

## PUBLIC NOTICE

Notice is hereby given that the Tooele City Council and the Redevelopment Agency (RDA) of Tooele City will meet in a Work Meeting, on Wednesday, August 21, 2024, at 5:30 p.m. The meeting will be held in the Tooele City Hall Council Chambers, located at 90 North Main Street, Tooele, Utah. The complete public notice is posted on the Utah Public Notice Website [www.utah.gov](http://www.utah.gov), the Tooele City Website [www.tooelecity.gov](http://www.tooelecity.gov), and at Tooele City Hall. To request a copy of the public notice or for additional inquiries please contact Michelle Pitt, City Recorder at (435)843-2111 or [michellep@tooelecity.gov](mailto:michellep@tooelecity.gov).

We encourage you to join the City Council meeting electronically by visiting the **Tooele City YouTube Channel**, at <https://www.youtube.com/@tooelecity> or by going to YouTube.com and searching "Tooele City Channel".

## AGENDA

1. **Open City Council Meeting**
2. **Roll Call**
3. **Mayor's Report**
4. **Council Members' Report**
5. **Discussion Items**
  - a. **Resolution 2024-60** A Resolution of the Tooele City Council Approving the Canyon Springs Annexation Agreement  
*Presented by Roger Baker, City Attorney*
  - b. **Land Use Map Amendment for Property Located at Approximately 200 East 1000 North to Re-Assign the Land Use Designation from Medium Density Residential (MDR) to High Density Residential (HDR)**  
*Presented by Andrew Aagard, Community Development Director*
  - c. **Land Use Map Amendment for Property Located at Approximately 105 East 1000 North to Re-Assign the Land Use Designation from Regional Commercial (RC) to Mixed Use (MU)**  
*Presented by Andrew Aagard, Community Development Director*
6. **Closed Meeting**  
*~ Litigation, Property Acquisition, and/or Personnel*
7. **Adjourn**

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Michelle Y. Pitt, Tooele City Recorder

Pursuant to the Americans with Disabilities Act, individuals needing special accommodations should notify Michelle Y. Pitt, Tooele City Recorder, at 435-843-2111 or [Michellep@Tooelecity.gov](mailto:Michellep@Tooelecity.gov), prior to the meeting.

**TOOELE CITY CORPORATION**

**RESOLUTION 2024-60**

**A RESOLUTION OF THE TOOELE CITY COUNCIL APPROVING THE CANYON SPRINGS ANNEXATION AGREEMENT.**

WHEREAS, by application dated April 25, 2024, petition sponsor Howard Schmidt (the "Petitioner"), filed with Tooele City an Annexation Application (aka "Petition") for the annexation of 61.16 acres of land (the Canyon Springs property) into Tooele City; and,

WHEREAS, on June 5, 2024, the City Council approved Resolution 2024-45, accepting the Petition for further consideration; and,

WHEREAS, Tooele City Code §7-24-3 requires every annexation to be preceded by an annexation agreement setting forth the terms and conditions governing the annexation; and,

WHEREAS, the proposed Canyon Springs Annexation Agreement is attached as Exhibit A; and,

WHEREAS, Section 1 of the proposed Annexation Agreement provides that it "shall take effect upon the City Council's approval by at least a two-thirds (2/3) majority vote of an ordinance annexing the Property into Tooele's corporate limits, and this Agreement **shall not take effect otherwise**" [emphasis added]:

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the Canyon Springs Annexation Agreement attached hereto as Exhibit A is hereby approved and that the Mayor is hereby authorized to sign the same following approval of the Canyon Springs annexation by ordinance.

This Resolution shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Resolution is passed by the Tooele City Council this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

TOOELE CITY COUNCIL

(For)

(Against)

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ABSTAINING: \_\_\_\_\_

MAYOR OF TOOELE CITY

(Approved)

(Disapproved)

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ATTEST:

\_\_\_\_\_  
Michelle Y. Pitt, City Recorder

S E A L

Approved as to Form:

  
\_\_\_\_\_  
Roger Evans Baker, City Attorney

## Exhibit A

# Canyon Springs Annexation Agreement

Contact:  
Tooele City Recorder  
90 North Main  
Tooele, UT 84074  
(435) 843-2113

Affected Parcel(s): 03-032-0-0014

## CANYON SPRINGS ANNEXATION AGREEMENT

TOOELE EAST LLC (“**Petitioner**”), a Utah limited liability company, and TOOELE CITY CORPORATION (“**Tooele**”), a Utah municipality and political subdivision of the State of Utah, and a Utah charter city (collectively the “**Parties**”), hereby make and enter into this Canyon Springs Annexation Agreement (“**Agreement**”) in connection with and to govern the annexation of the 61.16-acre Canyon Springs property (“**Property**”).

### RECITALS

**A.** Petitioner owns the Property, which consists of approximately 61.16 contiguous acres of real property adjacent to and contiguous with Tooele (see illustration attached as **Exhibit A**).

**B.** Petitioner submitted a Petition for Annexation (“**Petition**”) on April 25, 2024, seeking annexation of the Property into Tooele.

**C.** Petitioner desires, and Tooele consents to, the annexation of the Property into Tooele’s corporate limits, subject to the terms and conditions of this Agreement.

**D.** The City Council of Tooele finds that the annexation: (i) will serve the best interests of Tooele and the welfare of its inhabitants; (ii) is consistent with Tooele’s Annexation Policy Plan; (iii) will not create islands or peninsulas of unincorporated territory; and, (iv) will not be annexed for the sole purpose of acquiring municipal revenue.

**E.** Petitioner plans, and Tooele desires, quality residential development upon the Property, while at the same time creating public benefits and amenities on, and associated with, the Property. Future development on the Property is referred to herein as **Canyon Springs**, irrespective of the final development name and configuration.

**F.** Tooele City Code (TCC) Section 7-24-3 requires an annexation agreement as a condition of every annexation approval, and Tooele desires to set forth Petitioner’s obligations concerning the annexation of the Property.

**G.** On June 5, 2024, the City Council of Tooele approved Resolution 2024-45, accepting the Petition for further consideration.

**H.** Petitioner has provided to Tooele, at Tooele’s request and at Petitioner’s cost, analyses of the impacts of Canyon Springs upon Tooele’s utility systems, including culinary water, sanitary sewer, storm water drainage, and fiscal and tax. The Tooele Administration has provided to the

City Council additional information.

I. On July 10, 2024, the Petition was presented to the Tooele Planning Commission, which recommended approval of the annexation by a vote of 5-2.

J. Tooele's approval of the annexation of the Property is the consideration for Petitioner's performance of the obligations set forth in this Agreement, and Tooele has no further obligations under this Agreement.

K. The City Council of Tooele, acting pursuant to its statutory authority under Utah law, with its authority as a Utah charter city, and in furtherance of its land use policies, goals, objectives, ordinances, resolutions, regulations, and policies, and, in the exercise of its legislative authority and discretion, has chosen to approve this Agreement.

### **AGREEMENT**

Now, therefore, in consideration of the mutual covenants, conditions, and terms of this Agreement, as set forth herein, Petitioner and Tooele hereby agree as follows:

1. **Effective Date.** This Agreement shall take effect upon the City Council's approval by at least a two-thirds (2/3) majority vote of an ordinance annexing the Property into Tooele's corporate limits, and this Agreement shall not take effect otherwise. Tooele shall have no obligation in law or equity to sign the approved annexation plat until after Petitioner has executed this Agreement.
2. **Land Use and Zoning.** Upon completion of the annexation of the Property into Tooele, the Property will possess the MDR (medium density residential) land use designation and the R1-8 zoning designation, and Petitioner agrees to these designations.
3. **No Vested Rights.** This Agreement shall not confer upon any party or parcel any land use entitlements or vested rights.
4. **Dwelling Unit Cap.** The Canyon Springs development shall not exceed 172 dwelling units.
5. **Petitioner's Obligations.** Petitioner shall perform the following obligations in consideration for Tooele approving the annexation of the Property.
  - a. **Land Use Approvals.** Petitioner shall comply with all applicable Tooele laws and regulations, current as of the date of any complete land use application (e.g., subdivision), as a condition of land use approvals for the Property.
  - b. **Dedications.** Petitioner shall dedicate and convey to Tooele all public roads, public improvements, infrastructure easements, and access easements as are shown upon approved subdivision final plats, site plans, building permits, and construction drawings for land uses approved on the Property.

- c. **Water Rights.** Petitioner shall comply with TCC Chapter 7-26 regarding the conveyance of water rights for Canyon Springs, and agrees to the lawfulness of the water rights exaction. The water rights for a final subdivision shall be conveyed prior to approval of that final subdivision.
- d. **Culinary Water Improvements.** Petitioner shall construct and install, at Petitioner's cost, all culinary water project improvements and system improvements required by Tooele for all Canyon Springs land use approvals. Petitioner shall follow all the recommendations of that Memorandum re "Canyon Springs Annexation Drinking Water System Review" dated April 21, 2022, by Hansen Allen & Luce, Inc, attached as **Exhibit B**. Inasmuch as any system improvements necessary for Canyon Springs are not included in Tooele City's current water impact fee facilities plan or impact fee analysis, Petitioner shall not be eligible for, and shall have no right to receive, impact fee credits or reimbursements for the water system improvements.
- e. **Sanitary Sewer Improvements.** Petitioner shall construct and install, at Petitioner's cost, all sanitary sewer project improvements and system improvements required by Tooele for all Canyon Springs land use approvals. Petitioner shall follow all the recommendations of that Memorandum re "Canyon Springs Annexation – Wastewater Review" dated April 26, 2022, by Hansen Allen & Luce, Inc, attached as **Exhibit C** (including Project E-1 described more fully in Exhibit C). Petitioner shall not be eligible for, and shall have no right to receive, impact fee credits or reimbursements for the sewer system improvements.
- f. **Storm Water Improvements.** Petitioner shall construct and install, at Petitioner's cost, all storm water project improvements and system improvements required by Tooele for all Canyon Springs land use approvals. Petitioner shall follow all the recommendations of that Memorandum re "Canyon Springs – Drainage Review" dated April 21, 2022, by Hansen Allen & Luce, Inc, attached as **Exhibit D**. Notwithstanding the above, all storm water detention facilities shall be designed to be multi-functional, i.e., irrigated, landscaped, separated from Droubay Road for public safety, ready for multi-purpose storm water drainage and recreational uses, and approved in writing by both the Public Works Director and the Parks and Recreation Director of Tooele. Storm water detention facilities shall not be eligible for reimbursement or credit from parks and recreation impact fees, and Petitioner waives all rights it might otherwise have to parks and recreation impact fee reimbursements or credits for landscape and recreation facilities and improvements designed as part of the multi-functional storm water detention facilities.
- g. **Parks Facilities.** Petitioner shall not be required to construct any public park facilities in Canyon Springs. Canyon Springs building permits shall include the payment of park and recreation impact fees.
- h. **Parks Monetary Contribution.** Petitioner shall pay to Tooele a voluntary contribution in the sum of \$250,000 to be used by Tooele on park and recreation-related improvements and programs, in Tooele's sole discretion. This payment is part of the

consideration for the Property's annexation, does not address the specific parks and recreation impacts of Canyon Springs on the City, and shall not entitle Petitioner to a reimbursement or credit from parks and recreation impact fees paid with Canyon Springs building permits. Petitioner waives any right to impact fee credits for the park monetary contribution. Petitioner shall make the payment at the time of any final subdivision application submission to the City, in the amount of \$2,000 per subdivision lot, until fully paid.

- i. **Single-family Design Standards.** All Canyon Springs dwellings shall comply with Tooele's single-family design standards as codified in TCC Chapter 7-11b of the Tooele City Code, irrespective of the limitations in UCA 10-9a-530, each as amended. For the limited purpose of this Section 5.j., and for no other purpose, this Agreement shall be considered a development agreement, as defined in UCA 10-9a-103, as amended. In the alternative, Tooele and Petitioner may negotiate and execute an, separate from this Agreement, to adopt a different Canyon Springs single-family dwelling design standard. If an alternative design standard agreement has not been executed prior to Petitioner's land use application for a first final subdivision phase, then TCC Chapter 7-11b shall apply in perpetuity to Canyon Springs.
- j. **Dwelling Sizes.** Because Petitioner has represented Canyon Springs to be a "step up" or "move up" residential development project, Petitioner agrees that all dwellings shall have the following minimum above-ground floorplan of finished square-footage, not including the garage:

Lot Size (sq ft)	< 10,000	10,000 - 12,000	> 12,000
House Size (1 story)	1,400	1,500	1,600
House Size (2 stories)	1,800	2,000	2,200

- k. **Garages.** A minimum of 50% of the dwellings in Canyon Springs shall have a three-or-more-car garage of at least industry standard dimensions.
- l. **Public Safety Contribution.** As consideration for the annexation of the Property, Petitioner agrees to pay to Tooele a voluntary contribution of \$250,000 for public safety purposes, to be used in Tooele's sole discretion. Petitioner shall make the payment at the time of any final subdivision application submission to the City, in the amount of \$2,000 per subdivision lot, until fully paid.
- m. **Trail Improvements.** Petitioner shall enter into an agreement with Tooele County to pave a trail on County-owned property located immediately adjacent to the south Property line, beginning at the Droubay Road right-of-way and proceeding east to the eastern Property line. The pavement shall be to County specifications. Execution of the agreement by Petitioner shall be a condition precedent to Tooele obtaining from the State of Utah, and recording with the Tooele County Recorder, a Certificate of



annexation or boundary adjustment, and a local entity plat, for the Canyon Springs annexation.

6. **General Terms and Conditions.**

- a. **Binding Effect and Assignment.** Petitioner may convey all or part of the Property to one or more purchasers. Petitioner shall remain responsible for all Petitioner's obligations under this Agreement unless all of the obligations are assigned at one time to a third party. No assignment of this Agreement and its Petitioner obligations shall be valid without Tooele's prior written consent. Tooele shall not unreasonably withhold its consent after Petitioner demonstrates that the assignee possesses the financial means to fulfill all of Petitioner's obligations under this Agreement. Any assignment must be accomplished by an assumption and assignment agreement, upon which Tooele's consenting signature is necessary for effectiveness of the assignment.
- b. **State and Federal Law.** Petitioner agrees that the obligations imposed by this Agreement comply with local, state, and federal law. The Parties agree that if any provision of this Agreement should be or become, in its performance, non-compliant with state or federal law, or should be declared invalid by a court, this Agreement shall be deemed amended to the extent necessary to make it consistent with state or federal law or the order of the court, as the case may be, and the balance of this Agreement shall remain in full force and effect.
- c. **Recitals.** The above recitals are incorporated into and made a part of this Agreement.
- d. **Exhibits.** All Exhibits referred to herein are incorporated into and made a part of this Agreement.
- e. **Headings.** The headings used in this Agreement are inserted for reference purposes only and shall not be deemed to define, limit, extend, describe, or affect in any way the meaning, scope, interpretation, or construction of any of the terms and provisions of this Agreement or the intent hereof.
- f. **No Third-Party Rights.** This Agreement does not create any joint venture, partnership, joint undertaking, or joint business arrangement between Petitioner and Tooele. Notwithstanding the Trail provision in Section 5.i., above, this Agreement does not create any rights or benefits in or to third parties.
- g. **No Waiver.** The failure by Tooele to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement, or to exercise any right or remedy consequent upon Petitioner's failure to perform thereof, shall not constitute a waiver by Tooele of any such failure to perform or of any other covenant, agreement, term, or condition.
- h. **Integration.** This Agreement contains the entire agreement between the Parties with respect to the subject matter hereof and integrates all prior conversations, discussions, or understandings of whatever kind or nature.

- i. **Amendment.** This Agreement may be modified only by a subsequent writing duly executed and approved by the Parties hereto.
- j. **Mutual Participation in Document Preparation.** Each party has participated materially in the negotiation and preparation of this Agreement and any related items. In the event of a dispute concerning the interpretation of any provision of this Agreement or any related item, both Parties will be deemed to have jointly drafted this document, and the rule of construction to the effect that certain ambiguities are to be construed against the party drafting a document will not apply.
- k. **Applicable Law.** Utah law shall govern this Agreement and its construction.
- l. **Venue.** Venue shall be the Third District Court, Tooele Department.
- m. **Court Costs and Attorneys Fees.** In the event of any legal action between the Parties, arising out of or related to this Agreement, the prevailing Party shall be entitled to recover costs and reasonable attorneys' fees.
- n. **Limitation of Remedies.** Petitioner's sole and exclusive remedy for any non-performance or breach of Tooele's express or implied covenants of this Agreement is declaratory relief construing this Agreement's rights and obligations and specific performance of this Agreement. Under no circumstances shall Tooele City Corporation or its agents be liable to Petitioner or Petitioner's successors-in-interest for any monetary damages, including, but not limited to, special, general, direct, indirect, delay, compensatory, expectancy, consequential, reliance, out-of-pocket, restitution, or other damages.
- o. **No Jury Trial.** To the fullest extent permitted by law, each of the Parties hereto waives any right it may have to a trial by jury in respect of litigation directly or indirectly arising out of, under, or in connection with this Agreement.
- p. **Dispute Resolution.** Tooele and Petitioner recognize and agree that it is in their mutual interest to attempt to informally resolve any disputes that may arise with respect to the interpretation of this Agreement, including as it applies to future Canyon Springs land use applications. In furtherance of that mutual interest, the Parties agree to the following dispute resolution provisions.
  - i. Meet and Confer. In an attempt to resolve the issues or concerns in an expeditious and efficient manner, the Parties shall meet promptly after any Party makes a written objection to the other Party regarding any Party's performance under this Agreement.
  - ii. Non-Binding Mediation. If the Parties are unable to resolve a disagreement under the Meet and Confer provision, they shall appoint a mutually acceptable mediator with knowledge of the subject matter in dispute. If the parties are unable to agree on a single acceptable mediator, they shall each appoint their own representative. These two appointees shall, between them, choose the single mediator. Petitioner

and Tooele shall each pay an equal portion of the fees of the chosen mediator. The chosen mediator shall review the positions of the Parties regarding the issues in dispute and promptly attempt to mediate the conflict. If the Parties are unable to reach agreement, the mediator shall notify the Parties in writing of the resolution that the mediator proposes. The mediator's proposal shall not be binding on the Parties.

- iii. All Rights Reserved. If resolution under the Non-binding Mediation provision fails or is rejected by any Party, the Parties may pursue any and all legal and equitable remedies available except as limited under this Agreement, including specifically the Limitation of Remedies provision in Section 6.o., above.
- q. **Notices.** Any notices, requests, or demands required or desired to be given hereunder shall be in writing and shall either be delivered personally or by certified mail or express courier delivery to the parties at the following addresses:

Tooele City Corporation  
Attention: Mayor  
90 North Main  
Tooele, UT 84074

Tooele East, LLC  
Attention: Howard Schmidt  
9300 South Redwood Road  
West Jordan, UT 84088

A Party may change its address by giving written notice to the other Party in accordance with this provision.

- 7. **Binding Authority.** By executing this Agreement, the signatories represent and affirm that they are authorized so to do, and that their respective signatures shall have binding force upon them and upon the Parties represented by each.
- 8. **Recordation.** This Agreement shall be recorded in the office of the Tooele County Recorder.

*(Signature page follows.)*

SIGNED:

**TOOELE CITY CORPORATION**

**TOOELE EAST LLC**

\_\_\_\_\_  
Debra E. Winn, Mayor

\_\_\_\_\_  
Howard Schmidt, Managing Member

ATTEST:

APPROVED AS TO FORM

\_\_\_\_\_  
City Recorder

\_\_\_\_\_  
City Attorney

STATE OF UTAH            )  
                                  ) ss.  
COUNTY OF TOOELE    )

Before me, a notary public, appeared Debra E. Winn, who did affirm to me that she is the Mayor of Tooele City Corporation and that she did execute the foregoing Annexation Agreement with due authority on behalf of Tooele City Corporation this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
Notary Public  
Residing in Tooele County, Utah

STATE OF UTAH            )  
                                  ) ss.  
COUNTY OF TOOELE    )

Before me, a notary public, appeared Howard Schmidt, who did affirm to me that he is the Managing Member of Tooele East LLC, and that he did execute the foregoing Annexation Agreement on behalf of Tooele East LLC with due authority this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
Notary Public  
Residing in Tooele County, Utah

## Exhibit A

### Illustration of the Property



## Exhibit B

# Drinking Water System Review and Highlighted Recommendations



DATE: April 21, 2022

TO: Paul Hansen, P.E.  
Tooele City Engineer  
90 North Main  
Tooele, Utah 84047

FROM: Katie Gibson Jacobsen, P.E.  
Benjamin D. Miner, P.E.  
Hansen, Allen & Luce, Inc. (HAL)  
859 W. South Jordan Pkwy. Ste. 200  
South Jordan, UT 84095

SUBJECT: Canyon Springs Annexation  
Drinking Water System Review

PROJECT NO.: 149.08.148



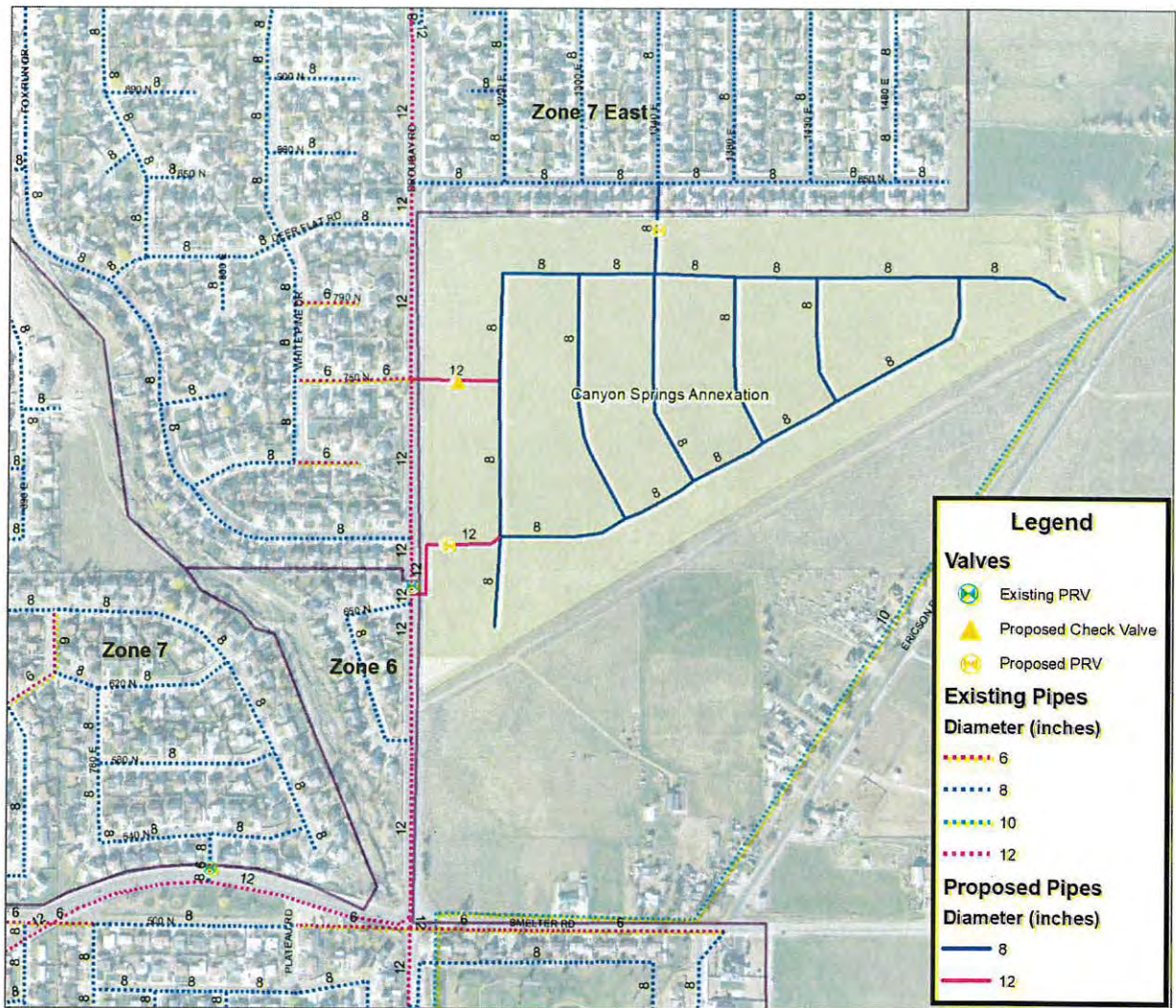
## INTRODUCTION

As requested, HAL has performed a review of the effects that the proposed Canyon Springs Annexation will have on the City's public water system. This includes a hydraulic modeling analysis of the proposed drinking water infrastructure for the development. The development is located at approximately 600 North to 840 North, east of Droubay Road in Tooele. The analysis assumes that the development density will be the same as a development layout provided to HAL by Tooele City. This analysis is based on the Utah Division of Drinking Water requirements and the criteria included in the Tooele City Drinking Water System Master Plan dated May 2021 (Master Plan).

This analysis includes a discussion of the effects of the proposed development on the existing system, as well as a discussion of the effects of adding this development to the future scenarios of the master plan.

## DRINKING WATER SYSTEM

The Canyon Springs Annexation development is located between 600 North and 840 North east of Droubay Road in Tooele, Utah. The development includes 172 single family residential lots and covers approximately 60 acres. Figure 1 shows a schematic of the existing drinking water pipelines and our assumption of development pipelines. The development will likely propose constructing 8-inch diameter water lines along development streets.



**FIGURE 1: DEVELOPMENT LOCATION AND DRINKING WATER SYSTEM PIPE SIZE**

### Estimated Water Demand

Peak day water demand for the development was calculated using the Level of Service from the Master Plan and data currently available for the proposed development. Estimated indoor and outdoor irrigation demands are calculated as shown in Table 1.

**TABLE 1: DRINKING WATER PEAK DAY DEMAND AND STORAGE VOLUME FOR DEVELOPMENT**

<b>Development</b>	<b>Units</b>	<b>ERCs</b>	<b>Source/Peak Day Demand<sup>1</sup> (gpm)</b>	<b>Storage<sup>2</sup> (gal)</b>
Canyon Springs Annexation	172	172	153	93,300

1. Well Source Level of Service is 1,280 gpd per ERC (Tooele City Drinking Water Master Plan, 2021). A peaking factor of 1.75 was multiplied by the peak day demand to get the peak Instantaneous demand.
2. The water storage Level of Service is 542 gallons per ERC (Tooele City Drinking Water Master Plan).

**Source and Storage**

The effects of the Canyon Springs annexation on source and storage were evaluated for the existing system and for the future scenario as described in the Master Plan. Demands for the Canyon Springs annexation area were not included in the Master Plan because they were outside the city boundary. This analysis includes adding these demands to the Master Plan scenarios.

**Source and Storage – Existing System**

Based on the City’s source demand Level of Service of 1,280 gallons per day per ERC, the proposed development will require 153 gpm source capacity, as shown in Table 1. Currently, the City’s total reliable source capacity is about 11,730 gpm. Existing demand for constructed development at the time of the 2020 Master Plan is estimated to be 11,600 gpm. With approved development included, the total City peak day demand is estimated to be 13,820 gpm, once all the approved development is constructed.

Based on the City’s storage Level of Service of 542 gallons of storage per ERC, the proposed development will require 93,300 gallons of equalization storage, as shown in Table 1. Currently, the City’s total storage capacity is 14.3 million gallons (MG). The required storage for existing development at the time of the 2020 Master Plan, including storage for fire flow and emergency, is estimated to be 8.9 MG. With approved development included, the required storage is estimated to be 10.3 MG.

A summary of the anticipated demands and storage requirements, including the proposed Canyon Springs Annexation development, is included in Table 2 below.

**TABLE 2: CITY WATER SOURCE AND STORAGE SUMMARY**

Description	ERCs		Source Demand (gpm)		Storage Required (MG)	
	This Item	Cumulative	This Item	Cumulative	This Item	Cumulative
2021 Master Plan	13,960	13,960	11,600	11,600	8.93	8.93
Approved Development	2,500	16,460	2,220	13,820	1.34	10.27
Canyon Springs Annexation	172	16,632	153	13,973	93,300 gal	10.36
Estimated City Capacity	-	-	-	11,730	-	14.27
Potential Excess (+) or Deficit (-)	-	-	-	-2,243 <sup>1</sup> gpm	-	3.91 MG

Note 1 – This does not include the new wells under construction. See discussion below.

It may be observed in Table 2 that the predicted demand may exceed the available source capacity during peak demand periods if all approved development is constructed. The City anticipates completing production wells at Red Delpapa Park (Park well) and near 1500 North Berra Boulevard (Berra well) in the next few months. These wells are anticipated to produce at least 1,000 gpm and 1,500 gpm respectively, which would be enough to eliminate the estimated source deficit and provide a small reserve of about 250 gpm. The City can determine whether to allot this reserve to the Canyon Springs development or preserve it for development within the City. Additionally, the City may wish to preserve source capacity for redundancy in case any wells are out of service.

It is anticipated that adequate storage exists in the City's system for the proposed development.

### Source and Storage – Master Plan Capital Facility Projects

The Master Plan indicates that after the Park well and Berra well are constructed, the next three wells are anticipated to provide at least 1,000 gpm each and need to be constructed as shown in Table 3.

**TABLE 3: MASTER PLAN CAPITAL FACILITY PROJECTS – SOURCE**

Project	Description	ERCs When Required
53-55	East A Well and 12-inch Transmission	15,081
56-57	East C Well and 12-inch Transmission	15,828
58-61	West A Well and 16-inch Transmission	16,950

As shown in Table 2 and Table 3 and based on the number of ERCs projected in the Master Plan the City should construct at least two additional wells beyond the Park Well and Berra Well as soon as possible. Transmission to bring water from these wells to the City is associated with each well, and also needs to be completed. As discussed previously, after adding the Park well and

Berra well to the system, there will be a remaining source capacity of approximately 250 gpm. The next well is needed because the 250 gpm remaining capacity provides very little redundancy or capacity for additional growth. Additionally, it will likely take several years to bring a well online.

The Master Plan indicates two wells are needed to provide full redundancy if the largest well is out of service. After construction of the Park and Berra wells, the Berra well is anticipated to be the largest well in the City system, providing 1,500 gpm. Without the Berra well available, reliable source capacity would be 12,730 gpm. As shown in Table 2, the source demand with the Canyon Springs annexation is 13,973 gpm. Assuming the largest well out of service, one additional well would likely increase the reliable capacity to approximately 13,730 gpm, and two wells would be required to provide the required source demand with a reasonable level of redundancy.

No storage projects are required by the Master Plan to accommodate the Canyon Springs annexation area in the near term.

### **Source and Storage – Additions to Master Plan System**

The Canyon Springs annexation area was not included in the 2021 Master Plan. Adding the development will require additional source beyond what is shown in the Master Plan for the level of growth anticipated by 2060. The Master Plan identifies sources east of and south of Tooele City, potentially as far away as Vernon. Adding the annexation area will expedite the need for these sources, but will not require the identification of new sources.

The Master Plan identified a deficit of 0.1 MG storage at the level of growth anticipated by 2060. Adding the annexation area increases this deficit to 0.2 MG. This deficit will be remedied with the construction of the Berra well operational storage tank and other operational storage tanks discussed in the Master Plan.

### **Transmission**

Tooele City maintains a water network computer model so that the system performance, including transmission capacity, can be evaluated. The proposed development was added to the model so that the effects of the development on the City system could be assessed.

### **Pressure Zone**

The proposed Canyon Springs annexation would be served by the water line along Droubay Road. The pressure zone boundary between Zone 6 and Zone 7 is located at a pressure reducing valve (PRV) located at approximately 660 North Droubay Road. The southern point of the annexation area is adjacent to Zone 6 (higher pressure), and the remainder of the annexation area is adjacent to Zone 7 (lower pressure). Pressure zone boundaries are shown on Figure 1.

The model was used to evaluate which zone is most appropriate for the annexation area. If the development is included in Zone 7, pressures within the development will be insufficient to meet

City and Division of Drinking Water requirements. The development must be constructed as part of Zone 6. This requires constructing a 12-inch waterline to serve the development from upstream (south of) the 660 North Droubay Road PRV. A second PRV must be constructed exiting the development at the connection with the adjacent Carr Fork subdivision (1340 East 800 North). This will allow circulation through the proposed development. An additional 12-inch waterline connection must be constructed from the Zone 7 portion of Droubay Road into the development at 750 North. This connection will serve as a backup supply of water into the proposed development in the case of total loss of use of the primary 12-inch supply line. This waterline must include a check valve to prevent water from leaking through the development from the higher-pressure Zone 6 to Droubay Road. These features are shown on Figure 1.

### Master Plan Capital Facility Projects

The master plan projects are shown in Figure 7-1 of the Master Plan. This figure is included in the appendix. The Master Plan indicates these projects should be constructed when the City reaches the number of ERCs shown in Table 4. Including all existing development, approved development, and the Canyon Springs annexation, the City is predicted to have a total of 16,632 ERCs.

**TABLE 4: MASTER PLAN CAPITAL FACILITY PROJECTS – TRANSMISSION**

Master Plan Project	Description	ERCs When Required
24	12-inch Tank 4 fill line from Canyon Rim line	14,706
25	Control valves on Tank 4 fill line	14,706
26	12-inch Outlet from Tank 4 to Skyline Drive, 980 LF	14,706
27	8-inch Waterline, 7 <sup>th</sup> Street, Skyline Drive to Vine Street, 2970 LF	14,706
28	10-inch Waterline, 7 <sup>th</sup> Street, Birch Street to Oquirrh Street, 130 LF	14,706
53-55	East A Well and 12-inch Transmission (~3 miles)	15,081
56-57	East C Well and 12-inch Transmission (~1 mile)	15,828
29	10-inch Waterline, Droubay Road, 280 North to 670 North, 3030 LF	16,575
30	8-inch Waterline, Parallel to Droubay Road, Valley View Drive to Fox Run Drive, 1500 LF	16,575
58-61	West A Well and 16-inch Transmission (~5 miles)	16,950

Master Plan Project 29 is shown as a 10-inch diameter waterline on Droubay Road from just south of Oquirrh Avenue to Fox Run Drive (670 North). This 10-inch waterline size is intended to be constructed in addition to the existing 12-inch waterline on Droubay Road. Rather than constructing parallel waterlines, a new 18-inch waterline would be constructed to replace the existing 12-inch waterline and planned 10-inch waterline. Master Plan Project 29 (18-inch waterline) should be constructed along the frontage of the proposed annexation area.

Master Plan Project 30 is an 8-inch waterline connecting portions of Zone 7 and is located adjacent to the proposed annexation area. A tee for this 8-inch waterline should be constructed as part of the work on Master Plan Project 29 in Droubay Road.

Master Plan Projects 24 through 28 are necessary to allow transmission of water from the City's tanks to Zone 6, Zone 7, and continuing northerly.

Master Plan Projects 53, 56, and 58 are three new wells with their associated transmission waterlines.

**Model Results for the Proposed Development**

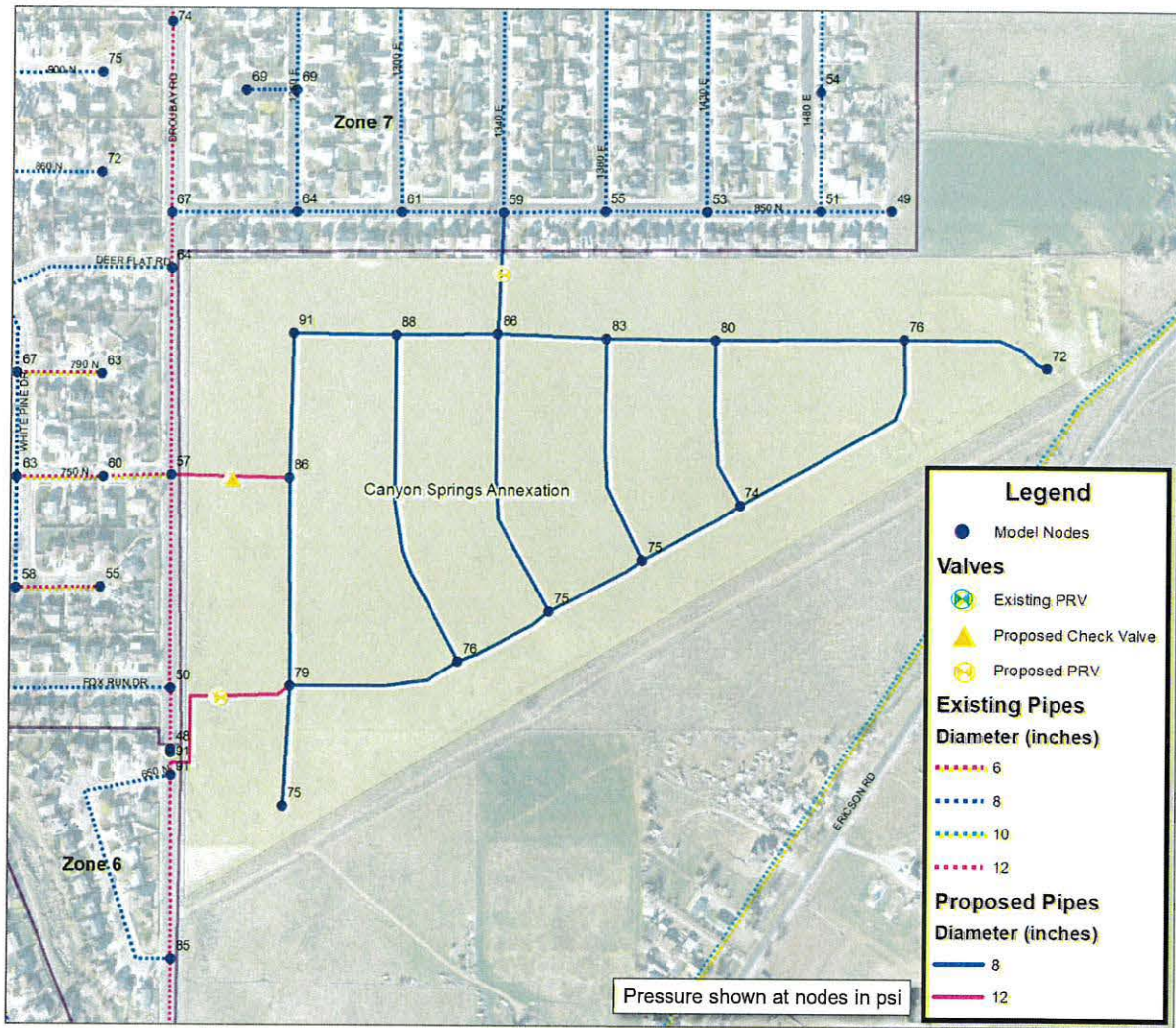
Peak instantaneous minimum and maximum pressures within the development are shown in Table 5, Figure 2, and Figure 3. There is little expected pressure variation between the peak day and peak instantaneous conditions within the Canyon Springs development because the area is controlled by PRVs.

No fire suppression requirement was provided to HAL. The model predicts that the water system is capable of providing 2,400 gpm for fire suppression while maintaining a pressure of 20 psi throughout the system. To achieve this flowrate, several hydrants would be required.

**TABLE 5: DRINKING WATER HYDRAULIC MODELING RESULTS WITHIN THE PROPOSED DEVELOPMENT**

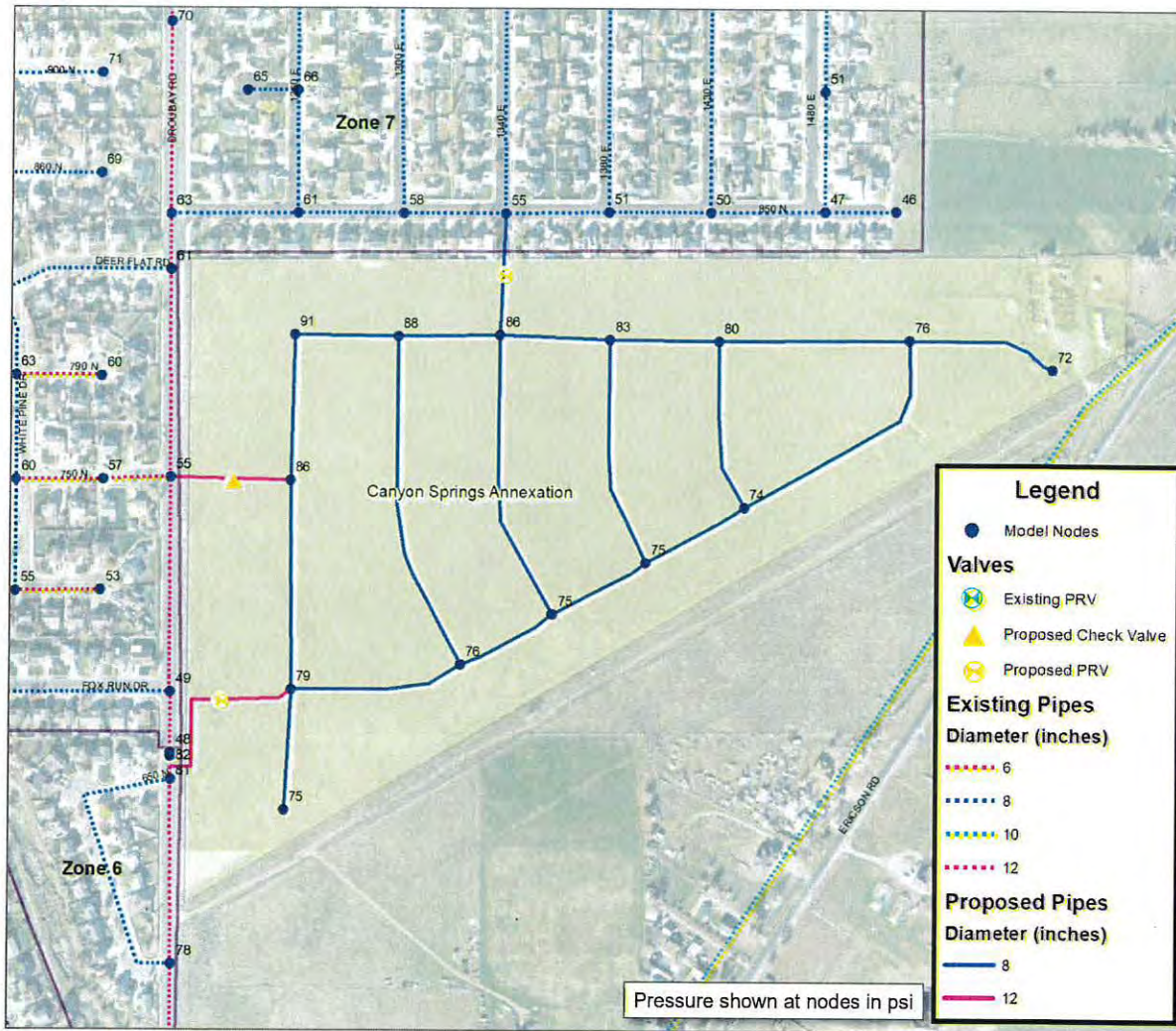
Condition	Pressure	
	Minimum	Maximum
Peak Day	72 psi	91 psi
Peak Instantaneous	72 psi	91 psi
Diurnal Pressure Variation	0 psi	
Fire Suppression Flow	2,400 gpm	

The proposed drinking water piping meets the criteria set by the Utah Division of Drinking Water and Tooele City for minimum pressures.



**FIGURE 2: DRINKING WATER SYSTEM PEAK DAY PRESSURE**





**FIGURE 3: DRINKING WATER SYSTEM PEAK INSTANTANEOUS PRESSURE**

### EFFECTS OF THE PROPOSED DEVELOPMENT ON THE EXISTING SYSTEM

The drinking water model was used to evaluate effects on the existing system from the new development. Existing locations with modeled minimum pressures below 50 psi were evaluated to determine if construction of the new development will reduce pressure at these locations. The model predicts that adding the new development will cause decreases of 0-1 psi at these locations, and did not result in any service connection in the existing system not meeting the minimum pressures specified in UAC rule R309-105-9, including:

- (a) 20 psi during conditions of fire flow and fire demand experienced during peak day demand;
- (b) 30 psi during peak instantaneous demand; and
- (c) 40 psi during peak day demand.

Existing locations with predicted available fire flow below 1,500 gpm were also evaluated. Available fire flow at these locations did not drop more than 0-5 gpm when the new development was added. The hydraulic analysis predicts that the proposed development will not adversely impact the existing system.

## CONCLUSIONS AND RECOMMENDATIONS

- After the Park well and Berra well are completed and connected into the drinking water system, the City will have sufficient source capacity to provide peak day demand, but the remaining capacity is very small and does not provide full redundancy in the event a well is out of service. The City should continue efforts to pursue new sources of water immediately. If the proposed Canyon Springs annexation is approved, it will consume most of the available source capacity. This may prevent developments within the City boundaries from being approved in the near future.
- The development is expected to cause small reductions in pressure and available fire flow in the existing drinking water system; however, the system will continue to meet the criteria set by the Utah Division of Drinking Water and Tooele City. The model predicts that after completion of the Park well and Berra well, the system can supply 2,400 gpm for fire suppression within the Canyon Springs development.
- **The proposed Canyon Springs annexation area must be served from Pressure Zone 6 (higher pressure). This requires constructing a 12-inch waterline from upstream (south of) the 660 North Droubay Road PRV into the Canyon Springs development. A second PRV is required exiting the development at 1340 East 800 North. An additional backup 12-inch waterline connection must be constructed from Pressure Zone 7 (lower pressure) into the development at 750 North and must include a check valve.**
- The analysis demonstrates there will be adequate storage available to support the Canyon Springs development.

## Exhibit C

### Wastewater Review and Highlighted Recommendations (Including Project E-1 from Wastewater Collection System Master Plan)

# MEMORANDUM

DATE: April 26, 2022

TO: Mr. Paul Hansen, P.E.  
Tooele City Engineer  
90 North Main  
Tooele, Utah 84047

FROM: Benjamin D. Miner, P.E.  
Jason Biesinger, Project Analyst  
Hansen, Allen & Luce, Inc. (HAL)  
859 W. South Jordan Pkwy. Ste. 200  
South Jordan, UT 84095

SUBJECT: Canyon Springs Annexation - Wastewater Review

PROJECT NO.: 149.08.148



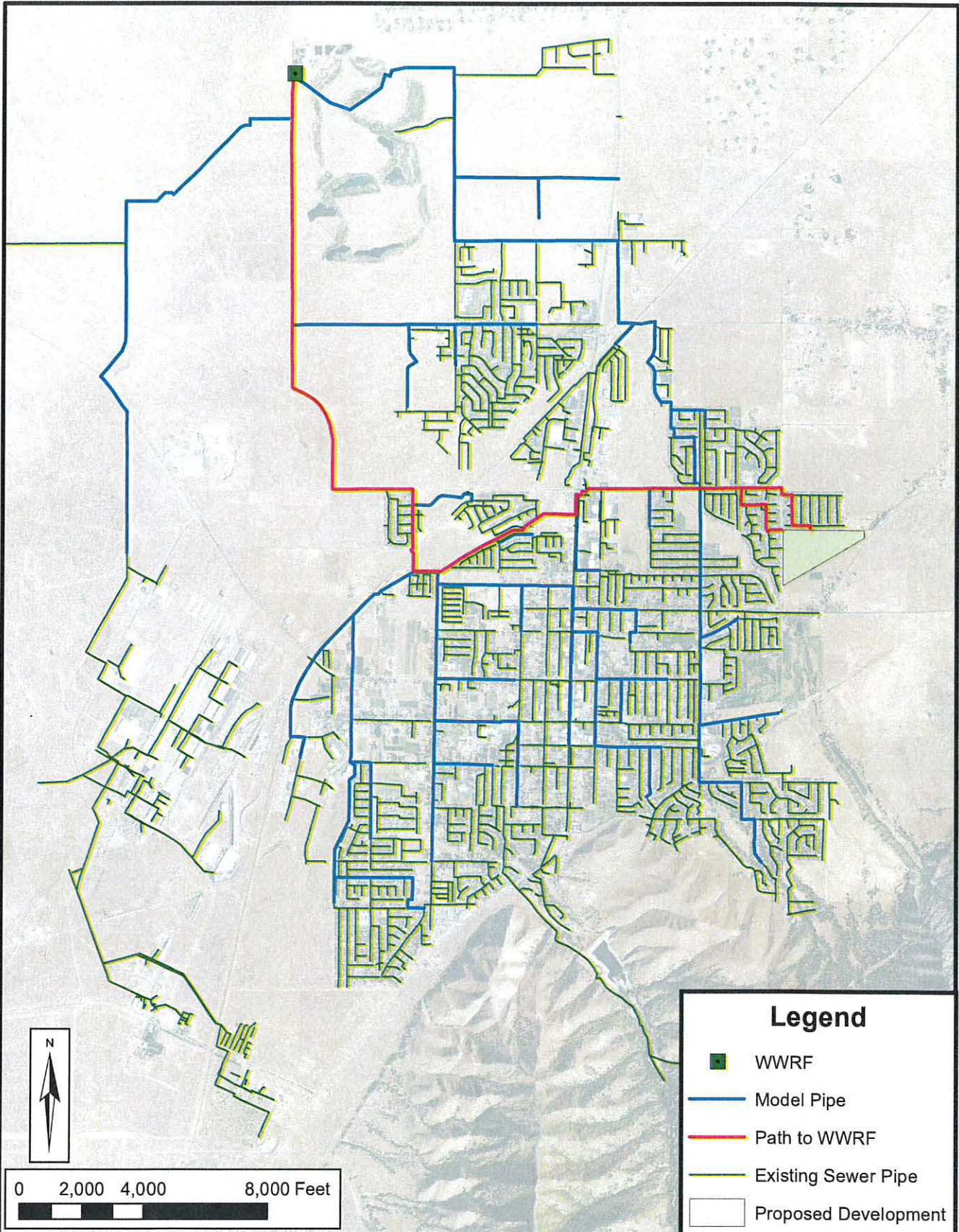
## INTRODUCTION

As requested, HAL has performed a review of the effects of the proposed Canyon Springs Annexation on the City's public wastewater collection system. This includes a hydraulic modeling analysis of the proposed wastewater collection infrastructure for the development. The development is located at approximately 600 North to 840 North, east of Droubay Road in Tooele. The analysis assumes that the development density will be the same as a development layout provided to HAL by Tooele City. This analysis has considered the Utah Division of Water Quality (DWQ) requirements and predicted wastewater flow rates that have been identified as part of the on-going wastewater master plan study.

## WASTEWATER SYSTEM

The Canyon Springs Annexation development is located at approximately 750 N and Droubay Road in Tooele, Utah, and will include 172 residential lots. Figure 1 shows a schematic map of the existing wastewater system in the vicinity of the proposed development. It is anticipated that the development will connect to existing 8-inch gravity lines on the northern and western boundaries of the proposed subdivision.

Date: 4/21/2022  
Document Path: H:\Projects\149 - Tooele City\08.148 - Canyon Springs - Annexation\GIS\Figure 1 - Existing System.mxd



**Tooele City - Canyon Springs Annexation  
Existing Wastewater Collection System**

**FIGURE  
1**

## ESTIMATED WASTEWATER GENERATION

Wastewater generation for the development was estimated based on data currently available for the proposed development. Estimates assume an average wastewater flow of 170 gpd/ERU for average daily flow. This value is peaked by 1.55 in the model analysis. Estimated wastewater production is provided in Table 1.

**TABLE 1: EXISTIMATED WASTEWATER PRODUCTION FOR CANYON SPRINGS**

Development	Units	ERUs	Daily Flow / ERU (gpd)	Average Daily Sewer Generation (gpd)	Average Daily Sewer Generation (gpm)
Canyon Springs Annexation	172	172	170	29,240	20.3

## WASTEWATER COLLECTION SYSTEM MODELING

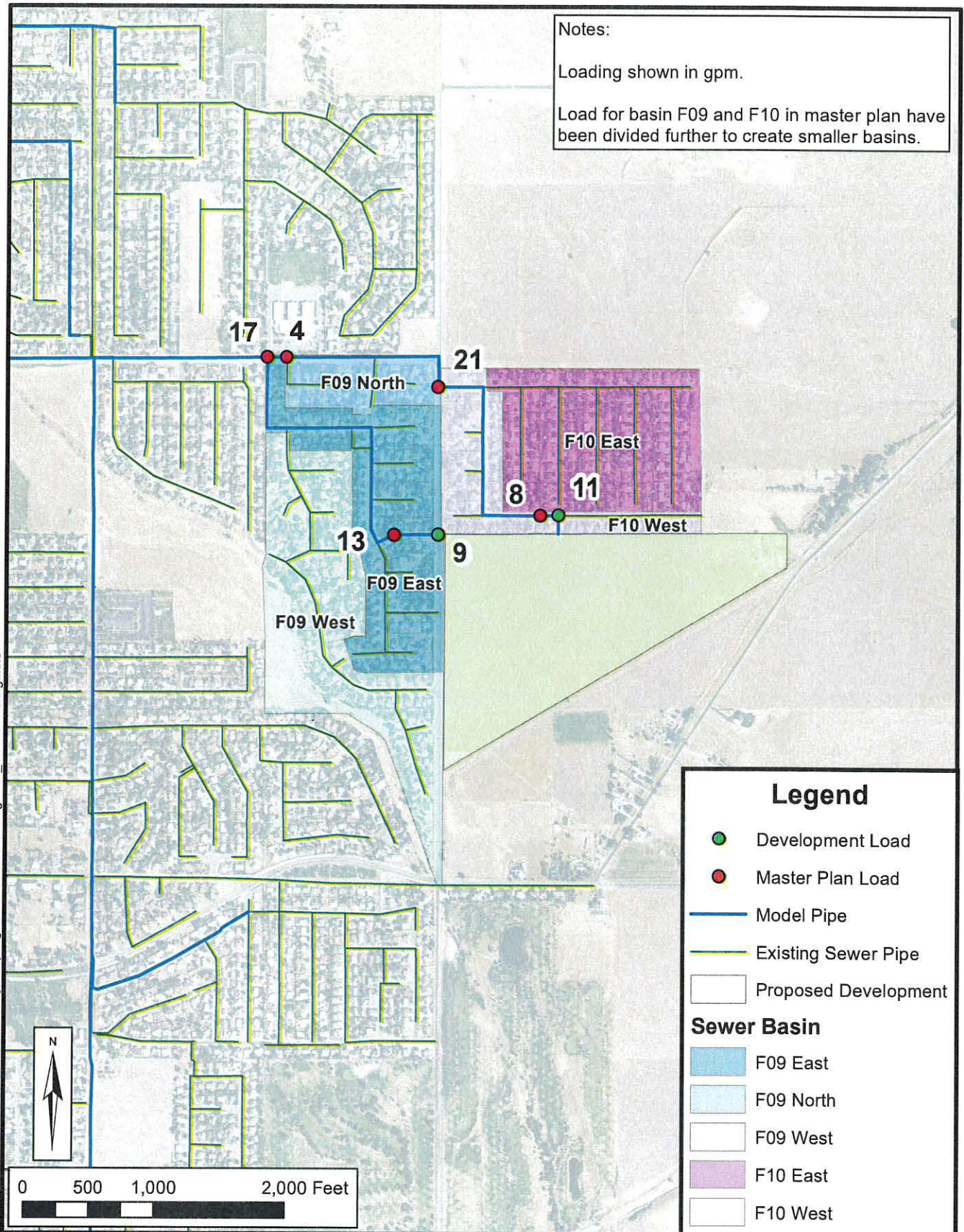
The capacity of the wastewater collection system was analyzed in comparison with the anticipated flows to predict whether the system has capacity to accommodate new flows from the Canyon Springs Development. The analysis was performed using the hydraulic computer model that has been prepared for the wastewater collection system master plan that is on-going. The Canyon Springs Development is located in an area of the City where the sewers were not included in the hydraulic model. The model was updated to include the Canyon Springs Development. This included collecting survey data for key manholes, which allowed flowline and rim elevations to be added to the model. Model flows from the master plan were adjusted to account for the new development. The model loading locations and values for Canyon Springs are provided on Figure 2.

Detailed sewer design information has not be provided for sewers within the development. Once the project moves forward, it is expected that the developer's design engineer will design the sewers with adequate capacity. It is expected that 8" diameter pipes will be adequate. This should be confirmed by the design engineer.

### Criteria

The criteria used to determine when a sewer has reached capacity is based on recommendations and standards from the American Society of Civil Engineers (ASCE). These standards recommend that a sewer 12-inches in diameter or smaller has reached maximum capacity when the depth of wastewater divided by the pipe diameter ( $d/D$ ) has exceeded 0.5, or is half full. For pipes with a larger diameter, the maximum capacity is defined as  $d/D$  in excess of 0.75, or is three-quarters full.

Notes:  
 Loading shown in gpm.  
 Load for basin F09 and F10 in master plan have been divided further to create smaller basins.



Date: 4/21/2022  
 Document Path: H:\Projects\149 - Tooele City\08.148 - Canyon Springs - Annexation\GIS\Figure 2 - Model Loading.mxd



**Tooele City - Canyon Springs Annexation  
 Hydraulic Model Loading Locations**

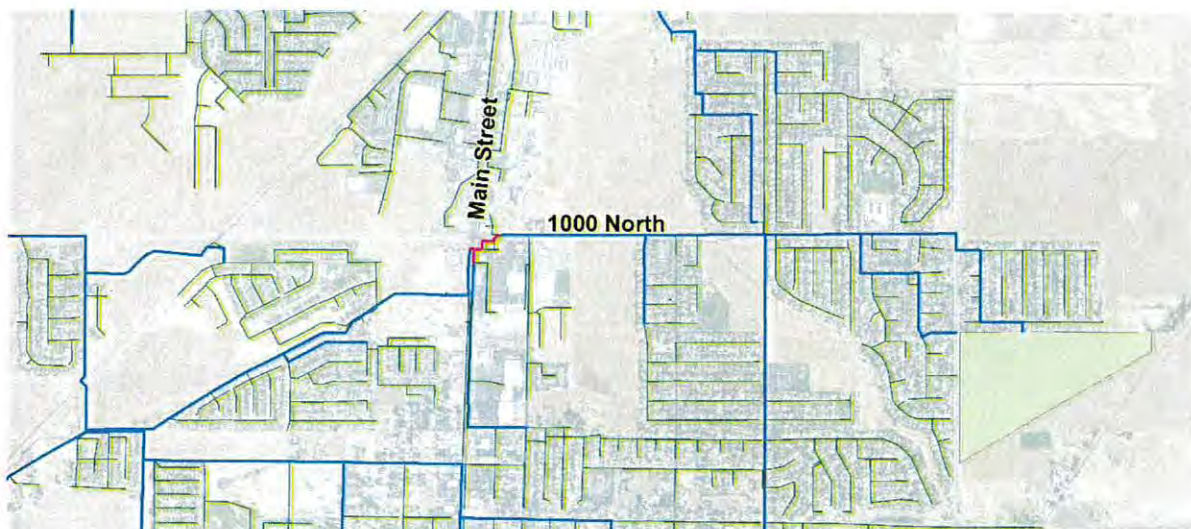
**FIGURE  
 2**

## Calibration and Verification

The hydraulic model that was developed during the wastewater collection system master plan was calibrated with flow monitoring records available at the time. That model was updated to reflect the proposed development. No new specific calibration has been provided with this analysis. If further site-specific calibration is desired, additional flow monitoring can be provided upon request. That flow data could then be used to calibrate and verify model results.

## IMPACTS TO EXISTING SYSTEM

The master plan identifies an existing deficiency downstream of the proposed development near the intersection of 1000 North and Main Street. This is shown in Figure 3. While the wastewater generated by the proposed development does not cause the deficiency, if improvements are not made to the sewer, the proposed development would further worsen the deficient flow condition. It is recommended that the City proceed with additional detailed study of the deficiency to confirm the results, and that the City proceed with improvements if needed.



**FIGURE 3: EXISTING RECOMMENDED IMPROVEMENTS**

The proposed improvement for the deficient area shown in Figure 3 is to replace the existing 15-inch pipe with an 18-inch pipe, or that an equivalent system to constructed.

## IMPACTS TO FUTURE SYSTEM

Hydraulic models for a 10-year and 40-year planning scenario from the master plan were also evaluated. This was done to see how the model results change with and without the proposed development. The model predicts that the proposed development does not cause any part of the collection system to become deficient for these scenarios.



## **CONCLUSIONS AND RECOMMENDATIONS**

Besides the existing deficiency described previously, the rest of the existing sewers are adequate to contain the existing wastewater flows and the flows generated by the Canyon Springs Annexation development.



**WASTEWATER COLLECTION SYSTEM  
MASTER PLAN**

(HAL Project No.: 149.49.100)

**TABLE 6-3 PEAK HYDRAULIC LOADINGS**

Planning Period	Peak Hydraulic Loading* (gpm)	Peak Hydraulic Loading* (MGD)
Existing Conditions	4,306	6.2
Existing Plus Approved	4,514	6.5
2030 (10-Year)	5,007	7.2
2060 (40-Year)	5,981	8.6

\*Including inflow (2,000 gpm).

It may be observed in Table 6-3 that the existing peak hydraulic loading is 4,306 gpm (6.2 MGD), and the projected peak hydraulic loading by 2060 is just under 6,000 gpm (8.6 MGD). These values all exceed the current WWRF design capacity of 3.4 MGD.

**EXISTING DEFICIENCIES**

The maximum depth ratio is the ratio of the maximum flow depth that occurs in the pipe and the diameter of the pipe (d/D). Deficiencies were identified as pipes in the model that exceeded a set d/D during peak flow conditions. The d/D capacity criteria adopted by the City is 0.5 for pipes 12-inches or smaller and 0.75 for pipes larger than 12-inches. Pipe capacity deficiencies identified in the Existing (Approved) scenario model are summarized in Table 6-4 and shown in Figure 6-3.

**TABLE 6-4 EXISTING PIPE CAPACITY DEFICIENCIES AND SOLUTIONS**

PROJECT ID	LOCATION	ISSUE	SOLUTION
E-1	Along Main Street near 1000 North	Pipe exceeds capacity because d/D > 0.5 (0.64)	Remove and upgrade existing 8" gravity line to 200 ft of 10" gravity line.
E-2	Along 600 North between 100 West and 370 West	Pipe exceeds capacity because d/D > 0.5 (1.0)	Remove and upgrade existing 12" gravity line to 2,100 ft of 15" gravity line.
E-3	Along Coleman Street between Utah Avenue and McKellar Street	Pipe exceeds capacity because d/D > 0.5 (1.0)	Remove and upgrade existing 12" gravity line to 2,550 ft of 15" gravity line.
E-4	Along existing sewer alignment between 600 North to 1000 North and Coleman Street to 1100 West	Pipe exceeds capacity because d/D > 0.75 (1.0)	Remove and upgrade existing 18" and 21" gravity line to 6,500 ft of 24" gravity line. Contains 36" bore for 115 ft under railroad tracks.

## Exhibit D

### Drainage Review and Recommendations

# MEMORANDUM

DATE: April 21, 2022

TO: Paul Hansen, P.E.  
Tooele City Engineer  
90 North Main  
Tooele, Utah 84074

FROM: Benjamin D. Miner, M.P.A., P.E.  
Kayson Shurtz, P.E.  
Hansen, Allen & Luce, Inc. (HAL)  
859 West So. Jordan Pkwy – Suite 200  
South Jordan, Utah 84095

SUBJECT: Canyon Springs - Drainage Review

PROJECT NO.: 149.08.148



## INTRODUCTION

Canyon Springs is an area that has been proposed to be annexed into the City of Tooele. It is located just east of Droubay Road between about 840 North and 600 North. Hansen, Allen, and Luce has been asked to review the area to identify potential drainage issues that need to be addressed before this area can be annexed into the City.

## HYDROLOGY

A hydrologic model was developed to determine anticipated flowrates and volumes for the 10-year and 100-year storm events. The design storm selected for this analysis is a three-hour duration storm which incorporates a Farmer-Fletcher 1-hour first quartile storm event as the middle hour of the three-hour design storm (Farmer et al., 1972). This storm distribution is used by many communities in Salt Lake County and would be applicable for Tooele as well. The rainfall depths for the 10-year and 100-year were 1.14 inches and 1.99 inches respectively and were obtained via NOAA Atlas 14 (NOAA, 2011). The runoff modeling was performed using the Soil Conservation Service (SCS) Curve Number (CN) approach as described in *Technical Release 55: Urban Hydrology for Small Watersheds* (NRCS, 1986), hereafter referred to as TR-55. The soil data used in the analysis was obtained from Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) (NRCS, 2022). The land cover for existing conditions was based on the 2016 National Landcover Dataset (NLCD) (Dewitz, 2019). The land cover and soil data were combined within the model to establish various combinations of land

cover and hydrologic soil type. Table 1 presents the assumed curve numbers that were applied to the model for all the potential combinations found in our study area.

**TABLE 1. CURVE NUMBER TABLE**

TR-55 Description	NLCD Description	NLCD ID #	A	B	C	D
Water	Open Water	11	98	98	98	98
Open Space (Good)	Developed, Open Space	21	39	61	74	80
Residential - 1/2 Acre	Developed, Low Intensity	22	54	70	80	85
Residential - 1/4 Acre	Developed, Medium Intensity	23	61	75	83	87
Residential - 1/8 Acre	Developed, High Intensity	24	77	85	90	92
Fallow-Bare Soil	Barren Land	31	77	86	91	94
Oak Aspen (Poor)	Deciduous Forest	41	66	66	74	79
Woods (Fair)	Evergreen Forest	42	36	60	73	79
Woods Grass Combination (Fair)	Mixed Forest	43	43	65	76	82
Brush (Fair)	Shrub/Scrub	52	35	56	70	77
Pasture Grassland (Fair)	Grassland/Herbaceous	71	49	69	79	84
Meadow	Pasture/Hay	81	30	58	71	78
Row Crops - SR (Good)	Cultivated Crops	82	67	78	85	89
Wetlands	Woody Wetlands	90	98	98	98	98
Wetlands	Emergent Herbaceous Wetlands	95	98	98	98	98

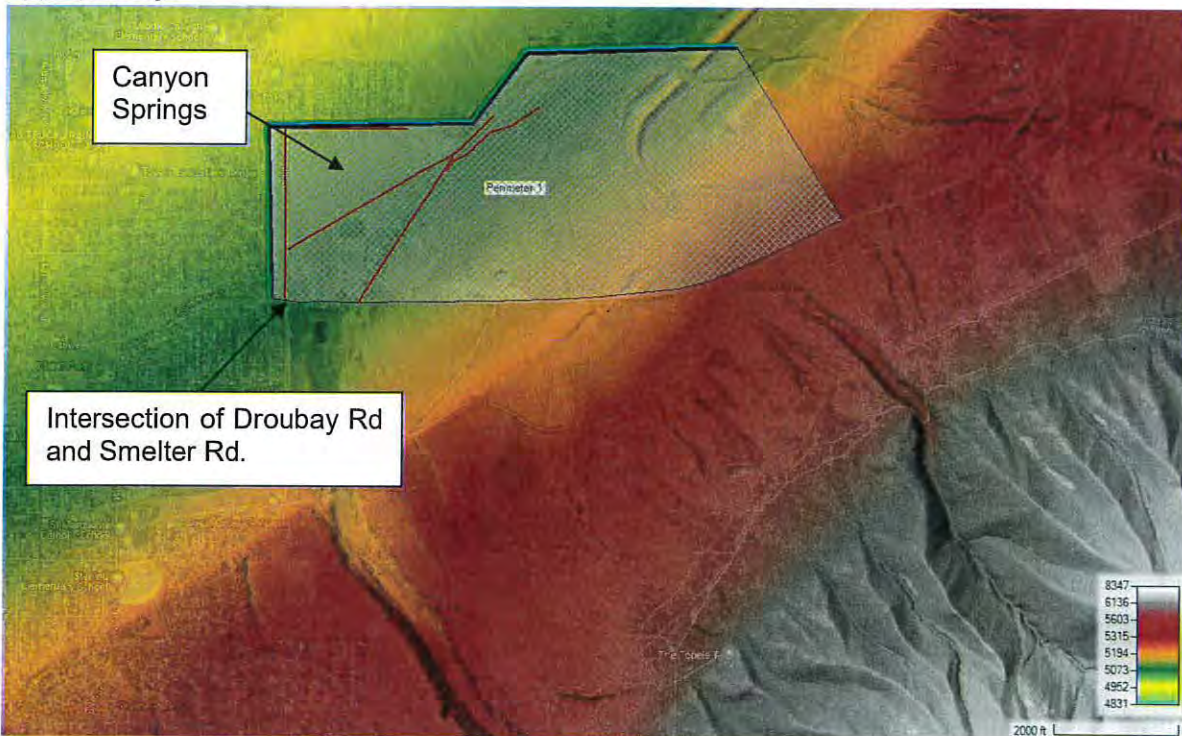
The modeling was performed using a rain on grid approach in HEC-RAS 2D. The drainage patterns above the proposed site are somewhat complex because of several interconnected ditches. The benefit of using the rain on grid approach is the model determines flow paths based on the terrain and hydraulic capacity of the conveyance channels via Manning's equation. The model allows for an estimate of existing flowrates for both onsite and offsite drainage that will need to be accounted for in the design of the proposed annexation area. The assumed roughness values for the NLCD cover types are shown in Table 2 (HEC, 2021).

**TABLE 2. ASSUMED ROUGHNESS COEFFICIENTS**

NLCD Description	NLCD ID #	Manning's n
Open Water	11	0.035
Developed, Open Space	21	0.035
Developed, Low Intensity	22	0.08
Developed, Medium Intensity	23	0.1
Developed, High Intensity	24	0.15
Barren Land	31	0.05
Deciduous Forest	41	0.1
Evergreen Forest	42	0.15
Mixed Forest	43	0.12
Shrub/Scrub	52	0.08

NLCD Description	NLCD ID #	Manning's n
Grassland/Herbaceous	71	0.06
Pasture/Hay	81	0.05
Cultivated Crops	82	0.05
Woody Wetlands	90	0.12
Emergent Herbaceous Wetlands	95	0.08

The approximate drainage area to calculate offsite flows was developed based on the available UGRC LiDAR data. As noted previously, the model calculates the movement of water through the drainage and therefore an approximate drainage area is sufficient because if additional area is included it will runoff at a different location and therefore not be included in the calculated offsite flows for our area of interest. The approximate drainage area used in the runoff calculations is shown in Figure 1. The grid generally utilizes 25 x 25-foot grid spacing. Breaklines were also utilized to properly align cell faces with high ground such that hydraulic controls are modeled appropriately.



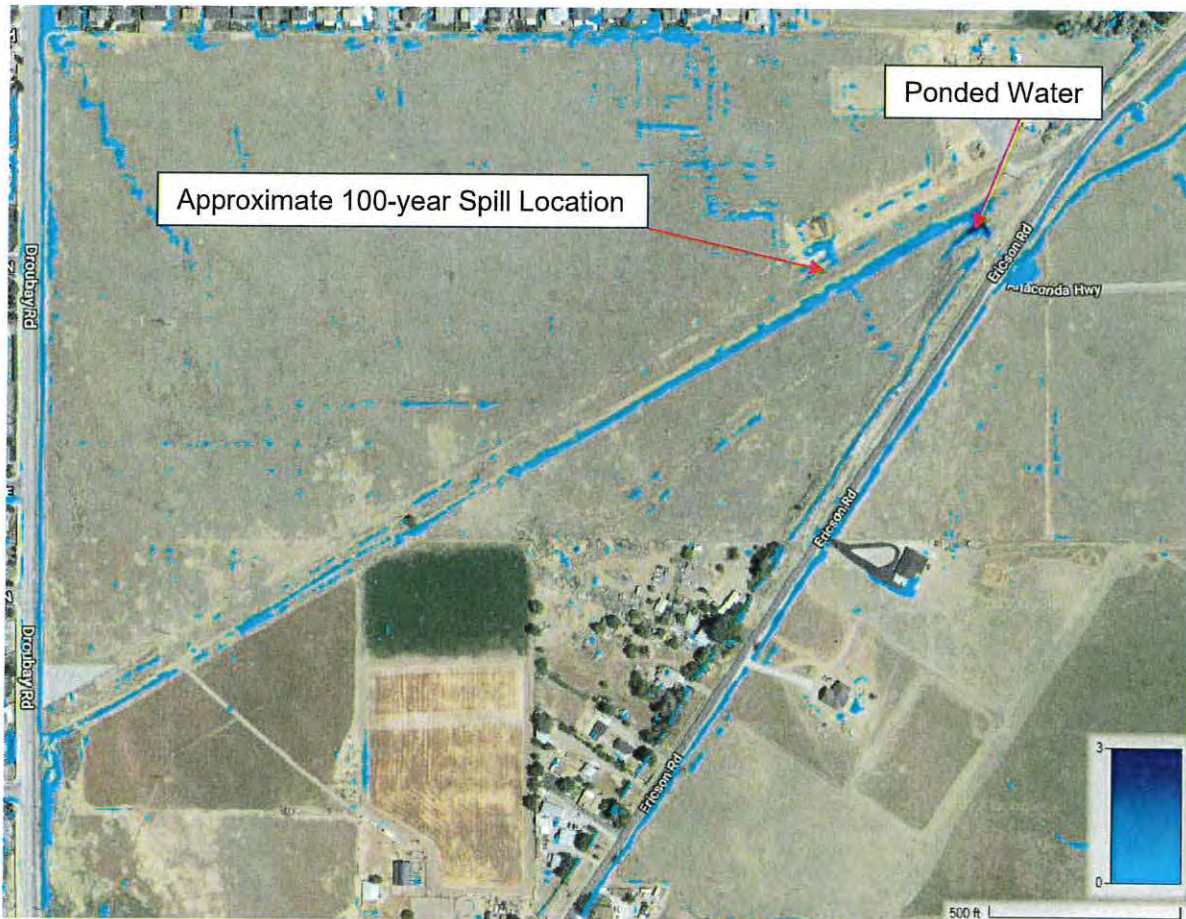
**FIGURE 1. HEC-RAS RAIN ON GRID MODEL EXTENTS**

### EXISTING CONDITIONS MODELING

Existing 10-year flows were negligible and are therefore not reported here. The 100-year existing conditions flows from the proposed site were computed to be approximately 5.9 cfs. The offsite flows that come into the proposed developments for the 100-yr 3-hr event were computed to be approximately 9.5 cfs. Suggesting the drainage area above the proposed development is relatively small. However, these flows must be conveyed through the proposed development. The model shows water ponding on the south side of what looks like a dirt road in the aerial imagery

until it spills over to the proposed development at the general location shown in Figure 2.

The offsite flows must be handled as they come into the development. This could be accomplished by connecting a pipe (with at least 9.5 cfs capacity) from the ponded area shown on Figure 2 into the proposed development drainage system or by creating an open channel conveyance that can convey the 9.5 cfs between lots to the roads of the proposed development at the spill location shown on Figure 2.



**FIGURE 2. 100-YR OFFSITE FLOWS SPILL LOCATION**

### **PROPOSED CONDITIONS MODELING**

The site plan provided to HAL shows 172 lots over approximately 60 acres. The development will add additional impervious area in the form of roads, driveways, roofs, sidewalks, and additional hardscape. These impervious areas increase runoff and must be addressed to reduce flood risk to the future residents of the proposed development as well as others who are down gradient from them.

The proposed condition flows for both the 10-year and 100-year scenarios were developed by adjusting the landcover to reflect the roads and homes that are proposed. The site plan provided



was used a guide to estimate additional impervious area. Directly connected impervious area was assumed to have a CN of 98. All roads were assumed to be 100% directly connected while the remaining impervious area was assumed to be 3,000 square feet per lot with 50% of it being directly connected. These assumptions are based on the development looking similar to the existing development directly to the north. The impervious area not associated with roads was composited with the remaining pervious area that was assumed to be Open Space good cover resulting in a composite curve number of 70. Table 3 summarizes the impervious area assumptions.

**TABLE 3. IMPERVIOUS AREA ASSUMPTIONS FOR CANYON SPRINGS DEVELOPMENT**

Description	Acres	% Directly Connected
Roadway Impervious Area	11.73	100.0
Assumed Additional Impervious Area	11.84	50.0
Open Space Good Condition	37.08	0.0
Totals	60.65	29.1

The modeled peak 10-year flowrate for the entire proposed development was 18.5 cfs. Piping to convey these flows should have sufficient capacity to convey the estimated peak flow rate. The flow per unit acre is approximately 0.31 cfs/acre. This ratio can be used for pipe sizing in areas that only drain a portion of the total drainage area. We recommend a minimum storm drain pipe size of 15-inches.

The modeled peak 100-year flowrate for the entire proposed development was approximately 51.9 cfs. The flow per unit acre is approximately 0.87 cfs/acre. Conveyance and storage must be provided to protect homes from damage during a 100-year event. Conveyance beyond the 10-year event is often provided by the streets along with detention to limit flows downstream. It is recommended that this development provide grading plans for the roads along with calculations that show that the roads and underground conveyance network have sufficient capacity to convey the calculated 100-year flows to an appropriate detention facility. The ratio of peak flow per unit acre can be utilized in the road conveyance calculations based on tributary area. A detention facility will be required for the proposed development to reduce flows back to at least existing conditions (5.9 cfs) so that peak flows downstream are not increased as a result of development. Assuming a release rate of 5.9 cfs (approximately 0.1 cfs/acre) the required detention volume for the proposed development would be approximately 3 ac-ft.

A consideration for this annexation should also include where the detained flows will be discharged. While peak flows would not be increased under the detained scenario, runoff volumes would be spread out over time and reduce pressure on the system. Increased volume in the downstream system could result in increased flood risk due to downstream storage constraints. Discharging the detained flows to a large conveyance like Middle Canyon Creek is the best-case scenario to reduce the downstream flood risk. It appears that the development to the west may have existing storm drain infrastructure that likely discharges into Middle Canyon Creek. This option should be investigated further to determine whether it is feasible to tie into this existing

system to convey detained flows from the proposed annexation area. Otherwise, the City should consider installing new storm water piping from the new development to Middle Canyon Drainage.

## **SUMMARY**

The onsite and offsite flow considerations have been presented in the memo for the proposed annexation property and proposed site plan. The drainage issues all appear to be manageable with most of which being handled utilizing standard engineering practices. Considerations for offsite flows onto the property and where detained releases from the proposed development will discharge must be addressed for annexation. Potential solutions have been presented in the body of this memo.

## **REFERENCES**

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <https://websoilsurvey.nrcs.usda.gov/>. Accessed [March/3/2022].

Farmer, E. E. and Joel E. Fletcher. 1972. *Distribution of Precipitation in Mountainous Areas*. Geilo Symposium, Norway

Bonnin, G., D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley (2004, revised 2011). NOAA Atlas 14 Volume 1, Precipitation-Frequency Atlas of the United States, Semiarid Southwest. NOAA, National Weather Service, Silver Spring, MD.

Dewitz, J., 2019, National Land Cover Database (NLCD) 2016 Products (ver. 2.0, July 2020): U.S. Geological Survey data release.

Hydrologic Engineering Center, 2021. HEC-RAS 2D Modeling User's Manual, U.S. Army Corps of Engineers, Davis CA., April 2021.

MEMORANDUM

To: Tooele City Council  
Cc: Mayor Debbie Winn  
From: Andrew Aagard, AICP, Director  
Date: August 14, 2024  
Re: Townhomes at 1000 North Land Use Map Amendment

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**Julia Laboriel representing the property owner, Project A-1 LLC, has submitted an application to the Community Development Department requesting a change to the Land Use Map of the Tooele City General Plan. The property consists of 9.81 acres and is located at approximately 200 East 1000 North. The property is located east and north of the existing nursing home facility known as “Our House.” It is also located immediately east of the new Tooele City Fire Station #3.**

**The property is currently undeveloped ground with property to the north and property to the east (other than the nursing home facility) also being undeveloped. The applicant would like to develop the vacant land into a higher density residential development consisting of townhomes. The applicant has not provided any conceptual site designs or architectural renderings with this application.**

**The Land Use Map of the Tooele City General Plan currently designates the property as Medium Density Residential (MDR). The MDR designation requires medium density type single-family residential uses. The MDR designation requires or permits the R1-7, R1-8 and R1-10 Residential zoning districts. Within these districts the permitted uses are single-family residential homes, duplex style homes and accessory dwelling units. Townhomes, apartments and condominiums and other higher density type residential uses are not permissible in these zones.**

**The applicant is requesting that the Land Use Map be amended, re-assigning the 9.81 acres from the MDR designation to the High Density Residential (HDR) designation in order to facilitate the change of zoning on the property and to make way for the construction of townhomes on the property. The HDR designation permits higher density type of residential uses such as townhomes, apartments and condominiums. Zoning districts required or permitted in the HDR designation are the MR-8, MR-12, MR-16 and MR-20 Multi-Family Residential zoning districts. Single family homes and duplex type residential units are not permitted in the MR zoning districts.**

**The question before the City Council is whether or not this property is better suited to be multi-family residential or remain single family residential. It should be noted that there is a higher density residential senior living community to the south, a nursing home immediately adjacent and located not far to the north is Western Acres, a large higher density residential townhome development. Western Acres will not extend south to the subject property but it will be close to it. There are currently and will be other higher density residential developments in the area. It should also be noted and emphasized that there are not any existing single-family residential subdivisions within close proximity to the subject property.**

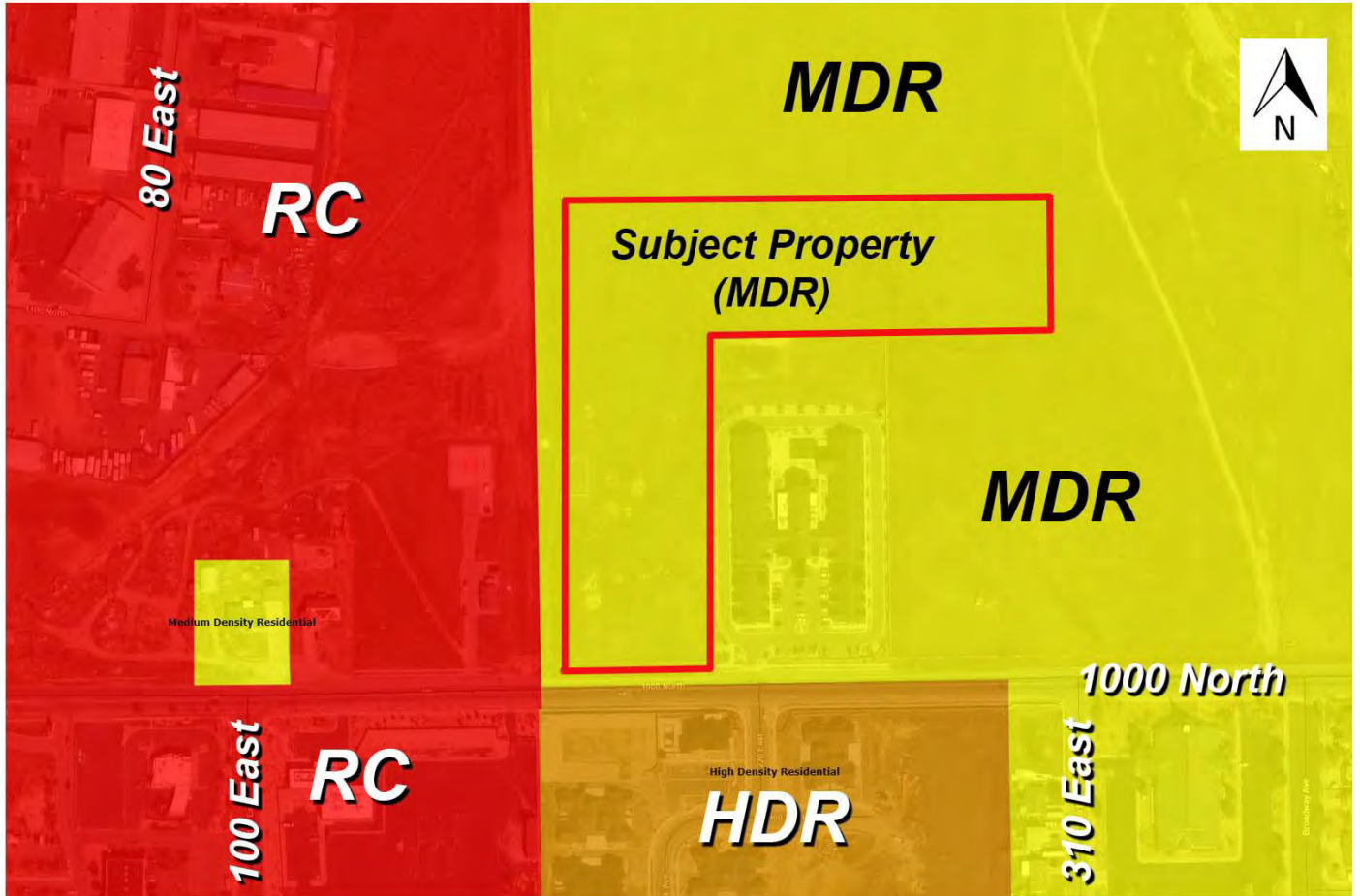
**A Land Use Map Amendment does not change the zoning of the property. If the land use designation is changed the applicant will still need to submit a zoning map amendment application and complete the same process, only, in that application the City Council will need to decide the appropriate density and the appropriate zoning district to assign to the property. A Land Use Map Amendment must be completed first as the zoning is required to comply with the Land Use Map.**

## Townhomes at 1000 North Land Use Map Amendment



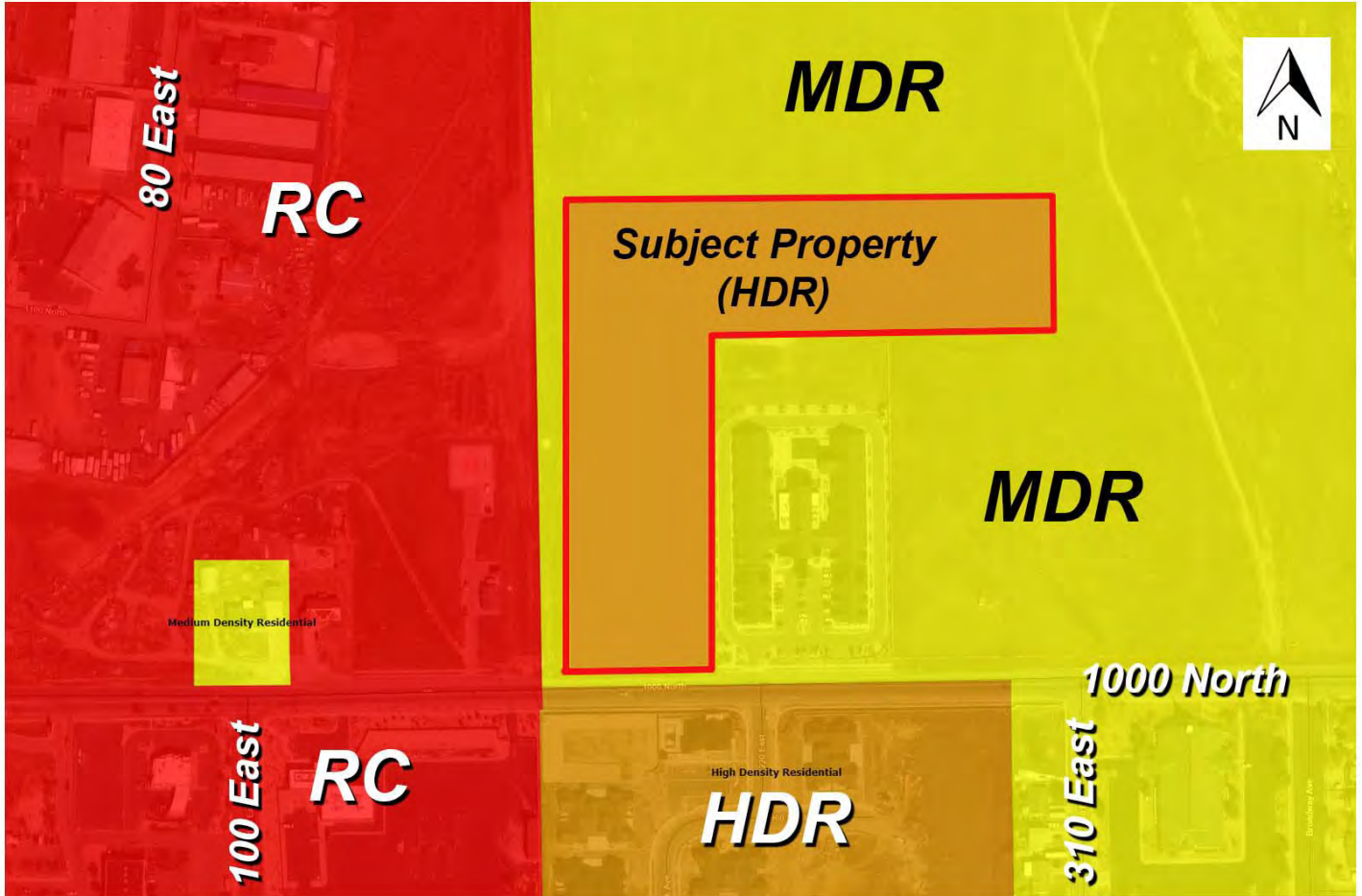
**Aerial View**

**Townhomes at 1000 North Land Use Map Amendment**



**Current Land Use**

**Townhomes at 1000 North Land Use Map Amendment**



**Proposed Land Use**

MEMORANDUM

To: Tooele City Council  
Cc: Mayor Debbie Winn  
From: Andrew Aagard, AICP, Director  
Date: August 14, 2024  
Re: Desert Rose Business Lofts Land Use Map Amendment

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**Amy Johnson has submitted this Land Use Map Amendment application and is proposing to change the land use designation of the property to facilitate development of the property with a unique commercial / residential mix development. The property consists of 4.9 acres and is located at approximately 105 East 1000 North. Located west of the property is a multi-tenant commercial building and the Zaxby's Chicken restaurant. To the north of the property is some light industrial land uses and to the east of the property is some single family residential.**

**The property is currently designated as RC Regional Commercial on the Land Use Map of the Tooele City General Plan. Regional Commercial is a land use designation that encourages or requires large scale commercial uses that appeal to a region, not just local. The zoning districts that comply with the RC land use designation are the RC Regional Commercial zoning district and the RD Research and Development zoning district.**

**The applicant wishes to develop the property as business lofts, or, commercial townhomes that incorporate both an office space and living space for individuals who wish to live where they work and work where they live. This is a fairly unique use for Tooele City. There are some commercial / residential uses in the older buildings located within the downtown area but by and large this is not a use that is typically requested here. As such there are two zoning districts that permit a mix of commercial and residential uses. There are the MU-B Mixed Use Broadway zone and the MU-G Mixed Use General zone. The MU-B zone is specific to the Broadway / New Town area of Tooele City and would not be a candidate for this property due to the zoning being geographically specific. However, the MU-G Mixed Use General Zoning District may be a candidate for this property if the City Council determines this to be a good use in this location.**

**The MU-G zoning district is a zone that permits just about everything except for industrial and heavy commercial uses. The zone permits single-family residential, multi-family residential, commercial, office, and home occupations. It also permits accessory dwelling units on the upper floors of commercial buildings. A good portion of the City's zoning adjacent to Main Street south of the downtown area is zoned MU-G as well as much of the property surrounding the cemetery.**

**The applicant has provided a conceptual site plan and some conceptual building elevations. The intention is that the front of the unit will include a dedicated office / studio space for commercial purposes. The top will include a comfortable living arrangement. The back will include a garage dedicated for the business owner.**



In staff's initial review of the proposed buildings the units appear like any other residential town home and lack a commercial / office appearance. Staff does have some concerns that the ordinances as they are currently written are somewhat vague when it comes to mixing residential and commercial uses together in the same structure, especially when it comes to townhomes. Questions such as appropriate customer parking, emergency vehicle access requirements, commercial signage on the buildings and for the development, etc, are not readily addressed in the ordinance. However, those issues can be readily addressed within the MU-G zoning code if the City Council would like to see more of this type of use within the City.

This property has had commercial interest in the past. There was a period of time where a Texas Roadhouse restaurant was looking at developing this property. Their plans included approximately 3 acres for the restaurant with the remaining acreage developed as townhomes. They ultimately abandoned their plans as access into the property will be limited to right-in and right-out due to the traffic signal at 100 East. This type of mixed commercial may be well suited for a business that doesn't rely upon drive by traffic and high visibility and can thrive as a "destination" type of use. Something to consider, anyway.

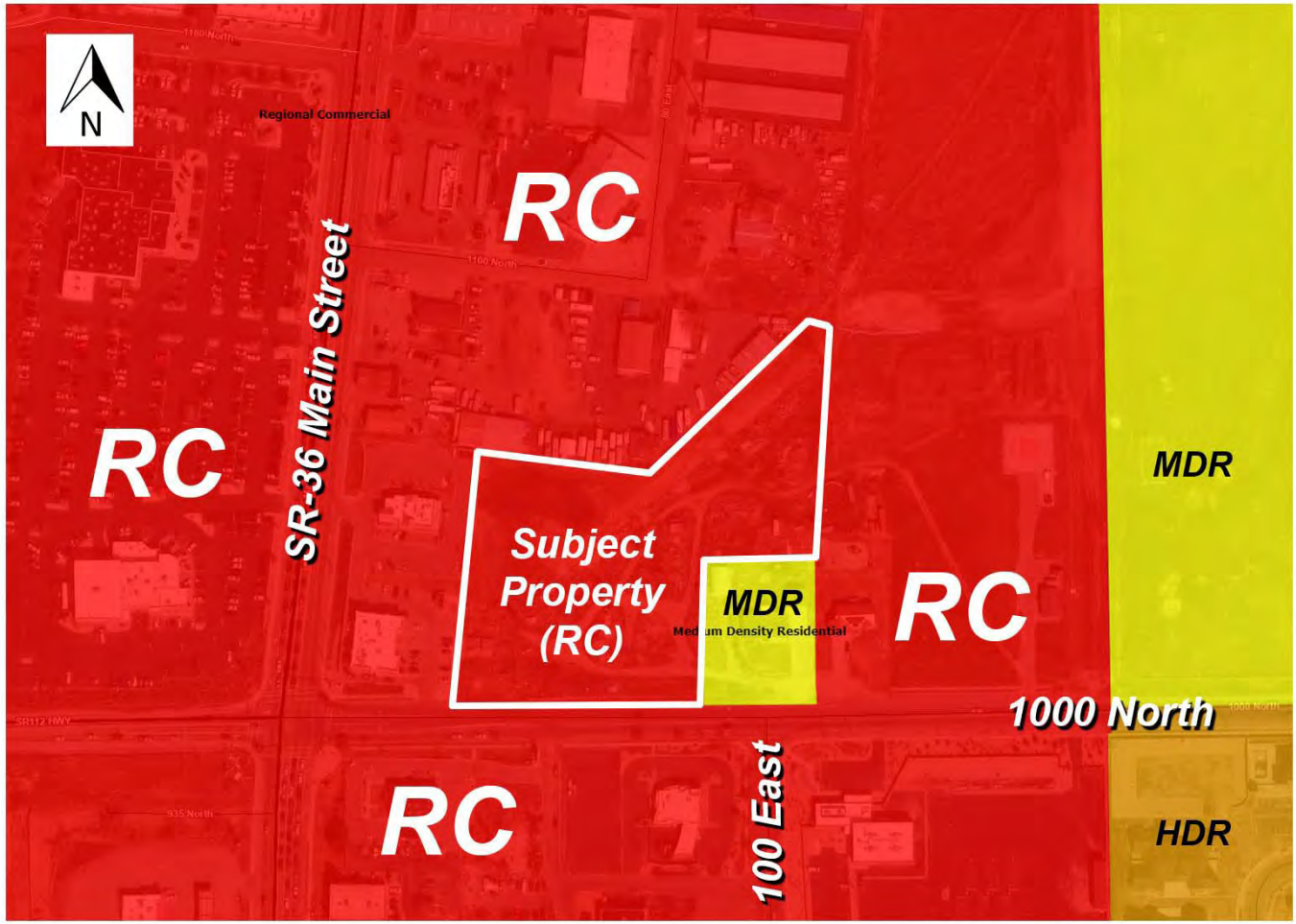
A Land Use Map Amendment does not change the zoning of the property. If the land use designation is changed the applicant will still need to submit a zoning map amendment application and complete the same process to assign the zoning. A Land Use Map Amendment must be completed first as the zoning is required to comply with the Land Use Map.

## Desert Rose Business Loft Land Use Map Amendment



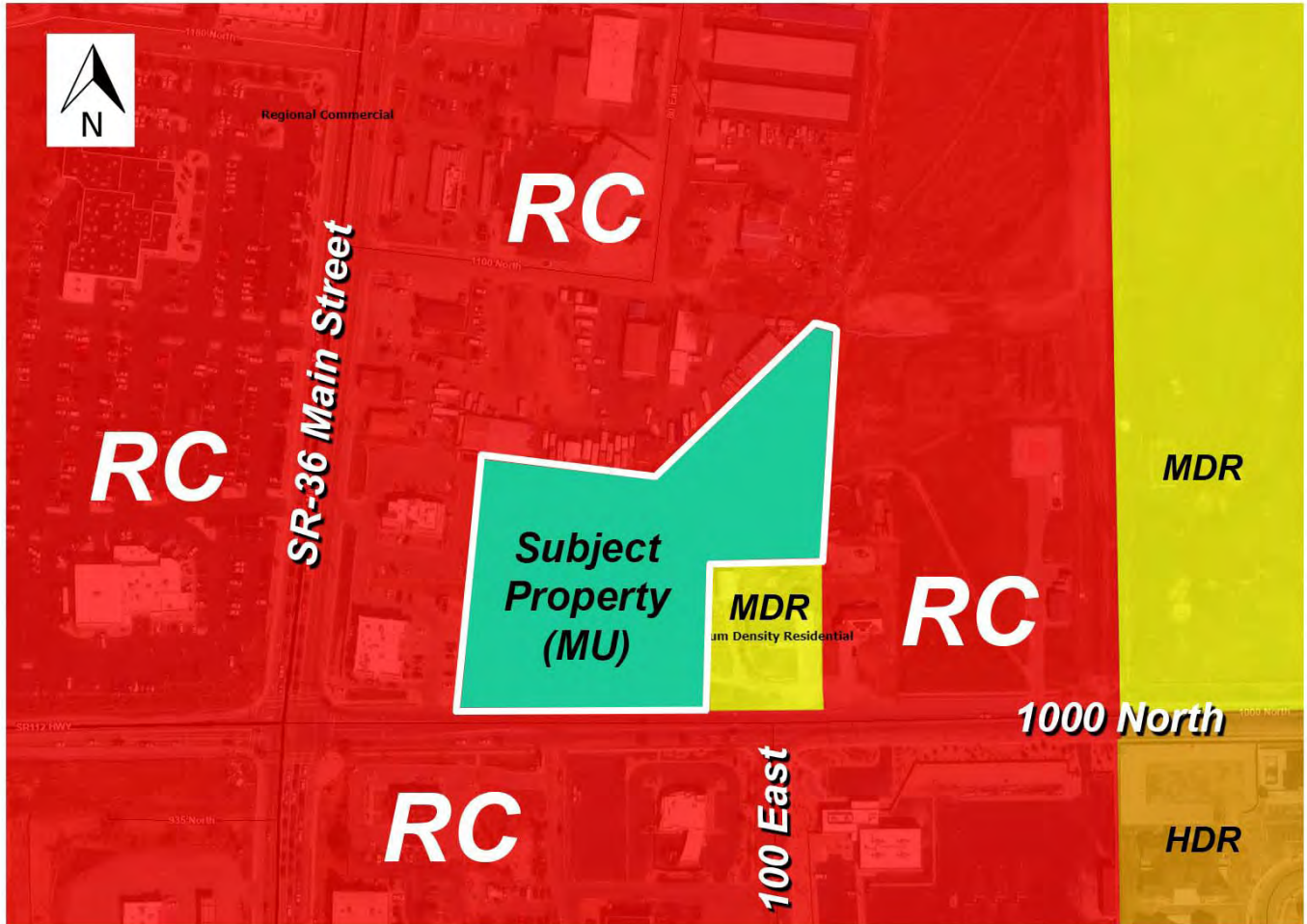
**Aerial View**

**Desert Rose Business Loft Land Use Map Amendment**



**Current Land Use**

**Desert Rose Business Loft Land Use Map Amendment**

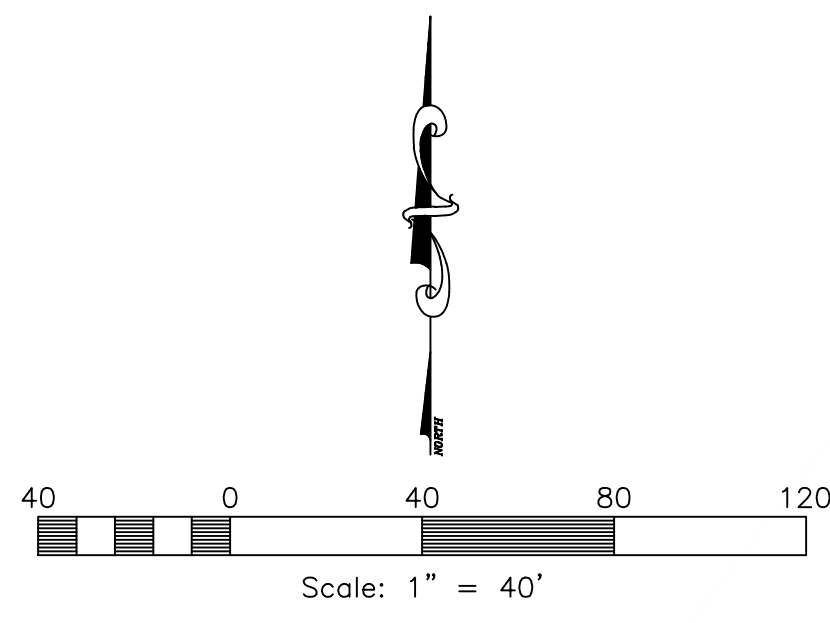


**Proposed Land Use**



02-127-0-0060  
UTAH MOUNTAIN SIDE  
INVESTMENTS LLC

02-127-0-0062  
DALIA REAL ESTATES LLC



# Skinner Johnson Property

Tooele City, Tooele County, Utah

**Developer:**  
Y Street Capital Management, LP  
24 E Main Street  
American Fork, UT 84003  
(801) 309-6485



REVISIONS	DESCRIPTION
DATE	

**Skinner Johnson Property**  
PART OF THE SE 1/4 OF SECTION 16 T.35, R.6W, S.L.B. & M., U.S. SURVEY  
TOOELE CITY, TOOELE COUNTY, UTAH

**Concept Plan**


**Project Info.**

Engineer:	N. Reeve
Planner:	C. Cave
Designer:	
Date:	7-9-2024
Name:	XXXXXXXX
Number:	8379-01

Sheet	1
1	Sheets

# TOWNHOUSE WITH COMMERCIAL



# TOWNHOUSE WITH COMMERCIAL

NOTICE COMMERCIAL ENTRANCES ARE WHITE DOORS



# TOWNHOUSE WITH COMMERCIAL

THESE ARE THE BACK OF THE  
TOWNHOUSE /COMMERCIAL

