# PUBLIC NOTICE

NOTICE IS HEREBY GIVEN THAT the Tooele City Planning Commission will meet in a business meeting scheduled for ***Wednesday, July 10, 2024*** at the hour of 7:00 p.m. The meeting will be held in the City Council Chambers of Tooele City Hall, located at 90 North Main Street, Tooele, Utah.

*We encourage anyone interested to join the Planning Commission meeting electronically through Tooele City's YouTube channel by logging onto www.youtube.com/@tooelecity or searching for our YouTube handle* ***@tooelecity****. If you would like to submit a comment for any public hearing item you may email pcpubliccomment@tooelecity.gov any time after the advertisement of this agenda and before the close of the hearing for that item during the meeting. Emails will only be read for public hearing items at the designated points in the meeting.*

## AGENDA

1. **Pledge of Allegiance**

2. **Roll Call**

3. **Public Hearing and Recommendation –** on an Annexation Petition and plat regarding the annexation of 61.16 acres of property located at approximately 750 North Droubay Road into Tooele City's incorporated boundaries

4. **Public Hearing and Decision** – Application #2024-020, a request by Heygley Gonzalez for Conditional Use approval to allow an in-home childcare business for between eight and sixteen children on property located at 942 N. 650 East in the R1-7 Zoning District.

5. **City Council Reports**

6. **Review and Approval** – Planning Commission Minutes for the meeting held on June 26, 2024.

7. **Adjourn**

Pursuant to the Americans with Disabilities Act, individuals needing special accommodations during this meeting should notify Jared Hall, Tooele City Planner prior to the meeting at (435) 843-2132.

# STAFF REPORT
July 3, 2024

**To:** Tooele City Planning Commission
Business Date: July 10, 2024

**From:** Planning Division
Community Development Department

**Prepared By:** Andrew Aagard, Community Development Director

**Re:** **Canyon Springs – Annexation Petition Request**

| | |
|---|---|
| Applicant: | Howard Schmidt |
| Project Location: | Approximately 750 North Droubay Road |
| Zoning: | Unassigned |
| Acreage: | 61.16 (Approximately 2,664,129 $ft^2$) |
| Request: | Request for approval of an Annexation Petition regarding the incorporation of a 61.16 acres into Tooele City. |

## BACKGROUND

This application is a request for approval of an annexation petition to annex 61.16 acres of land located in unincorporated Tooele County into Tooele City's municipal boundaries. The parcel is located east of Droubay Road immediately south of the exiting Carr Fork Subdivision and approximately 750 North.

## ANALYSIS

Howard Schmidt has submitted an application for a petition for annexation. The application was submitted on April 25, 2024. The property that is being considered is one that is well known to members of the Planning Commission as the same property had a petition for annexation that was submitted in 2021 and ultimately did not pass the City Council with a super majority vote. The Planning Commission made a favorable recommendation to annex this property in June of 2022. This petition for annexation request involves the same property as the previous application with no changes to the boundaries or configuration of the property being considered from the original petition for annexation.

The property proposed for annexation is located on the east side of Droubay Road at about 750 North and totals a little more than 61 acres. The property is current located within the Pine Canyon Township of unincorporated Tooele County. The applicant desires to have the City annex the property into the City's incorporated boundaries and receive connections to City utilities including water and sewer and receive the necessary services such as public safety.

Given that the property is located within unincorporated Tooele County there is no Tooele City zoning district attached. The zoning will need to be assigned during the annexation process by the Tooele City Council. Currently the property is surrounded by properties on the north and west that are currently zoned R1-7 Residential, a zone that permits single family residential and duplexes and requires a minimum lot size of 7,000 square feet.

The applicant's intended use for the property once it has been annexed into the City is to create a single-family residential development consisting of 172 lots with an average lot size of 11,000 square feet with some lots

smaller and some lots larger than 11,000 square feet. The requested zoning for this development will be the R1-7 Residential zone.

The applicant's petition for annexation application was also submitted with various studies regarding impacts of the annexation and potential addition of 172 new homes to Tooele City's utility systems, public safety and finance services. Those studies include a culinary water impact study, a fiscal impact study, a storm water drainage study, a utility impact study, a sewer impact study and a traffic impact study.

Notices of intent to annex were also submitted to the North Tooele Fire District, Tooele County, Tooele City, the Tooele County Board of Health and the Tooele Valley Mosquito District.

The City Council passed a resolution to continue the consideration of the annexation petition and that resolution will be presented on the June 5th City Council business meeting.

The Planning Commission's responsibility is to review the annexation petition and sign the annexation plat. The annexation agreement is not in the purview of the Planning Commission, however, the Commission may make a recommendation regarding the annexation agreement to the City Council. The Planning Commission should evaluate the pros and cons of an annexation of this size and how it impacts the City as a whole. Does the addition of 172 new residential homes benefit Tooele City. Do the trails being proposed by the applicant bring long term benefits to the City to offset the additional costs of providing services to 172 new homes? Do the property taxes generated bring long term benefits to the City to offset the additional costs of providing services to 172 new homes? The applicant has provided the studies compiled by professional engineers and accountants but ultimately the decision comes down to the City Council.

Attached to this report are images of the annexation plat, the zoning map, the land use map and a concept subdivision plan showing a proposed lay out. The individual studies are also available for review but are not included in this memo due to size constraints and limitations. Staff is more than happy to forward those studies to each City Council member upon request.

*Impact Studies*: The following studies that have been provided by the petitioner and are included in this staff report for the Planning Commission's reference:

1. A fiscal impact study – Conducted by EFG Consulting. Included with this study is a memo from Shannon Wimmer, Tooele City Finance Director, that includes the City's response to this financial impact study.
2. A drainage study – Conducted by Hansen, Allen and Luce.
3. A sewer system study – Conducted by Hansen, Allen and Luce.
4. A fiscal impact study – Conducted by Bonneville Analytics.
5. Culinary water impact study – Conducted by Hansen, Allen and Luce (HAL).
6. A utility impact estimate – Conducted by Ensign Engineering.
7. A Traffic Impact Study – Conducted by Hales Engineering.

## REVIEWS

*Planning Division Review*. The Tooele City Planning Division has completed their review of the proposed Annexation Petition and has issued the following Comments:

1. Various studies have been provided in this packet for the Planning Commission's reference.

## STAFF RECOMMENDATION

Staff recommends the Planning Commission carefully weigh this request for the annexation petition according to the appropriate tenets of the Utah State Code and the Tooele City Code, particularly Section 7-24-1 and render a recommendation in the best interest of the community with any conditions deemed appropriate and based on specific findings to address the necessary criteria for making such decisions.

Potential topics for findings that the Commission should consider in rendering a decision:

1. The effect of the proposed application on the character of the surrounding area.
2. The degree to which the proposed application is consistent with the intent, goals, and objectives of any applicable master plan.
3. The degree to which the proposed application is consistent with the intent, goals, and objectives of the Tooele City General Plan.
4. The degree to which the proposed application is consistent with the requirements and provisions of the Tooele City Code.
5. The suitability of the properties for the uses proposed.
6. The degree to which the proposed application will or will not be deleterious to the health, safety, and general welfare of the general public or the residents of adjacent properties.
7. The degree to which the proposed application conforms to the general aesthetic and physical development of the area.
8. The overall community benefit of the proposed annexation
9. Whether or not public services in the area are adequate to support the proposed annexation.
10. Other findings the Commission deems appropriate to base their decision upon for the proposed application.

## MODEL MOTIONS

Sample Motion for Approval – "I move we forward a positive recommendation to the City Council for the Annexation Petition Request and Annexation Plat by Howard Schmidt, to annex 61.16 acres located at approximately 750 North Droubay Road into Tooele City, based on the findings listed in the Staff Report dated July 3, 2024:"

1. List any additional findings and conditions…

Sample Motion for Denial – "I move we forward a negative recommendation to the City Council for the Annexation Petition Request and Annexation Plat by Howard Schmidt, to annex 61.16 acres located at approximately 750 North Droubay Road into Tooele City, based on the findings listed in the Staff Report dated July 3, 2024, based on the following findings:"

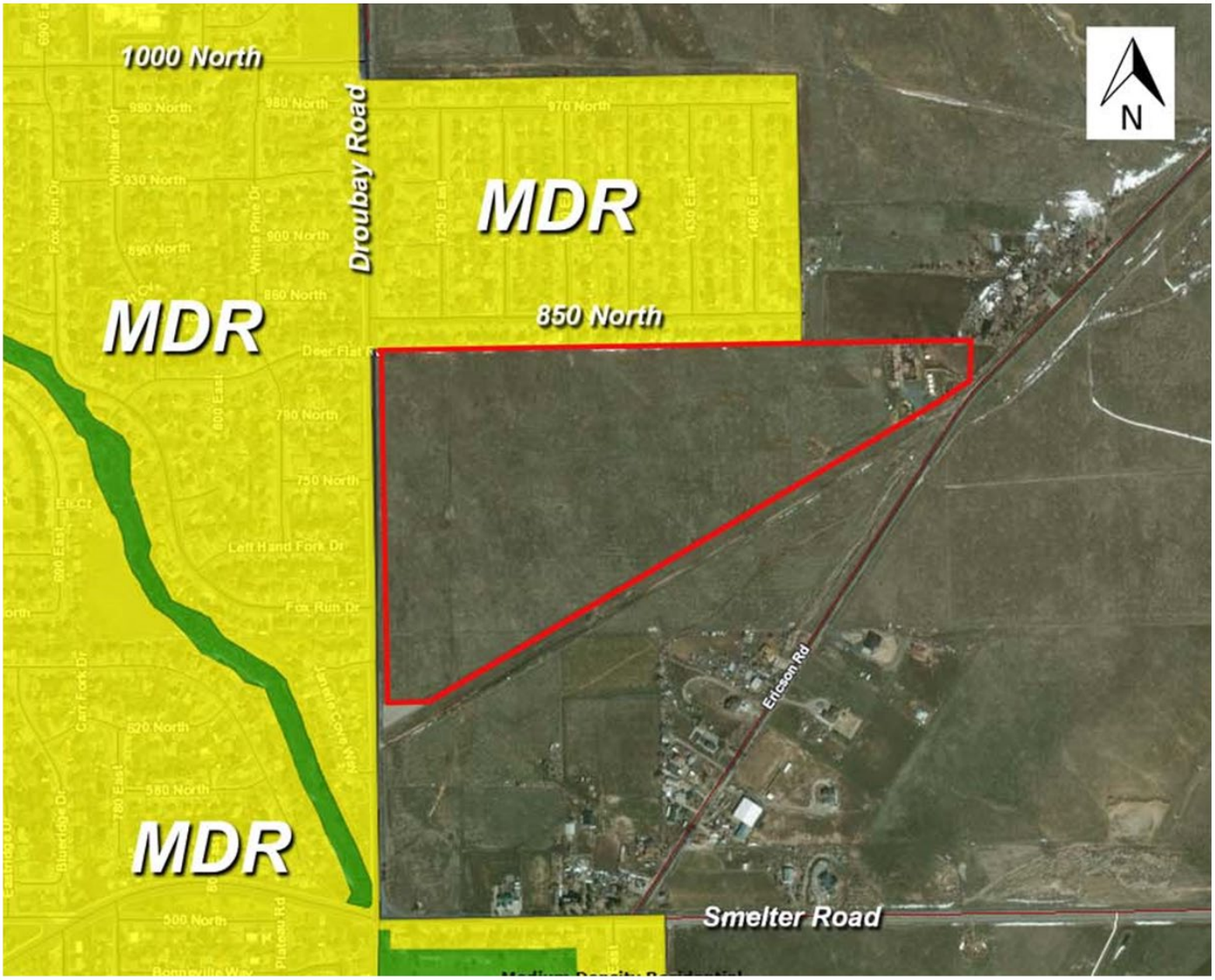
1. List findings…

**EXHIBIT A**

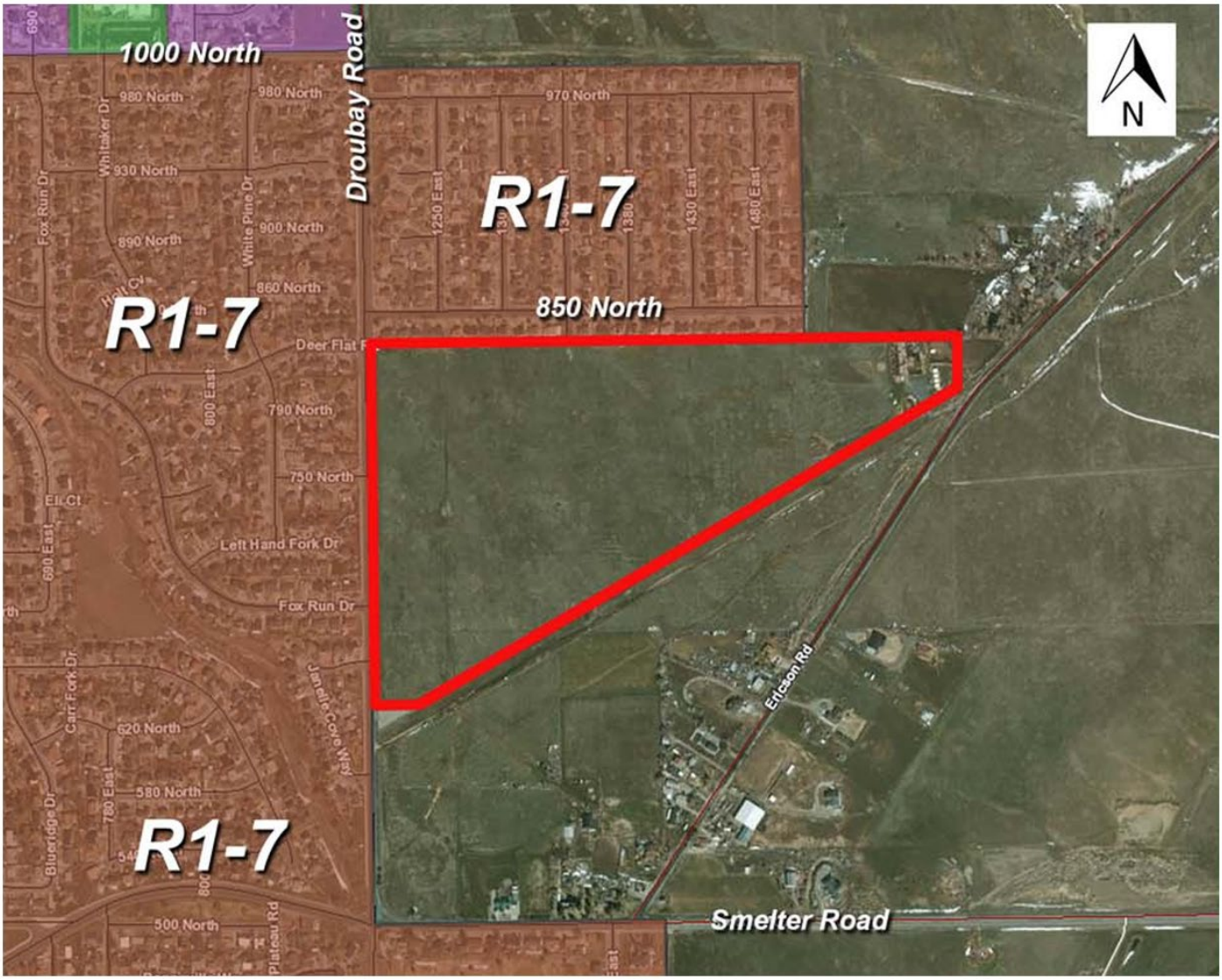
**MAPPING PERTINENT TO THE CANYON SRPINGS ANNEXATION PETITION**

**Aerial View**

**Current Land Use in Surrounding Areas**



**Current Zoning in Surrounding Areas**



# EXHIBIT B

## APPLICANT SUBMITTED INFORMATION

### Conceptual Subdivision Layout

**Statement of intended us for Canyon Springs Development**

Canyon Springs is a proposed subdivision to be zoned in accordance with the surrounding area as R-7 zone which allows for 7000 square foot minimum lots sizes but in accordance with the input from the planning commission and city council we are limiting the development to 172 lots with an average size of 11,000 sq. ft. Some will be as large as ½ acre lots.

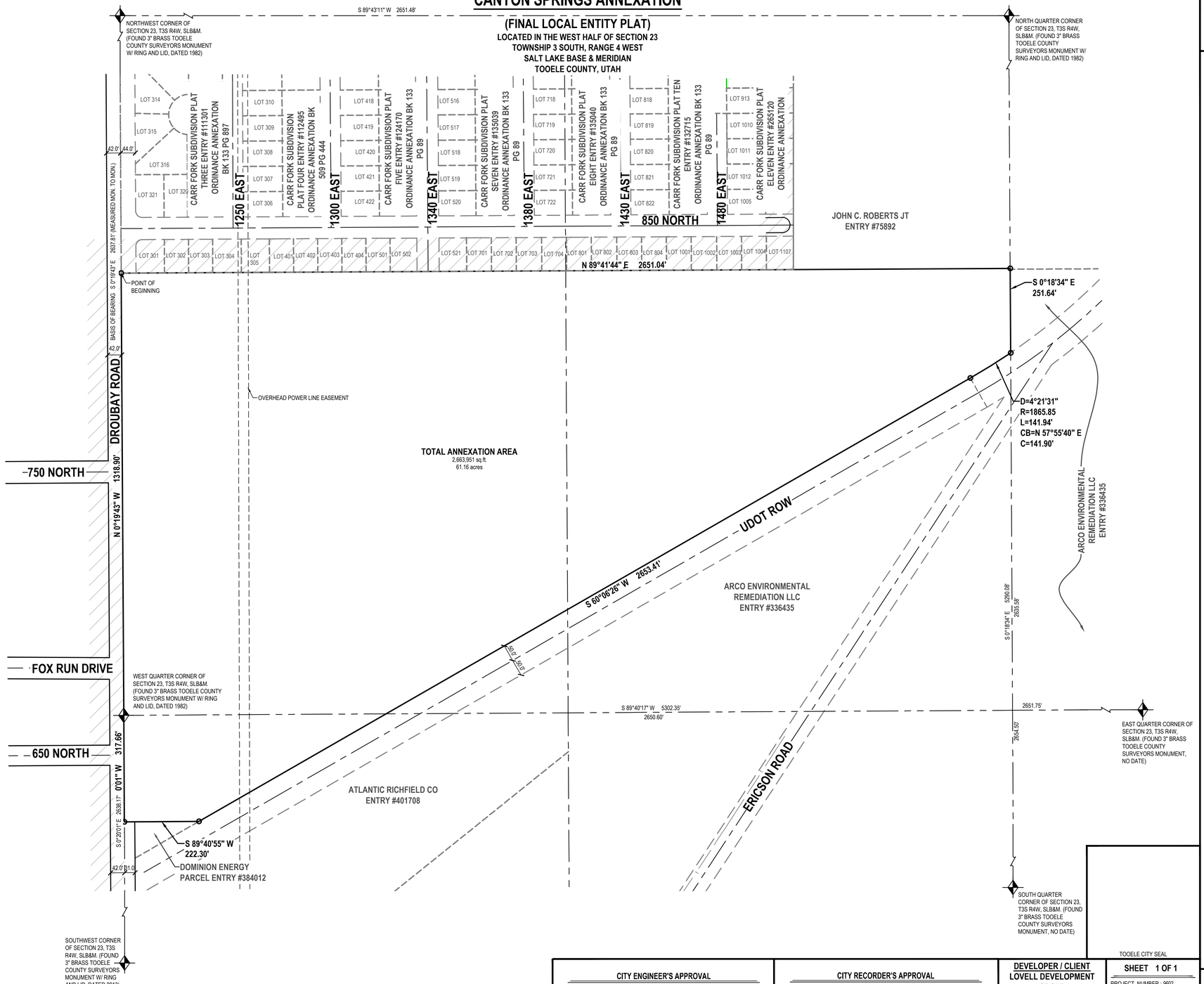
In addition, the developer has agreed to work with Tooele County to provide a trail boarding the annexation parcel to the south on the existing 100' UDOT right of way. Also, there will be trails from the subdivision accessing the new trail and some detention ponds along Drubay Road that will be landscaped to provide play areas for the residents and neighbors of the development.

Since there has recently been an annexation agreement penned by the city attorney and staff, approved by the required majority of the city council and agreed to by the developer, we would like to review that document and make it the framework to complete this annexation.

# CANYON SPRINGS ANNEXATION

## (FINAL LOCAL ENTITY PLAT)

**LOCATED IN THE WEST HALF OF SECTION 23**
**TOWNSHIP 3 SOUTH, RANGE 4 WEST**
**SALT LAKE BASE & MERIDIAN**
**TOOELE COUNTY, UTAH**




**LEGEND**

- ANNEXATION BOUNDARY
- SECTION QUARTER LINE
- CENTER LINE
- EASEMENT
- ADJACENT PROPERTY LINE
- TOOELE CITY LIMITS

NORTH

**HORIZONTAL GRAPHIC SCALE**

150 0 75 150 300
( IN FEET )
HORZ. 1 inch = 150 ft.

### SURVEYOR'S CERTIFICATE

I, DOUGLAS J. KINSMAN, do hereby certify that I am a Professional Land Surveyor in the State of Utah and that I hold License No. 334575 in accordance with Title 58, Chapter 22, of the Professional Engineers and Land Surveyor's Act; Do hereby certify that a Final Local Entity Plat, in accordance with Section 17-23-20 of Utah State Code, has been prepared under my direction and is a true and correct representation of said Final Local Entity Plat. I further certify that by authority of Tooele City, I have prepared this Plat for the purpose of adjusting the municipal boundaries of Tooele city and to be hereafter known as CANYON SPRINGS ANNEXATION.

### BOUNDARY DESCRIPTION

A parcel of land, situate in the West half of Section 23, Township 3 South, Range 4 West, Salt Lake Base and Meridian, more particularly described as follows:

Beginning at a point on the Section line, which is located South 0°19'43" East 1318.90 feet from the found Northwest Corner of Section 23, Township 3 South, Range 4 West, Salt Lake Base and Meridian, and running:

thence North 89°41'44" East 2,651.04 feet to the Quarter Section line;
thence South 0°18'34" East 251.64 feet along said Section line;
thence southwesterly 141.94 feet along the arc of a 1865.85 foot radius curve to the right (center bears North 34°15'05" West and the long chord bears South 57°55'40" West through a central angle of 4°21'31");
thence South 60°06'26" West 2653.41 feet;
thence South 89°40'55" West 222.30 feet to a point on the Section line;
thence North 0°20'01" West 317.66 feet along said Section line to the West Quarter Corner of said Section;
thence North 0°19'43" West 1,318.90 feet along said Section line, to the Point of Beginning.

Contains 2,663,951 square feet or 61.16 acres.

APRIL 25, 2024
Date
Douglas J Kinsman
License no. 334575

LICENSED PROFESSIONAL LAND SURVEYOR — No. 334575 — DOUGLAS J. KINSMAN — STATE OF UTAH

### ACCEPTANCE BY LEGISLATIVE BODY

THIS IS TO CERTIFY THAT WE, THE UNDERSIGNED TOOELE CITY COUNCIL HAVE ADOPTED A RESOLUTION OF ITS INTENT TO ANNEX THE TRACT OF LAND SHOWN HEREIN AND SUBSEQUENTLY ADOPTED AN ORDINANCE ANNEXING SAID TRACT INTO TOOELE CITY, UTAH AND THAT A COPY OF THE ORDINANCE HAS BEEN PREPARED FOR FILING HERE WITH ALL IN ACCORDANCE WITH UTAH CODE SECTION 10-2-403 AS REVISED AND THAT WE HAVE EXAMINED AND DO HEREBY APPROVE AND ACCEPT THE ANNEXATION OF THE TRACT AS SHOWN AS A PART OF SAID CITY AND THAT SAID TRACT OF LAND IS TO BE KNOWN HEREAFTER AS THE: **CANYON SPRINGS ANNEXATION**

TOOELE CITY MAYOR

ATTEST: CITY RECORDER — DATED THIS _____ DAY OF _____, 20____

TOOELE CITY SEAL

### CITY PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____.
BY THE TOOELE CITY COUNCIL

### CITY COUNCIL APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____.
BY THE TOOELE CITY COUNCIL

CHAIRMAN TOOELE CITY COUNCIL — ATTESTED BY

### CITY ENGINEER'S APPROVAL

APPROVED AS TO FORM THIS _____ DAY OF _____, 20_____, BY THE TOOELE CITY ENGINEER

TOOELE CITY ENGINEER

### CITY RECORDER'S APPROVAL

APPROVED AS TO FORM THIS _____ DAY OF _____, 20_____, BY THE TOOELE CITY RECORDER.

TOOELE CITY RECORDER

### CITY ATTORNEY'S APPROVAL

APPROVED AS TO FORM THIS _____ DAY OF _____, 20_____, BY THE TOOELE CITY ATTORNEY.

TOOELE CITY ATTORNEY

### COMMUNITY DEVELOPMENT APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____.
BY THE TOOELE CITY COMMUNITY DEVELOPMENT

TOOELE CITY COMMUNITY DEVELOPMENT


ENSIGN
TOOELE
169 North Main Street Unit 1
Tooele, Utah 84074
Phone: 435.843.3590
Fax: 435.578.0108
WWW.ENSIGNENG.COM
SALT LAKE CITY Phone: 801.255.0529
LAYTON Phone: 801.547.1100
CEDAR CITY Phone: 435.865.1453
RICHFIELD Phone: 435.896.2983


### COUNTY SURVEYOR APPROVAL

APPROVED THIS _____ DAY OF _____, 20_____.
BY THE TOOELE COUNTY SURVEYOR .

TOOELE COUNTY SURVEYOR

**DEVELOPER / CLIENT**
**LOVELL DEVELOPMENT GROUP**
**9463 SOUTH KIRKSIDE DR.**
**SOUTH JORDAN, UTAH 84009**
**CONTACT: BRETT LOVELL**
**PHONE: 801-706-4693**

**SHEET 1 OF 1**

PROJECT NUMBER : 9602
MANAGER : D. KINSMAN
DRAWN BY : J. HOWLAND
CHECKED BY : D. KINSMAN
DATE : NOVEMBER 2020


**CANYON SPRINGS ANNEXATION**
**(FINAL LOCAL ENTITY PLAT)**
**LOCATED IN THE WEST HALF OF SECTION 23**
**TOWNSHIP 3 SOUTH, RANGE 4 WEST**
**SALT LAKE BASE & MERIDIAN**
**TOOELE COUNTY, UTAH**


### TOOELE COUNTY RECORDER

RECORDED # _____ DATE: _____ TIME: _____
STATE OF UTAH, COUNTY OF TOOELE, RECORDED AND FILED AT THE
REQUEST OF : _____

FEES — TOOELE COUNTY RECORDER

# MEMORANDUM

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.

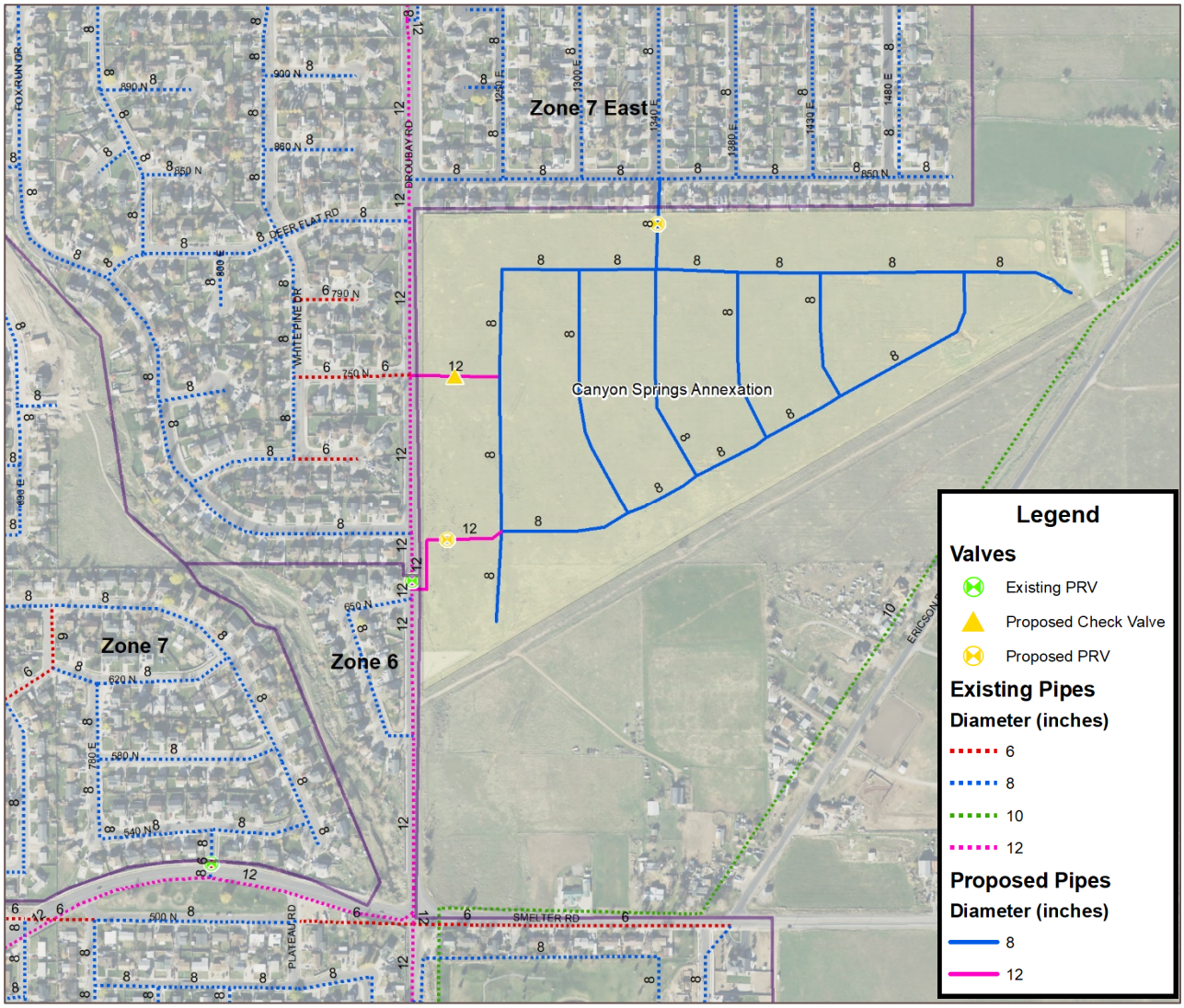



**FIGURE 1: DEVELOPMENT LOCATION AND DRINKING WATER SYSTEM PIPE SIZE**

## 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**

| Development | Units | ERCs | Source/Peak Day Demand[1] (gpm) | Storage[2] (gal) |
|---|---|---|---|---|
| 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[1] 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, 7th Street, Skyline Drive to Vine Street, 2970 LF | 14,706 |
| 28 | 10-inch Waterline, 7th 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.

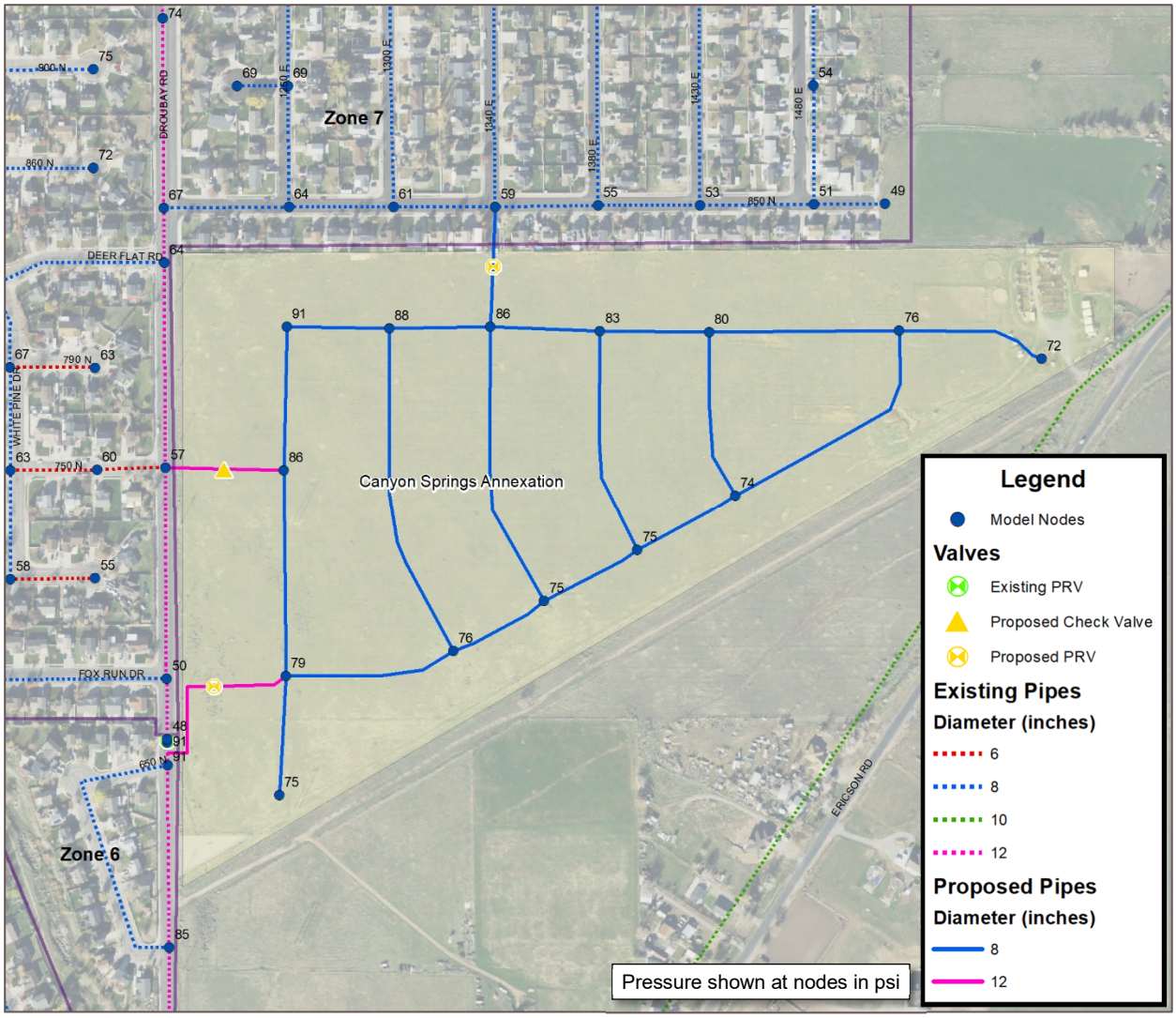



**FIGURE 2: DRINKING WATER SYSTEM PEAK DAY PRESSURE**

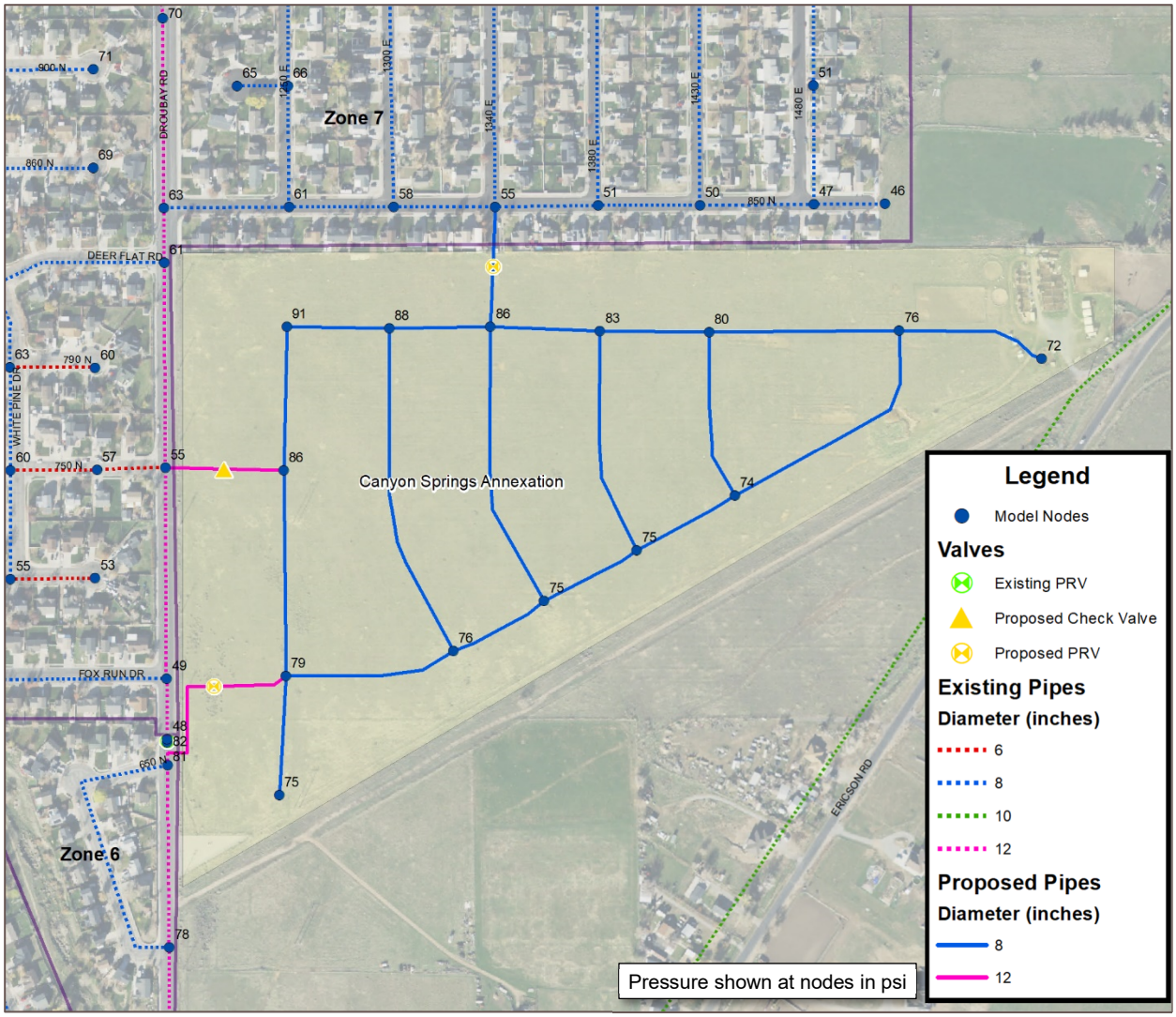



**FIGURE 3: DRINKING WATER SYSTEM PEAK INSTANTANEOUS PRESSURE**

## 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.

# The Incorporation of the Canyon Spirng Development into Tooele City

## Fiscal Impact Study

10/06/2020

Prepared by

Bonneville Analytics

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# Table of Contents

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# Executive Summary

To assist with evaluating the incorporation of Canyon Springs, 172-unit development, Bonneville Analytics prepared a fiscal impact analysis to estimate the net impact to Tooele City's General Fund. This report presents the findings from the fiscal impact analysis.

Table 1, below, summarizes the full build-out of the Canyon Springs development impact on the City's general fund. The fiscal impact analysis shows a net benefit of approximately $121,092 annually. This represents a 36% positive impact over the new costs that would be incurred on city services from the new development.

Table 1: Net Fiscal Impact Summary

| Canyon Springs General Fund Impact | |
|---|---|
| Revenues | $457,338 |
| Expenditures | ($336,247) |
| **Net Fiscal Impact** | **$121,092** |

The primary revenue generators are new property taxes and new sales taxes. Combined, the two sources account for 64% of the revenue generated from the proposed development. The remainder is generated by other revenues such as charges for services, intergovernmental transfers, and other taxes such as franchise and use taxes.

Public safety and general government services led the way as the most impacted general fund expenditures, accounting for 54% of the costs. To maintain the current level of service for police and fire in terms of full-time employees (FTE), 0.6 FTE's is needed for police and 0.8 for fire.

# Methodology

The fiscal analysis presented in this document was performed using the per-capita multiplier technique. Growth-induced public service costs/revenues are determined by multiplying the per capita figure by the number of people in the proposed development. Over the long run, current average per capita revenues and expenditures are the best estimates of future operating costs occasioned by growth. It is assumed that current local service levels are the most accurate indicators of future service levels and will continue at similar levels. This analysis does not account for capital costs. It is assumed that those will be covered through impact fees.

City expenditures and revenues used were the Estimated FY 6/2021 General Fund line items, which were collected from the Tooele City FY 2022 Approved Budget document. US 2020 Decennial Census data was used for the city's population figures.

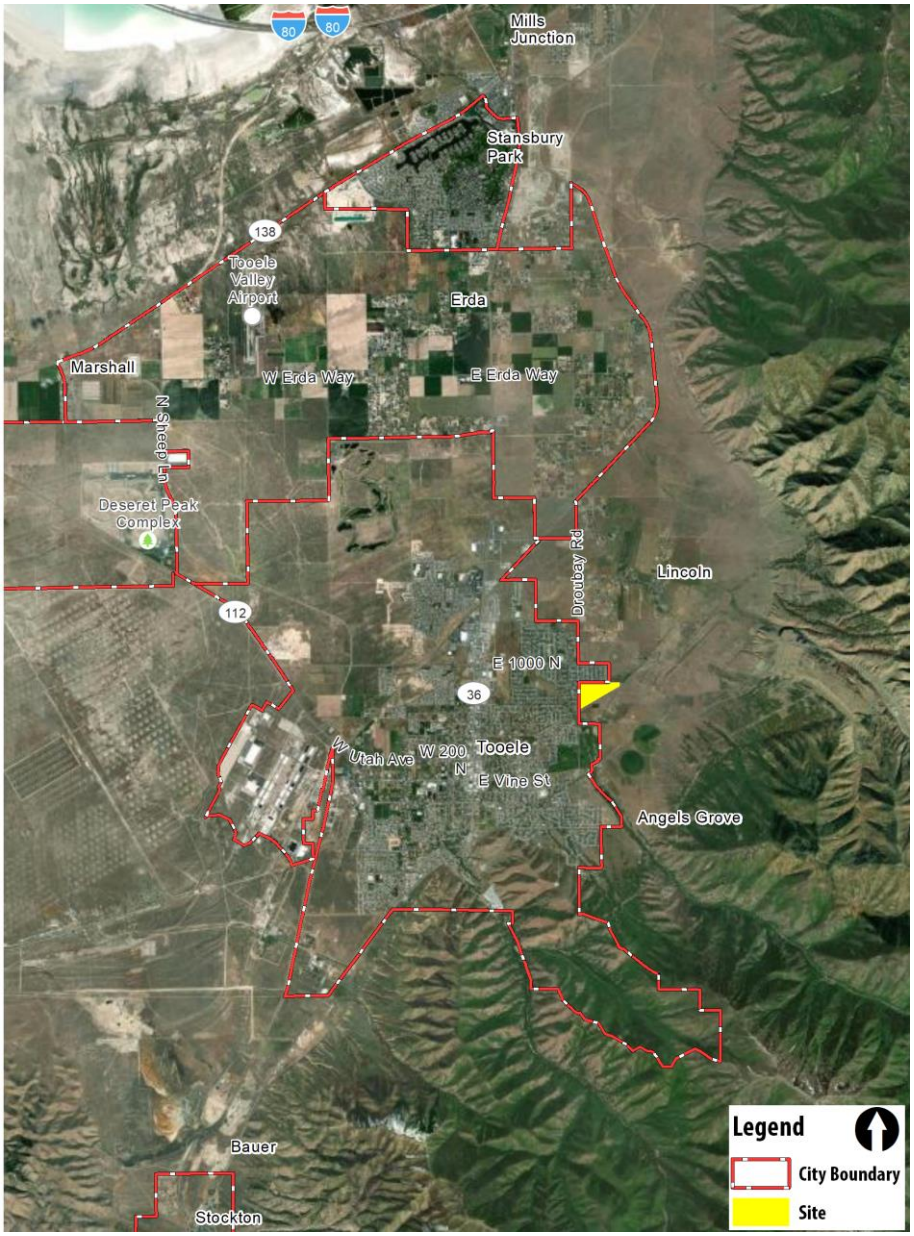
To estimate future population, household size was derived from the 2019 American Community Survey, which is the latest available data for the metric. The household size was broken out by housing tenure. Since the proposed development will be single-family units, the owner-occupied household size was applied to the proposed unit count to estimate the new population. The estimated population was then applied to the per-capita multipliers to estimate new impacts to both expenditures and revenues.

Projected sales taxes were calculated using the current sales tax schedule for Tooele City as it is presented by the State of Utah Tax Commission. The sales tax figures were derived from

projected sales from the new residents. The projected sales were calculated based on a two-year per-capita average of total taxable sales (2019 and 2020) in Tooele City. This per-capita figure was then applied to the estimated population of the new development

Property tax revenues were calculated based on the market value of the new homes. The new homes with similar lot sizes in Tooele City had a median sales price of $550,000 in 2021. While it is expected that the proposed homes are likely to have higher market values, the median sales price of $550,000 was used to derive the taxable assessed value. The property tax rates were calculated with the assumption that the proposed development would be incorporated in the Tooele County Tax Area 1.

Figure 1: Location of Proposed Site to be Incorporated



In 2020, the Tooele City population reached 35,742 residents per the new data released from the US Decennial Census (Table 2).

There were 10,945 households in the city from the latest available data in 2019. Approximately 80% of the city's households are owner-occupied. Approximately 83%of the population lives in owner-occupied units.

The average household size in the city is 3.13 persons per household. The owner-occupied household size is 3.25 persons per household. The renter-occupied household size is 2.64.

To estimate the new population of the proposed development, the 3.25 persons per household was multiplied by the 172 new housing units.

We estimate 560 new residents living in the proposed development at full build-out (see Table 3).

Table 2: Tooele City Population and Households

| Tooele City Population | |
|---|---|
| US Census 2020 | 35,742 |

| 2019 Total Households | |
|---|---|
| Total: | 10,945 |
| Owner-occupied: | 8,779 |
| Renter occupied: | 2,166 |

| 2019 Population in Occupied Housing | |
|---|---|
| Total: | 34,293 |
| Owner-occupied | 28,564 |
| Renter occupied | 5,729 |

| 2019 Household Size | |
|---|---|
| Total: | 3.13 |
| Owner-occupied: | 3.25 |
| Renter occupied: | 2.64 |

Source: US Census.

Table 3: Proposed Development Scenario

| **Land Use Proposal** | |
|---|---|
| Residential Units | 172 |
| Household Size | 3.25 |
| New Population | 560 |

Source: Bonneville Analytics

# Impacts to Expenditures

The detailed impacts to Tooele City's general fund expenditures are shown in Table 4. The total impact of the proposed 172 unit development is estimated to be approximately $336,247. The greatest impact to expenditures is estimated to be to public safety, second is general government, followed by parks and recreation.

Table 4: New Development Impact on General Fund Expenditures

| Category | New Expenditures from Development | *General Fund Expenditures: Estimated FY 6/2021* | *General Fund Expenditures per Capita* |
|---|---|---|---|
| General Government | $80,408 | *$5,135,428* | *$144* |
| Highway/Public Improvements | $31,809 | *$2,031,544* | *$57* |
| City Shops (4440) | $5,479 | *$349,939* | *$10* |
| Public Works (4450) | $11,013 | *$703,358* | *$20* |
| Street Department (4411) | $13,176 | *$841,535* | *$24* |
| Street Lighting (4413) | $2,141 | *$136,712* | *$4* |
| Community Development (4620) | $14,980 | *$956,697* | *$27* |
| Parks & Rec. | $64,947 | *$4,147,990* | *$116* |
| Public Safety | $99,724 | *$6,369,059* | *$178* |
| Animal Control (4253) | $4,000 | *$255,441* | *$7* |
| Fire Department (4222) | $6,217 | *$397,045* | *$11* |
| Police Department (4211) | $89,507 | *$5,716,573* | *$160* |
| Transfers/Other Uses | $44,379 | *$2,834,333* | *$79* |
| **Total Expenditures** | **$336,247** | ***$21,475,051*** | ***$601*** |

Source: Bonneville Analytics Analysis of Tooele City Adopted Budget, FY 2022

In 2020, there were 39 full-time officers and 50 full-time firefighters in Tooele City. The 2020 levels of service per 1,000 residents are 1.1 police officers and 1.4 firefighters (see Table 5). Applying these ratios to the new population, it is estimated the 0.6 FTEs is needed for police and 0.8 FTEs for firefighters.

Table 5: New Development Impact on Police and Fire Capacity

| | FTE 2020 | FTE per 1,000 residents | New FTEs Needed |
|---|---|---|---|
| Police Officers | 39 | 1.1 | 0.6 |
| Firefighters | 50 | 1.4 | 0.8 |

Source: Bonneville Analytics Analysis of Tooele City Adopted Budget, FY 2022

# Impacts to Revenues

The detailed impacts to Tooele City's general fund revenues are presented in Table 6. The total revenue generated from the proposed development is approximately $457,338. The primary revenue generators are new property taxes and new sales taxes. Combined, the two sources account for 64% of the revenue generated from the proposed development.

Table 6: New Development Impact on General Fund Revenues

| Category | New Revenue from Development | *General Fund Revenues: Estimated FY 6/2021* | *General Fund Revenues per Capita* |
|---|---|---|---|
| Property Taxes* | $158,744 | $5,585,000 | * |
| Sales Taxes* | $133,003 | $9,350,000 | * |
| Other Taxes | $36,783 | $2,462,500 | $66 |
| Licenses and Permits | $16,604 | $1,111,554 | $30 |
| Intergovernmental Revenue | $44,559 | $2,983,024 | $80 |
| Charges for Services | $59,942 | $4,012,852 | $107 |
| Fines and Forfeitures | $931 | $62,342 | $2 |
| Miscellaneous | $2,454 | $164,252 | $4 |
| Contributions and Transfers | $4,319 | $289,160 | $8 |
| **Total Revenues** | $457,338 | $26,020,684 | $296 |

Source: Bonneville Analytics Analysis of Tooele City Adopted Budget, FY 2022

Based on the projected 560 new residents, it is estimated that $9,852,049 will be generated in new taxable sales in Tooele City (see Table 7). From the current sales tax schedule provided by the State Tax Commission, a total of $689,643 in new sales taxis is projected. Approximately $133,003 in sales tax is estimated to be generated to the City's general revenue fund.

To estimated property taxes, the assumption was made that the proposed project would be incorporated into Tax Area 1. Total property taxes are estimated at $723,009 or $4,204 per unit. Tooele City's portion of the new property taxes is projected to total $158,743 (see Table 8).

Property tax revenues were calculated based on the market value of the new homes. The new homes with similar lot sizes in Tooele City had a median sales price of $550,000 in 2021. While it is expected that the proposed homes are likely to have higher market values, the median sales price of $550,000 was used to derive the taxable assessed value.

## Table 7: New Development Impact on Sales Tax

| | Total Taxable Sales 2019-20 Avg | Per Capita |
|---|---|---|
| Tooele City | $629,220,685 | $17,605 |

| Taxable Sales from New Development | | |
|---|---|---|
| Total Annual Sales (per capita x New Pop) | | $9,852,049 |
| | *Current Tax Rate* | *New Revenue* |
| State Sales & Use Tax | 4.85% | $477,824 |
| Local Sales & Use Tax | 1.00% | $98,520 |
| County Option Sales Tax | 0.25% | $24,630 |
| Mass Transit Tax | 0.30% | $29,556 |
| County Option Transportation | 0.25% | $24,630 |
| Transportation Infrastructure | 0.25% | $24,630 |
| Arts & Zoo | 0.10% | $9,852 |
| *Total Sales Tax Generated* | | *$689,643* |
| **Tooele City Portion** | | **$133,003** |

Source: Bonneville Analytics Analysis of Tooele City Adopted Budget, FY 2022

## Table 8: New Development Impact on Property Tax

| Property Tax Analysis | |
|---|---|
| Residential Units | 172 |
| Market Value of New Units | $550,000 |
| Assessed Value | $302,500 |
| Tax Rate 2021* | 0.013896 |
| | |
| Property Tax/Unit | $4,204 |
| Property Tax Total | $723,009 |
| **Tooele City Share** | **$158,743** |

Source: Bonneville Analytics Analysis of Tooele City Adopted Budget, FY 2022
* https://tooeleco.org/wp-content/uploads/2021/08/EstimatePropertyTaxes.pdf
Tooele City rate = 0.003051as found in https://propertytax.utah.gov/tax-rates/area-rates/taxarearates2020.pdf

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# About Bonneville Analytics

Bonneville Analytics was founded in 2018 and is located in Salt Lake City, UT. We specialize in Housing, Demographic, and Retail market research. Our goal is to provide clients with the most up-to-date information to make their real estate project reach full market potential.

Dejan's professional career has revolved around market research in housing, retail, fiscal impact studies and economic and demographic analysis. His professional career has focused on providing the best information to key decision makers, whether they'd be local or state officials, executives of national retailers or publicly listed REIT's. Previously Dejan worked in the retail research industry across the country where he evaluated current and future sales performance for retail sites. Additionally, he has worked on a number of public-private-partnerships relating to Tax Increment Financing and economic development plans.

Before earning a Master's in Real Estate Development, Eskic earned a B.S. in Urban Planning, both from the University of Utah. He also serves as an adjunct professor of Real Estate Market Analysis at the University of Utah.

Phone: 801.865.3956
Email: dejan.eskic@gmail.com

Bonneville
Analytics

# 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.

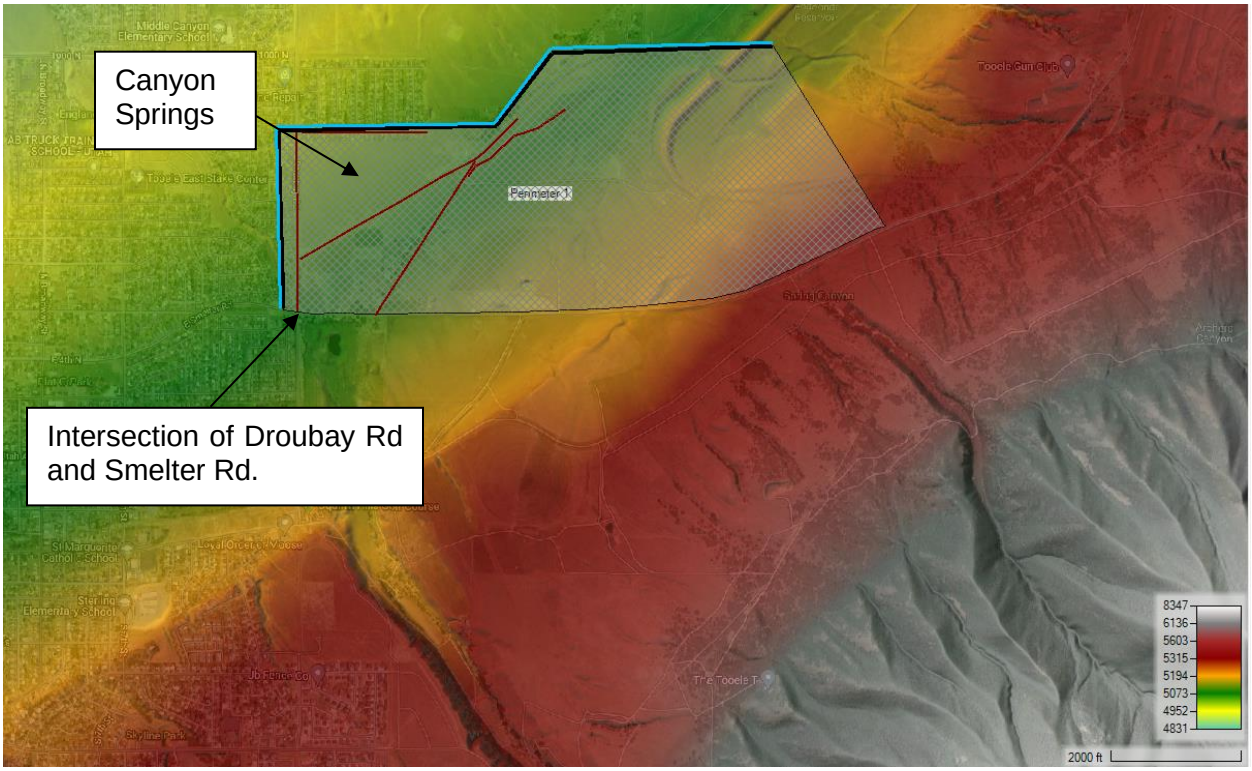



**FIGURE 1. HEC-RAS RAIN ON GRID MODEL EXTENTS**

## 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.

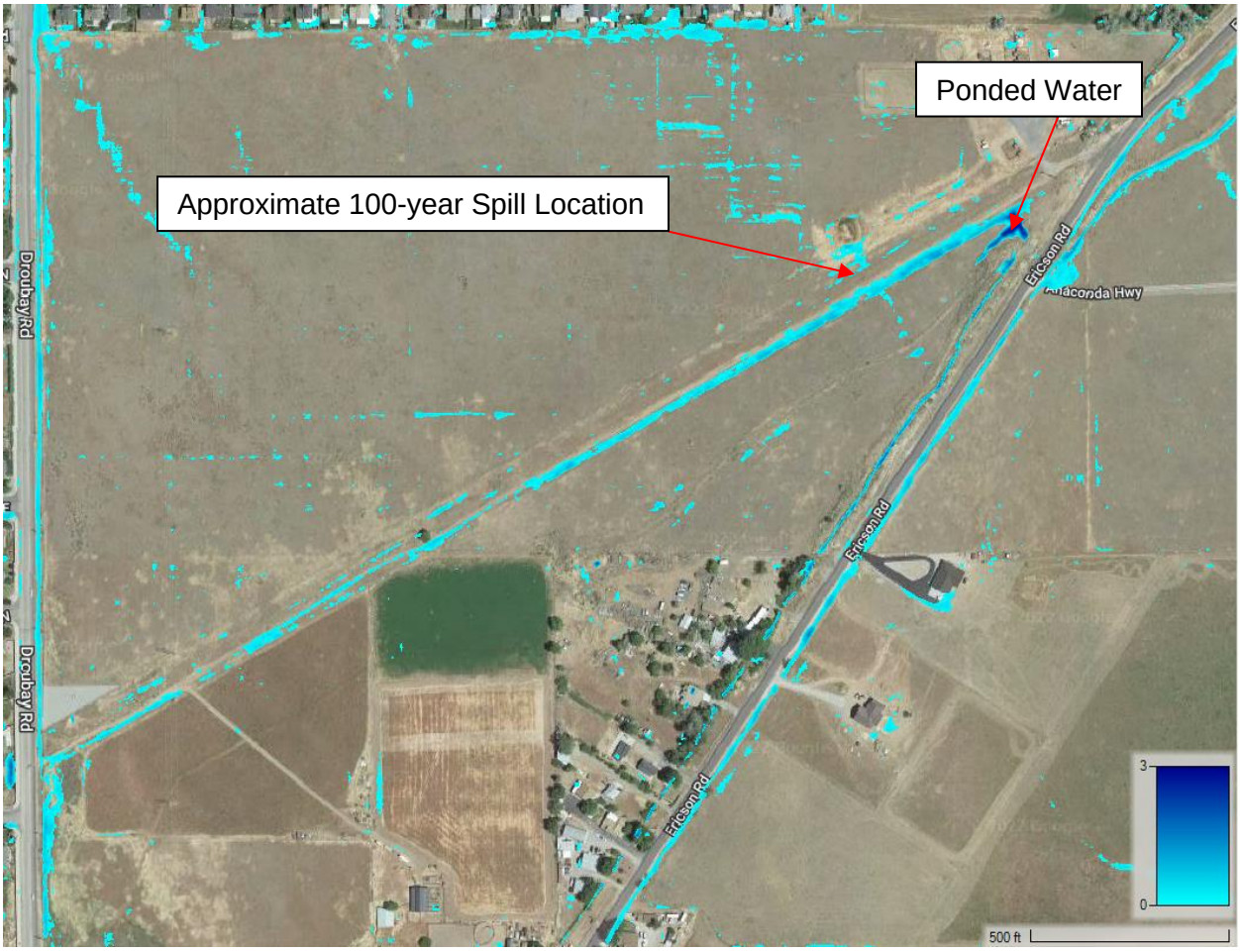



**FIGURE 2. 100-YR OFFSITE FLOWS SPILL LOCATION**

## 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

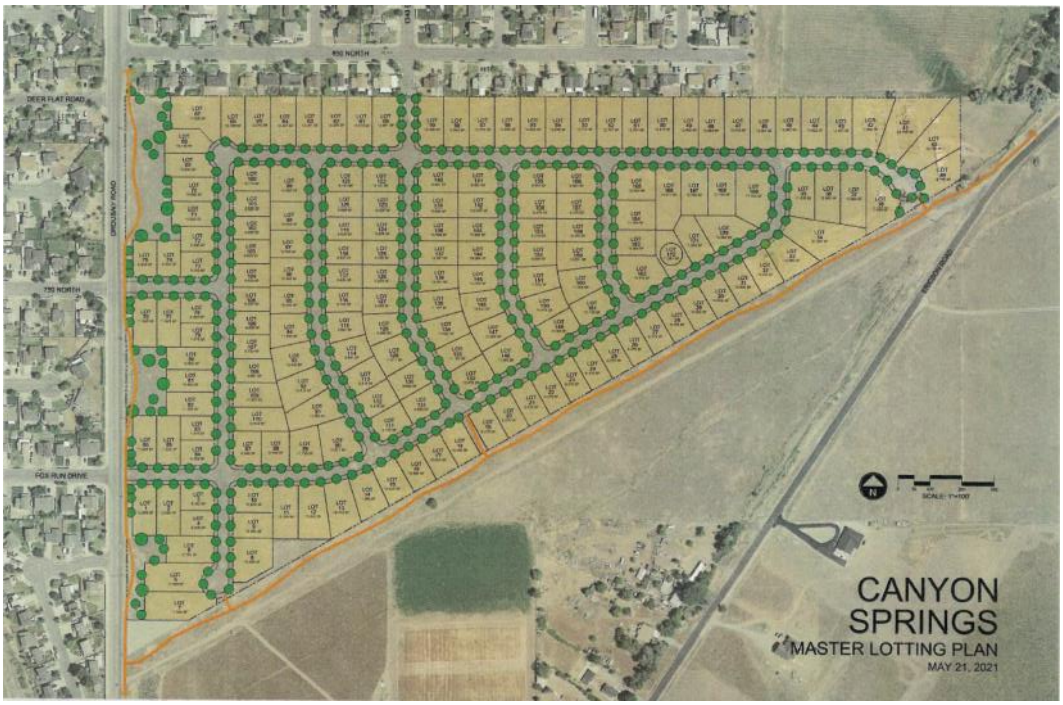
Bonnin, G., D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley (2004, revised 2011). NOAA Atlas 14 Volume 1, Precipitation-Frequency Atlas of the United States, Semiarid Southwest. NOAA, National Weather Service, Silver Spring, MD.

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.

# ANNEXATION AND FINANCIAL CONSULTING

# CANYON SPRINGS IMPACT ON TOOELE CITY




## JUNE 2022

EFG CONSULTING
2110 N DAPPLE DRIVE,
TOOELE, UT 84074

EFG Consulting LLC ("EFG") prepared this report to analyze the fiscal impacts of the Canyon Springs ("CS") development to Tooele City (the "City"). This report will outline the findings, assumptions and methodologies utilized. Cody Deeter with EFG Consulting has been involved in municipal finance and consulting for nearly 20 years.

## SUMMARY OF FINDINGS

EFG finds that the City will receive a positive annual economic upon the full development of CS. At full build-out, the City is estimated to experience the following (all impacts are expressed in 2022 dollars):

### GENERAL FUND

$299k General Fund Revenue
218k General Fund Expenditures
**$ 81k Net Fiscal Impact**

$631k Impact Fees (Parks, Police, Fire)
**$ 97k are reimbursement to the general fund – free cashflow**

### ENTERPRISE FUNDS

$103k Water, Sewer, Storm Water, Street Lights Fees
15k Expenses (majority of costs are fixed)
**$ 88k Net Fiscal Impact**

$2.03m Impact Fees (Water and Sewer)
**$480k are reimbursable as free cash flow**

### TOTAL IMPACT

**$169k Annual Fiscal Impact (positive)**
**$576k One-time Reimbursements from Impact Fees**

Detailed assumptions and methodologies are provided herein. All general fund revenue assumptions for the major revenue categories were generated using formulas from the state code. Expenditures were based upon EFG's understanding and experience of fixed versus variable costs in each type of City fund. Specific exceptions could be found in each category; however, this methodology is consistent with general local government funding.

## GENERAL FUND REVENUES

The major general fund revenues analyzed in the report are Property, Sales, PAR, Franchise, Class C Road, and Other Taxes/Fees/. A detailed analysis is found herein.

| General Fund (and similar funds) | |
|---|---|
| Revenues | |
| Property Tax | $ 108,714 |
| Sales Tax | 45,141 |
| PAR Tax | 9,028 |
| Franchise Taxes | 31,508 |
| Class C Road Funds | 21,628 |
| Other Revenues | 82,613 |
| | |
| Total Revenue | $ 298,633 |

### PROPERTY TAX

Property taxes were estimated based upon the 2022 City rate of .002009. Comparable properties to CS were located in Stansbury Park's Shady Brook Lane and The Reserve subdivisions.

| **Assumptions** | | | | |
|---|---|---|---|---|
| Units | 172 | | | |
| Average Land Size | 11,000 | sf | 0.25 | ac |
| Average Home Size | 3,500 | sf | total sf | |
| Residential Value Ratio | 55% | | | |

| **Comparables** | Market Value | Taxable Value | Lot | House size | Lot Size | Market Value/SF |
|---|---|---|---|---|---|---|
| SHADY BROOK LANE PUD-PH 1 | $641,333 | $352,733 | 119 | 3,645 | 0.25 | $175.95 |
| SHADY BROOK LANE PUD-PH 1 | 743,525 | 408,939 | 140 | 4,115 | 0.29 | 180.69 |
| THE RESERVE PHASE 1 SUBDIVISION | 488,456 | 268,651 | 111 | 3,460 | 0.25 | 141.17 |
| THE RESERVE PHASE 4 SUBDIVISION | 525,022 | 288,762 | 419 | 3,367 | 0.25 | 155.93 |
| | | | | | | |
| **Average** | $599,584 | $329,771 | 197 | 3,647 | | $163.43 |

| Proposed Value and City Property Tax Revenue | | |
|---|---|---|
| Units | | 172 |
| Average Home Size | | 3,500 |
| Average Market Value per SF | $ | 163.43 |
| Average Market Value per Home | $ | 572,022 |
| Total Market Value | $ | 98,387,743 |
| Total Taxable Value | $ | 54,113,258 |
| 2022 City Tax Rate | | 0.002009 |
| **Property Tax Revenue** | **$** | **108,714** |

## SALES TAX AND PAR TAX

The City receives .5% for direct Point of Sale. The other .5% is distributed based upon the proportionate population of the City versus the total population of the state. No meaningful amount of incremental sales tax will be generated by the increase in population. This analysis assumed gross taxable sales attributable per person in the County rather than the City to account for the regional nature of the City. PAR Sales Tax is not accounted in the General Fund.

| Gross Taxable Sales Information | | | Source |
|---|---|---|---|
| Tooele City Population | | 35,742 | 2020 Census |
| Tooele City Gross Taxable Sales | | $802,562,030 | CY2021 |
| Tooele County Population | | 76,640 | 2020 Census |
| Tooele County Gross Taxable Sales | | 1,293,324,814 | CY2021 |
| Tooele City Sales per Capita | | $22,454 | |
| Tooele County Sales per Capita | $ | 16,875 | |
| Ratio of City to County | | 133% | |

| Sales Tax Analysis | | | Source/Notes |
|---|---|---|---|
| Canyon Springs Units | | 172 | |
| Persons per Household | | 3.11 | 2020 Census |
| Population of Canyon Springs | | 535 | |
| Tooele County Sales per Capita | $ | 16,875 | |
| Gross Taxable Sales from Canyon Springs | | 9,028,298 | |
| City Sales Tax Rate (Point of Sale) | | 0.50% | |
| City PAR Tax Rate (Point of Sale) | | 0.10% | |
| **Sales Tax Revenue** | | **45,141** | |
| **PAR Tax Revenue** | | **9,028** | |

## FRANCHISE TAXES OR FEES

The City receives revenue from the imposition of a Municipal Energy Sales and Use Tax on electricity and gas, Telecommunication License Fee on phone, and Franchise Tax on cable.

| | | Source |
|---|---|---|
| Tooele City Population | 35,742 | 2020 Census |
| Gas | 510,000 | 2022 Budget (2020 numbers) |
| Power | 1,200,000 | 2022 Budget (2020 numbers) |
| Cable | 195,000 | 2022 Budget (2020 numbers) |
| Phone | 200,000 | 2022 Budget (2020 numbers) |
| Estimated Annual Receipts | $2,105,000 | 2022 Budget (2020 numbers) |
| Tax per Capita | $58.89 | |
| Canyon Springs Units | 172 | |
| Persons per Household | 3.11 | 2020 Census |
| Population of Canyon Springs | 535 | |
| Tax per Capita | $58.89 | |
| **Total Revenue** | **$31,508** | |

## CLASS C ROAD FUNDS

The City receives funds to help offset costs on roads from the state gas tax. These funds are allocated based upon weighted lane miles (50%) and population (50%).

| **Assumptions** | | Source |
|---|---|---|
| Tooele City Population | 35,742 | 2020 Census |
| State Population | 3,271,616 | UDOT |
| Tooele City Weighted Road Miles | 737 | UDOT |
| State Weighted Road Miles | 125,191 | UDOT |
| Estimated State Allocation | 190,000,000 | UDOT |
| Population Allocation | 95,000,000 | |
| Road Miles Allocation | 95,000,000 | |
| Allocation per Population | $ 29.04 | |
| Allocation per Weighted Mile | $ 758.84 | |
| Weighted Mile Ratio for Paved | 5.00 | UDOT |
| | | |

| **Revenue** | | Source |
|---|---|---|
| Miles of Paved Road in Canyon Springs | 1.61 | Estimate from plat |
| Weighted Road Miles | 8.03 | |
| Revenue for Road Miles | $6,092 | |
| Population in Canyon Springs | 535 | |
| Revenue for Population | $15,535 | |
| **Total Revenue** | **$21,628** | |

**OTHER REVENUE**

Other revenues are not formula driven and were thus calculated on a per capita basis.

| Assumptions | | Per Capita | Source |
|---|---|---|---|
| Tooele City Population | 35,742 | | 2020 Census |
| Revenues | | | |
| Licenses and Permits | $888,000 | $25 | 2022 Budget |
| Intergovernmental Revenue | 396,660 | 11.10 | 2022 Budget |
| Charges for Services | 3,651,500 | 102.16 | 2022 Budget |
| Fines and Forfeitures | 63,000 | 1.76 | 2022 Budget |
| Misc | 150,000 | 4.20 | 2022 Budget |
| Contributions and Transfers | 370,022 | 10.35 | 2022 Budget |
| | **$5,519,182** | **$154.42** | |

| **Revenue** | | | |
|---|---|---|---|
| Population in Canyon Springs | 535.00 | | |
| Per Capita Revenue | $154.42 | | |
| | | | |
| **Total Revenue** | **$82,613** | | |

## GENERAL FUND EXPENDITURES

The City has both fixed and variable costs within each of its departments. Some are more fixed than others. This analysis generally assumed a variable cost of 75% and fixed of 25%. The general trend of additional costs per capita is accurate but not on a one-to-one basis. In addition, most variable costs are "stepped" in that we costs are added in large steps such as one additional officer or one additional piece of equipment. This analysis assumed in the fixed to variable ratio that these steps would be included over time. Some years the increase would be very marginal and others higher.

| Expenditure Categories | Fixed Cost % | Variable Cost % | 2021 Actuals | Variable Cost $ | Per Capita | New Expense | Source |
|---|---|---|---|---|---|---|---|
| City Council | 90% | 10% | 127,375 | 12,738 | 0.36 | 191 | 2021 Actual |
| Administration | 25% | 75% | 841,290 | 630,968 | 17.65 | 9,445 | 2021 Actual |
| Communities That Care | 50% | 50% | 188,778 | 94,389 | 2.64 | 1,413 | 2021 Actual |
| Information Systems | 35% | 65% | 345,158 | 224,353 | 6.28 | 3,358 | 2021 Actual |
| Finance | 25% | 75% | 696,298 | 522,224 | 14.61 | 7,817 | 2021 Actual |
| Attorney | 25% | 75% | 541,107 | 405,830 | 11.35 | 6,075 | 2021 Actual |
| Non-Departmental | 25% | 75% | 553,096 | 414,822 | 11.61 | 6,209 | 2022 Budget |
| General Govt Buildings | 25% | 75% | 770,254 | 577,691 | 16.16 | 8,647 | 2021 Actual |
| Election | 25% | 75% | 90,000 | 67,500 | 1.89 | 1,010 | 2022 Budget |
| Police Department | 25% | 75% | 6,205,851 | 4,654,388 | 130.22 | 69,669 | 2021 Actual |
| Fire Department | 25% | 75% | 534,442 | 400,832 | 11.21 | 6,000 | 2021 Actual |
| Animal Control | 25% | 75% | 295,117 | 221,338 | 6.19 | 3,313 | 2021 Actual |
| Street Department | 25% | 75% | 1,466,658 | 1,099,994 | 30.78 | 16,465 | 2021 Actual |
| Street Lighting | 25% | 75% | 200,000 | 150,000 | 4.20 | 2,245 | 2021 Actual |
| City Shops | 25% | 75% | 452,716 | 339,537 | 9.50 | 5,082 | 2021 Actual |
| Public Works | 25% | 75% | 755,262 | 566,447 | 15.85 | 8,479 | 2021 Actual |
| Parks and Recreation | 25% | 75% | 1,190,357 | 892,768 | 24.98 | 13,363 | 2021 Actual |
| Aquatic Center | 25% | 75% | 790,801 | 593,101 | 16.59 | 8,878 | 2021 Actual |
| Tooele Valley Museum | 25% | 75% | 46,900 | 35,175 | 0.98 | 527 | 2021 Actual |
| Golf Course | 25% | 75% | 1,048,101 | 786,076 | 21.99 | 11,766 | 2021 Actual |
| Library | 25% | 75% | 1,021,507 | 766,130 | 21.44 | 11,468 | 2021 Actual |
| Cemetery | 25% | 75% | 380,817 | 285,613 | 7.99 | 4,275 | 2021 Actual |
| Community Development | 25% | 75% | 1,068,159 | 801,119 | 22.41 | 11,991 | 2021 Actual |
| **Total Expenditures** | | | | **$14,543,029** | **$406.89** | **$217,686** | |

| Assumptions | | Source |
|---|---|---|
| Tooele City Population | 35,742 | 2020 Census |
| Population in Canyon Springs | 535 | |

## GENERAL FUND SUMMARY

| General Fund (and similar funds) | | |
|---|---|---|
| Revenues | | |
| Property Tax | $ | 108,714 |
| Sales Tax | | 45,141 |
| PAR Tax | | 9,028 |
| Franchise Taxes | | 31,508 |
| Class C Road Funds | | 21,628 |
| Other Revenues | | 82,613 |
| | | |
| Total Revenue | $ | 298,633 |
| | | |
| Total Expenditures | $ | 217,686 |
| | | |
| **Net Annual Impact General Fund** | **$** | **80,947** |

## ENTERPRISE REVENUE & EXPENDITURES

Enterprise revenue was based upon revenue per equivalent residential connection (ERC) which is a means to equate commercial usage to residential to properly evaluate system impacts. Enterprise revenue per ERC was the basis for this analysis.

Enterprise expenditures (aside from capital which is covered in the impact fee) are highly fixed in nature.

| Enterprise Funds | | |
|---|---|---|
| Revenues | Fixed | Total |
| Water | $ 47,128 | $ 55,444 |
| Sewer | 32,466 | 38,195 |
| Storm Water | 5,446 | 6,407 |
| Street Lights | 2,566 | 3,019 |
| | | |
| | | |
| | | |
| Total Revenue | $ 87,605 | $ 103,064 |
| | | |
| Total Expenditures (Variable Costs) | $ - | $ 15,460 |
| | | |
| **Net Fiscal Impact Enterprise Funds** | | **$ 87,605** |

| **Assumptions** | **ERCs** | **Source** |
|---|---|---|
| Total City Water Connections | 13,960 | 2021 Water Master Plan |
| Total City Sewer Connections | 13,960 | Estimated |
| Total Storm Water Connections | 13,960 | Estimated |
| Total Street Light Connections | 13,960 | Estimated |
| | | |
| Total City Water Rate Revenue | $4,500,000 | 2022 Budget |
| Total City Sewer Rate Revenue | $3,100,000 | 2022 Budget |
| Total City Storm Sewer Rate Revenue | $520,000 | 2022 Budget |
| Total City Street Light Rate Revenue | $245,000 | 2022 Budget |
| | | |
| Water Revenue per Connection | $322 | |
| Sewer Revenue per Connection | $222 | |
| Storm Water Revenue Connection | $37 | |
| Street Light Revenue Connection | $18 | |
| | | |
| Fixed Cost Ratio | 85% | |
| | | |
| Fixed Revenue Per Connection - Water | $274 | |
| Fixed Revenue Per Connection - Sewer | $189 | |
| Fixed Revenue Per Connection - Storm Water | $32 | |
| Fixed Revenue Per Connection - Street Lights | $15 | |

| Revenue | | Total | Fixed | Variable |
|---|---|---|---|---|
| Connections in Canyon Springs | 172.00 | | | |
| Water Revenue | | $55,444 | $47,128 | $8,317 |
| Sewer Revenue | | 38,195 | 32,466 | 5,729 |
| Storm Water Revenue | | 6,407 | 5,446 | 961 |
| Street Light Revenue | | 3,019 | 2,566 | 453 |
| | | | | |
| **Total Revenue** | | **$103,064** | **$87,605** | **$15,460** |

## IMPACT FEE SUMMARY

The impact fee estimates were based upon the currently adopted impacts fees with the exception of Sewer which is currently in process. This analysis assumed a similar increase in sewer impact fees as experienced by water impact fees in the most recent revision.

The impact fee has two major components, equity buy-in and future facilities. The equity buy-in portion is a reimbursement of the general fund or enterprise fund and is thus an infusion of free cashflow to the City.

| Assumptions | Total | Buy-In | Future Facility | Source |
|---|---|---|---|---|
| Parks Impact Fee | $ 3,194 | $ 345 | $ 2,849 | 2020 Impact Fee Analysis |
| Police Impact Fee | 217 | 217 | - | 2020 Impact Fee Analysis |
| Fire Impact Fee | 256 | - | 256 | 2020 Impact Fee Analysis |
| Water Impact Fee | 7,805 | 789 | 7,016 | 2022 Impact Fee Analysis |
| Sewer Impact Fee | 4,000 | 2,000 | 2,000 | Estimated |
| | | | | |
| | | **$ 3,351** | | |

| Revenue | | Free Cash Flow | Total |
|---|---|---|---|
| Population in Canyon Springs | 172.00 | | |
| | | | |
| Parks Impact Fee | | 59,375 | 549,368 |
| Police Impact Fee | | 37,307 | 37,307 |
| Fire Impact Fee | | - | 44,015 |
| Water Impact Fee | | 135,708 | 1,342,460 |
| Sewer Impact Fee | | 344,000 | 688,000 |
| | | | |
| **Total Revenue** | | **$ 576,390** | **$ 2,661,150** |

## FULL SUMMARY

The general fund is estimated to receive a $80,947 positive fiscal impact from CS per year (2022 dollars). In addition, impact fees will bring in $96,682 of buy-in or free cashflow to the City along with $534,008 in revenues to fund future facilities to accommodate new growth.

| General Fund (and similar funds) | |
|---|---|
| Revenues | |
| Property Tax | $ 108,714 |
| Sales Tax | 45,141 |
| PAR Tax | 9,028 |
| Franchise Taxes | 31,508 |
| Class C Road Funds | 21,628 |
| Other Revenues | 82,613 |
| | |
| Total Revenue | $ 298,633 |
| | |
| Total Expenditures | $ 217,686 |
| | |
| **Net Annual Impact General Fund** | **$ 80,947** |

| General Fund Impact Fees | | | |
|---|---|---|---|
| Revenues | Buy In | Future Facility | Total |
| Parks Impact Fee | $ 59,375 | $ 489,993 | $ 549,368 |
| Police Impact Fee | 37,307 | - | 37,307 |
| Fire Impact Fee | - | 44,015 | 44,015 |
| | | | |
| Total Revenue | **$ 96,682** | **$ 534,008** | **$ 630,690** |

The enterprise funds are estimated to receive $103,064 in positive fiscal impacts from CS per year (2022 dollars). In addition, impact fees will bring in $479,708 of buy-in or free cashflow to the City and $1,550,752 in revenues to fund future facilities to accommodate new growth.

| Enterprise Funds | | |
|---|---|---|
| Revenues | Fixed | Total |
| Water | $ 47,128 | $ 55,444 |
| Sewer | 32,466 | 38,195 |
| Storm Water | 5,446 | 6,407 |
| Street Lights | 2,566 | 3,019 |
| | | |
| | | |
| | | |
| Total Revenue | $ 87,605 | $ 103,064 |
| | | |
| Total Expenditures (Variable Costs) | $ - | $ 15,460 |

| | |
|---|---|
| **Net Fiscal Impact Enterprise Funds** | **$ 87,605** |

| Enteprise Fund Impact Fees | | | |
|---|---|---|---|
| Revenues | Buy In | Future Facility | Total |
| Water Impact Fee | $ 135,708 | $ 1,206,752 | $ 1,342,460 |
| Sewer Impact Fee | 344,000 | 344,000 | 688,000 |
| | - | | - |
| | | | |
| Total Revenue | **$ 479,708** | **$ 1,550,752** | **$ 2,030,460** |

**DATE:** May 22, 2024

**TO:** Mayor Winn, City Council

**FROM:** Shannon Wimmer, Finance Director

**RE:** Canyon Springs Annexation Financial Impact Report

Tooele City received the attached financial impact report in June 2022 for the Canyon Springs development. After discussing the report with its creator, both EFG Consulting and the Tooele City Finance Director agreed on some updates. These updates are outlined below:

- **Removal on Non-Growth Related**: Revenues: Transfers from other funds and grants have been excluded as they are not based on growth and may not be ongoing. Additionally, expenses from the 4810 department (Transfers) have been removed. These expenses include items such as bond payments that are accounted for in other funds so counting them here is a duplication. One-time ARPA funds included in this year were also eliminated by removing the entire department.
- **Updated Financial Impact**: By addressing these two items only, the projected income from the project decreases from $80,946 to $20,610.

It is also noted by Tooele City that the report employs two different methods of calculating impact: a per capita method for estimating revenues and a 75% share method for calculating expenses. To ensure consistence and accuracy, the same method should be applied to both revenues and expenses throughout the report. Therefore, I have created two scenarios using the numbers provided in the report (with the agreed-upon changes above) and calculated the impact using each method uniformly. The results of these calculations are presented in the exhibits below.

**Amounts Provided by CFG (page 7 with updates)**

| General Fund (and similar funds) | |
|---|---|
| Revenues | |
| Property Tax | $108,714 |
| Sales Tax | 45,141 |
| PAR Tax | 9,028 |
| Franchise Taxes | 31,508 |
| Class C Road Funds | 21,628 |
| Other Revenues | 45,678 |
| **Total Revenue** | **$261,697** |
| | |
| **Total Expenditures** | **$241,087** |
| | |
| **Net Annual Impact General Fund** | **$20,610** |

**Tooele City Re-Calculation Using 75% Fixed/Variable Method**

| General Fund (and similar funds) | |
|---|---|
| Revenues | |
| Property Tax | $81,536 |
| Sales Tax | 33,856 |
| PAR Tax | 6,771 |
| Franchise Taxes | 23,631 |
| Class C Road Funds | 16,221 |
| Other Revenues | 34,259 |
| **Total Revenue** | **$196,273** |
| | |
| **Total Expenditures** | **$240,215** |
| | |
| **Net Annual Impact General Fund** | **($43,942)** |

**Tooele City Re-Calculation Using Per Capita Method**

| General Fund (and similar funds) | |
|---|---|
| Revenues | |
| Property Tax | $114,036 |
| Sales Tax | 83,995 |
| PAR Tax | 5,885 |
| Franchise Taxes | 31,565 |
| Class C Road Funds | 18,190 |
| Other Revenues | 45,678 |
| **Total Revenue** | **$299,349** |
| | |
| **Total Expenditures** | **$323,140** |
| | |
| **Net Annual Impact General Fund** | **($23,791)** |

# UTILITY IMPACT ESTIMATE

November 11, 2021

ENSIGN
THE STANDARD IN ENGINEERING
Structural Engineering
Municipal Services
Civil Engineering
Land Surveying

RE: Howard Schmidt
PO BOX 95410
South Jordan, UT 84095

To whom it may concern,

The following utility impact on the city for storm water, waste water and culinary water are found within this letter. The utility impact on the city is an estimate for the proposed Canyon Springs Subdivision located along Droubay Road and 750 North. Canyon Springs Subdivision is a proposed 172 single family residence on 61.16 acres of land in Tooele, Utah. Along the North property line there is an estimated elevation change from east to west of 40ft. Along the West property line there is an estimated elevation change from south to north of 55ft.

**Storm Water**

The concept layout of the property will allow for two basins sufficient to detain the estimated 64,980 cf. of storage required for a 10-year storm. The release point of the basins will flow to an existing storm drain system on the North West corner of the property.

The storm water estimate only considered basin detention within the subdivision. An evaluation of downstream storm drain pipe capacity and outfall will need to be considered by the municipality.

**Study Summary Statistics**

| | |
|---|---|
| No. of Lots | 172 |
| Roof SF/lot | 2742 |
| Drive SF/lot | 1758 |
| Total Lots Hardscape, SF | 774000 |
| Total Road Hardscape SF | 323344 |
| Total Hardscape, SF | 1097344 |
| Total Area, SF | 2663951 |
| Total Area, Acre-FT | 61.16 |
| Landscaped Area, SF | 1566607 |
| Weighted Average C | 0.44 |

**Detention Calculations (10-year storm)**

| | | |
|---|---|---|
| Basin Tributary Area | 2,663,951 | SF |
| Basin Tributary Area | 61.16 | Acre-ft |
| Runoff coefficient C: | 0.438 | |
| Basin Area | - | SF |
| Allowable Discharge Rate | 0.10 | cfs/acre |
| Total Discharge | 6.12 | cfs |

| Time (min) | i (in/hr) | Cumulative Runoff to Basin (cf) | Infiltration (cf) | Required Storage (cf) |
|---|---|---|---|---|
| 5 | 3.41 | 27,636 | 1,835 | 25,802 |
| 10 | 2.60 | 42,136 | 3,669 | 38,466 |
| 15 | 2.14 | 52,159 | 5,504 | 46,655 |
| 30 | 1.44 | 70,259 | 11,008 | 59,251 |
| 60 | 0.89 | 86,996 | 22,016 | **64,980** |
| 120 | 0.52 | 100,230 | 44,032 | 56,198 |
| 180 | 0.37 | 108,015 | 66,048 | 41,967 |
| 360 | 0.23 | 131,370 | 132,097 | (727) |
| 720 | 0.14 | 164,456 | 264,193 | (99,738) |
| 1440 | 0.09 | 209,219 | 528,387 | (319,168) |
| | | | Estimated Required Detention: | 64,980 |

**Sanitary Sewer**

The equivalent residential unit (ERU) per Utah State Code R317 is 400 gpd. The total sewage production of 172 units in the subdivision is estimated to be 68,800 gpd (0.11 cfs). A peaking factor of 4 was assumed for pipe sizing, rushing in a peak flow rate of 0.44 cfs.

The maximum flowing capacity of half an 8” pipe sloping at 0.5% is 0.86 cfs, assuming a manning’s coefficient of 0.013. It is estimated that an 8” pipe will meet the peak demands produced by the subdivision. Comparing the peak demand of 0.44 cfs to the available 0.86 cfs will allow for an 8” pipe.

The sanitary sewer impact estimate only considered the production within the proposed subdivision. An evaluation of the downstream capacity of sewer pipes and treatment was not performed. Those items will also need to be considered by the municipality.

**Water**

The equivalent residential connection (ERC) per Utah State Code R309 is 800 gpd (Peak Day Demand). The water demand for 172 units in the subdivision is estimated to be 173,600 gpd (120 gpm).

The maximum flowing capacity of an 8” pipe at 5ft/sec is equal to 1.75 cfs (654 gpm). The peak demand of 120 gpm is estimated to be met by an 8” pipe flowing capacity of 654 gpm.

The proposed subdivision is in close proximity to developed areas within the city at higher elevation. It is assumed that water service can be provided to this property without concerns for pressure.

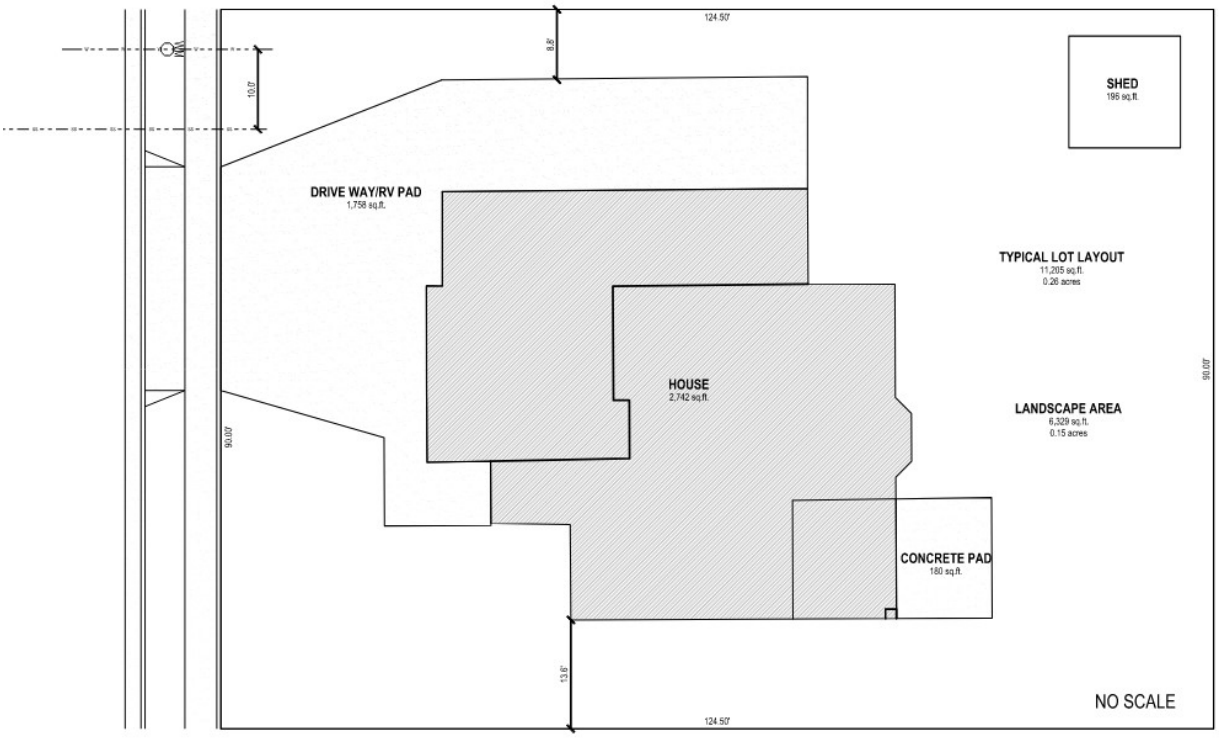
The water impact estimate only considered the demand within the proposed subdivision. An evaluation of storage, sources, and transmission lines will need to be considered by the municipality.

**Water Right Estimate**

The water rights required for the subdivision is an estimated 142.96 acre-ft, considering the typical average lot layout shown below. See narrative for water rights calculation.

## ENGINEER'S ESTIMATE OF WATER RIGHT REQUIRMENTS

| | | | |
|---|---|---|---|
| PROJECT TITLE: | | | PROJECT NUMBER: |
| Canyon Springs Subdivision | | | 9602 |
| LOCATION: | | | DATE: |
| Tooele City | | | November 4, 2021 |
| CLIENT: | | | SHEET: |
| Howard Schmidt | | | 1 OF 1 |
| ESTIMATED BY: | CHECKED BY: | APPROVED BY: | |
| J.Cid | | | |
| **NUMBER OF LOTS** | | | |
| 172 | | | |
| **INTERIOR WATER DEMAND** | | | |
| Demand Per House | = | 0.25 | acre-feet |
| | - | 172 | LOTS |
| **Total Interior** | = | 43 | acre-feet |
| **EXTERIOR WATER DEMAND** | | | |
| Lot Size | | 11,205 | sf |
| Impervious Footprint | | 2,742 | sf - Building Foot Print |
| Impervious Footprint | | 2,134 | sf - Concrete |
| NET IRRIGABLE | = | 6,329 | sf |
| | | 0.15 | acre-feet |
| | X | 4 | acre-feet/acre (per State Standard) |
| | = | 0.58 | acre-foot per buildable lot |
| | | 172 | Buildable Lots |
| SUB-TOTAL | = | **99.96** | **acre-feet** |
| **WATER RIGHT REQUIRMENT** | | | |
| TOTAL WATER RIGHT | | | |
| INTERIOR | = | 43.00 | acre-feet |
| EXTERIOR | = | 99.96 | acre-feet |
| **TOTAL** | **=** | **142.96** | **acre-feet** |




We have provided an evaluation of the impact that this subdivision will have based on the lots location and size of the proposed streets and estimated water usage.

We can only assume that the existing infrastructure is capable of handling our produced water, sewer and storm drainage. This report provides sufficient information to run in your models to determine the impact of this subdivision to the City of Tooele.

If the City infrastructure is insufficient then the impact fees collected from this project would be the revenue source to solve this insufficiency.

Upon annexation approval the developer will cover the cost to analyze sewer, water and storm drainage to complete the evaluation.

If you have any questions concerning this letter, feel free to contact us at any time.

Sincerely,

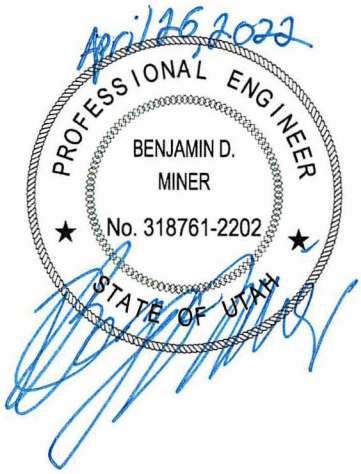
Corey Child, PE
Project Manager

Jared Cid, EIT
Design Engineer

HANSEN ALLEN & LUCE inc
ENGINEERS

# 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
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SUBJECT: Canyon Springs Annexation - Wastewater Review

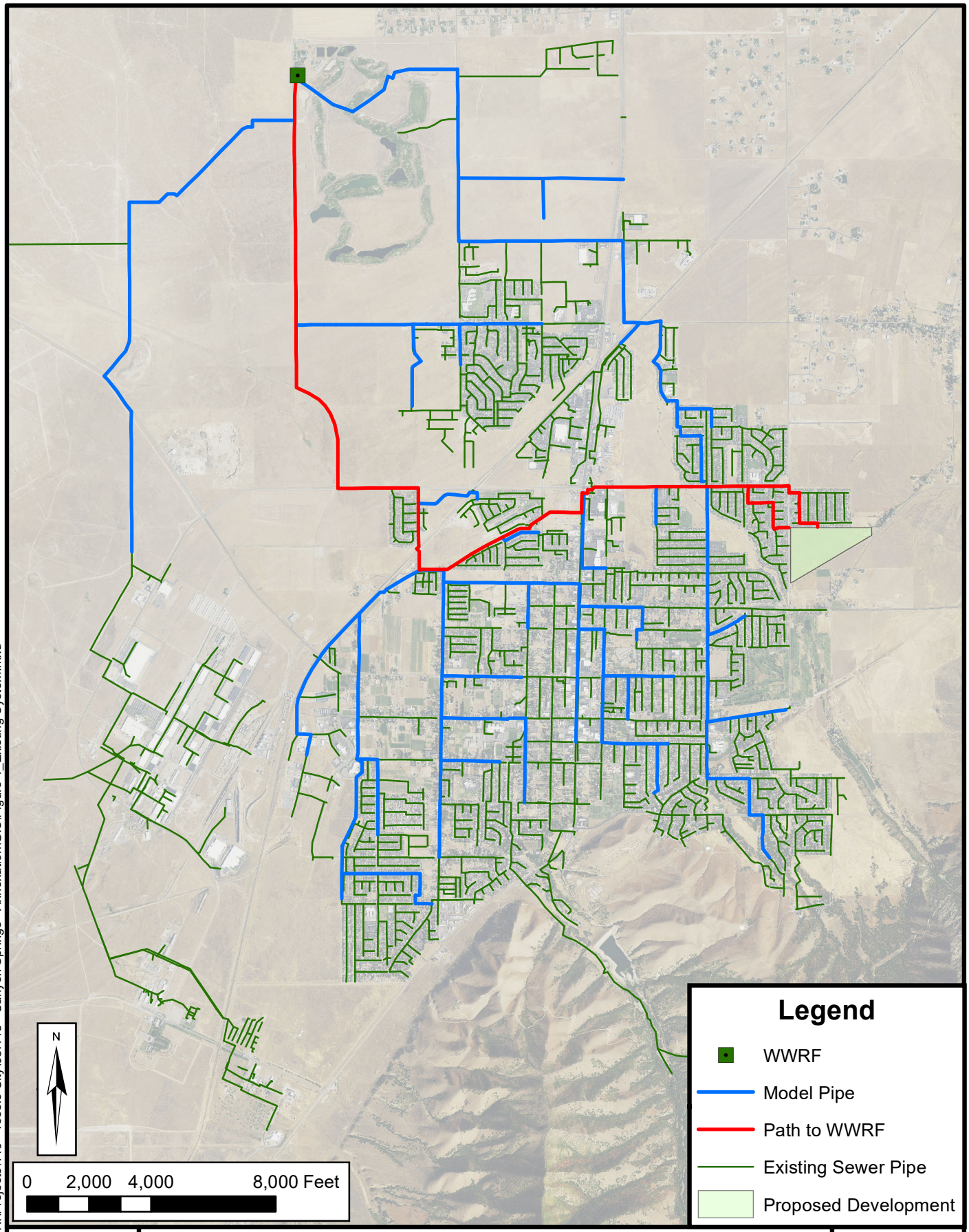
PROJECT NO.: 149.08.148

## 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.

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HANSEN ALLEN & LUCE inc
ENGINEERS

**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 |

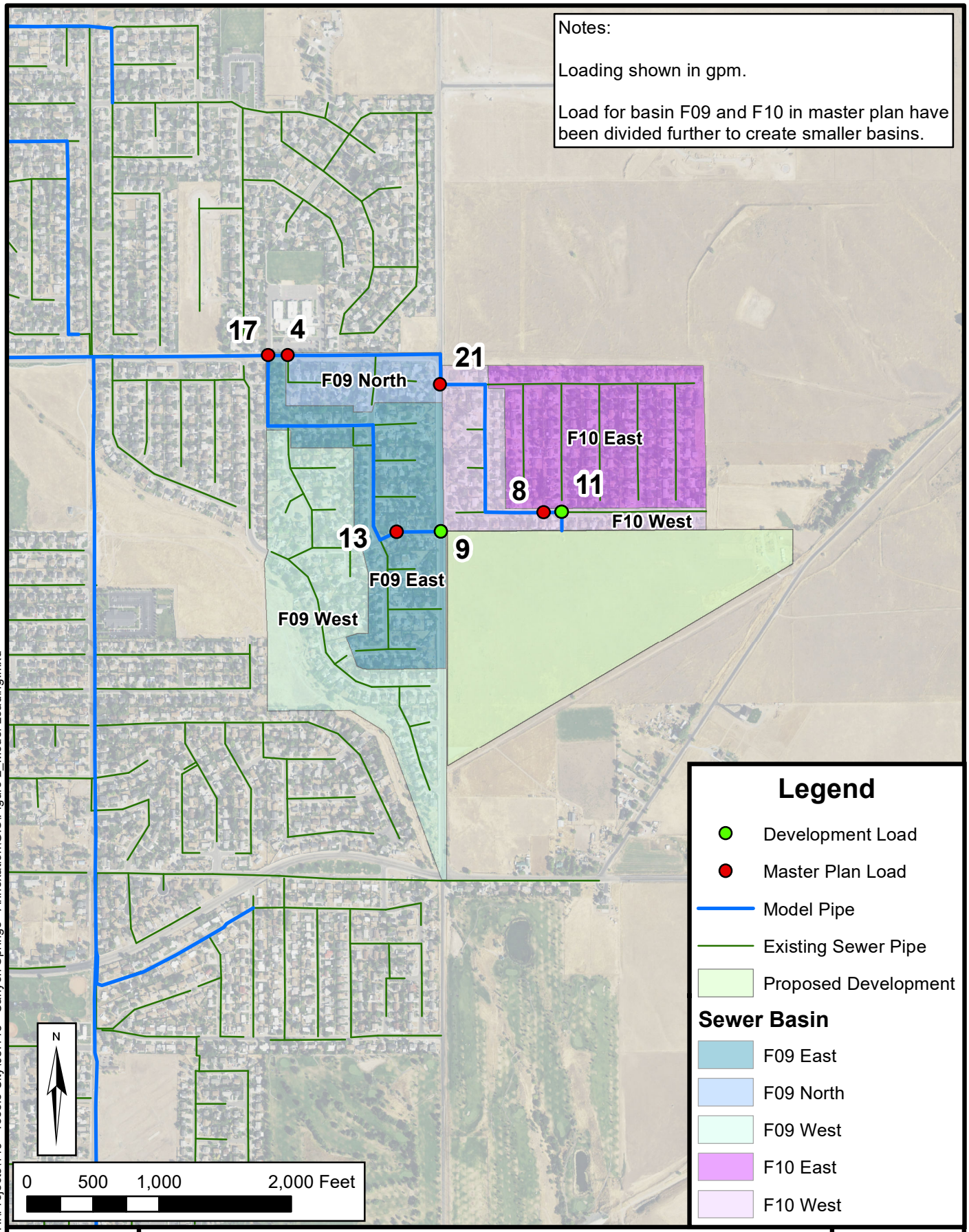
## WASTEWATER COLLECTION SYSTEM MODELING

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 developerôs design engineer will design the sewers with adequate capacity. It is expected that 8ò 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.

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HANSEN ALLEN & LUCE inc ENGINEERS

# 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.

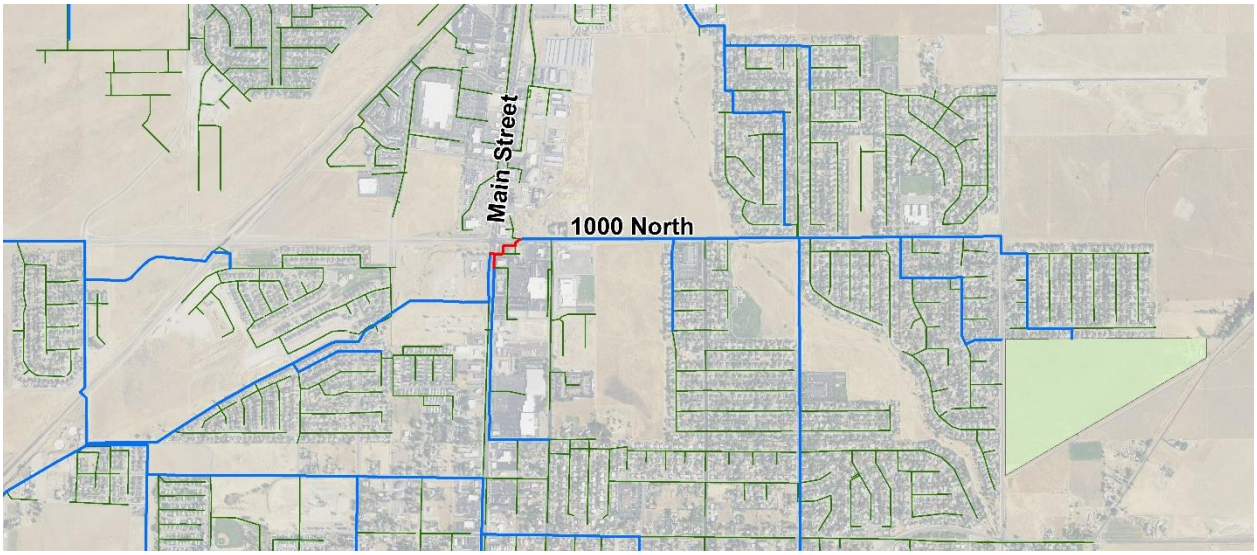


**FIGURE 3: EXISTING RECOMMENDED IMPROVEMENTS**

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 constructred.

## 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.

HALES ENGINEERING
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# Canyon Springs

## Traffic Impact Study

## Tooele, Utah

**November 19, 2021**

**UT21-2056**

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# EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Canyon Springs development located in Tooele, Utah. The Canyon Springs development is located east of Droubay Road, between 850 North and Smelter Road.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2021) and future (2026) conditions with and without the proposed project and to recommend mitigation measures as needed. The evening peak hour level of service (LOS) results are shown in Table ES-1.

**Table ES-1: Evening Peak Hour Level of Service Results**

| | Intersection | Level of Service | | | |
|---|---|---|---|---|---|
| | | Existing (2021) | | Future (2026) | |
| | | BG | PP | BG | PP |
| 1 | Droubay Road / 1000 North | a | a | b | b |
| 2 | 850 North / Droubay Road | a | a | a | a |
| 3 | 750 North / Droubay Road | a | a | a | a |
| 4 | Fox Run Drive / Droubay Road | a | a | a | a |
| 5 | Droubay Road / Smelter Road | a | a | a | a |

1. Intersection LOS values represent the overall intersection average for roundabout, signalized, and all-way stop-controlled (AWSC) intersections (uppercase letter) and the worst movement for all other unsignalized intersections (lowercase letter)
2. BG = Background (without project traffic), PP = Plus Project (with project traffic)

Source: Hales Engineering, November 2021

## SUMMARY OF KEY FINDINGS & RECOMMENDATIONS

**Project Conditions**

- The development will consist of 172 detached single-family units
- The project is anticipated to generate approximately 1,662 weekday daily trips, including 124 trips in the morning peak hour, and 166 trips in the evening peak hour
- No recommendations are made to improve multimodal connectivity. Multi-use paths are planned along the edges of the development and sidewalks are planned on all streets within the development.

| 2021 | Background | Plus Project |
|---|---|---|
| **Assumptions** | • Droubay Road wide enough for vehicles to leave the travel lane for left and right turns | • None |
| **Findings** | • Acceptable LOS | • Acceptable LOS |
| **2026** | **Background** | **Plus Project** |
| **Assumptions** | • **Droubay Road:**<br>o Widened to three-lane cross section | • None |
| **Findings** | • Acceptable LOS | • Acceptable LOS |

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**Appendix C: Project Site Plan**
**Appendix D: Queuing Results**

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# I. INTRODUCTION

## A. Purpose

This study addresses the traffic impacts associated with the proposed Canyon Springs development located in Tooele, Utah. The proposed project is located east of Droubay Road, between 850 North and Smelter Road. Figure 1 shows a vicinity map of the proposed development.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2021) and future (2026) conditions with and without the proposed project and to recommend mitigation measures as needed.


**Figure 1: Vicinity map showing the project location in Tooele, Utah**

## B. Scope

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- Droubay Road / 1000 North
- 850 North / Droubay Road
- 750 North / Droubay Road
- Fox Run Drive / Droubay Road
- Droubay Road / Smelter Road

## C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The *Highway Capacity Manual* (HCM), 6$^{th}$ Edition, 2016 methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized, roundabout, and all-way stop-controlled (AWSC) intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections, LOS is reported based on the worst movement.

Using Synchro/SimTraffic software, which follow the HCM methodology, the peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. The detailed LOS reports are provided in Appendix B. Hales Engineering also calculated the 95$^{th}$ percentile queue lengths for the study intersections using SimTraffic. The detailed queue length reports are provided in Appendix D.

## D. Level of Service Standards

For the purposes of this study, a minimum acceptable intersection performance for each of the study intersections was set at LOS D. If levels of service E or F conditions exist, an explanation and/or mitigation measures will be presented. A LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

## Table 1: Level of Service Description

| LOS | | Description of Traffic Conditions | Average Delay (seconds/vehicle) | |
|---|---|---|---|---|
| | | | Signalized Intersections | Unsignalized Intersections |
| A |  | Free Flow / Insignificant Delay | ≤ 10 | ≤ 10 |
| B |  | Stable Operations / Minimum Delays | > 10 to 20 | > 10 to 15 |
| C |  | Stable Operations / Acceptable Delays | > 20 to 35 | > 15 to 25 |
| D |  | Approaching Unstable Flows / Tolerable Delays | > 35 to 55 | > 25 to 35 |
| E |  | Unstable Operations / Significant Delays | > 55 to 80 | > 35 to 50 |
| F |  | Forced Flows / Unpredictable Flows / Excessive Delays | > 80 | > 50 |

Source: Hales Engineering Descriptions, based on the *Highway Capacity Manual* (HCM), 6th Edition, 2016 Methodology (Transportation Research Board)

# II. EXISTING (2021) BACKGROUND CONDITIONS

## A. Purpose

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified, and potential mitigation measures recommended. This analysis provides a baseline condition that may be compared to the build conditions to identify the impacts of the development.

## B. Roadway System

The primary roadways that will provide access to the project site are described below:

Droubay Road – is a city-maintained roadway which is classified by the Tooele City Transportation Master Plan (February 2021) as a "minor collector." The roadway has one travel lane in each direction. The posted speed limit is 35 mph in the study area.

850 North – is a city-maintained roadway which is classified by the Tooele City Transportation Master Plan (February 2021) as a "local street." The roadway has one travel lane in each direction. The posted speed limit is 25 mph in the study area.

## C. Traffic Volumes

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- Droubay Road / 1000 North
- 850 North / Droubay Road
- 750 North / Droubay Road
- Fox Run Drive / Droubay Road
- Droubay Road / Smelter Road

The counts were performed on Tuesday, November 9, 2021. The morning peak hour was determined to be between 7:45 and 8:45 a.m., and the evening peak hour was determined to be between 4:00 and 5:00 p.m. The evening peak hour volumes were approximately 22% higher than the morning peak hour volumes. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions. Detailed count data are included in Appendix A.

Hales Engineering considered seasonal adjustments to the observed traffic volumes. However, no monthly traffic volume data were available from any UDOT automatic traffic recorders (ATR). The observed traffic volumes were therefore left unadjusted to remain conservative in this analysis.

*The traffic counts were collected during the COVID-19 pandemic when traffic volumes may have been slightly reduced due to social distancing measures. According to the UDOT Automatic Traffic Signal Performance Measures (ATSPM) website for nearby signals in downtown Tooele, the traffic volumes on November 5, 2019 (pre-social distancing) were lower than those on November 9, 2021. Therefore, no adjustment was made to the collected data.*

Figure 2 shows the existing evening peak hour volumes as well as intersection geometry at the study intersections.

## D. Level of Service Analysis

Hales Engineering determined that all study intersections are currently operating at acceptable levels of service during the evening peak hour, as shown in Table 2. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2021) conditions.

**Table 2: Existing (2021) Background Evening Peak Hour LOS**

| Intersection | | Level of Service | | |
|---|---|---|---|---|
| Description | Control | Movement[1] | Aver. Delay (Sec. / Veh.) | LOS[2] |
| Droubay Road / 1000 North | EB Stop | EBL | 8.1 | a |
| 850 North / Droubay Road | WB Stop | WBL | 6.4 | a |
| 750 North / Droubay Road | EB Stop | EBL | 7.2 | a |
| Fox Run Drive / Droubay Road | EB Stop | NBL | 4.6 | a |
| Droubay Road / Smelter Road | NB/SB Stop | SBT | 8.2 | a |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

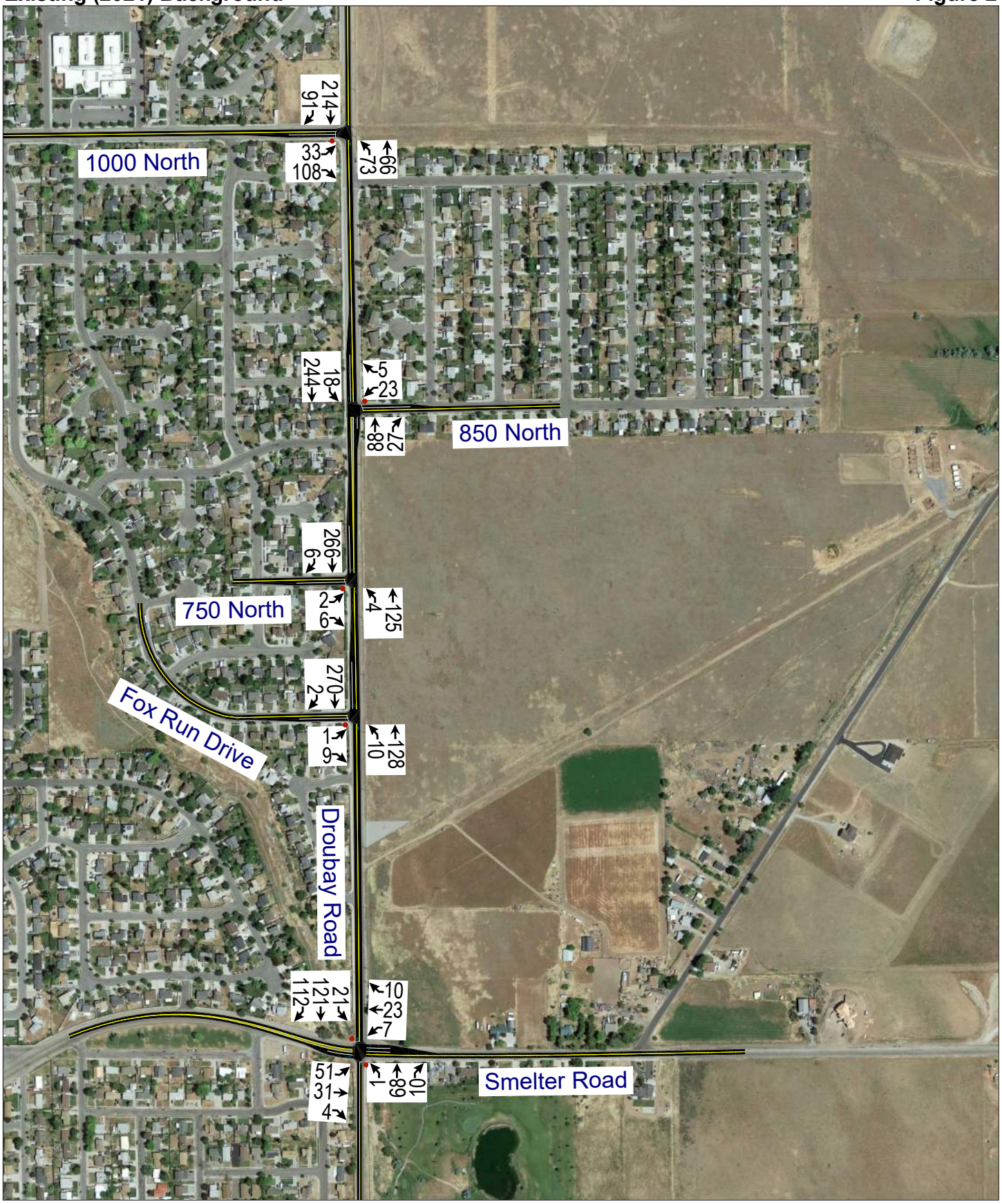
Source: Hales Engineering, November 2021

## E. Queuing Analysis

Hales Engineering calculated the 95$^{th}$ percentile queue lengths for each of the study intersections. No significant queueing was observed during the evening peak hour.

## F. Mitigation Measures

No mitigation measures are recommended.


1000 North
850 North
750 North
Fox Run Drive
Droubay Road
Smelter Road
214
91
33
108
66
73
18
244
5
23
27
88
266
6
2
6
125
4
270
2
1
9
128
10
21
121
112
10
23
7
51
31
4
1
89
10

# III. PROJECT CONDITIONS

## A. Purpose

The project conditions discussion explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in Chapter I.

## B. Project Description

The proposed Canyon Springs development is located east of Droubay Road, between 850 North and Smelter Road. The development will consist of detached residential single-family units. A concept plan for the proposed development is provided in Appendix C. Sidewalks and multi-use pathways will be provided within and along the edge of the development that connect to all adjacent roadways. No recommendations are made to improve multimodal connectivity.

## C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021. Trip generation for the proposed project is included in Table 3.

The total trip generation for the development is as follows:

- Daily Trips: 1,662
- Morning Peak Hour Trips: 124
- Evening Peak Hour Trips: 166

**Table 3: Trip Generation**

| Trip Generation<br>Tooele - Canyon Springs | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Land Use[1] | # of Units | Unit Type | Trip Generation | | | New Trips | | |
| | | | Total | % In | % Out | In | Out | Total |
| **Weekday Daily** | | | | | | | | |
| Single-Family Detached Housing (210) | 172 | DU | 1,662 | 50% | 50% | 831 | 831 | 1,662 |
| **TOTAL** | | | **1,662** | | | **831** | **831** | **1,662** |
| **AM Peak Hour** | | | | | | | | |
| Single-Family Detached Housing (210) | 172 | DU | 124 | 26% | 74% | 32 | 92 | 124 |
| **TOTAL** | | | **124** | | | **32** | **92** | **124** |
| **PM Peak Hour** | | | | | | | | |
| Single-Family Detached Housing (210) | 172 | DU | 166 | 63% | 37% | 105 | 61 | 166 |
| **TOTAL** | | | **166** | | | **105** | **61** | **166** |

1. Land Use Code from the Institute of Transportation Engineers (ITE) *Trip Generation*, 11th Edition, 2021.

SOURCE: Hales Engineering, November 2021

## D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially near the site. The resulting distribution of project generated trips during the evening peak hour is shown in Table 4.

**Table 4: Trip Distribution**

| Direction | % To/From Project |
|---|---|
| North | 35% |
| South | 20% |
| West | 45% |

These trip distribution assumptions were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.

## E. Access

The proposed access for the site will be gained at the following locations (see also concept plan in Appendix C):

<u>850 North:</u>

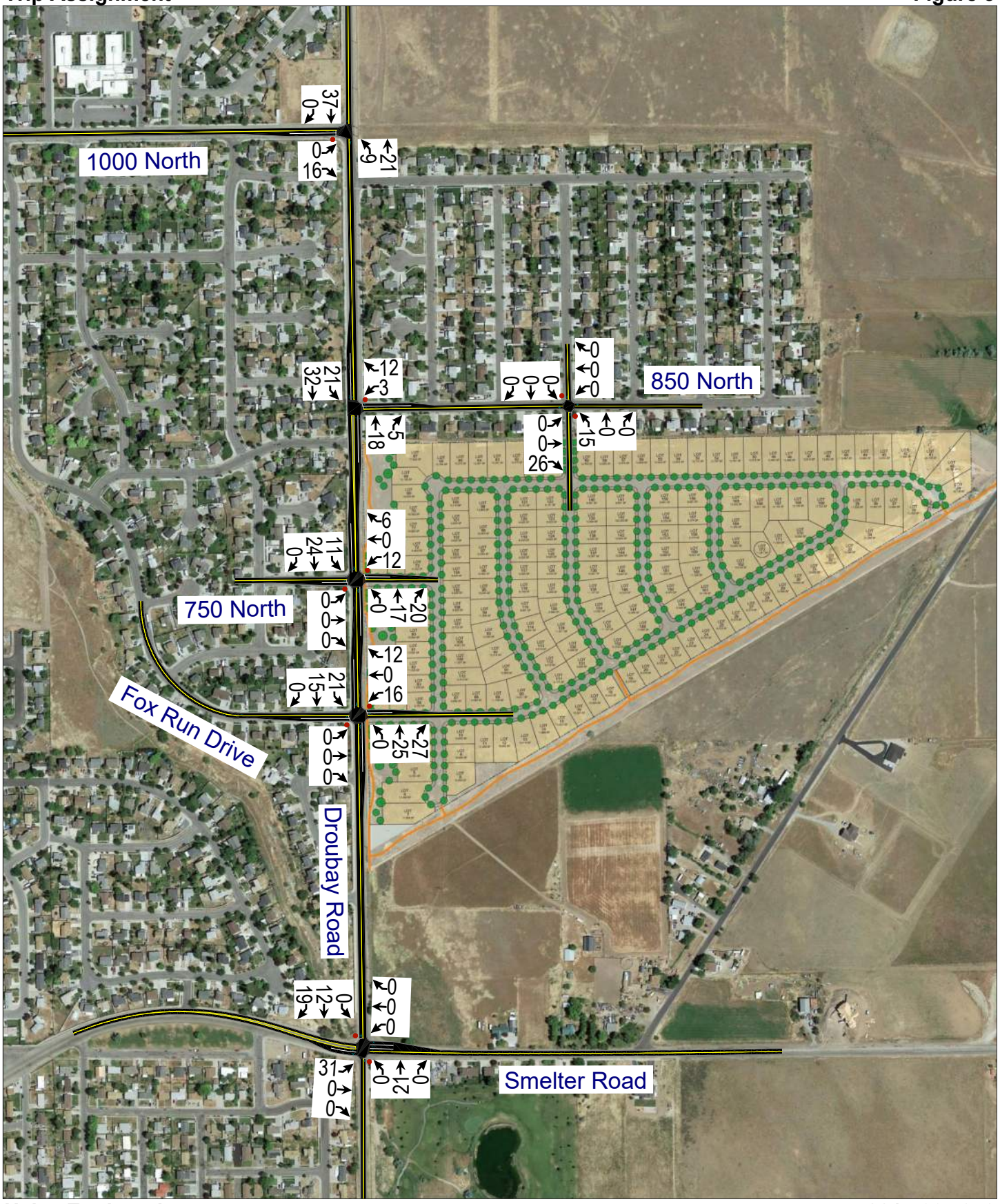
- Access 1 will be via 1340 East. The edge of the development is approximately 125 feet south of the 1340 East / 850 North intersection. It is anticipated that the access will be stop-controlled on the north- and southbound approaches.

<u>Droubay Road:</u>

- Access 2 will be located opposite of the existing 750 North, which is approximately 550 feet south of the Deer Flat Road / Droubay Road intersection and 550 feet north of the Fox Run Drive / Droubay Road intersection. It will access the project on the east side of Droubay Road. It is anticipated that the access will be stop-controlled.
- Access 3 will be located opposite of Fox Run Drive, which is approximately 550 feet south of the 750 North / Droubay Road intersection and approximately 225 feet north of the 650 North / Droubay Road intersection. It will access the project on the east side of Droubay Road. It is anticipated that the access will be stop-controlled.

**Tooele Canyon Springs TIS**
**Trip Assignment**

**Evening Peak Hour**
**Figure 3**



# IV. EXISTING (2021) PLUS PROJECT CONDITIONS

## A. Purpose

The purpose of the existing (2021) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

## B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the existing (2021) background traffic volumes to predict turning movement volumes for existing (2021) plus project conditions. Existing (2021) plus project evening peak hour turning movement volumes are shown in Figure 4.

## C. Level of Service Analysis

Hales Engineering determined that all intersections are anticipated to operate at acceptable levels of service during the evening peak hour with project traffic added, as shown in Table 5.

**Table 5: Existing (2021) Plus Project Evening Peak Hour LOS**

| Intersection | | Level of Service | | |
|---|---|---|---|---|
| Description | Control | Movement[1] | Aver. Delay (Sec. / Veh.) | LOS[2] |
| Droubay Road / 1000 North | EB Stop | EBL | 9.7 | a |
| 850 North / Droubay Road | WB Stop | WBL | 6.3 | a |
| 750 North / Droubay Road | EB/WB Stop | EBL | 7.2 | a |
| Fox Run Drive / Droubay Road | EB/WB Stop | WBL | 6.5 | a |
| Droubay Road / Smelter Road | NB/SB Stop | SBT | 8.4 | a |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

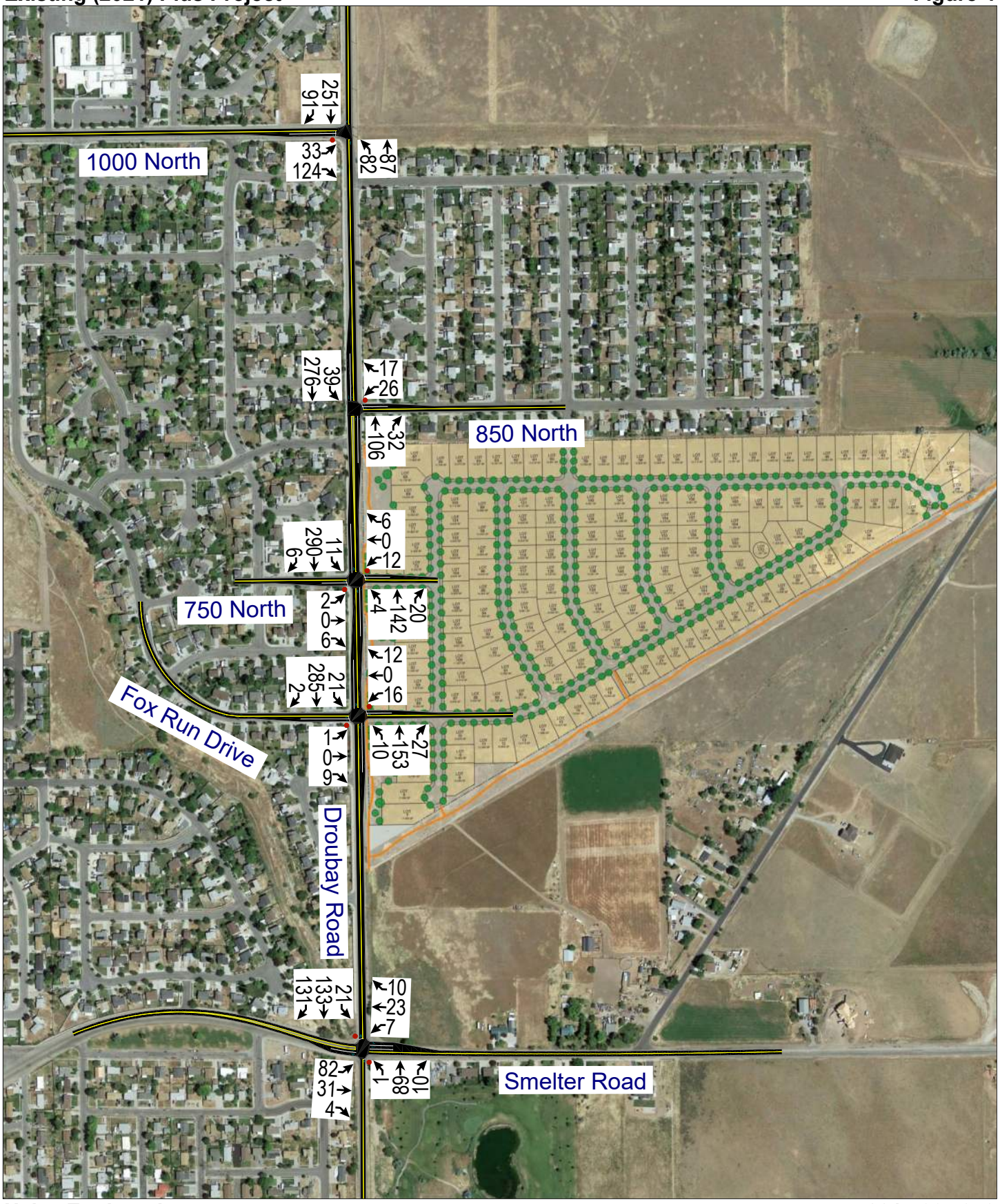
Source: Hales Engineering, November 2021

## D. Queuing Analysis

Hales Engineering calculated the 95$^{th}$ percentile queue lengths for each of the study intersections. No significant queueing is anticipated during the evening peak hour.

## E. Mitigation Measures

No mitigation measures are recommended.


1000 North
850 North
750 North
Fox Run Drive
Droubay Road
Smelter Road
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142
12
21
285
2
16
1
9
27
10
153
21
133
131
10
23
7
82
31
4
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68
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# V. FUTURE (2026) BACKGROUND CONDITIONS

## A. Purpose

The purpose of the future (2026) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

## B. Roadway Network

According to the Tooele City Transportation Master Plan, there are projects planned before 2040 in the study area. However, the only change that was assumed to be completed for the future (2026) analysis was to widen Droubay Road to a three-lane cross section with on-street parking.

## C. Traffic Volumes

Hales Engineering obtained future (2026) forecasted volumes from the Tooele City Transportation Master Plan (2019). Historical growth patterns in Tooele City show that the city has grown at an average rate of 3.7 percent. This trend was forecasted to the 2026 horizon year for all turning movements. Future (2026) evening peak hour turning movement volumes are shown in Figure 5.

## D. Level of Service Analysis

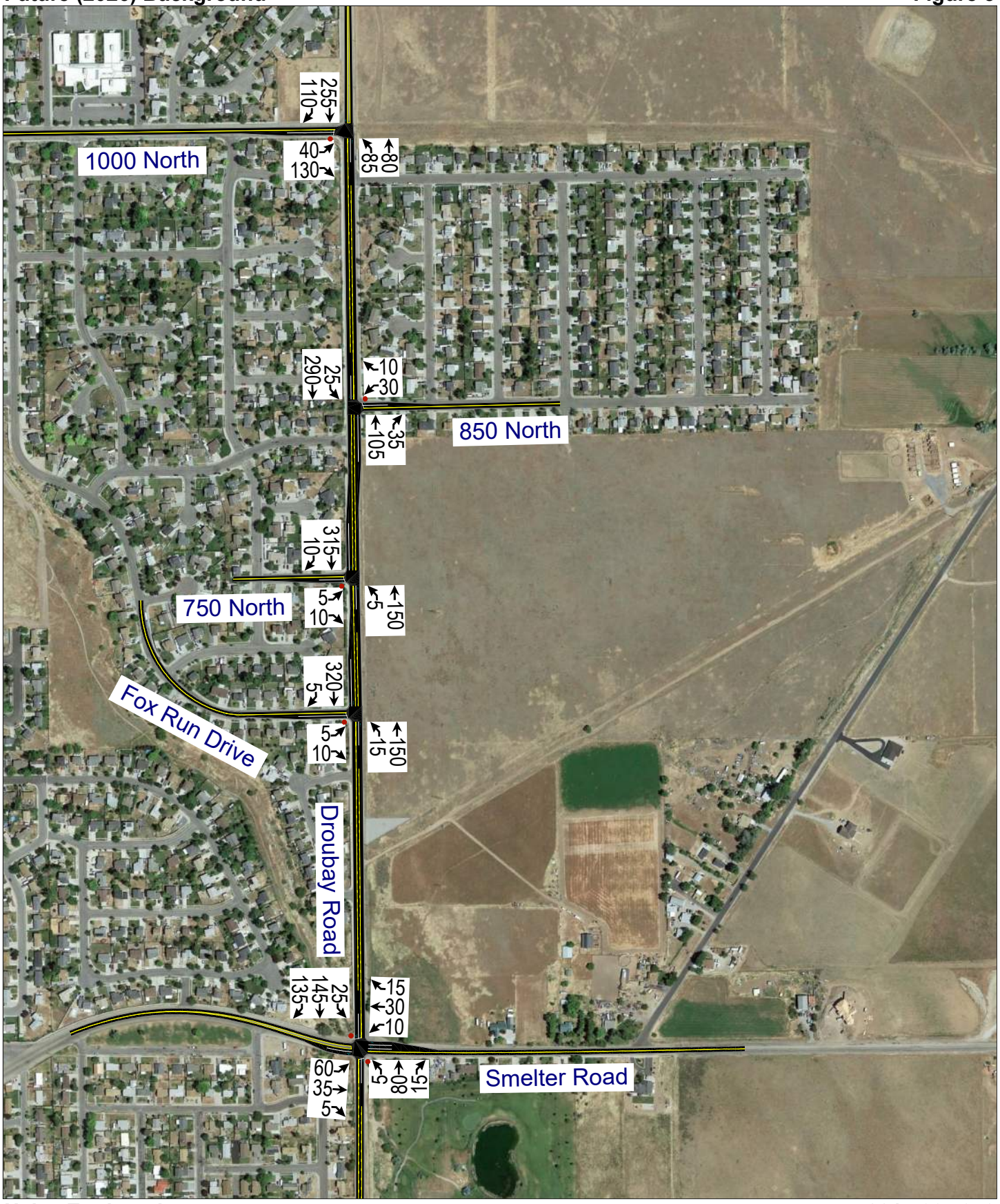
Hales Engineering determined that all study intersections are anticipated to operate at acceptable levels of service during the evening peak hour in future (2026) background conditions, as shown in Table 6. These results serve as a baseline condition for the impact analysis of the proposed development for future (2026) conditions.

## E. Queuing Analysis

Hales Engineering calculated the 95$^{th}$ percentile queue lengths for each of the study intersections. No significant queueing is anticipated during the evening peak hour.

## F. Mitigation Measures

No mitigation measures are recommended.


1000 North
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15

## Table 6: Future (2026) Background Evening Peak Hour LOS

| Intersection | | Level of Service | | |
|---|---|---|---|---|
| Description | Control | Movement[1] | Aver. Delay (Sec. / Veh.) | LOS[2] |
| Droubay Road / 1000 North | EB Stop | EBL | 11.6 | b |
| 850 North / Droubay Road | WB Stop | WBL | 6.5 | a |
| 750 North / Droubay Road | EB Stop | EBL | 6.0 | a |
| Fox Run Drive / Droubay Road | EB Stop | EBL | 6.6 | a |
| Droubay Road / Smelter Road | NB/SB Stop | SBT | 8.6 | a |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

Source: Hales Engineering, November 2021

# VI. FUTURE (2026) PLUS PROJECT CONDITIONS

## A. Purpose

The purpose of the future (2026) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

## B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the future (2026) background traffic volumes to predict turning movement volumes for future (2026) plus project conditions. Future (2026) plus project evening peak hour turning movement volumes are shown in Figure 6.

## C. Level of Service Analysis

Hales Engineering determined that all intersections are anticipated to operate at acceptable levels of service during the evening peak hour in future (2026) plus project conditions, as shown in Table 7.

**Table 7: Future (2026) Plus Project Evening Peak Hour LOS**

| Intersection | | Level of Service | | |
|---|---|---|---|---|
| Description | Control | Movement[1] | Aver. Delay (Sec. / Veh.) | LOS[2] |
| Droubay Road / 1000 North | EB Stop | EBL | 12.8 | b |
| 850 North / Droubay Road | WB Stop | WBL | 6.8 | a |
| 750 North / Droubay Road | EB/WB Stop | WBL | 8.2 | a |
| Fox Run Drive / Droubay Road | EB/WB Stop | EBL | 7.5 | a |
| Droubay Road / Smelter Road | NB/SB Stop | SBT | 9.0 | a |

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

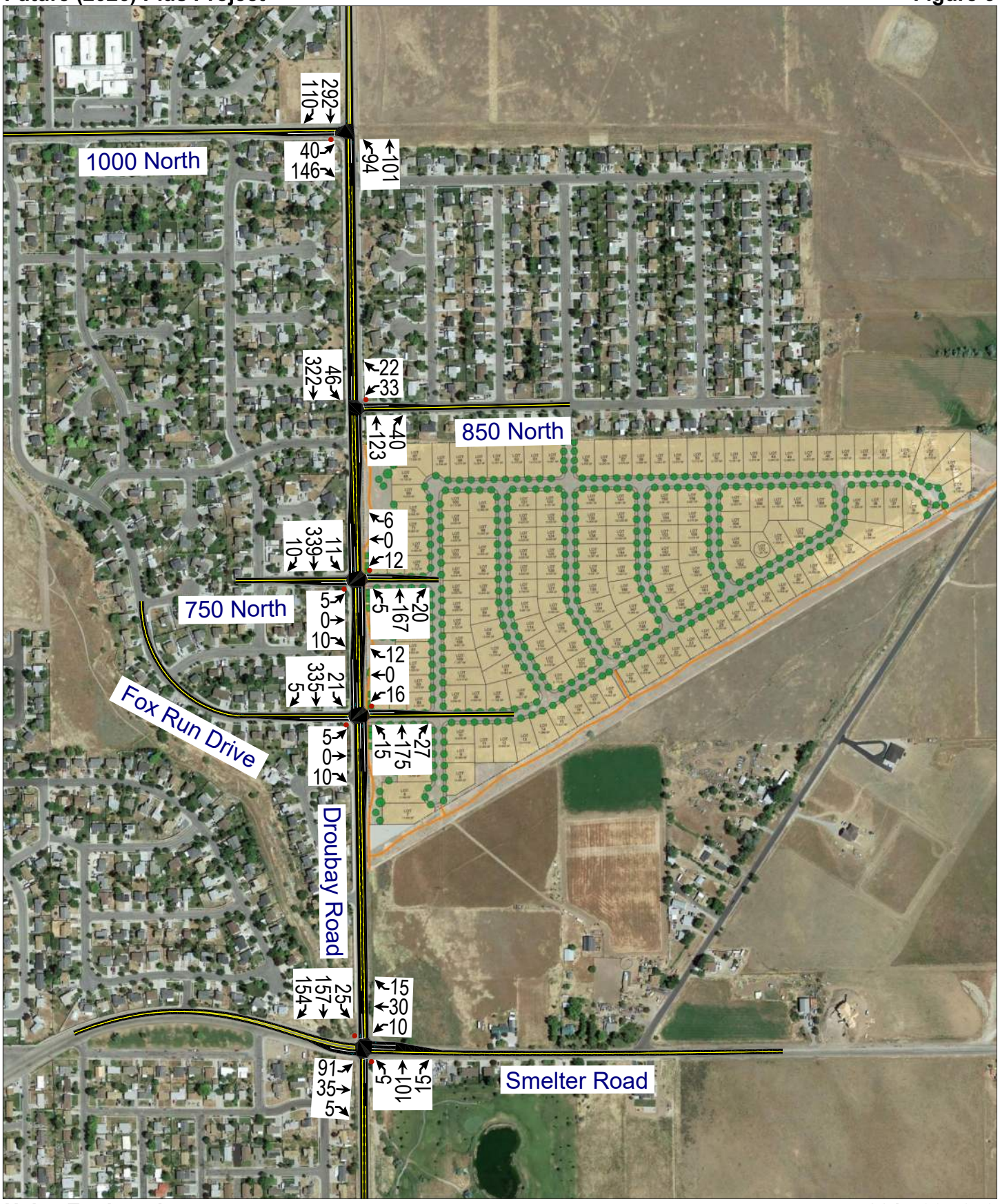
Source: Hales Engineering, November 2021

## D. Queuing Analysis

Hales Engineering calculated the 95$^{th}$ percentile queue lengths for each of the study intersections. No significant queueing is anticipated during the evening peak hour.

## E. Mitigation Measures

No mitigation measures are recommended.


1000 North
850 North
750 North
Fox Run Drive
Droubay Road
Smelter Road
292
110
40
146
101
94
46
322
22
33
40
123
6
0
12
11
339
10
5
0
10
20
167
5
12
0
16
21
335
5
5
0
10
27
175
15
25
157
154
15
30
10
91
35
5
15
101
5

# APPENDIX A

## Turning Movement Counts

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

# Intersection Turning Movement Summary

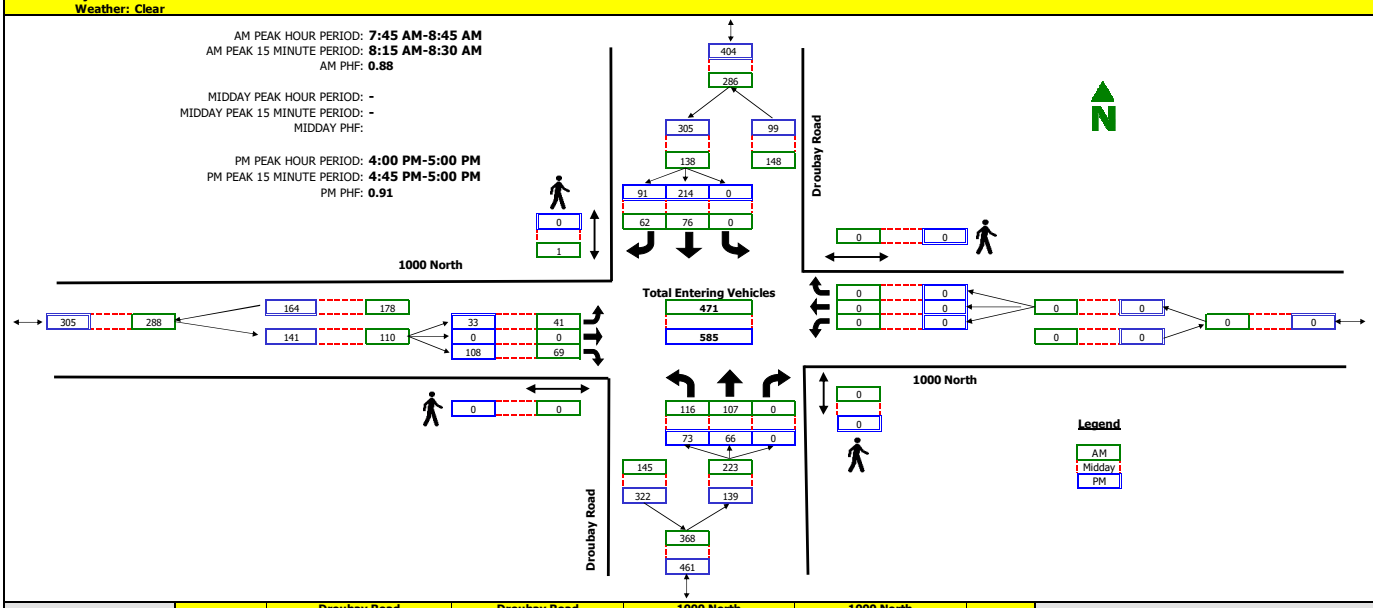
**Intersection:** Droubay Road / 1000 North
**North/South:** Droubay Road
**East/West:** 1000 North
**Jurisdiction:** Tooele
**Project Title:** Canyon Springs TIS
**Project No:** UT21-2056
**Weather:** Clear

**Date:** 11-9-21, Tue
**Day of Week Adjustment:** 100.0%
**Month of Year Adjustment:** 100.0%
**Adjustment Station #:** 0
**Growth Rate:** 0.0%
**Number of Years:** 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:15 AM-8:30 AM**
AM PHF: **0.88**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **4:45 PM-5:00 PM**
PM PHF: **0.91**




| RAW COUNT SUMMARIES | Droubay Road Northbound | | | | Droubay Road Southbound | | | | 1000 North Eastbound | | | | 1000 North Westbound | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |

**AM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 - 7:15 | 15 | 26 | 0 | 0 | 0 | 9 | 11 | 1 | 6 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 74 |
| 7:15 - 7:30 | 16 | 29 | 0 | 0 | 0 | 5 | 11 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 71 |
| 7:30 - 7:45 | 23 | 28 | 0 | 0 | 0 | 13 | 16 | 0 | 12 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 98 |
| 7:45 - 8:00 | 21 | 26 | 0 | 0 | 0 | 21 | 10 | 0 | 9 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 100 |
| 8:00 - 8:15 | 26 | 24 | 0 | 0 | 0 | 33 | 19 | 0 | 9 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 124 |
| 8:15 - 8:30 | 42 | 28 | 0 | 0 | 0 | 15 | 16 | 1 | 7 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 134 |
| 8:30 - 8:45 | 27 | 29 | 0 | 0 | 0 | 7 | 17 | 0 | 16 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 113 |
| 8:45 - 9:00 | 16 | 15 | 0 | 0 | 0 | 11 | 16 | 0 | 1 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 68 |

**MIDDAY PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 - 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:15 - 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:30 - 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 - 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**PM PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:00 - 16:15 | 27 | 18 | 0 | 0 | 0 | 47 | 11 | 0 | 8 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 137 |
| 16:15 - 16:30 | 13 | 16 | 0 | 0 | 0 | 55 | 31 | 0 | 10 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 157 |
| 16:30 - 16:45 | 15 | 11 | 0 | 0 | 0 | 45 | 24 | 0 | 6 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 130 |
| 16:45 - 17:00 | 18 | 21 | 0 | 0 | 0 | 67 | 25 | 0 | 9 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 161 |
| 17:00 - 17:15 | 17 | 14 | 0 | 0 | 0 | 48 | 21 | 0 | 7 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 135 |
| 17:15 - 17:30 | 21 | 18 | 0 | 0 | 0 | 42 | 17 | 0 | 10 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 126 |
| 17:30 - 17:45 | 18 | 13 | 0 | 0 | 0 | 53 | 17 | 0 | 11 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 128 |
| 17:45 - 18:00 | 15 | 10 | 0 | 0 | 0 | 24 | 8 | 0 | 4 | 5 | 25 | 0 | 0 | 0 | 0 | 0 | 91 |

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

# Intersection Turning Movement Summary

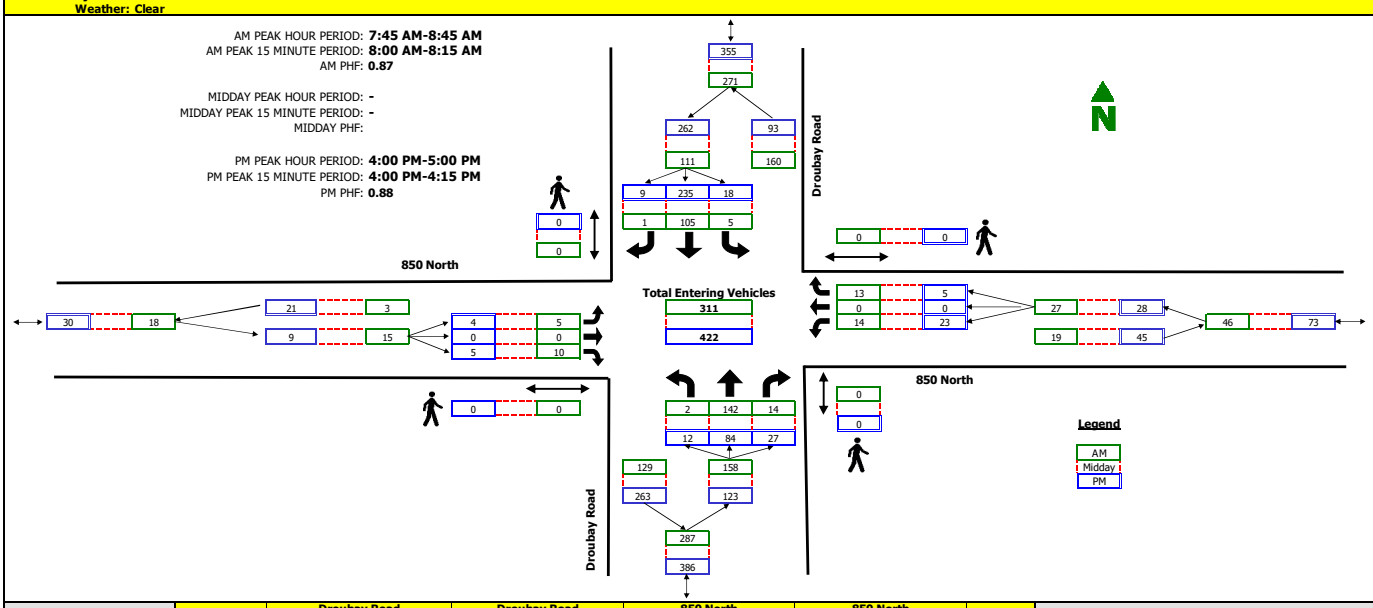
**Intersection:** Droubay Road / 850 North
**North/South:** Droubay Road
**East/West:** 850 North
**Jurisdiction:** Tooele
**Project Title:** Canyon Springs TIS
**Project No:** UT21-2056
**Weather:** Clear

**Date:** 11-9-21, Tue
**Day of Week Adjustment:** 100.0%
**Month of Year Adjustment:** 100.0%
**Adjustment Station #:** 0
**Growth Rate:** 0.0%
**Number of Years:** 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.87**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.88**




| RAW COUNT SUMMARIES | Droubay Road Northbound | | | | Droubay Road Southbound | | | | 850 North Eastbound | | | | 850 North Westbound | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |

**AM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 - 7:15 | 0 | 29 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 2 | 0 | 46 |
| 7:15 - 7:30 | 2 | 24 | 4 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 6 | 0 | 7 | 0 | 1 | 0 | 51 |
| 7:30 - 7:45 | 1 | 33 | 4 | 0 | 0 | 10 | 0 | 0 | 1 | 0 | 5 | 0 | 6 | 0 | 2 | 0 | 62 |
| 7:45 - 8:00 | 0 | 35 | 3 | 0 | 1 | 20 | 0 | 0 | 1 | 0 | 2 | 0 | 5 | 0 | 1 | 0 | 68 |
| 8:00 - 8:15 | 1 | 41 | 5 | 0 | 0 | 33 | 1 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 1 | 0 | 89 |
| 8:15 - 8:30 | 1 | 32 | 3 | 0 | 1 | 29 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 5 | 0 | 77 |
| 8:30 - 8:45 | 0 | 34 | 3 | 0 | 3 | 23 | 0 | 0 | 3 | 0 | 4 | 0 | 1 | 0 | 6 | 0 | 77 |
| 8:45 - 9:00 | 0 | 29 | 1 | 0 | 2 | 15 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 3 | 0 | 54 |

**MIDDAY PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 - 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:15 - 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:30 - 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 - 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**PM PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:00 - 16:15 | 4 | 22 | 5 | 0 | 4 | 74 | 4 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 120 |
| 16:15 - 16:30 | 3 | 24 | 6 | 0 | 5 | 50 | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 0 | 2 | 0 | 100 |
| 16:30 - 16:45 | 4 | 21 | 8 | 0 | 5 | 57 | 2 | 0 | 0 | 0 | 1 | 0 | 9 | 0 | 1 | 0 | 108 |
| 16:45 - 17:00 | 1 | 17 | 8 | 0 | 4 | 54 | 1 | 0 | 3 | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 94 |
| 17:00 - 17:15 | 2 | 28 | 8 | 0 | 2 | 63 | 5 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 1 | 0 | 113 |
| 17:15 - 17:30 | 1 | 22 | 8 | 0 | 2 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 86 |
| 17:30 - 17:45 | 2 | 29 | 5 | 0 | 1 | 44 | 2 | 0 | 2 | 0 | 3 | 0 | 4 | 0 | 2 | 0 | 94 |
| 17:45 - 18:00 | 2 | 24 | 5 | 0 | 1 | 51 | 2 | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 4 | 0 | 99 |

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

# Intersection Turning Movement Summary

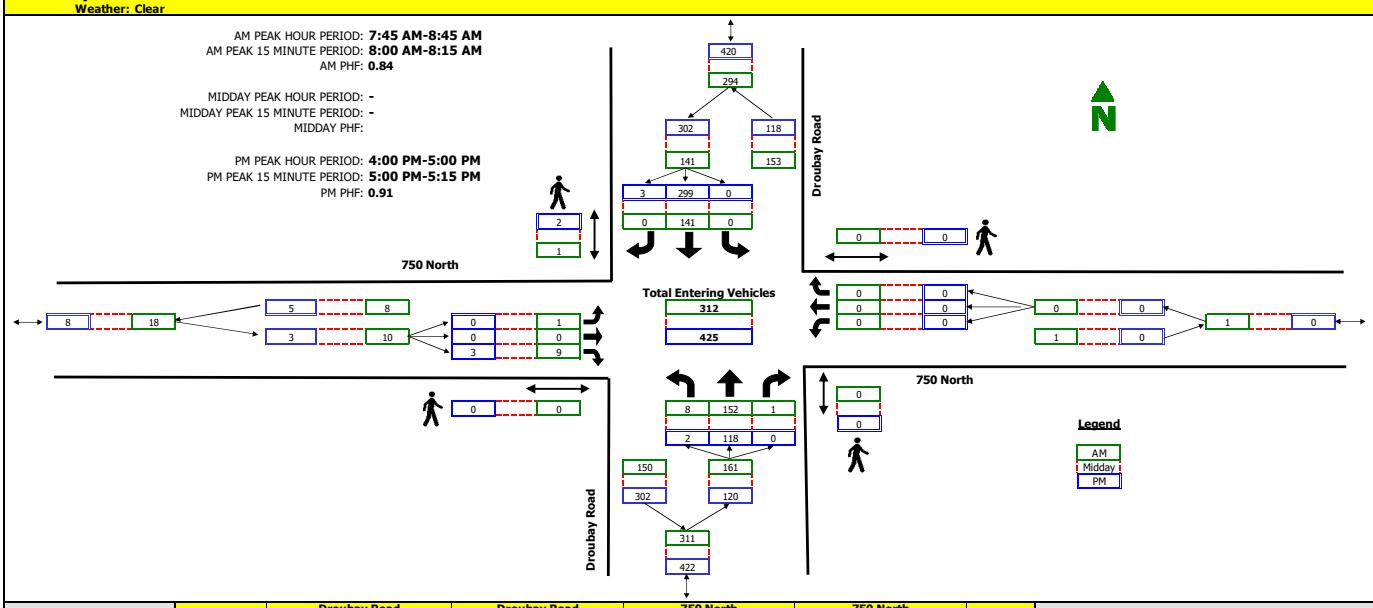
**Intersection:** Droubay Road / 750 North
**North/South:** Droubay Road
**East/West:** 750 North
**Jurisdiction:** Tooele
**Project Title:** Canyon Springs TIS
**Project No:** UT21-2056
**Weather:** Clear

**Date:** 11-9-21, Tue
**Day of Week Adjustment:** 100.0%
**Month of Year Adjustment:** 100.0%
**Adjustment Station #:** 0
**Growth Rate:** 0.0%
**Number of Years:** 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.84**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.91**




| RAW COUNT SUMMARIES | Droubay Road Northbound | | | | Droubay Road Southbound | | | | 750 North Eastbound | | | | 750 North Westbound | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |

**AM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 - 7:15 | 0 | 31 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 49 |
| 7:15 - 7:30 | 0 | 28 | 0 | 0 | 0 | 18 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| 7:30 - 7:45 | 0 | 40 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 65 |
| 7:45 - 8:00 | 1 | 33 | 0 | 0 | 0 | 27 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 64 |
| 8:00 - 8:15 | 3 | 46 | 0 | 0 | 0 | 42 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 93 |
| 8:15 - 8:30 | 3 | 36 | 1 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 83 |
| 8:30 - 8:45 | 1 | 37 | 0 | 0 | 0 | 34 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 8:45 - 9:00 | 0 | 31 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 53 |

**MIDDAY PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 - 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:15 - 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:30 - 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 - 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**PM PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:00 - 16:15 | 0 | 22 | 0 | 0 | 0 | 88 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 110 |
| 16:15 - 16:30 | 1 | 41 | 0 | 0 | 0 | 66 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 109 |
| 16:30 - 16:45 | 1 | 25 | 0 | 0 | 0 | 71 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 99 |
| 16:45 - 17:00 | 0 | 30 | 0 | 0 | 0 | 74 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 107 |
| 17:00 - 17:15 | 2 | 42 | 0 | 0 | 0 | 65 | 3 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 117 |
| 17:15 - 17:30 | 1 | 28 | 0 | 0 | 0 | 62 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 92 |
| 17:30 - 17:45 | 0 | 33 | 0 | 0 | 0 | 49 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| 17:45 - 18:00 | 0 | 30 | 0 | 0 | 0 | 52 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86 |

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

# Intersection Turning Movement Summary

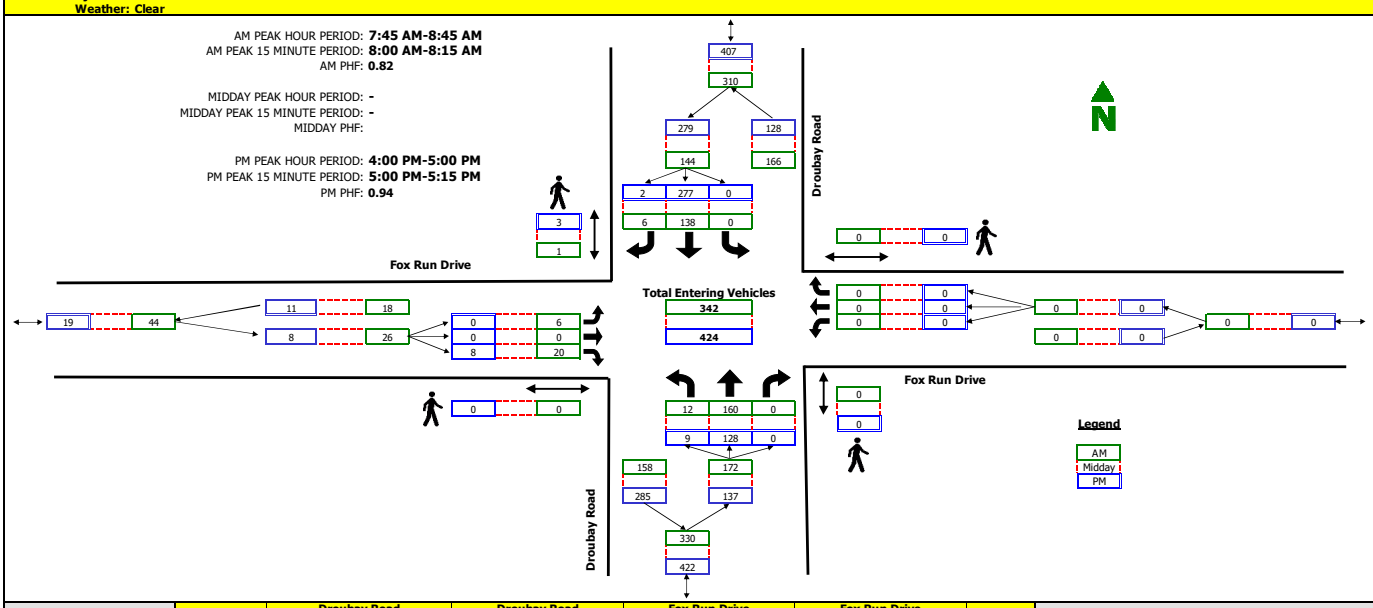
**Intersection:** Droubay Road / Fox Run Drive
**North/South:** Droubay Road
**East/West:** Fox Run Drive
**Jurisdiction:** Tooele
**Project Title:** Canyon Springs TIS
**Project No:** UT21-2056
**Weather:** Clear

**Date:** 11-9-21, Tue
**Day of Week Adjustment:** 100.0%
**Month of Year Adjustment:** 100.0%
**Adjustment Station #:** 0
**Growth Rate:** 0.0%
**Number of Years:** 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.82**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.94**




| RAW COUNT SUMMARIES | Droubay Road Northbound | | | | Droubay Road Southbound | | | | Fox Run Drive Eastbound | | | | Fox Run Drive Westbound | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |

**AM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 - 7:15 | 1 | 33 | 0 | 0 | 0 | 16 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 52 |
| 7:15 - 7:30 | 0 | 31 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 55 |
| 7:30 - 7:45 | 2 | 39 | 0 | 0 | 0 | 20 | 0 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 67 |
| 7:45 - 8:00 | 1 | 33 | 0 | 0 | 0 | 26 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 67 |
| 8:00 - 8:15 | 6 | 47 | 0 | 0 | 0 | 42 | 2 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 104 |
| 8:15 - 8:30 | 2 | 40 | 0 | 0 | 0 | 38 | 0 | 0 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 88 |
| 8:30 - 8:45 | 3 | 40 | 0 | 0 | 0 | 32 | 3 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 83 |
| 8:45 - 9:00 | 2 | 31 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 55 |

**MIDDAY PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 - 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:15 - 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:30 - 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 - 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**PM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:00 - 16:15 | 3 | 24 | 0 | 0 | 0 | 76 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 106 |
| 16:15 - 16:30 | 2 | 43 | 0 | 0 | 0 | 64 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 112 |
| 16:30 - 16:45 | 4 | 30 | 0 | 0 | 0 | 62 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 99 |
| 16:45 - 17:00 | 0 | 31 | 0 | 0 | 0 | 75 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 107 |
| 17:00 - 17:15 | 4 | 43 | 0 | 0 | 0 | 62 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 113 |
| 17:15 - 17:30 | 6 | 32 | 0 | 0 | 0 | 56 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 99 |
| 17:30 - 17:45 | 1 | 30 | 0 | 0 | 0 | 44 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 80 |
| 17:45 - 18:00 | 1 | 27 | 0 | 0 | 0 | 57 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 86 |

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

# Intersection Turning Movement Summary

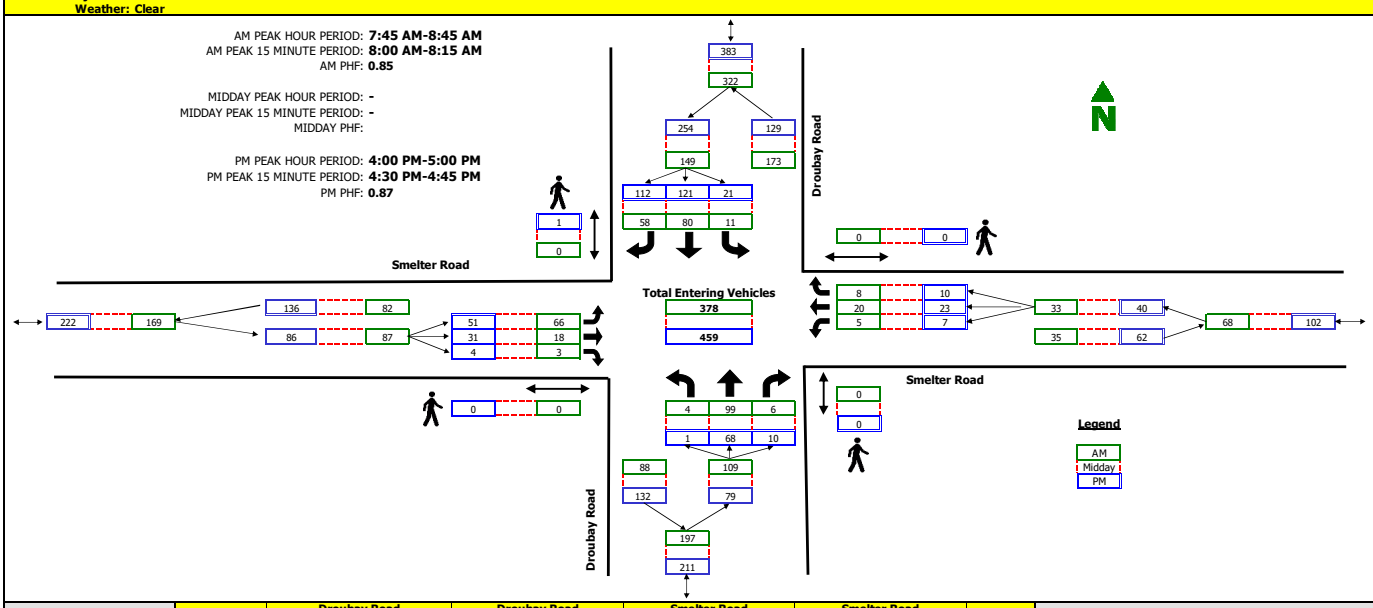
**Intersection:** Droubay Road / Smelter Road
**North/South:** Droubay Road
**East/West:** Smelter Road
**Jurisdiction:** Tooele
**Project Title:** Canyon Springs TIS
**Project No:** UT21-2056
**Weather:** Clear

**Date:** 11-9-21, Tue
**Day of Week Adjustment:** 100.0%
**Month of Year Adjustment:** 100.0%
**Adjustment Station #:** 0
**Growth Rate:** 0.0%
**Number of Years:** 0

AM PEAK HOUR PERIOD: **7:45 AM-8:45 AM**
AM PEAK 15 MINUTE PERIOD: **8:00 AM-8:15 AM**
AM PHF: **0.85**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **4:30 PM-4:45 PM**
PM PHF: **0.87**




| RAW COUNT SUMMARIES | Droubay Road Northbound | | | | Droubay Road Southbound | | | | Smelter Road Eastbound | | | | Smelter Road Westbound | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |

**AM PEAK PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7:00 - 7:15 | 0 | 15 | 1 | 0 | 1 | 10 | 9 | 0 | 19 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 58 |
| 7:15 - 7:30 | 0 | 17 | 0 | 0 | 0 | 14 | 16 | 0 | 10 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 62 |
| 7:30 - 7:45 | 1 | 27 | 0 | 0 | 0 | 13 | 16 | 0 | 11 | 4 | 1 | 0 | 4 | 4 | 4 | 0 | 85 |
| 7:45 - 8:00 | 0 | 24 | 1 | 0 | 1 | 17 | 12 | 0 | 11 | 3 | 0 | 0 | 2 | 2 | 0 | 0 | 73 |
| 8:00 - 8:15 | 2 | 31 | 2 | 0 | 5 | 28 | 16 | 0 | 19 | 2 | 0 | 0 | 0 | 2 | 4 | 0 | 111 |
| 8:15 - 8:30 | 2 | 26 | 0 | 0 | 3 | 18 | 18 | 0 | 15 | 4 | 1 | 0 | 1 | 7 | 1 | 0 | 96 |
| 8:30 - 8:45 | 0 | 18 | 3 | 0 | 2 | 17 | 12 | 0 | 21 | 9 | 2 | 0 | 2 | 9 | 3 | 0 | 98 |
| 8:45 - 9:00 | 2 | 12 | 2 | 1 | 3 | 10 | 14 | 0 | 14 | 7 | 2 | 1 | 2 | 8 | 6 | 0 | 82 |

**MIDDAY PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 - 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:30 - 13:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:45 - 14:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:00 - 14:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:15 - 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:30 - 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 - 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**PM PERIOD COUNTS**

| Period | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16:00 - 16:15 | 0 | 16 | 3 | 0 | 4 | 32 | 42 | 0 | 10 | 8 | 1 | 0 | 1 | 5 | 3 | 0 | 125 |
| 16:15 - 16:30 | 0 | 23 | 1 | 0 | 5 | 32 | 22 | 0 | 19 | 7 | 2 | 0 | 2 | 7 | 4 | 0 | 124 |
| 16:30 - 16:45 | 1 | 16 | 4 | 0 | 6 | 37 | 30 | 0 | 15 | 10 | 1 | 0 | 4 | 7 | 1 | 0 | 132 |
| 16:45 - 17:00 | 0 | 13 | 2 | 0 | 6 | 20 | 18 | 1 | 7 | 6 | 0 | 0 | 0 | 4 | 2 | 0 | 78 |
| 17:00 - 17:15 | 1 | 5 | 1 | 0 | 1 | 9 | 5 | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 34 |
| 17:15 - 17:30 | 2 | 17 | 1 | 0 | 5 | 19 | 25 | 0 | 15 | 12 | 1 | 0 | 2 | 15 | 1 | 0 | 115 |
| 17:30 - 17:45 | 0 | 20 | 1 | 0 | 5 | 14 | 25 | 0 | 17 | 8 | 1 | 0 | 1 | 11 | 3 | 0 | 106 |
| 17:45 - 18:00 | 2 | 13 | 4 | 0 | 0 | 36 | 20 | 0 | 13 | 11 | 0 | 0 | 2 | 10 | 1 | 0 | 112 |

# APPENDIX B

## LOS Results

HALES ENGINEERING
innovative transportation solutions

# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Existing (2021) Background*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 1000 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 73 | 68 | 93 | 4.8 | *A* |
| | T | 66 | 66 | 100 | 2.0 | *A* |
| | Subtotal | 139 | 134 | 96 | 3.4 | *A* |
| SB | T | 214 | 213 | 100 | 1.8 | *A* |
| | R | 91 | 93 | 102 | 0.7 | *A* |
| | Subtotal | 305 | 306 | 100 | 1.5 | *A* |
| ***EB*** | ***L*** | ***33*** | ***33*** | ***99*** | ***8.1*** | ***A*** |
| | R | 108 | 111 | 103 | 4.0 | *A* |
| | Subtotal | 141 | 144 | 102 | 4.9 | *A* |
| **Total** | | 586 | 584 | 100 | 2.8 | *A* |

**Intersection:** Droubay Road & 850 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | T | 100 | 97 | 97 | 0.3 | *A* |
| | R | 27 | 28 | 104 | 0.3 | *A* |
| | Subtotal | 127 | 125 | 98 | 0.3 | *A* |
| SB | L | 18 | 16 | 90 | 2.7 | *A* |
| | T | 304 | 308 | 101 | 0.8 | *A* |
| | Subtotal | 322 | 324 | 101 | 0.9 | *A* |
| ***WB*** | ***L*** | ***23*** | ***22*** | ***96*** | ***6.4*** | ***A*** |
| | R | 5 | 7 | 133 | 2.6 | *A* |
| | Subtotal | 28 | 29 | 104 | 5.5 | *A* |
| **Total** | | 477 | 478 | 100 | 1.0 | *A* |

HALES ENGINEERING
innovative transportation solutions

# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Existing (2021) Background*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 750 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 4 | 3 | 75 | 2.0 | *A* |
| | T | 125 | 124 | 99 | 0.2 | *A* |
| | Subtotal | 129 | 127 | 98 | 0.2 | *A* |
| SB | T | 266 | 269 | 101 | 0.4 | *A* |
| | R | 6 | 8 | 128 | 0.2 | *A* |
| | Subtotal | 272 | 277 | 102 | 0.4 | *A* |
| ***EB*** | ***L*** | ***2*** | ***1*** | ***50*** | ***7.2*** | ***A*** |
| | R | 6 | 6 | 96 | 3.2 | *A* |
| | Subtotal | 8 | 7 | 88 | 3.8 | *A* |
| **Total** | | 409 | 411 | 100 | 0.4 | *A* |

**Intersection:** Droubay Road & Fox Run Drive
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| ***NB*** | ***L*** | ***10*** | ***9*** | ***88*** | ***4.6*** | ***A*** |
| | T | 128 | 126 | 99 | 1.9 | *A* |
| | Subtotal | 138 | 135 | 98 | 2.1 | *A* |
| SB | T | 270 | 273 | 101 | 0.4 | *A* |
| | R | 2 | 2 | 100 | 0.3 | *A* |
| | Subtotal | 272 | 275 | 101 | 0.4 | *A* |
| EB | L | 1 | 1 | 100 | 4.3 | *A* |
| | R | 9 | 8 | 86 | 2.9 | *A* |
| | Subtotal | 10 | 9 | 90 | 3.1 | *A* |
| **Total** | | 420 | 419 | 100 | 1.0 | *A* |

HALES ENGINEERING
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# *SimTraffic LOS Report*

**Project:** **Tooele Canyon Springs TIS**
**Analysis Period:** ***Existing (2021) Background***
**Time Period:** ***Evening Peak Hour*** **Project #:** ***UT21-2056***

**Intersection:** **Droubay Road & Smelter Road**
**Type:** **Unsignalized**

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 1 | 1 | 100 | 4.2 | *A* |
| | T | 68 | 66 | 97 | 7.6 | *A* |
| | R | 10 | 13 | 127 | 2.8 | *A* |
| | Subtotal | 79 | 80 | 101 | 6.8 | *A* |
| SB | L | 21 | 21 | 101 | 7.1 | *A* |
| | ***T*** | ***146*** | ***148*** | ***101*** | ***8.2*** | ***A*** |
| | R | 112 | 112 | 100 | 4.5 | *A* |
| | Subtotal | 279 | 281 | 101 | 6.6 | *A* |
| EB | L | 51 | 50 | 98 | 1.9 | *A* |
| | T | 31 | 31 | 100 | 0.3 | *A* |
| | R | 4 | 6 | 150 | 0.2 | *A* |
| | Subtotal | 86 | 87 | 101 | 1.2 | *A* |
| WB | L | 7 | 8 | 110 | 1.9 | *A* |
| | T | 23 | 21 | 91 | 0.2 | *A* |
| | R | 10 | 11 | 107 | 0.2 | *A* |
| | Subtotal | 40 | 40 | 100 | 0.5 | *A* |
| **Total** | | 485 | 488 | 101 | 5.2 | *A* |

HALES ENGINEERING
innovative transportation solutions

# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Existing (2021) Plus Project*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 1000 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 82 | 84 | 102 | 5.4 | *A* |
| | T | 87 | 87 | 100 | 2.1 | *A* |
| | Subtotal | 169 | 171 | 101 | 3.7 | *A* |
| SB | T | 251 | 237 | 94 | 1.8 | *A* |
| | R | 91 | 91 | 100 | 0.8 | *A* |
| | Subtotal | 342 | 328 | 96 | 1.5 | *A* |
| ***EB*** | ***L*** | ***33*** | ***30*** | ***90*** | ***9.7*** | ***A*** |
| | R | 124 | 121 | 98 | 4.7 | *A* |
| | Subtotal | 157 | 151 | 96 | 5.7 | *A* |
| **Total** | | 669 | 650 | 97 | 3.1 | *A* |

**Intersection:** Droubay Road & 850 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | T | 118 | 122 | 103 | 0.3 | *A* |
| | R | 32 | 33 | 102 | 0.3 | *A* |
| | Subtotal | 150 | 155 | 103 | 0.3 | *A* |
| SB | L | 39 | 36 | 92 | 2.7 | *A* |
| | T | 336 | 322 | 96 | 0.9 | *A* |
| | Subtotal | 375 | 358 | 95 | 1.1 | *A* |
| ***WB*** | ***L*** | ***26*** | ***26*** | ***100*** | ***6.3*** | ***A*** |
| | R | 17 | 16 | 96 | 2.6 | *A* |
| | Subtotal | 43 | 42 | 98 | 4.9 | *A* |
| **Total** | | 568 | 555 | 98 | 1.1 | *A* |

# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Existing (2021) Plus Project*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 750 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 4 | 3 | 75 | 2.6 | *A* |
| | T | 142 | 149 | 105 | 0.3 | *A* |
| | R | 20 | 22 | 111 | 0.2 | *A* |
| | Subtotal | 166 | 174 | 105 | 0.3 | *A* |
| SB | L | 11 | 8 | 71 | 2.5 | *A* |
| | T | 290 | 282 | 97 | 0.5 | *A* |
| | R | 6 | 6 | 96 | 0.4 | *A* |
| | Subtotal | 307 | 296 | 96 | 0.6 | *A* |
| ***EB*** | ***L*** | ***2*** | ***1*** | ***50*** | ***7.2*** | ***A*** |
| | R | 6 | 7 | 112 | 3.3 | *A* |
| | Subtotal | 8 | 8 | 100 | 3.8 | *A* |
| WB | L | 12 | 10 | 82 | 6.4 | *A* |
| | R | 6 | 6 | 96 | 2.2 | *A* |
| | Subtotal | 18 | 16 | 89 | 4.8 | *A* |
| **Total** | | 500 | 494 | 99 | 0.7 | *A* |

**Intersection:** Droubay Road & Fox Run Drive
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 10 | 10 | 98 | 4.1 | *A* |
| | T | 153 | 158 | 103 | 2.0 | *A* |
| | R | 27 | 29 | 107 | 1.7 | *A* |
| | Subtotal | 190 | 197 | 104 | 2.1 | *A* |
| SB | L | 21 | 20 | 96 | 2.1 | *A* |
| | T | 286 | 276 | 97 | 0.7 | *A* |
| | R | 2 | 1 | 50 | 0.3 | *A* |
| | Subtotal | 309 | 297 | 96 | 0.8 | *A* |
| EB | L | 1 | 1 | 100 | 3.0 | *A* |
| | R | 9 | 10 | 108 | 3.1 | *A* |
| | Subtotal | 10 | 11 | 110 | 3.1 | *A* |
| ***WB*** | ***L*** | ***16*** | ***15*** | ***95*** | ***6.5*** | ***A*** |
| | R | 12 | 15 | 122 | 2.7 | *A* |
| | Subtotal | 28 | 30 | 107 | 4.6 | *A* |
| **Total** | | 536 | 535 | 100 | 1.5 | *A* |

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# *SimTraffic LOS Report*

**Project:** **Tooele Canyon Springs TIS**
**Analysis Period:** ***Existing (2021) Plus Project***
**Time Period:** ***Evening Peak Hour*** **Project #:** ***UT21-2056***

**Intersection:** **Droubay Road & Smelter Road**
**Type:** **Unsignalized**

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 1 | 0 | 0 | | |
| | T | 89 | 94 | 105 | 8.0 | *A* |
| | R | 10 | 12 | 117 | 2.9 | *A* |
| | Subtotal | 100 | 106 | 106 | 7.4 | *A* |
| SB | L | 21 | 18 | 87 | 8.0 | *A* |
| | ***T*** | ***158*** | ***157*** | ***99*** | ***8.4*** | ***A*** |
| | R | 131 | 124 | 95 | 5.0 | *A* |
| | Subtotal | 310 | 299 | 96 | 7.0 | *A* |
| EB | L | 82 | 85 | 104 | 2.1 | *A* |
| | T | 31 | 30 | 97 | 0.4 | *A* |
| | R | 4 | 5 | 125 | 0.7 | *A* |
| | Subtotal | 117 | 120 | 103 | 1.6 | *A* |
| WB | L | 7 | 6 | 83 | 1.8 | *A* |
| | T | 23 | 23 | 100 | 0.5 | *A* |
| | R | 10 | 11 | 107 | 0.3 | *A* |
| | Subtotal | 40 | 40 | 100 | 0.6 | *A* |
| **Total** | | 568 | 565 | 100 | 5.5 | *A* |

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# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Background*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 1000 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 85 | 82 | 96 | 5.3 | *A* |
| | T | 80 | 79 | 99 | 0.5 | *A* |
| | Subtotal | 165 | 161 | 98 | 2.9 | *A* |
| SB | T | 255 | 250 | 98 | 2.1 | *A* |
| | R | 110 | 111 | 101 | 1.0 | *A* |
| | Subtotal | 365 | 361 | 99 | 1.8 | *A* |
| ***EB*** | ***L*** | ***40*** | ***43*** | ***107*** | ***11.6*** | ***B*** |
| | R | 130 | 128 | 99 | 4.8 | *A* |
| | Subtotal | 170 | 171 | 101 | 6.5 | *A* |
| **Total** | | 700 | 693 | 99 | 3.2 | *A* |

**Intersection:** Droubay Road & 850 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | T | 120 | 119 | 99 | 0.3 | *A* |
| | R | 35 | 35 | 99 | 0.3 | *A* |
| | Subtotal | 155 | 154 | 99 | 0.3 | *A* |
| SB | L | 25 | 23 | 92 | 3.0 | *A* |
| | T | 360 | 355 | 99 | 1.0 | *A* |
| | Subtotal | 385 | 378 | 98 | 1.1 | *A* |
| ***WB*** | ***L*** | ***30*** | ***33*** | ***110*** | ***6.5*** | ***A*** |
| | R | 10 | 11 | 107 | 2.6 | *A* |
| | Subtotal | 40 | 44 | 110 | 5.5 | *A* |
| **Total** | | 580 | 576 | 99 | 1.2 | *A* |

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# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Background*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 750 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 5 | 5 | 95 | 2.9 | *A* |
| | T | 150 | 150 | 100 | 0.2 | *A* |
| | Subtotal | 155 | 155 | 100 | 0.3 | *A* |
| SB | T | 315 | 317 | 101 | 0.5 | *A* |
| | R | 10 | 10 | 98 | 0.3 | *A* |
| | Subtotal | 325 | 327 | 101 | 0.5 | *A* |
| ***EB*** | ***L*** | ***5*** | ***4*** | ***76*** | ***6.0*** | ***A*** |
| | R | 10 | 10 | 98 | 3.4 | *A* |
| | Subtotal | 15 | 14 | 93 | 4.1 | *A* |
| **Total** | | 496 | 496 | 100 | 0.5 | *A* |

**Intersection:** Droubay Road & Fox Run Drive
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 15 | 13 | 88 | 4.3 | *A* |
| | T | 150 | 152 | 102 | 1.7 | *A* |
| | Subtotal | 165 | 165 | 100 | 1.9 | *A* |
| SB | T | 321 | 323 | 101 | 0.4 | *A* |
| | R | 5 | 5 | 95 | 0.1 | *A* |
| | Subtotal | 326 | 328 | 101 | 0.4 | *A* |
| ***EB*** | ***L*** | ***5*** | ***4*** | ***76*** | ***6.6*** | ***A*** |
| | R | 10 | 10 | 98 | 3.6 | *A* |
| | Subtotal | 15 | 14 | 93 | 4.5 | *A* |
| **Total** | | 506 | 507 | 100 | 1.0 | *A* |

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# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Background*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & Smelter Road
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 5 | 4 | 76 | 5.7 | *A* |
| | T | 80 | 79 | 99 | 7.8 | *A* |
| | R | 15 | 16 | 108 | 2.8 | *A* |
| | Subtotal | 100 | 99 | 99 | 6.9 | *A* |
| SB | L | 25 | 25 | 100 | 7.2 | *A* |
| | ***T*** | ***170*** | ***168*** | ***99*** | ***8.6*** | ***A*** |
| | R | 135 | 137 | 101 | 5.2 | *A* |
| | Subtotal | 330 | 330 | 100 | 7.1 | *A* |
| EB | L | 60 | 61 | 101 | 2.1 | *A* |
| | T | 35 | 33 | 94 | 0.5 | *A* |
| | R | 5 | 5 | 95 | 0.3 | *A* |
| | Subtotal | 100 | 99 | 99 | 1.5 | *A* |
| WB | L | 10 | 9 | 88 | 2.0 | *A* |
| | T | 30 | 32 | 107 | 0.5 | *A* |
| | R | 15 | 15 | 102 | 0.4 | *A* |
| | Subtotal | 55 | 56 | 102 | 0.7 | *A* |
| **Total** | | 586 | 584 | 100 | 5.5 | *A* |

# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Plus Project*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 1000 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 94 | 90 | 95 | 6.0 | *A* |
| | T | 101 | 102 | 101 | 0.6 | *A* |
| | Subtotal | 195 | 192 | 98 | 3.1 | *A* |
| SB | T | 292 | 295 | 101 | 2.2 | *A* |
| | R | 110 | 110 | 100 | 1.1 | *A* |
| | Subtotal | 402 | 405 | 101 | 1.9 | *A* |
| ***EB*** | ***L*** | ***40*** | ***40*** | ***99*** | ***12.8*** | ***B*** |
| | R | 146 | 150 | 103 | 5.4 | *A* |
| | Subtotal | 186 | 190 | 102 | 7.0 | *A* |
| **Total** | | 783 | 787 | 100 | 3.4 | *A* |

**Intersection:** Droubay Road & 850 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | T | 138 | 136 | 98 | 0.3 | *A* |
| | R | 40 | 40 | 99 | 0.3 | *A* |
| | Subtotal | 178 | 176 | 99 | 0.3 | *A* |
| SB | L | 46 | 45 | 98 | 3.3 | *A* |
| | T | 392 | 399 | 102 | 1.1 | *A* |
| | Subtotal | 438 | 444 | 101 | 1.3 | *A* |
| ***WB*** | ***L*** | ***33*** | ***33*** | ***99*** | ***6.8*** | ***A*** |
| | R | 22 | 22 | 101 | 2.7 | *A* |
| | Subtotal | 55 | 55 | 100 | 5.2 | *A* |
| **Total** | | 672 | 675 | 100 | 1.4 | *A* |

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# SimTraffic LOS Report

**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Plus Project*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & 750 North
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 5 | 4 | 76 | 3.0 | *A* |
| | T | 168 | 169 | 100 | 0.3 | *A* |
| | R | 20 | 18 | 91 | 0.2 | *A* |
| | Subtotal | 193 | 191 | 99 | 0.3 | *A* |
| SB | L | 11 | 11 | 98 | 2.2 | *A* |
| | T | 339 | 344 | 102 | 0.6 | *A* |
| | R | 10 | 10 | 98 | 0.4 | *A* |
| | Subtotal | 360 | 365 | 101 | 0.6 | *A* |
| EB | L | 5 | 4 | 76 | 6.0 | *A* |
| | R | 10 | 10 | 98 | 3.4 | *A* |
| | Subtotal | 15 | 14 | 93 | 4.1 | *A* |
| ***WB*** | ***L*** | ***12*** | ***11*** | ***90*** | ***8.2*** | ***A*** |
| | R | 6 | 6 | 96 | 2.5 | *A* |
| | Subtotal | 18 | 17 | 94 | 6.2 | *A* |
| **Total** | | 588 | 587 | 100 | 0.8 | *A* |

**Intersection:** Droubay Road & Fox Run Drive
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 15 | 13 | 88 | 4.6 | *A* |
| | T | 175 | 172 | 98 | 1.8 | *A* |
| | R | 27 | 29 | 107 | 1.9 | *A* |
| | Subtotal | 217 | 214 | 99 | 2.0 | *A* |
| SB | L | 21 | 18 | 87 | 2.7 | *A* |
| | T | 336 | 341 | 101 | 0.5 | *A* |
| | R | 5 | 6 | 114 | 0.3 | *A* |
| | Subtotal | 362 | 365 | 101 | 0.6 | *A* |
| ***EB*** | ***L*** | ***5*** | ***4*** | ***76*** | ***7.5*** | ***A*** |
| | R | 10 | 10 | 98 | 3.4 | *A* |
| | Subtotal | 15 | 14 | 93 | 4.6 | *A* |
| WB | L | 16 | 14 | 89 | 7.2 | *A* |
| | R | 12 | 13 | 106 | 2.8 | *A* |
| | Subtotal | 28 | 27 | 96 | 5.1 | *A* |
| **Total** | | 623 | 620 | 100 | 1.4 | *A* |

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# SimTraffic LOS Report

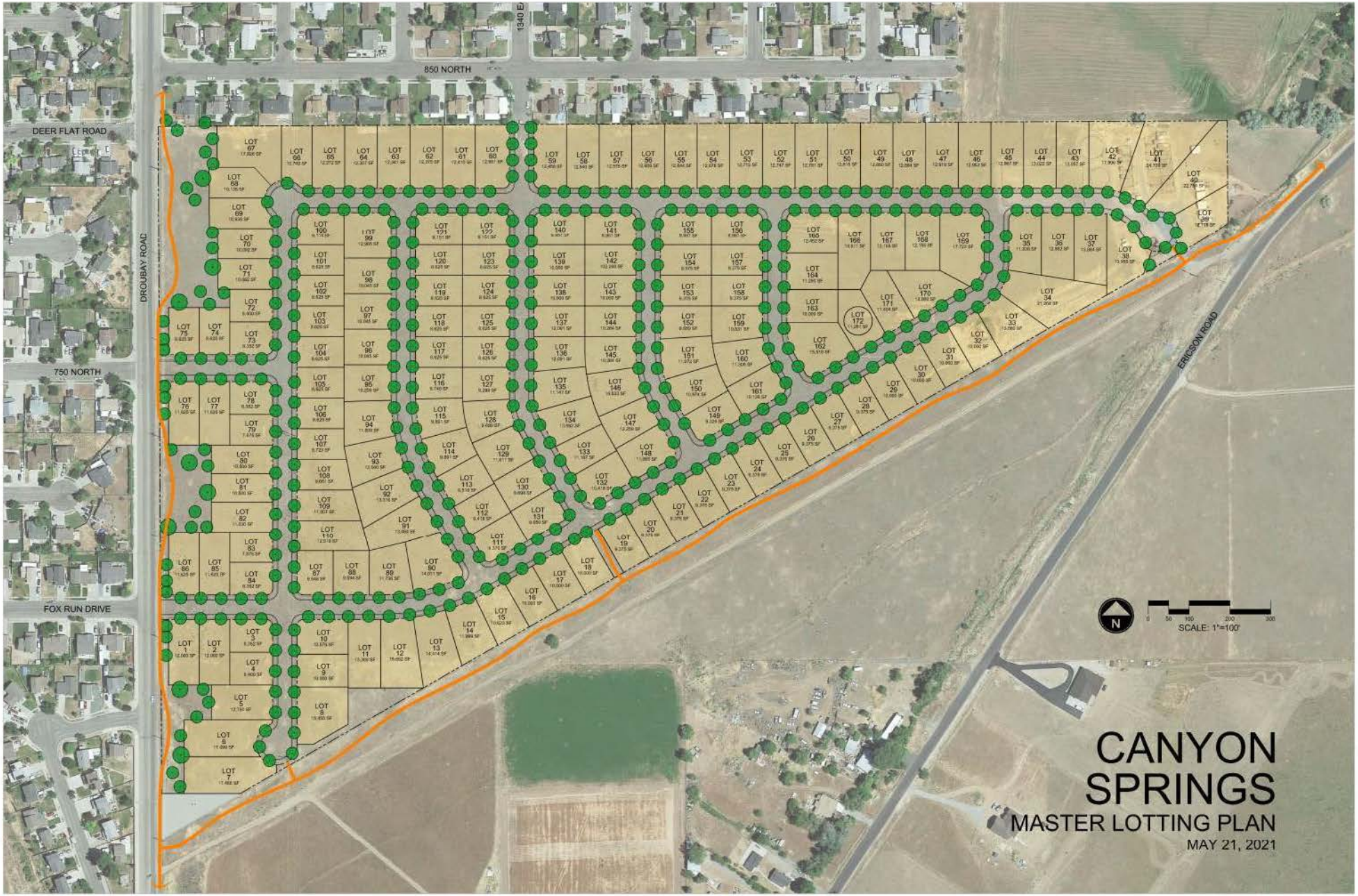
**Project:** Tooele Canyon Springs TIS
**Analysis Period:** *Future (2026) Plus Project*
**Time Period:** *Evening Peak Hour* **Project #:** *UT21-2056*

**Intersection:** Droubay Road & Smelter Road
**Type:** Unsignalized

| Approach | Movement | Demand Volume | Volume Served | | Delay/Veh (sec) | |
|---|---|---|---|---|---|---|
| | | | Avg | % | Avg | LOS |
| NB | L | 5 | 4 | 76 | 5.9 | *A* |
| | T | 101 | 100 | 99 | 8.4 | *A* |
| | R | 15 | 18 | 122 | 3.1 | *A* |
| | Subtotal | 121 | 122 | 101 | 7.5 | *A* |
| SB | L | 25 | 24 | 96 | 8.1 | *A* |
| | ***T*** | ***182*** | ***184*** | ***101*** | ***9.0*** | ***A*** |
| | R | 154 | 156 | 101 | 5.6 | *A* |
| | Subtotal | 361 | 364 | 101 | 7.5 | *A* |
| EB | L | 91 | 91 | 100 | 2.2 | *A* |
| | T | 35 | 37 | 105 | 0.6 | *A* |
| | R | 5 | 6 | 114 | 0.5 | *A* |
| | Subtotal | 131 | 134 | 102 | 1.7 | *A* |
| WB | L | 10 | 8 | 78 | 1.9 | *A* |
| | T | 30 | 31 | 103 | 0.5 | *A* |
| | R | 15 | 15 | 102 | 0.3 | *A* |
| | Subtotal | 55 | 54 | 98 | 0.7 | *A* |
| **Total** | | 669 | 674 | 101 | 5.8 | *A* |

# APPENDIX C

## Site Plan


850 NORTH
1340 E
DEER FLAT ROAD
DROUBAY ROAD
750 NORTH
FOX RUN DRIVE
ERICSON ROAD
N
0 50 100 200 300
SCALE: 1"=100'
CANYON SPRINGS
MASTER LOTTING PLAN
MAY 21, 2021

# APPENDIX D

## 95th Percentile Queue Length Reports

## *SimTraffic Queueing Report*

**Project: Tooele Canyon Springs TIS**

**Analysis: Existing (2021) Background**

**Time Period: Evening Peak Hour**

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

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**Project #: UT21-2056**

| Intersection | NB | | SB | | | EB | | | WB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | LT | LTR | L | LTR | TR | L | R | TR | L | R |
| 01: Droubay Road & 1000 North | 75 | | | | | 75 | 75 | | | |
| 02: Droubay Road & 850 North | | | | | | | | | 50 | |
| 03: Droubay Road & 750 North | | | | | | | | | | |
| 04: Droubay Road & Fox Run Drive | | | | | | | | | | |
| 05: Droubay Road & Smelter Road | | 75 | | 100 | | | | | | |

# *SimTraffic Queueing Report*

**Project: Tooele Canyon Springs TIS**

**Analysis: Existing (2021) Plus Project**

**Time Period: Evening Peak Hour**

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

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**Project #: UT21-2056**

| Intersection | NB | | SB | | | | EB | | | | WB | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LT | LTR | L | LT | LTR | TR | L | LT | R | TR | L | LT | R |
| 01: Droubay Road & 1000 North | 75 | | | | | | 75 | | 75 | | | | |
| 02: Droubay Road & 850 North | | | 50 | | | | | | | | 50 | | 50 |
| 03: Droubay Road & 750 North | | | | | | | | | | | | 50 | |
| 04: Droubay Road & Fox Run Drive | | | | | | | | | | | | 50 | 50 |
| 05: Droubay Road & Smelter Road | | 75 | | | 100 | | 50 | | | | | | |

# *SimTraffic Queueing Report*

**Project: Tooele Canyon Springs TIS**

**Analysis: Future (2026) Background**

**Time Period: Evening Peak Hour**

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

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**Project #: UT21-2056**

| Intersection | NB | | SB | | EB | | | WB | |
|---|---|---|---|---|---|---|---|---|---|
| | L | TR | L | TR | L | R | TR | L | R |
| 01: Droubay Road & 1000 North | 75 | | | | 75 | 75 | | | |
| 02: Droubay Road & 850 North | | | | | | | | 50 | 50 |
| 03: Droubay Road & 750 North | | | | | | 25 | | | |
| 04: Droubay Road & Fox Run Drive | | | | | | | | | |
| 05: Droubay Road & Smelter Road | | 75 | 50 | 100 | | | | | |

# *SimTraffic Queueing Report*

**Project: Tooele Canyon Springs TIS**

**Analysis: Future (2026) Plus Project**

**Time Period: Evening Peak Hour**

95th Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

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**Project #: UT21-2056**

| Intersection | NB | | | SB | | EB | | | | WB | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | R | TR | L | TR | L | LT | R | TR | L | LT | R | T |
| 01: Droubay Road & 1000 North | 75 | | | | | 75 | | 75 | | | | | |
| 02: Droubay Road & 850 North | | | | 50 | | | | | | 50 | | 50 | |
| 03: Droubay Road & 750 North | | | | | | | | 25 | | | 50 | | |
| 04: Droubay Road & Fox Run Drive | | | | | | | | 50 | | | 50 | 50 | |
| 05: Droubay Road & Smelter Road | | | 75 | 50 | 100 | 50 | | | | | | | |

# STAFF REPORT
July 5, 2024

**To:** Tooele City Planning Commission
Business Date: July 10, 2024

**From:** Planning Division
Community Development Department

**Prepared By:** Jared Hall, City Planner / Zoning Administrator

**Re:** **Montessori Daycare – Conditional Use Permit Request**

| | |
|---|---|
| Application No.: | 2024-020 |
| Applicant: | Heygley Gonzalez |
| Project Location: | 942 N. 650 East |
| Zoning: | R1-7, Residential |
| Acreage: | 0.16 acres, 6,969 $ft^2$ |
| Request: | Conditional Use Permit approval to allow an in-home childcare business for 8-16 children in the R1-7, Residential zoning district |

## BACKGROUND

The subject property is a single-family residence located in the R1-7 zoning district. The applicant, Heygley Gonzalez, wishes to operate an in-home preschool and daycare for up to 16 children. In-home childcare for between 8 and 16 children can be allowed as a home occupation in the R1-7 Zone, but requires Conditional Use Permit approval by the Planning Commission.

## ANALYSIS

*General Plan and Zoning*. The subject property is located in the R1-7, Single-Family Residential zoning district. Tooele City Code 7-2-19: Home Occupations, requires home based daycares involving the care of 8 to 16 children to obtain a conditional use permit after a public hearing is held with the Planning Commission. The ordinance also permits one non-resident employee to work at the home.

The purpose of the R1-7 zoning district is "to provide a range of housing choices to meet the needs of Tooele City residents, to offer a balance of housing types and densities, and to preserve and maintain the City's residential areas as safe and convenient places to live." In-home childcare locations can be an integral part of neighborhoods and communities, and can benefit these areas if operated properly. The surrounding properties are all used as single-family residences, and all are located in the same R1-7 Zone. With conditions, Staff finds that the proposed use is in keeping with the zoning, and can be compatible with the overall development pattern in the surrounding area. Mapping pertinent to the subject property can be found in Exhibit "A", attached to this report.

*Operations:* The applicant has indicated that the child care is operated from 7:30 a.m. to 6:00 p.m., Monday through Friday. The daycare will not be operated on weekends. The operation may include one outside employee who does not live in the home. The applicant has indicated that an additional outside employee will be added when needed.

*Parking:* The subject property has a garage in addition to a large driveway where the needed parking for an outside employee can be accommodated without excluding use of the driveway for drop-off and pick-up of the

children in the daycare.

*Traffic / Drop-off and Pick-up:* One of the principal concerns arising from in-home daycares is the traffic generated in a residential neighborhood as children are dropped off and picked up. Although the ordinance limits the number of children allowed, the Conditional Use review is intended to help address the specific potential impacts that could still arise from the use, even with those limited numbers; driveways, mail boxes, trash removal, deliveries and other services could be blocked or impacted, for example. To address these concerns, the applicant has drafted a plan and schedule for drop-off and pick-up. The applicant's plan includes five major points to address the concerns:

- The operations begin around 7:30 a.m. with the arrival of an outside employee, before arrival of any children.
- The children will arrive at different times between 8:00 a.m. and 9:30 a.m. Parents will be assigned different times for the drop-offs and pick-ups.
- Two spaces in the driveway will always be available during these times.
- A worker will be at the entrance of the house during the drop-off and pick-ups to help the parents and thereby keep the process to no more than three minutes.
- Operations end at 6:00 p.m. when the outside employee departs.

The plan and schedule is titled "Traffic Study" and has been included with the applicant submitted materials attached to this report with the applicant's submitted information in Exhibit "B".

*Home Layout / State Requirements*. The applicant must demonstrate that the property meets the State of Utah's standards of capacity for the maximum of up to 16 children in order to have their State license. Tooele City Business Licenses are contingent upon the maintenance of the State credential. Inspections are performed regularly. The Tooele City Fire Department will also inspect the property for compliance with Fire Code standards for in-home daycares as a part of the business license review if the Conditional Use Permit is granted.

*Criteria for Approval*. The criteria for review and potential approval of a Conditional Use Permit request is found in Sections 7-5-3(3) and (4) of the Tooele City Code. This section depicts the standard of review for such requests as:

(3) Procedure. At the public hearing, testimony may be given by the applicant and all other persons either in support of or in opposition to the application. The Planning Commission may take the application under advisement, but shall render its determination within 30 days of the date of the hearing.

(4) Approval. The Planning Commission shall approve the conditional use application if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably anticipated detrimental effects of the proposed use. If the reasonably anticipated detrimental effects of a proposed conditional use cannot be substantially mitigated by the proposal or the imposition of reasonable conditions to achieve compliance with applicable standards, the conditional use may be denied.

*Findings of Fact*. As a part of the approval or denial of a Conditional Use Permit a finding of fact according to Sections 7-5-4 of the Tooele City Code is required. This section depicts the standard for findings of fact:

Prior to approving or denying a Conditional Use Permit application the Planning Commission shall make, in the business meeting at which the public hearing is conducted or the permit is approved or denied, a finding of the following facts:

(1) The reasonably anticipated detrimental effects of the proposed use upon adjacent and nearby persons and properties;

(2) The evidence identified regarding the identified reasonably anticipated detrimental effects of the proposed use;

(3) The reasonable conditions imposed, as part of the Conditional Use Permit approval, intended to mitigate the reasonably anticipated detrimental effects of the proposed use;

(4) The reasons why the imposed conditions are anticipated or hoped to mitigate the reasonably anticipated detrimental effects of the proposed use;

(5) The evidence, if any, identified regarding the ability of the imposed conditions to mitigate the reasonably anticipated detrimental effects of the proposed use.

In response to the City Code requirement for findings of fact, the following are the staff responses and comments on the potential effects this application, should it be approved, upon adjacent and nearby persons and property:

1. Where an in-home daycare involves up to 16 children, drop-off and pick-up has the potential to impact the neighborhood by blocking access to driveways, mail boxes, deliveries, or other services. Drop-off and pick-up must be managed to prevent those impacts. The applicant should adhere to a plan that can manage the arrivals, departures, and parking, limiting the impact.

2. Parking of outside employees can impact a residential neighborhood. The applicant should assure parking is available on the subject property for the outside employee.

## REVIEWS

*Planning Division Review*. The Tooele City Planning Division has completed their review of the Conditional Use Permit submission and has issued a recommendation for approval for the request with the following comments:

1. The applicant will need to meet all requirements of the State and City for operation of childcare facilities, and be licensed by each as required.

2. The applicant will need to inform their clients of the plan for drop-off and pick-up, and assure that they adhere to it in order to mitigate the potential impacts of traffic to their business in the residential zone.

3. The applicant will need to make certain that parking is available in the driveway for the employee and for drop-off and pick-up.

*Engineering and Public Works Review*. The Tooele City Engineering Division and the Public Works Department have not issued comments regarding this application.

*Tooele City Fire Department Review*. The Tooele City Fire Department recommends approval with the condition that the home occupation will pass a fire inspection prior to operation, and will meet and maintain compliance with the requirements of the Fire Codes.

## NOTICING

Notice has been properly issued as outlined by the City and State Codes. Notices have been posted in required locations, and were sent to all property owners within 200 feet of the subject property.

## STAFF RECOMMENDATION

Staff recommends APPROVAL of application #2024-020, a request for Conditional Use Permit by Heygley Gonzalez to allow an in-home childcare business for between 8 and 16 children on the property at 942 N. 650 East in the R1-7 zoning district, subject to the following conditions:

1. The applicant shall meet all requirements of the State, and City for operation of child care facilities, and be licensed by each as required.

2. The applicant shall comply with all Tooele City Fire Department requirements for in-home childcare facilities.

3. The applicant shall inform their clients of the plan and schedule for drop-off and pick-up as outlined, and assure that both they and the clients adhere to it.

4. The applicant shall provide parking for the outside employee on the subject property.

This recommendation is based on the following findings:

1. With conditions, the proposed use meets the intent, goals, and objectives of the Tooele City General Plan and the R1-7 zoning district.

2. With conditions, the proposed use will meet the requirements and provisions of the Tooele City Code.

3. With conditions, the proposed use will not be deleterious to the health, safety, and general welfare of the general public nor the residents of adjacent properties.

4. Potential impacts of the use have been identified in this report. The recommended conditions are intended to mitigate those impacts as required by Tooele City Code Section 7-5-4.

## MODEL MOTIONS

Sample Motion for Approval – "I move that we APPROVE application #2024-020, a request for Conditional Use Permit by Heygley Gonzalez to allow an in-home childcare business for between 8 and 16 children on the property at 942 N. 650 East in the R1-7 zoning district, based on the findings of fact and subject to the conditions listed in the Staff Report dated July 5, 2024."

1. List any additional findings of fact and/or conditions

Sample Motion for Denial – "I move that we DENY application #2024-020, a request for Conditional Use Permit by Heygley Gonzalez to allow an in-home childcare business for between 8 and 16 children on the property at 942 N. 650 East in the R1-7 zoning district, based on the findings of fact."

1. List any findings of fact

**EXHIBIT A:** MAPPING PERTINENT TO THE REQUEST, MONTESSORI DAY CARE


*Subject Property - Aerial Map*


*Subject Property - Zoning Map*

**EXHIBIT B:** APPLICANT SUBMITTED INFORMATION

# Conditional Use Permit Application

Community Development Department
90 North Main Street, Tooele, UT 84074
(435) 843-2132 Fax (435) 843-2139
www.tooelecity.gov

Tooele City
Est. 1853

*Notice:* The applicant must submit copies of the pertinent plans and documents to be reviewed by the City in accordance with the terms of the Tooele City Code. All submitted Conditional Use Permit applications shall be reviewed in accordance with all applicable City ordinances and requirements, are subject to compliance reviews by various City departments, and may be returned to the applicant for revision if the plans are found to be inadequate or inconsistent with the requirements of the City Code. Application submission in no way guarantees placement of the application on any particular agenda of any City reviewing body. It is **strongly** advised that all checklist items be submitted well in advance of any anticipated deadlines.

## Project Information

2024020

| | | |
|---|---|---|
| Date of Submission: 6/20/24 | Current Zoning: | Parcel #(s): 13-039-0-0209 |
| Project Name: Montessori Daycare LLC | | Acres: 0.16 |
| Project Address: 942 N. 650 E. ~~Draper~~, UT 84074 | | Units: 1 |
| Project Description: Daycare Center Tooele | | |
| Current Use of Property: Residential | | |

| | |
|---|---|
| **Property Owner(s):** Casilyn Larimer Yago Silva | **Applicant(s):** Heydy Gonzalez |
| Address: 942 N. 650 E. | Address: 858 N. Galena Dr. |
| City: Tooele State: UT Zip: 84074 | City: Tooele State: UT Zip: 84074 |
| Phone: 801-440-6168 | Phone: 786-683-3105 |
| **Contact Person:** Heydy Gonzalez | Address: |
| Phone: 786-683-3105 | City: State: Zip: |
| Cellular: Fax: | Email: montessori.daycare04@gmail.com |

Signature of Applicant: Heydy Gonzalez Date 6/3/2024

*The application you are submitting will become a public record pursuant to the provisions of the Utah State Government Records Access and Management Act (GRAMA). You are asked to furnish the information on this form for the purpose of identification and to expedite the processing of your request. This information will be used only so far as necessary for completing the transaction. If you decide not to supply the requested information, you should be aware that your application may take a longer time or may be impossible to complete. If you are an "at-risk government employee" as defined in *Utah Code Ann.* § 63-2-302.5, please inform the city employee accepting this information. Tooele City does not currently share your private, controlled or protected information with any other person or government entity.

** By submitting this application form to the City, the applicant acknowledges that the above list is not exclusive and under no circumstances waives any responsibility or obligation of the Applicant and or his Agents from full compliance with City Master Plans, Code, Rules and or Regulations.

2240617

## For Office Use Only

| Fee: | Received By: | Date Received: | Receipt #: |
|---|---|---|---|
| $150.00 (213) | Jade | 6/20/2024 | 00616343 7 |

**AFFIDAVIT**

PROPERTY OWNER

STATE OF UTAH }
}ss
COUNTY OF TOOELE }

I/we, Casilyn Silva, being duly sworn, depose and say that I/we am/are the owner(s) of the property identified in the attached application and that the statements herein contained and the information provided in the attached plans and other exhibits are in all respects true and correct to the best of my/our knowledge. I/we also acknowledge that I/we have received written instructions regarding the application for which I/we am/are applying and the Tooele City Community Development Department staff have indicated they are available to assist me in making this application.

Casilyn S
(Property Owner)

(Property Owner)

Subscribed and sworn to me this 14 day of June, 2024

DENECE HALL
Notary Public - State of Utah
Commission # 730530
My Commission Expires On
04/10/2027

Denece Hall
(Notary)
Residing in Tooele County, Utah
My commission expires: 4/10/2027

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AGENT AUTHORIZATION

I/we, Casilyn Silva, the owner(s) of the real property described in the attached application, do authorize as my/our agent(s), _____, to represent me/us regarding the attached application and to appear on my/our behalf before any administrative or legislative body in the City considering this application and to act in all respects as our agent in matters pertaining to the attached application.

_____
(Property Owner)

_____
(Property Owner)

Dated this ___ day of _____, 20__, personally appeared before me _____, the signer(s) of the agent authorization who duly acknowledged to me that they executed the same.

_____
(Notary)
Residing in _____ County, Utah
My commission expires: _____

# TRAFFIC STUDY

Monday:

- Helper will arrive at the home 7:30am.
- 8am-9:30am children (5-6 cars) arrive at different times.
- Helper leaves house at 6:30pm

Tuesday:

- Helper will arrive at the home 7:30am.
- 8am-9:30am children (5-6 cars) arrive at different times.
- Helper leaves house at 6:30pm1

Wednesday:

- Helper will arrive at the home 7:30am.
- 8am-9:30am children (5-6 cars) arrive at different times.
- Helper leaves house at 6:30pm

Thursday:

- Helper will arrive at the home 7:30am.
- 8am-9:30am children (5-6 cars) arrive at different times.
- Helper leaves house at 6:00pm

Friday:

- Helper will arrive at the home 7:30am.
- 8am-9:30am children (5-6 cars) arrive at different times.
- Helper leaves house at 6:00pm

Saturday: Closed

Sunday: Closed

Plan:

- At the time of entry and exit of the children, a worker will be at the entrance of the house to help the parents and speed the process of receiving and returning the children.
- Two parking spaces of the house can be used by two parents at the same time.
- The maximum time of use will be 3 minutes. Each parent will arrive at the assigned time according to their assigned schedule to avoid traffic jams.
- No neighbor driveways will ever be blocked.

**Tooele City Planning Commission**
**Business Meeting Minutes**

**Date:** Wednesday, June 26, 2024
**Time**: 7:00 p.m.
**Place:** Tooele City Hall Council Chambers
90 North Main Street, Tooele Utah

**Commission Members Present:**
Melanie Hammer
Jon Proctor
Chris Sloan
Tyson Hamilton
Weston Jensen
Matt Robinson

**Commission Members Excused:**
Kelley Anderson
Alison Dunn

**City Council Members Present:**
Maresa Manzione
Ed Hansen

**City Employees Present:**
Andrew Aagard, City Development Director
Jared Hall, City Planner
Paul Hansen, City Engineer
Roger Baker, City Attorney
John Perez, Economic Development Director

Minutes prepared by Katherin Yei

Chairman Hamilton called the meeting to order at 7:00 p.m.

**1. Pledge of Allegiance**
The Pledge of Allegiance was led by Chairman Hamilton.

**2. Roll Call**
Melanie Hammer, Present
Tyson Hamilton, Present
Weston Jensen, Present
Chris Sloan, Present
Jon Proctor, Present
Matt Robinson, Present

Alison Dunn, Excused
Kelley Anderson, Excused

**3. Review and Decision – Consider the application for Historic Landmark Designation of the Ritz Theater, located at 111 N. Main Street**
*Presented by John Perez, Economic Development Director*

Mr. Perez presented application for historic landmark designation for the Ritz Theater. These have been before the historic preservation committee. Once the application has been approved, it will go through the resolution process. This will help with preservation grants from the state. The Ritz does meet all three criteria in the City code, architecture requirements, and allows the City to apply for grants to help maintain and fix the Ritz.

The Planning Commission discussed thoughts in the criteria being subjective. As well as the property owner approving the historic designation.

**Commissioner Proctor motioned to approve the historic landmark designation for the Ritz.** Commissioner Sloan seconded the motion. The vote was as follows: Commissioner Hammer, "Aye", Commissioner Sloan, "Aye", Chairman Hamilton, "Aye", Commissioner Jensen, "Aye", Commissioner Robinson, "Nay" and Commissioner Proctor, "Aye". The motion passed.

**4. Review and Decision – Consider the application for Historic Landmark Designation of the Coleman Pond and Home, located at 461 S. Coleman Street**
*Presented by John Perez, Economic Development Director*

Mr. Perez presented application for historic landmark designation for the Coleman Pond and Home. This is private home and the homeowner did submit this application. The applicant feels this has significant contribution to the City, State, and Nation with the Church of Jesus Christ of Latter-day Saints history.

The Planning Commission discussed the architecture changes to this home. As well as the history being subjective to the LDS church and not the City, State, and nation.

**Commissioner Sloan motioned to approve.** Commissioner Hammer seconded the motion. The vote was as follows: Commissioner Hammer, "Aye", Commissioner Sloan, "Aye", Chairman Hamilton, "Aye", Commissioner Jensen, "Nay", Commissioner Robinson, "Nay" and Commissioner Proctor, "Aye". The motion passed.

**5. Review and Decision – Resolution 2024-01, adopting a policy regarding public comments at public hearings**
*Presented by Roger Baker, City Attorney*

Mr. Baker presented the policy for public comments at public hearings. The policy includes sign limitations, time limitations, and the intent of speaking on topics within the Commission's jurisdiction.

**Commissioner Proctor motioned to approve Resolution 2024-01, adopting a policy regarding public comments at public hearings.** Commissioner Jensen seconded the motion. The vote was as follows: Commissioner Hammer, "Aye", Commissioner Sloan, "Aye", Chairman Hamilton, "Aye", Commissioner Jensen, "Aye", Commissioner Robinson, "Aye" and Commissioner Proctor, "Aye". The motion passed.

**6. City Council Reports**

Council Member Manzione shared the following information from the City Council Meeting: The Council discussed the annexation agreement, approved the budget, adopted certified tax rate, and the policy for public comments. The Council had a discussion on water rights for the Perry Commercial Development.

**7. Review and Approval – Planning Commission Minutes**

There are no changes to the minutes.

**Commissioner Hammer motioned to approve the minutes.** Commissioner Robinson seconded the motion. The vote was as follows: Commissioner Hammer, "Aye", Commissioner Sloan, "Aye", Chairman Hamilton, "Aye", Commissioner Jensen, "Nay", Commissioner Robinson, "Nay" and Commissioner Proctor, "Aye". The motion passed.

**8. Adjourn**

**Chairman Hamilton adjourned the** meeting at 7:47 p.m.

*The content of the minutes is not intended, nor are they submitted, as a verbatim transcription of the meeting. These minutes are a brief overview of what occurred at the meeting.*

Approved this ____ day of July, 2024

_____

Tyson Hamilton, Tooele City Planning Commission Chair