

# WILDFLOWER

AT SARATOGA SPRINGS

**FINAL**

**COMMUNITY PLAN**

March 13, 2015





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## FINAL COMMUNITY PLAN

### Prepared By:

DAI  
Think Architecture  
LEI  
Hales Engineering



WILDFLOWER  
AT SARATOGA SPRINGS  
COMMUNITY PLAN

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## Project Introduction

Wildflower is a 800 acre master planned community located in northern Saratoga Springs, Utah. The project will be developed in multiple phases and the build-out duration will depend on market demands and growth patterns in the area.

The intent of this project is to provide a high quality, value added selection of housing types to broaden the project's appeal to a wide range of potential buyers, varied price ranges and promote desirable market trends and amenities. The Community Plan and Development Agreement documents identify a variety of differing residential neighborhood areas which are distinguished from one another by unique project features. A wide selection of product designs and architectural treatments, project entrance features, unifying landscape design elements and standards, and pedestrian/bike linkages and accessibility to open space, trails and recreational amenities are envisioned.

One of the unique challenges of the Wildflower community is the location and inherent impacts associated with the future construction of the Mountain View Corridor. As seen in the attached exhibits, the 145 +/- acre corridor bisects the total residential project area of 595 acres into two parcels - one parcel on each side of the corridor. The construction of the Mountain View Corridor will require extensive grading in and around the roadway. The impacts of this major road system bisecting the project, significantly limit the ability to create a sense of community and create many challenges to developing the property. Some of these challenges include increased difficulty in planning the various land uses, the need for walls and buffering/sound attenuation, difficulty in planning trail & pedestrian linkages and master-planning of utilities, etc.

As of the date of this Community Plan, UDOT and the Wildflower developer have not reached a definitive agreement (in lieu of condemnation) relating to the transfer of the contemplated Mountain View Corridor right of way land, identified in the exhibits. Accordingly, the final location of the Mountain View Corridor may change from the location identified in the exhibits to other portions of the property. Any change in location will not result in an increase or decrease in the amount of residential density identified in this Community Plan for the project, although the Neighborhood configuration would be expected to change.



The Wildflower developer has worked extensively with UDOT to determine the location and alignment of the contemplated Mountain View Corridor (as identified in the exhibits), as well as agreeable terms pursuant to which a transfer (in lieu of condemnation) of the Mountain View Corridor right of way land would occur. The developer will continue to exercise its best efforts to reach a definitive agreement with UDOT with terms acceptable to the developer. It is understood that the final location of the Mountain View Corridor may change from the location identified in the Exhibits to this Community Plan, to other portions of the property, and UDOT may elect to terminate its interest in extending the Mountain View Corridor on any portion of the project. In either event, while the Neighborhood configuration would be expected to change, any change in location or termination of the MVC project will not result in an increase or decrease of the total residential density for the project of 1468 units (which total density is based on an average density of 2.46 units per acre for the entire Wildflower property, inclusive of the land currently planned for the future MVC right of way).



## Wildflower Theme

The Wildflower community will re-enforce the adopted theme by incorporating native wildflower seed mixes into the landscape areas of the parks, trails, entry features and other areas throughout the project. The community will include formal landscape treatments at the entry of each individual neighborhood area, as well as other open space. Wildflower will be designed to create a sustainable, high-quality, engaging community with broad appeal to a wide range of buyers with varied tastes, price points and lifestyles, which will all enhance the value and desirability of the project over time.

## Findings Statement

- a. Wildflower is consistent with goals, objectives, and policies of the General Plan, with particular emphasis placed upon those policies related to community identity, distinctive qualities in communities and neighborhoods, diversity of housing, integration of uses, pedestrian and transit design, and environmental protection.
- b. Wildflower does not exceed the number of equivalent residential units and square footage of nonresidential uses of the General Plan. See page 21.
- c. Wildflower contains sufficient standards to guide the creation of innovative design that responds to unique conditions. The entire project caters to the Mountain View Corridor.
- d. Wildflower is compatible with surrounding development and properly integrates land uses and infrastructure with adjacent properties.
- e. Wildflower includes adequate provisions for utilities, services, roadway networks, and emergency vehicle access; and public safety service demands will not exceed the capacity of existing and planned systems without adequate mitigation. See Utility and Roadway exhibits.
- f. Wildflower is consistent with the guiding standards listed in Section 19.26.06.
- g. Wildflower contains the required elements as dictated in Section 19.26.07.



## Planned Community Zone

The Planned Community Zone establishes a process to enable the developer and the City to plan for future development while allowing the flexibility to respond to changes in the market over long build-out periods. The goal is to provide a project with unique identity and character, establish an innovative integration of uses and preserve open space. In order to provide innovative design patterns a variety of development and use standards needs to be established. In large developments the PC zone allows greater flexibility compared to traditional zoning.

### District Area Plan

The District Area Plan is not applicable to the Wildflower project as it does not meet the minimum acreage required in 19.26.13 of the Saratoga Springs Municipal Code.

### Community Plan

The Wildflower Community Plan provides a structure for effective planning and design for each residential neighborhood. Each neighborhood will be linked to an extensive network of open space and pedestrian/bike trails, which will access future commercial development. These trails may connect to the network of similar amenities located throughout the Saratoga Springs area while accommodating future growth along the Mountain View Corridor.



The Wildflower Community Plan addresses the following elements pertaining to the design concepts and overall development of the project:

- Community Plans are prepared by the landowner in consultation with the Planning Department and other affected municipal entities.
- Legal Description of Wildflower property and Vicinity Map. See pages 13 and 16.
- Use Map, which depicts the proposed character and use of all Wildflower property within the Planned Community District. See page 14.
- Build-out allocations of all acreage within the Wildflower Planned Community District. These allocations are based on residential and commercial Equivalent Residential Units (ERUs) as found in the Saratoga Springs Municipal Code Section 19.26.
- Open Space Plan, which includes parks and open space as well as a trail network providing connectivity between differing residential and commercial areas. See page 46.
- Guiding Land Use and Design Principles, which describe the character and objectives of this Community Plan. See page 11.
- Description of current and future utility capacities required to serve the maximum build-out of the Community Plan. See pages 69 to end of document.
- Conceptual Plans including:
  - Grading plan. See page 87.
  - Open Space Management Plan. See page 45.
  - Fire Protection Plan. See page 93.
  - Elements that address existing physical characteristics of the site and how environmental issues will be protected. See page 89.
  - Common area maintenance provisions and timely open space phase dedication. See page 45.
  - Architectural Standards. See pages 35-41.
- All exhibits illustrate the intended goals for the Wildflower Community Plan.



## **Village Plan**

A Village Plan is defined as detailed plans for the development and implementation of an entire Community Plan or individual phases or sub-areas of a Community Plan. It contains a set of regulations that apply to a defined geographic area and combines specific development standards, design guidelines, infrastructure plans, and other elements as appropriate into a single document. Village Plans establish transect sub-district boundaries, minor thoroughfares and civic special districts.

- a. Village Plans are prepared by the landowner and/or their agents or designees in consultation with the Planning Department.
- b. Multiple Village Plans may be submitted concurrently.
- c. Each Village Plan may include one or multiple plats. The Land Use Authority has administrative authority over Village Plans after review and recommendation from the Planning Commission public hearing.
- d. Village Plans must be prepared in a manner consistent with a governing Community Plan.
- e. Village Plans are regulated by Section 19.26 of the Saratoga Springs Municipal Code.

## **Preliminary and Final Plats**

Preliminary and Final Plats pertain to individual lots and establish building placement, form, materials, sitework, landscaping and other elements required for permitting.

- a. This Chapter does not supersede building and life safety codes, adherence to which are also required for permitting.
- b. Preliminary and Final Plats are prepared by the landowner and/or their agents or designees.
- c. Preliminary and Final Plats must be consistent with the approved Village Plan.
- d. Preliminary and Final Plats shall run through the approval process found in the Saratoga Springs Municipal Code Section 19.12 and 19.13.
- e. Every recorded Plat within one-half mile of Camp Williams shall have a required notification stating: "Some or all of the property within this [residential/commercial] development lies within a Military Influence Overlay District (MCAOD) and may be subject to noise and vibration impacts as well as subject to increased lighting and building standards. Additional information regarding the overlay district, as well as potential impacts to properties, can be obtained from the Saratoga Springs City Planning Department."
- f. Every recorded plat within one-half mile of existing mink farms shall have a required notification stating such.



- g. Every recorded plat within one-half mile of a mining facility shall have a required notification regarding the potential for blasting.

## Design Principles and Concepts

Wildflower provides a desirable community, in which residents will live, work and recreate. The community offers a variety of residential housing types and provides for future commercial development. In conjunction with the Community Plan document, the following guiding principles will be implemented throughout Wildflower:

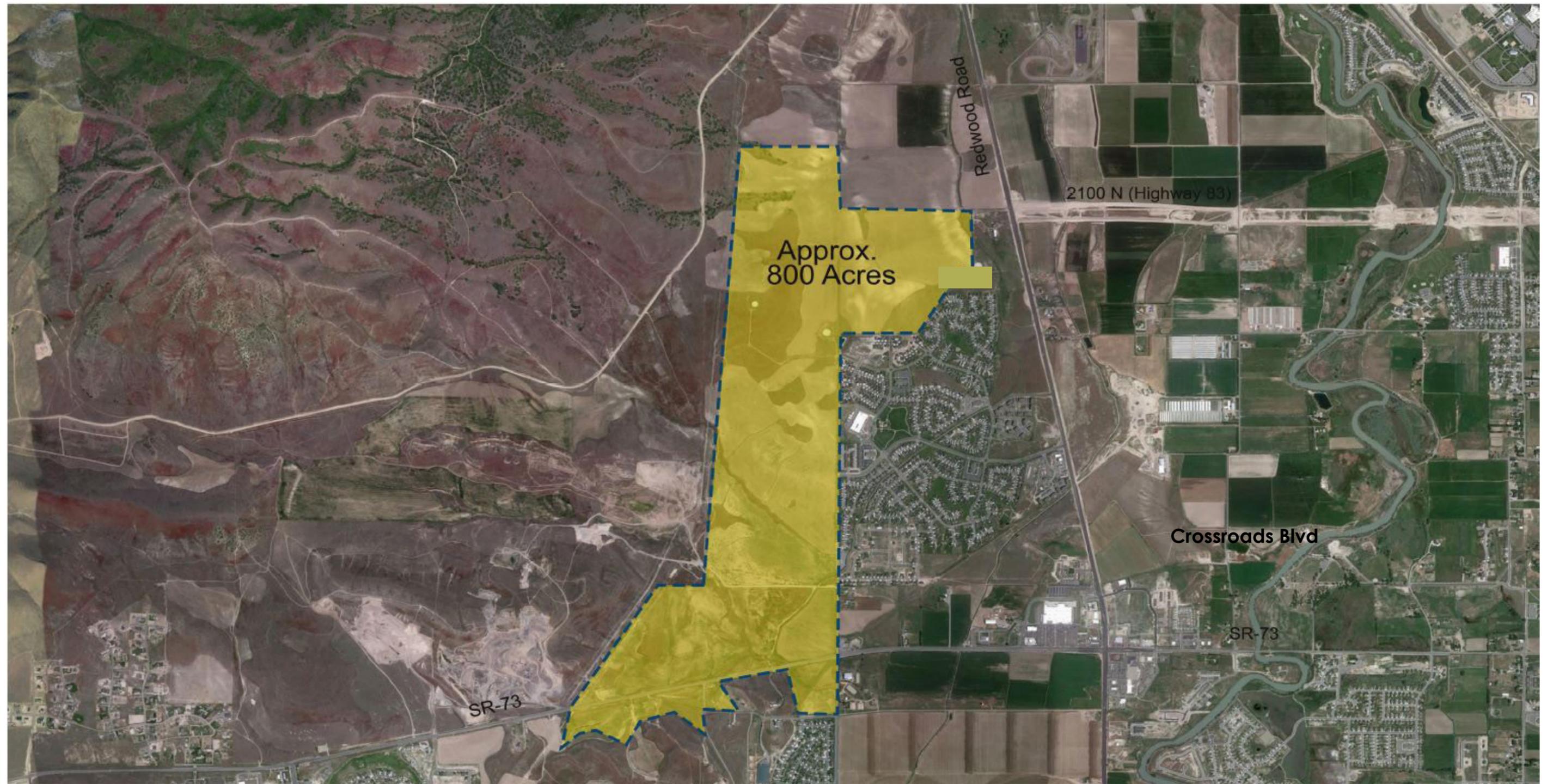
- **Transportation Plan and Streetscape:** Effective planning of street and pedestrian thoroughfares will reduce the duration and length of vehicle trips throughout the community. These thoroughfares will also provide appealing streetscapes, which incorporate attractive neighborhood entrance features and attractive open space landscaping. A variety of transportation systems are illustrated which include: vehicular systems, bicycle trail systems and pedestrian walks/trails and possible future bus routes.
- **Open Space Parks and Recreation:** Provide a network of parks and open space which provide connectivity through neighborhoods and serve as desirable spaces for both youth and adult recreation. See Exhibit Four: Open Space Exhibit found on page 46.
- **Character:** Create a diverse yet harmonious variety of housing types, which accommodate a range of ages, lifestyles and income levels. Subtle variations in building materials, lot sizes and home square footages will provide unique character to each housing product type and establish individual neighborhood identities while maintaining an overall harmonious theme throughout the community. Creating a clear distinction between each neighborhood, yet maintaining a natural flow throughout the community will be established by effectively designing open space and trail networks as well as signage and landscape treatments.
- The Wildflower Community is committed to the Dark Sky Initiative as a guiding principal for lighting regulations in this planned community. Along with the Dark Sky Initiative, this project will conform to the Saratoga Springs Residential Street Light Details and chapter 19.11 of the Saratoga Springs Municipal Code.



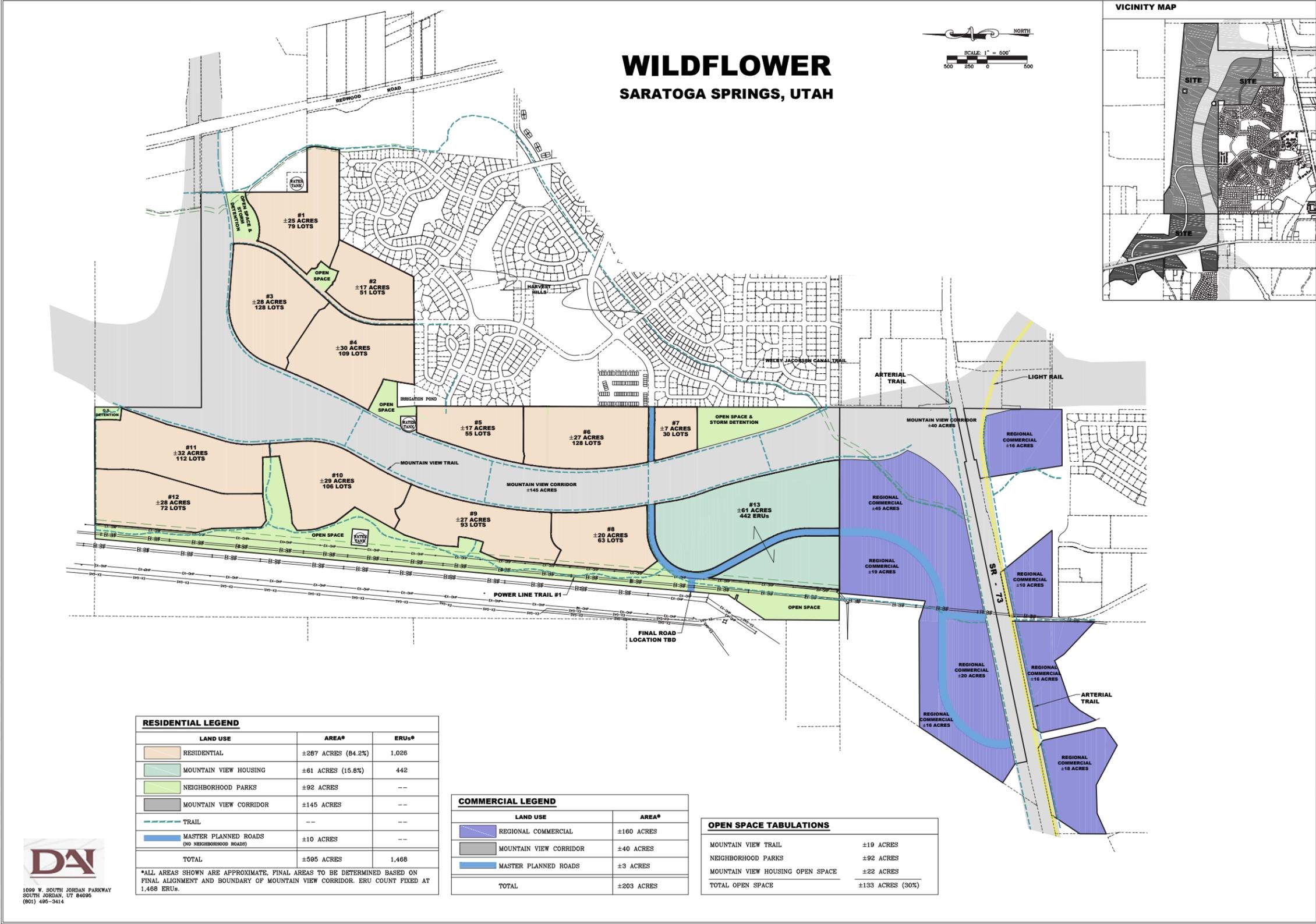
- Landscaping: The Wildflower Community Plan shall preserve and generally heighten the area's natural elements and enhance architectural features, the character of homes, buildings, streetscapes, trails and/or open space areas. The purpose is to preserve existing views as well as provide areas of intermittent shade and screening to meet the requirements of 19.06 of the Saratoga Springs Municipal Code, in addition to buffering and sound attenuation from the future Mountain View Corridor.
- Commercial: Approximately 200 acres will be preserved for future commercial and office development. Office, warehouse, retail and other commercial uses will likely be viable in this location. Such commercial growth will enhance the level of enjoyment and commercial growth envision in Norther Utah County.
- Parking: Wildflower parking parameters shall follow the Parking Regulations in section 13.02 of Saratoga Springs City Municipal Code Parking Regulations and section 19.09 for Off-Street Parking Requirements.
- Establish development parameters to mitigate the immediate and future anticipated impacts of the Mountain View Corridor. This includes appropriate buffering for each individual neighborhood area in the Village Plan documents.



# EXHIBIT ONE: Project Location



# EXHIBIT TWO: Land Use Master Plan



**LEI**  
**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**  
 3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.9393  
 office@lei-eng.com  
 www.lei-eng.com

**WILDFLOWER**  
 SARATOGA SPRING, UTAH  
**MASTER PLAN**

RESIDENTIAL LEGEND		
LAND USE	AREA*	ERUs*
RESIDENTIAL	±287 ACRES (84.2%)	1,026
MOUNTAIN VIEW HOUSING	±61 ACRES (15.8%)	442
NEIGHBORHOOD PARKS	±92 ACRES	---
MOUNTAIN VIEW CORRIDOR	±145 ACRES	---
TRAIL	---	---
MASTER PLANNED ROADS (NO NEIGHBORHOOD ROADS)	±10 ACRES	---
<b>TOTAL</b>	<b>±595 ACRES</b>	<b>1,468</b>

\*ALL AREAS SHOWN ARE APPROXIMATE. FINAL AREAS TO BE DETERMINED BASED ON FINAL ALIGNMENT AND BOUNDARY OF MOUNTAIN VIEW CORRIDOR. ERU COUNT FIXED AT 1,468 ERUs.

COMMERCIAL LEGEND	
LAND USE	AREA*
REGIONAL COMMERCIAL	±160 ACRES
MOUNTAIN VIEW CORRIDOR	±40 ACRES
MASTER PLANNED ROADS	±3 ACRES
<b>TOTAL</b>	<b>±203 ACRES</b>

OPEN SPACE TABULATIONS	
MOUNTAIN VIEW TRAIL	±19 ACRES
NEIGHBORHOOD PARKS	±92 ACRES
MOUNTAIN VIEW HOUSING OPEN SPACE	±22 ACRES
<b>TOTAL OPEN SPACE</b>	<b>±133 ACRES (30%)</b>

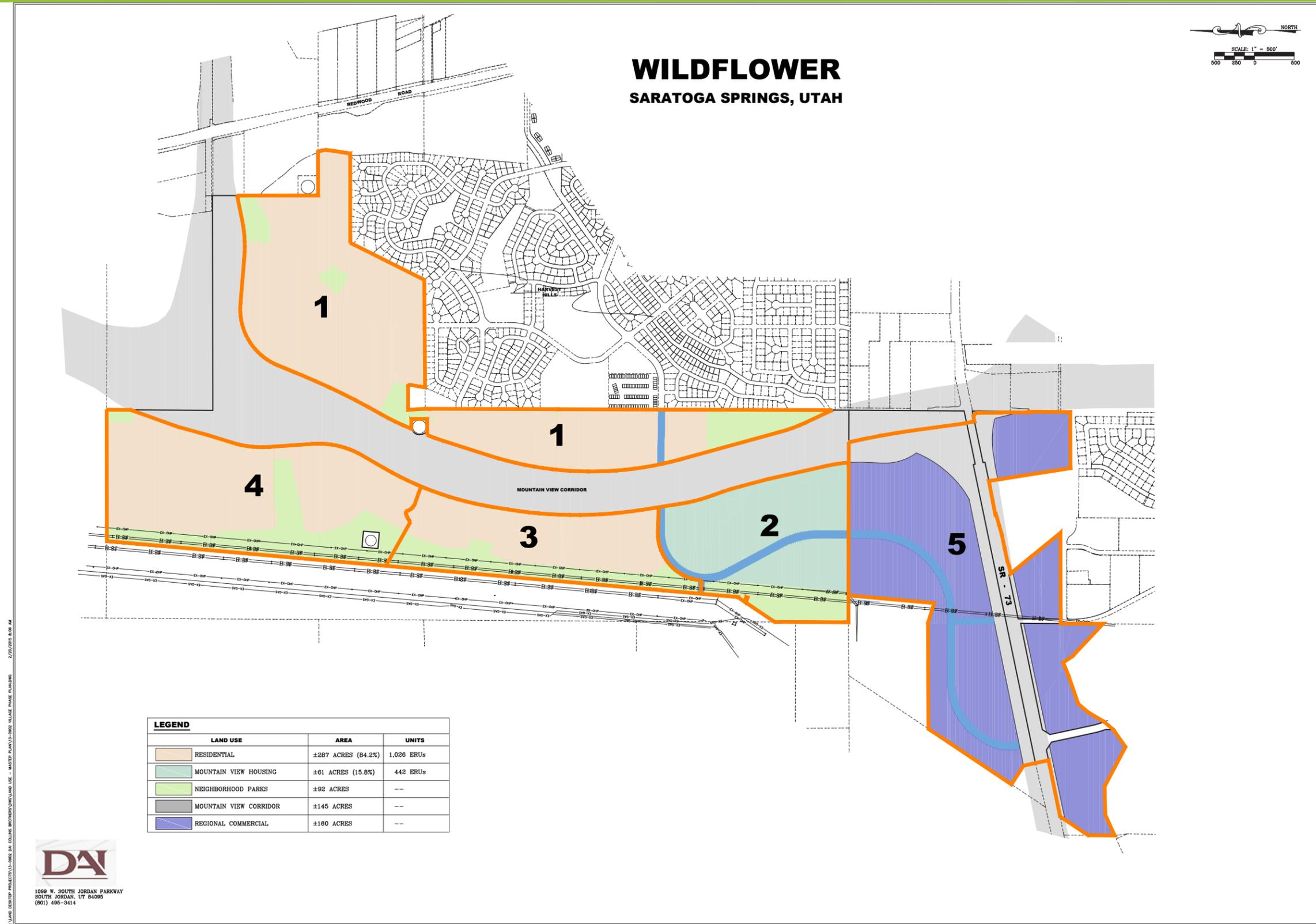


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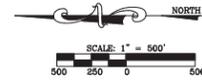
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 2013-0902  
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 BLS/TJP  
 CHECKED BY:  
 GDM  
 SCALE:  
 1" = 500'  
 DATE:  
 2/25/2015

**1**

# EXHIBIT THREE: Village Phasing Plan



## WILDFLOWER SARATOGA SPRINGS, UTAH



**ENGINEERS  
SURVEYORS  
PLANNERS**

3302 N. Main Street  
Spanish Fork, UT 84660  
Phone: 801.798.0555  
Fax: 801.798.9393  
office@lei-eng.com  
www.lei-eng.com

**WILDFLOWER  
SARATOGA SPRING, UTAH  
VILLAGE PLAN PHASING**

LEGEND		
LAND USE	AREA	UNITS
RESIDENTIAL	±287 ACRES (84.2%)	1,026 ERUs
MOUNTAIN VIEW HOUSING	±61 ACRES (15.8%)	442 ERUs
NEIGHBORHOOD PARKS	±92 ACRES	---
MOUNTAIN VIEW CORRIDOR	±145 ACRES	---
REGIONAL COMMERCIAL	±160 ACRES	---



1069 W. SOUTH JORDAN PARKWAY  
SOUTH JORDAN, UT 84095  
(801) 496-3414

REVISIONS	
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## Legal Description

### Residential Area East of Mountain View Corridor

A Portion of the West Half of Section 10 and the South Half of Section 3, Township 5 South, Range 1 West, Salt Lake Base and Meridian, described as follows:

Beginning at the North 1/4 Corner of Section 10, Township 5 South, Range 1 West, Salt Lake Base and Meridian; thence  $S0^{\circ}11'02''W$  along the Quarter Section Line 5113.57 feet to the proposed easterly right-of-way line of Mountain View Corridor; thence along said right-of-way line the following seven (7) courses: northwesterly along the arc of a 2062.50 foot radius non-tangent curve to the left (radius bears:  $S66^{\circ}56'14''W$ ) 68.66 feet through a central angle of  $1^{\circ}54'26''$  (chord:  $N24^{\circ}00'59''W$  68.66 feet); thence  $N24^{\circ}58'12''W$  309.29 feet; thence along the arc of a 1937.50 foot radius curve to the right 326.07 feet through a central angle of  $9^{\circ}38'34''$  (chord:  $N20^{\circ}08'56''W$ );  $N15^{\circ}19'39''W$  1319.02 feet; thence along the arc of a 4200.00 foot radius curve to the right 2424.99 feet through a central angle of  $33^{\circ}04'53''$  (chord:  $N1^{\circ}12'47''E$  2391.44 feet); thence  $N17^{\circ}45'14''E$  609.55 feet; thence along the arc of a 3000.00 foot radius curve to the right 207.76 feet through a central angle of  $3^{\circ}58'04''$  (chord:  $N19^{\circ}44'16''E$  207.72 feet); thence East 203.35 feet; thence North 200.00 feet; thence West 123.48 feet to the proposed easterly right-of-way line of Mountain View Corridor; thence along said right-of-way line the following eight (8) courses:  $N21^{\circ}46'10''E$  11.84 feet; thence along the arc of a 3000.00 foot radius curve to the right 416.44 feet through a central angle of  $7^{\circ}57'12''$  (chord:  $N25^{\circ}44'46''E$  416.10 feet); thence along the arc of a 8590.00 foot radius curve to the left 1087.91 feet through a central angle of  $7^{\circ}15'23''$  (chord:  $N26^{\circ}05'41''E$  1087.18 feet); thence  $N22^{\circ}27'59''E$  342.75 feet; thence along the arc of a 760.00 foot radius curve to the right 959.86 feet through a central angle of  $72^{\circ}21'47''$  (chord:  $N58^{\circ}38'53''E$  897.33 feet); thence  $S85^{\circ}10'13''E$  581.77 feet; thence along the arc of a 1660.00 foot radius curve to the left 472.75 feet through a central angle of  $16^{\circ}19'02''$  (chord:  $N86^{\circ}40'16''E$  471.15 feet); thence  $N78^{\circ}30'45''E$  314.16 feet to the East Line of Section 3, Township 5 South, Range 1 West, Salt Lake Base and Meridian; thence  $S0^{\circ}05'10''E$  along the Section Line 1016.66 feet; ; thence  $N89^{\circ}51'58''E$  547.97 feet to the East Bank of the Jacob Welby Canal; thence along the said East Bank the following six (6) courses:  $S16^{\circ}33'17''E$  43.07 feet; thence  $S9^{\circ}58'30''E$  53.91 feet; thence  $S6^{\circ}37'28''W$  103.89 feet; thence  $S9^{\circ}27'03''W$  107.43 feet; thence  $S8^{\circ}32'21''W$  53.31 feet; thence  $S6^{\circ}29'17''W$  48.17 feet; thence  $N89^{\circ}58'51''W$  1118.84 feet to the Northwest Corner of Plat "W", Harvest Hills Subdivision; thence  $S26^{\circ}33'37''W$  along the westerly line of Plats "W & R/S",



Harvest Hills Subdivisions 1040.70 feet; thence S89°36'29"W along Plats "Z, AA & CC" Harvest Hills Subdivisions 1346.34 feet; thence N9°35'01"E 216.50 feet; thence West 315.47 feet; thence S3°19'17"E 215.67 feet to the point of beginning. Contains 176.49 acres.

### **Residential Area West of Mountain View Corridor**

A Portion of the West Half of Section 10 and West Half of Section 3, Township 5 South, Range 1 West, Salt Lake Base and Meridian, described as follows:

Beginning at the Southwest Corner of Section 10, Township 5 South, Range 1 West, Salt Lake Base and Meridian; thence N0°20'24"E along the Section Line 928.72 feet; thence N33°57'04"E 432.41 feet; thence S70°29'56"E 67.56 feet; thence N19°30'04"E 20.00 feet; thence N70°29'56"W 62.40 feet; thence N33°57'04"E 103.50 feet; thence N5°03'04"E 7949.57 feet; thence N89°52'43"E 1644.05 feet; thence S0°17'28"W 304.24 feet to the proposed westerly right-of-way line of Mountain View Corridor; thence along said right-of-way line the following twelve (12) courses: thence southwesterly along the arc of a 1000.00 foot radius non-tangent curve to the left (radius bears: S69°02'57"E) 21.43 feet through a central angle of 1°13'41" (chord: S20°20'12"W 21.43 feet); thence S19°43'22"W 600.87 feet; thence S15°24'52"W 391.36 feet; thence S17°09'12"W 330.78 feet; thence along the arc of a 1229.50 foot radius curve to the left 452.55 feet through a central angle of 21°05'21" (chord: S6°36'32"W 450.00 feet); thence S3°56'09"E 560.76 feet; thence along the arc of a 1085.00 foot radius curve to the right 643.69 feet through a central angle of 33°59'29" (chord: S13°03'36"W 634.29 feet); thence S30°03'20"W 320.30 feet; thence along the arc of a 4000.00 foot radius curve to the left 1453.26 feet through a central angle of 20°48'59" (chord: S19°38'51"W 1445.28 feet); thence S9°14'21"W 197.23 feet; thence along the arc of a 5312.50 foot radius curve to the left 1686.05 feet through a central angle of 18°11'03" (chord: S0°08'50"W 1678.98 feet); thence S8°56'42"E 494.69 feet; thence along the arc of a 2074.50 foot radius curve to the left 426.55 feet through a central angle of 11°46'52" (chord: S14°50'08"E 425.80 feet); thence along the arc of a 3400.00 foot radius curve to the right 353.95 feet through a central angle of 5°57'53" (chord: S17°44'37"E 353.79 feet); thence S14°45'41"E 361.44 feet; thence S12°37'19"E 764.34 feet; thence along the arc of a 1800.00 foot radius curve to the right 268.03 feet through a central angle of 8°31'54" (chord: S8°21'22"E 267.78 feet) to the South Line of said Section 10; thence N89°52'02"W along the Section Line 1999.77 feet to the point of beginning.

Contains: ±274.14 Acres

LESS AND EXCEPTING THEREFROM THE FOLLOWING PROPERTY:

All of that real property owned by the City of Saratoga Springs as described in Deed Entry No. 3238:2014 in the official records of the Utah County Recorder.



## Future Commercial Properties

The following metes and bounds descriptions have been taken from the tax notices associated with the individual Collins Brothers Land Development, LLC and Collins Brothers Oil Co parcels as contained within the records of the Utah County Recorder. No property boundary survey has been conducted.

PARCEL NO.	ACREAGE
58:033:0346	88.05

COM S .79 FT & E 335.82 FT FR NW COR. SEC. 15, T5S, R1W, SLB&M.; S 89 DEG 52' 8" E 1917.83 FT; S 12 DEG 44' 50" E .32 FT; ALONG A CURVE TO R (CHORD BEARS: S 10 DEG 28' 29" E 797 FT, RADIUS = 9795.65 FT); S 7 DEG 44' 6" E 240.05 FT; S 7 DEG 45' 6" E 59.49 FT; S 7 DEG 44' 6" E 376.04 FT; S 78 DEG 11' 20" W 338.59 FT; S 78 DEG 31' 24" W 220.46 FT; S 11 DEG 57' 1" E 4.4 FT; S 78 DEG 3' 0" W 1998.51 FT; N 0 DEG 21' 5" E 993.63 FT; S 72 DEG 20' 25" E 200 FT; S 72 DEG 21' 26" E 58.55 FT; N 5 DEG 5' 6" E 1078.18 FT TO BEG.

LESS AND EXCEPTING THEREFROM THE FOLLOWING PROPERTY:

All of that real property owned by Western States Ventures, LLC as described in Deed Entry No. 61632:2013 in the official records of the Utah County Recorder.

58:033:0308	46.50
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COM S 0 DEG 21' 5" W 996.308 FT FR NE COR. SEC. 16, T5S, R1W, SLB&M.; S 0 DEG 21' 5" W 1010.57 FT; S 78 DEG 26' 26" W 2354.4 FT; N 33 DEG 39' 57" E 7.09 FT; N 78 DEG 3' 0" E 566.03 FT; N 11 DEG 54' 55" W 161.58 FT; N 56 DEG 54' 37" W 280.52 FT; N 33 DEG 40' 0" E 2453.05 FT; N 89 DEG 46' 39" E 1.85 FT; S 33 DEG 40' 0" W 1200.2 FT; N 89 DEG 46' 21" E 1327.16 FT TO BEG.

58:033:0317	20.03
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COM N 897.22 FT & E 1785.86 FT FR W 1/4 COR. SEC. 15, T5S, R1W, SLB&M.; N 78 DEG 3' 0" E 240.72 FT; N 11 DEG 57' 0" W 25 FT; N 78 DEG 3' 0" E 589.15 FT; S 43 DEG 55' 49" E 51.41 FT; S 0 DEG 19' 9" E 302.87 FT; S 89 DEG 40' 11" E 5.23 FT; S 0 DEG 19' 46" W 297.36 FT; S 0 DEG 1' 42" E 56.56 FT; N 89 DEG 58' 17" E 21.63 FT; S 0 DEG 26' 0" W 528.87 FT; S 85 DEG 41' 35" W 28.62 FT; N 56.16 FT; S 85 DEG 41' 35" W 688.66 FT; N 89 DEG 12' 45" W 610.69 FT; N 0 DEG 24' 1" E 9.02 FT; S 89 DEG 20' 0" E 621.82 FT; N 9



DEG 2' 0" W 1026.65 FT TO BEG.

58:033:0327 11.30

COM N 15.15 FT & E 56.1 FT FR W 1/4 COR. SEC. 15, T5S, R1W, SLB&M.; N 0 DEG 22' 11" E 516.71 FT; N 78 DEG 3' 0" E 349.22 FT; S 87 DEG 8' 25" E 86.86 FT; N 78 DEG 12' 2" E 140.75 FT; S 39 DEG 12' 0" E 810.1 FT; S 89 DEG 57' 30" W 1066.49 FT; ALONG A CURVE TO R (CHORD BEARS: N 44 DEG 49' 22" W 21.29 FT, RADIUS = 15 FT) TO BEG.

58:033:0183 11.09

COM AT E 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; N 89 DEG 7' 53" W 1324.19 FT; N 89 DEG 7' 53" W 40.9 FT; N 12 DEG 7' 19" W 117.46 FT; N 32 DEG 52' 45" E 113.65 FT; N 78 DEG 26' 26" E 1358.56 FT; S 0 DEG 21' 5" W 503.23 FT TO BEG.

58:033:0193 7.90

COM S .06 FT & W .01 FT FR E 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; S 0 DEG 22' 11" W 529.82 FT; N 46 DEG 39' 38" W 560.72 FT; N 34 DEG 8' 20" W 138.69 FT; S 67 DEG 13' 32" W 178.58 FT; S 71 DEG 2' 2" W 369.75 FT; S 40 DEG 46' 48" W 158.96 FT; S 30 DEG 49' 21" W 240.03 FT; ALONG A CURVE TO R (CHORD BEARS: N 16 DEG 48' 2" W 155.73 FT, RADIUS = 954.64 FT) ARC LENGTH = 155.91 FEET; N 12 DEG 7' 19" W 238.26 FT; N 0 DEG 22' 48" E 184.03 FT; S 89 DEG 7' 53" E 1324.19 FT TO BEG.

58:033:0192 0.09

COM N 20.02 FT & W 1324.1 FT FR E 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; S 0 DEG 22' 48" W 183.79 FT; N 12 DEG 7' 19" W 188.61 FT; S 89 DEG 7' 53" E 40.83 FT TO BEG.

58:033:0187 18.39

COM N 1929.25 FT & E 13.15 FT FR S 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; N 0 DEG 23' 26" E 333.02 FT; N 33 DEG 40' 0" E 423.69 FT; N 78 DEG 26' 26" E 130.85 FT; S 89 DEG 7' 53" E 824.29 FT; S 12 DEG 6' 53" E 449.27 FT; ALONG A CURVE TO L (CHORD BEARS: S 16 DEG 11' 33" E 147.98 FT, RADIUS = 1050.64 FT) ARC LENGTH = 148.10 FEET; S 0 DEG 22' 48" W 101.65 FT; S 54 DEG 53' 55" W 264.91 FT; N 62 DEG 2'



57" W 559.96 FT; S 88 DEG 25' 20" W 355.07 FT; S 65 DEG 40' 14" W 283.27 FT TO BEG.

58:033:0194                      0.04

COM S 637.72 FT & W 1295.66 FT FR E 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; S 54 DEG 53' 55" W 40.22 FT; N 0 DEG 22' 48" E 101.48 FT; ALONG A CURVE TO L (CHORD BEARS: S 21 DEG 53' 12" E 60.43 FT, RADIUS = 1050.64 FT) ARC LENGTH = 60.43 FEET; S 23 DEG 32' 4" E 24.3 FT TO BEG.

58:033:0184                      1.56

COM N 22.19 FT & W 1463.5 FT FR E 1/4 COR. SEC. 16, T5S, R1W, SLB&M.; N 89 DEG 7' 53" W 824.22 FT; N 78 DEG 26' 26" E 720.3 FT; S 57 DEG 6' 56" E 117.21 FT; S 12 DEG 6' 53" E 95.31 FT TO BEG.



## Equivalent Residential Unit Transfers

An Equivalent Residential Unit (ERU) is defined by the Saratoga Springs Municipal Code as a unit of measurement to evaluate development impacts on public infrastructure including water, sewer, storm drainage, parks, roads and public safety of proposed residential and commercial land uses. Every residential and commercial unit is a minimum of one ERU. Since build-out of the Wildflower development will occur over many years, flexibility is necessary to respond to market conditions, site conditions, and other factors. Therefore, residential density ERUs may be transferred within the project as necessary to improve design, accessibility, and marketability. The City acknowledges that the master developer shall have the ability in its reasonable business judgment to transfer ERUs between residential areas within the project upon written notice to the City and delivery to the City of written consent of the property owners of the neighborhoods which are sending and receiving such densities (if different from the master developer), so long as any such transfer adheres to the following standards:

- a. The maximum number of ERUs established in the Community Plan for all residential neighborhoods shall not exceed 1,468 as shown in the Land Use Master Plan.
- b. The maximum number of Commercial ERUs shall be established at time of Village Plan and shall be subject to the Saratoga Springs Municipal Code.
- c. Any transfer of ERUs into or out of any neighborhood type established in the Community Plan shall not exceed fifteen percent (15%) without approval of the City Council. In no case shall the transfer of ERUs into or out of any land use designation or district exceed twenty-five (25%) of that established in the Community Plan. ERU transfers shall comply with the neighborhood breakdown on page 27.
- d. ERUs may not be transferred from a more intensive neighborhood into a less intensive neighborhood designated in this Community Plan located east of the identified Mountain View Corridor and bordering any portion of the Harvest Hills subdivision if such transfer would result in single family lots smaller than 4,500 square feet. Single Family Lots of less than 4,500 square feet are permitted in the Mountain View Housing Neighborhood.
- e. ERUs may not be transferred into any open space or park unless said use and acreage is replaced elsewhere within the same neighborhood.
- f. Density transfers will be finalized at time of Village Plan.



## Density

The Wildflower development started with an R-3 zone which typically yields approximately 2.5 units per acre. The overall density was calculated by taking the residential acreage of 588 (595 acres less sensitive lands) multiplied by 2.5 to get 1,468 residential units. The density under the Mountain View Corridor shall be relocated throughout the residential portion of the project with the majority of the density being transferred to the Mountain View Housing area shown on the Land Use Master Plan (see Exhibit Two) with 442 units over approximately 61 acres for an average density of 7.25 units per acre. The units outside of the Mountain View Housing shall consist of 1,026 units spread out in the residential area of approximately 379 acres (including parks and open space) for an average of 2.7 units per acre.

## Buildout Allocation

The Wildflower Community will have a variety of housing types and lot sizes to accommodate a mix of income levels, age ranges and lifestyles from the young professional to the retired grandparent. The housing types will vary based on the location within the Residential area or the Mountain View Housing Neighborhood area. The remainder of units outside of the 442 located within the Mountain View Housing Neighborhood shall be single family residential with the exception that multi-family may be permitted on the west side of the Mountain View Corridor in logical locations to allow for larger lots elsewhere.

## Regional Commercial

The Regional Commercial use shown on the Land Use Master Plan (see Exhibit Two) will adhere to the Saratoga Springs Municipal Code and further criteria will be submitted for review as part of the Village Plan submittal. A separate Wildflower (Commercial) Design Review Committee will be formed at such time and shall review and approve all proposed Site Plans prior to submittal to the City.



## Neighborhood Philosophy and Character

Open Space and Trail Networks will create a natural flow between neighborhoods. The trails provide easy access to the variety of open space types that will be located throughout the development. Entrance feature areas with monument signage will create a formal delineation of residential neighborhoods; they will allow for passive uses and create neighborhood individuality and identity. Each neighborhood is to provide a variety of price ranges, lot square footage, staggered yard setbacks, and housing types which will also contribute to a sense of entry to each neighborhood. An identifiable, but subtle difference between building materials, lot size, and home square footage will provide a unique character to each home, while still making each neighborhood easily distinguishable.



### Streetscape

The streetscape is an important part of this development that will serve many functions such as project continuity and contributing to the personality of each neighborhood, providing safety for all modes of transportation and creating a sense of place for residents and visitors. Elements including street lights, street furniture, trees and landscaping will contribute to the character of each block. Necked intersections and roundabouts will be used to provide safety for pedestrians and bicyclists; roundabouts will encourage drivers to slow down, improve traffic flow and create areas for an attractive green space with wildflowers and other native plants.



## Wayfinding

Wayfinding will be an essential key to each neighborhood's functionality and character. By providing the correct signage, architectural cues, sight lines and lighting, residents and visitors will find it easy to get around and differentiate between neighborhoods. Providing effective wayfinding will allow the open space network to be used to its full potential and create a sense of safety for people of all ages. The wayfinding signs are designed to connect the existing and established neighborhoods and community with the new development; the open space trail network and proper wayfinding signage will create the transition that is necessary to foster a sense of place, community, ownership and safety. More design detail will be addressed in the Village Plan documents and will comply with the Saratoga Springs Municipal Code Section 19.18.



## Neighborhood Descriptions

### Residential

The Residential area shown on the Land Use Master Plan (see Exhibit Two) will be comprised of single family homes with some multi-family products allowed at the discretion of the City Council and within the allowed ERUs. The single family homes will be of varied design on a range of lot sizes. Single family lot sizes in the development will start at 4,500 square feet and could exceed 20,000 square feet. The neighborhoods shall be walkable. Larger lots shall be located in neighborhoods adjacent to Camp Williams and near existing subdivisions, transitioning to smaller lots as the distance to the Mountain View Corridor nears. Homes will be a variety of styles and colors, allowing neighborhood identities to be established. No multi-family products will be proposed on the east side of the Mountain View Corridor.



## **General Development Standards - Single Family Dwellings**

### Setbacks

Front Yard: 15' min.

Front Access Garage: 20' min.

Side Access Garage: 24' min. (Subject to standard driveway approach widths.)

Rear Yard: 10' min.

Side Yard: Varies by Lot Size measured at front setback

Lot widths between 45' - 50': 5'/10'

Lot widths between 51' - 60': 6'/12'

Lot widths between 61' and greater': 8'/16'

Corner Lots:

Front Yard: 15' min.

Front Access Garage: 20' min.

Side Yard facing a street: 15' min.

Building Height: 35' maximum height measured at the vertical distance from the established, finished grade surface at the building wall to the highest point of the coping of a flat roof or the deck line of a mansard roof; or the mean height level between eaves and ridge for gable, hip, or gambrel roofs.

Lot Size: Varies by neighborhood. See table on page 27. Lot sizes on corner lots shall be increased by 10%.

Lot Width: Lot width varies by neighborhood. See table on page 27.

Lot Frontage: 45' minimum measured at front setback.

Lots adjacent to Harvest Hills: Lots adjacent to the Harvest Hills neighborhood shall be equal to or greater than the average lot width of the adjacent Harvest Hills Plat.

Lot Coverage: 50% max.

Minimum Dwelling Size: To be determined at Village Plan.

Clear View Triangle: All Structures shall be required to maintain a clear view triangle as defined under section 19.06 of the Saratoga Springs Municipal Code.

## **General Development Standards - Accessory Structures Requiring a Building Permit**

### Setbacks

Front Yard: Same as Primary Structure

Side Yard: 5' min.

Rear Yard: 5' min.

Corner: Same as primary structure for front and streetside.

Distance from any dwelling unit: 5' min.

Height: As per Saratoga Springs Municipal Code

\*Accessory Structures shall meet the requirements of the Saratoga Springs Municipal Code section 19.05



## Neighborhood Breakdown

Area	Neighborhood Lot Size Percentage Exceptions	Min. Lot Width at Front Setback	Typical Range of Lot Sizes	Side Yard Setbacks**
Neighborhood 1*	N/A.	60	8,000 - 14,000	6'/12'
Neighborhood 2	Max 10% of lots 8,000 - 9,000 sq. ft.	70	9,000 - 14,000	8'/16'
Neighborhood 3	N/A	45	4,500 - 7,000	5'/10'
Neighborhood 4	Max 25% of lots 4,500 - 5,000 sq. ft.	45	4,500 - 8,000	5'/10'
Neighborhood 5	Max 10% of lots 7,000 - 8,000 sq. ft.	60	8,000 - 11,000	6'/12'
Neighborhood 6	N/A	50	4,500 - 7,000	5'/10'
Neighborhood 7	N/A	45	5,000 - 7,500	5'/10'
Neighborhood 8	Max 20% of lots 6,000 - 7,000 sq. ft.	50	7,000 - 10,000	5'/10'
Neighborhood 9	Max 20% of lots 6,000 - 7,000 sq. ft.	50	7,000 - 11,000	5'/10'
Neighborhood 10	Max 25% of lots 6,000 - 7,500 sq. ft.	50	7,500 - 12,000	5'/10'
Neighborhood 11	Max 20% of lots 5,000 - 6,000 sq. ft.	50	6,000 - 12,000	5'/10'
Neighborhood 12	Max 25% of lots 9,000 - 10,000 sq. ft.	70	9,000 - 20,000	8'/16'
Neighborhood 13***	NA	50	3,500 - 4,500	5'/10'

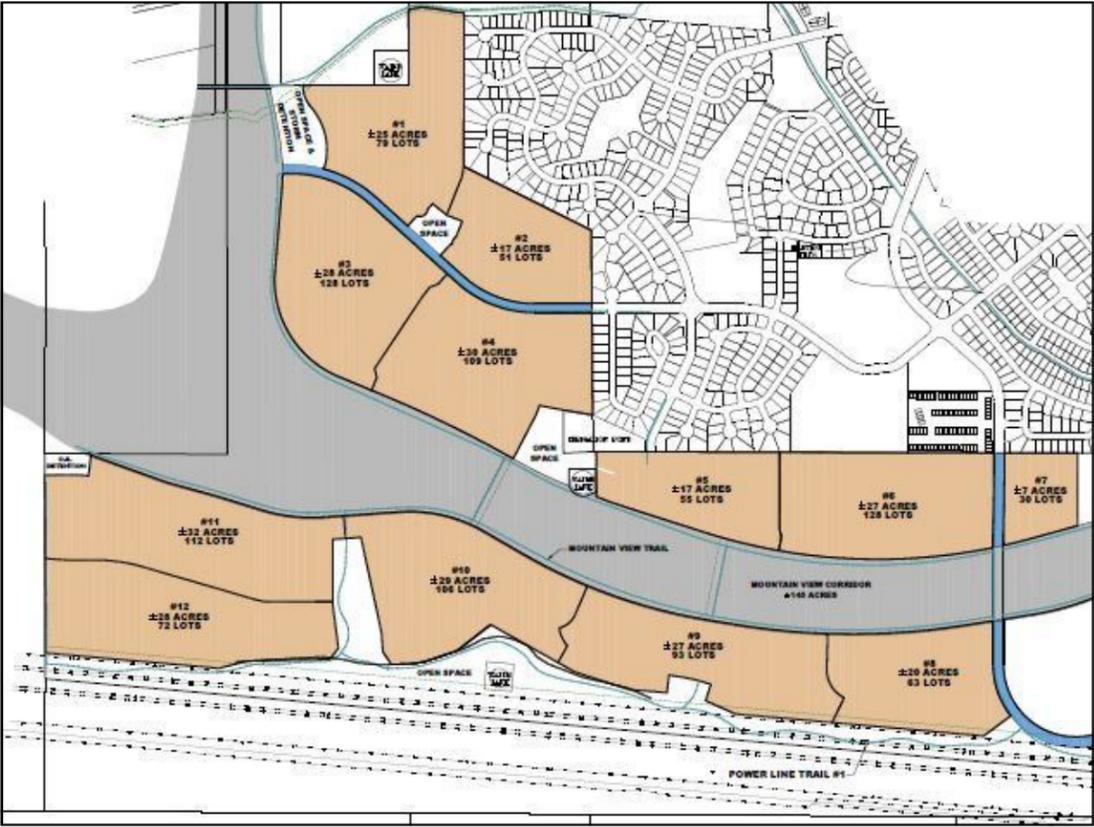
\* In Neighborhood 1, lots immediately adjacent to the Pumpkin Patch Neighborhood of Harvest Hills shall be equal to or greater than 10,000 square feet.

\*\*Summary of setbacks. Full setback details can be found on page 26.

\*\*\*Cluster Homes located in Multi-family area. See pages 30-32 for product description.



# Residential Single Family



## Mountain View Housing

The Mountain View Housing neighborhood subdivisions have been planned around the future installation of the Mountain View Corridor. The plan allows for a higher density residential use to properly transition from the single family areas to more intense commercial areas. The Mountain View Housing neighborhoods may include a mix of smaller, single family cluster homes, traditional front loaded townhomes and rear loading townhomes. No stacked apartments or condominiums are permitted. Pockets of single family cluster homes may offset medium density townhome products, but shall not exceed overall ERUs for the area. Overall density within the Mountain View Housing area shall not exceed 442 units.



## **General Development Standards - Townhomes**

Townhomes are typically defined as a row of houses built in a similar style and sharing common walls as well as having a separate entrance for each dwelling. Townhomes may be front loaded or rear loaded with attached courtyards.

Setbacks: Will be determined at Village Plan per Section 19.26.

Height: 35' maximum height measured at the vertical distance from the established grade to the highest point of the coping of a flat roof or the deck line of a mansard roof; or the mean height level between eaves and ridge for gable, hip, or gambrel roofs. No stacked units are permitted.

Garages: Two car garages are required.

Parking: Off street guest parking shall be provided for any product with less than a 20' driveway, at a minimum rate of 0.25 spaces per unit. 2.25 parking spaces required per unit.

Open Space: 30% min.

## **General Development Standards - Single Family Cluster Homes**

Cluster Homes share similar characteristics of traditional single family homes. Lot sizes are smaller and typically front a shared driveway.

### Setbacks

Front Yard: 15' min.

Front Access Garage: 20' minimum measured from back of any sidewalk or edge of a shared driveway unless additional parking is provided for.

Rear Yard: 10' min.

Corner Lots: 10' on side facing street.

Building Height: 35' maximum height measured at the vertical distance from the established grade to the highest point of the coping of a flat roof; or the mean height level between eaves and ridge for gable, hip, or gambrel roofs.

Lot Size: 3500-4500 sq. ft.

Min. Lot Width: 50' ft.

Lot Coverage: 60%

Min. Dwelling Size: To be determined at Village Plan.

Clear View Triangle: All Structures shall be required to maintain a clear view triangle as defined under section 19.06 of the Saratoga Springs Municipal Code. Cluster Lots accessing from a shared driveway are subject to a 15' site triangle.

Garages: Two car garages are required.

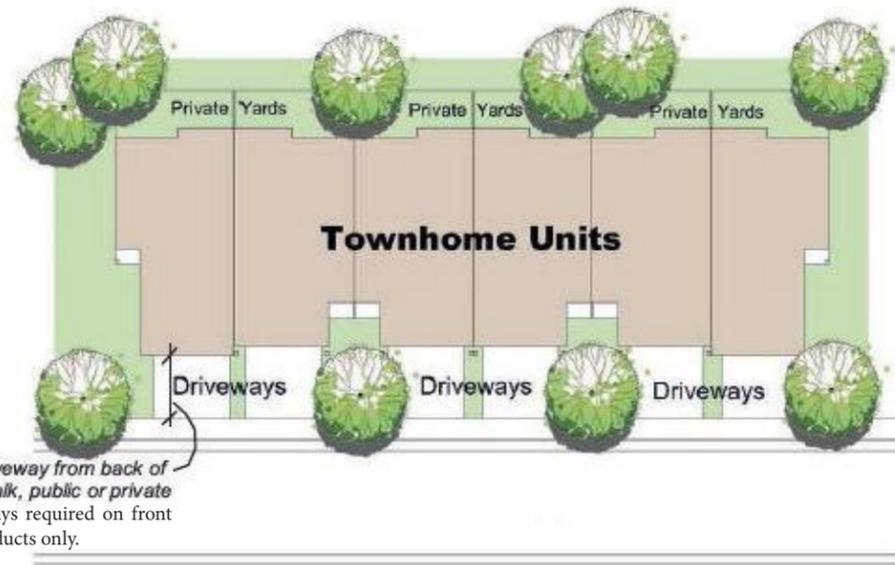
Parking: Off street guest parking shall be provide for any product with less than a 20' driveway at a rate of 0.25 spaces per unit. 2.25 parking space required per unit.



# Mountain View Housing Townhomes



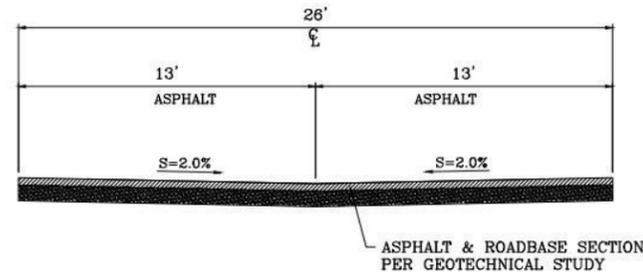
**Courtyard Townhomes**



**Traditional Front Loading Townhomes**



# Mountain View Housing Cluster



**SHARED DRIVEWAY**  
26' Shared Driveway



\*Minimum 20' driveway from back of any sidewalk or shared driveway.

**Typical Layout**

# Mansion Style Concept



Actual layout in Daybreak



Proposed product type located in Saratoga Springs



**"THE MANSIONS"**  
(Alley Loaded)

Located in Daybreak, UT

Builder: Holmes Homes approx. 2009

3 plex

Density 6-8 du/ac

Product Type is designed to appear as a large single family home but is a multi-family attached 3 plex building.



\*Product type is conceptual and demonstrates the design principles that may be allowed in the Residential or Mountain View Housing areas depicted on the Master Plan. The developer retains the right to modify the product type to meet Architectural Guidelines.

## Residential WDRC

### Wildflower Design Review Committee (WDRC)

In order to create, maintain and improve the Project as a pleasant, desirable and sustainable community, and to establish and implement a consistent and harmonious design concept and to protect and promote the present and future values of Wildflower Development, all exterior, architectural building elevations and building materials, colors and usage design, site plan and landscape treatments, wall and fencing, and signage within the Project shall be subject to a Design Review Process and approval by the established Wildflower Development Review Committee (WDRC).

The WDRC shall review and approve all residential site plans and building permits prior to beginning the City of Saratoga Springs submittal and review processes. The WDRC shall consist of representatives from the following: The Master Developer and a selected team of design professionals, i.e. planners, engineers, architects, contractors, etc. The Master Developer shall retain the right to retain or replace members of the WDRC at its discretion.



## Architectural Guidelines

The standards listed below are to be viewed as design guidelines for the homes of the Wildflower at Saratoga Springs Development. The architectural styles listed can be used in many variations to create the unique and individual character desired for each family home. Examples of Architectural styles have been provided however the binding guidelines for each neighborhood shall be established at Village Plan.

Repetitious and homogenous building styles are not permitted in the Wildflower Community; a variety of housing types, color variations and types of materials will help create the unique neighborhoods that will make up the development. Single family homes with the same style, floor plan or color scheme will not be built on lots next to, adjacent to or across the street from each other, further details will be provided with the Village Plan. Each home will go through the Wildflower Design Review Process before approval is given to build.

Creating a strong sense of place and building a desirable community are the goals of the chosen architectural styles for Wildflower at Saratoga Springs. Each style will contribute to the character of the neighborhoods and the individuality of every home will create an attractive streetscape throughout the development. Elements such as roof shape and pitch, window size, shape and placement, or construction materials such as brick, stucco or wood can all be used to create the subtle details that foster individuality in a home.



## Housing Styles and Examples

### **Contemporary (Final Housing Styles to be determined by WDRC and approved at each Village Plan)**

Wildflower contemporary homes integrate a wide number of style features, mixing historic elements with current lifestyle concepts, resulting in homes that connect to the outdoors, while establishing a warm and inviting living environment. This unique housing style does not reflect any specific time period, allowing nostalgia for other styles to create an individual interpretation. The following features identify a Contemporary style home:

- Low roof pitches
- Large windows
- One or two stories
- Hip roof forms with extended eaves
- Clean lines and detailing
- Heavy front porch details
- Lap siding or stucco with masonry details
- Extensive use of natural light
- Open floor plan
- Indoor and outdoor living spaces



Low Pitched Roof



Home Examples



Lap Siding with Masonry Details



Clean Lines and Detailing



## **Craftsman (Final Housing Styles to be determined by WDRC and approved at each Village Plan)**

Wildflower craftsman homes present a more intimate style with the use of simple forms and natural materials such as wood, brick and stone and interesting details, giving the home a warm and welcoming feeling. This style of home was developed from the Arts and Crafts movement during the 19th and 20th centuries. Some of the first true Craftsman homes were built in California; the open floor plan and lower profile were ideally suited for California's mild year-round climate. Since then many interpretations of this housing style can be seen all over the country, including in Utah. The following features identify a Utah Craftsman style home:

- Low to moderate pitched gable roof
- Decorative beams and braces
- Porches that are either full or partial width
- Porch supports with square or battered column bases
- Wide exterior window and door casing
- Lap siding or stucco with masonry wainscot typical



Porches that are Full or Partial Width



Home Examples



Lap Siding with Masonry Wainscot



Porch Supports with Square Bottoms



## **European (Final Housing Styles to be determined by WDRC and approved at each Village Plan)**

The Wildflower European style combines an old world and romantic charm with modern elements. This style of home showcases many European influences such as Italian influence, Tudor style design cues, Mediterranean floor plans and Spanish home designs; the European style can easily range in size to fit each individual family's needs. These homes are characterized by medium to steep roof pitches, detailed entrances, hip roof forms, arched openings and shutters. Unique elements such as multi-paneled windows of varying sizes, spacious living areas and high ceilings create the unique blend of comfort and refinement. The following features identify a European style home:

- Moderate to high roof pitches
- Hip roof forms
- Arched or square openings
- Decorative front porches
- Shutters



Hip Roof Forms



Home Examples



Arched or Square Openings



Lap Siding with Masonry Wainscot Typical



## **Traditional (Final Housing Styles to be determined by WDRC and approved at each Village Plan)**

The Utah Traditional housing style has been developed over the past few decades, referencing a combination of desert architectural styles, modern elements and the craftsman style. Features such as street-facing garages, multiple gables and setbacks of the front façade and decorative front porches comprise the elements that create a warm, inviting and distinctive home design. The following features identify a Traditional style home:

- Moderate to high roof pitches
- Hip roof forms
- Arched or square openings
- Decorative front porches
- Shutters typical
- Lap siding or stucco with masonry wainscot typical



Shutters Typical



Home Examples



Arched or Square Openings



Moderate to High Roof Pitches



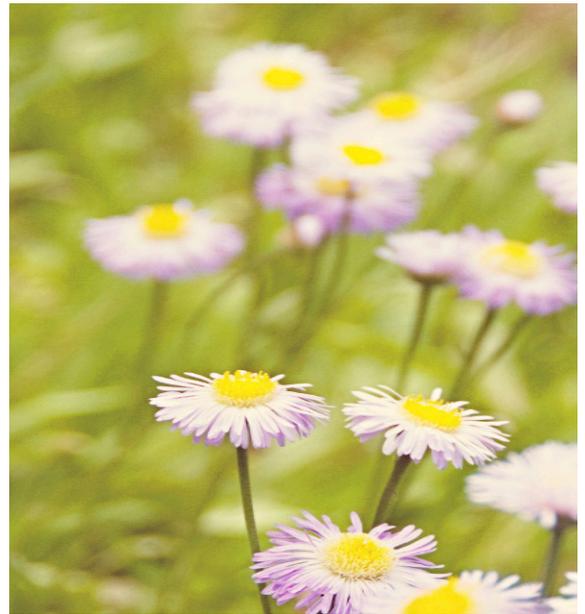
## Landscape Philosophy

The landscaping and open space of the Wildflower Community shall meet the requirements of Saratoga Springs Municipal Code Section 19.06 and 19.26 respectively. The objective is to preserve and generally enhance the areas natural features and character of the homes, buildings, streetscape, trail or open space areas, to strengthen and frame vistas and provide areas of shade intermittently.

Lawn, patio and garden areas are subject to approval by the WDRC. Owners are encouraged to plant trees and shrubs to enhance the natural beauty of the area and improve erosion control within the Project.

All lots shall have the front and side-street yards for corner lots, landscaped within one year, and interior side and back yards within two years after receiving a Certificate of Occupancy and shall be subject to the requirements of Saratoga Springs Municipal Code Section 19.06.

Landscaping may include a combination of lawn, trees, shrubs, mulch, rock or ground cover. Ground cover may include vegetative vines, low-spreading shrubs, or annual or perennial flowering or foliage plants subject to the methods and general standards of the Saratoga Springs Municipal Code section 19.06. The WDRC or applicable Homeowners Association as well the City will enforce the landscaping requirements.



## Parks and Open Space

As defined in Section 19.02.02, the Wildflower Development will include a minimum 30% open space in the form of multiple park types and trail networks some of which is located in the Mountain View Corridor. Dedication of some of the land to Saratoga Springs City is anticipated for use as public parks and/or parkway trail/bike and transit system and maintained following the improvements of the areas by the developer.

Developer shall be required to improve parks and open space as per section 19.26.06 (4) of the Saratoga Springs Municipal Code effective 11-18-2014.

Open space including parks, trails, and limited common space adjacent to or within each village plan shall be included, designed, and constructed with the corresponding village plans. Larger parks, such as the parks to the west of the Mountain View Corridor and Single Family neighborhoods shall be phased to correspond with the village plans adjacent to them. Open space in the Mountain View Housing neighborhood shall be defined at time of Village Plan to ensure that such open space is usable.

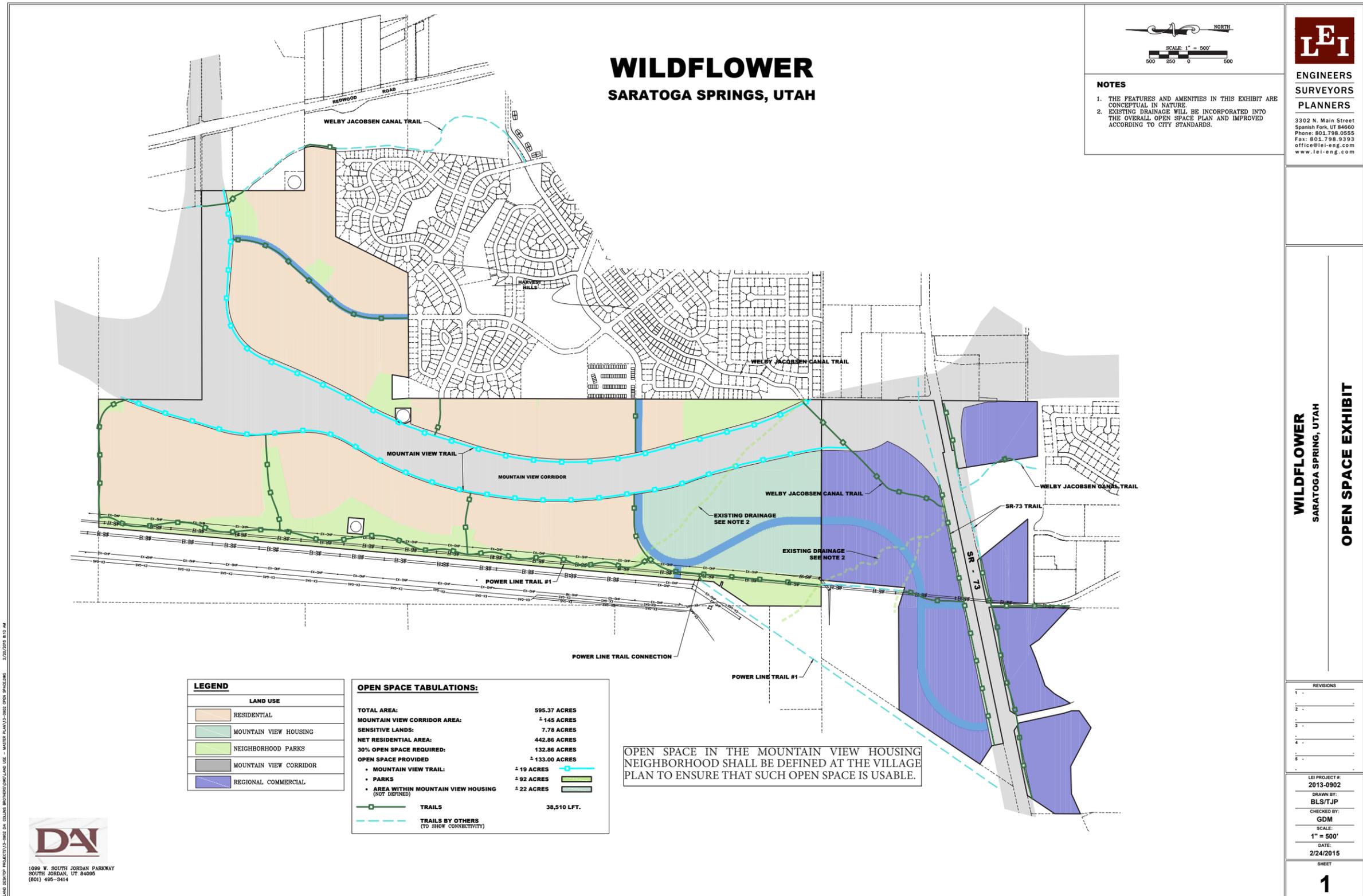
The developer shall phase open space improvements consistent with a phasing plan approved by the Planning Director and in accordance with Section 19.13 of the Saratoga Springs Municipal Code.

### Goals for Open Space:

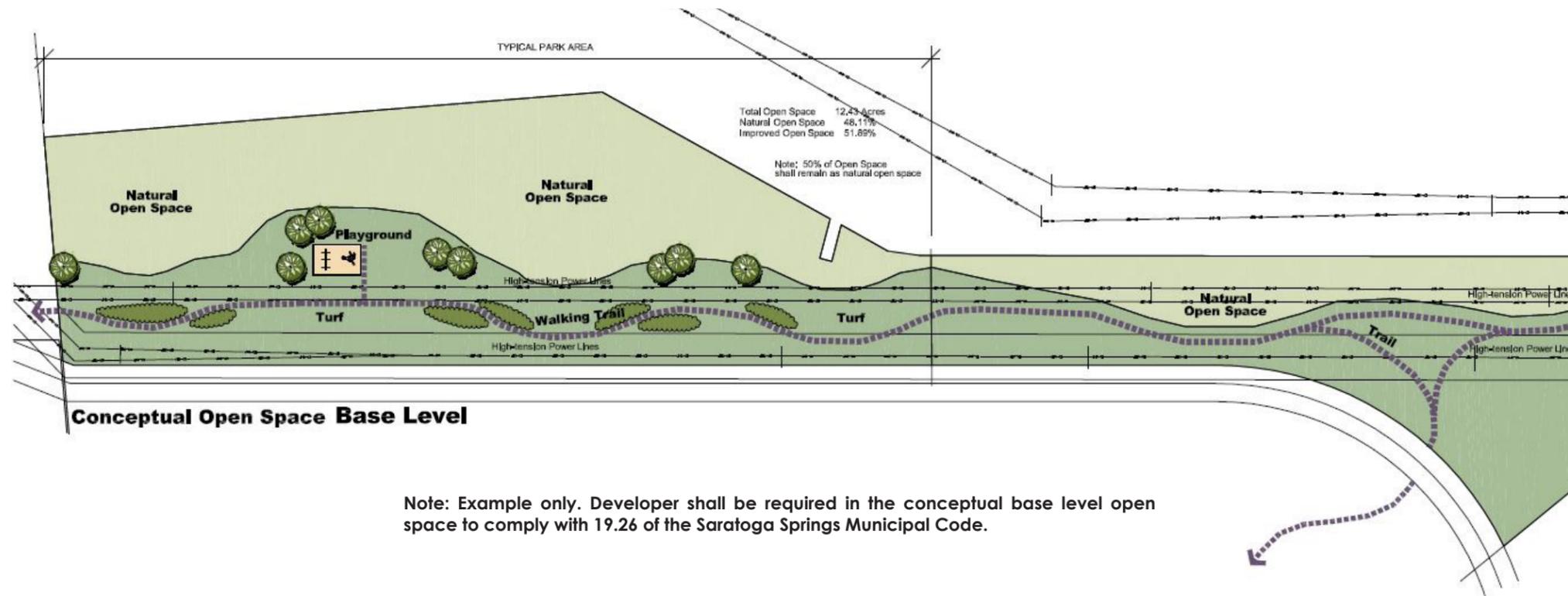
- Provide a network of public or private parks and open space using a variety of differing and suitable types of recreation such as neighborhood parks, community gardens, parkways, connector trails and pocket parks.
- Provide a short walking distance for every home to open space/trails network. Place developed open space venues in areas of high visibility and in user-friendly and suitable locations that are conducive to the type and variety of recreational uses that are appropriate for the various areas and conditions.
- Provide improvements which comply with the Parks, Trails and Open Space Master Plan.



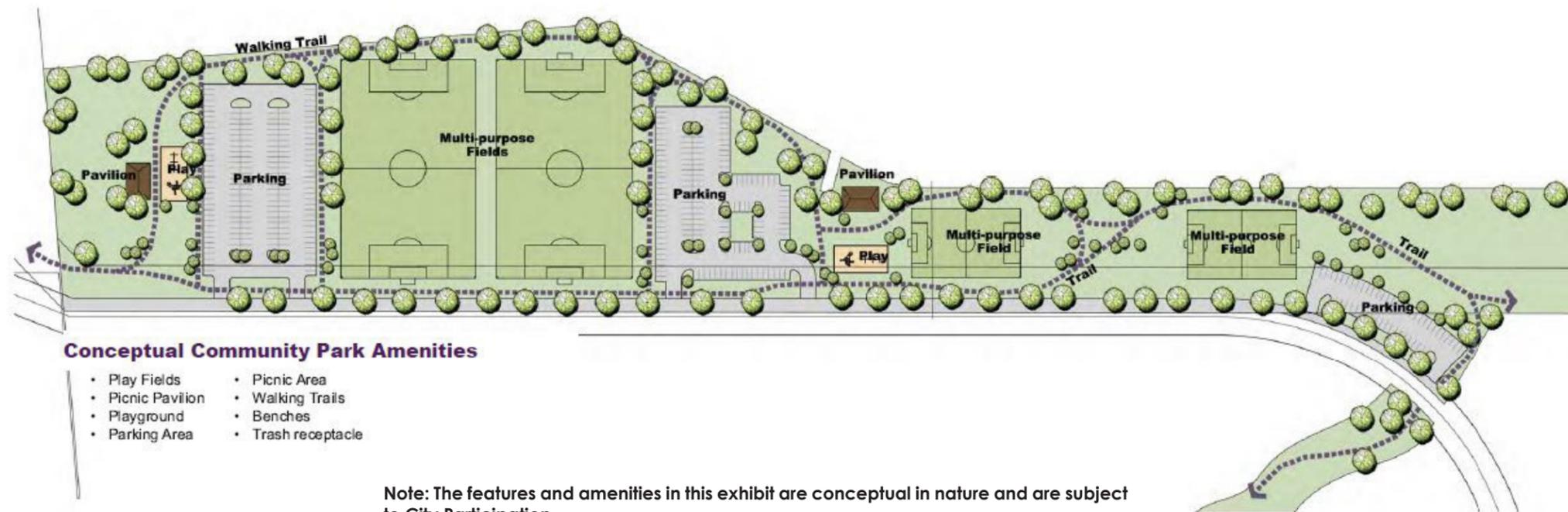
# EXHIBIT FOUR: Community Level Open Space



# EXHIBIT FIVE: Open Space and Primary Trails



Note: Example only. Developer shall be required in the conceptual base level open space to comply with 19.26 of the Saratoga Springs Municipal Code.



Note: The features and amenities in this exhibit are conceptual in nature and are subject to City Participation.

## Edge Conditions and Buffers

The open space concept along the western edge of Wildflower will create a buffer between Camp Williams and the Residential Area. In addition, a 20' buffer will be required between the Mountain View Housing neighborhood and the future commercial area, which shall be located on the commercial side. This provides a needed transition between land uses. Further details will be provided at Village Plan.

Along the northern and eastern portions of the project, because of safety and connectivity concerns, the 20' open space buffer should be utilized as on-street trails and park lawns. Placing trails around the Mountain View Corridor will allow for the space to be utilized in the best possible way for the Wildflower community.



## Park Standards

Parks should be developed for both active and passive recreation activities, taking into consideration the demographic profile of residents. Parks may be generally located as per the included Conceptual Plan found in Exhibit Four and should be accessible from the interconnecting neighborhood trails, sidewalks or low-volume residential streets. Benches, shaded areas, trash receptacles, picnic tables and neighborhood trail accesses are appropriate park enhancements. Exhibit Five shows an example layout for the southwest section of the development, showcasing ideal community park details. The developer shall be required to improve these parks and open spaces to meet the recreational needs of residents as per section 19.26 of the Saratoga Springs Municipal Code.

The open space must be labeled with a type and include the following details:

- Description
- Size
- Service
- Examples

These areas are to be addressed in the more specific “Village Plan” design documents, in each ensuing development phase. Examples of the various type of parks and open space are listed generally as follows (see details on pages 50-52):

- Entrance Node
- Pocket Park
- Neighborhood Park
- Greenway

## UDOT Detention

The developer will improve the UDOT detention basin in accordance with the Saratoga Springs City Standards and Specifications. Developer does acknowledge an agreement with UDOT to improve this detention basin.



## Entrance Feature Node

The formal entrance to a residential community that showcases neighborhood identity through landscaping, monuments or signage and green space.

Size: Varies

Service: Varies depending on neighborhood size

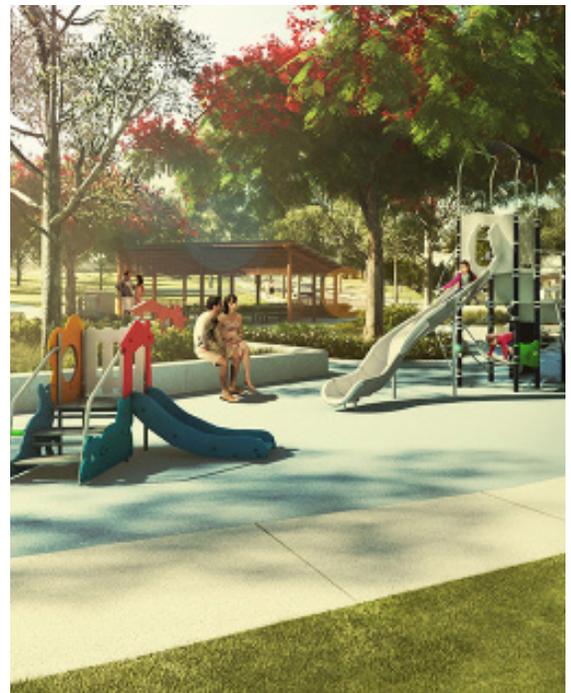


## Pocket Park

These small parks allow for people to gather, relax or to enjoy the outdoors. The spaces can have simple elements such as benches and a few trees or include fun elements like playground equipment, climbing boulders and lawn berms. Parks should strive to meet the recreations needs of residents and accommodate as many different users as possible, prioritizing the needs of the surrounding neighborhoods.

Size: 2,500 square feet to 1 acre

Service: Varies depending on neighborhood size



## Neighborhood Park

The neighborhood park can be the focus of a neighborhood, providing an informal recreation space or gathering area for the community's residents. They should serve as extensions of the neighborhood around them; the park design should create a sense of place that enhances neighborhood and community identity while meeting the recreational needs of the residents.

Size: 1 to 3 acres or more

Service: Varies depending on neighborhood size

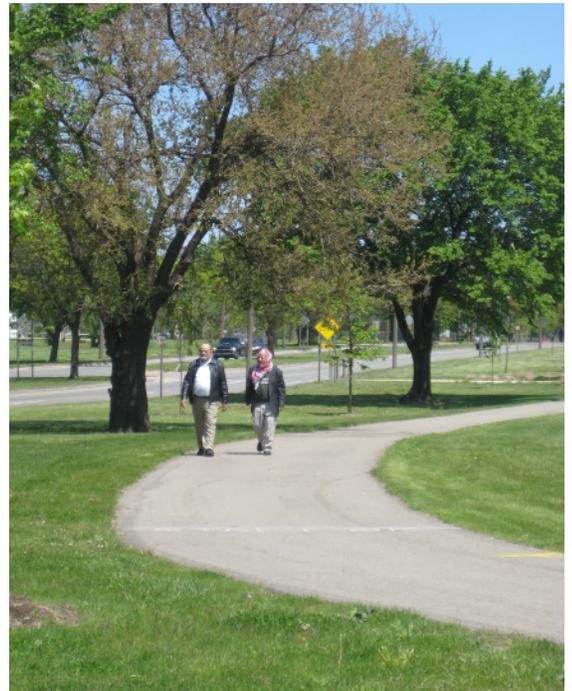


## Greenway

A linear open space feature with passive and active recreational elements designed to incorporate the space located around or within a natural resource area.

Size: Varies

Service: Varies depending on neighborhood size

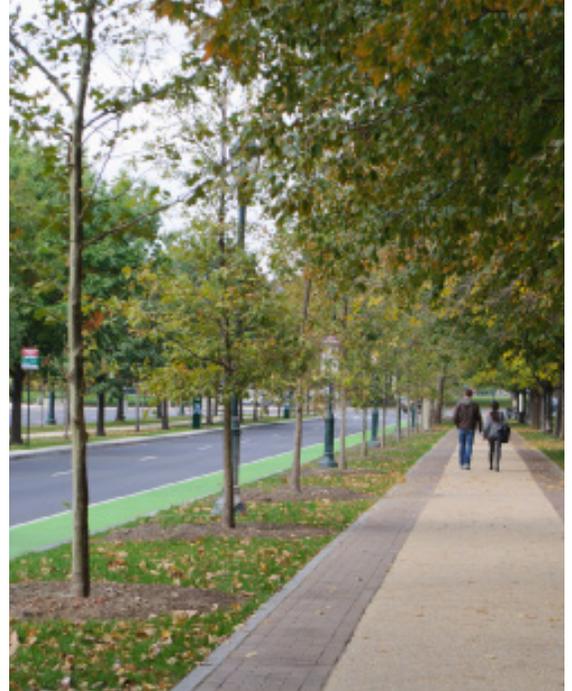


## Parkway

Open space surrounding a street which is often a tree-lined and landscaped area in addition to other landscaping. Credit for open space is only calculated if outside of the full pavement buildout width.

Size: Varies

Service: Varies

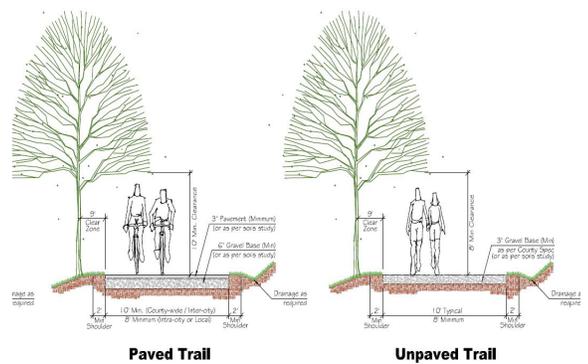


## Connector Trail

Sidewalk connections used by pedestrians and cyclists to link to main trail and open space network. Exhibit Six features ideal walking, paved and unpaved trails.

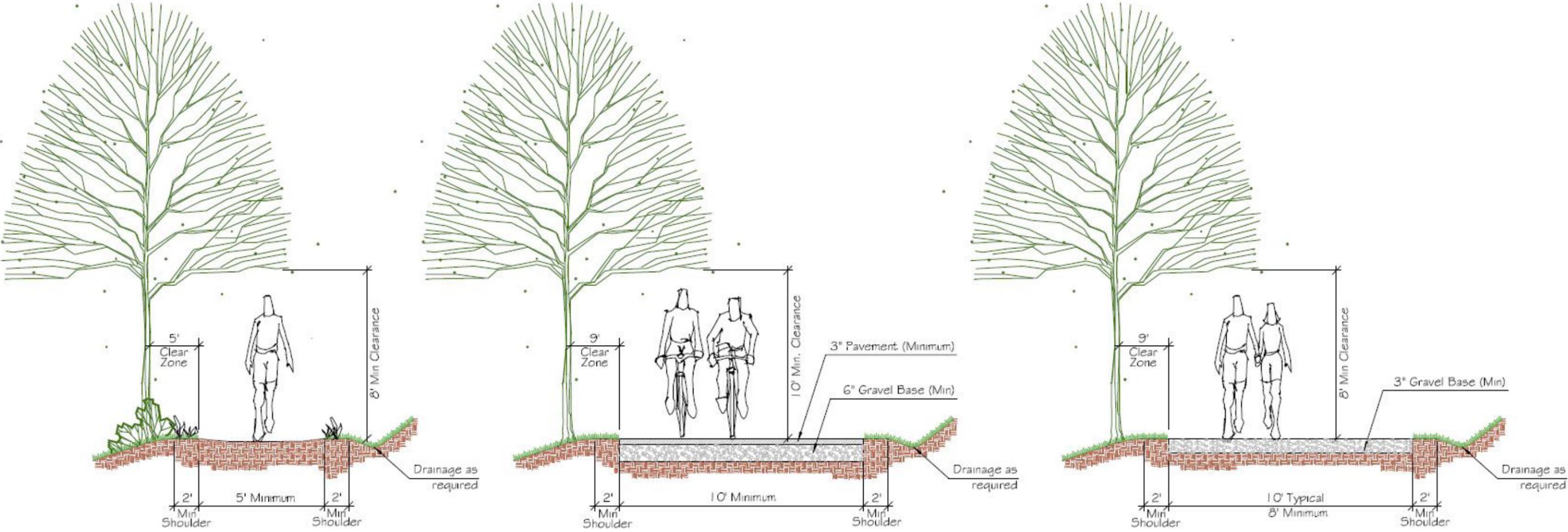
Size: Varies

Service: Varies



# EXHIBIT SIX: Connector Trail

Note: Trails identified on the City's Master Plan shall comply with City Standards, and other trails shall comply with the standards below.



**Walking Trail**

**Paved Trail**

**Unpaved Trail**

# Signage

## Wayfinding

Wayfinding can be defined as a spatial problem solving and definition; it contributes to creating the identity of each neighborhood that is different from the others in the community. Three criteria determine if a person can navigate a space. First, whether the navigator can discover or infer his/her present location; second, whether a route to the destination can be found; and third, how well the person can accumulate wayfinding experience in the space.

The following principals can be achieved by inserting landmarks that can be used to provide orientation cues and memorable locations, creating regions of differing visual character, providing signs at decision points to help wayfinding decisions and using sight lines to show what's ahead.

Purpose:

- Assist Wildflower residents and visitors in locating residential, commercial, open space and parking destinations.
- Enhance the pedestrian and bicyclist environment in the community.
- Add to the safety, appeal and sense of community ownership of the streetscape.

## Entrance Signs and Monuments

All sign locations will be part of the Village Plan process however primary and secondary entrance signs have been provided on page 55.

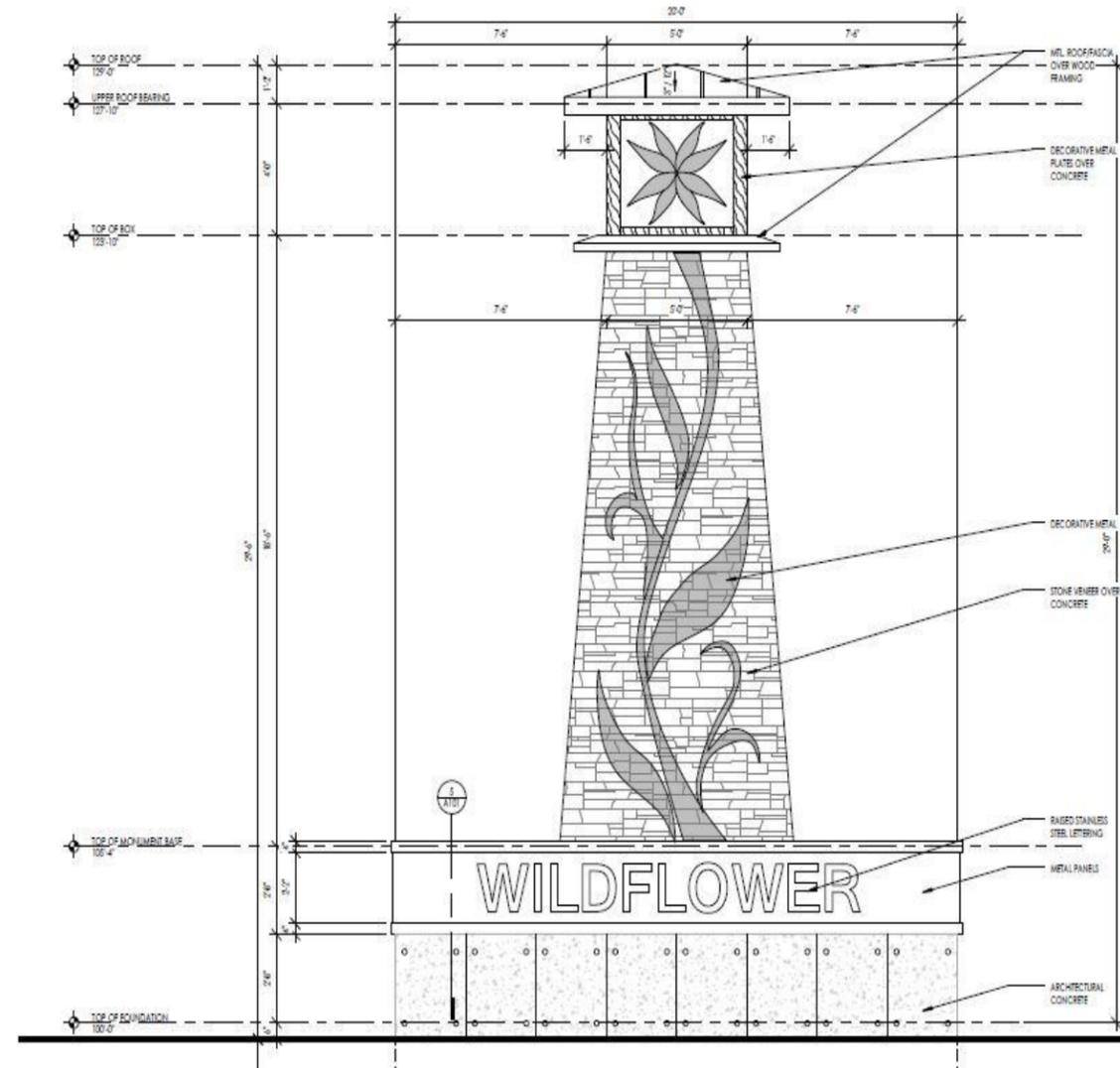


Note: Temporary development and directional signage will be required to be removed immediately upon issuance of the certificate of occupancy for the last home located within a Village Plan, or by request of the WDRC, and are subject to 19.18 of the Saratoga Springs Municipal Code.

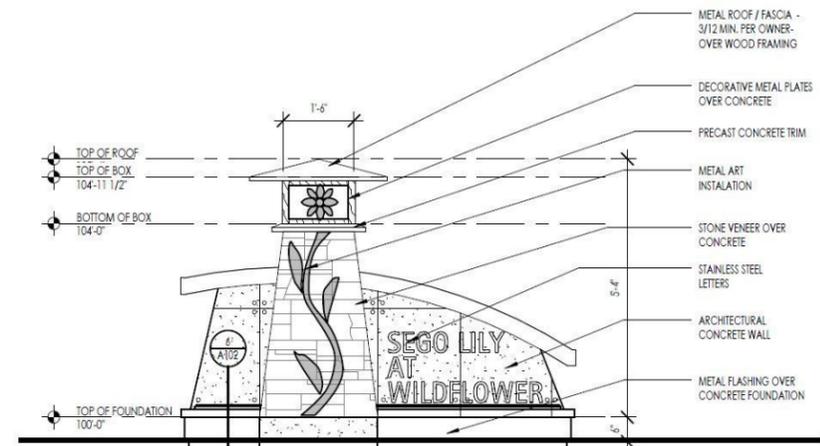


# Sign Concept

## Primary Entrance Sign



## Secondary Entrance Sign



## Standard Street Light Details

This project will conform to all Saratoga Springs Street Light Standards found in the Saratoga Springs Municipal Code Section 19.11. The Wildflower Community is committed to the Dark Sky Initiative as a guiding principal for lighting regulations in this planned community due to the proximity of Camp Williams. The purpose of Dark Sky is to permit reasonable uses of outdoor lighting for nighttime safety, utility, security, productivity, enjoyment and commerce while preserving the ambiance of the night. The guiding standards are:

- Curtail and reverse any degradation of the nighttime visual environment and the night sky.
- Minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- Conserve energy and resources to the greatest extent possible.
- Help protect the natural environment from the damaging effects of night lighting.
- Conserve energy and resources to the greatest extent possible.
- Promote general safety and welfare.

All outdoor lighting fixtures (luminaires) shall be installed in conformance with this Regulation and with the provisions of the Building Code, Electrical Code, and the Sign Code, as applicable and under permit and inspection, if such is required.



## Fencing and Buffer Treatments

- Fencing, walls and hedges exceeding three feet in height may not be erected in any front yard space of any residential lot.
- A solid fence, wall or hedge alongside property lines shall be no greater than 6 feet in height.
- A solid fence, wall or hedge along rear property lines where there is no alley or rear lane shall be no greater than 6 feet in height.
- Noise abatement measures including the use of sound walls along the Mountain View Corridor are permitted to exceed 6 feet in height and shall be subject to design standards set forth by UDOT.
- Chain link and wire fencing is prohibited as per Section 19.06 of the Saratoga Springs Municipal Code.
- Fencing around the perimeter of the property shall be consistent in terms of color, style and material with the Wildflower Community Plan.
- Fencing material shall be masonry, stone vinyl, wrought iron, composite material or other material approved by the WDRC. Use of landscaping materials for hedges and fencing is encouraged.
- Side yard fencing between homes with setbacks of five feet or less are required to be behind the rear building line.
- Semi-private fencing shall be required along all trail corridors and open space with the exception that those areas that abut and parallel an arterial road may be allowed to install privacy fencing as allowed by the Land Use Authority.



## Street Names and Thoroughfares

In order to assist in incorporating roads and thoroughfares into the project's landscape theme, the street names will come from Utah wildflowers. All street names will be approved by the Saratoga Springs GIS department prior to recording a plat. Some Utah wild flowers include:

- Bluebell
- Buttercup
- Paintbrush
- Yarrow
- Violet

These names will assist in cognitive mapping and project identity. Ideally each Village Plan will share a specific theme that will assist in wayfinding for residents and visitors.

## Second Access

Second access requirements shall be met and addressed through phasing so that no more than 50 lots may be constructed on any existing road until a second access is provided per Section 19.12 of the Saratoga Springs Municipal Code.

## Transportation

A transportation plan shown in the Wildflower Traffic Impact Study, located in the Thoroughfare Plan section, will show a network of thoroughfares identifying wayfinding elements, entrance monumentalization and traffic calming elements, incorporating multi-modal transportation elements that focus on sustainable and well-designed pedestrian oriented neighborhoods and thoroughfares. See Exhibits eight and nine for proposed road sections including a Collector Road a Local Street and a Minor Arterial Road.



## Traffic Impact

Hales Engineering conducted a traffic study of the project area in May 2014 and updated it in February 2015. See Exhibit Ten of the full Traffic Impact Study for a Trip Generation Table (page 10). The traffic analysis was performed weekday morning (7:00 – 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- 2100 North (SR-85)/Redwood Road (SR-68)
- Harvest Hills/Redwood Road (SR-68)
- 800 West/SR-73

These counts were performed on Wednesday, May 7, 2014. The p.m. peak hour was determined between the hours of 5:00 and 6:00 pm. All study intersections are currently operating at acceptable levels of service during the p.m. peak hour. The 95th percentile queue length at the 2100 North (SR-85)/Redwood Road (SR-68) intersection is almost 850 feet in the southbound through movement and over 650 feet in the southbound left-turn movement. The 95th percentile queue length in the westbound direction at 800 West/SR-73 intersection is almost 500 feet.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions (after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 and 2040 conditions are also analyzed. The study area was defined based on conversations with the development team.

This study was scoped to evaluate operational performance impacts of the project following intersections:

- 2100 North (SR-85)/Redwood Road (SR-68)
- Harvest Hills/Redwood Road (SR-68)
- 800 West/SR-73
- South Project Access/SR-73

The resulting distribution of project generated trips is as follows:

To/From Project:

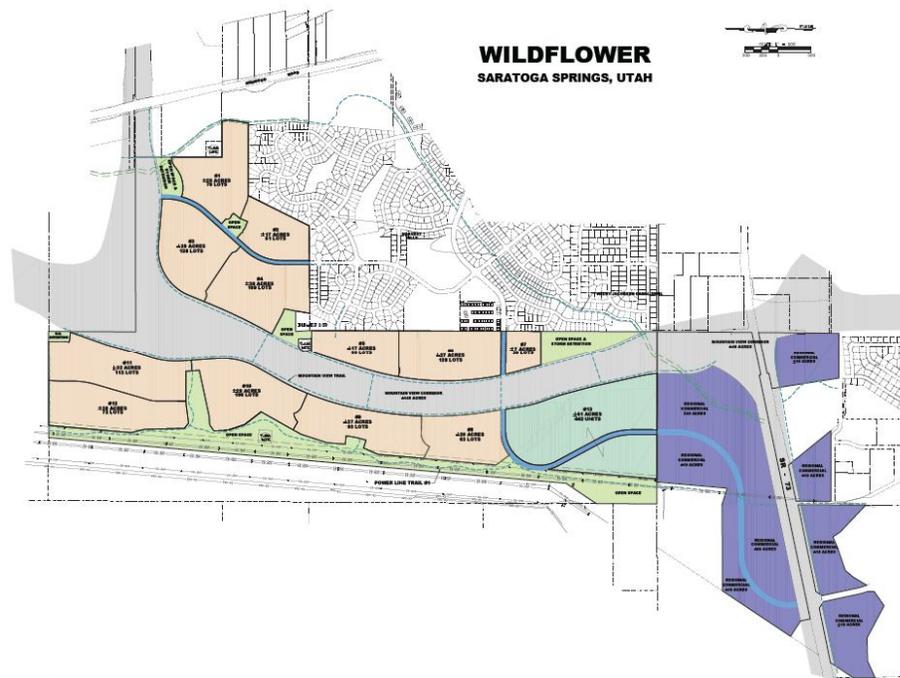
- 30% North
- 40% East (via 2100 North)
- 20% South
- 10% west



# EXHIBIT SEVEN: Traffic Impact Study

**HALES ENGINEERING**  
innovative transportation solutions

## **Wildflower *Revised*** Traffic Impact Study



### **Saratoga Springs, Utah** February 2015

UT14-602

2975 West Executive Pkwy, Ste. 151 Lehi, Utah 84043 p. 801/ 766.4343  
[www.halesengineering.com](http://www.halesengineering.com)



**WILDFLOWER**  
AT SARATOGA SPRINGS  
COMMUNITY PLAN

## EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Wildflower development in Saratoga Springs, Utah. The proposed development is an 800 acre parcel located west of the Harvest Hills subdivision and north of SR-73.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 and 2040 conditions are also analyzed.

### TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

#### Existing (2014) Background Conditions Analysis

Hales Engineering performed weekday morning (7:00 – 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- 2100 North (SR-85) / Redwood Road (SR-68)
- Harvest Hills / Redwood Road (SR-68)
- 800 West / SR-73

These counts were performed on Wednesday, May 7, 2014. The p.m. peak hour was determined to be between the hours of 5:00 and 6:00 p.m.

As shown in Table ES-1, all study intersections are currently operating at acceptable levels of service during the p.m. peak hour. The 95<sup>th</sup> percentile queue length at the 2100 North (SR-85) / Redwood Road (SR-68) intersection is almost 850 feet in the southbound through movement and over 650 feet in the southbound left-turn movement. The 95<sup>th</sup> percentile queue length in the westbound direction at the 800 West / SR-73 intersection is almost 500 feet.

#### Project Conditions Analysis

The exact number of residential units are shown on the concept plan and are included here. The commercial, office, and mixed use square footage was estimated for the project using Floor to Area Ratios (FAR). The proposed land use for the development has been identified as follows:

- Single Family Detached Housing: 1,026 units
- Residential Condominium / Townhouse: 442 units



- Shopping Center: 1,173,400 sq. ft.
- Office Building: 968,400 sq. ft.
- Office Building (Mixed-use): 11,100 sq. ft.
- Shopping Center (Mixed-use): 9,300 sq. ft.

The total trip generation for the proposed development is as follows:

- Daily Trips: 49,667
- a.m. peak Hour Trips: 2,634
- p.m. Peak Hour Trips: 5,069

**Existing (2014) Plus Project Conditions Analysis**

As shown in Table ES-1, the 2100 North (SR-85) / Redwood Road (SR-68) intersection deteriorates to LOS E during the p.m. peak hour. All other study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. The 95<sup>th</sup> percentile queue in the westbound direction at the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to be over 1,000 feet long during the p.m. peak hour. The 95<sup>th</sup> percentile queue in the southbound direction at the Harvest Hills Boulevard / Redwood Road (SR-68) intersection is anticipated to be almost 700 feet long.

**Future (2020) Background Conditions Analysis**

As shown in Table ES-1, the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to operate at LOS F. Many of the accesses along Redwood Road (SR-68) will continue operating at poor levels of service during the p.m. peak hour. The 95<sup>th</sup> percentile queue at the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to be over ¼ mile during the p.m. peak hour. No other significant queuing is anticipated at the study intersections.

**Future (2020) Plus Project Conditions Analysis**

As shown in Table ES-1, the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to deteriorate to LOS F. The other study intersections are anticipated to continue to operate at acceptable levels of service during the p.m. peak hour. The 95<sup>th</sup> percentile queues at the 2100 North (SR-85) / Redwood Road (SR-68) intersection are anticipated to be over ¼ mile in all directions. The 95<sup>th</sup> percentile queues at the Harvest Hills Boulevard / Redwood Road (SR-68) intersection are anticipated to be over 600 feet in both the north and southbound directions.



**Future (2040) Background Conditions Analysis**

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. No significant queuing is anticipated at any of the study intersections.

**Future (2040) Plus Project Conditions Analysis**

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. The 95<sup>th</sup> percentile queue in the eastbound and southbound directions at the Harvest Hills Boulevard / Redwood Road intersection are both anticipated to be over 500 feet long during the p.m. peak hour. No other significant queuing is anticipated.

TABLE ES-1 P.M. Peak Hour Saratoga Springs - Wildflower TIS						
Intersection	Existing 2014 Background	Existing 2014 Plus Project	Future 2020 Background	Future 2020 Plus Project	Future 2040 Background	Future 2040 Plus Project
Description	LOS (Sec/Veh <sup>1</sup> )					
2100 North (SR-85) / Redwood Road (SR-68) <sup>2</sup>	D (51.8)	E (61.0)	F (> 80)	F (> 80)	-	-
Harvest Hills Boulevard / Redwood Road (SR-68)	C (30.7)	C (33.3)	D (39.3)	D (49.0)	B (17.3)	D (36.6)
800 West / SR-73 <sup>3</sup>	C (28.4)	-	-	-	-	-
1200 West / SR-73	-	C (25.7)	C (27.6)	C (27.8)	C (27.0)	D (40.0)

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.  
 2. This intersection will be will become a grade separated interchange with the 2100 North & M/V C freeways and was not analyzed in the future 2040 conditions.  
 3. This intersection will be removed or realigned as part of the SR-73 reconstruction project with Pioneer Crossing in 2014 - 2015 and was only analyzed in the 2014 Background scenario.  
 Source: Hales Engineering, February 2015

**RECOMMENDATIONS**

The following mitigation measures are recommended:

**Existing (2014) Background Conditions Analysis**

No mitigation measures are recommended.

**Existing (2014) Plus Project Conditions Analysis**

It is recommended that the 2100 North (SR-85) / Redwood Road (SR-68) intersection be constructed with dual left-turn lanes in the eastbound and northbound directions (there is



already dual left-turn lanes in the westbound and southbound directions). A separate right-turn lane is also recommended in all directions except the westbound direction, which already has two right-turn lanes.

**Future (2020) Background Conditions Analysis**

The MAG travel demand model shows that Redwood Road (SR-68) and 2100 North (SR-85) are anticipated to have a high amount of traffic growth over the next several years. The MVC and 2100 North freeways are planned to help meet this demand. Although these are planned as a Phase 2 project (2021 – 2030), traffic growth may necessitate that they be completed earlier.

**Future (2020) Plus Project Conditions Analysis**

As mentioned previously, the MAG travel demand model shows that Redwood Road (SR-68) and 2100 North (SR-85) are anticipated to have a high amount of traffic growth over the next several years. The MVC and 2100 North freeways are planned to help meet this demand. Although these are planned as a Phase 2 project (2021 – 2030), traffic growth may necessitate that they be completed earlier.

**Future (2040) Background Conditions Analysis**

No mitigation measures are recommended.

**Future (2040) Plus Project Conditions Analysis**

No mitigation measures are recommended.

**SUMMARY OF KEY FINDINGS/RECOMMENDATIONS**

The following is a summary of key findings and recommendations:

- All study intersections are currently operating at acceptable levels of service.
- With project traffic added, the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to deteriorate to LOS E during the p.m. peak hour.
- It is recommended that the 2100 North (SR-85) / Redwood Road (SR-68) intersection be constructed with dual left-turn lanes in the eastbound and northbound directions (there is already dual left-turn lanes in the westbound and southbound directions). A separate right-turn lane is also recommended in all directions except the westbound direction, which already has two right-turn lanes.
- Future 2020 conditions were also analyzed. By 2020, the 2100 North (SR-85) / Redwood Road (SR-68) intersection is anticipated to operate at LOS F.

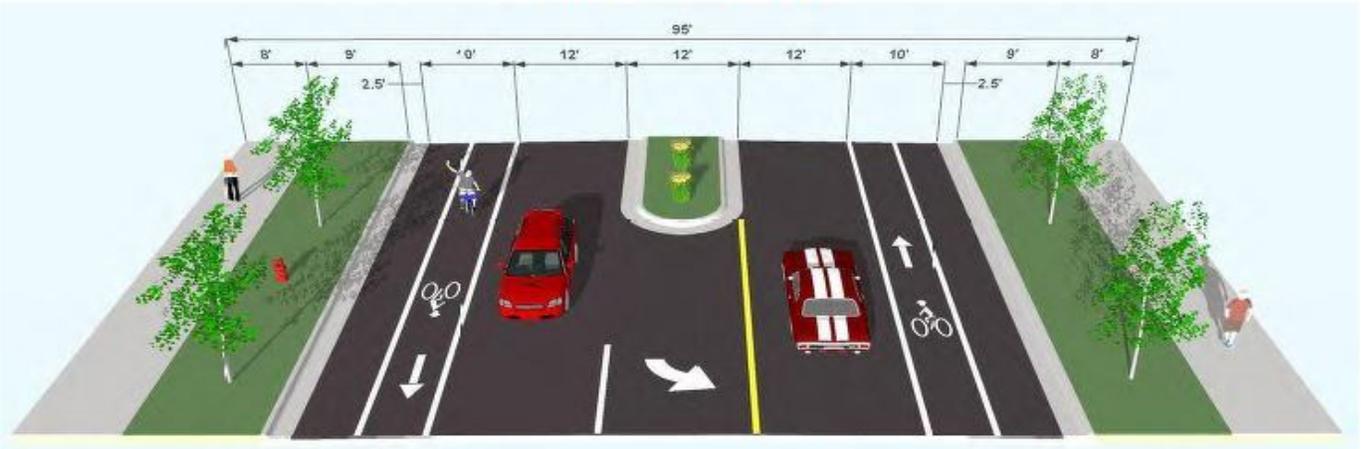


- In the 2020 plus project scenario, assuming all of the residential phases of the project are completed, the study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.
- Future 2040 conditions were also analyzed. By 2040, the Mountain View Corridor and 2100 North (SR-85) freeways are anticipated to be completed. These freeways draw traffic away from Redwood Road, significantly reducing the projected volumes on that road. All study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.
- In the 2040 plus project scenario, assuming all phases of the project are completed, the study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.

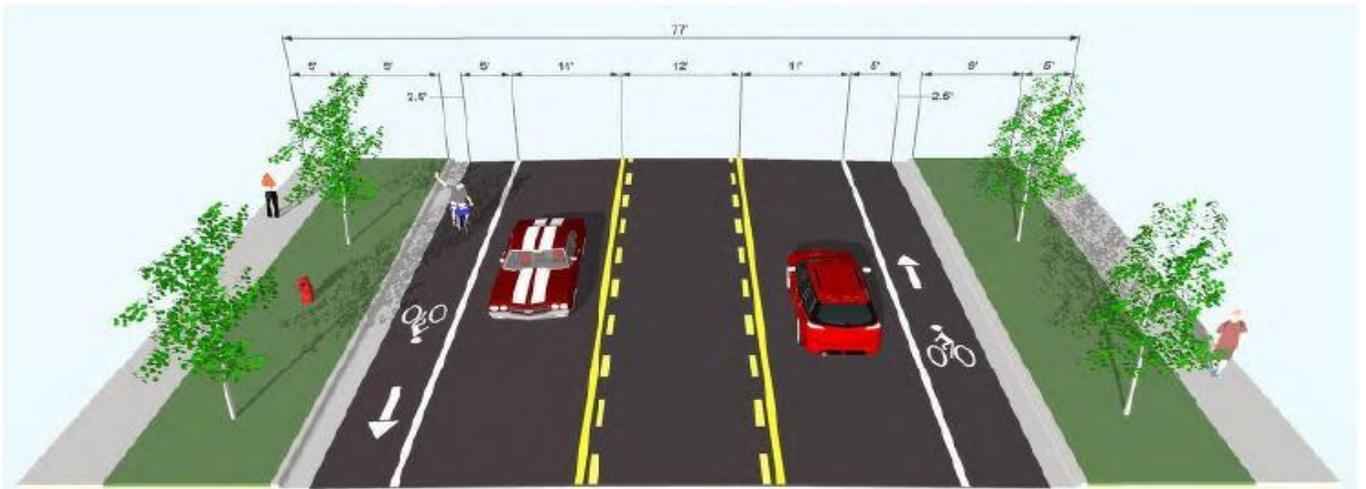


# EXHIBIT EIGHT: City Standard Road Cross Sections

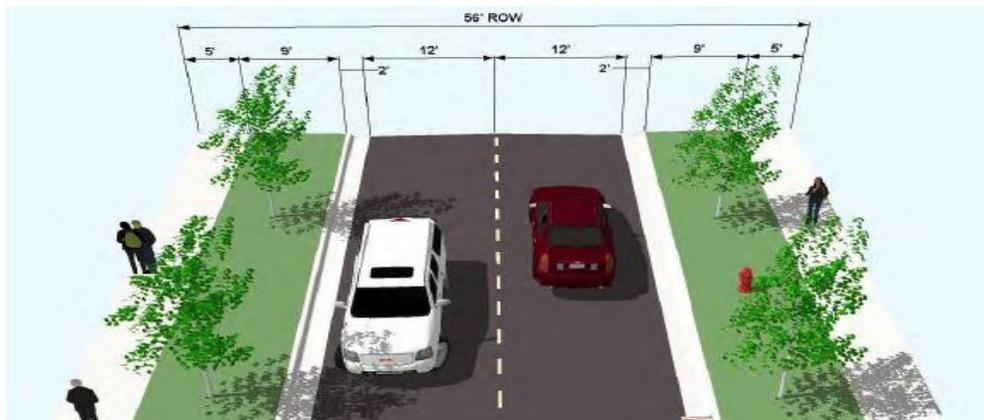
## 3-Lane Minor Arterial



## 3-Lane Collector

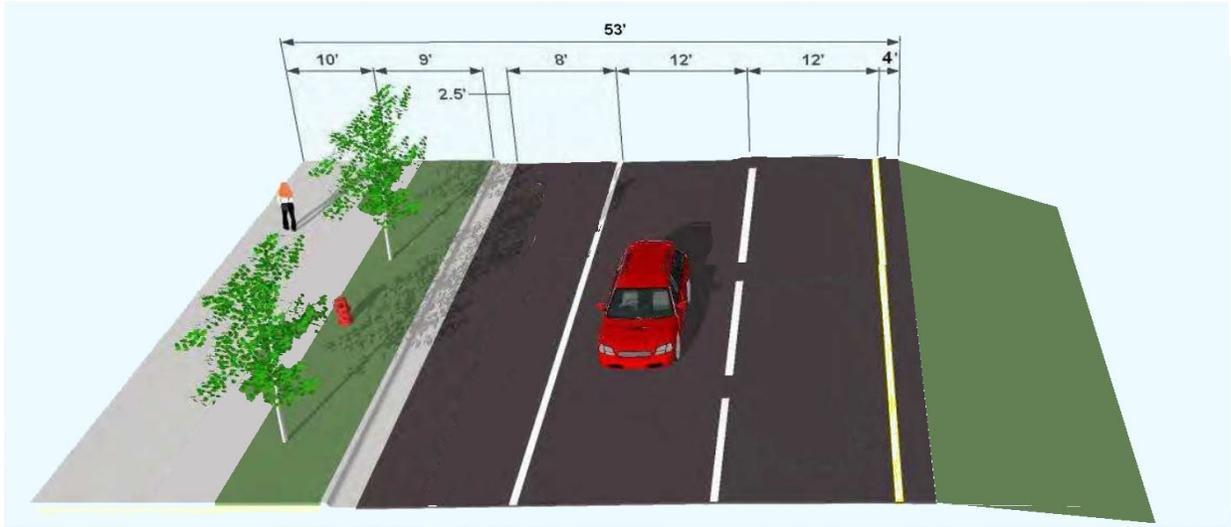


## Local Street

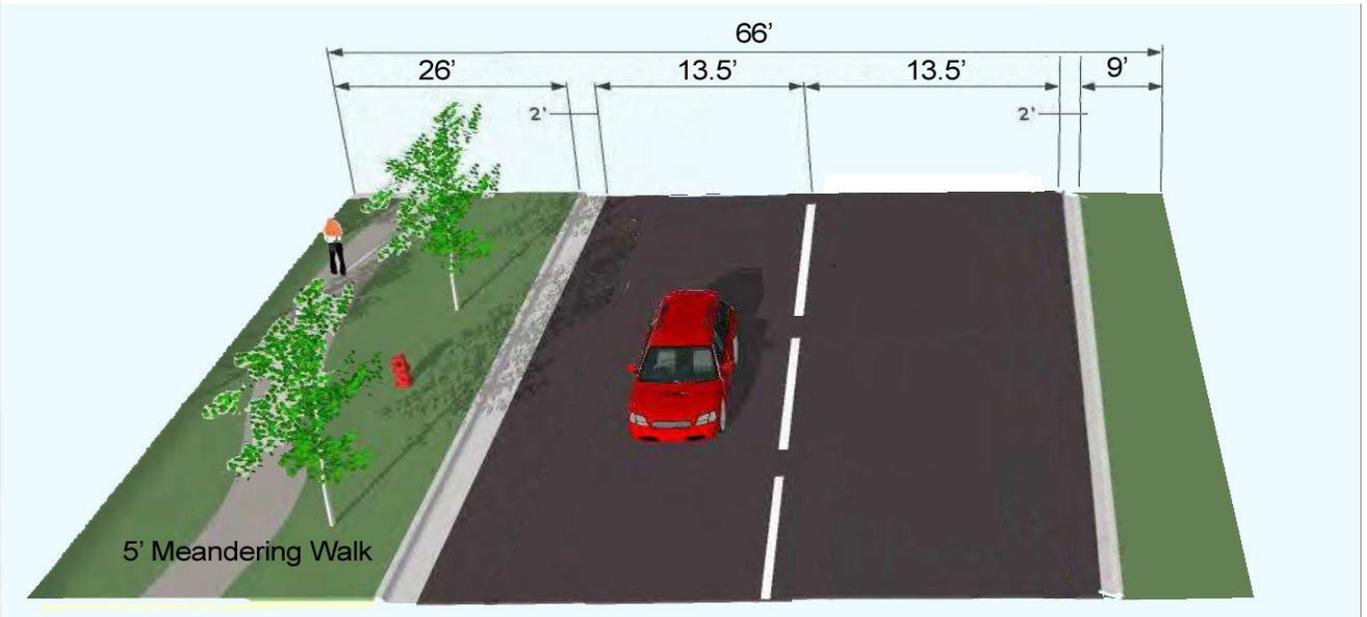


# EXHIBIT NINE: Non-Standard City Cross Sections

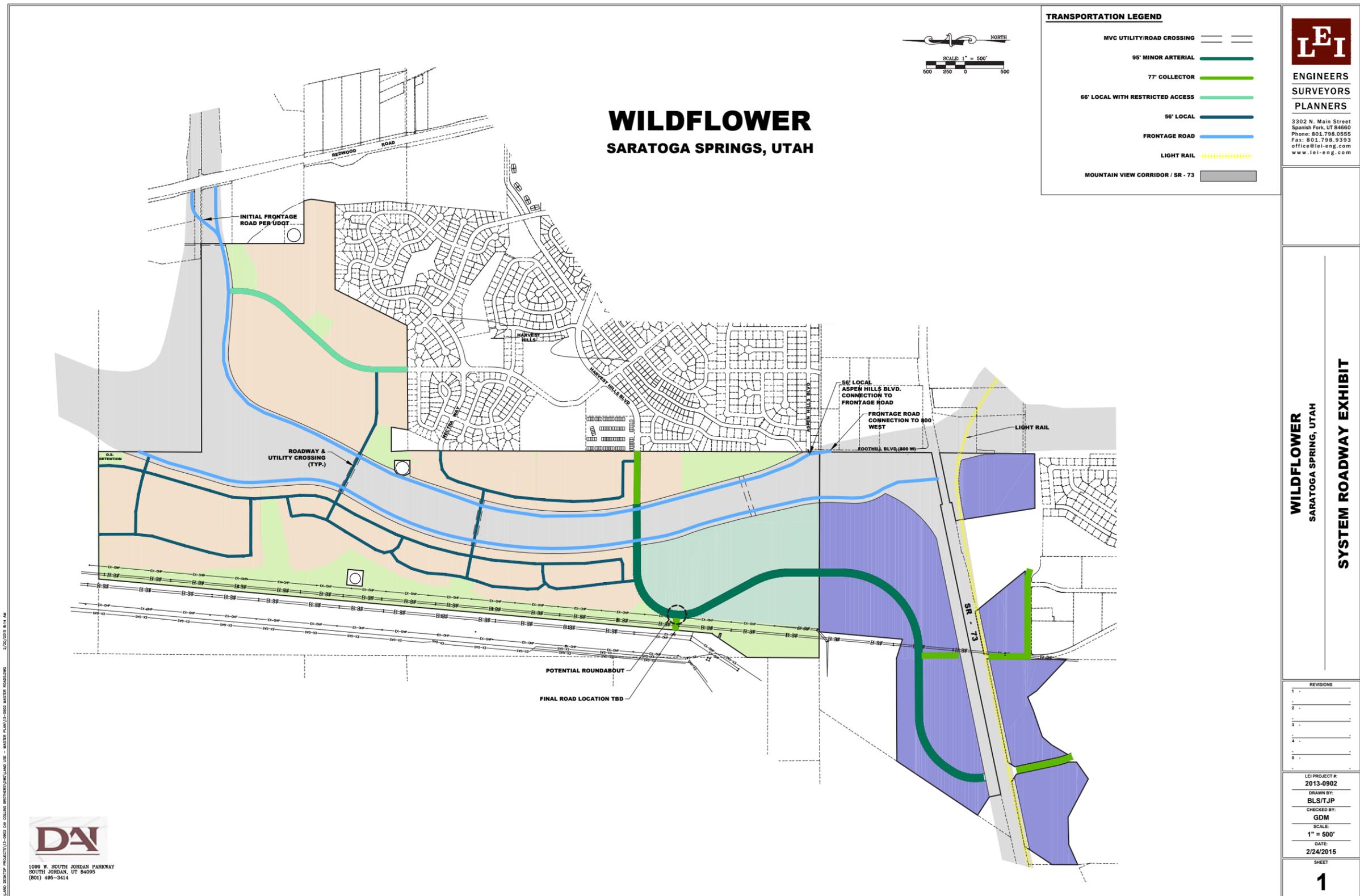
## Frontage Road



## 66' Cross Section



# EXHIBIT TEN: System Roadway



**TRANSPORTATION LEGEND**

MVC UTILITY/ROAD CROSSING	— — — —
95' MINOR ARTERIAL	— — — —
77' COLLECTOR	— — — —
66' LOCAL WITH RESTRICTED ACCESS	— — — —
55' LOCAL	— — — —
FRONTAGE ROAD	— — — —
LIGHT RAIL	— + + + + —
MOUNTAIN VIEW CORRIDOR / SR - 73	— — — —

**LEI**  
**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**  
 3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.9393  
 office@lei-eng.com  
 www.lei-eng.com

**WILDFLOWER**  
 SARATOGA SPRING, UTAH  
**SYSTEM ROADWAY EXHIBIT**

REVISIONS

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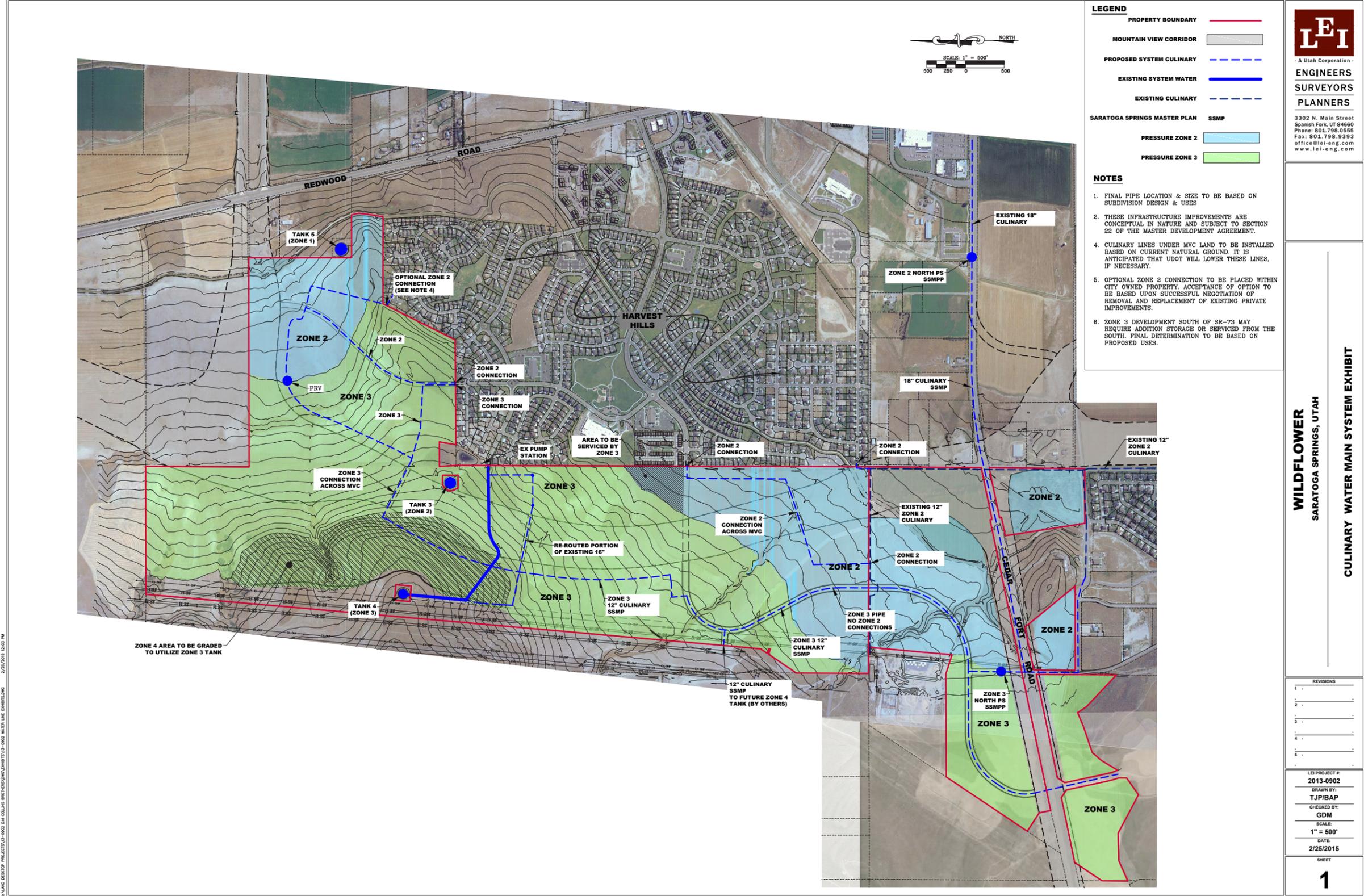
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**2013-0902**  
 DRAWN BY:  
**BLS/TJP**  
 CHECKED BY:  
**GDM**  
 SCALE:  
**1" = 500'**  
 DATE:  
**2/24/2015**

SHEET  
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**DAI**  
 1099 W. SOUTH JORDAN PARKWAY  
 SOUTH JORDAN, UT 84095  
 (801) 495-3414

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# EXHIBIT ELEVEN: Culinary Water Main System



**LEGEND**

- PROPERTY BOUNDARY
- MOUNTAIN VIEW CORRIDOR
- PROPOSED SYSTEM CULINARY
- EXISTING SYSTEM WATER
- EXISTING CULINARY
- SARATOGA SPRINGS MASTER PLAN SSMP
- PRESSURE ZONE 2
- PRESSURE ZONE 3

**NOTES**

1. FINAL PIPE LOCATION & SIZE TO BE BASED ON SUBDIVISION DESIGN & USES
2. THESE INFRASTRUCTURE IMPROVEMENTS ARE CONCEPTUAL IN NATURE AND SUBJECT TO SECTION 22 OF THE MASTER DEVELOPMENT AGREEMENT.
4. CULINARY LINES UNDER MVC LAND TO BE INSTALLED BASED ON CURRENT NATURAL GROUND. IT IS ANTICIPATED THAT UDOT WILL LOWER THESE LINES, IF NECESSARY.
5. OPTIONAL ZONE 2 CONNECTION TO BE PLACED WITHIN CITY OWNED PROPERTY. ACCEPTANCE OF OPTION TO BE BASED UPON SUCCESSFUL NEGOTIATION OF REMOVAL AND REPLACEMENT OF EXISTING PRIVATE IMPROVEMENTS.
6. ZONE 3 DEVELOPMENT SOUTH OF SR-73 MAY REQUIRE ADDITION STORAGE OR SERVICED FROM THE SOUTH. FINAL DETERMINATION TO BE BASED ON PROPOSED USES.

**LEI**  
 - A Utah Corporation -  
**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**

3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.3333  
 office@lei-eng.com  
 www.lei-eng.com

**WILDFLOWER**  
 SARATOGA SPRINGS, UTAH  
**CULINARY WATER MAIN SYSTEM EXHIBIT**

REVISIONS	
1	
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LEI PROJECT #	2013-0902
DRAWN BY:	TJP/BAP
CHECKED BY:	GDM
SCALE:	1" = 500'
DATE:	2/25/2015
SHEET	1

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## Culinary Water

Analysis of the existing system is based on the conditions present at the time of analysis and does not create or imply a reservation of capacity.

Please refer to the Wildflower Culinary Water Main System Exhibit and the following details:

### Wildflower Culinary Water Demands

**Design Criteria:**

Culinary Water Source:	800 gpd/ERC	
Culinary Water Storage:	400 gpd/ERC	
Regional Commercial:	2 ERC/Ac	Estimated for planning purposes

Area	Connections	Culinary Water			
		Source Req'd gpd/ERC	Total Source gpm	Storage Req'd gal/ERC	Total Storage gal
	ERC				
Zone 2 Residential	499	800	277.22	400	199,600
Zone 2 Regional Commercial	180	800	100	400	72,000
<b>Zone 2 Subtotal</b>	<b>679</b>		<b>377</b>		<b>271,600</b>
Available Capacity			3,121		910,000
Zone 3 Residential	969	800	538.33	400	387,600
Zone 3 Regional Commercial	140	800	77.78	400	56,000
<b>Zone 3 Subtotal</b>	<b>1,109</b>		<b>616</b>		<b>443,600</b>
Available Capacity			3,121		760,000
<b>Overall Total</b>	<b>1,788</b>		<b>993</b>		<b>715,200</b>

**Zone 2 Development:**

Development within Zone 2 consists of approximately 499 residential ERCs and 180 commercial ERCs. The existing Tank #3 is anticipated to be utilized for service to this zone and connection points are detailed on the Exhibit.

The existing source capacity of 3,121 gpm is was obtained from Table 2-1 of the Saratoga Springs – Culinary Capital Facilities Plan, Impact Fee Facility Plan and Analysis dated April 2014.



The available storage capacity of the existing Tank #3 is listed 910,000 gallons according to Table 2-3 of said Analysis, with the following details:

Total Tank Size:	2,000,000 Gal
Emergency Storage:	(150,000) Gal
Fire Storage:	(300,000) Gal
Existing Demand:	(640,000) Gal
Remaining Capacity:	910,000 Gal
Remaining ERCs:	2,275 ERC

**Zone 3 Development:**

Development within Zone 3 consists of approximately 969 residential ERCs and 140 commercial ERCs. The existing Tank #4 is anticipated to be utilized for service to this zone and connection points are detailed on the Exhibit. There are currently 125 ERCs utilizing this tank for both indoor and outdoor storage at a rate of 1,750 gallons per ERC.

The source capacity of 3,121 gpm is obtained from Table 2-1 of the Saratoga Springs – Culinary Capital Facilities Plan, Impact Fee Facility Plan and Analysis dated April 2014.

Based on current conditions, the storage capacity of the existing Tank #4 is as follows:

Total Tank Size:	1,200,000 Gal
Emergency Storage:	(150,000) Gal
Fire Storage:	(240,000) Gal
Existing Demand:	(218,000) Gal based on indoor & outdoor use of 125 ERC
Reservation:	(120,000) Gal for Paul Johnson
Remaining Capacity:	472,000 Gal
Remaining ERCs:	
Indoor Only:	1,180 ERC
Indoor & Outdoor:	270 ERC
Remaining ERCs with Reservation:	
Indoor Only:	1,480 ERC
Indoor & Outdoor:	338 ERC

Based on these current conditions and calculations, the following must occur in order to fully utilize the excess capacity of Tank 4:

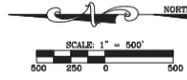
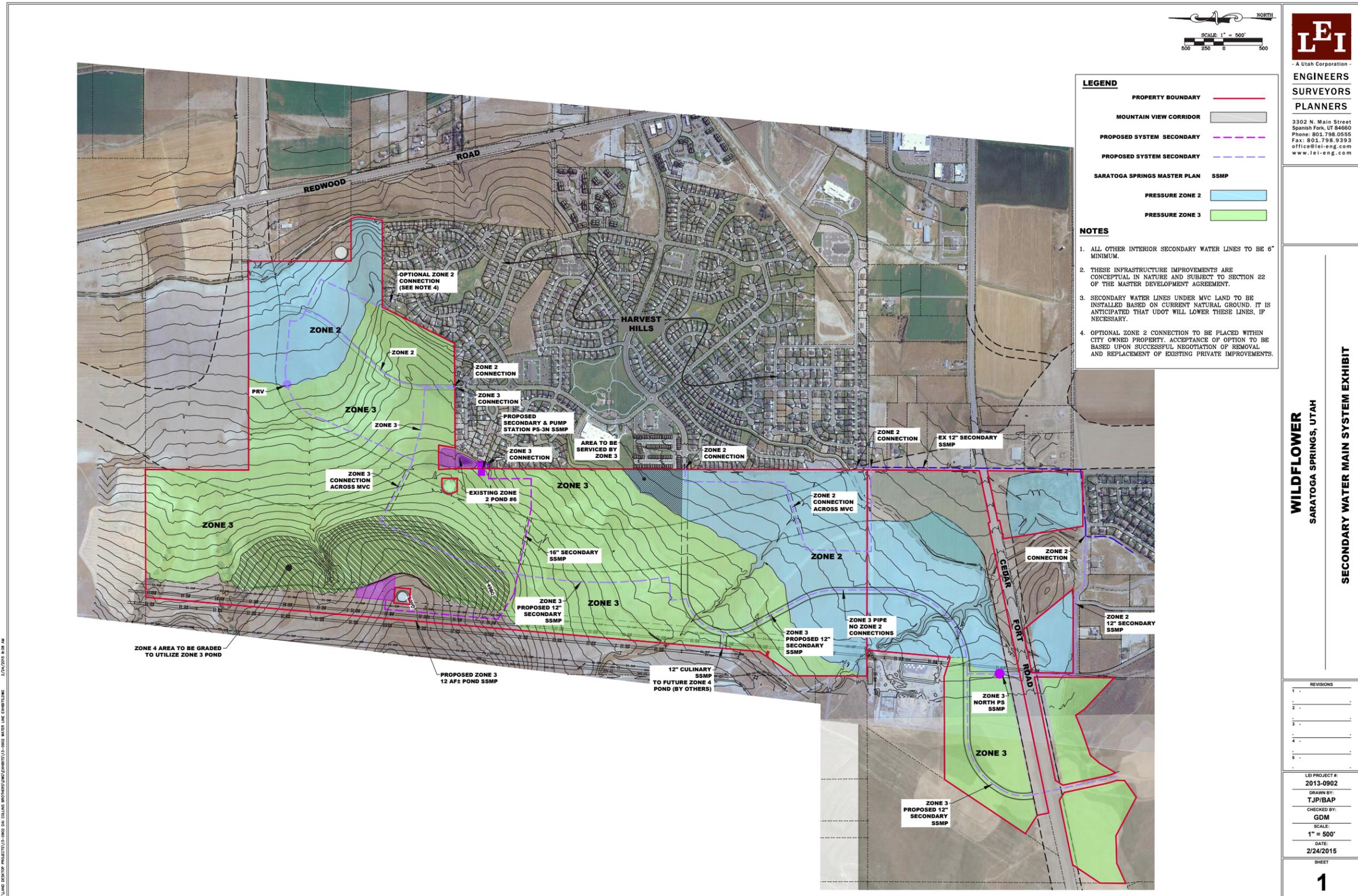
- The existing tank can accommodate approximately 270 to 338 ERCs for combined indoor and outdoor water use.
- The developer anticipates proposing a separate water agreement to request approval to delay the construction of a Zone 3 secondary water pond until the demand on Tank 4 has reached 270 – 338 ERCs.



- Construction of a Zone 3 secondary water pond must occur once Tank 4's capacity is fully allocated by the City. The pond construction will result in additional culinary storage capacity.



# EXHIBIT TWELVE: Secondary Water System



- A Utah Corporation -  
**ENGINEERS  
 SURVEYORS  
 PLANNERS**  
 3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.9393  
 office@lei-eng.com  
 www.lei-eng.com

**LEGEND**

PROPERTY BOUNDARY	
MOUNTAIN VIEW CORRIDOR	
PROPOSED SYSTEM SECONDARY	
PROPOSED SYSTEM SECONDARY	
SARATOGA SPRINGS MASTER PLAN	SSMP
PRESSURE ZONE 2	
PRESSURE ZONE 3	

- NOTES**
1. ALL OTHER INTERIOR SECONDARY WATER LINES TO BE 6" MINIMUM.
  2. THESE INFRASTRUCTURE IMPROVEMENTS ARE CONCEPTUAL IN NATURE AND SUBJECT TO SECTION 22 OF THE MASTER DEVELOPMENT AGREEMENT.
  3. SECONDARY WATER LINES UNDER MVC LAND TO BE INSTALLED BASED ON CURRENT NATURAL GROUND. IT IS ANTICIPATED THAT UDOT WILL LOWER THESE LINES, IF NECESSARY.
  4. OPTIONAL ZONE 2 CONNECTION TO BE PLACED WITHIN CITY OWNED PROPERTY. ACCEPTANCE OF OPTION TO BE BASED UPON SUCCESSFUL NEGOTIATION OF REMOVAL AND REPLACEMENT OF EXISTING PRIVATE IMPROVEMENTS.

**WILDFLOWER**  
 SARATOGA SPRINGS, UTAH  
 SECONDARY WATER MAIN SYSTEM EXHIBIT

REVISIONS

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3	
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LEI PROJECT #:  
 2013-0902  
 DRAWN BY:  
 TJP/BAP  
 CHECKED BY:  
 GDM  
 SCALE:  
 1" = 500'  
 DATE:  
 2/24/2015

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**1**

U:\LAND DESKTOP PROJECTS\13-0902 DR. COLLIER BROOKHURST\DWG\13-0902 WATER LINE EXHIBIT12.DWG 2/24/2015 9:08 AM

## Secondary Water

Analysis of the existing system is based on the conditions present at the time of analysis and does not create or imply a reservation of capacity.

Please refer to the Wildflower Secondary Water Main System Exhibit and the following details:

### Wildflower Secondary Water Demands

**Design Criteria:**

Secondary Water Source:	0.75 AF/yr	
	1.2 gpm/ERC	
Secondary Water Storage:	1475 gal/ERC	
Regional Commercial:	2 ERC/Ac	Planning Est

Area	Connections ERC	Secondary Water			
		Source Req'd gpm/ERC	Total Source gpm	Storage Req'd gal/ERC	Total Storage gal
Zone 2 Residential	499	1.2	599	1,475	736,025
Zone 2 Regional Commercial	180	1.2	216	1,475	265,500
Zone 2 Subtotal	679		815		1,001,525
Available Capacity			See Note		1,990,000
Zone 3 Residential	969	1.2	1,163	1,475	1,429,275
Zone 3 Regional Commercial	140	1.2	168	1,475	206,500
Zone 3 Subtotal	1,109		1,331		1,635,775
Available Capacity			See Note		See Note
<b>Overall Total</b>	<b>1,788</b>		<b>2,146</b>		<b>2,637,300</b>

**Zone 2 Development:**

Development within Zone 2 consists of approximately 499 residential ERCs and 180 commercial ERCs. The existing Pond #6, with its recent expansion, will be utilized for service to this zone and connection points are detailed on the Exhibit.

The current source capacity for Zones 2 and 3 is based on three existing wells with a combined capacity of 2,100 gpm. This flow translates to 1,750 ERCs at a requirement of 1.2 gpm per ERC.



With an existing demand of 1,600 ERCs, the existing system only has an excess capacity of 150 ERCs. Additional source development by the developer or through capital improvement projects will be necessary to ensure adequate source to meet the phased improvements and build out needs of Wildflower.

The current storage capacity of the existing Pond #6 with its recently completed expansion is as follows:

Pond Size:	9.6 Acre-Ft
Pond Size:	3,120,000 Gal
Current Demand:	(2,360,000) Gal based on 1,600 ERC at 1,475 Gal/ERC
Remaining Capacity:	760,000 Gal

Remaining ERCs: 515 ERC

This remaining capacity is below the projected Wildflower build-out demand of 679 ERCs. The remaining storage deficiency will need to be addressed to meet the needs of Wildflower and could be met through one of the following

:

- Expansion of the existing Pond #6 to allow for the additional ERCs.
- Construction of other Zone 2 ponds within the system which will accommodate additional storage.

### **Zone 3 Development:**

Development within Zone 3 consists of approximately 969 residential ERCs and 140 commercial ERCs.

The current source capacity for Zones 2 and 3 is based on three existing wells with a combined capacity of 2,100 gpm. This flow translates to 1,750 ERCs at a requirement of 1.2 gpm per ERC. With an existing demand of 1,600 ERCs, the existing system only has an excess capacity of 150 ERCs. Additional source development by the developer or through capital improvement projects will be necessary to ensure adequate source to meet the phased improvements and build out needs of Wildflower.

In order to build within Zone 3, a secondary water pond and associated improvements must be constructed or an agreement reached with the City to delay the construction of the pond until the capacity of the culinary Tank 4 is fully allocated by the City. Based on current conditions, the storage capacity of the existing Tank 4 is as follows:

Total Tank Size:	1,200,000 Gal
Emergency Storage:	(150,000) Gal
Fire Storage:	(240,000) Gal
Existing Demand:	(218,000) Gal based on indoor & outdoor use of 125 ERC
Reservation:	(120,000) Gal for Paul Johnson



Remaining Capacity: 472,000 Gal

Remaining ERCs:

Indoor Only: 1,180 ERC

Indoor & Outdoor: 270 ERC

Remaining ERCs with Reservation:

Indoor Only: 1,480 ERC

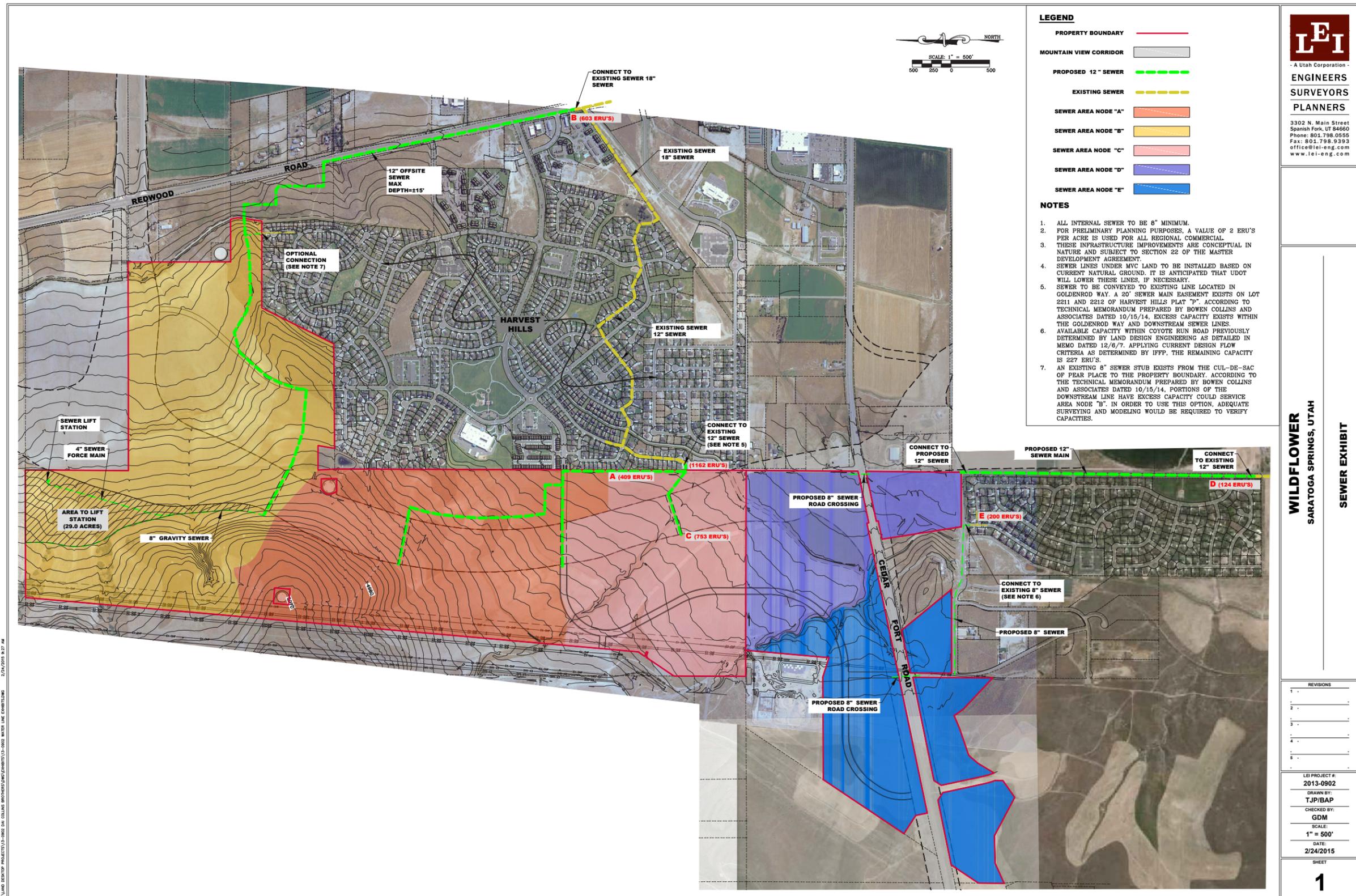
Indoor & Outdoor: 338 ERC

Based on these current conditions and calculations, the following must occur in order to fully utilize the excess capacity of Tank 4:

- The existing tank can accommodate approximately 270 to 338 ERCs for combined indoor and outdoor water use.
- The developer anticipates proposing a separate water agreement to request approval to delay the construction of a Zone 3 secondary water pond until the demand on Tank 4 has reached 270 – 338 ERCs.
- Construction of a Zone 3 secondary water pond must occur once Tank 4's capacity is fully allocated by the City. The pond construction will result in additional culinary storage capacity.



# EXHIBIT THIRTEEN: Master Sewer



- LEGEND**
- PROPERTY BOUNDARY
  - MOUNTAIN VIEW CORRIDOR
  - PROPOSED 12" SEWER
  - EXISTING SEWER
  - SEWER AREA NODE "A"
  - SEWER AREA NODE "B"
  - SEWER AREA NODE "C"
  - SEWER AREA NODE "D"
  - SEWER AREA NODE "E"
- NOTES**
1. ALL INTERNAL SEWER TO BE 8" MINIMUM.
  2. FOR PRELIMINARY PLANNING PURPOSES, A VALUE OF 2 ERU'S PER ACRE IS USED FOR ALL REGIONAL, COMMERCIAL.
  3. THESE INFRASTRUCTURE IMPROVEMENTS ARE CONCEPTUAL IN NATURE AND SUBJECT TO SECTION 22 OF THE MASTER DEVELOPMENT AGREEMENT.
  4. SEWER LINES UNDER MVC LAND TO BE INSTALLED BASED ON CURRENT NATURAL GROUND. IT IS ANTICIPATED THAT UDOT WILL LOWER THESE LINES, IF NECESSARY.
  5. SEWER TO BE CONVEYED TO EXISTING LINE LOCATED IN GOLDENROD WAY. A 20' SEWER MAIN EASEMENT EXISTS ON LOT 2211 AND 2212 OF HARVEST HILLS PLAT "P". ACCORDING TO TECHNICAL MEMORANDUM PREPARED BY BOWEN COLLINS AND ASSOCIATES DATED 10/15/14, EXCESS CAPACITY EXISTS WITHIN THE GOLDENROD WAY AND DOWNSTREAM SEWER LINES.
  6. AVAILABLE CAPACITY WITHIN COYOTE RUN ROAD PREVIOUSLY DETERMINED BY LAND DESIGN ENGINEERING AS DETAILED IN MEMO DATED 12/6/7, APPLYING CURRENT DESIGN FLOW CRITERIA AS DETERMINED BY IFFP, THE REMAINING CAPACITY IS 227 ERU'S.
  7. AN EXISTING 8" SEWER STUB EXISTS FROM THE CUL-DE-SAC OF PEAR PLACE TO THE PROPERTY BOUNDARY. ACCORDING TO THE TECHNICAL MEMORANDUM PREPARED BY BOWEN COLLINS AND ASSOCIATES DATED 10/15/14, PORTIONS OF THE DOWNSTREAM LINE HAVE EXCESS CAPACITY COULD SERVICE AREA NODE "B". IN ORDER TO USE THIS OPTION, ADEQUATE SURVEYING AND MODELING WOULD BE REQUIRED TO VERIFY CAPACITIES.

**LEI**  
 - A Utah Corporation -  
**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**  
 3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.9393  
 office@lei-eng.com  
 www.lei-eng.com

**WILDFLOWER**  
 SARATOGA SPRINGS, UTAH  
**SEWER EXHIBIT**

NO.	REVISIONS
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LEI PROJECT #:  
**2013-0902**  
 DRAWN BY:  
**TJP/BAP**  
 CHECKED BY:  
**GDM**  
 SCALE:  
**1" = 500'**  
 DATE:  
**2/24/2015**

SHEET  
**1**

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## Sanitary Sewer

Analysis of the existing system is based on the conditions present at the time of analysis and does not create or imply a reservation of capacity.

Five sanitary sewer service areas have been determined for the ultimate build out of the Wildflower development. Please refer to the Wildflower Sewer Exhibit and the following details:

### **Sewer Area Node "A"**

This area contributes approximately 409 ERCs and is proposed to be conveyed to the existing sewer located within Goldenrod Way of the Harvest Hills subdivision. There is an existing sewer easement on Lots 2211 and 2212 of Harvest Hills Plat "P". According to the technical memorandum prepared by Bowen Collins and Associates, dated 10-15-14, capacity currently exists within the existing pipelines downstream to accommodate these flows.

### **Sewer Area Node "B":**

This area will require the installation of a 12" off-site sewer improvement from the far northeast of the project to a connection with an existing sewer main at the intersection of Redwood Road and the Welby Jacobs Canal. This line will service the estimated 609 ERCs from Wildflower as well as the future development west of Redwood Road.

In order to service an area of approximately 29 acres at the far north of the Wildflower development, a lift station may be required. This is due to the location and grade of the Mountain View Corridor.

An optional connection has been shown with a connection to an existing 8" sewer stub from the cul-de-sac at Pear Place in Harvest Hills. This sewer stub was placed with the intent of servicing the project through the Harvest Hills system. The technical memorandum prepared by Bowen Collins and Associates, dated 10-15-14 shows that the proposed 603 ERCs can be accommodated through much, but not all, of the system to an ultimate discharge to the 18" in Redwood as shown as Node B. Additional survey work and modeling must be completed in order to ensure that capacity exists or to identify necessary improvements.

### **Sewer Area Node "C":**

As with Node "A", the approximate 753 ERCs from this area are proposed to be conveyed to Goldenrod Way.

### **Sewer Area Node "D":**

The approximate 124 ERCs from the regional commercial area will require the installation of a sewer main from the intersection of 1200 North and 800 West, then south along 800 West to



approximately North Buffalo Drive. At the time of development of this area, other options may also be available for service due to other development occurring in the area.

**Sewer Area Node “E”:**

The approximately 200 ERCs is proposed to be conveyed to the existing sewer line located in North Coyote Run. A previous capacity study performed by Land Design Engineering, attached, determined that there may be a total of 354 homes connected to this line. These calculations were completed on 12-06-07 and used 371 gallons per day per household. With the current documented flow requirement of 255 gallons per day per household, the capacity of this line potentially increases to 515 ERCs. With the existing 288 homes and fire station (5 ERC), the remaining capacity is 222 ERCs and may accommodate the anticipated flow from Wildflower. Again, other options may be available in this area due to other development occurring in the area.



## TECHNICAL MEMORANDUM

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### **Wildflower Development Sanitary Sewer Evaluation**

**TO:** Nathan Shipp  
Sunrise 3, LLC  
1099 West South Jordan Parkway  
South Jordan, UT 84095

**COPIES:** Keith Larson

**FROM:** Andrew McKinnon  
Bowen, Collins & Associates  
154 East 14000 South  
Draper, Utah 84020

**DATE:** October 15, 2014

---

### **INTRODUCTION**

Sunrise 3, LLC owns some property at the north end of Saratoga Springs that it would like to develop. Sunrise retained Bowen Collins & Associates to evaluate the impacts proposed development would have on the Saratoga Springs sewer collection system. The purpose of this technical memo is to summarize these impacts.

### **WILDFLOWER PLANNED DEVELOPMENT**

The area of development included in the Wildflower Development is indicated in Figure 1 along with potential connection points to the City's wastewater collection system. Figure 1 also shows the available capacity in the sewer trunk lines modeled by Saratoga Springs. For several of the connection points, there is a significant amount of sewer pipe that the City did not have survey data for during the development of the City's hydraulic model. As a result, the conclusions of this memo are limited to those pipelines for which survey data existed. Additional surveying and analysis may be needed to identify the available capacity in the unsurveyed sections of sewer collection mains downstream of proposed connections.

### **Overall Development Density**

The City's general plan does not include impact of the Mountain View Corridor on planning areas. As a result, the City's sewer collection system is planned to accommodate more ERUs

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than would be allowed by the City's typical general plan densities. The Wildflower Development has densities significantly higher than the City's general plan densities. However, the net density when including the area of Mountain View Corridor results in a density of approximately 3 equivalent residential units (ERUs) per acre. This is approximately equal to the density for the overall area included in the City's general plan. As a result, the higher densities will not have an impact on City's larger sewer facilities.

### **Harvest Hills Connection**

The City does not have survey data for the sewer pipes directly downstream of the Harvest Hills 800 West connection. There is a 12-inch diameter sewer trunk line in Golden Rod Way that would have capacity for the proposed 409 ERUs. An 8-inch pipe at a minimum slope of 0.4% would have capacity to accommodate approximately 586 ERUs within the City's design criteria. This would suggest there may be capacity in the downstream pipe even if it is only 8-inch diameter. The contributing areas and slope of the downstream sewer pipes should be verified to determine if adequate capacity is available in the pipes directly downstream.

### **Aspen Hills Connection**

The City does not have survey data for the sewer pipes directly downstream of the Aspen Hills 800 West connection. However, there is a bottle neck in the sewer mains downstream of the proposed connection that would begin to surcharge with growth beyond 500 ERUs. The affected pipes (approximately 1,300 feet of 8-inch pipe) would need to be replaced with larger diameter pipe to accommodate the 753 ERUs that are proposed to discharge at the Aspen Hills connection.

As an alternative to connecting into Aspen Hills Blvd, if it is possible to direct wastewater toward Golden Rod Way, the sewer mains in the lines downstream of Golden Rod Way have significantly more capacity. There is a single pipe in the line downstream that has remaining capacity for only 1,210 ERUs (which is less than the rest of the line). This would appear to be adequate to accommodate the proposed ERU contributions for both the Harvest Hills and Aspen Hills connections (409 ERUs + 753 ERUs).

### **1200 North & Sagehill Dr Connection**

The City does not have survey data for the sewer pipes directly downstream of the 1200 North connections (800 West & Sagehill Dr). There is a 12-inch diameter sewer trunk line near 600 North 800 West that would have capacity for the proposed 324 ERUs (from the 1200 North and Sagehill Dr connection). An 8-inch pipe at a minimum slope of 0.4% would have capacity to accommodate approximately 586 ERUs within the City's design criteria. This would suggest there may be capacity in the pipes directly downstream even if they are only 8-inch diameter. The contributing areas and slope of the downstream sewer pipes should be verified to determine if adequate capacity is available in the pipes directly downstream.



## **Redwood Road Connection**

It is assumed that the new facilities being proposed to connect at Redwood Road will be sized appropriately to satisfy the City's design criteria. The proposed collection plan will direct approximately 260 ERUs that would have been collected by a proposed sewer trunk line in 800 West into the Redwood Road trunk line at the Redwood Connection point indicated in Figure 1. This results in a peak flow through the Redwood trunkline approximately 115 gpm higher than previously planned. This has no negative impact on the Redwood Road collection lines.

It should be noted that there is some developable area west of Redwood Road and north of Spring Hill Dr that may wish to discharge to the proposed offsite sewer system. This area should be considered when sizing the proposed offsite sewer main.

## **800 West Trunk Line**

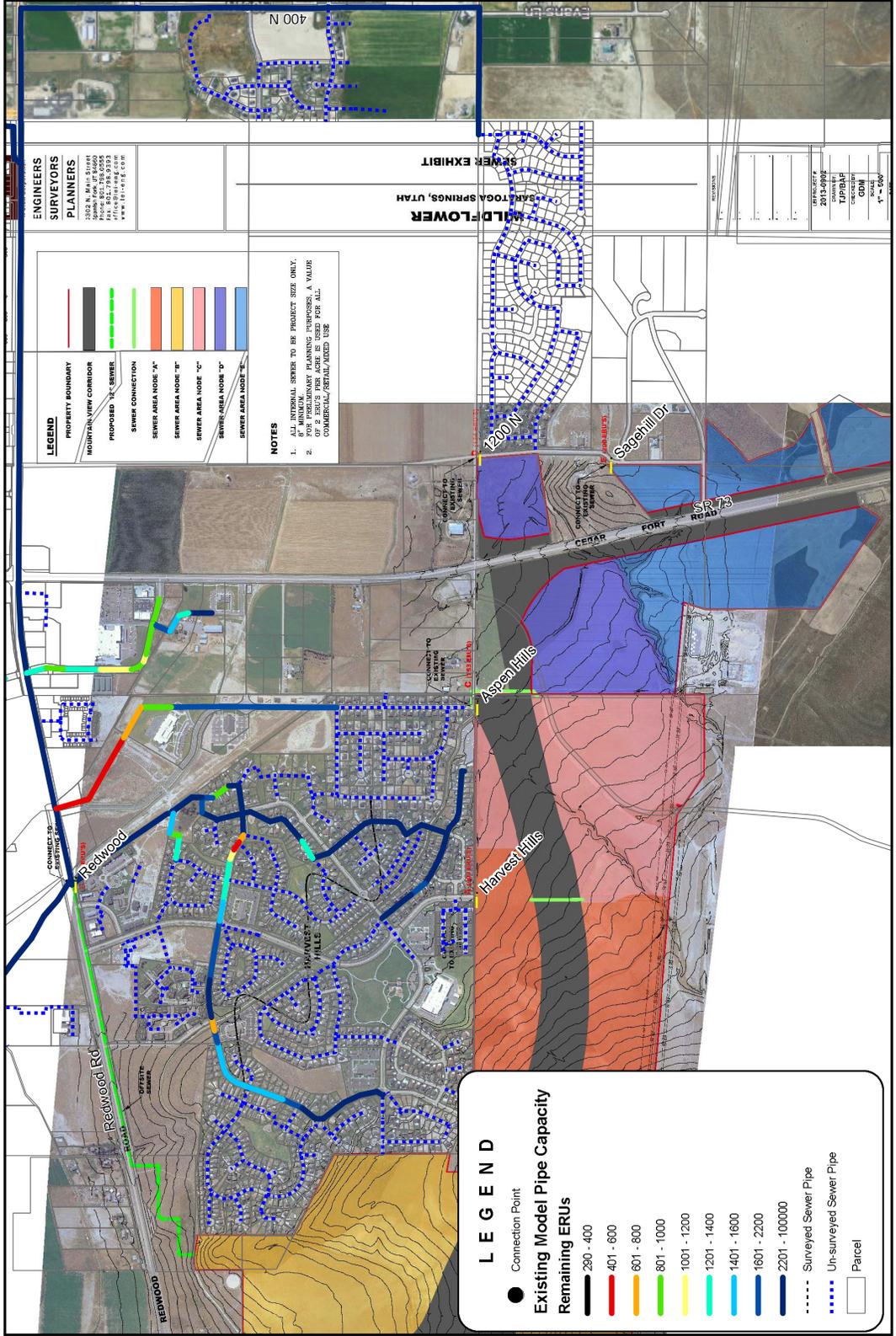
The long term sewer collection plan for the City currently includes collecting all of the area proposed to connect to Harvest Hills and Aspen Hills by a new 800 West sewer trunk line. This trunk line was intended to collect wastewater for most of the area in the Wildflower Development along with areas west of the Wildflower Development. However, if improvements are made to Aspen Hills sewer mains, the 800 West trunk line alignment may not be necessary for the Wildflower Development at buildout. The Redwood Road collection lines have sufficient capacity to accommodate flows at the Harvest Hills and Aspen Hills connections if they are not ultimately collected by a new trunk along 800 West.

However, the Aspen Hills Blvd and Harvest Hills Blvd lines will not be capable of accommodating all of the proposed ERUs in areas west of the Wildflower Development that are part of the City's buildout annexation boundary. Areas west of the Wildflower Development that may annex into Saratoga Springs should be considered when sizing sewer collection lines in the Wildflower Development. An alternate alignment for a new sewer trunk to collect areas to the west of the Wildflower Development will need to be developed if the 800 West trunk line is not constructed. The City may wish to upsize some lines in the Wildflower Development accordingly.

## **CONCLUSIONS AND RECOMMENDATIONS**

The proposed sewer discharge points proposed by Wildflower Development have little impact on existing sewer pipes in the City's collection system with one exception. The Aspen Hills connection cannot accommodate all of the proposed ERUs. It is recommended that development be limited to downstream collection pipes capacity of 500 ERUs or that the deficient pipes be replaced to accommodate future growth. The other proposed connections have sewer trunk lines in the vicinity with capacity to accommodate the proposed development. However, additional investigation is needed to determine if there is adequate capacity in sewer mains that were not included in the City's hydraulic model because of unavailable survey information. The alignment for the City's proposed 800 West trunk line may need modified to better accommodate the needs of the Wildflower Development as the area west of the Wildflower Development that may be annexed by Saratoga Springs.





**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**  
 3352 N. BAILEY ST. #104  
 SALT LAKE CITY, UT 84119  
 TEL: 801.798.9333  
 WWW.FH+FG.COM

**LEGEND**

PROPERTY BOUNDARY	—
MOUNTAIN VIEW CORRIDOR	—
PROPOSED 12" SEWER	—
SEWER CONNECTION	—
SEWER AREA NODE "A"	—
SEWER AREA NODE "B"	—
SEWER AREA NODE "C"	—
SEWER AREA NODE "D"	—
SEWER AREA NODE "E"	—

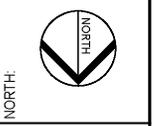
**NOTES**

1. ALL MATERIALS SHALL BE TO PRODUCT SIZE ONLY.
2. FOR PRELIMINARY PLANNING PURPOSES, A VALUE OF MINIMUM 15' SHALL BE USED FOR ALL COMMERCIAL/RESIDENTIAL USE.

**LEGEND**

Connection Point	●
Existing Model Pipe Capacity Remaining ERUs	—
280 - 400	—
401 - 600	—
601 - 800	—
801 - 1000	—
1001 - 1200	—
1201 - 1400	—
1401 - 1600	—
1601 - 2200	—
2201 - 1000000	—
Surveyed Sewer Pipe	—
Un-surveyed Sewer Pipe	—
Parcel	□

SCALE  
 0 750 1,500 Feet  
 FIGURE NO. 1



**EXISTING PIPE CAPACITY & CONNECTION POINTS**

**WILDFLOWER DEVELOPMENT SEWER PLAN IMPACTS**

SUNRISE 3, LLC  
**Bowen Collins & Associates, Inc.**  
 CONSULTING ENGINEERS

P:\Saratoga Springs\2013 LEI Work\Figure3B - Project N6.mxd amc\kmon 10/20/2014



**WILDFLOWER**  
 AT SARATOGA SPRINGS  
 COMMUNITY PLAN



12-06-07

To: City of Saratoga Spring

From: Land Design Engineering

Re: Coyote Creek Sewer Connection

We have reviewed the As-Built Drawings for the existing 8" sewer line for Sunrise Meadows. It is proposed to connect Coyote Creek Development sewer line into this existing sewer line at a point on Coyote Run Street Existing Station of 12+75 +/-.

From this connection point the sewer line has a length of approximately 3500 feet and an average slope of 0.6%. It then connects into a larger Sewer Line on 11600 west. Along an existing Sewer line in Sunrise Meadows, the slowest flow is identified. This worst case scenario point for the 8" sewer line is a section with a slope of 0.4%.

The sewer flow calculations for the pipe at this point are performed on the attached spreadsheet. For this, we used a Mannings "n" value of 0.011. This was determined from the PVC pipe manufacturer. (Initial 'n' for this pipe is 0.009, then ages to 0.011) In addition, the water level in the pipe was considered to be 80% of the diameter of the pipe. Using hydraulic principles illustrated on the attached diagram, it is determined that at the 80% depth level, the volumetric flow rate (Q) is 90% of Q<sub>full</sub>. (i.e. Q<sub>80%</sub> = 0.90 x Q<sub>full</sub>). Using 371 gallons per day (gpd) per household and a peaking factor of 4, we have determined that there can be a total of 354 homes connected to this line. There are currently 288 existing homes on this line, and an existing Fire Station. The Fire station Sewage Flow is approximately equaled to 5 homes. Therefore, this sewer line can handle an additional 61 homes.

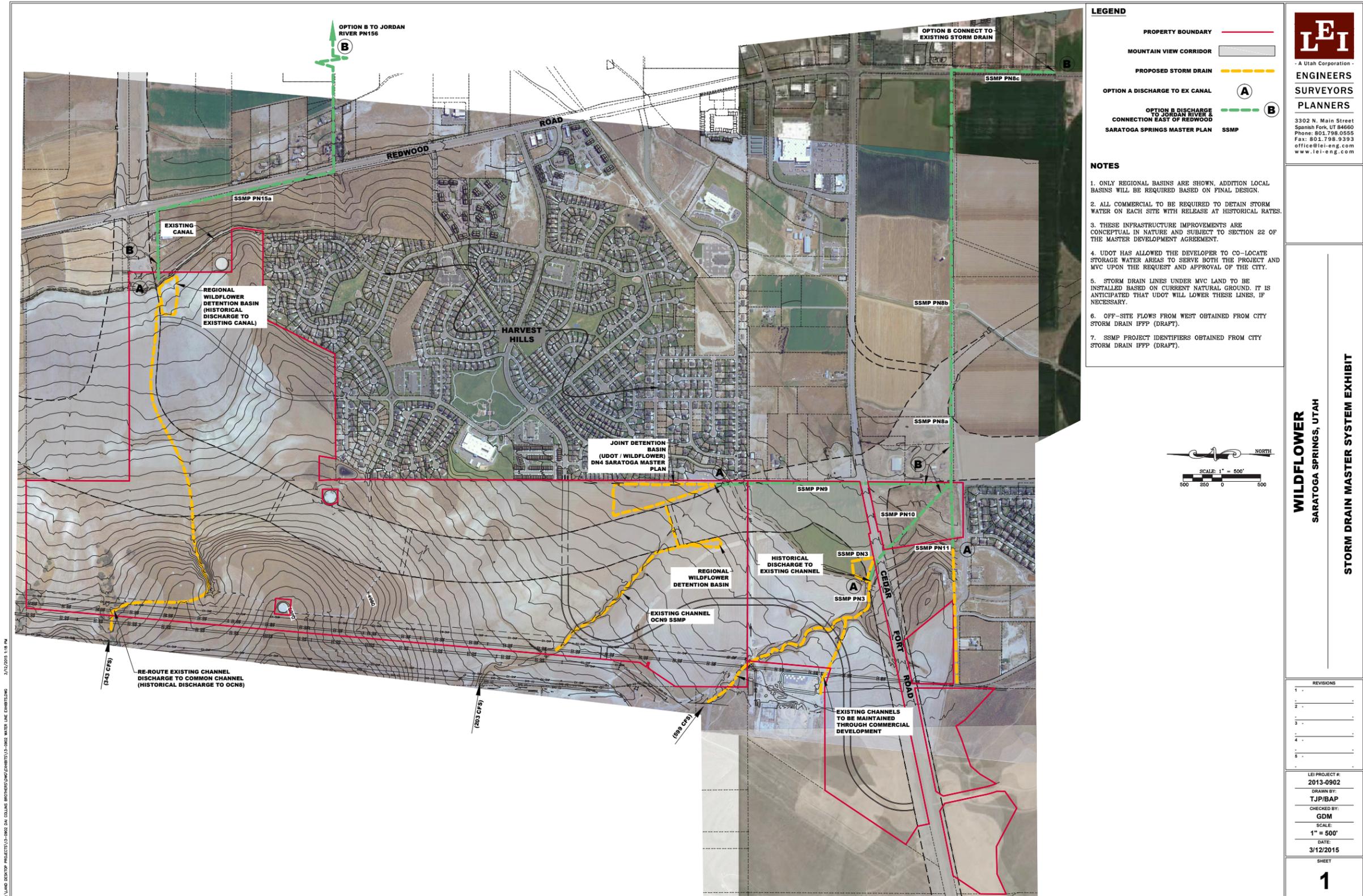
Signed,

Carey Johanson, EIT

Kraig Johnson, PhD, PE



# EXHIBIT FOURTEEN: Master Storm Drain



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## Storm Drainage

Please refer to the Wildflower Storm Drain Master System Exhibit and the following details:

### Joint Facilities:

With the segmenting of the property with the Mountain View Corridor, UDOT and the developer desire to cooperate in the collection and disposal of storm drainage. In a cooperative effort, the use of joint facilities has been discussed. The final location, design and use is to be determined in conjunction with the subdivision design.

### Off-Site Drainages:

Three main channels, as depicted within the Exhibit, discharge onto the property from drainage basins to the west. These flows are to be conveyed through the Wildflower development. Drainages are to be protected and enhanced to comply with City of Saratoga Springs design standards.

### On-Site Storm Water Disposal:

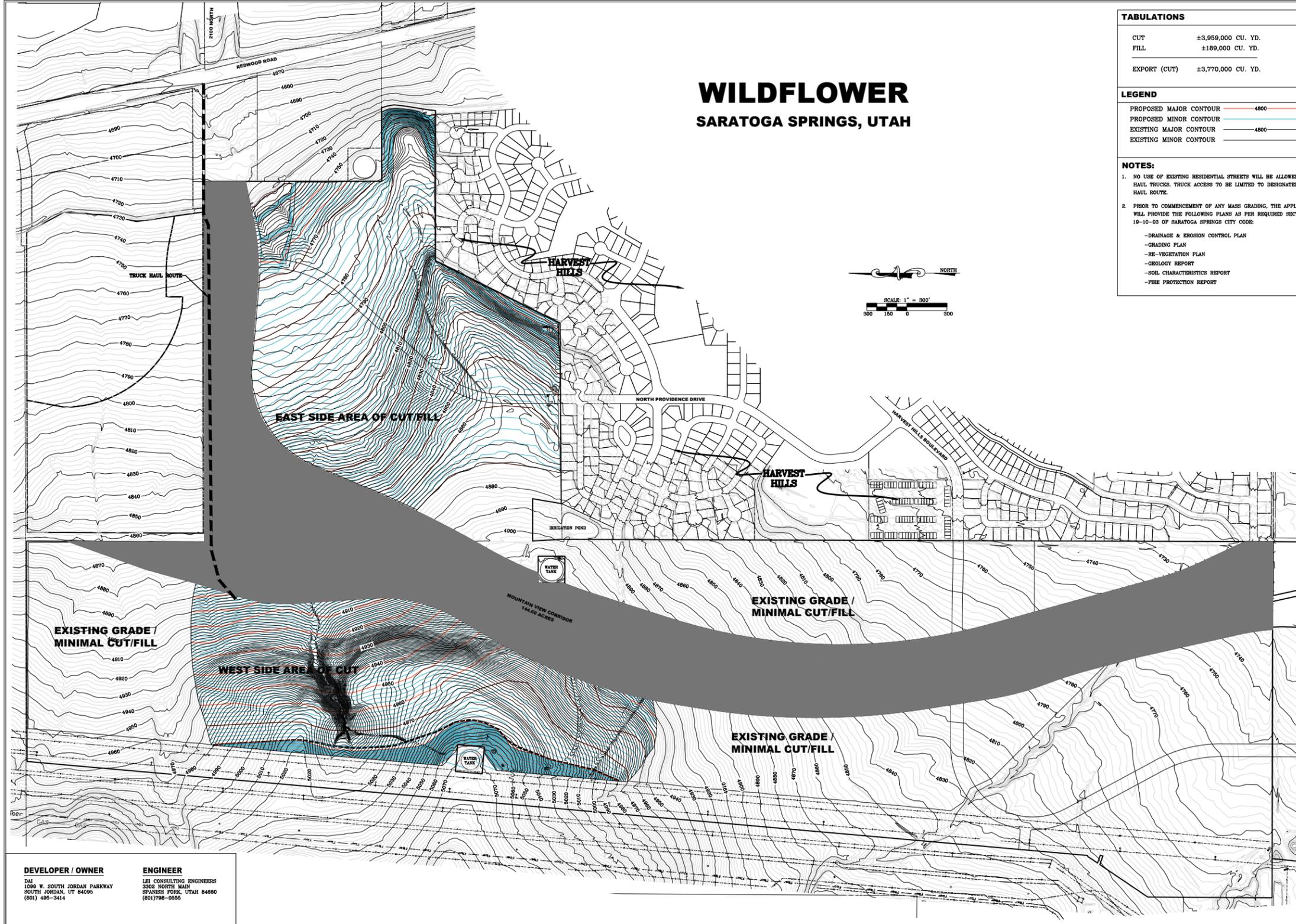
Two options are proposed for the disposal of storm water from the development:

*Discharge to Existing Canal.* The historical flow of storm water from a majority of the development property is to the existing canal located at the eastern edge of the property. In order for this option to be utilized, approval in a form acceptable to Saratoga Springs must be granted by the canal company.

*Discharge to Saratoga Springs Master Plan Facilities.* If discharge is not allowed to the existing canal, downstream storm drainage facilities will be required. These facilities are depicted within the Exhibit and are to be according to the Saratoga Springs Master Plan.



# EXHIBIT FIFTEEN: Mass Grading Plan



TABULATIONS	
CUT	±3,959,000 CU. YD.
FILL	±189,000 CU. YD.
EXPORT (CUT)	±3,770,000 CU. YD.

LEGEND	
PROPOSED MAJOR CONTOUR	4800
PROPOSED MINOR CONTOUR	
EXISTING MAJOR CONTOUR	4800
EXISTING MINOR CONTOUR	

**NOTES:**

- NO USE OF EXISTING RESIDENTIAL STREETS WILL BE ALLOWED FOR HAUL TRUCKS. TRUCK ACCESS TO BE LIMITED TO DESIGNATED HAUL ROUTE.
- PRIOR TO COMMENCEMENT OF ANY MASS GRADING, THE APPLICANT WILL PROVIDE THE FOLLOWING PLANS AS PER REQUIRED SECTION 19-10-03 OF SARATOGA SPRINGS CITY CODE:
  - DRAINAGE & EROSION CONTROL PLAN
  - GRADING PLAN
  - RE-VEGETATION PLAN
  - GEOLOGY REPORT
  - SOIL CHARACTERISTICS REPORT
  - FIRE PROTECTION REPORT

**LEI**  
ENGINEERS  
SURVEYORS  
PLANNERS

3302 N. Main Street  
Spanish Fork, UT 84660  
Phone: 801.798.0555  
Fax: 801.798.9393  
office@lei-eng.com  
www.lei-eng.com

**WILDFLOWER**  
SARATOGA SPRING, UTAH  
**MASS GRADING PLAN**

REVISIONS
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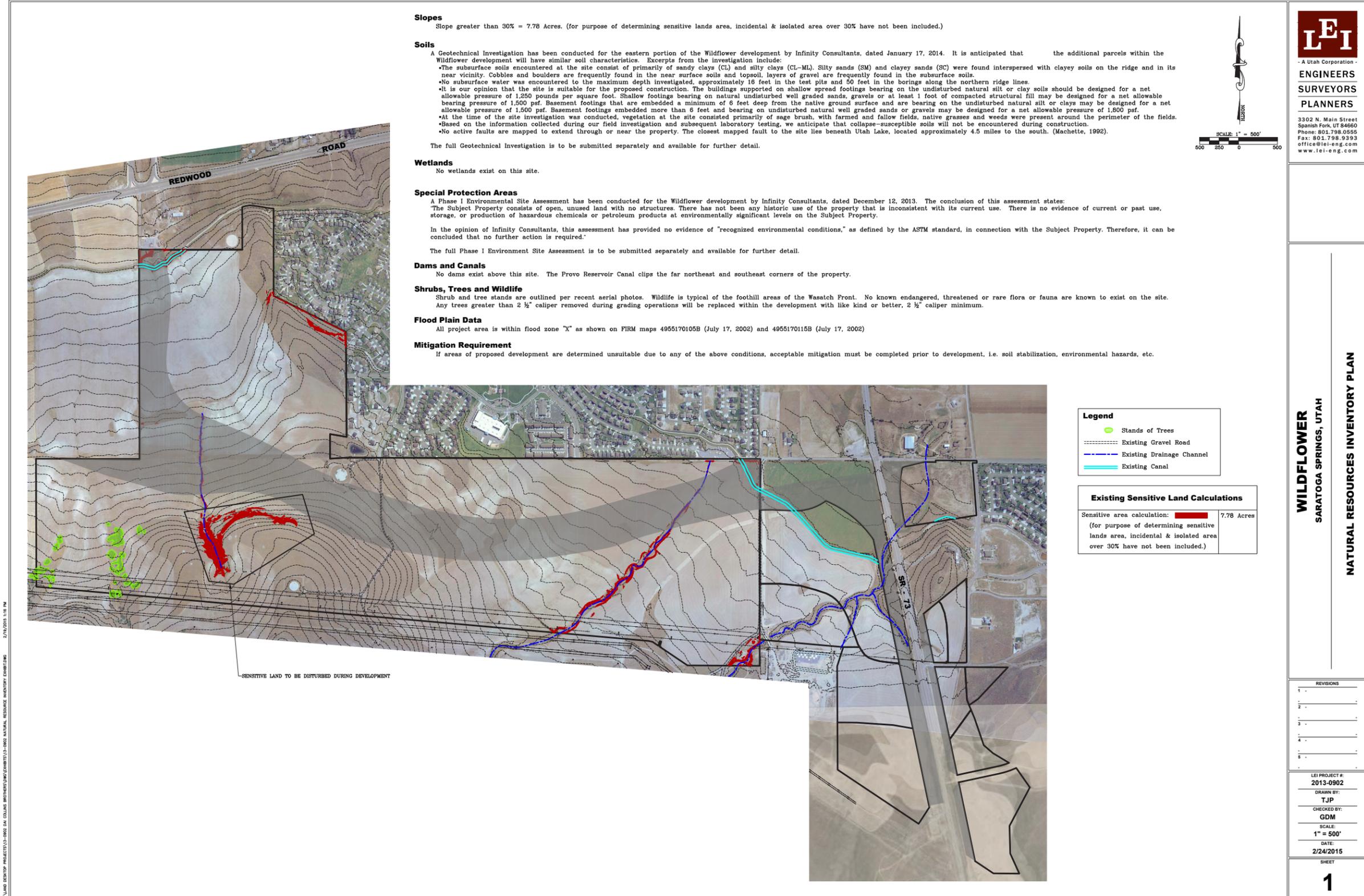
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DRAWN BY: BLS  
CHECKED BY: GDM  
SCALE: 1" = 300'  
DATE: 2/24/2015  
SHEET

**1**

**DEVELOPER / OWNER**  
DAI  
1099 W. SOUTH JORDAN PARKWAY  
SOUTH JORDAN, UT 84095  
(801) 495-3414

**ENGINEER**  
LEI CONSULTING ENGINEERS  
3302 NORTH MAIN  
SPANISH FORK, UTAH 84660  
(801)798-0555

# EXHIBIT SIXTEEN: Natural Resources Inventory Plan



**Slopes**

Slope greater than 30% = 7.78 Acres. (for purpose of determining sensitive lands area, incidental & isolated area over 30% have not been included.)

**Soils**

A Geotechnical Investigation has been conducted for the eastern portion of the Wildflower development by Infinity Consultants, dated January 17, 2014. It is anticipated that the additional parcels within the Wildflower development will have similar soil characteristics. Excerpts from the investigation include:  
 •The subsurface soils encountered at the site consist of primarily of sandy clays (Cl) and silty clays (Cl-Ml). Silty sands (SM) and clayey sands (SC) were found interspersed with clayey soils on the ridge and in its near vicinity. Cobbles and boulders are frequently found in the near surface soils and topsoil, layers of gravel are frequently found in the subsurface soils.  
 •No subsurface water was encountered to the maximum depth investigated, approximately 16 feet in the test pits and 50 feet in the borings along the northern ridge lines.  
 •It is our opinion that the site is suitable for the proposed construction. The buildings supported on shallow spread footings bearing on the undisturbed natural silt or clay soils should be designed for a net allowable pressure of 1,250 pounds per square foot. Shallow footings bearing on natural undisturbed well graded sands, gravels or at least 1 foot of compacted structural fill may be designed for a net allowable bearing pressure of 1,500 psf. Basement footings that are embedded a minimum of 6 feet deep from the native ground surface and are bearing on the undisturbed natural silt or clays may be designed for a net allowable pressure of 1,500 psf. Basement footings embedded more than 6 feet and bearing on undisturbed natural well graded sands or gravels may be designed for a net allowable pressure of 1,800 psf.  
 •At the time of the site investigation was conducted, vegetation at the site consisted primarily of sage brush, with farmed and fallow fields, native grasses and weeds were present around the perimeter of the fields.  
 •Based on the information collected during our field investigation and subsequent laboratory testing, we anticipate that collapse-susceptible soils will not be encountered during construction.  
 •No active faults are mapped to extend through or near the property. The closest mapped fault to the site lies beneath Utah Lake, located approximately 4.5 miles to the south. (Machette, 1992).

The full Geotechnical Investigation is to be submitted separately and available for further detail.

**Wetlands**

No wetlands exist on this site.

**Special Protection Areas**

A Phase I Environmental Site Assessment has been conducted for the Wildflower development by Infinity Consultants, dated December 12, 2013. The conclusion of this assessment states:  
 The Subject Property consists of open, unused land with no structures. There has not been any historic use of the property that is inconsistent with its current use. There is no evidence of current or past use, storage, or production of hazardous chemicals or petroleum products at environmentally significant levels on the Subject Property.

In the opinion of Infinity Consultants, this assessment has provided no evidence of "recognized environmental conditions," as defined by the ASTM standard, in connection with the Subject Property. Therefore, it can be concluded that no further action is required.

The full Phase I Environment Site Assessment is to be submitted separately and available for further detail.

**Dams and Canals**

No dams exist above this site. The Provo Reservoir Canal clips the far northeast and southeast corners of the property.

**Shrubs, Trees and Wildlife**

Shrub and tree stands are outlined per recent aerial photos. Wildlife is typical of the foothill areas of the Wasatch Front. No known endangered, threatened or rare flora or fauna are known to exist on the site. Any trees greater than 2 1/2" caliper removed during grading operations will be replaced within the development with like kind or better, 2 1/2" caliper minimum.

**Flood Plain Data**

All project area is within flood zone "X" as shown on FIRM maps 4955170105B (July 17, 2002) and 4955170115B (July 17, 2002)

**Mitigation Requirement**

If areas of proposed development are determined unsuitable due to any of the above conditions, acceptable mitigation must be completed prior to development, i.e. soil stabilization, environmental hazards, etc.



**LEI**  
 - A Utah Corporation -  
**ENGINEERS**  
**SURVEYORS**  
**PLANNERS**  
 3302 N. Main Street  
 Spanish Fork, UT 84660  
 Phone: 801.798.0555  
 Fax: 801.798.9393  
 office@lei-eng.com  
 www.lei-eng.com

**Legend**

- Stands of Trees
- Existing Gravel Road
- Existing Drainage Channel
- Existing Canal

Existing Sensitive Land Calculations	
Sensitive area calculation:	7.78 Acres
(for purpose of determining sensitive lands area, incidental & isolated area over 30% have not been included.)	

**WILDFLOWER**  
 SARATOGA SPRINGS, UTAH  
**NATURAL RESOURCES INVENTORY PLAN**

REVISIONS	
1	
2	
3	
4	
5	
6	

LEI PROJECT #:  
**2013-0902**  
 DRAWN BY:  
**TJP**  
 CHECKED BY:  
**GDM**  
 SCALE:  
**1" = 500'**  
 DATE:  
**2/24/2015**

SHEET  
**1**

U:\LAND DESIG\TOP PROJECTS\13-0902 SA COLLINS BRIDGE\DWG\13-0902 NATURAL RESOURCE INVENTORY DRAWING.DWG 2/17/2015 11:16 AM

## Environmental

An Environmental Site Assessment was conducted by Infinity Consultants. The following are the essential findings of the investigation, expressing that no major environmental issues were found.

- Utilities such as water, sewer, electricity and gas are available in the streets of the Harvest Hill Subdivision to the east of the Subject Property. Capacity needs to be verified.
- Surficial soils were visually inspected and appear to be sandy silts with gravel and boulders at higher elevations. The property is covered by native grasses, weeds, and plowed fields.
- The property slopes gradually and changes several hundred feet from its high point in the northwest to lowest points in the northeast and south. The slope is much steeper in the north west, in the vicinity to the westernmost City water tank.
- An irrigation canal runs through the Subject Property at two locations, First in the southern part of the property just north of and then crossing Cedar Fort Road, then second in the northeast portion of the property.
- All drainages crossing the property seem to end at the irrigation canal.
- There are high power electrical transmission lines bordering the west boundary of the Subject Property.
- There are no constructed structures on the entire property or evidence of past structures.
- The Central Utah Eater Conservancy District is currently constructing a large culinary water storage tank just west of the Subject Property at about 8800 North. Buried culinary water pipes are being installed across the Subject Property to supply this tank.



## Soil Report

A partial Geotechnical Investigation was conducted by Infinity Consultants; additional Geotechnical Studies will be provided for each development area prior to any mass grading. The City does not guarantee that all land is developable and will require complete geotechnical data for each Village Plan. See Exhibit Seventeen. The following are the essential findings of the investigation, expressing that no major environmental issues were found.

- It is our opinion that the site is suitable for the proposed construction.
- The subsurface soils encountered at the site consist of primarily sandy clays (CL) and silty clays (CL-ML). Silty sands (SM) and clayey sands (SC) were found interspersed with clayey soils on the ridge and in its near vicinity. Cobbles and boulders are frequently found in the near surface soils and topsoil, layers of gravel are frequently found in the subsurface soils.
- No subsurface water was encountered to the maximum depth investigated, approximately 16 feet in the test pits and 50 feet in the borings along the northern ridge lines.



# GEOTECHNICAL INVESTIGATION

A 157 ACRE PORTION OF THE  
WILDFLOWER DEVELOPMENT  
PLUS THE MYRNA GRANT PROPERTIES

SARATOGA SPRINGS, UTAH

PREPARED FOR:

DAI MANAGERS, LLC

January 17, 2014



WILDFLOWER  
AT SARATOGA SPRINGS  
COMMUNITY PLAN

## EXECUTIVE SUMMARY

- 1 Wildflower is a proposed 184 acre development located west of Redwood Road approximately 1.5 miles north of highway 73 (Lehi Main Street/Cedar Fort Road) in Saratoga Springs Utah. The project area is located on the northern and western borders of the Harvest Hills subdivision and consists of a northern region and a southern region that are joined by a narrow neck of property. The northern region slopes generally to the east by north east and has some steep slopes. The southern region of the property predominantly slopes to the southeast with mild slopes. Approximately 70 percent of the property was previously farmed. The remaining 30 percent of the property is undisturbed rangeland with wild grasses and sage brush.
- 2 The subsurface soils encountered at the site consist of primarily of sandy clays (CL) and silty clays (CL-ML). Silty sands (SM) and clayey sands (SC) were found interspersed with clayey soils on the ridge and in its near vicinity. Cobbles and boulders are frequently found in the near surface soils and topsoil, layers of gravel are frequently found in the subsurface soils.
- 3 No subsurface water was encountered to the maximum depth investigated, approximately 16 feet in the test pits and 50 feet in the borings along the northern ridge lines.
- 4 It is our opinion that the site is suitable for the proposed construction. The buildings supported on shallow spread footings bearing on the undisturbed natural silt or clay soils should be designed for a net allowable pressure of 1,250 pounds per square foot. Shallow footings bearing on natural undisturbed well graded sands, gravels or at least 1 foot of compacted structural fill may be designed for a net allowable bearing pressure of 1,500 psf. Basement footings that are embedded a minimum of 6 feet deep from the native ground surface and are bearing on the undisturbed natural silt or clays may be designed for a net allowable pressure of 1,500 psf. Basement footings embedded more than 6 feet and bearing on undisturbed natural well graded sands or gravels may be designed for a net allowable pressure of 1,800 psf.
- 5 For this property, a minimum roadway profile consisting of 3 inches asphalt over 7 inches of road base on compacted native material is recommended for residential streets. The standard Saratoga Springs City residential roadway section satisfies this requirement. Soft areas in native subgrade should be removed and replaced with properly compacted structural fill.
- 6 Additional geotechnical information related to foundations, subgrade preparation, pavement design, retaining walls, and materials is included in Section 4 of this report.



# EXHIBIT EIGHTEEN: Wildland/Urban Interface

## Fire Protection

The project lies entirely within the City defined Wildland/Urban Interface. At the time a preliminary plat is submitted, a Fire Protection Plan in accordance with the Wildland-Urban Interface Code shall be prepared to assess site specific wildfire risk. This assessment includes consideration of location, topography, aspect, flammable vegetation, climatic conditions and fire history. The plan shall address water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space and vegetation management. Feasibility of the Fire Protection Plan will be reviewed at time of preliminary plat and full details finalized before a final plat is approved.

