.
- b. This Phase I Drainage Report was prepared in accordance with *Jefferson County Colorado Storm Drainage Design & Technical Criteria* as well as the Mile High Flood District's (MHFD) *Storm Drainage Criteria Manual*.
- c. The project development will include two water quality / detention ponds, one for Basin A north of the irrigation channel and a second water quality / detention pond for Basin B on the south side of the irrigation channel
- d. Basin A's water quality / detention pond will be sized for the proposed development and will discharge through existing historical drainage facilities at pre-development runoff rates. Offsite runoff onto the property will be treated as pass through drainage and will not be detained but released at historical rates.
- e. Basin B's water quality / detention pond will be sized for the proposed development and will discharge through existing historical drainage facilities at pre-development runoff rates. Offsite runoff onto the property will be treated as pass through drainage and will not be detained but released at historical rates.
- f. In several areas around the perimeter of the site water quality drainage swales have been incorporated. These vegetative swales are typically flatter that a normal drainage swale with slopes between 2.00% to 0.50%. These flatter slopes assist in slowing the runoff conveyance and allowing more filtration time and increased water quality.

#### 2. Hydrologic Criteria

- a. Peak storm runoff was determined using the Rational Formula: Q=CIA
- b. Runoff coefficients, C, were derived from Tables RO-3 and RO-5 of the USDCM.
- c. The site is within Jefferson County Rainfall Zone I. Rainfall intensities were taken from Figure 502A *Jefferson County Colorado Storm Drainage Design & Technical Criteria.*

#### PHASE I DRAINAGE REPORT

#### Page 3 of 6

- d. The 5-year storm was analyzed as the minor event, with a 1-hour point rainfall value of 1.40 in.
- e. The 100-year storm was analyzed as the major event, with a 1-hour point rainfall value of 2.65 in
- f. The water quality and detention volumes were calculated using MHFD's standard spreadsheet for the design of detention / water quality ponds.
- g. The emergency overflow structures have been confirmed to have capacity to pass a flowrate equivalent to the 100-year developed runoff rate for the project site.

#### 3. Hydraulic Criteria

- a. MHFD / UDFCD UD-Inlet excel spreadsheet was used to determine street capacities. Allowable flow depths within the streets are as follows:
  - Maximum street ponding will not exceed 5-inches for either the minor or major storm event.
- b. Storm sewers will be designed to convey the minor storm events without surcharging the sewer system.
- c. Hydraulic Grade Lines for major event flows will not pond more than 5-inches above the pavement surfaces.

#### D. DRAINAGE PLAN

#### 1. General Concept

- a. The project development will include two water quality / detention ponds, one for Basin A north of the irrigation channel and a second water quality / detention pond for Basin B on the south side of the irrigation channel
- b. The developed area north of the irrigation channel (Basin A) will be directed to the maximum extent feasible to the proposed northern water quality / detention pond located along the project's eastern property line matching historic drainage flows. Runoff from the proposed development will be detained to pre-development rates and released at existing drainage pipe locations. Offsite runoff onto the property will enter the projects drainage system but will be treated as pass through drainage and will not be detained but released at historical rates.
- c. The developed area south of the irrigation channel (Basin B) will be directed to the maximum extent feasible to the proposed southern water quality / detention pond located in the southeastern corner of the property matching historic drainage flows. Runoff from the proposed development will be detained to pre-development rates and released at existing drainage pipe locations. Offsite runoff onto the property will enter the projects drainage system but will be treated as pass through drainage and will not be detained but released at historical rates.
- d. The water quality / detention ponds will be sized to provide water quality and detention volumes in accordance with MHFD the water quality / detention pond standards and volumes calculated by standard MHFD's pond sizing spreadsheets.
- e. In several areas around the perimeter of the site water quality swales have been incorporated. These vegetative swales are typically flatter that a normal drainage swale with slopes between 2.00% to 0.50%. These flatter slopes assist in slowing the runoff conveyance and allowing more filtration time. This results in larger time of concentration, reduced peak runoff flows and overall better water quality.

#### PHASE I DRAINAGE REPORT

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- f. The runoff from the project site will be directed to the water quality / detention ponds by overland sheet flows and vegetative drainage swales.
- g. During emergency events (events exceeding the 100-year storm event) the water quality / detention ponds will overflow at historic runoff locations. The emergency overflow location will be designed to convey the 100-year developed flow rate.

#### 2. Specific Details

- a. See Appendix A for Developed Drainage Conditions Map.
- b. Basin A consists of the area north of the irrigation channel and this basin will contain single family development areas and the designated drainage areas. Runoff from developed areas will be directed by over lot sheet flow and the drainage swales to the North water quality / detention pond.
- c. Basin B consists of the area south of the irrigation channel and this basin will contain single family development areas and the designated drainage areas. Runoff from developed areas will be directed by over lot sheet flow and the drainage swales to the South water quality / detention pond.

#### E. PERMANENT DETENTION/STORMWATER QUALITY FEATURES

#### 1. Water Quality / Detention Ponds

- a. The North Water Quality / Detention Pond is located on the downhill side of the basin along the eastern and northern boundaries of the property. The North Water Quality / detention pond is sized for the entire Basin A (1.77 acres at an imperviousness of 33.10%).
- b. The South Water Quality / Detention Pond is located on the downhill side of the basin along the eastern and southern boundaries of the property. The North Water Quality / detention pond is sized for the entire Basin B (2.18 acres at an imperviousness of 37.70%).
- c. Both Ponds will have control structures designed in accordance with MHFD criteria. The Ponds will have stage release for water quality and 100-year releases at normal historical flowrates.
- d. During emergency events when the 100-yr storm event is exceeded, stormwater runoff will overflow the Water Quality / Detention Ponds at each Pond's pre-developed historic location. Both Ponds will have designed emergency overflow spillways with the capacity to convey the 100-year developed flows.

#### 2. Operation and Maintenance of Water Quality / Detention Pond Facilities

- All operations and maintenance of privately-owned shared facilities will be the responsibility of the development's Homeowners Association
- b. The Homeowners Association will provide periodic, annual and long-term maintenance, as well any required repairs to all privately-owned shared facilities including the Water Quality / Detention Ponds and internal private storm water collection system.
- c. Periodic maintenance to be provided as required but at a minimum of twice a year.
  - Mow and maintain vegetative bottom of pond
  - Remove trash and debris from inlet grates and pond
- d. Annual maintenance to be provided a minimum of once a year.

#### PHASE I DRAINAGE REPORT

Page 5 of 6

- Document annual inspections in writing. Note conditions of all stormwater, water quality, and other drainage facilities.
- If applicable remove storm inlet grates and inspect bottom of inlet and storm pipe for sediment buildup. Pressure jet storm sewer system if significate sediment buildup is present.
- Inspect pond sump for sediment buildup. Remove sediment from pond sump when sediment buildup reaches a level within 2-inches of the invert for the storm sewer outfall pipe. Provide maintenance and repairs to vegetative pond bottom after the removal of accumulated sediment.
- e. Long term maintenance
  - The Water Quality / Detention Ponds should not require long term maintenance with proper periodic and annual maintenance.

#### 3. Vegetative Strips and Swales

- a. Where feasible vegetative strips are planned between structures rooftops and roadway drainage collection areas. This helps reduce directly connected impervious areas, thus reducing overall impervious areas and by routing runoff from impervious surfaces over grassy areas to slow down runoff and promote filtration.
- b. Along the back of the proposed lots, water quality swales have been incorporated into the design. These vegetative / grass lined swales provide reduced runoff by replacing impervious concrete pans with pervious swales. This approach also directs imperious surface runoff to vegetative surfaces that slow the runoff, provide increased water quality through better filtration, and reduce total runoff and improve water quality.
- c. Vegetative areas are also low maintenance while only requiring occasional mowing.
- d. See Appendix A Drainage Map for locations of permanent stormwater quality controls and a table quantifying the areas being treated by permanent controls. Also included in Appendix B are the Mile-High Flood District Spreadsheet output for stormwater quality including BMP Selection, Runoff Reduction, Grass Buffers and Grass Swales.

#### F. CONCLUSIONS

#### 1. Compliance with Standards

- a. This report is in general accordance with *Jefferson County Colorado Storm Drainage Design & Technical Criteria*.
- b. This report is in general accordance, where applicable and not superseded by other criteria, to the MHFD.
- c. This report is in general accordance with FEMA, there is no proposed development within the known existing floodplain within the site boundary.

#### 2. Summary of Concept

- Runoff from developed areas of the site will be routed to the Water Quality / Detention ponds.
- b. Water Quality / Detention Ponds are sized in accordance with MHFD Design spreadsheets for extended detention basin standards.
- c. The proposed development will have no adverse impacts on the surrounding properties or the downstream drainage facilities.

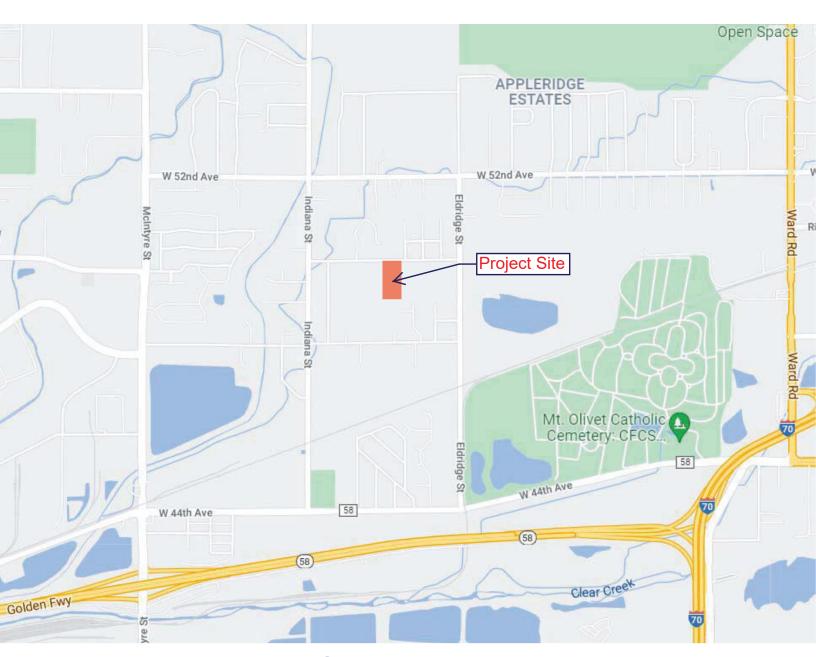
## WEST 50TH DEVELOPMENTS PHASE I DRAINAGE REPORT

#### Page 6 of 6

- 3. List of References
  - a. *Jefferson County Colorado Storm Drainage Design & Technical Criteria*, Jefferson County Colorado, Planning & Zoning Division, Revised June 1, 2019.
  - b. MHFD / Urban Storm Drainage Criteria Manual, Volumes 1, 2 & 3, Urban Drainage Flood Control District.

## **APPENDIX A.**MAPS AND EXHIBITS

Vicinity Map Soils Information FEMA Map Proposed Drainage Map



**VICINITY MAP** 



**NRCS** 

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties

14350 W. 50th Ave



#### **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

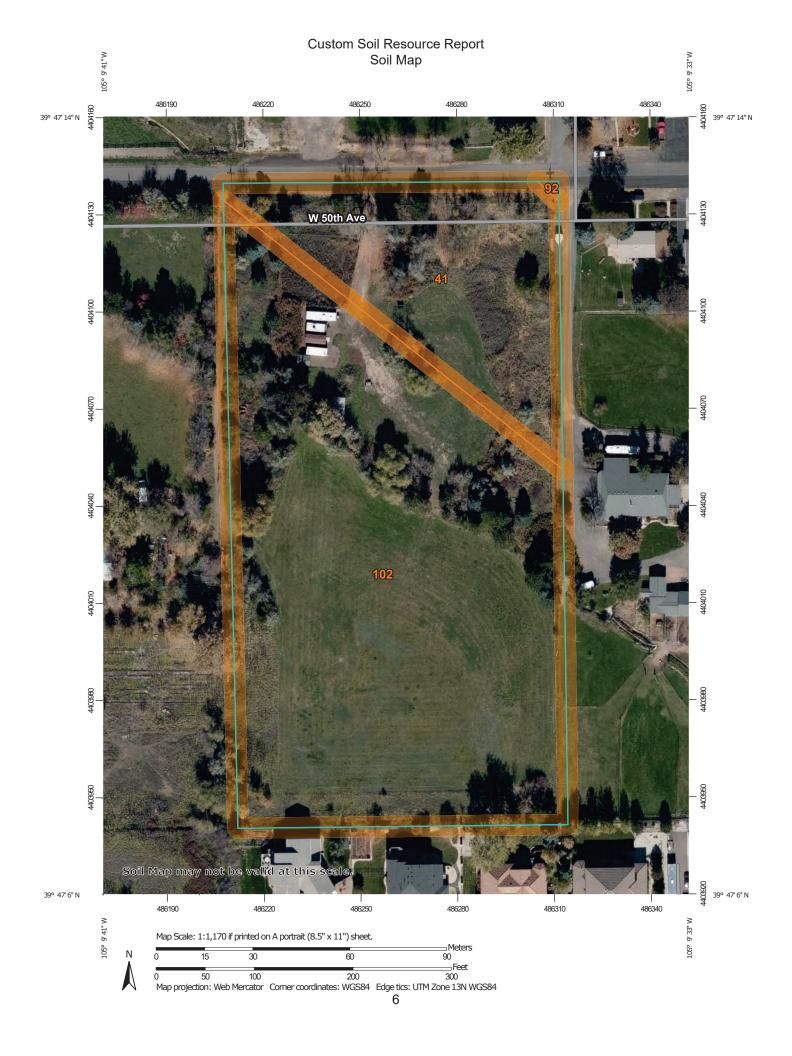
alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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| Preface  | 2  |
|--|----|
| Soil Map   | 5  |
| Soil Map   |    |
| Legend   |    |
| Map Unit Legend  | 9  |
| Map Unit Descriptions  |    |
| Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park |    |
| Counties   | 11 |
| 41—Englewood clay loam, 0 to 2 percent slopes                        | 11 |
| 92—Manzanola clay loam, 5 to 9 percent slopes                        | 12 |
| 102—Nunn clay loam, 0 to 2 percent slopes                            | 14 |

### Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



## MAP LEGEND

#### Special Line Features Streams and Canals Interstate Highways Aerial Photography Very Stony Spot Major Roads Local Roads Stony Spot US Routes Spoil Area Wet Spot Other Rails Nater Features **Fransportation 3ackground** W 8 ◁ ŧ Soil Map Unit Polygons Severely Eroded Spot Area of Interest (AOI) Soil Map Unit Points Miscellaneous Water Soil Map Unit Lines Closed Depression Marsh or swamp Perennial Water Mine or Quarry Rock Outcrop Special Point Features **Gravelly Spot** Saline Spot Sandy Spot Slide or Slip **Borrow Pit** Lava Flow Sodic Spot Clay Spot **Gravel Pit** Area of Interest (AOI) Sinkhole Blowout Landfill 9 Soils

# MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties Survey Area Data: Version 15, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 25, 2018—Apr 9,

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

## MAP LEGEND

# MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

#### Map Unit Legend

| Map Unit Symbol             | Map Unit Name                              | Acres in AOI | Percent of AOI |
|-----------------------------|--|--------------|----------------|
| 41                          | Englewood clay loam, 0 to 2 percent slopes | 1.2          | 23.8%          |
| 92                          | Manzanola clay loam, 5 to 9 percent slopes | 0.0          | 0.1%           |
| 102                         | Nunn clay loam, 0 to 2 percent slopes      | 3.9          | 76.1%          |
| Totals for Area of Interest |  | 5.1          | 100.0%         |

#### **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

#### Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

### Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties

#### 41—Englewood clay loam, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: jpnx Elevation: 5,200 to 6,500 feet

Mean annual precipitation: 13 to 17 inches

Frost-free period: 126 to 142 days

Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Englewood and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Englewood**

#### Setting

Landform: Drainageways, alluvial fans

Down-slope shape: Linear

Across-slope shape: Concave, linear

Parent material: Calcareous, clayey alluvium

#### Typical profile

H1 - 0 to 9 inches: clay loam H2 - 9 to 39 inches: clay, clay loam H2 - 9 to 39 inches: clay loam, clay

H3 - 39 to 60 inches: H3 - 39 to 60 inches:

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 17.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)

Hydric soil rating: No

#### **Minor Components**

#### Haverson, rarely flooded

Percent of map unit: 3 percent Landform: Drainageways, flood plains

Down-slope shape: Linear

Across-slope shape: Concave, linear Ecological site: R049XY036CO - Overflow

Hydric soil rating: No

#### Nunn

Percent of map unit: 3 percent

Landform: Fans

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### **Urban land**

Percent of map unit: 3 percent

Hydric soil rating: No

#### Denver

Percent of map unit: 3 percent Landform: Alluvial fans Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### Englewood, wet, rarely flooded

Percent of map unit: 3 percent

Landform: Drainageways, flood plains

Down-slope shape: Linear

Across-slope shape: Concave, linear

Ecological site: R048AY265CO - Salt Meadow

Hydric soil rating: No

#### 92-Manzanola clay loam, 5 to 9 percent slopes

#### **Map Unit Setting**

National map unit symbol: jpqq Elevation: 5,200 to 6,500 feet

Mean annual precipitation: 13 to 17 inches

Frost-free period: 126 to 142 days

Farmland classification: Not prime farmland

#### **Map Unit Composition**

Manzanola and similar soils: 85 percent

Minor components: 15 percent

#### Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Manzanola**

#### Setting

Landform: Ridges, hillslopes

Landform position (two-dimensional): Summit, backslope Landform position (three-dimensional): Crest, side slope

Down-slope shape: Convex, linear Across-slope shape: Convex, linear

Parent material: Calcareous, clayey alluvium

#### Typical profile

H1 - 0 to 5 inches: clay loam H2 - 5 to 29 inches: clay loam, clay H2 - 5 to 29 inches: clay loam, loam

H3 - 29 to 60 inches: H3 - 29 to 60 inches:

#### **Properties and qualities**

Slope: 5 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Gypsum, maximum content: 2 percent

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water capacity: Very high (about 18.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Other vegetative classification: CLAYEY FOOTHILL (048AY208CO)

Hydric soil rating: No

#### **Minor Components**

#### Denver

Percent of map unit: 3 percent

Landform: Hillslopes, alluvial fans, terraces

Landform position (two-dimensional): Backslope, footslope Landform position (three-dimensional): Side slope, tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### **Englewood**

Percent of map unit: 3 percent

#### Custom Soil Resource Report

Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Concave

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### Nunn

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### Ulm

Percent of map unit: 3 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit, backslope Landform position (three-dimensional): Interfluve, side slope

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### Renohill

Percent of map unit: 2 percent

Landform: Ridges

Landform position (two-dimensional): Shoulder, backslope Landform position (three-dimensional): Side slope, crest

Down-slope shape: Convex

Across-slope shape: Convex, linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### **Urban land**

Percent of map unit: 1 percent

Hydric soil rating: No

#### 102—Nunn clay loam, 0 to 2 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlps Elevation: 5,300 to 5,800 feet

Mean annual precipitation: 15 to 19 inches Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 100 to 130 days

Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Nunn and similar soils: 85 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Nunn**

#### Setting

Landform: Terraces, alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium

#### **Typical profile**

A - 0 to 6 inches: clay loam
Bt - 6 to 18 inches: clay
Btk - 18 to 30 inches: clay
Bk - 30 to 47 inches: clay loam
BCk - 47 to 80 inches: clay loam

#### **Properties and qualities**

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 7 percent

Maximum salinity: Nonsaline to very slightly saline (0.1 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 0.5

Available water capacity: High (about 9.6 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### **Minor Components**

#### **Englewood**

Percent of map unit: 9 percent Landform: Alluvial fans, terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

#### **Standley**

Percent of map unit: 6 percent

#### Custom Soil Resource Report

Landform: Terraces, alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R049XY208CO - Clayey Foothill DRAFT (1-2018) MLRA 49

Hydric soil rating: No

# National Flood Hazard Layer FIRMette





# **Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD

With BFE or Depth Zone AE, AO, AH, VE, AR Without Base Flood Elevation (BFE)

0.2% Annual Chance Flood Hazard, Areas Regulatory Floodway HAZARD AREAS

depth less than one foot or with drainage of 1% annual chance flood with average areas of less than one square mile zone x Future Conditions 1% Annual

Area with Reduced Flood Risk due to Chance Flood Hazard Zone X Levee. See Notes. Zone X Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X

**Effective LOMRs** 

Area of Undetermined Flood Hazard Zone D

OTHER AREAS

Channel, Culvert, or Storm Sewer STRUCTURES 1111111 Levee, Dike, or Floodwall Cross Sections with 1% Annual Chance Water Surface Elevation

Base Flood Elevation Line (BFE) Coastal Transect Limit of Study mm 513 mm

**Jurisdiction Boundary** 

Coastal Transect Baseline

OTHER **FEATURES** 

Hydrographic Feature

Digital Data Available

No Digital Data Available Unmapped

MAP PANELS

point selected by the user and does not represent an authoritative property location. The pin displayed on the map is an approximate

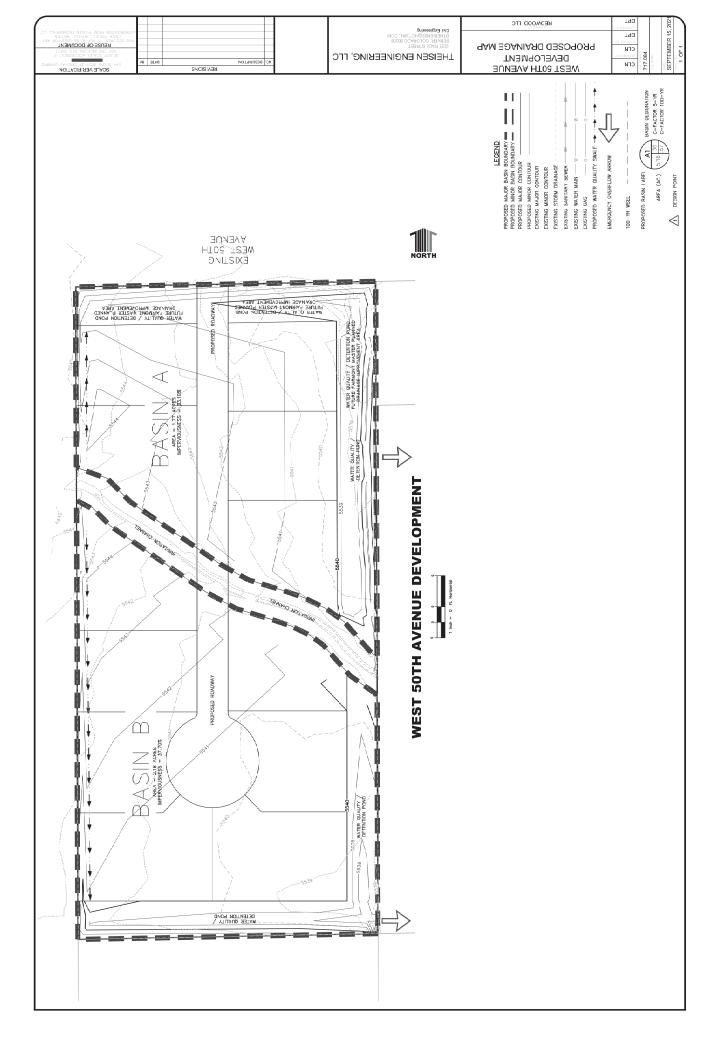
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

authoritative NFHL web services provided by FEMA. This map reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or The flood hazard information is derived directly from the was exported on 3/10/2021 at 2:06 PM and does not become superseded by new data over time. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

> 2,000 Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020 1,500

1,000

500



# **APPENDIX B.**SITE DRAINAGE COMPUTATIONS

MHFD BMP Spreadsheet (4 sheets) Impervious Summary

|                         | Design Procedure Fo  | orm: BMP Selection Tool  |
|-------------------------|--|--|
|                         | UD-BMP (Version 3.0  | 7, March 2018) Sheet 1 of  |
| Designer:               | David Theisen  |  |
| Company:                | Theisen Engineering  |  |
| Date:                   | September 16, 2021   |  |
| Project:<br>Location:   | W 50th Development W 50th Development  |  |
| Location.               | W John Development   | <del></del>  |
| To identii     the type | fy potential BMPs, what best describes of site?  | Choose One Conventional Site Highly Urbanized Site Linear Construction in Urbanized Area  SKIP # 2 |
|                         | e typical section include a parking lane, shoulder,<br>or otherwise allow for surface BMPs?                                      | Choose One O YES O NO  |
| 3. Is the site          | e comprised of Hydrologic Soil Group A or B soils?   | Choose One O YES NO  |
| 4. Is the trib          | outary impervious area <sup>1</sup> greater than 1 acre?   | Choose One Q YES NO SKIP #6-10   |
| 5. Is the de            | pth of bedrock greater than 5 feet?  | Choose One  YES  NO  |
| 6. Is the trib          | outary impervious area <sup>1</sup> greater than 5 acres?  | Choose One O YES O NO  |
|                         | er source available for use?<br>v or groundwater)  | Choose One O YES O NO  |
| 8. Is the BM            | //P in a developing watershed?   | Choose One Q YES Q NO  |
| 9. Are BMP              | 's allowed in the right-of-way?  | Choose One O YES O NO  |
|                         | community have an established Fee in Lieu in place?  | Choose One O YES O NO  |
| 11 Sten 1 of            | f Four Step Process:   | Grass Buffer   |
|                         | Volume Reduction (Not WQCV) BMPs   | Grass Swale  |
|                         |  | Permeable Pavement- No or Partial Infiltration (5) Green Roof (3)                                  |
|                         |  | Graen Koor (2)   |
|                         |  |  |
|                         |  |  |
| 12. Step 2 of<br>WQCV B | f Four Step Process:   | Permeable Pavement- No or Partial Infiltration (5) Bioretention- No or Partial Infiltration (5)    |
| VVQUV E                 | J  | Sand Filter Extended Detention Basin- No or Partial Infiltration (5)                               |
|                         |  | Green Roof (3) Regional Water Quality Treatment (4)  |
|                         |  | regional trater quality froutinett (4)   |
|                         |  |  |
|                         |  | <u> </u>   |
| Notes:                  |  | area draining to the BMP, not the total area of the project site.                                  |
|                         | essful wetland channel or basin, a water source (groundwa<br>t Range of Colorado, irrgation, at least periodically in dry tir    |  |
| 4. If a regiona         | I facility will be used to provide the WQCV, some degree of  | of onsite treatment/MDCIA will still likely be required.   |
|                         | on= underdrain and liner, Partial Infiltration= underdrain and<br>his BMP for a portion of your site. It's best suited for imper |  |
| J. Condidor III         |  |  |

| Design Procedure Form: Punoff Paduction  |  |                 |                 |              |                  |               |              |     |   |   |  |
|--|--|-----------------|-----------------|--------------|------------------|---------------|--------------|-----|---|---|--|
| Design Procedure Form: Runoff Reduction  UD-BMP (Version 3.07, March 2018)   |  |                 |                 |              |                  | Obsert 4 of 4 |              |     |   |   |  |
| Designer:  | David Theiser                                    | 1               |                 | OD-RWL (A6   | rsion 3.07, Mai  | rcn 2018)     |              |     |   |   | Sheet 1 of 1                                     |
|  | Theisen Engir                                    |                 |                 |              |                  |               |              |     |   | • |  |
|  | September 16                                     |                 |                 |              |                  |               |              |     |   | • |  |
|  | W 50th Develo                                    |                 |                 |              |                  |               |              |     |   | • |  |
|  | W 50th Develo                                    | pment           |                 |              |                  |               |              |     |   | - |  |
|  |  |                 |                 |              |                  |               |              |     |   | - |  |
| SITE INFORMATION (User Input in Blue Cells)  WQCV Rainfall Depth Depth of Average Runoff Producing Storm, d <sub>6</sub> = 0.43 inches (for Watersheds Outside of the Denver Region, Figure 3-1 in USDCM Vol. 3) |  |                 |                 |              |                  |               |              |     |   |   |  |
| Area Type  | UIA:RPA  | UIA:RPA         | UIA:RPA         |              |                  |               |              |     |   |   |  |
| Area ID  | Basin A  | Basin B1        | Basin B2        |              |                  |               |              |     |   |   |  |
| Downstream Design Point ID   | N Pond   | S Pond1         | S Pond 2        |              |                  |               |              |     |   |   |  |
| Downstream BMP Type  | EDB  | EDB             | EDB             |              |                  |               |              |     |   |   |  |
| DCIA (ft <sup>2</sup> )  |  |                 |                 |              |                  |               |              |     |   |   |  |
| UIA (ft²)  | 25,090   | 17,740          | 17,740          |              |                  |               |              |     |   |   |  |
| RPA (ft²)  | 52,011   | 47,480          | 47,480          |              |                  |               |              |     |   |   |  |
| SPA (ft²)<br>HSG A (%)   | 0%   | 0%              | 0%              |              |                  |               |              |     |   |   |  |
| HSG A (%)<br>HSG B (%)   | 0%   | 0%              | 0%              |              |                  |               |              |     |   |   | <del>                                     </del> |
| HSG C/D (%)  | 100%   | 100%            | 100%            |              |                  |               |              |     |   |   |  |
| Average Slope of RPA (ft/ft)   | 0.020  | 0.020           | 0.020           |              |                  |               |              |     |   |   |  |
| UIA:RPA Interface Width (ft)   | 70.00  | 70.00           | 70.00           |              |                  |               |              |     |   |   |  |
| ( )  |  |                 |                 |              |                  |               |              |     |   | • |  |
|  |  |                 |                 |              |                  |               |              |     |   |   |  |
| CALCULATED RUNOFF I  |  |                 |                 |              |                  |               |              |     |   |   |  |
| Area ID  | Basin A  | Basin B1        | Basin B2        |              |                  |               |              |     |   |   |  |
| UIA:RPA Area (ft²)   | 77,101   | 65,220          | 65,220          |              |                  |               |              |     |   |   |  |
| L / W Ratio  | 15.73  | 13.31<br>0.2720 | 13.31<br>0.2720 |              |                  |               |              |     |   |   |  |
| UIA / Area<br>Runoff (in)  | 0.3254   | 0.2720          | 0.2720          |              |                  |               |              |     |   |   |  |
| Runoff (ft <sup>3</sup> )  | 0.00   | 0.00            | 0.00            |              |                  |               |              |     |   |   |  |
| Runoff Reduction (ft <sup>3</sup> )  | 1045   | 739             | 739             |              |                  |               |              |     |   |   |  |
| rtunon rteduction (it )  |  |                 |                 |              |                  |               |              |     |   |   | <u> </u>   |
| CALCULATED WQCV RE   | SULTS  |                 |                 |              |                  |               |              |     |   |   |  |
| Area ID  | Basin A  | Basin B1        | Basin B2        |              |                  |               |              |     |   |   |  |
| WQCV (ft <sup>3</sup> )  | 1045   | 739             | 739             |              |                  |               |              |     |   |   |  |
| WQCV Reduction (ft <sup>3</sup> )  | 1045   | 739             | 739             |              |                  |               |              |     |   |   |  |
| WQCV Reduction (%)   | 100%   | 100%            | 100%            |              |                  |               |              |     |   |   |  |
| Untreated WQCV (ft <sup>3</sup> )  | 0  | 0               | 0               |              |                  |               |              |     |   |   |  |
| CALCULATED DESIGN P  | OINT DESIII                                      | TS (sums ro     | culte from all  | columne wit  | h the same F     | Nownetroam I  | Docian Boint | ID) |   |   |  |
| Downstream Design Point ID   | N Pond   | S Pond1         | S Pond 2        | Columns wit  | ii tile saille L | Ownstream     | Design Folia | ID) | ı | I |  |
| DCIA (ft²)   | 0  | 0               | 0               |              |                  |               |              |     |   |   |  |
| UIA (ft²)  | 25,090   | 17,740          | 17,740          |              |                  |               |              |     |   |   |  |
| RPA (ft²)  | 52,011   | 47,480          | 47,480          |              |                  |               |              |     |   |   |  |
| SPA (ft²)  | 0  | 0               | 0               |              |                  |               |              |     |   |   |  |
| Total Area (ft <sup>2</sup> )  | 77,101   | 65,220          | 65,220          |              |                  |               |              |     |   |   |  |
| Total Impervious Area (ft <sup>2</sup> )   | 25,090   | 17,740          | 17,740          |              |                  |               |              |     |   |   |  |
| WQCV (ft <sup>3</sup> )  | 1,045  | 739             | 739             |              |                  |               |              |     |   |   |  |
| WQCV Reduction (ft <sup>3</sup> )  | 1,045  | 739             | 739             |              |                  |               |              |     |   |   |  |
| WQCV Reduction (%)   | 100%   | 100%            | 100%            |              |                  |               |              |     |   |   |  |
| Untreated WQCV (ft <sup>3</sup> )  | 0  | 0               | 0               |              |                  |               |              |     |   |   |  |
| CALCULATED SITE RESI Total Area (ft²) Total Impervious Area (ft²) WQCV (ft³) WQCV Reduction (ft³) WQCV Reduction (%) Untreated WQCV (ft³)  | 207,541<br>60,570<br>2,524<br>2,524<br>100%<br>0 | results from    | all columns i   | n worksheet) |                  |               |              |     |   |   |  |
|  |  |                 |                 |              |                  |               |              |     |   |   |  |

|  | Design Procedure Fo  | orm: Grass Buffer (GB)  |
|--|--|---|
| UD-BMP (Version 3.07, March 2018)  Designer: David Theisen  Company: Theisen Engineering  Date: September 16, 2021 |  | Sheet 1 of 1  |
| Project:   | W 50th Development   |   |
| Location:  | W 50th Development   |   |
| 1. Design Di   | ischarge   |   |
| A) 2-Year  | Peak Flow Rate of the Area Draining to the Grass Buffer                                | $Q_2 = 0.3$ ofs   |
| 2. Minimum   | Width of Grass Buffer  | W <sub>G</sub> = 6 ft   |
| 3. Length of   | Grass Buffer (14' or greater recommended)  | L <sub>G</sub> =15ft  |
| 4. Buffer Slo  | ope (in the direction of flow, not to exceed 0.1 ft / ft)                              | $S_G = 0.020$ ft / ft   |
| 5. Flow Cha  | racteristics (sheet or concentrated)   | ☐ Choose One  |
|  | runoff flow into the grass buffer across the width of the buffer?                      | ● Yes ○ No  |
|  | shed Flow Length   | $F_L = 5$ ft $S_1 = 0.020$ ft / ft  |
| •  | ace Slope (normal to flow)   | 0.020   |
| D) Type o<br>Sheet<br>Conce  | of Flow<br>Flow: $F_L * S_l \le 1$<br>entrated Flow: $F_L * S_l > 1$                   | SHEET FLOW  |
| 6. Flow Distr  | ribution for Concentrated Flows  | Choose One None (sheet flow) Slotted Curbing Level Spreader Other (Explain):  |
|  |  | -   |
| 7 Soil Prepa<br>(Describe  | aration<br>soil amendment)   | Type A Soil - Vegetative cover  |
| 8 Vegetatio  | n (Check the type used or describe "Other")  | Choose One  Existing Xeric Turf Grass  Irrigated Turf Grass  Other (Explain): |
|  |  |   |
| 9. Irrigation<br>(*Select N<br>AND will r  | None if existing buffer area has 80% vegetation not be disturbed during construction.) | Choose One Temporary Permanent None*  |
| 10. Outflow C  | collection (Check the type used or describe "Other")                                   | Choose One Grass Swale Street Gutter Storm Sewer Inlet Of Other (Explain):    |
|  |  |   |
| Notes:   |  | 1   |
|  |  |   |
|  |  |   |

| Desi   | ign Procedure Form: Grass     | Swale (GS)                                 |              |
|--|-------------------------------|--|--------------|
|  | UD-BMP (Version 3.07, March 2 | 018)                                       | Sheet 1 of 1 |
| Designer: David Theisen                              |                               |  |              |
| Company: Theisen Engineering                         |                               |  |              |
| Date: September 16, 2021                             |                               |  |              |
| Project: W 50th Development                          |                               |  |              |
| Location: W 50th Development                         |                               |  |              |
| Design Discharge for 2-Year Return Period            |                               | Q <sub>2</sub> = 0.30 cfs                  |              |
| 2. Hydraulic Residence Time                          |                               |  |              |
| A) : Length of Grass Swale                           |                               | L <sub>S</sub> = 410.0 ft                  |              |
| B) Calculated Residence Time (based on desig         | n velocity below)             | T <sub>HR</sub> = 11.0 minutes             |              |
| 3. Longitudinal Slope (vertical distance per unit ho | rizontal)                     |  |              |
| A) Available Slope (based on site constraints)       |                               | $S_{avail} = 0.020$ ft / ft                |              |
| B) Design Slope                                      |                               | $S_D = 0.020$ ft / ft                      |              |
| 4. Swale Geometry                                    |                               |  |              |
| A) Channel Side Slopes (Z = 4 min., horiz. dista     | nce per unit vertical)        | Z = 10.00 ft / ft                          |              |
| B) Bottom Width of Swale (enter 0 for triangular     | r section)                    | W <sub>B</sub> = 0.00 ft                   |              |
| 5. Vegetation  |                               | Choose One                                 | $\neg \neg$  |
| A) Type of Planting (seed vs. sod, affects veget     | tal retardance factor)        | ● Grass From Seed Grass From               | n Sod        |
| 6. Design Velocity (1 ft / s maximum)                |                               | $V_2 = 0.62$ ft / s                        |              |
| 7. Design Flow Depth (1 foot maximum)                |                               | D <sub>2</sub> = 0.22 ft                   |              |
| A) Flow Area   |                               | $A_2 =                                   $ |              |
| B) Top Width of Swale                                |                               | $W_T = 4.4$ ft                             |              |
| C) Froude Number (0.50 maximum)                      |                               | F = 0.33                                   |              |
| D) Hydraulic Radius                                  |                               | R <sub>H</sub> = 0.11                      |              |
| E) Velocity-Hydraulic Radius Product for Vegeta      | al Retardance                 | VR = 0.07                                  |              |
| F) Manning's n (based on SCS vegetal retardar        |                               | n = 0.080                                  |              |
| G) Cumulative Height of Grade Control Structure      | <b>,</b>                      | H <sub>D</sub> = 0.00 ft                   |              |
|  | '                             |  |              |
| Underdrain     (Is an underdrain necessary?)         |                               | Choose One YES NO                          |              |
| 9. Soil Preparation                                  |                               | Soil Type A - Vegetative cover             |              |
| (Describe soil amendment)                            |                               | - vegetative cover                         |              |
|  |                               |  |              |
| 10. Irrigation                                       |                               | Choose One Temporary OPerm                 | nanent       |
| Notes:   |                               |  |              |
|  |                               |  |              |
|  |                               |  |              |

# THEISEN ENGINEERING, LLC

# West 50th Avenue Impervious Summary

## Basin A

|                           | Area (Acres) | Imperviousness | Total Impervious Area (Acres) |
|---------------------------|--------------|----------------|-------------------------------|
| Single Family < 0.25 acre | 1.28         | 45%            | 0.576                         |
| Lawns/Undeveloped/Ponds   | 0.49         | 2%             | 0.010                         |

# **APPENDIX C.**POND COMPUTATIONS

North Detention Basin Computations (1 sheets) South Detention Basin Computations (1 sheets)

### DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.04 (February 2021)

Project: West 50th Avenue
Basin ID: Basin A

| _                | ZONE 3<br>ZONE 2<br>ZONE 1 |                     |
|------------------|----------------------------|---------------------|
| VOLUME EURY WOOV |                            |                     |
|                  |                            | 100 VEAR            |
|                  | ZONE 1 AND 2               | ORIFICE             |
| PERMANENT POOL   | ORIFICES                   | (D-44) D()          |
|                  | xample Zone Configurati    | on (Retention Pond) |

| Watershed Information |           |             |
|-----------------------|-----------|-------------|
|                       | Matarchad | Information |

|             | EDB             | Selected BMP Type =                     |
|-------------|-----------------|---|
| acres       | 1.77            | Watershed Area =                        |
| ft          | 330             | Watershed Length =                      |
| ft          | 150             | Watershed Length to Centroid =          |
| ft/ft       | 0.020           | Watershed Slope =                       |
| percent     | 33.10%          | Watershed Imperviousness =              |
| percent     | 0.0%            | Percentage Hydrologic Soil Group A =    |
| percent     | 0.0%            | Percentage Hydrologic Soil Group B =    |
| percent     | 100.0%          | Percentage Hydrologic Soil Groups C/D = |
| hours       | 40.0            | Target WQCV Drain Time =                |
| ol of Mines | Golden - School | Location for 1-hr Rainfall Denths =     |

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

| the embedded colorado orban riyuro     | grapii rioceddi | c.        |
|--|-----------------|-----------|
| Water Quality Capture Volume (WQCV) =  | 0.024           | acre-feet |
| Excess Urban Runoff Volume (EURV) =    | 0.054           | acre-feet |
| 2-yr Runoff Volume (P1 = 0.75 in.) =   | 0.028           | acre-feet |
| 5-yr Runoff Volume (P1 = 1.03 in.) =   | 0.047           | acre-feet |
| 10-yr Runoff Volume (P1 = 1.26 in.) =  | 0.072           | acre-feet |
| 25-yr Runoff Volume (P1 = 1.61 in.) =  | 0.128           | acre-feet |
| 50-yr Runoff Volume (P1 = 1.89 in.) =  | 0.167           | acre-feet |
| 100-yr Runoff Volume (P1 = 2.19 in.) = | 0.216           | acre-feet |
| 500-yr Runoff Volume (P1 = 2.93 in.) = | 0.325           | acre-feet |
| Approximate 2-yr Detention Volume =    | 0.029           | acre-feet |
| Approximate 5-yr Detention Volume =    | 0.052           | acre-feet |
| Approximate 10-yr Detention Volume =   | 0.063           | acre-feet |
| Approximate 25-yr Detention Volume =   | 0.078           | acre-feet |
| Approximate 50-yr Detention Volume =   | 0.085           | acre-feet |
| Approximate 100-yr Detention Volume =  | 0.106           | acre-feet |
|  |                 |           |

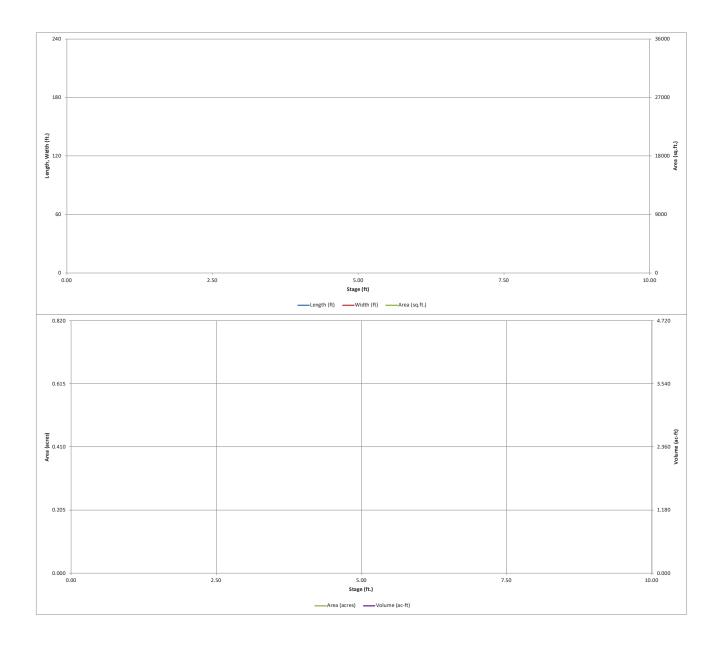
| Optional User Override |          |  |  |  |
|------------------------|----------|--|--|--|
|                        | acre-fee |  |  |  |
|                        | acre-fee |  |  |  |
|                        | inches   |  |  |  |

# Define Zones and Basin Geometry - \* Changes Volume (Required) =

| Select Zone 1 Storage Volume (Required) =               |   | acre-fee        |
|---|---|-----------------|
| Select Zone 2 Storage Volume (Optional) =               |   | acre-fee        |
| Select Zone 3 Storage Volume (Optional) =               |   | acre-fee        |
| Total Detention Basin Volume =                          |   | acre-fee        |
| Initial Surcharge Volume (ISV) =                        | 3 | ft <sup>3</sup> |
| Initial Surcharge Depth (ISD) =                         |   | ft              |
| Total Available Detention Depth (H <sub>total</sub> ) = |   | ft              |
| Depth of Trickle Channel $(H_{TC}) =$                   |   | ft              |
| Slope of Trickle Channel ( $S_{TC}$ ) =                 |   | ft/ft           |
| Slopes of Main Basin Sides (S <sub>main</sub> ) =       |   | H:V             |
| Basin Length-to-Width Ratio ( $R_{L/W}$ ) =             |   |                 |
|   |   |                 |
| Initial Surcharge Area $(A_{ISV}) =$                    |   | ft <sup>2</sup> |
| Surcharge Volume Length $(L_{ISV}) =$                   |   | ft              |
| Surcharge Volume Width $(W_{ISV}) =$                    |   | ft              |
| Depth of Basin Floor $(H_{FLOOR}) =$                    |   | ft              |
| Length of Basin Floor $(L_{FLOOR})$ =                   |   | ft              |

| Initial Surcharge Area (A <sub>ISV</sub> ) =    | ft ~            |
|---|-----------------|
| Surcharge Volume Length ( $L_{ISV}$ ) =         | ft              |
| Surcharge Volume Width $(W_{ISV}) =$            | ft              |
| Depth of Basin Floor $(H_{FLOOR}) =$            | ft              |
| Length of Basin Floor $(L_{FLOOR}) =$           | ft              |
| Width of Basin Floor $(W_{FLOOR}) =$            | ft              |
| Area of Basin Floor $(A_{FLOOR}) =$             | ft <sup>2</sup> |
| Volume of Basin Floor $(V_{FLOOR}) =$           | ft <sup>3</sup> |
| Depth of Main Basin $(H_{MAIN}) =$              | ft              |
| Length of Main Basin $(L_{MAIN}) =$             | ft              |
| Width of Main Basin ( $W_{MAIN}$ ) =            | ft              |
| Area of Main Basin (A <sub>MAIN</sub> ) =       | ft <sup>2</sup> |
| Volume of Main Basin (V <sub>MAIN</sub> ) =     | ft <sup>3</sup> |
| Calculated Total Basin Volume ( $V_{total}$ ) = | acre-feet       |
|   |                 |

| Depth Increment =                                  |               | ft                                 |                |               |                            |   |                |                              |                   |
|--|---------------|------------------------------------|----------------|---------------|----------------------------|---|----------------|------------------------------|-------------------|
| Stage - Storage<br>Description<br>Top of Micropool | Stage<br>(ft) | Optional<br>Override<br>Stage (ft) | Length<br>(ft) | Width<br>(ft) | Area<br>(ft <sup>2</sup> ) | Optional<br>Override<br>Area (ft <sup>2</sup> ) | Area<br>(acre) | Volume<br>(ft <sup>3</sup> ) | Volume<br>(ac-ft) |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |
|  |               |                                    |                |               |                            |   |                |                              |                   |



W50th Basin A MHFD-Detention\_v4 04.xlsm, Basin 9/16/2021, 3.40 PM

### DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.04 (February 2021)

Project: West 50th Avenue
Basin ID: Basin B South

ZONE 1 AND 2 ORIFICE

Example Zone Configuration (Retention Pond)

### Watershed Information

| Selected BMP Type =                    | EDB           |            |
|--|---------------|------------|
| Watershed Area =                       | 2.18          | acres      |
| Watershed Length =                     | 350           | ft         |
| Watershed Length to Centroid =         | 160           | ft         |
| Watershed Slope =                      | 0.020         | ft/ft      |
| Watershed Imperviousness =             | 37.70%        | percent    |
| Percentage Hydrologic Soil Group A =   | 0.0%          | percent    |
| Percentage Hydrologic Soil Group B =   | 0.0%          | percent    |
| ercentage Hydrologic Soil Groups C/D = | 100.0%        | percent    |
| Target WQCV Drain Time =               | 40.0          | hours      |
| Location for 1-hr Rainfall Denths =    | Golden - Scho | ol of Mine |

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

| the embedded Colorado Urban Hydro      | graph Procedu | re.       |
|--|---------------|-----------|
| Water Quality Capture Volume (WQCV) =  | 0.032         | acre-feet |
| Excess Urban Runoff Volume (EURV) =    | 0.076         | acre-feet |
| 2-yr Runoff Volume (P1 = 0.75 in.) =   | 0.041         | acre-feet |
| 5-yr Runoff Volume (P1 = 1.03 in.) =   | 0.066         | acre-feet |
| 10-yr Runoff Volume (P1 = 1.26 in.) =  | 0.097         | acre-feet |
| 25-yr Runoff Volume (P1 = 1.61 in.) =  | 0.166         | acre-feet |
| 50-yr Runoff Volume (P1 = 1.89 in.) =  | 0.213         | acre-feet |
| 100-yr Runoff Volume (P1 = 2.19 in.) = | 0.273         | acre-feet |
| 500-yr Runoff Volume (P1 = 2.93 in.) = | 0.407         | acre-feet |
| Approximate 2-yr Detention Volume =    | 0.042         | acre-feet |
| Approximate 5-yr Detention Volume =    | 0.072         | acre-feet |
| Approximate 10-yr Detention Volume =   | 0.086         | acre-feet |
| Approximate 25-yr Detention Volume =   | 0.107         | acre-feet |
| Approximate 50-yr Detention Volume =   | 0.116         | acre-feet |
| Approximate 100-yr Detention Volume =  | 0.142         | acre-feet |
|  |               | -         |

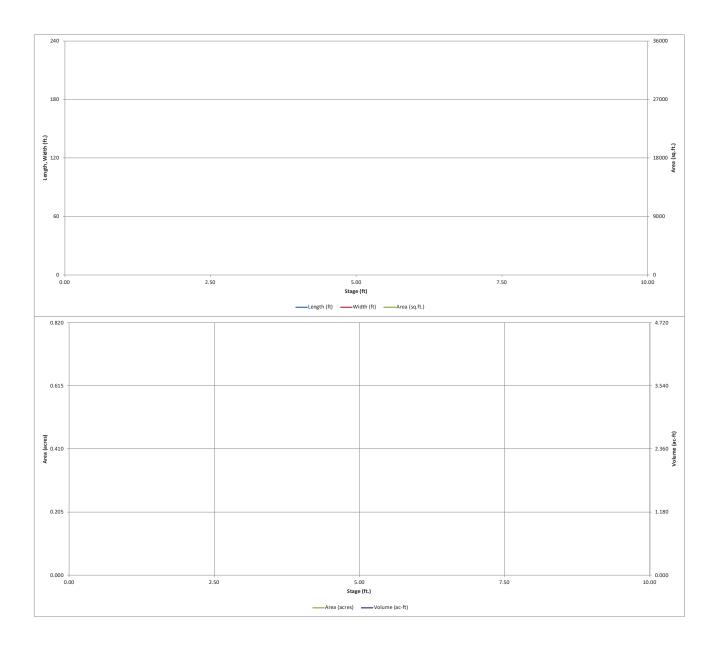
### acre-feet acre-feet inches nches nches inches inches nches

### Define Zones and Basin Geometry

| refine Zones and basin deometry                         |   |                 |
|---|---|-----------------|
| Select Zone 1 Storage Volume (Required) =               |   | acre-feet       |
| Select Zone 2 Storage Volume (Optional) =               |   | acre-feet       |
| Select Zone 3 Storage Volume (Optional) =               |   | acre-feet       |
| Total Detention Basin Volume =                          |   | acre-feet       |
| Initial Surcharge Volume (ISV) =                        | 4 | ft <sup>3</sup> |
| Initial Surcharge Depth (ISD) =                         |   | ft              |
| Total Available Detention Depth (H <sub>total</sub> ) = |   | ft              |
| Depth of Trickle Channel $(H_{TC}) =$                   |   | ft              |
| Slope of Trickle Channel $(S_{TC}) =$                   |   | ft/ft           |
| Slopes of Main Basin Sides (S <sub>main</sub> ) =       |   | H:V             |
| Basin Length-to-Width Ratio $(R_{L/W})$ =               |   |                 |
|   |   |                 |
| Initial Surcharge Area $(A_{ISV}) =$                    |   | ft <sup>2</sup> |
|   |   |                 |

| Initial Surcharge Area $(A_{ISV}) =$                  | ft 2            |
|---|-----------------|
| Surcharge Volume Length $(L_{ISV}) =$                 | ft              |
| Surcharge Volume Width (W <sub>ISV</sub> ) =          | ft              |
| Depth of Basin Floor $(H_{FLOOR}) =$                  | ft              |
| Length of Basin Floor $(L_{FLOOR}) =$                 | ft              |
| Width of Basin Floor $(W_{FLOOR}) =$                  | ft              |
| Area of Basin Floor $(A_{FLOOR}) =$                   | ft <sup>2</sup> |
| Volume of Basin Floor (V <sub>FLOOR</sub> ) =         | ft <sup>3</sup> |
| Depth of Main Basin $(H_{MAIN}) =$                    | ft              |
| Length of Main Basin $(L_{MAIN}) =$                   | ft              |
| Width of Main Basin (W <sub>MAIN</sub> ) =            | ft              |
| Area of Main Basin (A <sub>MAIN</sub> ) =             | ft <sup>2</sup> |
| Volume of Main Basin (V <sub>MAIN</sub> ) =           | ft <sup>3</sup> |
| Calculated Total Basin Volume (V <sub>total</sub> ) = | acre-fe         |
|   |                 |

| Depth Increment =   |               | ft                   |          |          |                    |                         |        |                    |         |
|---|---------------|----------------------|----------|----------|--------------------|-------------------------|--------|--------------------|---------|
|   |               | Optional<br>Override | Length   | Width    | Area               | Optional<br>Override    | Area   | Volume             | Volume  |
| Stage - Storage<br>Description<br><b>Top of Micropool</b> | Stage<br>(ft) | Stage (ft)           | (ft)     | (ft)     | (ft <sup>2</sup> ) | Area (ft <sup>2</sup> ) | (acre) | (ft <sup>3</sup> ) | (ac-ft) |
| Top of Micropool  |               |                      |          |          |                    |                         |        |                    |         |
|   |               |                      |          |          |                    |                         |        |                    |         |
|   |               |                      |          |          |                    |                         |        |                    |         |
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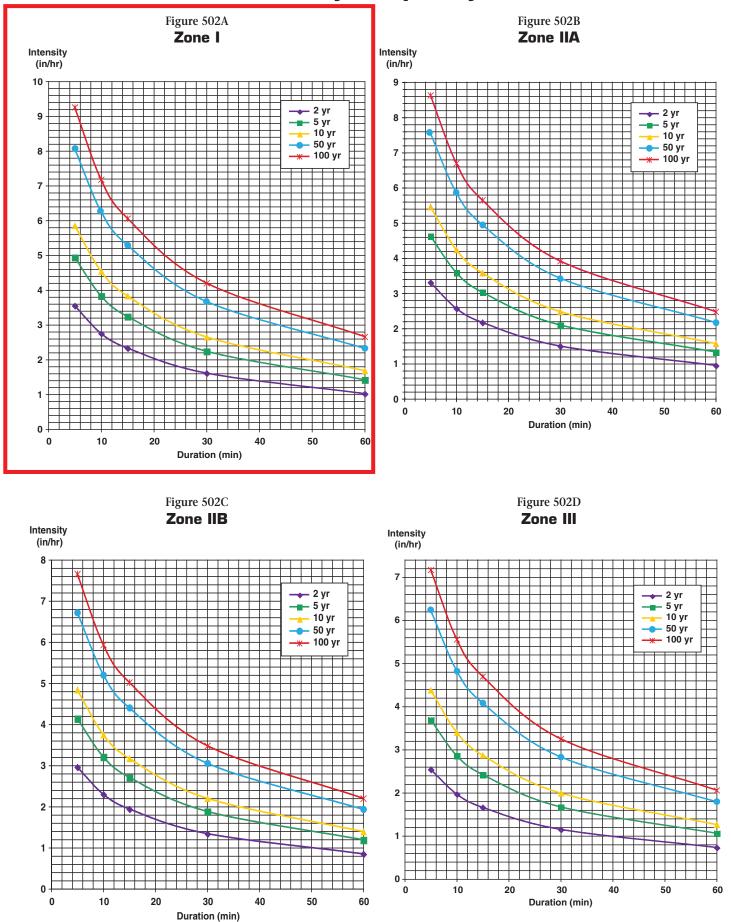


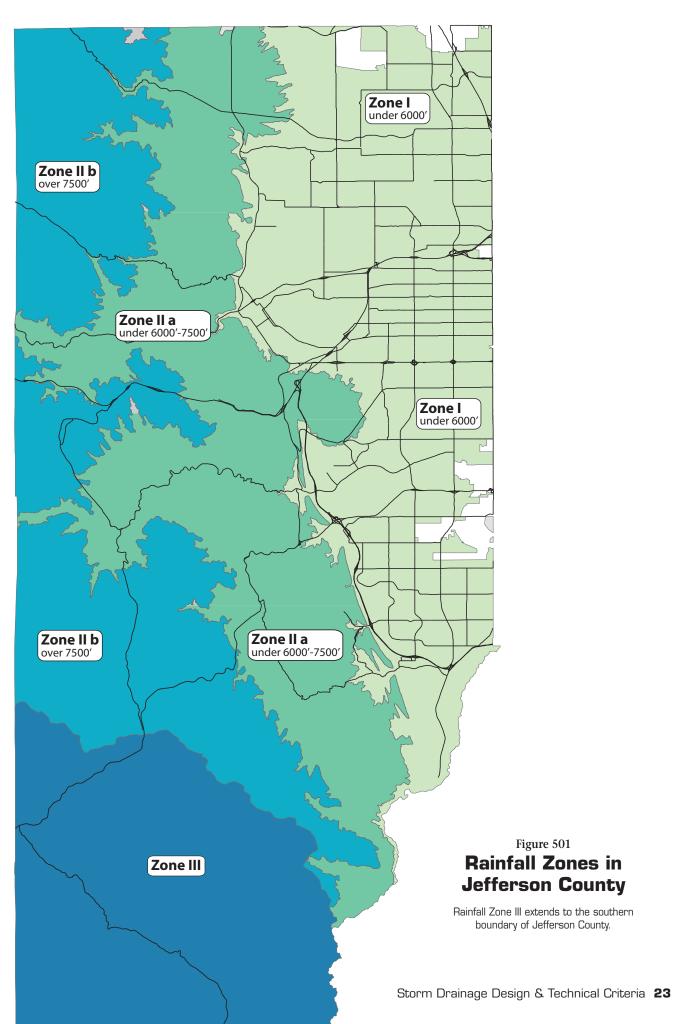
# APPENDIX D.

# COPIES OF GRAPHS, TABLES, AND NOMOGRAPHS USED

Jefferson County Drainage Standards (2 Sheets) MHFD / UDFCD Standards (2 Sheets)

# **Time-Intensity Frequency Curves**





Runoff Chapter 6

Table 6-3. Recommended percentage imperviousness values

| Land Use or  | Percentage Imperviousness |
|--|---------------------------|
| Surface Characteristics                            | (%)                       |
| Business:  |                           |
| Downtown Areas                                     | 95                        |
| Suburban Areas                                     | 75                        |
| Residential:                                       |                           |
| Single-family                                      |                           |
| 2.5 acres or larger                                | 12                        |
| 0.75 – 2.5 acres                                   | 20                        |
| 0.25 – 0.75 acres                                  | 30                        |
| 0.25 acres or less                                 | 45                        |
| Apartments   | 75                        |
| Industrial:  |                           |
| Light areas  | 80                        |
| Heavy areas  | 90                        |
| Parks, cemeteries                                  | 10                        |
| Playgrounds  | 25                        |
| Schools  | 55                        |
| Railroad yard areas                                | 50                        |
| Undeveloped Areas:                                 |                           |
| Historic flow analysis                             | 2                         |
| Greenbelts, agricultural                           | 2                         |
| Off-site flow analysis (when land use not defined) | 45                        |
| Streets:   |                           |
| Paved  | 100                       |
| Gravel (packed)                                    | 40                        |
| Drive and walks                                    | 90                        |
| Roofs  | 90                        |
| Lawns, sandy soil                                  | 2                         |
| Lawns, clayey soil                                 | 2                         |

Table RO-5— Runoff Coefficients, C

| Percentage<br>Imperviousness |      |          |           |             |         |        |  |
|------------------------------|------|----------|-----------|-------------|---------|--------|--|
| -                            | 2-yr | 5-yr     | 10-yr     | 25-yr       | 50-yr   | 100-yr |  |
| 0%                           | 0.04 | 0.15     | 0.25      | 0.37        | 0.44    | 0.50   |  |
| 5%                           | 0.08 | 0.18     | 0.28      | 0.39        | 0.46    | 0.52   |  |
| 10%                          | 0.11 | 0.21     | 0.30      | 0.41        | 0.47    | 0.53   |  |
| 15%                          | 0.14 | 0.24     | 0.32      | 0.43        | 0.49    | 0.54   |  |
| 20%                          | 0.17 | 0.26     | 0.34      | 0.44        | 0.50    | 0.55   |  |
| 25%                          | 0.20 | 0.28     | 0.36      | 0.46        | 0.51    | 0.56   |  |
| 30%                          | 0.22 | 0.30     | 0.38      | 0.47        | 0.52    | 0.57   |  |
| 35%                          | 0.25 | 0.33     | 0.40      | 0.48        | 0.53    | 0.57   |  |
| 40%                          | 0.28 | 0.35     | 0.42      | 0.50        | 0.54    | 0.58   |  |
| 45%                          | 0.31 | 0.37     | 0.44      | 0.51        | 0.55    | 0.59   |  |
| 50%                          | 0.34 | 0.40     | 0.46      | 0.53        | 0.57    | 0.60   |  |
| 55%                          | 0.37 | 0.43     | 0.48      | 0.55        | 0.58    | 0.62   |  |
| 60%                          | 0.41 | 0.46     | 0.51      | 0.57        | 0.60    | 0.63   |  |
| 65%                          | 0.45 | 0.49     | 0.54      | 0.59        | 0.62    | 0.65   |  |
| 70%                          | 0.49 | 0.53     | 0.57      | 0.62        | 0.65    | 0.68   |  |
| 75%                          | 0.54 | 0.58     | 0.62      | 0.66        | 0.68    | 0.71   |  |
| 80%                          | 0.60 | 0.63     | 0.66      | 0.70        | 0.72    | 0.74   |  |
| 85%                          | 0.66 | 0.68     | 0.71      | 0.75        | 0.77    | 0.79   |  |
| 90%                          | 0.73 | 0.75     | 0.77      | 0.80        | 0.82    | 0.83   |  |
| 95%                          | 0.80 | 0.82     | 0.84      | 0.87        | 0.88    | 0.89   |  |
| 100%                         | 0.89 | 0.90     | 0.92      | 0.94        | 0.95    | 0.96   |  |
|                              |      | TYPE B N | RCS HYDRO | OLOGIC SOIL | S GROUP | •      |  |
| 0%                           | 0.02 | 0.08     | 0.15      | 0.25        | 0.30    | 0.35   |  |
| 5%                           | 0.04 | 0.10     | 0.19      | 0.28        | 0.33    | 0.38   |  |
| 10%                          | 0.06 | 0.14     | 0.22      | 0.31        | 0.36    | 0.40   |  |
| 15%                          | 0.08 | 0.17     | 0.25      | 0.33        | 0.38    | 0.42   |  |
| 20%                          | 0.12 | 0.20     | 0.27      | 0.35        | 0.40    | 0.44   |  |
| 25%                          | 0.15 | 0.22     | 0.30      | 0.37        | 0.41    | 0.46   |  |
| 30%                          | 0.18 | 0.25     | 0.32      | 0.39        | 0.43    | 0.47   |  |
| 35%                          | 0.20 | 0.27     | 0.34      | 0.41        | 0.44    | 0.48   |  |
| 40%                          | 0.23 | 0.30     | 0.36      | 0.42        | 0.46    | 0.50   |  |
| 45%                          | 0.26 | 0.32     | 0.38      | 0.44        | 0.48    | 0.51   |  |
| 50%                          | 0.29 | 0.35     | 0.40      | 0.46        | 0.49    | 0.52   |  |
| 55%                          | 0.33 | 0.38     | 0.43      | 0.48        | 0.51    | 0.54   |  |
| 60%                          | 0.37 | 0.41     | 0.46      | 0.51        | 0.54    | 0.56   |  |
| 65%                          | 0.41 | 0.45     | 0.49      | 0.54        | 0.57    | 0.59   |  |
| 70%                          | 0.45 | 0.49     | 0.53      | 0.58        | 0.60    | 0.62   |  |
| 75%                          | 0.51 | 0.54     | 0.58      | 0.62        | 0.64    | 0.66   |  |
| 80%                          | 0.57 | 0.59     | 0.63      | 0.66        | 0.68    | 0.70   |  |
| 85%                          | 0.63 | 0.66     | 0.69      | 0.72        | 0.73    | 0.75   |  |
| 90%                          | 0.71 | 0.73     | 0.75      | 0.78        | 0.80    | 0.81   |  |
| 95%                          | 0.79 | 0.81     | 0.83      | 0.85        | 0.87    | 0.88   |  |
| 100%                         | 0.89 | 0.90     | 0.92      | 0.94        | 0.95    | 0.96   |  |

TABLE RO-5 (Continued)—Runoff Coefficients, C

| Percentage<br>Imperviousness | Type A NRCS Hydrologic Soils Group |      |       |       |       |        |  |  |
|------------------------------|------------------------------------|------|-------|-------|-------|--------|--|--|
| ·                            | 2-yr                               | 5-yr | 10-yr | 25-yr | 50-yr | 100-yr |  |  |
| 0%                           | 0.00                               | 0.00 | 0.05  | 0.12  | 0.16  | 0.20   |  |  |
| 5%                           | 0.00                               | 0.02 | 0.10  | 0.16  | 0.20  | 0.24   |  |  |
| 10%                          | 0.00                               | 0.06 | 0.14  | 0.20  | 0.24  | 0.28   |  |  |
| 15%                          | 0.02                               | 0.10 | 0.17  | 0.23  | 0.27  | 0.30   |  |  |
| 20%                          | 0.06                               | 0.13 | 0.20  | 0.26  | 0.30  | 0.33   |  |  |
| 25%                          | 0.09                               | 0.16 | 0.23  | 0.29  | 0.32  | 0.35   |  |  |
| 30%                          | 0.13                               | 0.19 | 0.25  | 0.31  | 0.34  | 0.37   |  |  |
| 35%                          | 0.16                               | 0.22 | 0.28  | 0.33  | 0.36  | 0.39   |  |  |
| 40%                          | 0.19                               | 0.25 | 0.30  | 0.35  | 0.38  | 0.41   |  |  |
| 45%                          | 0.22                               | 0.27 | 0.33  | 0.37  | 0.40  | 0.43   |  |  |
| 50%                          | 0.25                               | 0.30 | 0.35  | 0.40  | 0.42  | 0.45   |  |  |
| 55%                          | 0.29                               | 0.33 | 0.38  | 0.42  | 0.45  | 0.47   |  |  |
| 60%                          | 0.33                               | 0.37 | 0.41  | 0.45  | 0.47  | 0.50   |  |  |
| 65%                          | 0.37                               | 0.41 | 0.45  | 0.49  | 0.51  | 0.53   |  |  |
| 70%                          | 0.42                               | 0.45 | 0.49  | 0.53  | 0.54  | 0.56   |  |  |
| 75%                          | 0.47                               | 0.50 | 0.54  | 0.57  | 0.59  | 0.61   |  |  |
| 80%                          | 0.54                               | 0.56 | 0.60  | 0.63  | 0.64  | 0.66   |  |  |
| 85%                          | 0.61                               | 0.63 | 0.66  | 0.69  | 0.70  | 0.72   |  |  |
| 90%                          | 0.69                               | 0.71 | 0.73  | 0.76  | 0.77  | 0.79   |  |  |
| 95%                          | 0.78                               | 0.80 | 0.82  | 0.84  | 0.85  | 0.86   |  |  |
| 100%                         | 0.89                               | 0.90 | 0.92  | 0.94  | 0.95  | 0.96   |  |  |