



**AMENDED  
ALPINE CITY COUNCIL MEETING AGENDA**

**NOTICE** is hereby given that the **CITY COUNCIL** of Alpine City, Utah will hold a Public Meeting on **Tuesday, May 14, 2019 at 7:00 pm** at Alpine City Hall, 20 North Main Street, Alpine, Utah as follows:

- I. CALL MEETING TO ORDER \*Council Members may participate electronically by phone\***
  - A. Roll Call:** Mayor Troy Stout
  - B. Prayer:** Ramon Beck
  - C. Pledge of Allegiance:** By invitation
  
- II. CONSENT CALENDAR**
  - A. Minutes of the Alpine City Council Meeting held April 23, 2019**
  - B. Partial Payment #1 - Pressurized Irrigation Meter Project Phase 3 - \$125,525.88**
  - C. Pressurized Irrigation Meter Project - Phase 3 Materials: Hydro Specialties \$318,788.04**
  - D. Resolution No. R2019-08: 2018 Municipal Wastewater Planning Program**
  - E. Approve Bid for Morgan Pavement - \$20,950**
  - F. Smithco- HVAC Replacement City Hall - \$18,915.00**
  - G. 800 S. Waterline Payment - Sterling Don Excavation - \$71,615.24**
  
- III. PUBLIC COMMENT**
  
- IV. REPORTS and PRESENTATIONS**
  - A. 2018 TAP Award - Utah Local Government Trust**
  - B. Financial Report**
  
- V. ACTION/DISCUSSION ITEMS**
  - A. PUBLIC HEARING - Tentative Budget FY 2019-2020**
  - B. Tentative Budget FY 2019-2020.** The City Council will vote to accept the Tentative Budget and schedule a public hearing on the Final Budget.
  - C. Montdella Senior Housing Development - Final Approval.** The City Council will consider approving the proposed senior housing development consisting of 25 units at 242 S. Main Street.
  - D. Willow Canyon Height Restriction - Whittenburgs.** The City Council will consider a request to waive the right to enforce the height restriction for property located at 153 N. Bald Mtn. Drive.
  - E. Improvement to Open Space - Tree Planting near Ridge Lane.** The City Council will consider approve the request to plant trees in the public open space east of Ridge Lane.
  - F. Improvement to Open Space - Trailhead Kiosk in Lambert Park.** The City Council will consider approving construction of a kiosk in Lambert Park.
  - G. Ordinance No. 2019- 10, Urban Wildland Interface.** The City Council will consider approving amendments to the urban wildland interface ordinance regarding fire protection measures.
  - H. Utah County Recreation Grant.** The City Council will consider accepting the 2019 Municipal Recreation Grant.
  
- VI. STAFF REPORTS**
- VII. COUNCIL COMMUNICATION**
- VIII. EXECUTIVE SESSION:** Discuss litigation, property acquisition or the professional character, conduct or competency of personnel.

**ADJOURN**

Mayor Troy Stout  
May 10, 2019

THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS. If you need a special accommodation to participate, please call the City Recorder's Office at (801) 756-6347 x 4.  
CERTIFICATE OF POSTING. The undersigned duly appointed recorder does hereby certify that the above agenda notice was on the bulletin board located inside City Hall at 20 North Main and sent by e-mail to The Daily Herald located in Provo, UT, a local newspaper circulated in Alpine, UT. This agenda is also available on our web site at [www.alpynecity.org](http://www.alpynecity.org) and on the Utah Public Meeting Notices website at [www.utah.gov/pmn/index.html](http://www.utah.gov/pmn/index.html)

# PUBLIC MEETING AND PUBLIC HEARING ETIQUETTE

**Please remember all public meetings and public hearings are now recorded.**

- All comments **must** be recognized by the Chairperson and addressed through the microphone.
- When speaking to the Planning Commission/City Council, please stand, speak slowly and clearly into the microphone, and state your name and address for the recorded record.
- Be respectful to others and refrain from disruptions during the meeting. Please refrain from conversation with others in the audience as the microphones are very sensitive and can pick up whispers in the back of the room.
- Keep comments constructive and not disruptive.
- Avoid verbal approval or dissatisfaction of the ongoing discussion (i.e., booing or applauding).
- Exhibits (photos, petitions, etc.) given to the City become the property of the City.
- Please silence all cellular phones, beepers, pagers or other noise making devices.
- Be considerate of others who wish to speak by limiting your comments to a reasonable length, and avoiding repetition of what has already been said. Individuals may be limited to two minutes and group representatives may be limited to five minutes.
- Refrain from congregating near the doors or in the lobby area outside the council room to talk as it can be very noisy and disruptive. If you must carry on conversation in this area, please be as quiet as possible. (The doors must remain open during a public meeting/hearing.)

## **Public Hearing vs. Public Meeting**

If the meeting is a **public hearing**, the public may participate during that time and may present opinions and evidence for the issue for which the hearing is being held. In a public hearing there may be some restrictions on participation such as time limits.

Anyone can observe a **public meeting**, but there is no right to speak or be heard there - the public participates in presenting opinions and evidence at the pleasure of the body conducting the meeting.

**ALPINE CITY COUNCIL MEETING**  
**Alpine City Hall, 20 N. Main, Alpine, UT**  
**April 23, 2019**

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**I. CALL MEETING TO ORDER:** The meeting was called to order at 7:00 pm by Lon Lott, Mayor pro tem.

**A. Roll Call:** The following were present and constituted a quorum:

Mayor Troy Stout was excused.

Councilmembers: Lon Lott, mayor pro tem, Carla Merrill, Ramon Beck, Jason Thelin

Councilmembers not present: Kimberly Bryant were excused.

Staff: Jed Muhlestein – City Engineer, Charmayne Warnock- Recorder, David Church – City Attorney, Austin Roy – City Planner, Ted Stillman – Code Enforcement Officer, Reed Thompson – Fire Chief

Others: Sylvia Christiansen, Frazier Bullock, Alan Gillman, Andrew Sheets, Gavin Fietkou, Brooke Sheets, Aaron Rust, Gavin Pincock, Will Jones, Breezy Anson

Shane Sorensen was at a conference and was excused.

**B. Prayer:** Carla Merrill

**C. Pledge of Allegiance:** Gavin Pincock

**II. CONSENT CALENDAR**

**A. Minutes of the Alpine City Council meeting held April 9, 2019**

**B. Award 800 S. Waterline Project - Sterling Dawn Excavation - \$71,615.24** Jed Muhlstein said the waterline project was to replace a 6-inch line at the intersection of Alpine Highway and 800 South. UDOT was scheduled to do some work on Alpine Highway in the spring and wouldn't allow the asphalt to be cut for several years after they completed their work, so the City wanted to extend the waterline underneath the highway before UDOT began their work.

**C. Award Main Street/600 N. Storm Drain Project - CAP Construction - \$103,224.39.** The storm drain project would extend the storm drain on 600 North to Fort Creek as shown on the Master Plan. Currently the water ran down Main Street to 200 North, which was inadequate. The project would complete the segment to Fort Creek and take the pressure of downstream locations.

**D. Resolution No. R2019-06 Interlocal Agreement with Utah County to conduct Alpine City's 2019 Municipal Election.** The Council had approved the Interlocal Agreement with Utah County to administer the 2019 Municipal Election at the previous meeting. Resolution No. R2019-06 would formalize it.

Jed Muhlestein said staff recommended awarding the bids to the low bids for each project which were Sterling Dawn Excavation for the waterline project at CAP Construction for the storm drain.

**MOTION:** Ramon Beck moved to approve the Consent Calendar. Carla Merrill seconded. Ayes: 4 Nays: 0. Motion passed.

<u><b>Ayes</b></u>	<u><b>Nays</b></u>
Jason Thelin	none
Ramon Beck	
Carla Merrill	
Lon Lott	

### 1 III. PUBLIC COMMENT

2  
3 Breezy Anson - Wilderness Drive. He said the Trail Committee had invited the community to meet at the rodeo  
4 grounds on Saturday morning to help work on the trails in Lambert Park. There was a lot of damage to the trails  
5 caused by people on bikes and horses using them in wet conditions. They needed to put up signs saying to stay off  
6 the trails when it was wet.

7  
8 Mr. Anson also had some questions about the proposed ordinance on flag lots. Lon Lott said that would be discussed  
9 later in the meeting and he could bring up his concerns at that point.

10  
11 Lon Lott said he appreciated the contribution from the high school students in planting the tree seedlings in Lambert  
12 Park. He asked about watering them. Ed Bush said the tank was up there and he was getting the watering organized.

### 13 IV. REPORTS AND PRESENTATIONS

14  
15  
16 **A. Financial Report:** Austin Roy said the financial report was included in the electronic packet for the  
17 Council's review. If they had questions, they could bring them up with Shane Sorensen when he got back.

18  
19 **B. Percentage of City as Open Space/Parks:** Austin Roy said Mayor Stout had wanted to know the  
20 percentage of open space in Alpine. The total open space was 27% of Alpine's land area as shown on the table  
21 below.

Type of Open Space	Area in acres	Area in square miles	Percent
City Area	5,093	7.96	
Natural Open Space	978	1.53	19%
Developed Open Space	108	0.17	2%
Private Open Space	184	0.29	4%
Conservation Easements	112	0.17	2%

22  
23  
24 Jason Thelin said he thought the Mayor also wanted to see a comparison of the Alpine's open space to Highland and  
25 Cedar Hills.

26  
27 **C. Extending the Parking Restriction on Fort Canyon Road into the Three Falls Subdivision.** Frazier  
28 Bullock said the developers of Three Falls had spent \$300,000 building a public park lot at the entrance into the  
29 subdivision along with extensive trails so the public could access the open space. He said people were not using the  
30 parking lot. Rather, they were parking alongside the road and trespassing on building lots in the subdivision which  
31 did not yet have homes on them. As president of the HOA, he spent a great deal of time patrolling the subdivision  
32 and informing people they were trespassing. Some people were quite hostile. One group of people was having a  
33 family reunion on one of the vacant lots. He said they were also building fires and staying overnight, which was  
34 very concerning. He asked that the no parking restriction along Fort Canyon Road be extended into the subdivision.  
35 Enforcement would be done in partnership with the City and the HOA in Three Falls.

36  
37 The Council briefly discussed the request. It was pointed out that the reason there was a parking restriction along  
38 Fort Canyon Road was because it was very narrow. The road in Three Falls was a standard width road just like other  
39 roads in the Alpine City and people parked along them. The Council questioned why there should be an exception  
40 for Three Falls. Jason Thelin said the fire issue was a problem that needed to be addressed. As far as the parking on  
41 the road, he said there was a learning curve. For many years the land had been open and used by the public. When  
42 homes were built on the lots, people would understand that it was private property.

43  
44 Aaron Russon said he was on the Three Falls HOA Committee. He agreed there was a learning curve, but he felt that  
45 if parking was restricted along the road, it would accelerate the learning curve. It would be nice to restrict the  
46 parking up there, especially if there was a fire.

### 47 V. ACTION/DISCUSSION ITEMS

1           **A. Three Falls Secondary Access – Finalize Gates:** Lon Lott noted that the staff recommendation on  
 2 gating the secondary access road had been amended and emailed out to the Council.

3  
 4 Jed Muhlstein said that Thee Falls subdivision was a plat amendment of the original Ilangeni Estates subdivision.  
 5 The amended plat required developers of Three Falls to provide a secondary access road that would connect to  
 6 Alpine Cove. The road would also provide emergency access for the northeast side of Alpine including Alpine Cove  
 7 and Box Elder subdivision. After the secondary access road was approved, the developer requested the ability to put  
 8 gates on it. At the meeting of August 25, 2015, a motion was made to approve the developer's request for crash gates  
 9 on the secondary access road. Prior to the motion, the minutes contain discussion about the HOA being responsible  
 10 for plowing the secondary access road, but the subject of plowing was not reflected in the motion, nor was there any  
 11 mention in the motion about what times the gates would be closed. The developer was asking for a formal  
 12 clarification.

13  
 14 Jed Muhlestein said that if the secondary access road was gated, there would have to be culdesac at the beginning of  
 15 the road so vehicles could turn around when the gate was closed. In addition, the fire chief needed to be consulted  
 16 about what type of gates would be installed since they needed to get through in the event of an emergency.

17  
 18 Jed Muhlestein said it was the staff's recommendation that the road be closed year-round and only be used for  
 19 emergency access. The road was too narrow and too steep and had too many sharp curves to be safe for regular  
 20 travel.

21  
 22 Regarding the culdesac, the developer proposed placing it on a couple of lots rather than open space, which would  
 23 either require a plat amendment or easement for a right-of-way.

24  
 25 David Church clarified that the recommendation was to close the road to motorized traffic, but it would still be open  
 26 to bikers and pedestrians. He said that in 1984 when Ilangeni Estates was approved, it only had one access, but when  
 27 the Three Falls plat amendment was proposed, both parties agreed on a trade of more density in exchange for  
 28 building a secondary access road. He said that both the fire and police would like a better road than what was  
 29 proposed, but there was no good way to get a secondary road to either Fort Canyon or the Cove area.

30  
 31 Will Jones said the developers of Three Falls would like to see the road gated year-round. In exchange for that, they  
 32 would put in the turnaround and the HOA would plow the road in the winter.

33  
 34 The Council discussed the proposal at length. One of the concerns the Council had was whether or not the City  
 35 should own the land on which the culdesac was built or be given an easement. It was suggested that if a future City  
 36 Council wanted to open the road, the developers would revoke the easement. Carla Merrill felt it would be better for  
 37 the City to have the ground deeded to the City now, so a future Council wasn't bound.

38  
 39 After more discussion, David Church suggested that the Council make the motion as recommended by staff and add  
 40 to it a condition that the terms be put into a contract agreeable to both the City and the developer so the obligations  
 41 were very clear.

42  
 43 Chief Reed Thompson said the fire code required that an emergency road have all-weather access and be able to  
 44 support travel by emergency vehicles.

45  
 46 **MOTION:** Jason Thelin moved to approve the year-round gating of the secondary access road in Three Falls  
 47 subdivision with the following conditions:

- 48  
 49           1. The secondary access road be open to public uses such as hiking, horseback riding, biking, and other  
 50 similar non-motorized activities, and include signage on both gates saying as such;  
 51           2. The secondary access road have an all-weather surface and be open in the event of an emergency to  
 52 both public and emergency vehicular traffic;  
 53           3. The gate design and operation be approved by the Lone Peak Fire Department, and the design to allow  
 54 enough space for bikes to pass through;  
 55           4. A City standard cul-de-sac be built prior to the entry of the secondary access road on Three Falls Way;  
 56           5. The plat be amended, or an easement provided, to accommodate a cul-de-sac on Three Falls Ways;

- 1           6. So long as the gates remained closed, the HOA will provide snow removal services allowing for the  
2 road to be open at all times in case of an emergency.  
3           7. The City Attorney will put the necessary terms into a contract that is agreeable to the developer and  
4 bring it back to the City Council for approval.  
5

6 Ramon Beck seconded. Ayes: 3 Nays: 1. Motion passed.  
7

8                           Ayes

9 Jason Thelin  
10 Ramon Beck  
11 Lon Lott  
12

8                           Nays

9 Carla Merrill

13                   **B. Ordinance No. 2019-07, Amendment to Municipal Code - Administrative Hearings and**

14 **Procedures:** Austin Roy said that under the current process, code violations had to be sent to court, which was a  
15 lengthy and ineffective process. Ted Stillman, the new Code Enforcement Officer, in consultation with the City  
16 Attorney, had been working on updating the code enforcement process and making it more effective. The proposed  
17 ordinance would create an in-house administrative hearing process so code violations could be dealt with at the city  
18 level. City staff would have the power to issue fines for violations. Appeals would be handled through an  
19 Administrative Law Judge, which would allow for more immediate resolution of violations.  
20

21 David Church said a number of cities had moved to this method of resolving code violations. It decriminalized a  
22 large section of the ordinances and the standard of proof was lower. Cities realized better code compliance and it  
23 was a friendlier way to approach people. The new method allowed cities to handle violations more quickly. When  
24 they went into the court system, code violations were not seen as a crime, so they were given low priority and it took  
25 months to resolve relatively simple matters. The Administrative Law Judge would be someone independent of the  
26 City. He said he had recommended this method of handling code violations five years ago.  
27

28 Austin Roy said the remaining ordinances on the agenda addressed specific issues relative to code enforcement and  
29 were needed to implement the Administrative Hearings and Procedures Ordinance.  
30

31 **MOTION:** Ramon Beck moved to approve Ordinance No. 2019-07 - Administrative Procedure as proposed. Carla  
32 Merrill seconded. Ayes: 4 Nays: 0. Motion passed.  
33

34                           Ayes

35 Jason Thelin  
36 Ramon Beck  
37 Carla Merrill  
38 Lon Lott  
39

34                           Nays

35 None

40                   **C. Ordinance No. 2019-08, Land Disturbance Permit.** Austin Roy said this ordinance specified that  
41 there needed to be cash bond when land was disturbed during the development process. If there was a violation, it  
42 would enable the City to take the fine out of the bond.  
43

44 **MOTION:** Ramon moved to approve Ordinance No. 2019-08, Land Disturbance Permit, as proposed. Jason Thelin  
45 seconded. Ayes: 4 Nays: 0. Motion passed.  
46

47                           Ayes

48 Jason Thelin  
49 Ramon Beck  
50 Carla Merrill  
51 Lon Lott  
52

47                           Nays

48 None

53                   **D. Ordinance No. 2019-06, Nuisance Violations.** Code violations such as a junky abandoned car or other  
54 complaints which were classified as a nuisance would go to the Administrative Law Judge.  
55

1 **MOTION:** Carla Merrill moved to approve Ordinance No. 2019-06, Nuisance Violations. Ramon Beck seconded.  
2 Ayes: 4 Nays: 0. Motion passed.

3		
4	<u>Ayes</u>	<u>Nays</u>
5	Jason Thelin	None
6	Ramon Beck	
7	Carla Merrill	
8	Lon Lott	

9  
10 **E. Ordinance No. 2019-04, Open Space Cash Bonds.** Austin Roy said the proposed ordinance added  
11 language specifying a cash bond for development on properties adjacent to open space.

12  
13 **MOTION:** Jason Thelin moved to approve Ordinance No. 2019-04, Open Space Cash Bonds. Ramon Beck  
14 seconded. Ayes: 4 Nays: 0. Motion passed.

15		
16	<u>Ayes</u>	<u>Nays</u>
17	Jason Thelin	None
18	Ramon Beck	
19	Carla Merrill	
20	Lon Lott	

21  
22  
23 **F. Ordinance No. 2019-05, Infrastructure Protection Bond.** Austin Roy said the proposed ordinance  
24 specified that infrastructure protection bonds were to be cash bonds.

25  
26 **MOTION:** Jason Thelin moved to approve Ordinance No. 2019-05, Infrastructure Protection Bonds. Carla Merrill  
27 seconded. Ayes: 4 Nays: 0. Motion passed.

28		
29	<u>Ayes</u>	<u>Nays</u>
30	Jason Thelin	None
31	Ramon Beck	
32	Carla Merrill	
33	Lon Lott	

34  
35  
36 **G. Ordinance No. 2019-09, Gateway Historic Requirements – Building Material Samples.** Austin Roy  
37 said the proposed amendment would require developers to submit material samples when building in the Gateway  
38 Historic Zone.

39  
40 **MOTION:** Ramon Beck moved to approve Ordinance 2019-09, Building Material Samples. Jason Thelin  
41 seconded. Ayes: 4 Nays: 0. Motion passed.

42		
43	<u>Ayes</u>	<u>Nays</u>
44	Jason Thelin	None
45	Ramon Beck	
46	Carla Merrill	
47	Lon Lott	

48  
49 **H. Ordinance No. 2019-02, Dwelling Clusters.** Austin Roy said this amendment proposed removing  
50 language that referred to development clusters and changing it to lot cluster. It also included the definition of a  
51 cluster.

52  
53 **MOTION:** Carla Merrill moved to approve Ordinance No. 2019-02 amending Article 3.01.110, Article 3.09.060,  
54 and Article 3.05.010. Ramon Beck seconded. Ayes: 4 Nays: 0. Motion passed.

55  
56

	<u>Ayes</u>	<u>Nays</u>
1		
2	Jason Thelin	None
3	Ramon Beck	
4	Carla Merrill	
5	Lon Lott	
6		

7 **I. Ordinance No. 2019-03, Flag Lots.** Austin Roy said the objective of the ordinance was to eliminate  
8 flag lots where they had a narrow neck behind a traditional lot. David Church said Alpine's ordinance already  
9 prohibited flag lots. This ordinance further discouraged odd-shaped lots. The ordinance applied to lots that were not  
10 in a PRD. The ordinance also added a new definition of a lot.

11  
12 Breezy Anson – Wilderness Drive: Mr. Anson said he'd met with staff previously and presented some concept plans  
13 for development of his parents' property along Westfield Road. There were a few larger lots and sloped lots that  
14 wouldn't meet that proposed flag lot ordinance and he was concerned about that.

15  
16 Jed Muhlestein said that Mr. Anson's proposed development would be designed under the PRD Ordinance which  
17 allowed for more slope. There was already an ordinance that provided for exceptions.

18  
19 The Council discussed the proposed ordinance. There was some confusion about the language and the use of the  
20 term "lot width." A motion was made to approve the ordinance, then after more discussion, a substitute motion was  
21 made to send it back to the city staff to better define the intent of the ordinance.

22  
23 **MOTION:** Ramon Beck moved to approve Ordinance No. 2019-03 pertaining to flag lots. Carla Merrill seconded.  
24 No vote was taken. A substitute motion was made.

25  
26 **MOTION:** Jason Thelin made a substitute motion to send Ordinance No. 2019-03 back to City Staff to make the  
27 language more clear. Ramon seconded. Ayes: 3 Nays: 1. Carla Merrill voted nay.

	<u>Ayes</u>	<u>Nays</u>
28		
29	Jason Thelin	Nay
30	Ramon Beck	
31	Lon Lott	
32		
33		

34 **J. Resolution No. R2019-07 Amending the Consolidated Fee Schedule:** Austin Roy said the  
35 amendments to the Consolidated Fee Schedule would make it consistent with the approved ordinances regarding  
36 cash bonds and fines.

37  
38 **MOTION:** Ramon Beck moved to approve Resolution No. R2019-07 amending the Consolidated Fee Schedule.  
39 Carla Merrill seconded. Ayes: 4 Nays: 0. Motion passed.

	<u>Ayes</u>	<u>Nays</u>
40		
41	Jason Thelin	None
42	Ramon Beck	
43	Carla Merrill	
44	Lon Lott	
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## 47 48 VI. STAFF REPORTS

49  
50 Chief Reed Thompson said he was working with Austin Roy to update the Urban Wildland Interface requirements.  
51 The goal was to address fire regulations for homes in areas prone to fires on an individual basis rather than using an  
52 arbitrary line. They were using the 2006 Interface Code as the basis, and the Unified Fire Authority had a  
53 companion document. Any home over 10,000 square feet would have to be sprinkled. He said the fire department  
54 was also trying to prepare for the fire and flood season.

1 Austin Roy said that in a previous meeting there had been discussion about shooting near Lambert Park, and it was  
2 suggested they construct a pavilion in a trailhead. He said plans to build such a structure were in process.  
3

4 David Church reported that the total judgement of \$2,325,726 against the City from the Patterson lawsuit had been  
5 paid. Interest was accruing daily so it was paid promptly.  
6

7 Jed Muhlstein said the 3rd phase of installing PI meters had begun. Regarding the waterline project on 800 South, he  
8 said the road cut permit with UDOT required them to do the construction work at night between the hours of 9 pm to  
9 8 am so there would probably be at least 3 hours in that time period when the water would be shut off. Notification  
10 about the water shutoff would be made to those affected.  
11

## 12 VII. COUNCIL COMMUNICATION

13  
14 Lon Lott said the Eye On Water app for smart phones and internet was very useful. About 200 people had signed up  
15 for it. The City could see all the leaks and started notifying homeowners with large leaks.  
16

17 Carla Merrill said that David Roskelley was an Alpine resident who had participated in Summit 7 Peaks and had  
18 taken the Alpine City flag with him. He wanted to know if the City wanted the flag.  
19

20 Ramon Beck said a woman in Fort Canyon wanted to know who cleaned up the tumble weeds in the road. Jed  
21 Muhlstein said public works had a sweeping schedule for the different road. Mr. Beck clarified that if fences were  
22 on private property, the City did not fix them.  
23

24 Jason Thelin asked if the proposed restriping of Main Street in front of the Charter School was already approved. He  
25 said they needed to leave space for bikes. Lon Lott said he had given Shane Sorensen an alternate proposal for the  
26 traffic problem on Main. He suggested the kids cross at the 100 South intersection and let cars turn left at 120 South.  
27

28 **VIII. EXECUTIVE SESSION:** None held.  
29

30 **MOTION:** Ramon Beck moved to adjourn. Lon Lott seconded. Ayes: 4 Nays: 0. Motion passed.  
31

<u>Ayes</u>	<u>Navs</u>
Jason Thelin	None
Ramon Beck	
Carla Merrill	
Lon Lott	

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39 The meeting adjourned at 9:50 pm.  
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**PARTIAL PAYMENT ESTIMATE  
NO. 1**

Name of Contractor: <b>BMEI</b>		
Name of Owner: <b>Alpine City</b>		
Date of Completion:	Amount of Contract:	Dates of Estimate:
Original: 15-Sep-19	Original: \$671,595.00	From: 15-Apr-19
Revised:	Revised: \$671,595.00	To: 3-May-19
Description of Job: <b>Alpine Pressurized Irrigation Installation Phase III</b>		
Amount	This Period	Total To Date
Amount Earned	\$0.00	\$132,132.50
Retainage Being Held	\$0.00	\$6,606.63
Retainage Being Released	\$0.00	\$0.00
Previous Payments		\$0.00
Amount Due	<b>\$0.00</b>	<b>\$125,525.88</b>

Contractor's Construction Progress is ON SCHEDULE

I hereby certify that I have carefully inspected the work and as a result of my inspection and to the best of my knowledge and belief, the quantities shown in this estimate are correct and have not been shown on previous estimates and the work has been performed in accordance with the Contract Documents.

Recommended by Horrocks Engineers

Date: 5/8/2019

  
**Kasey Chesnut**  
Project Manager

Accepted by: **BMEI**

Date: 5/8/2019

  
**Chad Walters**  
Project Manager

Approved By: **Alpine City**

Date: \_\_\_\_\_

**Troy Stout**  
Mayor

Budget Code \_\_\_\_\_ Staff Initial \_\_\_\_\_

PROJECT: Alpine Pressurized Irrigation Installation Phase III

PAY PERIOD: 1 Apr-19

ITEM NO.	NATURE OF WORK	CONTRACT ITEMS				QUANTITY		EARNINGS	
		Qty	Units	Unit Price	Bid Amt.	This Month	To Date	This Month	To Date
1	Mobilization	1	LS	\$26,990.00	\$26,990.00	0.00	0.25		\$6,747.50
2	Category 1 Install	1232	EA	\$330.00	\$406,560.00	0.00	298.00		\$98,340.00
3	Category 2 Install	136	EA	\$370.00	\$50,320.00	0.00	0.00		\$0.00
4	Category 3 Install	20	EA	\$390.00	\$7,800.00	0.00	0.00		\$0.00
5	Category 4 Install	20	EA	\$495.00	\$9,900.00	0.00	0.00		\$0.00
6	Install 1.5-inch	19	EA	\$860.00	\$16,340.00	0.00	0.00		\$0.00
7	Install 2-inch	24	EA	\$925.00	\$22,200.00	0.00	0.00		\$0.00
8	Surface Restoration Lawn	1180	EA	\$85.00	\$100,300.00	0.00	243.00		\$20,655.00
9	Surface Restoration Landscaped	155	EA	\$105.00	\$16,275.00	0.00	41.00		\$4,305.00
10	Surface Restoration Concrete / Paved	6	EA	\$1,110.00	\$6,660.00	0.00	1.00		\$1,110.00
11	Surface Restoration Unimproved	110	EA	\$75.00	\$8,250.00	0.00	13.00		\$975.00
12	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
13	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
14	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
15	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
16	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
17	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
20	Item	0	LS	\$0.00	\$0.00	0.00	0.00		\$0.00
<b>Subtotal</b>					<b>\$671,595.00</b>			<b>\$0.00</b>	<b>\$132,132.50</b>

**Total**

**\$671,595.00**

<b>TOTAL</b>	<b>\$0.00</b>	<b>\$132,132.50</b>
AMOUNT RETAINED	\$0.00	\$6,606.63
RETAINAGE RELEASED		
PREVIOUS RETAINAGE		\$0.00
PREVIOUS PAYMENTS		\$0.00
<b>AMOUNT DUE</b>	<b>\$0.00</b>	<b>\$125,525.88</b>

Remit To:

KK&L ADMINISTRATION LLC  
1106 S LEGACY VIEW STREET  
SALT LAKE CITY UT 84104  
Telephone: 801 679-6840

# INVOICE



**Invoice To:**  
Alpine City  
20 NORTH MAIN  
ALPINE UT 84004

**For Work At:**  
ALPINE UT 84004

**Invoice No.** 79-991784

**Invoice Date** May 03 / 19

**Our Division** 7901 - Construction

**Our Job No.** 79010093

**Our Customer No.** 1122142

**Your Ref. No.**

**Project:** ALPINE CITY PRESS IRRIG MTR P3

Progress Application No. 1

Original Contract Amount 671,595.00

Approved Changes To Date .....

Revised Contract Amount 671,595.00

**Work Completed To** May 03 / 19 132,132.50

**Less: Previously Invoiced** .....

**Gross Invoice Amount** 132,132.50

**Less: Holdback** (5.0 %) (6,606.63)

**Subtotal** 125,525.87

**Please Pay This Amount:** USD 125,525.87

**TERMS: 2% 10 Days, Net 30**  
Interest at 18% per  
annum charged on  
overdue accounts

## Back-Up Detail

Invoice No.: 79-991784

Our Job No.: 79010093

Invoice Date: May 03 / 19

Contractor: KK&L ADMINISTRATION LLC

Your Ref. No.:

Work Completed To: May 03 / 19

Progress Application No.: 1

Item No.	Description of Work	Unit	Contract Amount						Billing Summary						Remaining Balance	
			Original			Revised			Quantity			Payment				
			Qty	Unit Price	Total	Qty	Unit Price	Total	To Date	Previous	This Period	To Date	Previous	This Period	Qty	\$
<b>Original Contract</b>																
1	Mobilization	LS	1.00	26,990.00	26,990.00	1.00	26,990.00	26,990.00	0.25	0.00	0.25	6,747.50	0.00	6,747.50	0.75	20,242.50
2	Cat 1 - Instl New 1" Water Met	EA	1,232.00	330.00	406,560.00	1,232.00	330.00	406,560.00	298.00	0.00	298.00	98,340.00	0.00	98,340.00	934.00	308,220.00
3	Cat 2 - Instl New 1" Water Met	LS	136.00	370.00	50,320.00	136.00	370.00	50,320.00	0.00	0.00	0.00	0.00	0.00	0.00	136.00	50,320.00
4	Cat 3 - Instl New 1" Water Met	LS	20.00	390.00	7,800.00	20.00	390.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	7,800.00
5	Cat 4 - Instl New 1" Water Met	EA	20.00	495.00	9,900.00	20.00	495.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	9,900.00
6	Instl New 1.5" Water Meters	EA	19.00	860.00	16,340.00	19.00	860.00	16,340.00	0.00	0.00	0.00	0.00	0.00	0.00	19.00	16,340.00
7	Instl New 2" Water Meters	EA	24.00	925.00	22,200.00	24.00	925.00	22,200.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	22,200.00
8	Surface Resto in Lawn Sod	EA	1,180.00	85.00	100,300.00	1,180.00	85.00	100,300.00	243.00	0.00	243.00	20,655.00	0.00	20,655.00	937.00	79,645.00
9	Surface Resto in Landscaped	EA	155.00	105.00	16,275.00	155.00	105.00	16,275.00	41.00	0.00	41.00	4,305.00	0.00	4,305.00	114.00	11,970.00
10	Surface Resto in Concrete Pave	EA	6.00	1,110.00	6,660.00	6.00	1,110.00	6,660.00	1.00	0.00	1.00	1,110.00	0.00	1,110.00	5.00	5,550.00
11	Surface Resto in Unimproved	EA	110.00	75.00	8,250.00	110.00	75.00	8,250.00	13.00	0.00	13.00	975.00	0.00	975.00	97.00	7,275.00
<b>Subtotal</b>					<b>\$671,595.00</b>			<b>\$671,595.00</b>				<b>\$132,132.50</b>	<b>\$0.00</b>	<b>\$132,132.50</b>		<b>\$539,462.50</b>
<b>Original Contract Total</b>					<b>\$671,595.00</b>			<b>\$671,595.00</b>				<b>\$132,132.50</b>	<b>\$0.00</b>	<b>\$132,132.50</b>		<b>\$539,462.50</b>
<b>Total</b>					<b>\$671,595.00</b>			<b>\$671,595.00</b>				<b>\$132,132.50</b>	<b>\$0.00</b>	<b>\$132,132.50</b>		<b>\$539,462.50</b>

Submitted By: \_\_\_\_\_

Date: \_\_\_\_\_

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_

# BMEI

<b>House Number</b>	<b>Street Name</b>	<b>Category</b>	<b>Restoration Type</b>
966	Healey BLVD	1	sod
942	Healey BLVD	1	sod
918	Healey BLVD	1	sod
902	Healey BLVD	1	sod
878	Healey BLVD	1	sod
856	Healey BLVD	1	sod
834	Healey BLVD	1	sod
812	Healey BLVD	1	sod
790	Healey BLVD	1	sod
768	Healey BLVD	1	sod
746	Healey BLVD	1	sod
714	Healey BLVD	1	sod
682	Healey BLVD	1	sod
650	Healey BLVD	1	sod
687	Healey BLVD	1	sod
725	Healey BLVD	1	sod
769	Healey BLVD	1	sod
535	Healey BLVD	1	sod
926	Healey Homestead St	1	sod
911	Healey Homestead St	1	sod
891	Healey Homestead St	1	sod
886	Healey Homestead St	1	sod
870	Healey Homestead St	1	sod
873	Healey Homestead St	1	sod
858	Healey Homestead St	1	sod
855	Healey Homestead St	1	sod
906	Ridge Ln	1	sod
880	Ridge Ln	1	sod
854	Ridge Ln	1	sod
728	Ridge Ln	1	sod
867	Ridge Ln	1	sod
887	Ridge Ln	1	sod
909	Ridge Ln	1	sod
601	Ridge Ln	1	sod
619	Ridge Ln	1	sod
639	Ridge Ln	1	sod
663	Ridge Ln	1	sod
687	Ridge Ln	1	sod
698	Ridge Ln	1	sod

676	Ridge Ln	1	sod
705	High Ridge Ln	1	sod
700	High Ridge Ln	1	sod
682	High Ridge Ln	1	sod
658	High Ridge Ln	1	sod
636	High Ridge Ln	1	sod
614	High Ridge Ln	1	sod
592	High Ridge Ln	1	sod

# S&E

House Number	Street Name	Category	Restoration Type
911	High Bench Rd	1	sod
1016	Round Mountain Dr	1	sod
1038	Round Mountain Dr	1	sod
1058	Round Mountain Dr	1	sod
1078	Round Mountain Dr	1	sod
1098	Round Mountain Dr	1	sod
1019	Round Mountain Dr	1	sod
1041	Round Mountain Dr	1	land
1063	Round Mountain Dr	1	sod
1085	Round Mountain Dr	1	sod
1107	Round Mountain Dr	1	land
1131	Round Mountain Dr	1	sod
1153	Round Mountain Dr	1	land
1175	Round Mountain Dr	1	sod
1118	Round Mountain Dr	1	sod
1138	Round Mountain Dr	1	sod
1158	Round Mountain Dr	1	sod
1178	Round Mountain Dr	1	sod
1197	Round Mountain Dr	1	sod
912	Country Manor Ln	1	land
936	Country Manor Ln	1	sod
1229	Round Mountain Cir	1	sod
1249	Round Mountain Cir	1	sod
1267	Round Mountain Cir	1	sod
1283	Round Mountain Cir	1	land
1282	Round Mountain Cir	1	sod
1292	Round Mountain Cir	1	sod
1248	Round Mountain Cir	1	sod
END INVOICE 4.19.19			
956	Country Manor Ln	1	sod
969	Country Manor Ln	1	sod
886	Country Manor Ln	1	sod
882	Country Manor Ln	1	land
814	Country Manor Ln	1	sod
782	Country Manor Ln	1	sod

1246	Cedar Mountain Cir	1	sod
1266	Cedar Mountain Cir	1	sod
1288	Cedar Mountain Cir	1	sod
1279	Cedar Mountain Cir	1	land
1265	Cedar Mountain Cir	1	sod
1247	Cedar Mountain Cir	1	sod
1238	Chapman Ct	1	land
1268	Chapman Ct	1	sod
1298	Chapman Ct	1	sod
1302	Chapman Ct	1	sod
1287	Chapman Ct	1	sod
1263	Chapman Ct	1	land
1252	E 810 S	1	sod
1272	E 810 S	1	sod
1292	E 810 S	1	sod
1297	E 810 S	1	sod
1293	E 810 S	1	sod
1273	E 810 S	1	sod
1253	E 810 S	1	sod
1233	E 810 S	1	sod
1232	E 810 S	1	un
278	Carlisle Ave	1	sod
324	Carlisle Ave	1	sod
340	Carlisle Ave	1	sod
376	Carlisle Ave	1	sod
634	Pheasant Ridge Ct	1	land
668	Pheasant Ridge Ct	1	un
661	Pheasant Ridge Ct	1	sod
629	Pheasant Ridge Ct	1	un
303	Pheasant Ridge Dr	1	land
351	Pheasant Ridge Dr	1	sod
378	Pheasant Ridge Dr	1	sod
397	Pheasant Ridge Dr	1	land
626	Pheasant Ridge Cir	1	land
658	Pheasant Ridge Cir	1	sod
690	Pheasant Ridge Cir	1	sod
681	Pheasant Ridge Cir	1	sod
653	Pheasant Ridge Cir	1	sod
601	Pheasant Ridge Cir	1	sod
565	Ponderosa Dr	1	sod

545	Ponderosa Dr	1	land
525	Ponderosa Dr	1	sod
485	Ponderosa Dr	1	sod
488	Ponderosa Dr	1	sod
455	Ponderosa Dr	1	sod
472	Ponderosa Dr	1	sod
448	Ponderosa Dr	1	sod
395	Maple Dr	1	land
286	Maple Dr	1	sod
298	Maple Dr	1	sod
304	Maple Dr	1	sod
312	Maple Dr	1	sod
333	Maple Dr	1	sod
352	Maple Dr	1	sod
374	Maple Dr	1	sod
396	Maple Dr	1	sod
359	Maple Dr	1	land

# KOA

House Number	Street Name	Category	Restoration Type
845	Highbench Rd	1	sod
823	Highbench Rd	1	sod
803	Highbench Rd	1	sod
775	Highbench Rd	1	sod
745	Highbench Rd	1	sod
701	Highbench Rd	1	sod
712	Highbench Rd	1	sod
578	Highbench Rd	1	sod
617	Highbench Rd (NW)	1	land
617	Highbench Rd (NE)	1	land
617	Highbench Rd (NE2)	1	land
624	Highbench Rd	1	un
692	Highbench Rd	1	con
653	Highbench Rd	1	land
656	Highbench Rd	1	land
673	Highbench Rd	1	land
640	Highbench Rd	1	sod
692	Highbench Rd	1	sod
562	Highbench Rd	1	land
527	Highbench Rd	1	land
465	Highbench Rd	1	sod
437	Highbench Rd	1	sod
400	Highbench Rd	1	un
390	Highbench Rd	1	sod
371	Highbench Rd	1	sod
378	Highbench Rd	1	sod
366	Highbench Rd	1	sod
359	Highbench Rd	1	un
352	Highbench Rd	1	sod
278	Highbench Rd	1	sod
256	Highbench Rd	1	sod
562	Highbench Rd	1	sod
746	East Mountain Cir	1	sod
776	East Mountain Cir	1	sod
802	East Mountain Cir	1	sod
830	East Mountain Cir	1	sod
815	East Mountain Cir	1	sod
795	East Mountain Cir	1	sod
781	East Mountain Cir	1	sod
751	East Mountain Cir	1	sod

840	East Mountain Cir	1	sod
835	East Mountain Cir	1	sod
1088	East Mountain Dr	1	sod
1145	East Mountain Dr	1	land
1115	East Mountain Dr	1	land
1085	East Mountain Dr	1	sod
1212	East Mountain Dr	1	sod
1179	East Mountain Dr	1	sod
764	S 1130 E	1	sod
794	S 1130 E	1	sod
824	S 1130 E	1	sod
844	S 1130 E	1	sod
833	S 1130 E	1	land
813	S 1130 E	1	sod
793	S 1130 E	1	sod
763	S 1130 E	1	sod
747	S 1130 E	1	sod
744	S 1130 E	1	sod
925	Stonehedge Ln	1	sod
855	Stonehedge Ln	1	sod
760	Stonehedge Ln	1	sod
905	Stonehedge Ln	1	sod
908	Stonehedge Ln	1	sod
891	Stonehedge Ln	1	sod
886	Stonehedge Ln	1	sod
995	Stonehedge Ln	1	land
869	750 E	1	sod
936	Ostler Ct	1	land
861	Jackson Ln	1	land
864	Jackson Ln	1	sod
914	Jackson Ln	1	sod
886	Jackson Ln	1	land
1130	Watkins Ln	1	land
1141	Watkins Ln	1	land
1077	Watkins Ln	1	land
587	Arnold Ct	1	sod
553	Arnold Ct	1	sod
531	Arnold Ct	1	land
522	Arnold Ct	1	land

546	Arnold Ct	1	sod
584	Arnold Ct	1	sod
583	Arnold Ct	1	sod
538	Oak Ln	1	un
528	Oak Ln	1	sod
500	Oak Ln	1	sod
476	Oak Ln	1	un
314	800 E	1	un
222	801 E	1	un
178	802 E	1	sod
165	803 E	1	sod
365	Oakhill Cir	1	sod
360	Oakhill Cir	1	land
947	Oakhill Dr	1	land
1000	Oakhill Dr	1	land
1030	Oakhill Dr	1	un
1020	Oakhill Dr	1	sod
1047	Oakhill Dr	1	sod
387	Pineview Dr	1	un
360	Pineview Dr	1	sod
367	Pineview Dr	1	sod
340	Pineview Dr	1	sod
341	Pineview Dr	1	sod
311	Pineview Dr	1	sod
312	Pineview Dr	1	sod
285	Pineview Dr	1	sod
271	Pineview Dr	1	sod
272	Pineview Dr	1	sod
286	Pineview Dr	1	sod
366	Scenic Dr	1	sod
361	Scenic Dr	1	sod
401	Scenic Dr	1	sod
346	Scenic Dr	1	sod
343	Scenic Dr	1	sod
304	Scenic Dr	1	sod
301	Scenic Dr	1	sod
280	Scenic Dr	1	sod
267	Scenic Dr	1	sod
256	Scenic Dr	1	sod
228	Scenic Dr	1	sod
231	Scenic Dr	1	sod

408	Scenic Dr	1	sod
392	Alpine Dr	1	sod
368	Alpine Dr	1	sod
355	Alpine Dr	1	sod
350	Alpine Dr	1	sod
307	Alpine Dr	1	sod
304	Alpine Dr	1	sod
280	Alpine Dr	1	sod
258	Alpine Dr	1	sod
234	Alpine Dr	1	sod
210	Alpine Dr	1	sod
1104	Alpine Dr	1	sod
1091	Alpine Dr	1	sod
1117	Alpine Dr	1	sod
205	Alpine Dr	1	sod
255	Alpine Dr	1	sod
283	Alpine Dr	1	sod
1063	Alpine Dr	1	sod
231	Alpine Dr	1	sod
1078	Alpine Dr	1	sod
1040	Alpine Dr	1	land
1035	Alpine Dr	1	sod
1021	Alpine Dr	1	sod
1018	Alpine Dr	1	sod
997	Alpine Dr	1	sod
949	Alpine Dr	1	sod
923	Alpine Dr	1	sod
874	Alpine Dr	1	sod
871	Alpine Dr	1	sod
843	Alpine Dr	1	sod
818	Alpine Dr	1	sod
846	Alpine Dr	1	un
815	Alpine Dr	1	sod
213	Alpine Cir	1	sod
228	Alpine Cir	1	sod
237	Alpine Cir	1	sod
265	Alpine Cir	1	sod
258	Alpine Cir	1	sod
300	Alpine Cir	1	land
160	Alpine Blvd	1	sod

Hydro Specialties Company  
P.O. Box 389  
Springville, UT 84663

# Invoice

Date	Invoice #
4/17/2019	21729

<b>Bill To</b>
ALPINE CITY ATTN: ACCOUNTS PAYABLE 20 N. MAIN ALPINE, UT 84004

<b>P.O. Number</b>	<b>Terms</b>
Irrigation Phase 3	Net 30

Quantity	Description	Price Each	Amount
19	1 1/2" Badger E-Series Meter w/ Digital Register & 25' Nicor Cable, Gallons	549.00	10,431.00
24	2" Badger E-Series Meter w/ Digital Register & 25' Nicor Cable, Gallons	736.00	17,664.00

<b>Subtotal</b>	\$28,095.00
<b>Sales Tax (7.1%)</b>	\$0.00
<b>Total</b>	\$28,095.00
<b>Payments/Credits</b>	\$0.00
<b>Balance Due</b>	\$28,095.00

Hydro Specialties Company  
P.O. Box 389  
Springville, UT 84663

# Invoice

Date	Invoice #
4/17/2019	21730

<b>Bill To</b>
ALPINE CITY ATTN: ACCOUNTS PAYABLE 20 N. MAIN ALPINE, UT 84004

P.O. Number	Terms
Irrigation Phase 3	Net 30

Quantity	Description	Price Each	Amount
544	1" Badger EP E-Series Meter w/ Digital Register & 6' Nicor Cable, Gallons	169.00	91,936.00

<b>Subtotal</b>		\$91,936.00
<b>Sales Tax (7.1%)</b>		\$0.00
<b>Total</b>		\$91,936.00
<b>Payments/Credits</b>		\$0.00
<b>Balance Due</b>		\$91,936.00

Hydro Specialties Company  
P.O. Box 389  
Springville, UT 84663

# Invoice

Date	Invoice #
4/17/2019	21731

<b>Bill To</b>
ALPINE CITY ATTN: ACCOUNTS PAYABLE 20 N. MAIN ALPINE, UT 84004

<b>P.O. Number</b>	<b>Terms</b>
Culinary	Net 30

Quantity	Description	Price Each	Amount
1	1 1/2" Badger E-Series Meter w/ Digital Register & 25' Nicor Cable, Gallons	565.40	565.40
-1	2" Badger E-Series Meter w/ Digital Register & 25' Nicor Cable, Gallons	758.56	-758.56
1	1 1/2" Set BNGs	7.50	7.50
-1	2" Set BNGs	8.50	-8.50
24	Badger Orion Cellular LTE Endpoint w/ Install Kit	128.10	3,074.40

<b>Subtotal</b>		\$2,880.24
<b>Sales Tax (7.1%)</b>		\$0.00
<b>Total</b>		\$2,880.24
<b>Payments/Credits</b>		\$0.00
<b>Balance Due</b>		\$2,880.24

Hydro Specialties Company  
P.O. Box 389  
Springville, UT 84663

# Invoice

Date	Invoice #
4/18/2019	21736

<b>Bill To</b>
ALPINE CITY ATTN: ACCOUNTS PAYABLE 20 N. MAIN ALPINE, UT 84004

<b>P.O. Number</b>	<b>Terms</b>
Irrigation Phase 3	Net 30

Quantity	Description	Price Each	Amount
864	1" Badger EP E-Series Meter w/ Digital Register & 6' Nicor Cable, Gallons	169.00	146,016.00

<b>Subtotal</b>	\$146,016.00
<b>Sales Tax (7.1%)</b>	\$0.00
<b>Total</b>	\$146,016.00
<b>Payments/Credits</b>	\$0.00
<b>Balance Due</b>	\$146,016.00

Hydro Specialties Company  
P.O. Box 389  
Springville, UT 84663

# Invoice

Date	Invoice #
4/18/2019	21737

<b>Bill To</b>
ALPINE CITY ATTN: ACCOUNTS PAYABLE 20 N. MAIN ALPINE, UT 84004

<b>P.O. Number</b>	<b>Terms</b>
Secondary Phase 3	Net 30

Quantity	Description	Price Each	Amount
1,184	16" x 22" x 12" Jumbo Meter Box w/ Bolted Cover, Recessed Hole for Orion Endpoint	32.95	39,012.80
48	17" x 30" x 18" Meter Box Model C w/ Bolted Cover	226.00	10,848.00

<b>Subtotal</b>		\$49,860.80
<b>Sales Tax (7.1%)</b>		\$0.00
<b>Total</b>		\$49,860.80
<b>Payments/Credits</b>		\$0.00
<b>Balance Due</b>		\$49,860.80

**RESOLUTION NO. R2019-08**

**MUNICIPAL WASTEWATER PLANNING PROGRAM RESOLUTION**

**RESOLVED** that Alpine City informs the Water Quality Board of the following actions taken by the Alpine City Council.

1. Reviewed the attached Municipal Wastewater Planning Report for 2018.
2. Have taken all appropriate actions necessary to maintain effluent requirements contained in the UPDES Permit (if applicable).

Passed by a (majority) (unanimous) vote.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Alpine City Mayor Troy Stout

Attest:

\_\_\_\_\_  
Alpine City Recorder Charmayne Warnock



*Municipal Wastewater Planning Program (MWPP)  
Annual Report  
for the year ending 2018  
ALPINE CITY*

Thank you for filling out the requested information. Please let DWQ know when it is approved by the Council.

---

Below is a summary of your responses

[Download PDF](#)

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**SUBMIT BY MAY 31, 2019**

Are you the person responsible for completing this report for your organization?

**Yes**

No

This is the current information recorded for your facility:

<b>Facility Name:</b>	ALPINE CITY
<b>Contact - First Name:</b>	Shane
<b>Contact - Last Name:</b>	Sorensen
<b>Contact - Title</b>	City Admin / PW Dir.
<b>Contact - Phone:</b>	801-756-6347
<b>Contact - Email:</b>	ssorensen@alpinecity.org

Is this information above complete and correct?

**Yes**

No

Your wastewater system is described as Collection & Financial:

**Classification:** COLLECTION

**Grade:** II

(if applicable)

**Classification:** -

**Grade:** -

Is this correct?

**WARNING:** If you select 'no', you will no longer have access to this form upon clicking Save & Continue. DWQ will update the information and contact you again.

**Yes**

No

Click on a link below to view examples of sections in the survey:

(Your wastewater system is described as Collection & Financial)

[MWPP Collection System.pdf](#)

[MWPP Discharging Lagoon.pdf](#)

[MWPP Financial Evaluation.pdf](#)

[MWPP Mechanical Plant.pdf](#)

[MWPP Non-Discharging Lagoon.pdf](#)

Will multiple people be required to fill out this form?

Yes

**No**

*Financial Evaluation Section*

Form completed by:

Shane L. Sorensen, P.E.

What was the User Charge<sup>16</sup> for 2018?

32.36

### Part 1: OPERATION AND MAINTENANCE

	Yes	No
Are property taxes or other assessments applied to the sewer systems <sup>15</sup> ?	<input type="radio"/>	<input checked="" type="radio"/>
Are sewer revenues <sup>14</sup> sufficient to cover operations & maintenance costs <sup>9</sup> , and repair & replacement costs <sup>12</sup> (OM&R) at this time?	<input checked="" type="radio"/>	<input type="radio"/>
Are projected sewer revenues sufficient to cover OM&R costs for the <b>next five years</b> ?	<input checked="" type="radio"/>	<input type="radio"/>
Does the sewer system have sufficient staff to provide proper OM&R?	<input type="radio"/>	<input type="radio"/>
	<input checked="" type="radio"/>	<input type="radio"/>

	Yes	No
Has a repair and replacement sinking fund <sup>13</sup> been established for the sewer system?		
Is the repair & replacement sinking fund sufficient to meet anticipated needs?	<input type="radio"/>	<input type="radio"/>

## Part II: CAPITAL IMPROVEMENTS

	Yes	No
Are sewer revenues sufficient to cover all costs of current capital improvements <sup>3</sup> projects?	<input type="radio"/>	<input type="radio"/>
Has a Capital Improvements Reserve Fund <sup>4</sup> been established to provide for anticipated capital improvement projects?	<input type="radio"/>	<input type="radio"/>
Are projected Capital Improvements Reserve Funds sufficient for the <i>next five years</i> ?	<input type="radio"/>	<input type="radio"/>
Are projected Capital Improvements Reserve Funds sufficient for the <i>next ten years</i> ?	<input type="radio"/>	<input type="radio"/>
Are projected Capital Improvements Reserve Funds sufficient for the <i>next twenty years</i> ?	<input type="radio"/>	<input type="radio"/>

## Part III: GENERAL QUESTIONS

	Yes	No
Are sewer revenues maintained in a dedicated purpose enterprise/district account?	<input type="radio"/>	<input type="radio"/>
Are you collecting 95% or more of your anticipated sewer revenue?	<input type="radio"/>	<input type="radio"/>
Are Debt Service Reserve Fund <sup>6</sup> requirements being met?	<input type="radio"/>	<input type="radio"/>

## Part IV: FISCAL SUSTAINABILITY REVIEW

	Yes	No
Have you completed a Rate Study <sup>11</sup> within the last five years?	<input type="radio"/>	<input type="radio"/>
Do you charge Impact fees <sup>8</sup> ?	<input type="radio"/>	<input type="radio"/>
Have you completed an Impact Fee Study in accordance with UCA 11-36a-3 within the last five years?	<input type="radio"/>	<input type="radio"/>
Do you maintain a Plan of Operations <sup>10</sup> ?	<input type="radio"/>	<input type="radio"/>
Have you updated your Capital Facility Plan <sup>2</sup> within the last five years?	<input type="radio"/>	<input type="radio"/>
Do you use an Asset Management <sup>1</sup> system for your sewer systems?	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>

Yes

No

Do you know the total replacement cost of your sewer system capital assets?

Do you fund sewer system capital improvements annually with sewer revenues at 2% or more of the total replacement cost?

## Part IV: PROJECTED NEEDS

Cost of projected capital improvements

*Please enter a valid numerical value.*

2019

40,000

2020

40,000

2021

40,000

2022

40,000

2023

40,000

2024

40,000

This is the end of the Financial questions

To the best of my knowledge, the Financial section is completed and accurate.

**Yes**

### *Collection System Section*

Form completed by:

May Receive Continuing Education /units (CEUs)

Shane L. Sorensen, P.E.

## Part I: SYSTEM AGE

What year was your collection system first constructed (approximately)?

1979

What year was the the oldest part of your collection system constructed, replaced, or renewed?

19979

## PART II: DISCHARGES

How many days last year was there a sewage bypass, overflow or basement flooding in the system due to rain or snowmelt?

0

How many days last year was there a sewage bypass, overflow or basement flooding due to equipment failure (except plugged laterals)?

0

*The Utah Sewer Management Program defines two classes of sanitary sewer overflows (SSOs):*

**Class 1**– a Significant SSO means a SSO or backup that is not caused by a private lateral obstruction or problem that:

- (a) affects more than five private structures;*
- (b) affects one or more public, commercial or industrial structure(s);*
- (c) may result in a public health risk to the general public;*
- (d) has a spill volume that exceeds 5,000 gallons,*

*excluding those in single private structures; or  
(e) discharges to Waters of the state.*

**Class 2** - a Non-Significant SSO means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

Below include the number of SSOs that occurred in year: 2018

	Number
Number of Class 1 SSOs in Calendar year	0
Number of Class 2 SSOs in Calendar year	0

Please indicate what caused the SSO(s) in the previous question.

n/a

Please specify whether the SSOs were caused by contract or tributary community, etc.

n/a

### Part III: NEW DEVELOPMENT

Did an industry or other development enter the community or expand production in the past two years, such that flow or wastewater loadings to the sewerage system increased by 10% or more?

Yes

**No**

Are new developments (industrial, commercial, or residential) anticipated in the next 2 - 3 years that will increase flow or BOD5 loadings to the sewerage system by 25% or more?

Yes

**No**

Number of new commercial/industrial connections in the last year

2

Number of new residential sewer connections added in the last year

35

Equivalent residential connections<sup>7</sup> served

37

#### Part IV: OPERATOR CERTIFICATION

How many collection system operators do you employ?

4

Approximate population served

10,150

**State of Utah Administrative Rules requires all public system operators considered to be in Direct-Responsible-Charge (DRC) to be appropriately certified at lease at the Facility's Grade.**

List the designated Chief Operator/DRC for the Collection System below:

	Name First and Last Name	Grade	Email Please enter full email address
Chief Operator/DRC	Shane Sorensen	II <input type="checkbox"/>	ssorensen@alpin

List all other Collection System operators with DRC responsibilities in the field, by certification grade, separate names by commas:

	Name separate by comma
SLS <sup>17</sup> Grade I:	n/a
Collection Grade I:	

	Name separate by comma
	n/a
Collection Grade II:	Shane Sorensen, Landon Wallace, Greg Kmetzsch, Travis Austin
Collection Grade III:	n/a
Collection Grade IV:	n/a

List all other Collection System operators by certification grade, separate names by commas:

	Name separate by comma
SLS <sup>17</sup> Grade I:	n/a
Collection Grade I:	n/a

	Name separate by comma
Collection Grade II:	none
Collection Grade III:	n/a
Collection Grade IV:	n/a

Is/are your collection DRC operator(s) currently certified at the appropriate grade for this facility?

**Yes**

No

## Part V: FACILITY MAINTENANCE

	Yes	No
Have you implemented a preventative maintenance program for your collection system?	<input checked="" type="radio"/>	<input type="radio"/>

	Yes	No
Have you updated the collection system operations and maintenance manual within the past 5 years?	<input type="radio"/>	<input type="radio"/>
Do you have a written emergency response plan for sewer systems?	<input type="radio"/>	<input type="radio"/>
Do you have a written safety plan for sewer systems?	<input type="radio"/>	<input type="radio"/>

## Part VI: SSMP EVALUATION

	Yes	No
Has your system completed a Sewer System Management Plan (SSMP)?	<input type="radio"/>	<input type="radio"/>
Has the SSMP been adopted by the permittee's governing body at a public meeting?	<input type="radio"/>	<input type="radio"/>
Has the completed SSMP been public noticed?	<input type="radio"/>	<input type="radio"/>
During the annual assessment of the SSMP, were any adjustments needed based on the performance of the plan?	<input type="radio"/>	<input type="radio"/>

Date of Public Notice

09/08/2015

During 2018, was any part of the SSMP audited as part of the five year audit?

- Yes
- No**

Have you completed a System Evaluation and Capacity Assurance Plan (SECAP) as defined by the Utah Sewer Management Program?

- Yes**
- No

## Part VII: NARRATIVE EVALUATION

This section should be completed with the system operators.

Describe the physical condition of the sewerage system: (lift stations, etc. included)

System is in excellent condition.

What sewerage system capital improvements<sup>3</sup> does the utility need to implement in the next 10 years?

General maintenance.

What sewerage system problems, other than plugging, have you had over the last year?

No issues have been experienced besides normal maintenance (i.e. cleaning lines, video inspection of lines, annual manhole inspections, etc.)

Is your utility currently preparing or updating its capital facility plan<sup>2</sup>?

Yes

**No**

Does the municipality/district pay for the continuing education expenses of operators?

**100% Covered**

Partially cover

Does not pay

Is there a written policy regarding continuing education and training for wastewater operators?

**Yes**

No

Any additional comments?

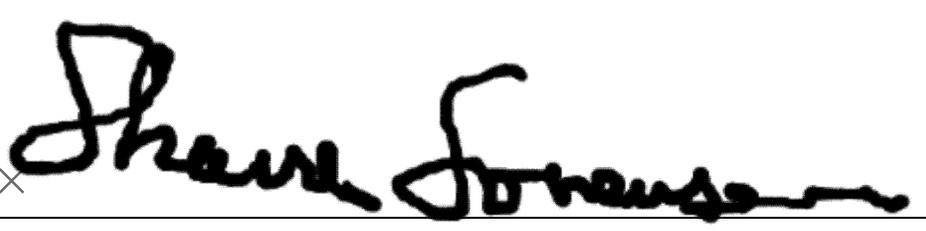
None

This is the end of the Collection System questions

To the best of my knowledge, the Collection System section is completed and accurate.

**Yes**

I have reviewed this report and to the best of my knowledge the information provided in this report is correct.

 Shane Foreman  
clear

Has this been adopted by the council? If no, what date will it be presented to the council?

- Yes
- No**

What date will it be presented to the council?

Date format ex. mm/dd/yyyy

05/14/2019

Please log in.

Email

ssorensen@u

PIN

NOTE: This questionnaire has been compiled for your benefit to assist you in evaluating the technical and financial needs of your wastewater systems. If you received financial assistance from the Water Quality Board, annual submittal of this report is a condition of that assistance.

Please answer questions as accurately as possible to give you the best evaluation of your facility. If you need assistance, please send an email to [wqinfodata@utah.gov](mailto:wqinfodata@utah.gov) and we will contact you as soon as possible. You may also visit our [Frequently Asked Questions](#) page.

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**Morgan Pavement**  
 Remit to: PO Box 190  
 Clearfield, UT 84089  
 625 S. Main Street  
 Clearfield, UT 84015



Phone: (801) 544-5947  
 Fax: (801) 416-8061  
 MorganPavement.com

Mastic Asphalt Treatment-Excavation & Grading-Asphalt Paving-Patching-Sealcoat-Slurry-Crackseal-Striping-Consulting

<b>To:</b>	ALPINE CITY	<b>Contact:</b>	LANDON WALLACE
<b>Address:</b>	20 N MAIN ALPINE, UT 84004	<b>Phone:</b>	
<b>Project Name:</b>	2019 Alpine Crack Seal	<b>Bid Number:</b>	
<b>Project Location:</b>	Twin River Loop; River View Dr; Fort Cir; River Rd; River Circle, Alpine, UT	<b>Bid Date:</b>	4/23/2019

Item Description	Estimated Quantity	Unit	Total Price
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**1 - Base Bid: Twin River Loop Area**

Asphalt Patching

- Saw Cut Perimeter And Remove Existing Asphalt ( Max 3" Thick)
- Mechanically Compact Existing Road Base
- Apply Tack Coat To Vertical Edges Of Existing Asphalt
- Pave And Compact 3" Of New PG 58-28 1/2" Hot Mix Asphalt.

600.00 SF \$3,900.00

Crack Seal

- Blow Cracks Free Of Dirt And Debris Using Compressed Air
- Fill Cracks With Hot Rubber Crack Sealant
- Includes Traffic Control
- Does Not Include Sealing Of Lip Of Curb

1.00 LS \$6,800.00

**Total Price for above 1 - Base Bid: Twin River Loop Area Items: \$10,700.00**

**2 - Additional Crack Seal Area: Midtown Alpine**

Crack Seal

- Blow Cracks Free Of Dirt And Debris Using Compressed Air
- Fill Cracks With Hot Rubber Crack Sealant
- Includes Traffic Control
- Does Not Include Sealing Of Lip Of Curb

1.00 LS \$10,250.00

**Total Price for above 2 - Additional Crack Seal Area: Midtown Alpine Items: \$10,250.00**

**Total Bid Price: \$20,950.00**

**Notes:**

- Any deviation from these specifications and/or terms shall be by written mutual agreement. Payment for extra work and allowances for omission shall be fixed in advance in writing on demand by either party. No verbal agreement or understanding shall be binding
- Temperature is a factor in the ability to apply certain asphalt products and obtain adhesion. In order for warranty to apply, temperatures must fall within certain parameters for that specific scope of work. Please call to verify the temperature parameters of the proposed work.
- Please turn off all sprinklers and remove obstructions( i.e. dumpsters or cars) from work site prior to performance of work. Morgan Pavement will not be held liable for areas that are wet or blocked on the day that the crews arrive. If it is necessary to return to touch up areas so affected, there will be additional charges.
- Morgan Pavement assumes no risk or liability of undisclosed or unforeseen conditions of the project site, including but not limited to hazardous waste, unstable or saturated subgrade, underground utilities, water table issues.
- Exclusions unless noted on scope of work: Bonds, fees, permits, material or compaction testing, traffic control and/or barricades, prime coat, soil sterilant, subgrade stabilization, concrete, sawcutting, earthwork, engineering, survey, construction staking, third party billing fees
- Morgan Pavement will not guarantee drainage on grades with 1% or less slope or on overlays.
- Both Parties agree that Morgan Pavement is not liable for any damage of underground piping, wiring, conduit which are not visible to crews on the property that could not be located by utility locator service. ( i.e. blue stakes)
- Price is valid for 30 days from date of proposal
- Due to the volatility of the oil industry, this bid may fluctuate with oil prices. Therefore this may adjust with any increase in oil/material prices.
- Morgan Pavement reserves the right to use a sub-contractor on any scope of work.

**Morgan Pavement**  
 Remit to: PO Box 190  
 Clearfield, UT 84089  
 625 S. Main Street  
 Clearfield, UT 84015



Phone: (801) 544-5947  
 Fax: (801) 416-8061  
 MorganPavement.com

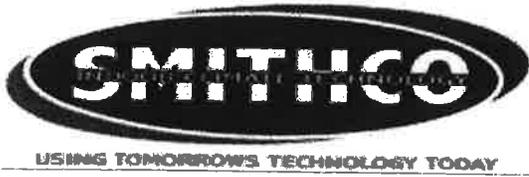
Mastic Asphalt Treatment-Excavation & Grading-Asphalt Paving-Patching-Sealcoat-Slurry-Crackseal-Striping-Consulting

<b>To:</b> ALPINE CITY	<b>Contact:</b> LANDON WALLACE
<b>Address:</b> 20 N MAIN ALPINE, UT 84004	<b>Phone:</b>
	<b>Fax:</b>
<b>Project Name:</b> 2019 Alpine Crack Seal	<b>Bid Number:</b>
<b>Project Location:</b> Twin River Loop; River View Dr; Fort Cir; River Rd; River Circle, Alpine, UT	<b>Bid Date:</b> 4/23/2019

**Payment Terms:**

Payment is due at completion of project without any retention being withheld, Invoices are subject to 2% interest per month beginning 30 days following the due date. In the event it becomes necessary for Morgan Pavement to file suit to collect any money due, hereunder or for breach thereof, the owner agrees to pay in addition to the amount due, all costs of enforcement including reasonable attorney fees. In the event of dispute between Morgan Pavement and Buyer, the parties agree to arbitration through the American Arbitration Association.

<p><b>ACCEPTED:</b>          The above prices, specifications and conditions are satisfactory and are hereby accepted.</p> <p><b>Buyer:</b> _____</p> <p><b>Signature:</b> _____</p> <p><b>Date of Acceptance:</b> _____</p>	<p><b>CONFIRMED:</b>  <b>Morgan Pavement</b></p> <p><b>Authorized Signature:</b> _____</p> <p><b>Estimator:</b> TRES SMITH          (801) 651-6556 tsmith@morganpavement.com</p>
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Cody M. Smith  
225 N 400 W  
Alpine, UT 84004  
801-735-8461  
[cody.smithco@gmail.com](mailto:cody.smithco@gmail.com)

## Bid Proposal

Customer: Alpine City

Date: 4/21/19

Job #: 190421-1

Project Name: HVAC Replacement  
Alpine City Office

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It is proposed that SmithCo provide labor, materials and equipment to accommodate installation of the HVAC components for the above project, including:

NOTE: Systems for replacement serve the council room and back office areas.

1. Two Day/Night brand 96% high efficient furnace
2. Two Day/Night brand 15 seer high efficient cooling system
3. Duct and accessories to complete the installation
4. Duct modification to relocate filter access

**Total Bid Amount \$ 18,915.00**

**Notes:**

- \*Bid is based on walk through with owner, any changes will be reviewed prior to work performed.
- \*SmithCo provides a two year warranty on all original workmanship.
- \*A 10-year bumper to bumper parts warranty is provided by equipment manufacturer.

**Sterling Don Excavation**  
 P.O. Box 949  
 Lehi, UT 84043  
 (801) 520-6336  
 Brettjohnson@sdxutah.com  
 www.sdxutah.com



**Invoice 2671**

**BILL TO**  
 Alpine City

<b>DATE</b> 05/09/2019	<b>PLEASE PAY</b> \$71,615.24	<b>DUE DATE</b> 06/08/2019
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**JOB**  
 800 South Waterline

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
Mobilization	# 1 - Mobilization (LS)	1	2,000.00	2,000.00
		0		0.00
1003	# 2 - Sawcut and Remove Asphalt (LF)	350	15.17	5,309.50
		0		0.00
38C900	# 3 - 8" C900 PVC Installed W/ Locate Wire and Bedding (LF)	130	91.50	11,895.00
		0		0.00
36C900	# 4 - 6" C900 PVC Installed W/ Locate Wire and Bedding (LF)	20	65.00	1,300.00
		0		0.00
110	# 5 - Import A-1 Subbase Fill Material (TN)	150	22.24	3,336.00
		0		0.00
38GVMJFLG	# 6 - 8" FLxMJ Gate Valve (EA)	3	1,430.00	4,290.00
		0		0.00
36GVMJFLG	# 7 - 6" FLxMJ Gate Valve (EA)	1	962.00	962.00
		0		0.00
WTEE	# 8 - 8" Tee (EA)	1	720.00	720.00
		0		0.00

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
WTEE	# 9 - 8"x8"x6" Tee (EA)	1	623.00	623.00
		0		0.00
WRED	# 10 - 8" FLxMJ Adapter (EA)	2	600.00	1,200.00
		0		0.00
3R8X6	# 11 - 10"x8" Reducer (EA)	1	375.00	375.00
		0		0.00
3R8X6	# 12 - 8" x 6" Reducer (EA)	1	269.00	269.00
		0		0.00
3R8X6	#13 - 8"x6" Small End Bell (EA)	1	211.00	211.00
		0		0.00
36WB90	# 14 - 6" 90 Degree Water Bend (EA)	1	275.00	275.00
		0		0.00
3WSLEEVE	# 15 - 6" Sleeve (EA)	1	260.00	260.00
		0		0.00
Demolition	# 16 - Remove Existing 6" Valve Box, Bury Valve (EA)	1	500.00	500.00
		0		0.00
Demolition	# 17 - Remove Existing 10" Valve Box, Bury Valve (EA)	1	500.00	500.00
		0		0.00
3CAP	# 18 - Cut and Cap 6" DIP (EA)	2	235.00	470.00
		0		0.00
3CAP	# 19 - 8" Cap and Blow-Off Assembly (EA)	1	775.00	775.00
		0		0.00
Thrust block	# 20 - Thrust Block (EA)	4	300.00	1,200.00
		0		0.00
8APATCH	# 21 - SR-74 Trench T-Patch (Asphalt & Roadbase) (SF)	1,044	20.11	20,994.84

ITEM	DESCRIPTION	QTY	RATE	AMOUNT
		0		0.00
8APATCH	# 22 - 800 South Trench Patch (Asphalt & Roadbase) (SF)	230	19.13	4,399.90
		0		0.00
Traffic Control	# 23 - Traffic Control (LS)	1	8,000.00	8,000.00
		0		0.00
4WL01	# 24 - Install 1" Pressurized Irrigation Service (EA)	1	1,750.00	1,750.00

Payment in full is due NET 30 following invoice date. A 2% finance charge will be added to all past due amounts.

**TOTAL DUE** **\$71,615.24**

THANK YOU.

## Budget Report for April 2019

### Alpine City - General Fund FY 2018/2019 Budget

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Taxes</b>				
Property taxes	\$ 1,300,000	\$ 1,308,836	101%	\$ 1,325,000
Redemption taxes	140,000	105,827	76%	140,000
Sales tax	1,200,000	909,564	76%	1,250,000
Motor vehicle taxes	106,000	78,245	74%	106,000
Franchise fees	650,000	448,619	69%	650,000
Penalties & interest on delinquent	6,000	3,863	64%	6,000
<b>Total Taxes</b>	<b>\$ 3,402,000</b>	<b>\$ 2,854,954</b>	<b>84%</b>	<b>\$ 3,477,000</b>
<b>License and Permits</b>				
Business license & fees	\$ 22,000	\$ 22,340	102%	\$ 24,000
Plan check fees	160,000	136,884	86%	165,000
Building permits	300,000	244,014	81%	325,000
Building permit assessment	2,500	2,369	95%	2,500
<b>Total License and Permits</b>	<b>\$ 484,500</b>	<b>\$ 405,607</b>	<b>84%</b>	<b>\$ 516,500</b>
<b>Intergovernmental Revenue</b>				
Municipal recreation grant	\$ 5,400	\$ 5,298	98%	\$ 5,400
<b>Total Intergovernmental</b>	<b>\$ 5,400</b>	<b>\$ 5,298</b>	<b>98%</b>	<b>\$ 5,400</b>
<b>Charges For Service</b>				
Zoning & subdivision fees	\$ 15,000	\$ 17,518	117%	\$ 20,000
Annexation applications	500	-	0%	500
Sale of maps and publications	50	60	120%	100
Public safety district rental	38,516	57,774	150%	60,000
Waste collections sales	505,000	493,459	98%	550,000
Youth council	-	651	100%	1,000
Sale of cemetery lots	7,500	5,418	72%	7,500
Burial fees	43,500	38,725	89%	43,500
<b>Total Charges for Service</b>	<b>\$ 610,066</b>	<b>\$ 613,605</b>	<b>101%</b>	<b>\$ 682,600</b>
<b>Fines and Forfeitures</b>				
Fines	\$ 45,000	\$ 23,427	52%	\$ 45,000
Other fines	10,000	31,419	314%	32,500
Traffic school	500	8,743	1749%	10,000
<b>Total Fines and Forfeitures</b>	<b>\$ 55,500</b>	<b>\$ 63,589</b>	<b>115%</b>	<b>\$ 87,500</b>
<b>Rents &amp; Other Revenues</b>				
Recycling	\$ -	\$ -	0%	\$ -
Rents & concessions	58,000	53,211	92%	62,000
Sale of City land	-	-	0%	-
<b>Total Rents &amp; Other Revenues</b>	<b>\$ 58,000</b>	<b>\$ 53,211</b>	<b>92%</b>	<b>\$ 62,000</b>

**Alpine City - General Fund-Continued**  
**FY 2018/2019 Budget**

Revenues-continued	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Interest &amp; Misc Revenues</b>				
Interest earnings	\$ 40,000	\$ 360,387	<b>901%</b>	\$ 70,000
Alpine Days revenue	75,000	75,186	<b>100%</b>	80,000
Rodeo revenue	20,000	24,049	<b>120%</b>	27,500
Bicentennial books	500	280	<b>56%</b>	500
Sundry revenues	25,000	26,727	<b>107%</b>	27,500
<b>Total Miscellaneous Revenues</b>	<b>\$ 160,500</b>	<b>\$ 486,629</b>	<b>303%</b>	<b>\$ 205,500</b>
<b>Transfers &amp; Contributions</b>				
Fund balance appropriation	\$ 431,103	\$ -	<b>0%</b>	\$ 431,103
Contribution from Capital Projects	-	-	-	900,000
Contribution for paramedic	30,000	26,365	<b>88%</b>	30,000
<b>Total Contributions &amp; Transfers</b>	<b>\$ 461,103</b>	<b>\$ 26,365</b>	<b>6%</b>	<b>\$ 1,361,103</b>
<b>Total General Fund Revenues</b>	<b>\$ 5,237,069</b>	<b>\$ 4,509,258</b>	<b>86%</b>	<b>\$ 6,397,603</b>

**Alpine City - General Fund-Continued  
FY 2018/2019 Budget**

<b>Expenditures</b>	<b>Budget FY 2019</b>	<b>Actual To Date FY 2019</b>	<b>83.3% Percent Target</b>	<b>Year End Projected Amount</b>
Administration	\$ 436,450	\$ 344,752	79%	\$ 430,000
Court	85,200	83,734	98%	95,000
Treasurer	39,550	33,437	85%	41,000
Elections	20,500	-	0%	-
Government Buildings	93,400	32,161	34%	50,000
Emergency Services	1,988,719	1,815,157	91%	1,988,719
Building Inspection	164,350	114,195	69%	150,000
Planning & Zoning	233,750	160,984	69%	220,000
Streets	598,850	342,725	57%	598,850
Parks & Recreation	431,450	336,802	78%	431,450
Cemetery	156,900	98,240	63%	152,000
Garbage	471,950	419,357	89%	490,000
Miscellaneous	516,000	877,559	170%	890,000
<b>Total General Fund Expenditures</b>	<b>\$ 5,237,069</b>	<b>\$ 4,659,103</b>	<b>89%</b>	<b>\$ 5,537,019</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ (149,845)</b>		<b>\$ 860,584</b>
<b>Fund Balance Beginning of Year</b>				<b>\$ 566,947</b>
<b>Projected Surplus/(Deficit)</b>				<b>\$ 860,584</b>
<b>Appropriate fund balance/Reserves</b>				<b>\$ (431,103)</b>
<b>Ending Fund Balance</b>				<b>\$ 996,428</b>
<b>Fund Balance Percentage</b>				
<b>General Fund Balance per state law needs to between 5% and 25% (Current projected fund balance)</b>				<b>19.03%</b>

**CLASS C ROADS**  
**FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Interest earnings	\$ -	\$ -	0%	\$ -
Class "B&C" Road allotment	400,000	306,934	77%	400,000
Appropriation of fund balance	250,000	-	0%	250,000
<b>Total Revenues</b>	<b>\$ 650,000</b>	<b>\$ 306,934</b>	<b>47%</b>	<b>\$ 650,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Miscellaneous	\$ -	-	0%	\$ -
Class "B&C" road projects	650,000	304,449	47%	650,000
Reserves	-	-	0%	-
<b>Total Capital Expenditures</b>	<b>\$ 650,000</b>	<b>\$ 304,449</b>	<b>47%</b>	<b>\$ 650,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 2,485</b>		<b>\$ -</b>

<b>Fund Balance Beginning of Year</b>	<b>\$ 910,666</b>
<b>Projected Surplus/(Deficit)</b>	<b>\$ -</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ (250,000)</b>
<b>Ending Fund Balance</b>	<b>\$ 660,666</b>

**Recreation Impact Fee Funds  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Recreation facility fees	\$ 125,000	\$ 56,448	<b>45%</b>	\$ 125,000
Interest earnings	5,000	-	<b>0%</b>	5,000
Appropriation of fund balance	-	-	<b>0%</b>	-
<b>Total Revenues</b>	<b>\$ 130,000</b>	<b>\$ 56,448</b>	<b>43%</b>	<b>\$ 130,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Park system	\$ 130,000	-	<b>0%</b>	\$ 130,000
Miscellaneous	-	-	<b>0%</b>	-
<b>Total Capital Expenditures</b>	<b>\$ 130,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 130,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 56,448</b>		<b>\$ -</b>

**Fund Balance Beginning of Year** \$ 704,727

**Projected Surplus/(Deficit)** \$ -

**Appropriate fund balance\Reserves** \$ -

**Ending Fund Balance** \$ 704,727

**Impact Fee Funds Streets  
FY 2018/2019 Budget**

<b>Revenues</b>	<b>Budget FY 2019</b>	<b>Actual To Date FY 2019</b>	<b>83.3% Percent Target</b>	<b>Year End Projected Amount</b>
Streets & transportation fees	\$ 105,000	\$ 41,626	<b>40%</b>	\$ 105,000
Interest earnings	-	-	<b>0%</b>	-
Appropriation of fund balance	-	-	<b>0%</b>	-
<b>Total Revenues</b>	<b>\$ 105,000</b>	<b>\$ 41,626</b>	<b>40%</b>	<b>\$ 105,000</b>

<b>Expenditures</b>	<b>Budget FY 2019</b>	<b>Actual To Date FY 2019</b>	<b>83.3% Percent Target</b>	<b>Year End Projected Amount</b>
Streets & transport	\$ 105,000	-	<b>0%</b>	\$ 105,000
Reserves	-	-	<b>0%</b>	-
<b>Total Capital Expenditures</b>	<b>\$ 105,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 105,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 41,626</b>		<b>\$ -</b>

**Fund Balance Beginning of Year** **\$ 258,685**

**Projected Surplus/(Deficit)** **\$ -**

**Appropriate fund balance\Reserves** **\$ -**

**Ending Fund Balance** **\$ 258,685**

**Alpine City - Capital Projects Fund  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Interest revenue	\$ 9,000	\$ 891	<b>10%</b>	\$ 9,000
Transfer from General Fund	500,000	-	<b>0%</b>	500,000
Contributions from builders	-	-	<b>0%</b>	-
Fund Balance appropriation	1,117,500	-	<b>0%</b>	1,117,500
<b>Total Revenues</b>	<b>\$ 1,626,500</b>	<b>\$ 891</b>	<b>0%</b>	<b>\$ 1,626,500</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Capital outlay other	\$ 1,217,000	87,674	<b>7%</b>	\$ 1,217,000
Capital outlay buildings	375,000	-	<b>0%</b>	375,000
Contribution to General Fund	-	-	<b>0%</b>	900,000
Capital outlay equipment	34,500	-	<b>0%</b>	34,500
<b>Total Capital Expenditures</b>	<b>\$ 1,626,500</b>	<b>\$ 87,674</b>	<b>5%</b>	<b>\$ 2,526,500</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ (86,783)</b>		<b>\$ (900,000)</b>

<b>Fund Balance Beginning of Year</b>	<b>\$ 2,463,379</b>
<b>Projected Surplus/(Deficit)</b>	<b>\$ (900,000)</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ (1,117,500)</b>
<b>Ending Fund Balance</b>	<b>\$ 445,879</b>

**Alpine City - Water Utility  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Operating Revenues</b>				
Metered water sales	\$ 600,000	\$ 640,528	107%	\$ 695,000
Other water revenue	5,000	9,601	192%	12,500
Water connection fee	5,000	13,615	272%	17,500
Penalties	5,500	1,661	30%	5,500
<b>Total Miscellaneous Revenues</b>	<b>\$ 615,500</b>	<b>\$ 665,405</b>	<b>108%</b>	<b>\$ 730,500</b>
<b>Miscellaneous</b>				
Interest earned	\$ 21,000	\$ -	0%	\$ 25,000
Appropriated fund balance	396,275	-	0%	396,275
<b>Total Utility Revenue</b>	<b>\$ 417,275</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 421,275</b>
<b>Total Utility Fund Revenues</b>	<b>\$ 1,032,775</b>	<b>\$ 665,405</b>	<b>64%</b>	<b>\$ 1,151,775</b>

Expenses	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Water operating	\$ 372,650	\$ 315,371	85%	380,000
Depreciation	255,000	-	0%	255,000
Capital outlay- Buildings	50,000	-	0%	50,000
Capital outlay- Improvements	325,000	288,056	89%	325,000
Capital outlay- Equipment	10,125	3,125	31%	10,125
<b>Total Utility Fund Expenses</b>	<b>\$ 1,012,775</b>	<b>\$ 606,552</b>	<b>60%</b>	<b>\$ 1,020,125</b>
<b>Surplus/(Deficit)</b>	<b>\$ 20,000</b>	<b>\$ 58,853</b>		<b>\$ 131,650</b>

<b>Cash Balance Beginning of Year</b>	<b>\$ 2,354,980</b>
<b>Surplus/(Deficit)</b>	<b>\$ 131,650</b>
<b>Appropriate fund balance/Reserves</b>	<b>\$ (396,275)</b>
<b>Ending Cash Balance</b>	<b>\$ 2,090,355</b>

**Impact Fee Funds Water Impact Fees  
FY 2018/2019 Budget**

<b>Revenues</b>	<b>Budget FY 2019</b>	<b>Actual To Date FY 2019</b>	<b>83.3% Percent Target</b>	<b>Year End Projected Amount</b>
Water Impact Fees	\$ 70,000	\$ 56,150	<b>80%</b>	\$ 70,000
Interest earnings	-	-	<b>0%</b>	-
Appropriation of fund balance	-	-	<b>0%</b>	-
<b>Total Revenues</b>	<b>\$ 70,000</b>	<b>\$ 56,150</b>	<b>80%</b>	<b>\$ 70,000</b>

<b>Expenditures</b>	<b>Budget FY 2019</b>	<b>Actual To Date FY 2019</b>	<b>Target Percent Target</b>	<b>Year End Projected Amount</b>
Impact fee projects	\$ 70,000	1,550	<b>2%</b>	\$ 70,000
To reserves	-	-	<b>0%</b>	-
<b>Total Capital Expenditures</b>	<b>\$ 70,000</b>	<b>\$ 1,550</b>	<b>2%</b>	<b>\$ 70,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 54,600</b>		<b>\$ -</b>

**Fund Balance Beginning of Year** \$ 292,554

**Projected Surplus/(Deficit)** \$ -

**Appropriate fund balance\Reserves** \$ -

**Ending Fund Balance** \$ 292,554

**Alpine City - Sewer Utility  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Operating Revenues</b>				
Sewer system sales	\$ 1,025,000	\$ 839,159	82%	\$ 1,025,000
Other revenue	10,000	-	0%	10,000
Sewer connection fee	5,000	4,625	93%	5,000
<b>Total Miscellaneous Revenues</b>	<b>\$ 1,040,000</b>	<b>\$ 843,784</b>	<b>81%</b>	<b>\$ 1,040,000</b>
<b>Miscellaneous</b>				
Interest earned	\$ 12,000	\$ -	0%	\$ 12,000
Appropriated fund balance	36,975	-	0%	27,975
<b>Total Utility Revenue</b>	<b>\$ 48,975</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 39,975</b>
<b>Total Utility Fund Revenues</b>	<b>\$ 1,088,975</b>	<b>\$ 843,784</b>	<b>77%</b>	<b>\$ 1,079,975</b>

Expenses	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Sewer operating	\$ 868,850	\$ 666,905	77%	874,700
Depreciation	130,000	-	0%	121,000
Capital outlay- Improvements	80,000	-	0%	80,000
Capital outlay- Equipment	10,125	3,125	31%	10,125
<b>Total Utility Fund Expenses</b>	<b>\$ 1,088,975</b>	<b>\$ 670,030</b>	<b>62%</b>	<b>\$ 1,085,825</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 173,754</b>		<b>\$ (5,850)</b>
<b>Cash Balance Beginning of Year</b>				<b>\$ 2,158,248</b>
<b>Surplus/(Deficit)</b>				<b>\$ (5,850.00)</b>
<b>Appropriate fund balance/Reserves</b>				<b>\$ (27,975)</b>
<b>Ending Cash Balance</b>				<b>\$ 2,124,423</b>

**Alpine City - Sewer Impact fee funds  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Sewer Impact Fees	\$ 20,000	\$ 15,764	<b>79%</b>	\$ 20,000
Interest earnings	-	-	<b>0%</b>	-
Appropriation of fund balance	-	-	<b>0%</b>	-
<b>Total Revenues</b>	<b>\$ 20,000</b>	<b>\$ 15,764</b>	<b>79%</b>	<b>\$ 20,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Sewer Impact fee projects	\$ 20,000	-	<b>0%</b>	\$ 20,000
To reserves	-	-	<b>0%</b>	-
<b>Total Capital Expenditures</b>	<b>\$ 20,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 20,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 15,764</b>		<b>\$ -</b>

**Fund Balance Beginning of Year** **\$ 57,177**

**Projected Surplus/(Deficit)** **\$ -**

**Appropriate fund balance\Reserves** **\$ -**

**Ending Fund Balance** **\$ 57,177**

**Alpine City - PI Fund  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Operating Revenues</b>				
Irrigation water sales	\$ 875,000	\$ 764,749	87%	890,000
Other revenue	1,000	550	55%	1,000
PI connection fee	2,500	19,704	788%	20,000
PI Grant project	745,000	479,158	64%	500,000
<b>Total Miscellaneous Revenues</b>	<b>\$ 1,623,500</b>	<b>\$ 1,264,161</b>	<b>78%</b>	<b>\$ 1,411,000</b>
<b>Miscellaneous</b>				
Interest earned	\$ 14,000	\$ 1,176	8%	\$ 14,000
Appropriated fund balance	631,452	-	0%	631,452
<b>Total Utility Revenue</b>	<b>\$ 645,452</b>	<b>\$ 1,176</b>	<b>0%</b>	<b>\$ 645,452</b>
<b>Total Utility Fund Revenues</b>	<b>\$ 2,268,952</b>	<b>\$ 1,265,337</b>	<b>56%</b>	<b>\$ 2,056,452</b>

Expenses	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
PI operating	\$ 521,450	\$ 467,060	90%	521,450
Depreciation	223,704	-	0%	223,704
Capital outlay	-	55,366	100%	60,000
Capital outlay- Equipment	10,125	3,125	31%	10,125
Irrigation meter replacement	1,045,000	1,133,678	108%	1,250,000
Bond costs	4,500	4,500	100%	4,500
Debt Service	464,173	464,173	100%	464,173
<b>Total Utility Fund Expenses</b>	<b>\$ 2,268,952</b>	<b>\$ 2,127,902</b>	<b>94%</b>	<b>\$ 2,533,952</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ (862,565)</b>		<b>\$ (477,500)</b>

<b>Cash Balance Beginning of Year</b>	<b>\$ 2,502,096</b>
<b>Surplus/(Deficit)</b>	<b>\$ (477,500)</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ (631,452)</b>
<b>Ending Cash Balance</b>	<b>\$ 1,393,144</b>

**Alpine City - Pressure Irrigation Impact fee funds**  
**FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
PI Impact Fees	\$ 75,000	\$ 70,158	94%	\$ 75,000
Interest earnings	-	-	0%	-
Interest earnings	-	-	0%	-
Appropriation of fund balance	-	-	0%	-
<b>Total Revenues</b>	<b>\$ 75,000</b>	<b>\$ 70,158</b>	<b>94%</b>	<b>\$ 75,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
PI Impact fee projects	\$ 75,000	-	0%	\$ 75,000
To reserves	-	-	0%	-
<b>Total Capital Expenditures</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 75,000</b>

<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 70,158</b>		<b>\$ -</b>
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<b>Fund Balance Beginning of Year</b>				<b>\$ 88,682</b>
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<b>Projected Surplus/(Deficit)</b>				<b>\$ -</b>
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<b>Appropriate fund balance\Reserves</b>				<b>\$ -</b>
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<b>Ending Fund Balance</b>				<b>\$ 88,682</b>
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**Alpine City - Storm Drain Fund  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
<b>Operating Revenues</b>				
Storm drain revenue	\$ 165,000	\$ 142,906	87%	\$ 170,000
Other revenue	1,000	-	0%	1,000
SWPP fee	10,000	9,300	93%	10,000
Storm drain impact fee	-	-	0%	-
<b>Total Miscellaneous Revenues</b>	<b>\$ 176,000</b>	<b>\$ 152,206</b>	<b>86%</b>	<b>\$ 181,000</b>
<b>Miscellaneous</b>				
Interest earned	\$ 4,000	\$ -	0%	\$ 4,000
Appropriated fund balance	101,100	-	0%	101,100
<b>Total Utility Revenue</b>	<b>\$ 105,100</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 105,100</b>
<b>Total Utility Fund Revenues</b>	<b>\$ 281,100</b>	<b>\$ 152,206</b>	<b>54%</b>	<b>\$ 286,100</b>

Expenses	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
SD operating	\$ 97,600	\$ 80,163	82%	97,600
Depreciation	83,500	-	0%	83,500
Capital outlay	100,000	1,086	1%	100,000
<b>Total Utility Fund Expenses</b>	<b>\$ 281,100</b>	<b>\$ 81,249</b>	<b>29%</b>	<b>\$ 281,100</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 70,957</b>		<b>\$ 5,000</b>

<b>Cash Balance Beginning of Year</b>	<b>\$ 592,761</b>
<b>Surplus/(Deficit)</b>	<b>\$ 5,000</b>
<b>Appropriate fund balance/Reserves</b>	<b>\$ (101,100)</b>
<b>Ending Cash Balance</b>	<b>\$ 496,661</b>

**Alpine City - Storm Drain Impact fee funds  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	Target Percent Target	Year End Projected Amount
SD Impact Fees	\$ 65,000	\$ 19,600	30%	\$ 55,000
Interest earnings	-	-	0%	-
Appropriation of fund balance	-	-	0%	-
<b>Total Revenues</b>	<b>\$ 65,000</b>	<b>\$ 19,600</b>	<b>30%</b>	<b>\$ 55,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	Target Percent Target	Year End Projected Amount
SD Impact fee projects	\$ 65,000	60,590	93%	\$ 65,000
To reserves	-	-	0%	-
<b>Total Capital Expenditures</b>	<b>\$ 65,000</b>	<b>\$ 60,590</b>	<b>93%</b>	<b>\$ 65,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ (40,990)</b>		<b>\$ (10,000)</b>

<b>Fund Balance Beginning of Year</b>	<b>\$ 227,552</b>
<b>Projected Surplus/(Deficit)</b>	<b>\$ (10,000)</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ -</b>
<b>Ending Fund Balance</b>	<b>\$ 217,552</b>

**Alpine City - Trust & Agency Fund  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Interest revenue	\$ 1,000	\$ -	<b>0%</b>	\$ 1,000
<b>Total Revenues</b>	<b>\$ 1,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 1,000</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Interest expense	\$ 1,000	-	<b>0%</b>	\$ 1,000
<b>Total Expenditures</b>	<b>\$ 1,000</b>	<b>\$ -</b>	<b>0%</b>	<b>\$ 1,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ -</b>		<b>\$ -</b>

<b>Fund Balance Beginning of Year</b>	<b>\$ 42,853</b>
<b>Projected Surplus/(Deficit)</b>	<b>\$ -</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ -</b>
<b>Ending Fund Balance</b>	<b>\$ 42,853</b>

**Alpine City - Cemetery Perpetual Fund  
FY 2018/2019 Budget**

Revenues	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Cemetery lot payments	\$ 13,000	\$ 16,253	125%	\$ 17,500
Upright Monument	2,500	975	39%	2,500
Interest revenues	2,500	-	0%	2,500
<b>Total Revenues</b>	<b>\$ 18,000</b>	<b>\$ 17,228</b>	<b>96%</b>	<b>\$ 22,500</b>

Expenditures	Budget FY 2019	Actual To Date FY 2019	83.3% Percent Target	Year End Projected Amount
Cemetery expenses	\$ 18,000	9,850	55%	\$ 18,000
<b>Total Expenses</b>	<b>\$ 18,000</b>	<b>\$ 9,850</b>	<b>55%</b>	<b>\$ 18,000</b>
<b>Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ 7,378</b>		<b>\$ 4,500</b>

<b>Fund Balance Beginning of Year</b>	<b>\$ 614,030</b>
<b>Projected Surplus/(Deficit)</b>	<b>\$ 4,500</b>
<b>Appropriate fund balance\Reserves</b>	<b>\$ -</b>
<b>Ending Fund Balance</b>	<b>\$ 618,530</b>

## **ALPINE CITY COUNCIL AGENDA**

**SUBJECT: Major Subdivision Final Plat Review – Montdella**

**FOR CONSIDERATION ON: 14 May 2019**

**PETITIONER: Alan Cottle**

**ACTION REQUESTED BY PETITIONER: Approve Final Plat and Plans**

### **BACKGROUND INFORMATION:**

The developer is seeking approval of the final plat and plans for the proposed Montdella Subdivision, a 55+ Community, which consists of 25 dwelling units on 3.94 acres. Dwelling units range in size from approximately 2,400 square feet to 3,500 square feet. The property is located in the Business/Commercial Zone and Senior Housing Overlay.



**ALPINE CITY  
STAFF REPORT**  
March 26, 2019

**To:** Alpine City Planning Commission

**From:** Staff

**Prepared By:** Austin Roy, City Planner  
Planning & Zoning Department

Jed Muhlestein, City Engineer  
Engineering & Public Works Department

**Re:** Montdella Subdivision, 55+ Residential Community - FINAL

Applicant: Alan Cottle, Cottle Capital Group  
Project Location: 242 S. Main Street  
Zoning: Business/Commercial Zone; Senior Housing Overlay  
Acreage: Approximately 3.94 Acres  
Lot Size: Townhomes range in size from approx. 2,400-3,500 sq. ft.  
Request: Recommend and approve preliminary plans

**SUMMARY**

The developer is seeking Final approval for the Montdella Subdivision, a 55+ Community, which consists of 25 dwelling units on 3.94 acres. Dwelling units range in size from approximately 2,400 square feet to 3,500 square feet. The property is located in the Business/Commercial Zone.

**BACKGROUND**

On August 28, 2018 a concept plan was brought before City Council seeking approval of a Senior Housing Overlay. The City Council reviewed and approved the request for the Senior Housing Overlay. March 19, 2019 the Planning Commission reviewed and approved the Preliminary application with conditions of correcting a few redlines and addressing the Fire Department's concerns. Staff believes those issues have been corrected on the Final Application.

The developer is now returning seeking approval for final plans. Business/Commercial Zone, Senior Housing Overlay, and Gateway/Historic requirements should all be taken into consideration when reviewing the final plat and plans for approval.

## ANALYSIS

### Lot Area and Width

A Senior Housing Project shall be at least 2 acres in size, but no more than 6 acres in size. A maximum of 8 dwelling units is allowed per acre, with an overall project cap of 32 units (Article 3.18.070). The proposed plans meet these criteria.

### Setbacks

Plat and plans show setbacks of 30 feet off of Main Street, 20 feet on side rear setbacks, and 25 feet from the high water mark of Dry Creek. Dwellings structures are spaced at least 10 feet apart. All proposed setbacks meet the requirements of the underlying zone.

### Use

The development is proposed as a 55+ community, with combination of single and attached dwellings. The proposed use is permitted in the Business/Commercial Zone within a Senior Housing Overlay (Article 3.07 and 3.18).

### Sensitive Lands (Wildland Urban Interface, etc.)

The property contains a flood plain area. Flood Damage Prevention Overlay requirements will need to be met. See the below Engineering Review for further details.

### Trails

The Alpine City Trail Master Plan shows a proposed trail that runs through this property along the northern boundary, from the northeast corner to the southwest corner of the property. This proposed trail is an extension of the existing Dry Creek Corridor Trail. The developer has included this trail in the plans as a proposed 8-foot-wide walking/jogging trail, which will follow the existing creek and connect to Main Street. The trail committee has commented and agrees with the 8-foot wide, asphalt, designation, but this needs shown on the plat as well. Trail is shown on all plans but not clearly on the subdivision plat per the Trail ordinance requirements. **The trail must be shown on the plat as a Class B trail (8' asphalt), called out with bearings and distances, and show a 20-foot wide easement** before it can be recorded. This trail requirement has been included as a minor redline comment for the plat.

### Gateway/Historic

The Gateway Historic District Design Guidelines state that new developments should:

- a) Mimic details of older buildings
- b) Use similar materials
- c) Make mundane uses look good
- d) Include design features on blank walls

Colored perspectives, architectural renderings, and a materials legend have been submitted for the project. Building materials are shown to be primarily brick and other masonry. The design appears to have taken into consideration the criteria of the Gateway Historic District Design Guidelines and staff has no concerns with the overall design.

General Plan

The plat and plans as proposed are compatible with the General Plan.

**REVIEWS**

**PLANNING AND ZONING DEPARTMENT REVIEW**

The analysis section in the body of this report serves as the Planning and Zoning Department review.

**ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW**

Streets

All site plans must adhere to the Off-Street Parking Ordinance (Article 3.24). The applicant has submitted a parking plan which appears to be in compliance with the ordinance. Parking stalls are dimensioned correctly and not located in a setback area, an all-weather surface of asphalt is proposed, a lighting plan was submitted and approved, and it is graded to detain all storm water onsite. Storm drain calculations and plans were submitted and approved for the design of the parking lot.

The application shows a 26-foot wide private street through the development that will connect to an existing parking area to the south. The preliminary design showed a 24-wide private street, the change was due to Fire Code requirements. The private turn-around area was also altered to be wider to allow a fire apparatus easier access to the site. **The 26-foot wide private street is not wide enough to allow for on street parking, thus this must be included as a note on the final plat. Also, staff recommends that “No Parking” signage for the private street be a condition of approval.** The Fire Chief will provide a review and comment on the changes.

Regarding the connection to the south, legal documents must be prepared and signed by the appropriate parties to secure access through the properties to the south via a legal cross agreement. The properties to the south were previously approved with the condition that a legal cross agreement be acquired from all neighboring properties, including the Montdella property. The City has no record that a cross agreement was ever secured between the Montdella property and the property to the south. **Staff recommends that fully signed cross agreement document be a condition of final approval before the plat can be recorded.**

The applicant provided a traffic study with the application. The study shows very low traffic volumes generated from the development; 140 trips per day and only 12 trips during the peak hours of the day. Though volumes were very low, the study recognizes the current traffic problem during peak hour traffic due to the charter school. The study offered ideas for restricting how traffic turns in and out of the development. The two optional ideas would not allow left hand turns coming in or out of the development. Staff does not feel that any restrictions should be imposed on the development in terms of traffic flow due to the following:

1. the overall daily low volume;
2. the low volume expected during peak hours;
3. restricting north-bound, left hand turns would force northbound vehicles more northward

- into the areas of congestion already created by the charter school;
4. there is more than one exit within the development, residents will have more than one northbound option if traffic is congested on main street;

The street master plan requires a landscaping plan along arterial and collector roads (of which Main Street is). The applicant has turned in a landscaping plan along with architectural renderings, which was reviewed and approval at the March 19<sup>th</sup> meeting. Engineering verified the trees proposed closest to the sidewalk met the City's tree guideline and were safe trees to plant near a sidewalk.

Utilities – Reviewed and approved at Preliminary, included here for information only

Culinary water is proposed to “loop” through the development and connect to existing lines on both the Main Street side and west side. There is an existing 8-inch main in Main Street and a 10-inch main on the west side which the plans show connection to. New service laterals are shown for each unit. Horrocks Engineer's reviewed the development; their review shows the development is in compliance with the water master plan and should have plentiful flows for fire flows. There are two existing water service laterals that are shown to be removed and capped at the main, which is the standard for disconnecting services that will no longer be in use. **One extra fire hydrant was added to the plans in response to the Fire Chief's comments at Preliminary.**

Pressurized irrigation will connect to an existing lateral for the development. All common areas will be irrigated via this connection.

A new sewer line will be extended from an existing manhole on the west side of the development to serve the units. New sewer laterals are shown for each unit.

As mentioned in the streets section, a storm drain design was submitted and approved. The storm drain system collects water from the development and stores it in a detention pond on the south west corner of the property. The water is pre-treated through an oil/water/trash separator prior to entering the detention pond. The pond was sized correctly for the 100-yr event and releases water at pre-development flow rates back in to Dry Creek.

Other

A flood plain exists on the property. No homes, structures, or even the proposed trail are in the flood plain. The plan appears to be in compliance with the City's flood plain ordinance (3.12.08).

Retaining walls are shown on the plan. Retaining walls require a separate permit and are regulated during the construction period (Article 3.32).

A Land Disturbance Permit would be required prior to construction which ensures a Storm Water Pollution Prevention Plan (SWPPP) is followed. All disturbed areas of the site are required to be revegetated after construction.

**LONE PEAK FIRE DEPARTMENT REVIEW**

See the attached review from the Lone Peak Fire Department.

**STAFF RECOMMENDATION**

Review staff report and findings and make a recommendation to City Council to either approve or deny the proposed subdivision. Findings are outlined below.

Findings for a Positive Motion:

- A. Plans follow and meet Planning and Zoning requirements.
- B. Plans follow and meet Engineering requirements.

Findings for Negative Motion:

- A. None.

**MODEL MOTIONS**

**SAMPLE MOTION TO APPROVE**

I motion to recommend approval of the proposed Montdella Subdivision Final Plans with the following condition:

- The Developer address the redline comments regarding the trail on the plat.
- The Developer address the redline comments regarding no on-street parking on the plat.
- The 26-foot private street be signed to indicate that no on-street parking is allowed.
- A fully signed cross agreement document with the adjacent properties to the south be submitted to the City prior to recording.

**SAMPLE MOTION TO DENY**

I motion to recommend that the proposed Montdella Subdivision Final Plans be denied based on the following:

- \*\*\*Insert Finding\*\*\*

**To:** Jed Muhlestein  
Alpine City

**From:** John E. Schiess, P.E.

**Date:** Jan 26, 2019

**Memorandum**

**Subject: Alpine Townhomes Hydraulic Modeling Results and Recommendations**

---

The proposed development consists of 26 townhomes located on Main Street just south of Dry Creek.

The development proposes 26 culinary ERC's, 2.33 irrigated acres, and 26 sanitary sewer ERU's. The current master plan anticipated 20.4 culinary ERC's, 0.6 irrigated acres, and 20.4 sanitary sewer ERU's. Proposed connections are slightly higher than anticipated for this area.

The proposed culinary water improvements have been modeled in both the current and buildout models. The proposed improvements fit well within the City's culinary water master plan and modeling shows them to be adequate. The following comments and recommendations are noted for the proposed culinary water system.

The proposed pressurized irrigation improvements have been modeled in both the current and buildout models under both wet and dry year supply conditions. The proposed demands are more than the City's pressurized irrigation master plan but modeling shows them to be adequate. The following comments and recommendations are noted for the proposed pressurized irrigation system.

The proposed sanitary sewer improvements have been modeled in both the current and buildout models. The proposed improvements fit well within the City's sanitary sewer master plan and modeling shows them to be adequate. The following comments and recommendations are noted for the proposed sanitary sewer system.

**Recommendations:**

1. None.

**Comments:**

2. Fire flow available in the area surrounding the proposed improvements should be over 3000 gallons per minute at 20 psi for the proposed lines.

**Re: Montdella Development**

1 message

**Reed Thompson** <rthompson@lonepeakfire.com>

To: Brandon Parr &lt;bparr@focusutah.com&gt;

Cc: Alan Cottle &lt;acottle@cottlecapital.com&gt;, aroy@alpinecity.org

Wed, Mar 13, 2019 at 6:56 PM

Brandon,

I apologize as I was out of the office yesterday with training, and today I was out sick.

In reviewing the plans I had three comments to be addressed.

1. The road width will need to be 26' to accommodate an aerial fire apparatus. The plans show 24' including the rolled curb.
2. The round about island will need to be reduced to accommodate placement of fire apparatus in that area during a fire and address the turning radius negotiation of apparatus travel.
3. Due to the close proximity of the housing units and the risk of fire exposure spread, at least one additional fire hydrant will be required midway through the private street.
4. Based on limited access to the rear of the structures on the north side, we will likely restrict the use of barbecue grills on floor two rear patios.

Please let me know if you have any questions.

Thanks,

Reed M. Thompson  
Fire Chief  
Lone Peak Fire District  
[rthompson@lonepeakfire.com](mailto:rthompson@lonepeakfire.com)  
801-330-4380

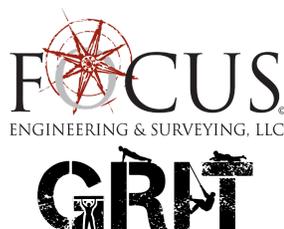
On Mar 13, 2019, at 5:10 PM, Brandon Parr &lt;bparr@focusutah.com&gt; wrote:

Hello Reed,

I am working on the Montdella Development in Alpine with Alan Cottle. He mentioned you had some concerns with the development. I am going to be addressing some minor comments from planning and engineering in the next few days and would love to get any of your comments addressed at the same time. Can you please let me know what your concerns/comments are as soon as possible so that we can get everything addressed at the same time. Feel free to give me a call if you have any questions.

Thanks,

Brandon

**BRANDON PARR**  
PROJECT MANAGERO: [801-352-0075](tel:801-352-0075)M: [801-910-2066](tel:801-910-2066)[BPARR@FOCUSUTAH.COM](mailto:BPARR@FOCUSUTAH.COM)[FOCUSUTAH.COM](http://FOCUSUTAH.COM)32 W. CENTER STREET  
MIDVALE, UT 84047

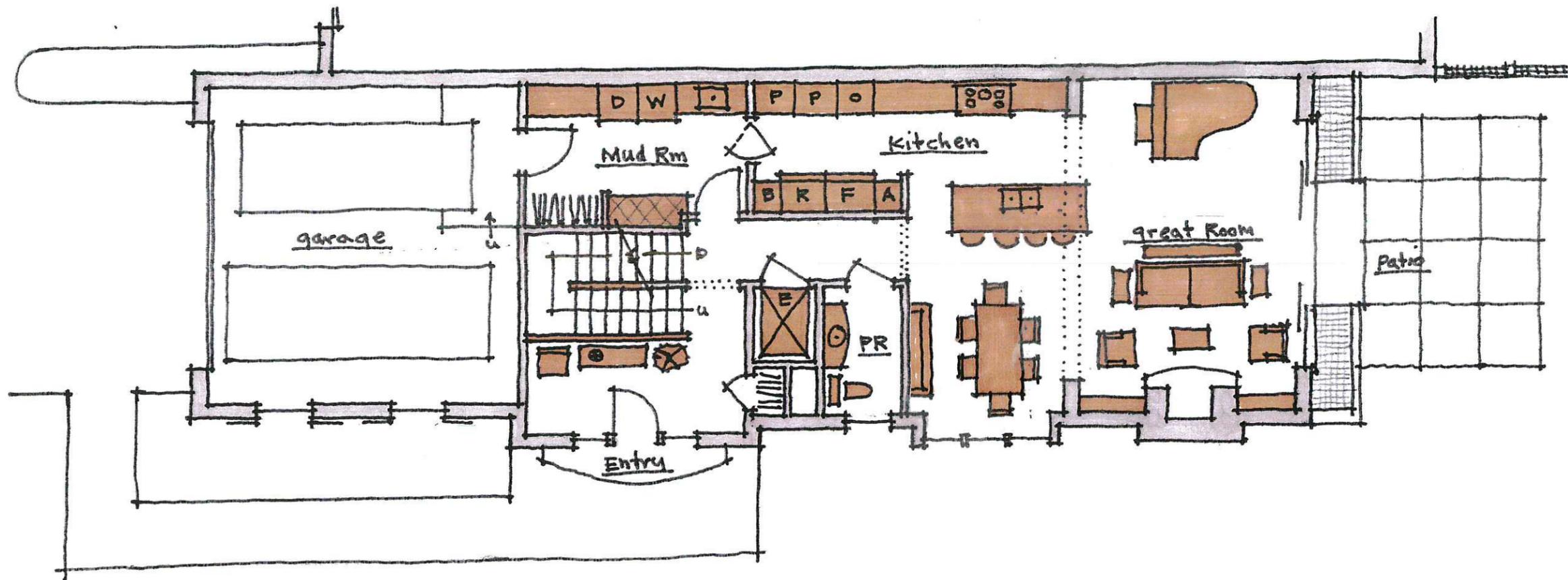


MAIN STREET



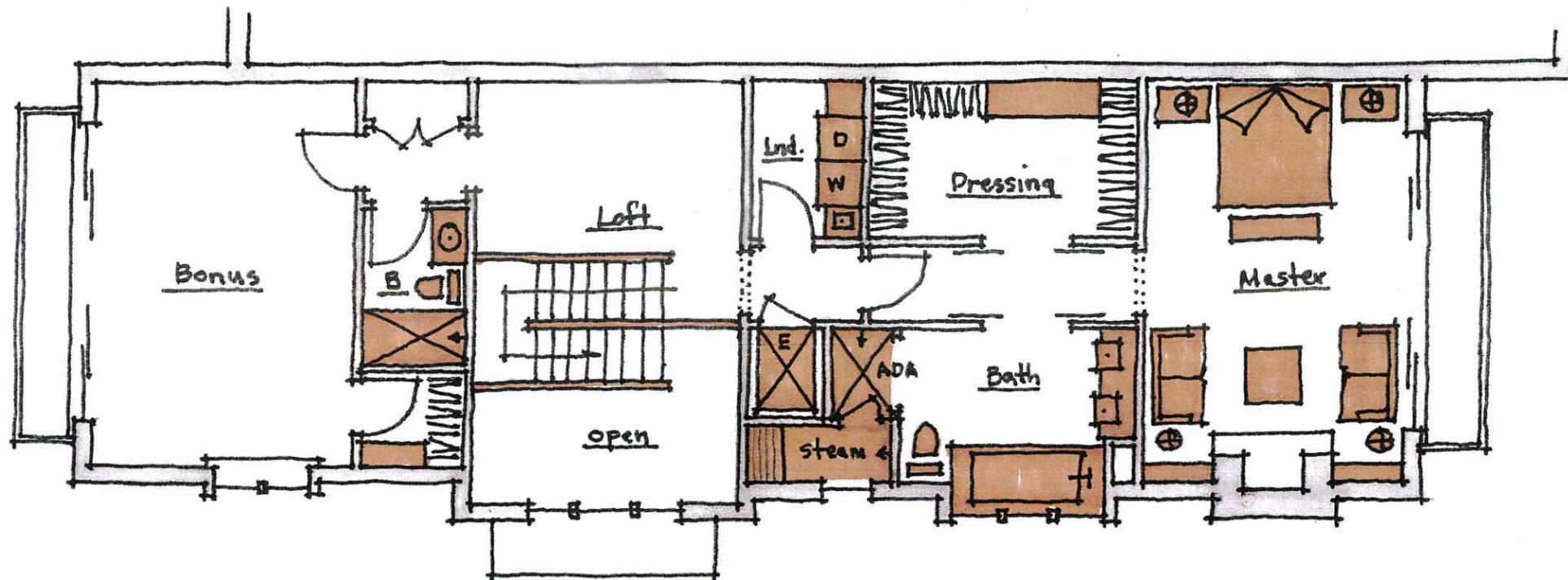




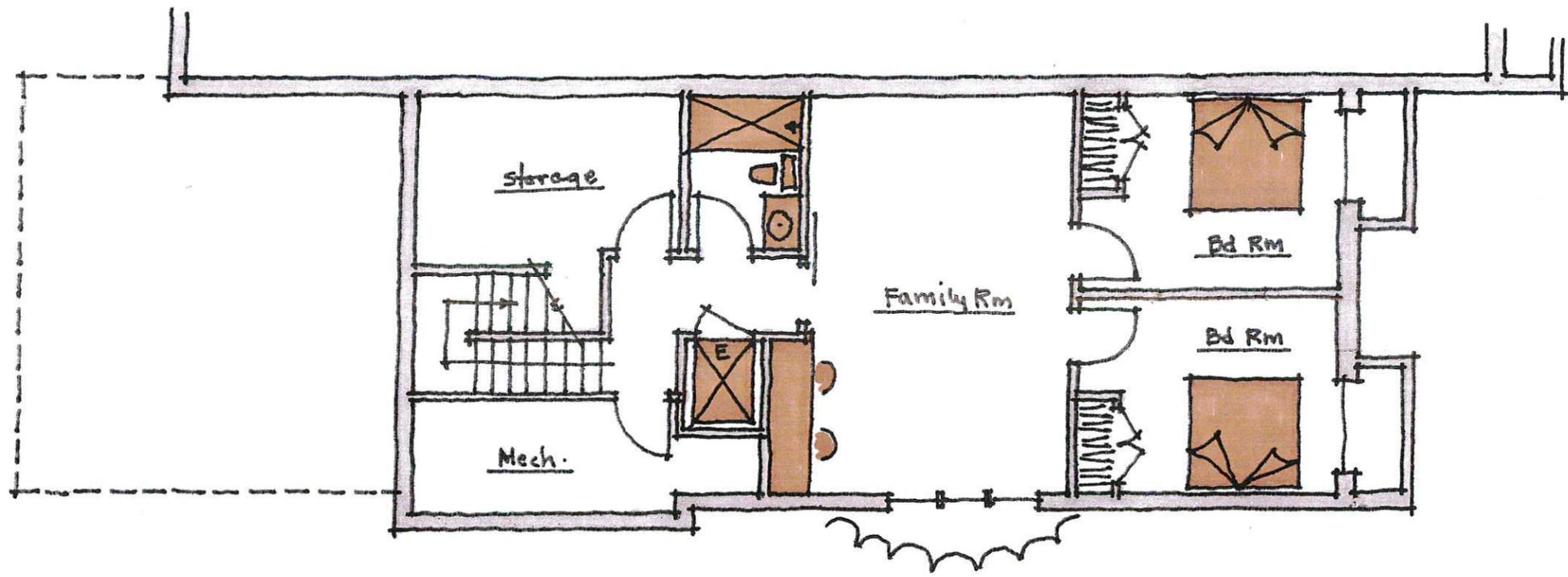


Main Floor Plan

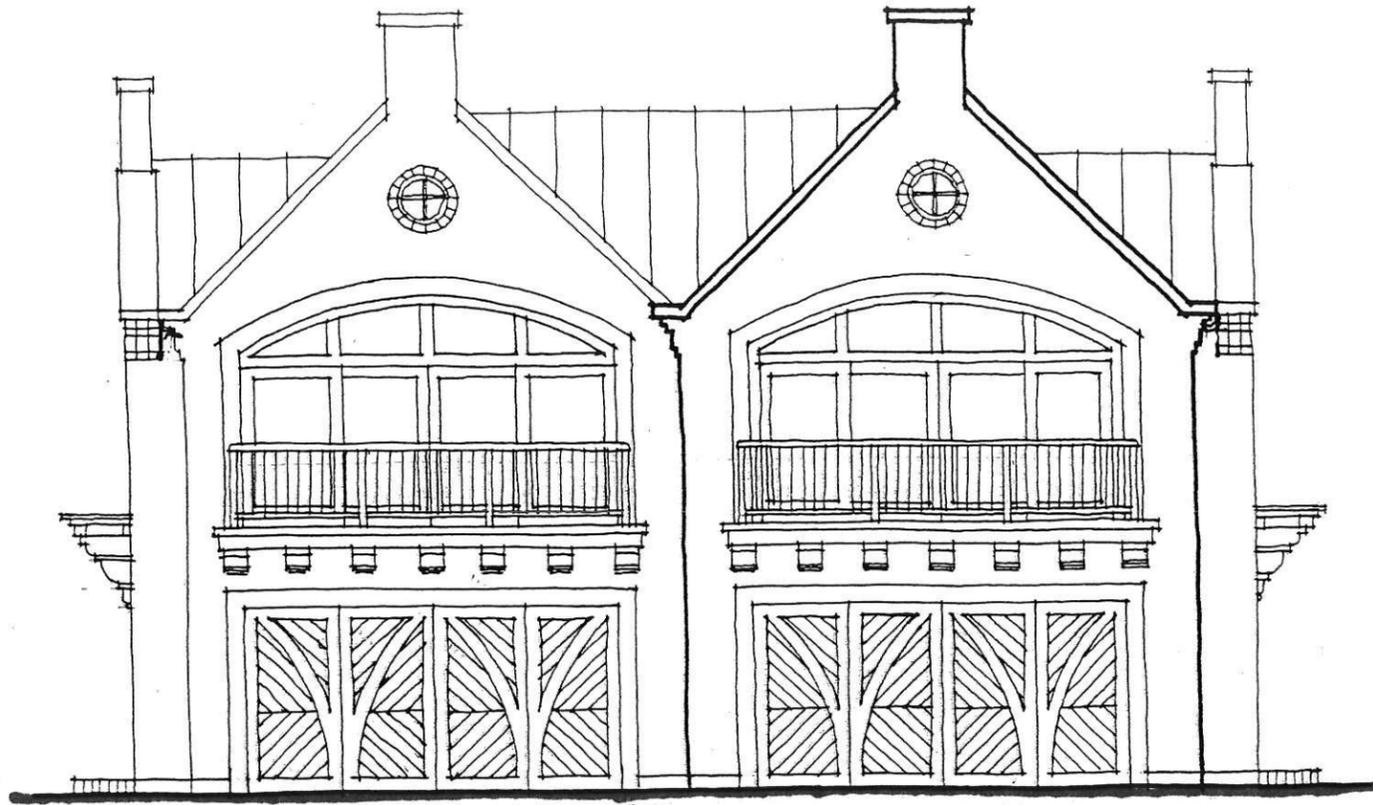
MF = 1200 SF      garage 451 SF  
 UF = 1652 SF  
 LF = 1200 SF  
 T = 4052 SF

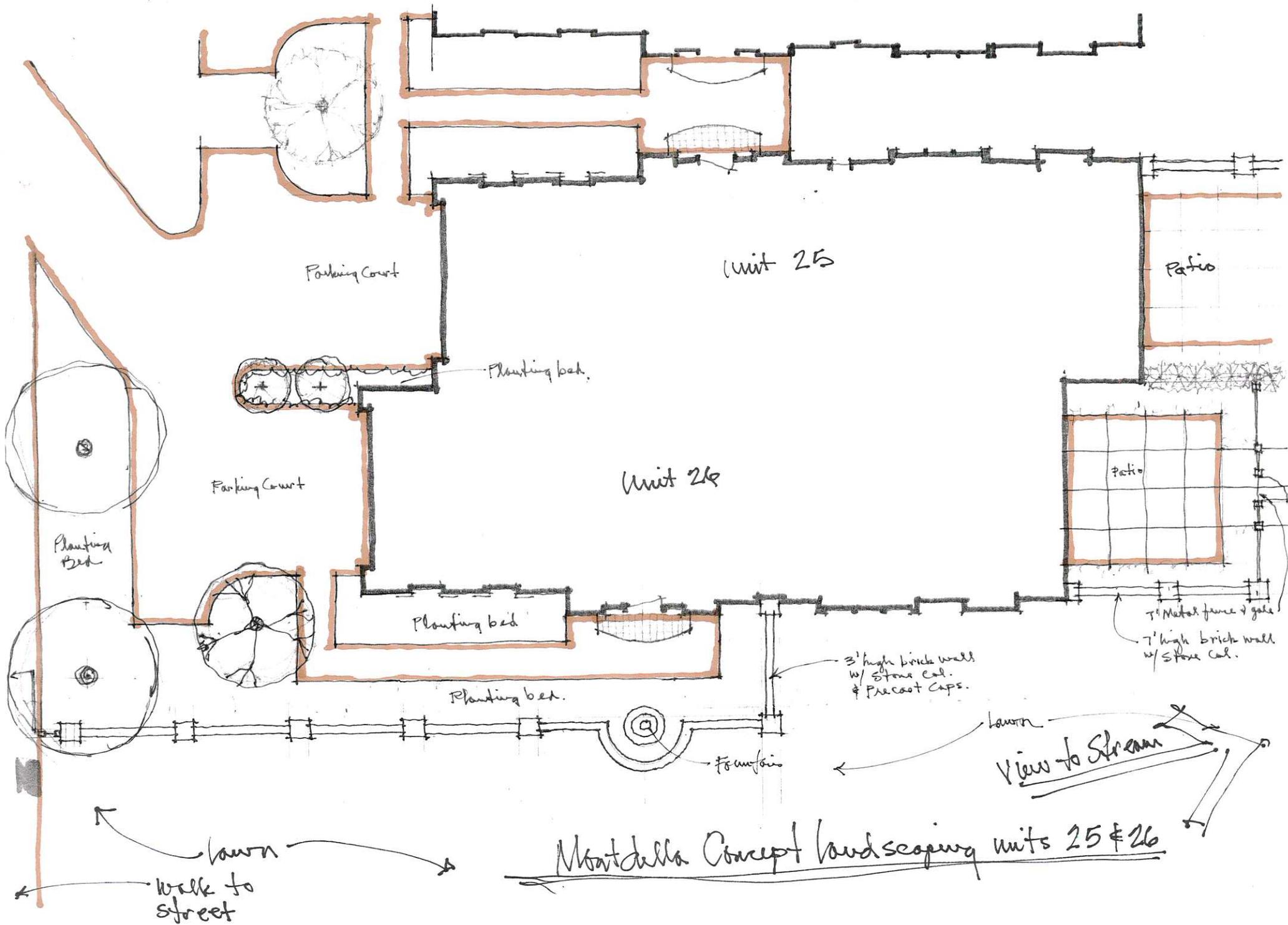


Upper Floor Plan  
UF 1,652 SF

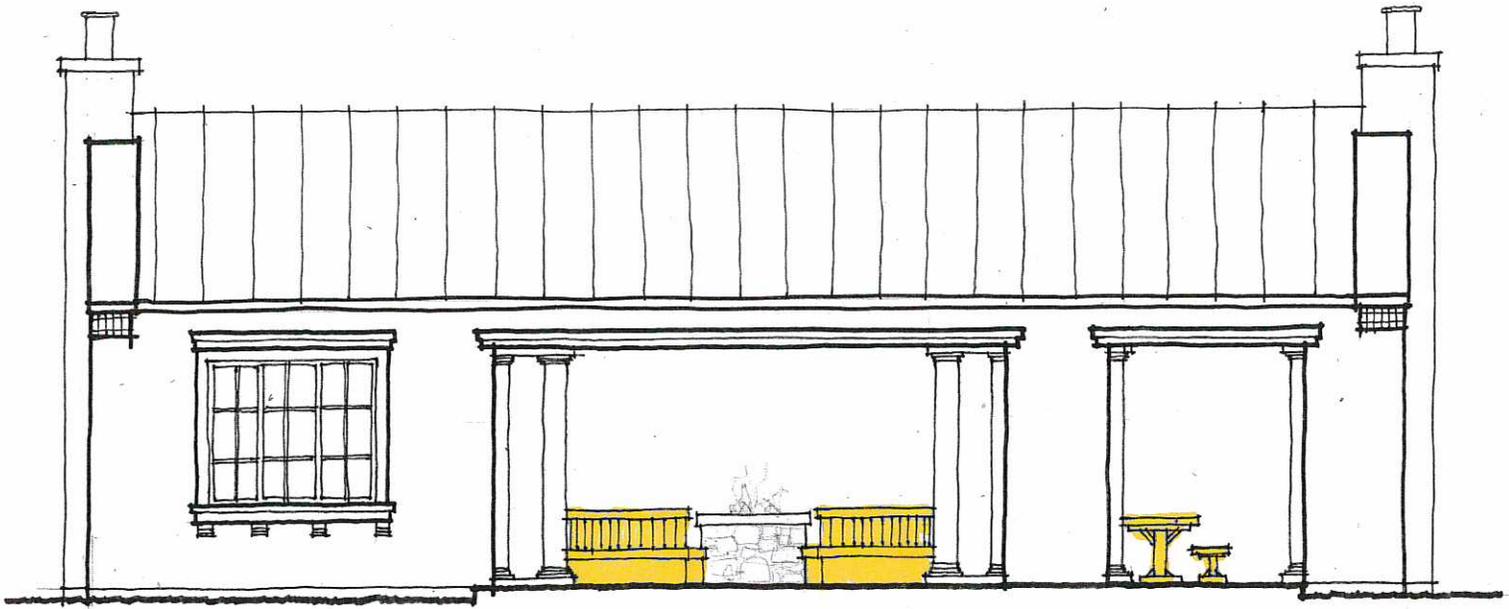


Lower Floor Plan  
LF 1200 SF

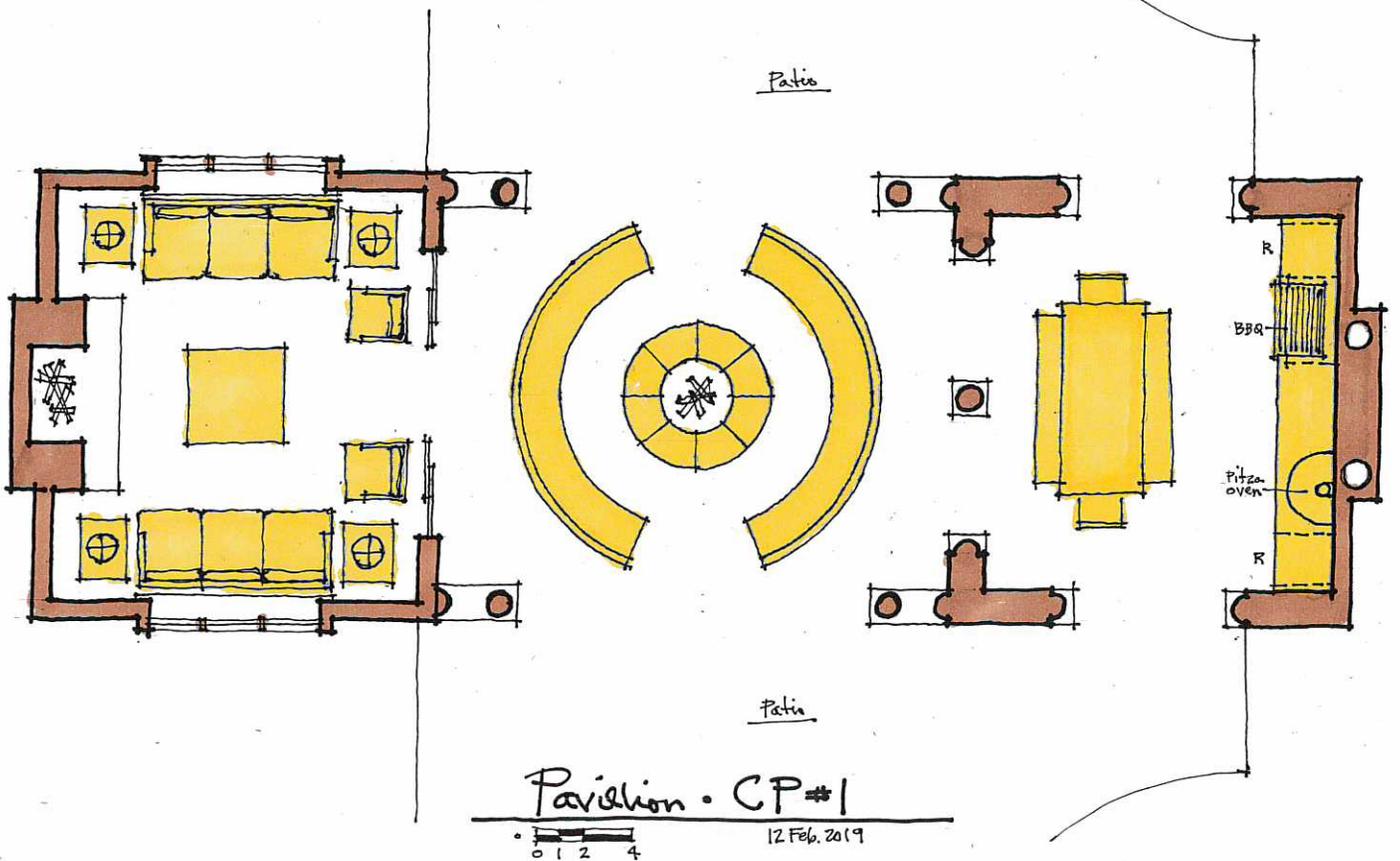




Monticello Concept landscaping units 25 & 26



Pavilion • CFE #1  
 0 1 2 4  
 12 Feb. 2019



Pavilion • CP #1  
 0 1 2 4  
 12 Feb. 2019

# MONTDELLA

PREPARED FOR:  
ALAN COTTLE  
LOCATED IN:  
ALPINE, UTAH

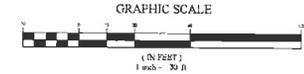
Sheet List Table	
Sheet Number	Sheet Title
C1	COVER SHEET
C2	FINAL PLAT
C3	SITE PLAN
C4	GRADING & DRAINAGE PLAN
C5	SEWER & WATER PLAN
L1	LANDSCAPE PLAN
PP01	26' WIDE PRIVATE ROAD
PP02	26' WIDE PRIVATE ROAD
PP03	26' WIDE PRIVATE ROAD
PP04	SEWER OUTFALL
PP05	STORM DRAIN OUTFALL
PP06	EXISTING STORM DRAIN OUTFALL



VICINITY MAP



SITE MAP



### CONTACTS

ENGINEER & SURVEYOR  
FOCUS ENGINEERING & SURVEYING LLC  
13 WEST CENTER STREET  
LITTLEFIELD, UTAH 84041  
(801) 952-0075  
PROJECT MANAGER: BRANDON PAAR  
SURVEY MANAGER: SPENCER LLEWELYN  
OWNER/DEVELOPER  
ALAN COTTLE  
CATTLE CAPITAL GROUP LLC  
601 NORTH 50 WEST, SUITE 103  
SCOTTSDALE, UTAH 84143  
(801) 421-5210  
COTTLE@COTTLEMGES.COM

### GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. ANY AND ALL DISCREPANCIES IN THESE PLANS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. ALL CONSTRUCTION SHALL ADHERE TO ALPINE CITY STANDARDS AND SPECIFICATIONS.
4. ALL UTILITIES AND ROAD IMPROVEMENTS SHOWN ON THE PLANS HEREIN SHALL BE CONSTRUCTED USING REFERENCE TO SURVEY CONSTRUCTION STAKES PLACED UNDER THE SUPERVISION OF A PROFESSIONAL LICENSED SURVEYOR WITH A LICENSE LICENSE ISSUED BY THE STATE OF UTAH. ANY IMPROVEMENTS INSTALLED BY ANY OTHER VERTICAL OR HORIZONTAL REFERENCE WILL NOT BE ACCEPTED OR CERTIFIED BY THE ENGINEER OF RECORD.

THIS DRAWING SET IS SCALED TO BE PRINTED ON A 24" X 36" SIZE OF PAPER (ARCH D). IF PRINTED ON A SMALLER PAPER SIZE, THE DRAWING WILL NOT BE TO SCALE AND SHOULD NOT BE USED TO SCALE LABOR REPORTS FROM THE PAPER DRAWING. ALSO USE CAUTION AS THERE MAY BE TEXT OR DETAIL THAT MAY BE OVERLOOKED DUE TO THE SMALL SIZE OF THE DRAWING.

### NOTICE

BEFORE PROCEEDING WITH THIS WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL CONDITIONS, QUANTITIES, DIMENSIONS AND STAKES RELATIONS, AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.



### ENGINEER'S NOTES TO CONTRACTOR

1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUESTED TO TAKE THE NECESSARY MEASURES TO VERIFY THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS IF UTILITY LINES ARE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED BY THESE PLANS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THE REQUIREMENTS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY SHALL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
3. UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR UNAUTHORIZED OR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
4. ALL CONTOUR LINES SHOWN ON THE PLANS ARE AN INTERPRETATION BY CAD SOFTWARE OF FIELD SURVEY MARKS PREPARED BY A LICENSED SURVEYOR. DUE TO THE POTENTIAL DIFFERENCES IN INTERPRETATION OF CONTOURS BY VARIOUS TYPES OF CAD SOFTWARE BY OTHER ENGINEERS OR CONTRACTORS, FOCUS DOES NOT GUARANTEE OR WARRANT THE ACCURACY OF SUCH LINESWORK. FOR THIS REASON, FOCUS WILL NOT PROVIDE ANY GRADINGS OR CONTOURS IN CAD FOR ANY TYPE OF USE BY THE CONTRACTOR. SPOT ELEVATIONS AND PROFILE ELEVATIONS SHOWN IN THE DESIGN ARE BASED ON ALL DESIGN INFORMATION ELIMINATED ON THE APPROVED CONSTRUCTION SET. CONSTRUCTION INSPECTION AND JUDGMENT BY THE CONTRACTOR IS ANTICIPATED BY THE ENGINEER TO COMPLETE THE OBJECTS OF THE INTENDED IMPROVEMENTS.



**MONTDELLA**  
 ALPINE, UTAH  
 COVER SHEET

NO.	DATE	DESCRIPTION

COVER SHEET

Scale:	1" = 20'	Drawn:	AWJ
Date:	4/12/2019	Sheet:	144/151

C1



VICINITY MAP  
N.T.S.

**ADDRESS BLOCK**

UNIT 1 - 26'S MAIN UNIT 1	UNIT 14 - 26'S MAIN UNIT 14
UNIT 2 - 26'S MAIN UNIT 2	UNIT 15 - 26'S MAIN UNIT 15
UNIT 3 - 26'S MAIN UNIT 3	UNIT 16 - 26'S MAIN UNIT 16
UNIT 4 - 26'S MAIN UNIT 4	UNIT 17 - 26'S MAIN UNIT 17
UNIT 5 - 26'S MAIN UNIT 5	UNIT 18 - 26'S MAIN UNIT 18
UNIT 6 - 26'S MAIN UNIT 6	UNIT 19 - 26'S MAIN UNIT 19
UNIT 7 - 26'S MAIN UNIT 7	UNIT 20 - 26'S MAIN UNIT 20
UNIT 8 - 26'S MAIN UNIT 8	UNIT 21 - 26'S MAIN UNIT 21
UNIT 9 - 26'S MAIN UNIT 9	UNIT 22 - 26'S MAIN UNIT 22
UNIT 10 - 26'S MAIN UNIT 10	UNIT 23 - 26'S MAIN UNIT 23
UNIT 11 - 26'S MAIN UNIT 11	UNIT 24 - 26'S MAIN UNIT 24
UNIT 12 - 26'S MAIN UNIT 12	UNIT 25 - 26'S MAIN UNIT 25
UNIT 13 - 26'S MAIN UNIT 13	

**LEGEND**









PLANT SCHEDULE

Symbol	Scientific Name	Common Name	Size	Quantity	Remarks
<b>SHRUBS</b>					
BTA	Berberis thunbergii 'Iris Tachocorda'	Dark Red-Purple Barberry	1 Gal	22	No
BW	Buxfordia 'Blue Wagoner'	Blue Wagoner Butterfly Bush	1 Gal	20	Yes
CV	Coreopsis 'Green Velvet'	Green Velvet Blackhead	1 Gal	15	No
CCB	Coreopsis palmata 'Blue Star'	Blue Star Blackhead	1 Gal	27	Yes
COL	Coreopsis palmata 'Lionel'	Lionel Blackhead	1 Gal	14	Yes
MAC	Mahonia aquifolium 'Compact'	Compact Oregon Grape	1 Gal	35	Yes
POD	Physocarpus opulifolius 'Little Dove'	Little Dove Winterhake	1 Gal	35	Yes
POD	Physocarpus opulifolius 'Nugget'	Dwarf Winterhake	1 Gal	32	Yes
POD	Physocarpus opulifolius 'Nugget'	Dwarf Winterhake	1 Gal	35	Yes
PTG	Potentilla fruticosa 'Goldfinger'	Goldfinger Potentilla	1 Gal	24	Yes
RNC	Ribes cereum	Alpine Currant	1 Gal	22	No
RNC	Ribes 'Marshall Crimson'	Shrub Rose	1 Gal	22	No
RHW	Ribes 'Marshall White'	Shrub Rose	1 Gal	6	No
SSS	Sarcocolla aurantiaca 'Sun'	Aut. Leaf Elder Spikes	1 Gal	20	Yes
SBA	Spiraea bumalda 'Anthony Waterer'	Anthony Waterer Spiraea	1 Gal	18	No
SBO	Spiraea bumalda 'Goldmound'	Gold Spiraea	1 Gal	33	No
TAC	Taxus canadensis 'Spring Blue Compact'	Dark Purple Reducing Linc.	1 Gal	16	Yes
TAC	Taxus media 'Vertice'	Vertice Yew	1 Gal	17	Yes
VYS	Viburnum lentago 'Spring Red Compact'	American Cranberry	1 Gal	10	No
WM	Wigandia tatarica 'White'	Dwarf Weigela	1 Gal	9	No
<b>PERENNIALS &amp; ORNAMENTAL GRASSES</b>					
CAK	Callirhoe lasiocarpa 'Karl Foerster'	Feather Reed Grass	1 Gal	39	Yes
HSD	Hemerocallis 'Matis de Oro'	Solaris de Oro Daylily	1 Gal	28	Yes
HCS	Hemerocallis 'Green Spice'	Green Spice Coral Bells	1 Gal	2	Yes
PAH	Penstemon 'Blosserodis Yaman'	Humble Fountain Grass	1 Gal	58	Yes
SIC	Saxifraga 'Lilac Frost'	Lilac Frost Saxif.	1 Gal	8	Yes

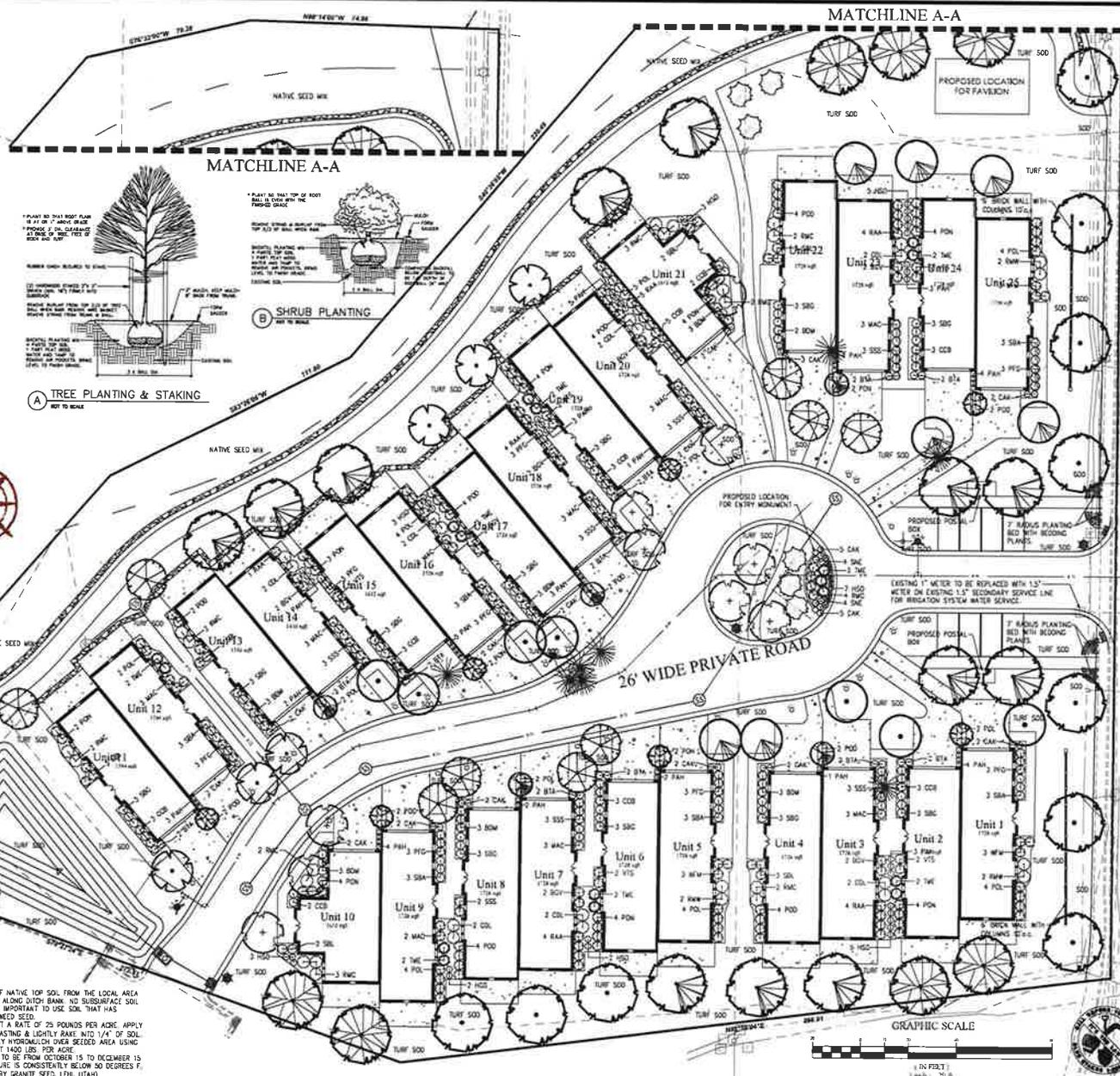
LANDSCAPE NOTES:  
 1. LAWN AREAS WILL BE SOODED WITH KENTUCKY BLUEGRASS BLEND OVER 4 INCHES GOOD GRADE TOPSOIL.  
 2. ALL PLANTING BEDS WILL HAVE 2" DARK BROWN LONG STRAND SHEDED DARK MULCH.  
 3. INSTALL PLASTIC EDGING FOR MOW STRIPS BETWEEN LAWN AREAS AND PLANTING BEDS.

TREE LEGEND

- Cercis canadensis**  
Eastern Redbud 2" cal. (12 total)
- Gleditsia inaequalis 'Imperial'**  
Imperial Honeylocust 2" cal. (9 total)
- Malus 'Royal Raindrops'**  
Royal Raindrops Crab 2" cal. (7 total)
- Malus 'Spring Snow'**  
Spring Snow Flowering Crab 2" cal. (7 total)
- Pinus leucodermis 'Hickory Hill'**  
Hickory Hill 2" cal. (8 total)
- Prunus serrulata 'Kwanzan'**  
Kwanzan Flowering Cherry 2" cal. (9 total)
- Prunus serotina 'Crimson Prince'**  
Crimson Prince Flowering Plum 2" cal. (7 total)
- Prunus virginiana 'Canada Red'**  
Canada Red Chokecherry 2" cal. (6 total)
- Pyrus calleryana 'Capital'**  
Capital Flowering Pear 2" cal. (5 total)
- Pyrus calleryana 'Chantrelle'**  
Chantrelle Flowering Pear 2" cal. (7 total)  
6" cal. (3 total) in Roundabout
- Zelkova serrata 'Green Vase'**  
Green Vase Zelkova 4" cal. along Main Street (7 total)  
Green Vase Zelkova 2" cal. behind units (3 total)
- Existing conifer trees to be removed

**NATIVE CABIN GRASS BLEND**

SPECIES	PLS/PACK
MOUNTAIN BROOM (BROMUS MARGINALIS)	7.50
SLENDER WHEATGRASS (ELYMUS TRACHYCALUS SPP. TRACHYCALUS)	6.25
SANDRICH WHEATGRASS (POA SECUNDA SPP. SANDRICH)	1.25
BIG BLUEGRASS (POA SECUNDA SPP. AMPLA)	1.25
SHEEP FESCUE (FESTUCA PRINCI)	1.25
WESTERN WHEATGRASS (PASCOPYRUM SMITH)	8.00
BEARLESS BLUEGRASS WHEATGRASS (PSEUDOCENNA SPICATA SPP. AERIMS)	2.50
<b>TOTAL</b>	<b>25.00 LBS.</b>



1. APPLY 4 INCHES OF NATIVE TOP SOIL FROM THE LOCAL AREA TO DISTURBED AREAS ALONG DITCH BANK. NO SUBSURFACE SOIL SHALL BE USED. IT IS IMPORTANT TO USE SOIL THAT HAS MINIMAL AMOUNT OF NEEDED SEED.  
 2. APPLY SEED MIX AT A RATE OF 25 POUNDS PER ACRE. APPLY SEED MIX BY BROADCASTING & LIGHTLY RAKE INTO 1/4" OF SOIL.  
 3. ALTERNATELY, APPLY HYDROMULCH OVER SEEDS. AREA USING SOLVA FIBRE MULCH AT 1400 LBS. PER ACRE.  
 4. SEED APPLICATION TO BE FROM OCTOBER 15 TO DECEMBER 15 WHEN SOIL TEMPERATURE IS CONSISTENTLY BELOW 50 DEGREES F. (SEED MIX PROVIDED BY GRANITE SEED, LEHI, UTAH)

**FOCUS**  
 ENGINEERING AND SURVEYING, LLC  
 KIDVALE, UTAH 84007 (PH) 435-933-0075  
 www.focusinc.com



**MONTDELLA**  
 ALPINE, UTAH  
 LANDSCAPE PLAN

REVISIONS

NO.	DATE	DESCRIPTION

**LANDSCAPE PLAN**

DATE: 4/12/2014  
 TIME: 14:42

L1













**MEMORANDUM**

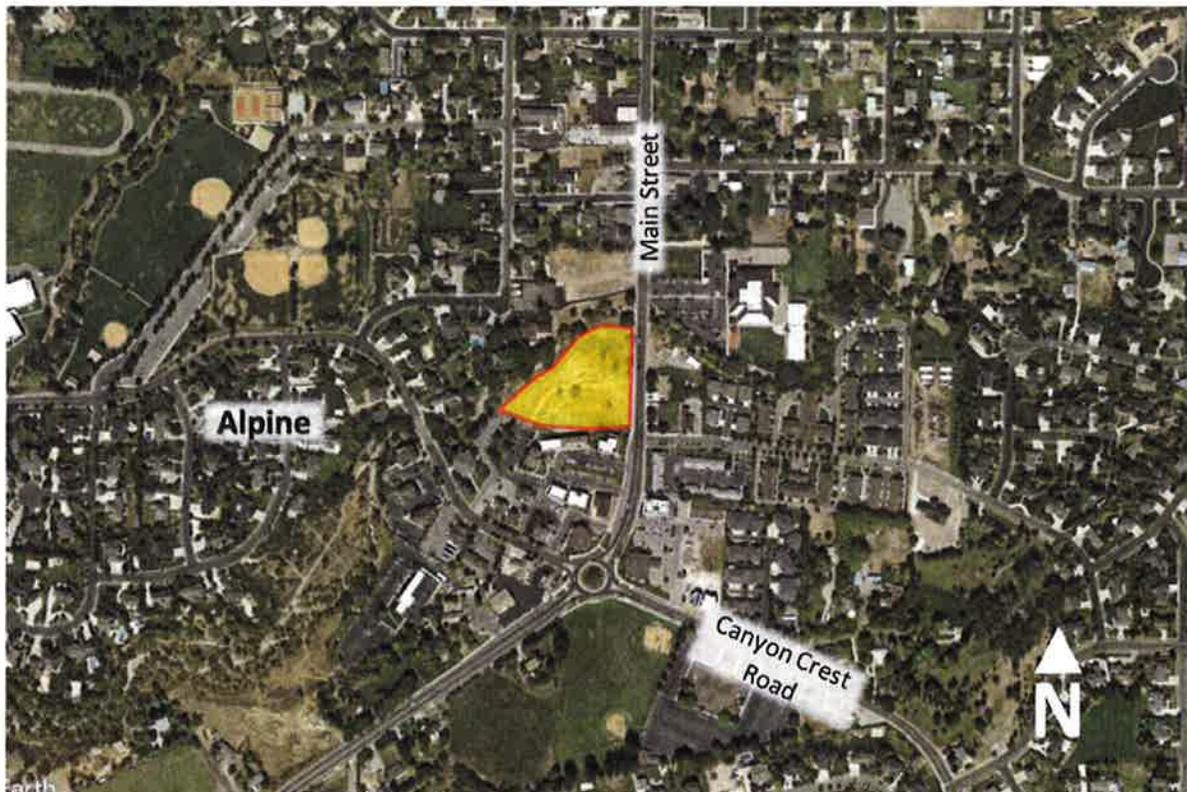
Date: February 14, 2019  
To: Cottle Capital Group  
From: Hales Engineering



**Subject: Alpine City Alpine Townhomes TGS**

UT19-1392

This memorandum discusses the trip generation study completed for the proposed Alpine Townhomes. A vicinity map of the proposed development is shown in Figure 1.



**Figure 1: Vicinity map of the proposed development in Alpine, Utah**

**Background**

The proposed Alpine Townhomes are located west of Main Street and just north of the Alpine Main Street Village. The project includes 26 townhomes that are anticipated to be a +55 community. It is anticipated that the project will have one access to Main Street and one that will cut through the Alpine Main Street Village to the south and access Canyon Creek Road. A site plan for the proposed development is included in Appendix A.

The proposed land use for the development has been identified as follows:

- Multifamily Housing (Mid-Rise) - Townhomes 26 units

**Trip Generation**

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (10th Edition, 2017)*. Trip generation for the proposed project is included in Table 1.

As shown in Table 1, it is anticipated that the proposed townhomes will generate approximately 140 trips on an average weekday, including 10 trips during the morning peak hour, and 12 trips during the evening peak hour.

Table 3 Alpine - Alpine Townhomes TGS Trip Generation								
Weekday Daily Land Use <sup>1</sup>	# of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Multifamily Housing (Mid-Rise) (221)	26	Dwelling Units	140	50%	50%	70	70	140
<b>Project Total Daily Trips</b>						<b>70</b>	<b>70</b>	<b>140</b>
Morning Peak Hour Land Use <sup>1</sup>	# of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total a.m. Trips
Multifamily Housing (Mid-Rise) (221)	26	Dwelling Units	10	26%	74%	3	7	10
<b>Project Total a.m. Peak Hour Trips</b>						<b>3</b>	<b>7</b>	<b>10</b>
Evening Peak Hour Land Use <sup>1</sup>	# of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total p.m. Trips
Multifamily Housing (Mid-Rise) (221)	26	Dwelling Units	12	61%	39%	7	5	12
<b>Project Total p.m. Peak Hour Trips</b>						<b>7</b>	<b>5</b>	<b>12</b>
<small>1. Land Use Code from the Institute of Transportation Engineers (ITE) <i>Trip Generation</i>, 10th Edition, 2017.</small> <b>SOURCE:</b> Hales Engineering, February 2019								

## **Trip Assignment**

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing the trip assignment. These assumptions were used to assign the morning peak hour trips for the development as shown in Figure 2.

## **Project Access**

The proposed project is planned to have an access out to Main Street and one that heads south through the Alpine Main Street Village. Main Street is a busy roadway with over 10,000 vehicles traveling it a day. During the morning peak hour, the near-by Mountainville Academy bring a lot of traffic into the area. This traffic would make left-turns out of the project access very difficult and dangerous. There are over 1,000 vehicles passing the proposed access during the peak hour.

The northbound traffic during the morning peak hour is expected to have many vehicles heading north towards on the school on Main Street. Turning left into the site will hold up northbound traffic while a gap in the southbound direction becomes available. There are currently 650 vehicles heading north past this access with approximately 550 vehicles heading southbound past the access.

There are three potential options for the Main Street Access with Main Street:

### Option 1 - Full-movement access.

#### Pros

- Allows all movements to use this access
- Reduces the amount of circuitous travel
- Limited number of seniors traveling during peak hours (low volume access)

#### Cons

- Can cause queueing in the northbound direction as a northbound left-turning vehicle will cause delay for vehicles headed northbound
- Left-turns out of the access may be difficult and dangerous
- Left-turns across travel lanes can be dangerous



Option 2 – 3/4-movement access.

- A ¾ access with right-in right-out (RIRO) and an eastbound to northbound left turn out would not be geometrically feasible as a raised median controlling access followed by an acceleration lane and a merge area would impact the school traffic negatively.
- A ¾ access with a RIRO and a northbound to westbound left-turn lane in would be feasible with a small raised island limiting egress movements to right-out only. In this scenario, the left-turn in would need to be initiated from the northbound through travel lane, therefore, vehicles behind the left-turning vehicle would need to wait and incur delay. Although this is not an ideal scenario, it is one that would be consistent with the recommendations for the Mountainville Academy traffic study, e.g., providing shoulder storage for parent drop off and pick up.

Option 3 – Right-in, Right-out only access.

Pros

- Allows only right-turns into and out of this access which is more safe than full movement or ¾ accesses
- Left-turns eliminated, reducing conflict points and further increasing safety.
- Northbound left-turn delay is eliminated

Cons

- All left-turn movements will need to be completed at Canyon Creek Road
- There will be a slight increase to traffic on Canyon Creek Road

Each of these alternatives are anticipated to function adequately due to the low volume of traffic expected to be generated by the site, except the ¾ access out of the project site. As the access becomes more restricted, e.g., full to ¾, to RIRO, the access will become safer.

**Conclusions**

The findings of this study are as follows:

- The proposed development is planned to have a total of 26 townhomes that are anticipated to be a 55+ community.
- It is anticipated that the proposed project will generate approximately 140 trips on an average weekday, including 10 trips during the morning peak hour, and 12 trips during the evening peak hour.
- Four access alternatives have been provided for Main Street
  - Full-movement access
  - ¾ access (RIRO + left out, or RIRO + left in)
  - Right-in, right-out only access (RIRO)

- The City and Developer should meet and discuss the Main Street access and come to an agreement between safety and accessibility for the site.

## Common Area Maintenance and Management Plan

### MONTDELLA TOWNHOMES



#### **COTTLE CAPITAL GROUP**

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## **PURPOSE AND RESPONSIBILITY**

As required by the Clean Water Act and resultant local regulations, including the Alpine City ordinances, those who develop land are required to build and maintain systems to minimize litter and contaminants in stormwater runoff that pollute waters of the State.

This Common Area Maintenance and Management Plan (“Plan”) describes the systems, operations and the minimum standard operating procedures (SOPs) necessary to manage pollutants originating from or generated on this property. Any activities or site operations at this property that contaminate water entering the City’s stormwater system and generate loose litter must be prohibited, unless SOPs are written to manage those activities or operations, and amended into this Plan.

## **SECTION 1: SITE DESCRIPTION, USE AND IMPACT**

The site infrastructure and operations described in this Section are limited at controlling and containing pollutants and if managed improperly can contaminate the environment. The Plan includes standard operations procedures (SOP)s that are intended to compensate for the limitations of the site infrastructure.

The property manager must use good judgment and conduct operations appropriately, doing as much as possible indoors and responsibly managing operations that must be performed outdoors.

### **Impervious Areas, Parking, Sidewalk and Patio**

The impervious infrastructure will consist of concrete drives, asphalt paved road surfaces, walkways to the home, small rear patios, curb and gutter. The road surfaces and curb and gutter are designed to funnel and collect contaminants and debris in locations as per the approved engineered construction drawings. The home owners association (the "HOA") will incorporate into its maintenance duties an SOP that such drains will be regularly inspected and cleaned by contracted maintenance or landscape maintenance company.

### **Storm Drain System**

The storm water system will be constructed as per approved engineered construction drawings. Its presence and maintenance will positively impact water quality. HOA will use Alpine City's BMP guidelines for Storm Drain System Best Management Practices after the construction phase, such as: during snowy weather, inlet protection should be marked with a candle marker or some other effective device to warn storm plows to avoid the inlet. Storm inlet should be inspected after any snow plowing to be sure it is installed correctly.

### **Landscaping**

The developer will have designed and installed landscaping that is sensitive to water consumption. Automatic sprinkling systems will be installed to minimize secondary water consumption. All excess water crossing landscaping will be contained within the storm drain system. HOA will adhere to BPM for landscape maintenance, which will include weekly maintenance and cleanup; all debris removed from the site by the landscape contractor. This will limit any debris flowing toward a storm drain system.

### **Waste Management**

The HOA will contract with a qualified, licensed, insured and bonded waste management contractor for weekly off-haul of waste. Each household in the development will have an individual trash receptacle for weekly off-haul. Such containment and weekly off-haul of trash will improve water quality as it will remain free of debris and pollution.

### **Utility System**

The utility system should have little or no impact on the storm drain system. All utilities will be installed underground and maintained by the municipalities or providers to which they are dedicated. The landscape maintenance contractor will look to keep the trees maintained in size and scope so as not to interfere with utility lines.

### **Snow and Ice Removal Management**

Snow and ice removal will be contracted with a qualified snow/ice removal management company. Snow and ice will be removed to limit debris flowing toward the storm drains.

### **Equipment / Outside Storage**

No outside storage structures or equipment are contemplated in the development project.

### **Outdoor Functions; Yard Sale Events, Fund Raisers...**

All such outdoor functions, such as yard sale events, fund raise5rs, etc. much comply with Alpine City ordinances. The HOA will not allow these events to generate trash or, if they do, they must be contained in receptacles that are part of the scheduled waste management program. This will help maintain good water quality and keep the storm drain systems free of debris.

### **Add infrastructure or operations that are unique to this site**

There are no infrastructure operations unique to this site.

## **SECTION 2: TRAINING**

The HOA will ensure that all employees and maintenance contractors know and understand the SOPs specifically written to manage and maintain the property. Maintenance contractors must use the stronger of their Company and the Plan's SOPs. File all training records in Appendix A.

## **SECTION 3: RECORDKEEPING**

The HOA will maintain records of operation and maintenance activities in accordance with SOPs.

## APPENDIX A – PLAN RECORDKEEPING DOCUMENTS





**MAINTENANCE LOG**

Date	Maintenance Performed/Spill Events. Perform Maintenance per SOPs	Observation Notes, including but not limited to: Inspection results, Observations, System Performance (effectiveness/inefficiencies), SOP Usefulness, Concerns, Necessary Changes...	Initials

Annual Summary of Plan effectiveness, inefficiencies, problems, necessary changes etc.

# ALPINE TOWNHOMES

2/21/2019

Prepared for: Cottle Homes

Prepared by: Focus Engineering



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### APPENDICES

Grading and drainage plan  
Pond Calculations

## **I. GENERAL LOCATION AND DESCRIPTION**

The proposed project is located at 250 South Main Street in Alpine Utah and is 3.94 acres, with approximately 100% being disturbed with construction. The current use is a vacant field and the proposed use will be multi-family residential (townhomes). The property slopes from east to west at 1-5%

Dry Creek runs along the western boundary of the property.

A preliminary soils letter has been provided by Earthtec Engineering dated December 5, 2018 and the soil consists of clay, sand, and gravel below the fill material that has been placed on the site.

## **II. DRAINAGE BASIN**

Existing storm water flows predominantly from east to west across the property and is collected naturally in Dry Creek, located on the western boundary of the property.

The property resides within two flood zones, Zone A and Zone C, per FEMA Community panel number 490228 0005 A, with an effective date of April 4, 1983. Zone A is defined as: Areas of 100-year flood; base flood elevations and flood hazard factors not determined. The property within Dry Creek and immediately adjacent to the creek are contained in Zone A. Zone C is defined as: Areas of minimal flooding. The majority of this property is contained within Zone C.

## **III. PROPOSED DRAINAGE PLAN**

A drainage plan has been developed per Alpine City standards. The onsite system will consist of buried pipes, curb inlets, manholes, potential underground storage (if needed), and a detention pond. Roof drainage will be directed toward the front of the units and into the streets. Non-point sources of discharge include the rear landscaped areas of the units along Dry Creek. This runoff will be cleaned by the landscaping before naturally discharging into Dry Creek. Pipes have been sized to hold the 10-year storm event, and the detention pond has been sized to hold the 100-year storm event. The point source of discharge is the detention pond. After

leaving the detention pond the storm drain will outfall into Dry Creek at the required detained rate.

The rational method, using NOAA Atlas 14 data was used to design the drainage system for the development. A storage volume of 7,978 cubic feet is required for the development. A detention pond will be constructed at the northwest edge of the development, and sized to hold the required volume for the site.

An orifice of 4 inches will be employed at the storm drain discharge point of the project to control the discharge rate to the city standard 0.2 cfs/acre. The discharge rate for this project will be 0.788 cfs. Calculations for the pond and orifice can be found in the appendix of this report.

#### **IV. STORMWATER QUALITY**

A storm water pollution prevention plan will be developed for the construction of the project and submitted for review.

A snout and sump will be installed prior to entering the pond to clean the storm water before it is released into Dry Creek. The detention pond will be grass lined to contribute to the cleaning of the water before it enters the outlet structure.

#### **V. ANALYSIS**

##### Hydrology

The design storm required is the 100-year event for detention. The rainfall intensity information was obtained from the NOAA Atlas 14 website for the state of Utah. The post development storm water runoff discharge cannot exceed that of 0.2 cfs/acre. This is accomplished through the use of an orifice plate on the exit pipe of the detention system.

\*The rational method ( $Q=CIA$ ) was used to determine storm drain runoff flows. A weighted "C" value of 0.44, a variable rainfall intensity (from NOAA Atlas 14 data), and the project area of 3.94 acres, along with the discharge rate of 0.788 cfs, were used to size the detention pond. The runoff calculations resulted in a maximum detention volume of 7,978 cubic feet. See the appendix for detention pond sizing calculations.

The detention pond will be a grass lined pond sized to hold the required volume for the development. Once complete, the pond will be owned and maintained by the development's home owner's association (HOA).

Hydraulics:

The design storm required is the 10-year event for pipe capacity. The pipes were sized using Manning's equation for uniform flow  $Q = VA = \left(\frac{1.49}{n}\right)AR^{\frac{2}{3}}S^{\frac{1}{2}}$  with a Manning's n value of 0.013.

Storm drain inlets have been placed at all low points in the road, and as needed to minimize the amount of storm water runoff that bypasses catch basins. Inlets have also been spaced no more than 400 feet apart for ease of maintenance.

The 100-year storm overflow path directs flows to the streets, and not onto adjacent properties.

## **VI. CONCLUSION**

It is concluded that the project is in compliance with city standards and design guidelines.

Sincerely,

Thomas Romney, P.E.  
Production Manager  
FOCUS Engineering & Surveying



## Detention Pond

Project: **Alpine Townhomes**  
 Location: **Alpine, Utah**  
 Date: **11/29/2018**  
 Designer: **Alex Stewart**



### 100-Year Detention Sizing

#### Design Criteria

Intensity Table: Per NOAA Atlas 14  
 Return Period: **100 year**  
 Allowable Discharge: **0.20 cfs/acre** Per Alpine City Standards

#### Allowable Discharges

Storm Drain Discharge: 0.79 cfs  
 Other Discharge: 0.00 cfs Source:  
 Total Discharge: **0.788 cfs**

#### Weighted "C" Value

Surface Type	Area (sf)	"C" Value	C*A
Building	43,632	0.85	37,087
Drives	10,400	0.85	8,840
Roadway and Sidewalk	16,021	0.85	13,618
Landscape	101,506	0.15	15,226
Totals	171,558		74,771
<b>Weighted "C" Value</b>		<b>0.44</b>	

#### Drainage Calculations

Duration	Intensity	Runoff C	Area	Rainfall	Accumulated	Allowable	Discharge	Required
min	in/hr		Ac	cfs	Flow	Discharge	cf	Storage
					cf	cfs		cf
15.0	4.20	0.44	3.94	7.21	6,488	0.79	709	5,779
30.0	2.83	0.44	3.94	4.86	8,744	0.79	1,418	7,326
60.0	1.75	0.44	3.94	3.00	10,814	0.79	2,838	7,976
120.0	0.97	0.44	3.94	1.66	11,976	0.79	5,671	6,304
180.0	0.66	0.44	3.94	1.13	12,254	0.79	8,507	3,747
360.0	0.37	0.44	3.94	0.63	13,533	0.79	17,014	-3,481
720.0	0.22	0.44	3.94	0.38	16,239	0.79	34,028	-17,789
1440.0	0.11	0.44	3.94	0.19	16,462	0.79	68,056	-51,594

Maximum Storage Requirement: **7,978**  
 Maximum Storage Requirement (ac-ft): **0.18**

#### Detention Basin Design

Storage Requirement: 7,978 cf  
 Allowable Depth: 5.0 ft  
 Detention Pond Volume: 8,590 cf  
 Roadway Sump Storage: 0 cf

**Total Storage 8,590 DETENTION ADEQUATE**

#### Orifice Design

Restriction Rate: 0.20 CFS/ACRE  
 Allowable Outfall Rate Q (c): 0.79

Orifice Sizing: h = 3.5 ft  
 C = 0.6  
 A = 0.087 sf  
 dia. = 4.00 inches

**Orifice Size= 4.0 Inch**



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**Geotechnical Study  
Alpine Townhomes  
300 South Main Street  
Alpine, Utah**

**Project No. 189260**

December 14, 2018

*Prepared For:*

Cottle Capital Group, LLC  
Attention: Ms. Sherry Fenn  
801 North 500 West  
Bountiful, UT 84010

*Prepared By:*

**EARTHTEC ENGINEERING**  
Lindon Office



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### ATTACHED FIGURES

No. 1	VICINITY MAP
No. 2	AERIAL PHOTOGRAPH SHOWING LOCATION OF TEST PITS
Nos. 3 – 7	TEST PIT LOGS
No. 8	LEGEND
Nos. 9 – 11	CONSOLIDATION-SWELL TEST

### APPENDIX A

Timpview Analytical Labs



## 1.0 EXECUTIVE SUMMARY

This entire report presents the results of Earthtec Engineering's completed geotechnical study for the Alpine Townhomes in Alpine, Utah. This executive summary provides a general synopsis of our recommendations and findings. Details of our findings, conclusions, and recommendations are provided within the body of this report.

- The subject property is approximately 3.94 acres and is proposed to be developed with the construction of new townhomes. The proposed structures will consist of conventionally framed, one- to two-story, buildings with basements. We anticipate foundation loads for the proposed structures will not exceed 4,000 pounds per linear foot for bearing wall, 30,000 pounds for column loads, and 100 pounds per square foot for floor slabs. (see Section 3)
- Our field exploration included the excavation of five (5) test pits to depths of 10 to 12 feet below the existing ground surface. Groundwater was not encountered within the excavations at the depths explored. (see Section 5)
- The native silt soils have a moderate potential for collapse (settlement) and a moderate potential for compressibility under increased moisture contents and anticipated load conditions. (see Section 6)
- The subsurface soils encountered generally consisted of fill overlying near-surface medium stiff silt, and medium dense to dense sand and gravel. All fill encountered appears to be undocumented. Fill and topsoil should be removed beneath the entire building footprints, exterior flatwork, and pavements prior to construction. (see Section 7)
- Conventional strip and spread footings may be used to support the structure, with foundations placed entirely on firm, undisturbed, uniform gravel soils that extend a minimum of 24 inches below footings, or entirely on a minimum of 18 inches of properly placed, compacted, and tested structural fill extending to undisturbed native soils. (see Section 10)
- Minimum roadway section consists of 3 inches of asphalt overlying 10 inches of road-base. Areas that are soft or deflect under construction traffic should be removed and replaced with granular material or structural fill. (see Section 13)

Based on the results of our field exploration, laboratory testing, and engineering analyses, it is our opinion that the subject site may be suitable for the proposed development, provided the recommendations presented in this report are followed and implemented during design and construction.

Failure to consult with Earthtec Engineering (Earthtec) regarding any changes made during design and/or construction of the project from those discussed herein relieves Earthtec from any liability arising from changed conditions at the site. We also strongly recommend that Earthtec observes the building excavations to verify the adequacy of our recommendations presented herein, and that Earthtec performs materials testing and special inspections for this project to



provide continuity during construction.

## 2.0 INTRODUCTION

The project is located at approximately 300 South Main Street in Alpine, Utah. The general location of the site is shown on Figure No. 1, *Vicinity Map* and Figure No. 2, *Aerial Photograph Showing Location of Test Pits*, at the end of this report. The purposes of this study are to:

- Evaluate the subsurface soil conditions at the site,
- Assess the engineering characteristics of the subsurface soils, and
- Provide geotechnical recommendations for general site grading and the design and construction of foundations, concrete floor slabs, miscellaneous concrete flatwork, and asphalt paved parking and drive areas.

The scope of work completed for this study included field reconnaissance, subsurface exploration, field and laboratory soil testing, geotechnical engineering analysis, and the preparation of this report.

## 3.0 PROPOSED CONSTRUCTION

We understand that the proposed project, as described to us by Ms. Sherry Fenn with Cottle Capital Group, consists of developing the approximately 3.94-acre existing parcel with the construction of new townhomes. The proposed structures will consist of conventionally framed, one- to two-story, buildings with basements. We have based our recommendations in this report that anticipated foundation loads for the proposed structures will not exceed 4,000 pounds per linear foot for bearing wall, 30,000 pounds for column loads, and 100 pounds per square foot for floor slabs. If structural loads will be greater Earthtec should be notified so that we may review our recommendations and make modifications, if necessary.

In addition to the construction described above, we anticipate that

- Utilities will be installed to service the proposed buildings,
- Exterior concrete flatwork will be placed in the form of curb, gutter, and sidewalks, and
- Asphalt paved parking and drive areas will be constructed.

## 4.0 GENERAL SITE DESCRIPTION

### 4.1 Site Description

At the time of our subsurface exploration the site was a developed lot vegetated with grass, weeds and trees. A two- to three- tier rock wall exists along the northern side of the property



and is approximately 8 to 12 feet in exposed height. Below the rock wall to the north is a stream bed. Earthtec Engineering was not involved in the design, construction, or evaluation of the constructed rock walls. We recommend that the rock walls and slope be evaluated if any structure is placed within 20 feet of the rock walls. The ground surface appears to be relatively flat, we anticipate less than 3 feet of cut and fill may be required for site grading. The lot was bounded on the north and west by Dry Creek, on the east by South Main Street, on the south by commercial properties.

#### **4.2 Geologic Setting**

The subject property is located in the central portion of Utah Valley near the eastern shore of Utah Lake. Utah Valley is a deep, sediment-filled basin that is part of the Basin and Range Physiographic Province. The valley was formed by extensional tectonic processes during the Tertiary and Quaternary geologic time periods. The valley is bordered by the Wasatch Mountain Range on the east and the Lake Mountains on the west. Much of northwestern Utah, including Utah Valley, was previously covered by the Pleistocene age Lake Bonneville. Utah Lake, which currently covers much of the western portion of the valley, is a remnant of this ancient fresh water lake. The surficial geology of much of the eastern margin of the valley has been mapped by Constenius, 2011<sup>1</sup>. The surficial geology at the location of the subject site and adjacent properties is mapped as "Fine-grained lacustrine deposits" (Map Unit Qlf) dated to upper Pleistocene. These soil or deposits are generally described in the referenced mapping as "silt and clay with some fine grained sand."

### **5.0 SUBSURFACE EXPLORATION**

#### **5.1 Soil Exploration**

Under the direction of a qualified member of our geotechnical staff, subsurface explorations were conducted at the site on November 30, 2018 by the excavation of five (5) test pits to depths of 10 to 12 feet below the existing ground surface using a track-mounted mini excavator. The approximate locations of the test pits are shown on Figure No. 2, *Aerial Photograph Showing Location of Test Pits*. Graphical representations and detailed descriptions of the soils encountered are shown on Figure Nos. 3 through 7, *Test Pit Log* at the end of this report. The stratification lines shown on the logs represent the approximate boundary between soil units; the actual transition may be gradual. Due to potential natural variations inherent in soil deposits, care should be taken in interpolating between and extrapolating beyond exploration points. A key to the symbols and terms on the logs is presented on Figure No. 8, *Legend*.

Disturbed bag samples and relatively undisturbed block samples were collected at various

<sup>1</sup> Constenius, K.N., Clark, D.L., King, J.K., Ehler, J.B., 2011, Interim Geologic Map of the Provo Quadrangle, *Utah, Wasatch and Salt Lake Counties, Utah*; U.S. Geological Survey, Open-File 586DM, Scale 1: 62,500.



depths in each test pit. The soil samples collected were classified by visual examination in the field following the guidelines of the Unified Soil Classification System (USCS). The samples were transported to our Lindon, Utah laboratory where they will be retained for 30 days following the date of this report and then discarded, unless a written request for additional holding time is received prior to the 30-day limit.

## 6.0 LABORATORY TESTING

Representative soil samples collected during our field exploration were tested in the laboratory to assess pertinent engineering properties and to aid in refining field classifications, if needed. Tests performed included natural moisture content, dry density tests, liquid and plastic limits determinations, mechanical (partial) gradation analyses, and one-dimensional consolidation tests. The table below summarizes the laboratory test results, which are also included on the attached *Test Pit Logs* at the respective sample depths, and on Figure Nos. 9 through 11, *Consolidation-Swell Test*.

**Table 1: Laboratory Test Results**

Test Pit No.	Depth (ft.)	Natural Moisture (%)	Natural Dry Density (pcf)	Atterberg Limits		Grain Size Distribution (%)			Soil Type
				Liquid Limit	Plasticity Index	Gravel (+ #4)	Sand	Silt/Clay (- #200)	
TP-1	9	16	108	21	NP*	0	26	74	ML
TP-1	11½	16	93	23	3	1	24	75	ML
TP-3	10	11	89	22	NP*	1	19	80	ML
TP-4	5	2	---	---	---	60	37	3	GP

NP\* = Non-Plastic

As part of the consolidation test procedure, water was added to the samples to assess moisture sensitivity when the samples were loaded to an equivalent pressure of approximately 1,000 psf. The native silt soils have a moderate potential for collapse (settlement) and a moderate potential for compressibility under increased moisture contents and anticipated load conditions.

A water-soluble sulfate test was performed on a representative sample obtained during our field exploration which indicated a value of less than 12 parts per million. Based on this result, the risk of sulfate attack to concrete appears to be "negligible" according to American Concrete Institute standards. Therefore, any type of Portland cement may be used for concrete in contact with on-site soils. The results can be found in Appendix A.

## 7.0 SUBSURFACE CONDITIONS

### 7.1 Soil Types

On the surface of the site, we encountered fill and topsoil which is estimated to extend 12 feet or deeper at the test pit locations. Below the fill we encountered layers of silt, sand and gravel



extending to depths of 10 to 12 feet below the existing ground surface. Graphical representations and detailed descriptions of the soils encountered are shown on Figure Nos. 3 through 7, *Test Pit Log* at the end of this report. Based on our experience and observations during field exploration, the silt soils visually were medium stiff in consistency and the sand and gravel soils visually had a relative density varying from medium dense to dense.

## **7.2 Groundwater Conditions**

Groundwater was not encountered within the excavations at the depths explored. Note that groundwater levels will fluctuate in response to the season, precipitation, snow melt, irrigation, and other on and off-site influences. Quantifying these fluctuations would require long term monitoring, which is beyond the scope of this study. The contractor should be prepared to dewater excavations as needed.

## **8.0 SITE GRADING**

### **8.1 General Site Grading**

All surface vegetation and unsuitable soils (such as topsoil, organic soils, undocumented fill, soft, loose, or disturbed native soils, and any other inapt materials) should be removed from below foundations, floor slabs, exterior concrete flatwork, and pavement areas. We encountered fill and topsoil on the surface of the site. The fill encountered on the site is considered undocumented (untested). The fill and topsoil (including soil with roots larger than about ¼ inch in diameter) should be completely removed, even if found to extend deeper, along with any other unsuitable soils that may be encountered. Over-excavations below footings and slabs also may be needed, as discussed in Section 10.0.

Fill placed over large areas, even if only a few feet in depth, can cause consolidation in the underlying native soils resulting in settlement of the fill. Because the site is relatively flat, we anticipate that less than 3 feet of grading fill will be placed. If more than 3 feet of grading fill will be placed above the existing surface (to raise site grades), Earthtec should be notified so that we may provide additional recommendations, if required. Such recommendations will likely include placing the fill several weeks (or possibly more) prior to construction to allow settlement to occur.

### **8.2 Temporary Excavations**

Temporary excavations that are less than 4 feet in depth and above groundwater should have side slopes no steeper than ½H:1V (Horizontal:Vertical). Temporary excavations where water is encountered in the upper 4 feet or that extend deeper than 4 feet below site grades should be sloped or braced in accordance with OSHA<sup>2</sup> requirements for Type C soils.

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<sup>2</sup> OSHA Health And Safety Standards, Final Rule, CFR 29, part 1926.



### 8.3 Fill Material Composition

The existing fill and native fine-grained soils are not suitable for use as placed and compacted structural fill. Excavated soils, including silt, may be stockpiled for use as fill in landscape areas.

Structural fill is defined as fill material that will ultimately be subjected to any kind of structural loading, such as those imposed by footings, floor slabs, pavements, etc. We recommend that a professional engineer or geologist verify that the structural fill to be used on this project meets the requirements, stated below. We recommend that structural fill consist of imported sandy/gravelly soils meeting the following requirements in the table below:

**Table 2: Structural Fill Recommendations**

Sieve Size/Other	Percent Passing (by weight)
4 inches	100
3/4 inches	70 – 100
No. 4	40 – 80
No. 40	15 – 50
No. 200	0 – 20
Liquid Limit	35 maximum
Plasticity Index	15 maximum

In some situations, particles larger than 4 inches and/or more than 30 percent coarse gravel may be acceptable but would likely make compaction more difficult and/or significantly reduce the possibility of successful compaction testing. Consequently, stricter quality control measures than normally used may be required, such as using thinner lifts and increased or full-time observation of fill placement.

We recommend that utility trenches below any structural load be backfilled using structural fill. Note that most local governments and utility companies require Type A-1-a or A-1-b (AASHTO classification) soils (which overall is stricter than our recommendations for structural fill) be used as backfill above utilities in certain areas. In other areas or situations, utility trenches may be backfilled with the native soil, but the contractor should be aware that native silt soils (as observed in the explorations) may be time consuming to compact due to potential difficulties in controlling the moisture content needed to obtain optimum compaction. All backfill soil should have a maximum particle size of 4 inches, a maximum Liquid Limit of 35 and a maximum Plasticity Index of 15.

If required (i.e. fill in submerged areas), we recommend that free draining granular material (clean sand and/or gravel) meet the following requirements in the table below:



**Table 3: Free-Draining Fill Recommendations**

Sieve Size/Other	Percent Passing (by weight)
3 inches	100
No. 10	0 – 25
No. 40	0 – 15
No. 200	0 – 5
Plasticity Index	Non-plastic

Three inch minus washed rock (sometimes called river rock or drain rock) and pea gravel materials usually meet these requirements and may be used as free draining fill. If free draining fill will be placed adjacent to soil containing a significant amount of sand or silt/clay, precautions should be taken to prevent the migration of fine soil into the free draining fill. Such precautions should include either placing a filter fabric between the free draining fill and the adjacent soil material, or using a well-graded, clean filtering material approved by the geotechnical engineer.

#### **8.4 Fill Placement and Compaction**

Fill should be placed on level, horizontal surfaces. Where fill will be placed on slopes steeper than 5H:1V, the existing ground should be benched prior to placing fill. We recommend bench heights of 1 to 4 feet, with the lowest bench being a minimum 3 feet below adjacent grade and at least 10 feet wide.

The thickness of each lift should be appropriate for the compaction equipment that is used. We recommend a maximum lift thickness prior to compaction of 4 inches for hand operated equipment, 6 inches for most "trench compactors" and 8 inches for larger rollers, unless it can be demonstrated by in-place density tests that the required compaction can be obtained throughout a thicker lift. The full thickness of each lift of structural fill placed should be compacted to at least the following percentages of the maximum dry density, as determined by ASTM D-1557:

- In landscape and other areas not below structurally loaded areas: 90%
- Less than 5 feet of fill below structurally loaded areas: 95%
- Greater than 5 feet of fill below structurally loaded areas: 98%

Generally, placing and compacting fill at moisture contents within  $\pm 2$  percent of the optimum moisture content, as determined by ASTM D-1557, will facilitate compaction. Typically, the further the moisture content deviates from optimum the more difficult it will be to achieve the required compaction.

Fill should be tested frequently during placement and we recommend early testing to demonstrate that placement and compaction methods are achieving the required compaction. The contractor is responsible to ensure that fill materials and compaction efforts are consistent so that tested areas are representative of the entire fill.



## **8.5 Stabilization Recommendations**

Near surface soils may rut and pump during grading and construction. The likelihood of rutting and/or pumping, and the depth of disturbance, is proportional to the moisture content in the soil, the load applied to the ground surface, and the frequency of the load. Consequently, rutting and pumping can be minimized by avoiding concentrated traffic, minimizing the load applied to the ground surface by using lighter equipment, partially loaded equipment, tracked equipment, by working in dry times of the year, and/or by providing a working surface for equipment.

During grading the soil in any obvious soft spots should be removed and replaced with granular material. If rutting or pumping occurs traffic should be stopped in the area of concern. The soil in rutted areas should be removed and replaced with granular material. In areas where pumping occurs the soil should either be allowed to sit until pore pressures dissipate (several hours to several days) and the soil firms up or be removed and replaced with granular material. Typically, we recommend removal to a minimum depth of 24 inches.

For granular material, we recommend using angular well-graded gravel, such as pit run, or crushed rock with a maximum particle size of four inches. We suggest that the initial lift be approximately 12 inches thick and be compacted with a static roller-type compactor. A finer granular material such as sand, gravelly sand, sandy gravel or road base may also be used. Materials which are more angular and coarse may require thinner lifts in order to achieve compaction. We recommend that the fines content (percent passing the No. 200 sieve) be less than 15%, the liquid limit be less than 35, and the plasticity index be less than 15.

Using a geosynthetic fabric, such as Mirafi 600X or equivalent, may also reduce the amount of material required and avoid mixing of the granular material and the subgrade. If a fabric is used, following removal of disturbed soils and water, the fabric should be placed over the bottom and up the sides of the excavation a minimum of 24 inches. The fabric should be placed in accordance with the manufacturer's recommendations, including proper overlaps. The granular material should then be placed over the fabric in compacted lifts. Again, we suggest that the initial lift be approximately 12 inches thick and be compacted with a static roller-type compactor.

## **9.0 SEISMIC AND GEOLOGIC CONSIDERATIONS**

### **9.1 Seismic Design**

The State of Utah has adopted the 2015 International Building Code (IBC) for seismic design and the structure should be designed in accordance with Chapter 16 of the IBC. The Site Class definitions in the IBC are based upon the soil properties in the upper 100 feet of the soil profile, according to Chapter 20 in ASCE 7. These properties are determined from sampler blow counts, undrained shear strength values, and/or shear velocity measurements. The code states, "When the soil properties are not known in sufficient detail to determine the site class, Site Class D shall be used unless the building official or geotechnical data determines that Site



Class E or F soil is likely to be present at the site.” Considering our experience in the vicinity of the site and based on the results of our field exploration, we recommend using Site Class D.

The site is located at approximately 40.450 degrees latitude and -111.779 degrees longitude. Using Site Class D, the design spectral response acceleration parameters are given below.

**Table 4: Design Accelerations**

<b>S<sub>s</sub></b>	<b>F<sub>a</sub></b>	<b>S<sub>MS</sub></b>	<b>S<sub>DS</sub></b>
1.237 g	1.005	1.243 g	0.829 g
<b>S<sub>1</sub></b>	<b>F<sub>v</sub></b>	<b>S<sub>M1</sub></b>	<b>S<sub>D1</sub></b>
0.454 g	1.546	0.702 g	0.468 g

S<sub>s</sub> = Mapped spectral acceleration for short periods

S<sub>1</sub> = Mapped spectral acceleration for 1-second period

S<sub>DS</sub> =  $\frac{2}{3}S_{MS} = \frac{2}{3}(F_a \cdot S_s) = 5\%$  damped design spectral response acceleration for short periods

S<sub>D1</sub> =  $\frac{2}{3}S_{MS} = \frac{2}{3}(F_v \cdot S_1) = 5\%$  damped design spectral response acceleration for 1-second period

## 9.2 Faulting

The subject property is located within the Intermountain Seismic Belt where the potential for active faulting and related earthquakes is present. Based upon published geologic maps<sup>3</sup>, no active faults traverse through or immediately adjacent to the site and the site is not located within local fault study zones. The nearest mapped fault trace is the Wasatch Fault located about one mile south of the site.

## 9.3 Liquefaction Potential

According to current liquefaction maps<sup>4</sup> for Utah County, the site is located within an area designated as “Very Low” in liquefaction potential. Liquefaction can occur when saturated subsurface soils below groundwater lose their inter-granular strength due to an increase in soil pore water pressures during a dynamic event such as an earthquake.

Loose, saturated sands are most susceptible to liquefaction, but some loose, saturated gravels and relatively sensitive silt to low-plasticity silty clay soils can also liquefy during a seismic event. Subsurface soils were composed of silt, sand and gravel soils. The soils encountered at this project do not appear liquefiable, but the liquefaction susceptibility of underlying soils (deeper than our explorations) is not known and would require deeper explorations to quantify.

## 10.0 FOUNDATIONS

### 10.1 General

The foundation recommendations presented in this report are based on the soil conditions encountered during our field exploration, the results of laboratory testing of samples of the

<sup>3</sup> U.S. Geological Survey, Quaternary Fault and Fold Database of the United States, November 3, 2010

<sup>4</sup> Utah Geological Survey, Liquefaction-Potential Map for a Part of Utah County, Utah, Public Information Series 28, August 1994.



native soils, the site grading recommendations presented in this report, and the foundation loading conditions presented in Section 3.0, *Proposed Construction*, of this report. If loading conditions and assumptions related to foundations are significantly different, Earthtec should be notified so that we can re-evaluate our design parameters and estimates (higher loads may cause more settlement), and to provide additional recommendations if necessary.

Conventional strip and spread footings may be used to support the proposed structures after appropriate removals as outlined in Section 8.1. Foundations should not be installed on topsoil, undocumented fill, debris, combination soils, organic soils, frozen soil, or in ponded water. If foundation soils become disturbed during construction, they should be removed or compacted.

## **10.2 Strip/Spread Footings**

We recommend that conventional strip and spread foundations be constructed entirely on firm, undisturbed, uniform gravel soils that extend a minimum of 24 inches below footings, or entirely on a minimum of 18 inches of properly placed, compacted, and tested structural fill extending to undisturbed native soils. For foundation design we recommend the following:

- Footings founded on native gravel or a minimum of 24 inches of structural fill may be designed using a maximum allowable bearing capacity of 2,000 pounds per square foot. The values for vertical foundation pressure can be increased by one-third for wind and seismic conditions per Section 1806.1 when used with the Alternative Basic Load Combinations found in Section 1605.3.2 of the 2015 International Building Code.
- Continuous and spot footings should be uniformly loaded and should have a minimum width of 20 and 30 inches, respectively.
- Exterior footings should be placed below frost depth which is determined by local building codes. In general, 30 inches of cover is adequate for most sites; however local code should be verified by the end design professional. Interior footings, not subject to frost (heated structures), should extend at least 18 inches below the lowest adjacent grade.
- Foundation walls and footings should be properly reinforced to resist all vertical and lateral loads and differential settlement.
- The bottom of footing excavations should be compacted with at least 4 passes of an approved non-vibratory roller prior to erection of forms or placement of structural fill to densify soils that may have been loosened during excavation and to identify soft spots. If soft areas are encountered, they should be stabilized as recommended in Section 8.5.
- Footing excavations should be observed by the geotechnical engineer prior to beginning footing construction to evaluate whether suitable bearing soils have been exposed and whether excavation bottoms are free of loose or disturbed soils.
- Structural fill used below foundations should extend laterally a minimum of 6 inches for every 12 vertical inches of structural fill placed. For example, if 18 inches of structural fill is required to bring the excavation to footing grade, the structural fill should extend laterally a



minimum of 9 inches beyond the edge of the footings on both sides.

### 10.3 Estimated Settlements

If the proposed foundations are properly designed and constructed using the parameters provided above, we estimate that total settlements should not exceed one inch and differential settlements should be one-half of the total settlement over a 25-foot length of continuous foundation, for non-earthquake conditions. Additional settlement could occur during a seismic event due to ground shaking, if more than 3 feet of grading fill is placed above the existing ground surface, if loading conditions are greater than anticipated in Section 3, and/or if foundation soils are allowed to become wetted.

### 10.4 Lateral Earth Pressures

Below grade walls act as soil retaining structures and should be designed to resist pressures induced by the backfill soils. The lateral pressures imposed on a retaining structure are dependent on the rigidity of the structure and its ability to resist rotation. Most retaining walls that can rotate or move slightly will develop an active lateral earth pressure condition. Structures that are not allowed to rotate or move laterally, such as subgrade basement walls, will develop an at-rest lateral earth pressure condition. Lateral pressures applied to structures may be computed by multiplying the vertical depth of backfill material by the appropriate equivalent fluid density. Any surcharge loads in excess of the soil weight applied to the backfill should be multiplied by the appropriate lateral pressure coefficient and added to the soil pressure. For static conditions the resultant forces are applied at about one-third the wall height (measured from bottom of wall). For seismic conditions, the resultant forces are applied at about two-third times the height of the wall both measured from the bottom of the wall. The lateral pressures presented in the table below are based on drained, horizontally placed native soils as backfill material using a 28° friction angle and a dry unit weight of 120 pcf.

**Table 5: Lateral Earth Pressures (Static and Dynamic)**

Condition	Case	Lateral Pressure Coefficient	Equivalent Fluid Pressure (pcf)
Active	Static	0.36	43
	Seismic	0.56	68
At-Rest	Static	0.53	64
	Seismic	0.75	91
Passive	Static	2.77	332
	Seismic	3.27	393

\*Seismic values combine the static and dynamic values

These pressure values do not include any surcharge and are based on a relatively level ground surface at the top of the wall and drained conditions behind the wall. It is important that water is not allowed to build up (hydrostatic pressures) behind retaining structures. Retaining walls should incorporate drainage behind the walls as appropriate, and surface water should be directed away from the top and bottom of the walls.



Lateral loads are typically resisted by friction between the underlying soil and footing bottoms. Resistance to sliding may incorporate the friction acting along the base of foundations, which may be computed using a coefficient of friction of soils against concrete of 0.55 for native gravels or structural fill meeting the recommendations presented herein. For allowable stress design, the lateral resistance may be computed using Section 1807 of the 2015 International Building Code and all sections referenced therein. Retaining wall lateral resistance design should further reference Section 1807.2.3 for reference of Safety Factors. Retaining systems are assumed to be founded upon and backfilled with granular structural fill. If backfilling with clay or silt, it is required to contact Earthtec prior to construction for further review and recommendations. The values for lateral foundation pressure can be increased by one-third for wind and seismic conditions per Section 1806.1 when used with the Alternative Basic Load Combinations found in Section 1605.3.2 of the 2015 International Building Code.

The pressure and coefficient values presented above are ultimate; therefore, an appropriate factor of safety may need to be applied to these values for design purposes. The appropriate factor of safety will depend on the design condition and should be determined by the project structural engineer.

## 11.0 FLOOR SLABS AND FLATWORK

Concrete floor slabs and exterior flatwork may be supported on native gravel soils or 12 inches of properly placed and compacted structural fill after appropriate removals and grading as outlined in Section 8.1 are completed. We recommend placing a minimum 4 inches of free-draining fill material (see Section 8.3) beneath floor slabs to facilitate construction, act as a capillary break, and aid in distributing floor loads. For exterior flatwork, we recommend placing a minimum 4 inches of road-base material. Prior to placing the free-draining fill or road-base materials, the native sub-grade should be proof-rolled to identify soft spots, which should be stabilized as discussed above in Section 8.5.

For slab design, we recommend using a modulus of sub-grade reaction of 120 pounds per cubic inch. The thickness of slabs supported directly on the ground shall not be less than 3½ inches. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches shall be placed between the ground surface and the concrete, as per Section 1907.1 of the 2015 International Building Code.

To help control normal shrinkage and stress cracking, we recommend that floor slabs have adequate reinforcement for the anticipated floor loads with the reinforcement continuous through interior floor joints, frequent crack control joints, and non-rigid attachment of the slabs to foundation and bearing walls. Special precautions should be taken during placement and curing of all concrete slabs and flatwork. Excessive slump (high water-cement ratios) of the concrete and/or improper finishing and curing procedures used during hot or cold weather conditions may lead to excessive shrinkage, cracking, spalling, or curling of slabs. We recommend all concrete placement and curing operations be performed in accordance with American Concrete Institute



(ACI) codes and practices.

## 12.0 DRAINAGE

### 12.1 Surface Drainage

As part of good construction practice, precautions should be taken during and after construction to reduce the potential for water to collect near foundation walls. Accordingly, we recommend the following:

- The contractor should take precautions to prevent significant wetting of the soil at the base of the excavation. Such precautions may include: grading to prevent runoff from entering the excavation, excavating during normally dry times of the year, covering the base of the excavation if significant rain or snow is forecast, backfill at the earliest possible date, frame floors and/or the roof at the earliest possible date, other precautions that might become evident during construction.
- Adequate compaction of foundation wall backfill should be provided i.e. a minimum of 90% of ASTM D-1557. Water consolidation methods should not be used.
- The ground surface should be graded to drain away from the building in all directions. We recommend a minimum fall of 8 inches in the first 10 feet.
- Roof runoff should be collected in rain gutters with down spouts designed to discharge well outside of the backfill limits, or at least 10 feet from foundations, whichever is greater.
- Sprinkler nozzles should be aimed away, and all sprinkler components kept at least 5 feet, from foundation walls. A drip irrigation system must be utilized in landscaping areas within 10 feet of foundation walls to minimize water intrusion at foundation backfill. Also, sprinklers should not be placed at the top or on the face of slopes. Sprinkler systems should be designed with proper drainage and well maintained. Over-watering should be avoided.
- Any additional precautions which may become evident during construction.

### 12.2 Subsurface Drainage

Walls or portions thereof that retain earth and enclose interior spaces and floors below grade shall conform to Section 1805 of the 2015 International Building Code for damp proofing and water proofing.

## 13.0 PAVEMENT RECOMMENDATIONS

We understand that asphalt paved parking and drive areas will be constructed as part of the project. The native soils encountered beneath the fill and topsoil during our field exploration



were predominantly composed of clay. We estimate that a California Bearing Ratio (CBR) value of 3 is appropriate for these soils. If the fill material and topsoil is left beneath concrete flatwork and pavement areas, increased maintenance costs over time should be anticipated.

We anticipate that the traffic volume will be about 500 vehicles a day or less for the parking and drive areas, consisting of mostly cars and pickup trucks, with a daily delivery truck and a weekly garbage truck. Based on these traffic parameters, the estimated CBR given above, and the procedures and typical design inputs outlined in the UDOT Pavement Design Manual (1998), we recommend the minimum asphalt pavement section presented below.

**Table 6: Pavement Section Recommendations**

Asphalt Thickness (in)	Compacted Roadbase Thickness (in)	Compacted Subbase Thickness (in)
3	10*	0
3	6	6*

\* Stabilization may be required

If the pavement will be required to support construction traffic, more than an occasional semi-tractor or fire truck, or more traffic than listed above, our office should be notified so that we can re-evaluate the pavement section recommendations. The following also apply:

- The subgrade should be prepared by proof rolling to a firm, non-yielding surface, with any identified soft areas stabilized as discussed above in Section 8.5.
- Site grading fills below the pavements should meet structural fill composition and placement recommendations per Sections 8.3 and 8.4 herein.
- Asphaltic concrete, aggregate base and sub-base material composition should meet local, APWA or UDOT requirements.
- Aggregate base and sub-base is compacted to local, APWA, or UDOT requirements, or to at least 95 percent of maximum dry density (ASTM D 1557).
- Asphaltic concrete is compacted to local or UDOT requirements, or to at least 96 percent of the laboratory Marshall density (ASTM D 6927).

Due to high static loads imposed by at dumpster locations, we recommend that a rigid pavement section for this area of a minimum of six (6) inches of Portland Cement Concrete (PCC) over a minimum of six (6) inches of aggregate base material. The aggregate base material should meet local, APWA or UDOT requirements and should be compacted to local, APWA, or UDOT requirements, or to at least 95 percent of maximum dry density (ASTM D1557).



#### 14.0 GENERAL CONDITIONS

The exploratory data presented in this report was collected to provide geotechnical design recommendations for this project. The explorations may not be indicative of subsurface conditions outside the study area or between points explored and thus have a limited value in depicting subsurface conditions for contractor bidding. Variations from the conditions portrayed in the explorations may occur and which may be sufficient to require modifications in the design. If during construction, conditions are different than presented in this report, Earthtec should be advised immediately so that the appropriate modifications can be made.

Earthtec Engineering was not involved in the design, construction, or evaluation of the constructed rock walls. We recommend that the rock walls and slope be evaluated if any structure is placed within 20 feet of the rock walls.

The findings and recommendations presented in this geotechnical report were prepared in accordance with generally accepted geotechnical engineering principles and practice in this area of Utah at this time. No warranty or representation is intended in our proposals, contracts, letters, or reports.

This geotechnical report is based on relatively limited subsurface explorations and laboratory testing. Subsurface conditions may differ in some locations of the site from those described herein, which may require additional analyses and possibly modified recommendations. Thus, we strongly recommend consulting with Earthtec regarding any changes made during design and construction of the project from those discussed herein. Failure to consult with Earthtec regarding any such changes relieves Earthtec from any liability arising from changed conditions at the site.

To maintain continuity, Earthtec should also perform materials testing and special inspections for this project. The recommendations presented herein are based on the assumption that an adequate program of tests and observations will be followed during construction to verify compliance with our recommendations. We also assume that we will review the project plans and specifications to verify that our conclusions and recommendations are incorporated and remain appropriate (based on the actual design). Earthtec should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Earthtec also should be retained to provide observation and testing services during grading, excavation, foundation construction, and other earth-related construction phases of the project.



We appreciate the opportunity of providing our services on this project. If we can answer questions or be of further service, please contact Earthtec at your convenience.

Respectfully;

**EARTHTEC ENGINEERING**



Jeremy A. Balleck, E.I.T.  
Staff Engineer



Timothy A. Mitchell, P.E.  
Geotechnical Engineer



**VICINITY MAP**  
**ALPINE TOWNHOMES**  
**300 SOUTH MAIN STREET**  
**ALPINE, UTAH**



Not to Scale

PROJECT NO.: 189260



FIGURE NO.: 1

# AERIAL PHOTOGRAPH SHOWING LOCATION OF TEST PITS ALPINE TOWNHOMES 300 SOUTH MAIN STREET ALPINE, UTAH



 Approximate Test Pit Locations



Not to Scale

PROJECT NO.: 189260



FIGURE NO.: 2

# TEST PIT LOG

## NO.: TP-1

**PROJECT:** Alpine Townhomes  
**CLIENT:** Cottle Capital Group, LLC  
**LOCATION:** See Figure 2  
**OPERATOR:** JSI  
**EQUIPMENT:** Mini Excavator  
**DEPTH TO WATER; INITIAL  $\nabla$  :**

**PROJECT NO.:** 189260  
**DATE:** 11/30/18  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION  $\nabla$  :**

Depth (Ft.)	Graphic Log	USCS	Description	Samples	TEST RESULTS								
					Water Cont. (%)	Dry Dens. (pcf)	LL	PI	Gravel (%)	Sand (%)	Fines (%)	Other Tests	
0			TOPSOIL, lean clay, moist, brown										
1		CL	Lean CLAY, medium stiff (estimated), moist, brown, blocky, roots										
2													
3		GM	Silty GRAVEL with sand, medium dense (estimated), moist, brown, occasional cobbles										
4													
5		GP-GM	Poorly Graded GRAVEL with silt and sand, medium dense to dense (estimated), moist, gray, occasional cobbles	X									
6													
7		ML	SILT with sand, medium stiff (estimated), moist, brown, slightly porous										
8													
9		ML	SILT with sand, medium stiff (estimated), moist, brown, slightly porous		16	108	21	NP	0	26	74		C
10													
11		ML	SILT with sand, medium stiff (estimated), moist, brown, slightly porous										
12													
12			Maximum depth explored approximately 12 feet		16	93	23	3	1	24	75		C
13													
14													
15													

**Notes:** No groundwater encountered.

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity
- DS = Direct Shear
- SS = Soluble Sulfates
- B = Burnoff

**PROJECT NO.:** 189260



**FIGURE NO.:** 3

LOG OF TESTPIT 189260 LOGS.GPJ EARTHTEC.GDT 12/13/18

# TEST PIT LOG

NO.: TP-2

**PROJECT:** Alpine Townhomes  
**CLIENT:** Cottle Capital Group, LLC  
**LOCATION:** See Figure 2  
**OPERATOR:** JSI  
**EQUIPMENT:** Mini Excavator  
**DEPTH TO WATER; INITIAL  $\nabla$  :**

**PROJECT NO.:** 189260  
**DATE:** 11/30/18  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION  $\nabla$  :**

Depth (Ft.)	Graphic Log	USCS	Description	Samples	TEST RESULTS								
					Water Cont. (%)	Dry Dens. (pcf)	LL	PI	Gravel (%)	Sand (%)	Fines (%)	Other Tests	
0			FILL, silty gravel, moist, brown, debris, trash										
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11			Maximum depth explored approximately 10 feet										
12													
13													
14													
15													

**Notes:** No groundwater encountered.

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity
- DS = Direct Shear
- SS = Soluble Sulfates
- B = Burnoff

**PROJECT NO.:** 189260



**FIGURE NO.:** 4

LOG OF TESTPIT 189260 LOGS.GPJ EARTHTEC.GDT 12/13/18

# TEST PIT LOG

NO.: TP-3

**PROJECT:** Alpine Townhomes  
**CLIENT:** Cottle Capital Group, LLC  
**LOCATION:** See Figure 2  
**OPERATOR:** JSI  
**EQUIPMENT:** Mini Excavator  
**DEPTH TO WATER; INITIAL  $\nabla$  :**

**PROJECT NO.:** 189260  
**DATE:** 11/30/18  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION  $\nabla$  :**

Depth (Ft.)	Graphic Log	USCS	Description	Samples	TEST RESULTS								
					Water Cont. (%)	Dry Dens. (pcf)	LL	PI	Gravel (%)	Sand (%)	Fines (%)	Other Tests	
0			FILL, silty gravel, moist, brown, debris, trash										
1													
2													
3													
4													
5													
6													
7													
8		SM	Silty SAND, medium dense (estimated), moist, light brown, slightly porous										
9													
10													
11		ML	SILT with sand, medium stiff (estimated), moist, brown, oxide stains, slightly porous		11	89	22	NP	1	19	80	C	
12													
13			Maximum depth explored approximately 12 feet										
14													
15													

**Notes:** No groundwater encountered.

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity
- DS = Direct Shear
- SS = Soluble Sulfates
- B = Burnoff

**PROJECT NO.:** 189260



**FIGURE NO.:** 5

LOG OF TESTPIT 189260 LOGS.GPJ EARTHTEC.GDT 12/13/18

# TEST PIT LOG

## NO.: TP-4

**PROJECT:** Alpine Townhomes  
**CLIENT:** Cottle Capital Group, LLC  
**LOCATION:** See Figure 2  
**OPERATOR:** JSI  
**EQUIPMENT:** Mini Excavator  
**DEPTH TO WATER; INITIAL  $\nabla$  :**

**PROJECT NO.:** 189260  
**DATE:** 11/30/18  
**ELEVATION:** Not Measured  
**LOGGED BY:** J. Balleck  
**AT COMPLETION  $\nabla$  :**

Depth (Ft.)	Graphic Log	USCS	Description	Samples	TEST RESULTS											
					Water Cont. (%)	Dry Dens. (pcf)	LL	PI	Gravel (%)	Sand (%)	Fines (%)	Other Tests				
0			TOPSOIL, silty sand, moist, brown													
1		GP	Poorly Graded GRAVEL with sand, medium dense to dense (estimated), moist, gray, some cobbles													
2																
3																
4																
5																
6							X	2				60	37	3		
7																
8																
9																
10																
11							X									
12			Maximum depth explored approximately 11 feet													
13																
14																
15																

**Notes:** No groundwater encountered.

**Tests Key**

- CBR = California Bearing Ratio
- C = Consolidation
- R = Resistivity
- DS = Direct Shear
- SS = Soluble Sulfates
- B = Burnoff

**PROJECT NO.:** 189260



**FIGURE NO.:** 6



# LEGEND

**PROJECT:** Alpine Townhomes  
**CLIENT:** Cottle Capital Group, LLC

**DATE:** 11/30/18  
**LOGGED BY:** J. Balleck

## UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR SOIL DIVISIONS		USCS SYMBOL		TYPICAL SOIL DESCRIPTIONS	
<b>COARSE GRAINED SOILS</b>  (More than 50% retaining on No. 200 Sieve)	<b>GRAVELS</b>  (More than 50% of coarse fraction retained on No. 4 Sieve)	CLEAN GRAVELS (Less than 5% fines)	 GW	Well Graded Gravel, May Contain Sand, Very Little Fines	
		GRAVELS WITH FINES (More than 12% fines)	 GP	Poorly Graded Gravel, May Contain Sand, Very Little Fines	
		<b>SANDS</b>  (50% or more of coarse fraction passes No. 4 Sieve)	CLEAN SANDS (Less than 5% fines)	 GM	Silty Gravel, May Contain Sand
			GRAVELS WITH FINES (More than 12% fines)	 GC	Clayey Gravel, May Contain Sand
	<b>FINE GRAINED SOILS</b>  (More than 50% passing No. 200 Sieve)	<b>SILTS AND CLAYS</b>  (Liquid Limit less than 50)	CLEAN SANDS (Less than 5% fines)	 SW	Well Graded Sand, May Contain Gravel, Very Little Fines
			SANDS WITH FINES (More than 12% fines)	 SP	Poorly Graded Sand, May Contain Gravel, Very Little Fines
			SANDS WITH FINES (More than 12% fines)	 SM	Silty Sand, May Contain Gravel
		<b>SILTS AND CLAYS</b>  (Liquid Limit Greater than 50)	SANDS WITH FINES (More than 12% fines)	 SC	Clayey Sand, May Contain Gravel
<b>SILTS AND CLAYS</b>  (Liquid Limit less than 50)			 CL	Lean Clay, Inorganic, May Contain Gravel and/or Sand	
			 ML	Silt, Inorganic, May Contain Gravel and/or Sand	
<b>SILTS AND CLAYS</b>  (Liquid Limit Greater than 50)	 OL	Organic Silt or Clay, May Contain Gravel and/or Sand			
	 CH	Fat Clay, Inorganic, May Contain Gravel and/or Sand			
	 MH	Elastic Silt, Inorganic, May Contain Gravel and/or Sand			
<b>HIGHLY ORGANIC SOILS</b>		 OH	Organic Clay or Silt, May Contain Gravel and/or Sand		
<b>HIGHLY ORGANIC SOILS</b>		 PT	Peat, Primarily Organic Matter		

### SAMPLER DESCRIPTIONS

-  SPLIT SPOON SAMPLER  
(1 3/8 inch inside diameter)
-  MODIFIED CALIFORNIA SAMPLER  
(2 inch outside diameter)
-  SHELBY TUBE  
(3 inch outside diameter)
-  BLOCK SAMPLE
-  BAG/BULK SAMPLE

### WATER SYMBOLS

-  Water level encountered during field exploration
-  Water level encountered at completion of field exploration

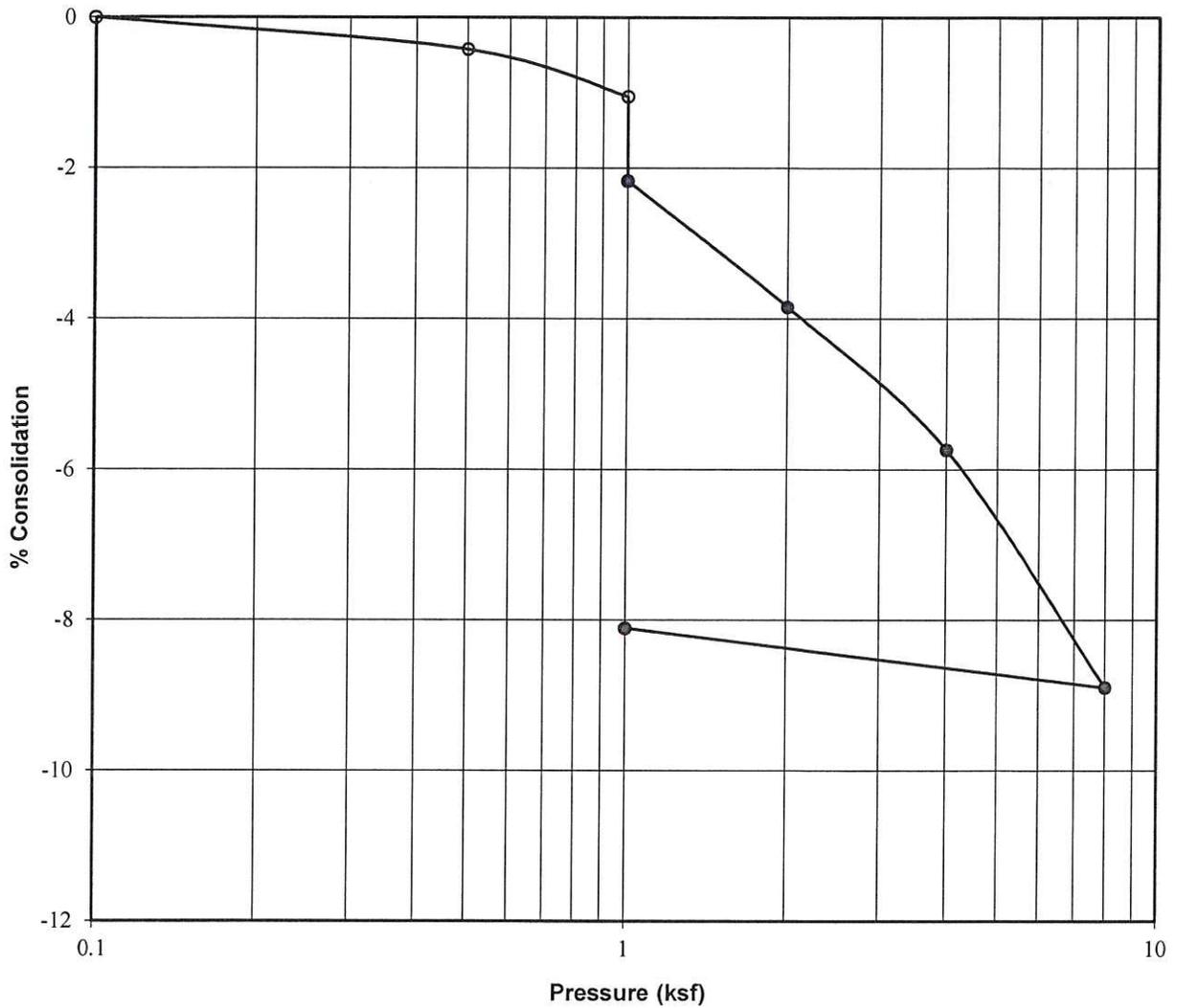
- NOTES:**
1. The logs are subject to the limitations, conclusions, and recommendations in this report.
  2. Results of tests conducted on samples recovered are reported on the logs and any applicable graphs.
  3. Strata lines on the logs represent approximate boundaries only. Actual transitions may be gradual.
  4. In general, USCS symbols shown on the logs are based on visual methods only; actual designations (based on laboratory tests) may vary.

**PROJECT NO.:** 189260



**FIGURE NO.:** 8

# CONSOLIDATION - SWELL TEST



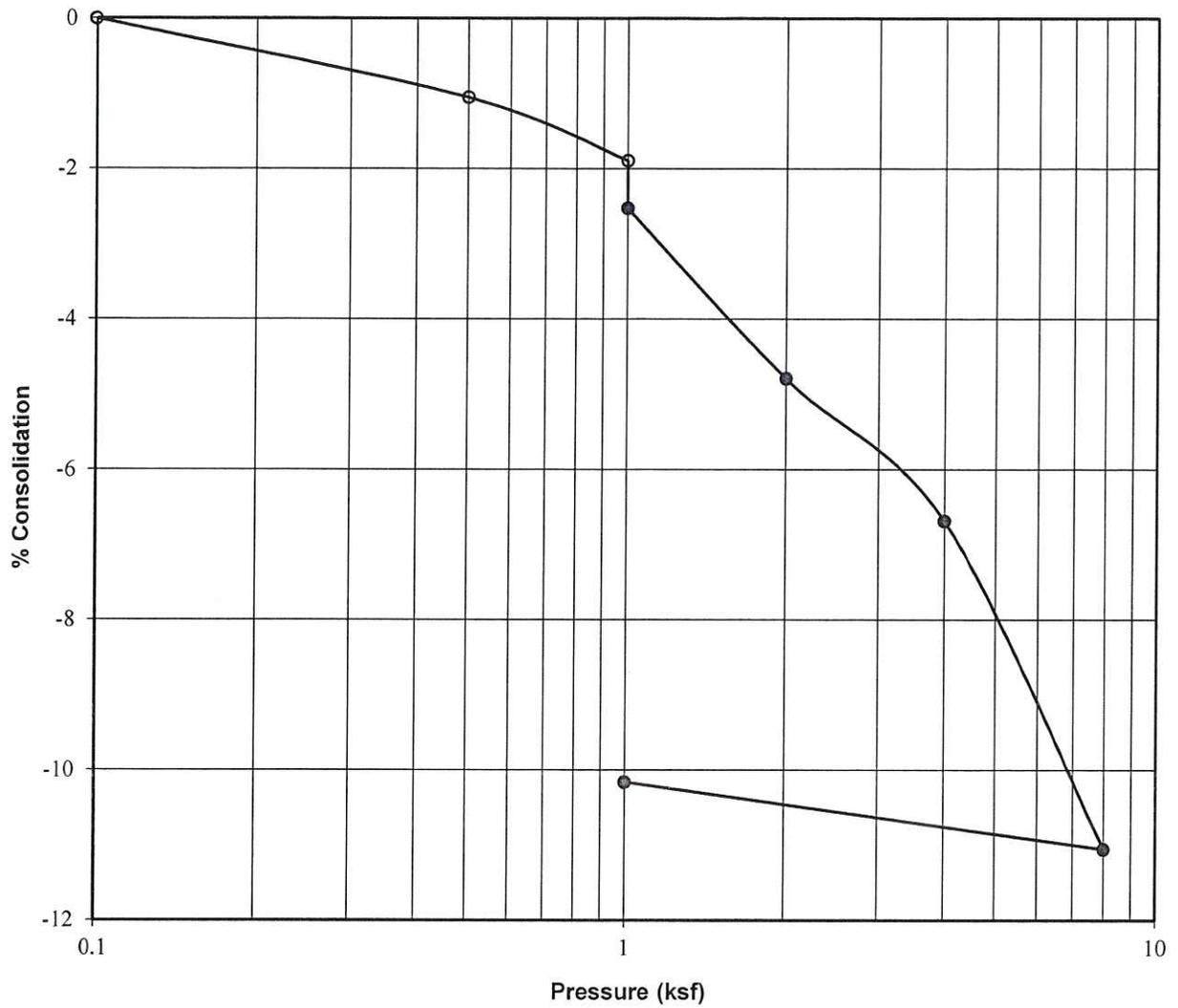
<b>Project:</b>	Alpine Townhomes
<b>Location:</b>	TP-1
<b>Sample Depth, ft:</b>	9
<b>Description:</b>	Block
<b>Soil Type:</b>	SILT with sand (ML)
<b>Natural Moisture, %:</b>	16
<b>Dry Density, pcf:</b>	108
<b>Liquid Limit:</b>	21
<b>Plasticity Index:</b>	NP
<b>Water Added at:</b>	1 ksf
<b>Percent Collapse:</b>	1.1

PROJECT NO.: 189260



FIGURE NO.: 9

# CONSOLIDATION - SWELL TEST



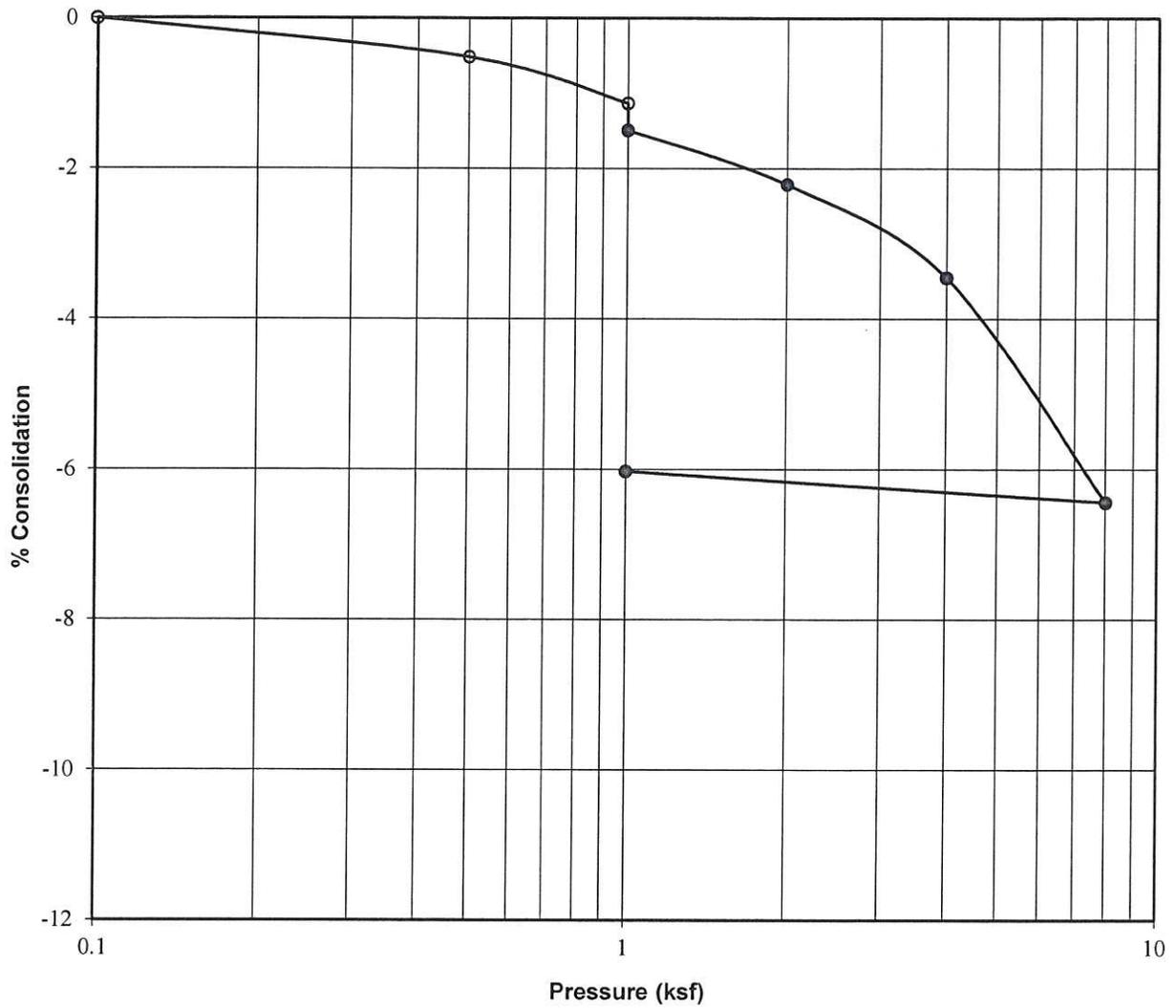
<b>Project:</b>	Alpine Townhomes
<b>Location:</b>	TP-1
<b>Sample Depth, ft:</b>	11½
<b>Description:</b>	Block
<b>Soil Type:</b>	SILT with sand (ML)
<b>Natural Moisture, %:</b>	16
<b>Dry Density, pcf:</b>	93
<b>Liquid Limit:</b>	23
<b>Plasticity Index:</b>	3
<b>Water Added at:</b>	1 ksf
<b>Percent Collapse:</b>	0.6

PROJECT NO.: 189260



FIGURE NO.: 10

# CONSOLIDATION - SWELL TEST



<b>Project:</b>	Alpine Townhomes
<b>Location:</b>	TP-3
<b>Sample Depth, ft:</b>	10
<b>Description:</b>	Block
<b>Soil Type:</b>	SILT with sand (ML)
<b>Natural Moisture, %:</b>	11
<b>Dry Density, pcf:</b>	89
<b>Liquid Limit:</b>	22
<b>Plasticity Index:</b>	NP
<b>Water Added at:</b>	1 ksf
<b>Percent Collapse:</b>	0.4

PROJECT NO.: 189260



FIGURE NO.: 11

## **APPENDIX A**



# Timpview Analytical Laboratories

A Chemtech-Ford, Inc. Affiliate  
1384 West 130 South Orem, UT 84058 (801) 229-2282



## Certificate of Analysis

Earthtec Testing & Engineering  
Caleb Allred  
1497 W 40 S  
Lindon, UT 84042  
DW System # :

Work Order #: 18L0336  
PO# / Project Name: 189260  
Receipt: 12/6/18 12:55  
Batch Temp °C: 9.1  
Date Reported: 12/14/2018

Sample Name: 189260 TP-1 @ 4.5

Collected: 11/30/18 11:00

Matrix: Solid

Collected By: Client

### Analysis

<u>Parameter</u>	<u>Lab ID #</u>	<u>Method</u>	<u>Date / Time</u>	<u>Result</u>	<u>Units</u>	<u>MRL</u>	<u>Flags</u>
Sulfate, Soluble (IC)	18L0336-01	EPA 300.0	12/14/18	12	mg/kg dry	10	
Total Solids	18L0336-01	SM 2540G	12/10/18	98.4	%	0.1	

Comment:

Reviewed by:

*Joyce Applegate*  
Joyce Applegate, Project Manager

## ALPINE CITY COUNCIL AGENDA

**SUBJECT:** Request to waive the right to enforce the Willow Canyon Annexation Agreement Height Restriction

**FOR CONSIDERATION ON:** May 14, 2019

**PETITIONER:** Eric Budge representing the Whittenburg Family

**ACTION REQUESTED BY PETITIONER:** The City waive its right to enforce the height restriction.

### BACKGROUND INFORMATION:

The petitioner is seeking to build a home on Lot 29 of the Willow Canyon Subdivision Phase 2B. The property is located at 153 North Bald Mountain Drive. Plans show the proposed home with a height of 38 feet 10 1/2 inches above the natural grade. The Willow Canyon Annexation Agreement states that:

*No home may be built on lots above the High Bench Ditch that exceeds a height of 25 feet above the natural grade to the highest point of the roof or parapet.*

The Restrictive Covenants and Conditions of Willow Canyon Subdivision also state that:

*East of the High Bench Ditch no building shall be allowed to exceed a height of 25 feet above the natural grade unless approved by both the Alpine City Council and the Architectural Committee.*

The proposed home is 13 feet 10 1/2 inches above the height restriction set forth in the Annexation Agreement, and the greatest height exception that the City Council has ever granted was 7 feet 6 inches for the Clark home in 2018.

#### **SAMPLE MOTION TO APPROVE**

I motion that the City waive its right to enforce the height restriction found in the Willow Canyon Annexation Agreement so long as the height does not exceed 13 feet 10 1/2 inches above the 25-foot height limitation.

#### **SAMPLE MOTION TO DENY**

I motion that the proposal be denied based on the following:

- \*\*\*Insert Finding\*\*\*



6625 W 9270 N

Highland, UT 84003

[Office.esbudge@gmail.com](mailto:Office.esbudge@gmail.com)

(801) 636-3174

Austin ,

You were out of town for drc last week and Shane and Jed suggested I write you a summary for city council.

These are our talking points and you can do what you would like with them.

1. Our lot has more slope than any other lot in the subdivision which makes it the hardest to meet the ccr in the subdivision.
2. This home will only encroach above the side walk which is less than 95 percent of the homes
3. We have moved the home back 90 ft from property line to help lower the home.
4. The home meets Alpine city height ordinance and is only 23ft 9 inches tall as per Alpine Cities measurements.
5. The neighbors on all sides have signed a letter accepting the Whittenburgs plans.
6. The Architectural committee has signed off as well
7. The homes on both sides are within 3 feet of the height we are asking for in our variance and we do not block their view.

**Memo**  
April 27, 2019

**To:** Alpine City  
**Copy to:** Neighbors in Willow Canyon  
Mike and Susan Whittenburg  
Committee Members  
**From:** Joel Kester  
**Subject:** Review of house plans on Whittenburg's lot

All

The Architectural Committee met yesterday and reviewed the Whittenburg home plans for their lot on Bald Mountain Drive. We did not have a full set of the color samples or the landscaping design, but we have agreed to make a recommendation on the placement and height of the home. The Whittenburgs have agreed to submit the color samples and landscaping plan at a later date.

**Background:** This lot is one of the several lots in the subdivision that presents a much greater challenge than others because (a) the slope going West drops off a great deal, (b) the original grade is varied, and (c) because of the reoccurring floods in the past we cannot determine for certain "what is the original grade". Because of these unique issues we have determined that the best way to consider this application is to set a measurement as it relates to the surface of the road in front of the home. It is our desire, as always, to get a beautiful home in our subdivision that matches the elevation of the home on the street. We have looked at the height of Dennis Madsen's house to determine a height that I could support. We have also measured the average set-back of the homes nearest to the Whittenburg lot.

**Basic facts:** The home from the top of foundation is 32 feet high. The home will pose very little issue with "view blockage" for any neighbor.

**Recommendations:** The Architectural Committee of Willow Canyon have approved these recommendations, after getting input on the proposed plan from all of the Whittenburgs' neighbors, and we support the City of Alpine approving their plans with the following conditions:

1. The Whittenburgs establish the elevation on the surface of the asphalt surface of the road at the at South-most East corner of their lot (Control Elevation), and
2. The front most surface (the East facia of the home) of the home (not including fences, porch or roof overhang) be placed a minimum of 90 feet from the curb of the road at the location of the South driveway entrance, and
3. At 90 feet from the curb, the elevation of the "top of foundation" would be a minimum of 9.6 feet below the Control Elevation (a 10.67% grade). This will make the view of the Whittenburg's home approximately 22 feet above the surface of the road pavement.
4. The Whittenburg must agree to let a Committee Member inspect and verify the height of the top of foundation elevation before construction continues after the installation of the footings and foundations.
5. We approve the brick and trim colors which have been given to the Committee, but have not approved other materials or the roofing color.
6. We have not approved the landscaping plan, but have requested that the Whittenburg's landscaper review the restrictions of the CC&Rs and complete the landscaping plans and submit them later.

This is a beautiful home, and with this placement, we believe it will not impact the views of the neighbors in a negative way. We are very excited for them to move forward.

Respectfully



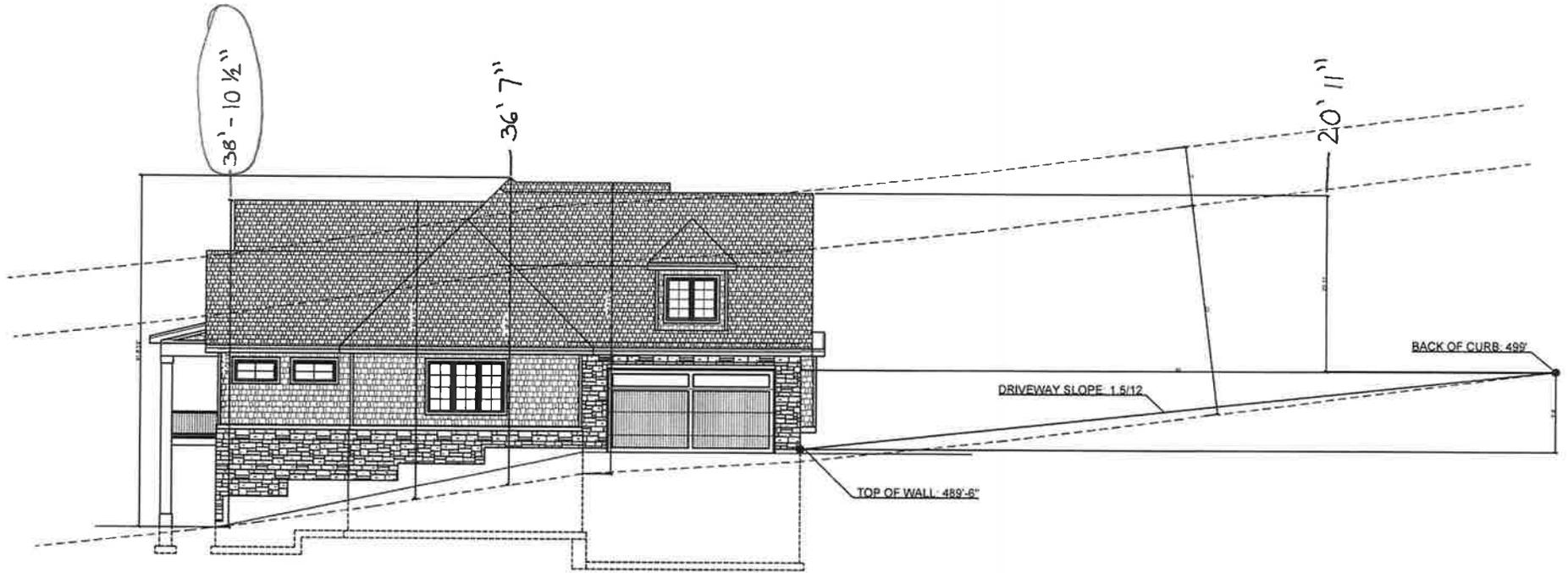
Willow Canyon Architectural Committee  
Joel Kester

## Willow Canyon Height Exceptions

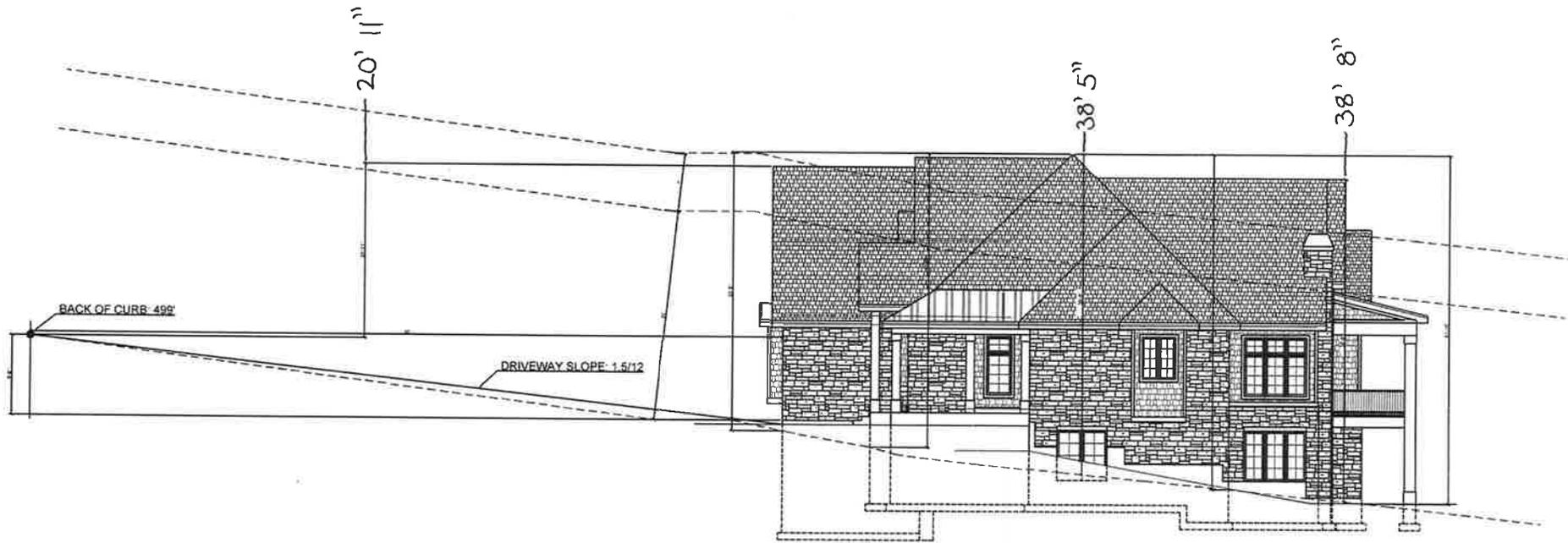
Name	Lot	Address	Height Exc.
Allison	4	285 N. Bald Mtn.	4'10"
Anderson	20	39 S. Preston Dr.	
Bell	13	130 N. Bald Mtn.	4'
Blackmore (Bartlett)	24	86 S. Bald Mtn.	3'
Christensen (Archibald)	25	52 S. Bald Mtn.	3' 6 "
Clark	n/a	75 N. Preston Dr.	7'6"
Cordner	12	162 N. Bald Mtn.	2'4"
Evans	5	293 N. Bald Mtn.	6'8"
Fisher	6	1454 E. Bald Mtn.	4'
Hammonds	2	243 N. Bald Mtn.	3'
Long	23	66 S. Preston Dr.	7'
Lysy (Hall)	17	12 N. Bald Mtn.	3'
Madson	27	87 N. Bald Mtn.	3'
Magleby	8	1445 E. Golden Eagle Dr.	
Nash	7	400 N. Bald Mtn.	3'
Ogden	26	24 S. Bald Mtn.	7'5"
Pierce	15	76 N. Bald Mtn.	3'
Server	9	1466 Golden Eagle	0'
Smith (Davis)	29	1472 E. Bald Mtn. Cir.	4'
Steuart	22	40 S. Preston Dr.	6'6"
Van Leeuwen	n/a	252 N. Preston Dr.	4'
Welch	11	1424 Golden Eagle	4'
Willis	14	108 N. Bald Mtn.	2'9"



FRONT  
(EAST)



LEFT  
(South)



RIGHT  
(North )



REAR  
(WEST)

## **ALPINE CITY COUNCIL AGENDA**

**SUBJECT: Improvements to Open Space – Planting Trees in Public Open Space**

**FOR CONSIDERATION ON: 14 May 2019**

**PETITIONER: Scott Hardy**

**ACTION REQUESTED BY PETITIONER: Approve improvements to public open space.**

### **BACKGROUND INFORMATION:**

The City has received a proposal from a resident who would like to make improvements to an area of open space east of Ridge Lane. The proposal includes planting trees and how they would be watered. See residents letter for further details.

### **STAFF RECOMMENDATION:**

Review and consider approving the proposal to plant trees in public open space.

Dave.

Thanks for presenting this to the committee.

Below are ideas for the green space behind 539 Ridge Lane house to help with the national look and feel of Alpine and Utah.

Trees

I don't believe very many are needed but if possible, we would like to put in some of the following

1. Pine Trees
2. Bigtooth maple or similar – this is native to Utah and will give a wonderful fall red look
3. Scrub Oak

All of these are hardy trees and once established will not require watering

Flowers

I know this may be a tall ask but it possible, would the committee allow:

1. Poppy Flowers

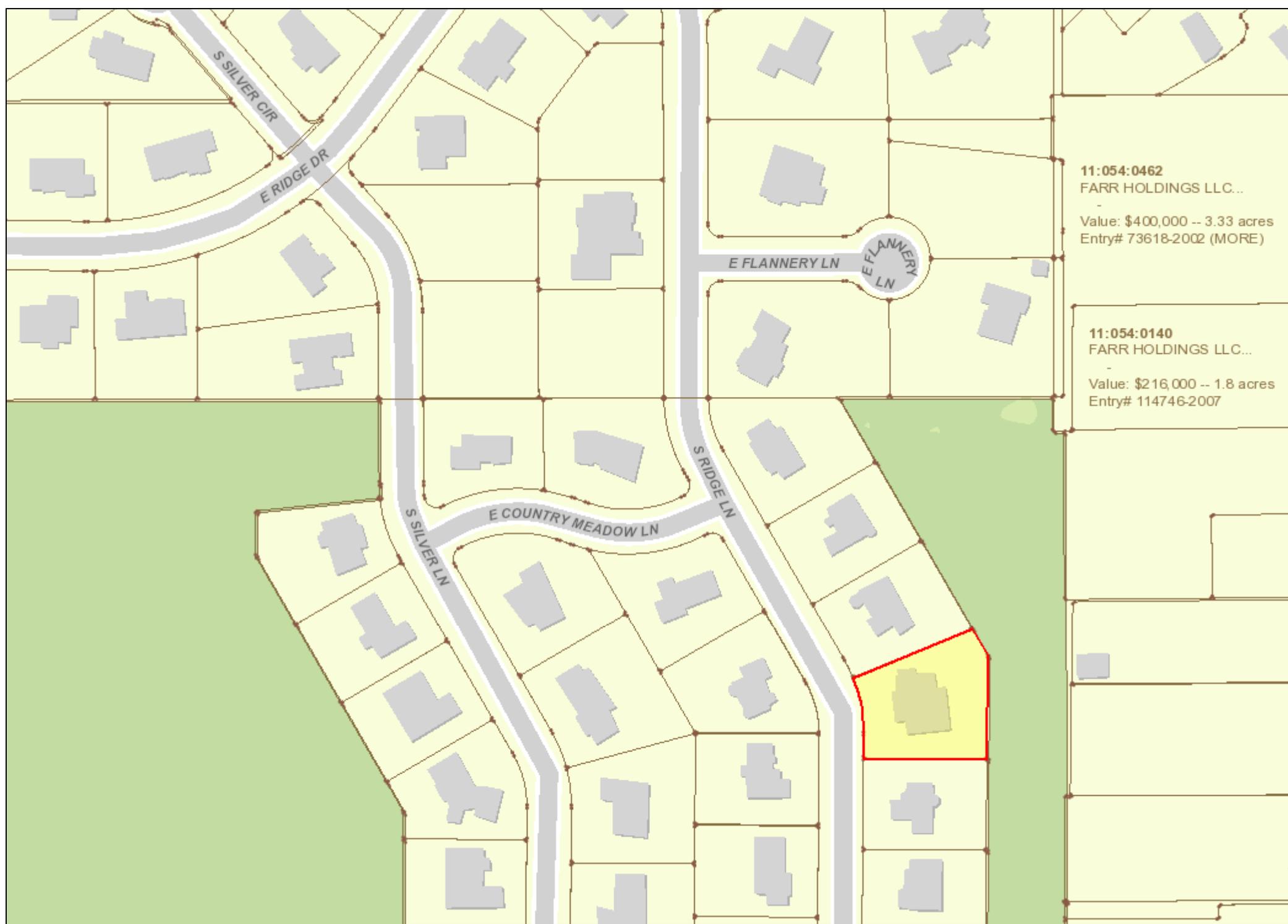
I think it may really look to the look and feel to the legacy of Lambert Park Poppy fields

Watering

I currently have a hose connection to my main line in the sprinkler system in the back of yard and will run a hose – 3 times a week – and water the trees. Or is the committee would allow I would run a temporary line from my sprinklers to water the trees. I estimate it will take 3-5 years for the trees to develop their root systems where I will no longer need to water.

Thanks Dave and the committee for your consideration.

Scott Hardy





# Utah County Parcel Map

Ridge Lane Trees Map

This cadastral map is generated from Utah County Recorder data. It is for reference only and no liability is assumed for any inaccuracies, incorrect data or variations with an actual survey

Date: 5/3/2019



## **ALPINE CITY COUNCIL AGENDA**

**SUBJECT: Improvements to Open Space – Trailhead Kiosk in Lambert Park**

**FOR CONSIDERATION ON: 14 May 2019**

**PETITIONER: Staff**

**ACTION REQUESTED BY PETITIONER: Approve the proposed structure.**

### **BACKGROUND INFORMATION:**

It is proposed that a trailhead kiosk structure be built on the eastern most boundary of Lambert Park, above the water tank, which would identify trails in the area. The structure would be intended to raise awareness of trails in the area and serve as a reminder to people shooting in the area that it is illegal to shoot within 150 yards of a structure.

### **STAFF RECOMMENDATION:**

Approve the proposed trailhead kiosk structure in Lambert Park.



## Barre City "Cow Pasture"

**Background**  
The Cow Pasture is a 100-acre area that has been preserved and managed as an open space for the City of Barre. It is a unique area that provides a natural setting for the city and its residents. The Cow Pasture is a valuable resource for the city and its residents. It provides a natural setting for the city and its residents. The Cow Pasture is a valuable resource for the city and its residents. It provides a natural setting for the city and its residents.

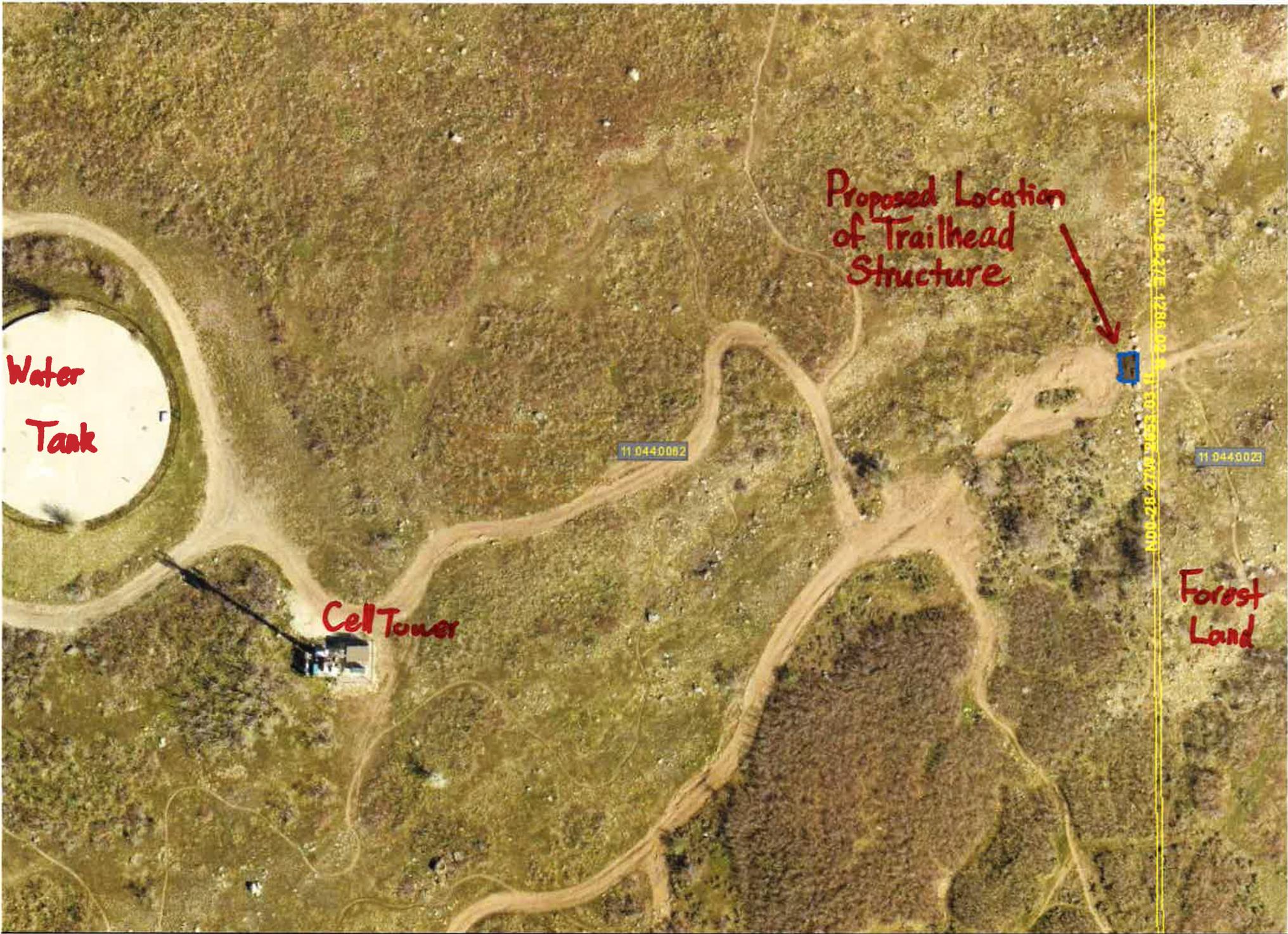
**Map**  
The map shows the location of the Cow Pasture in Barre, Vermont. It is located in the northwestern part of the city. The map shows the Cow Pasture in green and is surrounded by other areas of the city. The map shows the Cow Pasture in green and is surrounded by other areas of the city.

**Learn More**  
For more information about the Cow Pasture, visit the City of Barre website at [www.cityofbarre.com](http://www.cityofbarre.com). You can also contact the City of Barre at (802) 239-1234.

**Visit Us**  
The Cow Pasture is open to the public. It is a great place to enjoy the outdoors and take a walk. The Cow Pasture is open to the public. It is a great place to enjoy the outdoors and take a walk.







## **ALPINE CITY COUNCIL AGENDA**

**SUBJECT: Amendment to Development Code – Urban/Wildland Interface Overlay**

**FOR CONSIDERATION ON: 14 May 2019**

**PETITIONER: Staff**

**ACTION REQUESTED BY PETITIONER: Approve the proposed review guide and amendments to the Development Code.**

### **BACKGROUND INFORMATION:**

Staff have reviewed the Development Code and have recommended changes for Article 3.12.070. Changes include repealing most of the code and adopting a new reference guide, the Lone Peak Fire Department Wildland-Urban Interface Site Plan/Development Review Guide. The new guide outlines a rating system to determine the level of fire safety hazards for properties in or near Wildland Interface areas.

### **STAFF RECOMMENDATION:**

Approve amendments to Article 3.12.070 of the Development Code and approve the Wildland-Urban Interface Site Plan/Development Review Guide as proposed.

**ALPINE CITY  
ORDINANCE 2019-10**

**NOW THEREFORE**, be it ordained by the Council of Alpine City, in the State of Utah, as follows:

**SECTION 1:**        **AMENDMENT** “3.12.070 Urban/Wildland Interface Overlay” of the Alpine City Municipal Code is hereby *amended* as follows:

**B E F O R E   A M E N D M E N T**

3.12.070 Urban/Wildland Interface Overlay

1. **PUPROSE.** To establish standards for development and fire prevention in areas bordering on wildlands.
2. **DEFINITIONS**

Urban/Wildland Interface. Whenever the term "Urban/Wildland Interface" is used it shall be held to mean any area where development and heavily forested or brush land remaining in a relatively natural state meet. Specifically, the land that meets this criteria is identified in the overlay map in the Alpine City Hazard Maps of this Chapter.

Development. The term "Development" shall be construed to include any man-made change to improved or unimproved real estate, including but not limited to paving, excavation, drilling operations, storage of equipment or materials, or landscaping.

Classification of Roof Coverings. Whenever the term "Classification of Roof Covering" is used it shall be held to refer to the classification of a covering established by the International Building Code (hereinafter "IBC"). The two classifications of roof coverings allowed in the Urban/Wildland Interface are as follows:

- a. Class A. These roof coverings are effective against severe fire exposures. Under such exposures, roof coverings of this class are not readily flammable, afford a fairly high degree of fire protection to the roof deck, do not slip from position and pose no flying brand hazard.
- b. Class B. These roof coverings are effective against moderate fire exposures. Under such exposures, roof coverings of this class are not readily flammable, afford a moderate degree of fire protection to the roof deck, do not slip from position and pose no flying brand hazard.

Construction. For use in this section, "Construction" means the erection, building, enlargement, alteration, repairing or moving of a structure. This term also applies to the wiring, piping, heating, cooling, ventilation, refrigeration, sanitation or transportation of fixtures and equipment therein, as well as to the excavation, filling or paving of land.

Defensible Space. Whenever the term Defensible Space is used it will refer to an area denoted by a thinning of native vegetation, removal of dead plant material and/or the replacing of highly flammable vegetation with fire resistant plants and/or irrigated areas as indicated in this ordinance.

### **3. PERMITS**

- a. Requirement. Consistent with Section 68-27-109(5)(a) of the Utah Code Annotated 1953 as amended, which provides for the issuance of permits, no new building or structure shall commence construction nor be occupied until a Fire Safety Permit therefore has been issued by the Fire Chief stating the conditions under which the building has been approved in accordance with the provisions of this ordinance. This requirement shall not apply to dwellings outside of the Urban/Wildland Interface area identified in Alpine City Hazard Maps.
- b. Fire Safety Permit. All requests or applications for a building permit within the Urban/Wildland Interface area shall be deemed to be a concurrent request for a Fire Safety Permit providing certification by the Fire Chief that the provisions of this ordinance are being met.
- c. Conditions. No building permit for sites within the Urban/Wildland Interface area shall be issued until a Fire Safety Permit is approved and issued by the Fire Chief. All construction and use of the premises shall be in accord with such conditions as may be attached to the Fire Safety Permit.

### **4. ROADS**

- a. Access. All developments in the Urban/Wildland Interface area shall have more than one access route which provides simultaneous access for emergency equipment and civilian evacuation. The design of access routes shall take into consideration traffic circulation and provide for looping of roads as required to ensure at least two access points. Looped roads with a single access are not allowed.
- b. Exceptions. Where terrain features or other physical obstacles make provision of a second access impractical, a single access may be approved by the City Council after obtaining the recommendation of the Fire Chief and the Planning Commission.
- c. Specifications. All secondary access roads shall have a minimum paved width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches to permit two-way traffic. These provisions will apply in lieu of those provided in Article 9.02-2-1 of the Uniform Fire Code.

### **5. ADDRESSES**

- a. Specifications. Notwithstanding Section 9.01-4-4 of the Uniform Fire Code, each premise must have approved numbers or addresses, a minimum of 5 inches in size, placed in such a position as to be plainly visible and legible from the road fronting the property. Numbers shall contrast with their background and their positions shall be suited for visibility in all seasons.

### **6. FIRE HYDRANTS**

- a. Standards. Notwithstanding Appendix III-B of the Uniform Fire Code, each fire hydrant shall be installed in accordance with the recommendations of the City Engineer, Fire Chief and Table No. A-III, B-1 of the Uniform Fire Code.
- b. Requirement. No combustible materials may be installed, framed or assembled within the Urban/Wildland Interface area unless within 250 feet of a usable fire hydrant connected to the city water supply.

## **7. CHIMNEYS AND FLUES**

- a. Spark Arresters. Notwithstanding Appendix II-P Section 7 of the Uniform Fire Code, every chimney, flue or vent shall be provided with an approved spark arresting device consisting of 12 gauge welded or woven wire mesh with openings not exceeding 1/2 inch.
- b. Clearance. In accordance with Appendix I-A of the Uniform Fire Code, chimney outlets shall be constructed with at least a 15-foot clearance from all vegetation and obstructions.

## **8. STRUCTURAL DESIGN AND CONSTRUCTION**

- a. Roof Coverings. Non-combustible roof coverings are required on all new structures within the Urban/Wildland Interface area. Roof coverings shall be constructed of UL listed Class A or B materials in accordance with Chapter 32 of the UBC. No wood roof coverings are permitted in the Urban/Wildland Interface. Homes previously constructed in the Urban/Wildland Interface, which do not comply with this Part will be brought into compliance when one-half or more of the existing roof covering is replaced. The Fire Chief will provide notice of this requirement to any homeowners who may be affected upon passage of this ordinance.
- b. Sprinkler Protection. All new homes in the Urban/Wildland Interface area shall be provided with automatic sprinkler protection in accordance with the National Fire Protection Association (NFPA) Standard 13 R, modified as follows:
  - i. Decks and Walks. Decks and walkways greater than 4 feet wide shall have quick response sprinkler heads placed ten feet on center if an exposure hazard is present. Eaves of the structure will also be provided with sprinkler heads 10 feet on center and attic vents shall be similarly protected if an exposure hazard is present. For the purposes of this Part, an exposure hazard is defined as the presence of any of the following at the time of construction or evidence of such in the construction plans provided:
    - (1) Shrubs within 20 feet of the structure, unless in islands of no more than five shrubs separated from other vegetation by at least 50 feet.
    - (2) Trees within 30 feet of the structure, unless separated from other trees by at least 30 feet measured at the base.
    - (3) Native brush, including oak, within 100 feet of the structure, unless in islands not to exceed 30 feet on their longest axis, separated from other vegetation by at least 50 feet and at least 30 feet from the structure.

- ii. Flows. The system calculations shall be based on a minimum of four flowing quick-response sprinklers hydraulically calculated to provide flows in accordance with manufacturer's specifications for sprinklers. Calculations shall be based on 90% of the available flow at the base of the riser.
    - iii. Loop Systems. The use of anti-freeze loop systems is allowed when an acceptable back-flow prevention assembly is provided. Anti-freeze loops shall be relieved by using either an approved expansion tank or relief valve. Drilled clapper valves are not permitted.
    - iv. Inspection. An inspector's test valve is required upstream of the anti-freeze loop check valve.
    - v. Control Valves. Automatic sprinkler systems shall be provided with an indicating control valve accessible to the fire department.
    - vi. Certification. Approval of any system shall be based on final inspection and receipt of hydrostatic and flushing certificates provided by the installer.
    - vii. Notwithstanding Article 10 Section 1.001.5.2 of the Uniform Fire Code, automatic sprinkler protection, where installed, shall be inspected annually at the owner's expense by a licensed sprinkler contractor. A copy of the inspection shall be submitted to the Fire Chief by December 31st of each year.
  - c. Other Construction Features. Other construction features, vents, overhangs and stilt construction shall meet the following standards:
    - i. Vents. All vents shall be screened with a corrosion resistant, non-combustible wire mesh with nominal openings not to exceed 1/4 inch.
    - ii. Projections. Combustible projections of 10 inches or more and wood decks shall be protected as follows:
      - (1) Materials specified in Section 7.d above shall be applied to the underside of the exposed edge or, in the case of a deck, a wall shall be constructed around its perimeter using the aforementioned materials; or
      - (2) The use of heavy timber in compliance with the provisions of the code; or
      - (3) An approved outside sprinkler system shall be provided on the underside of the projection or deck.
  - d. Construction Materials. Exterior vertical walls shall be constructed of concrete masonry, brick veneer not less than 3 inches in thickness, cement plaster in compliance with the exterior finish requirements of the UBC, or any other non-combustible material (including some types of siding) meeting the intent of this code if such material is approved by the building official.
  - e. Windows. Glazed openings having three or more trees or shrubs within 30 feet shall be provided with double pane or safety glass. Double pane or safety glass shall be utilized in all windows on the down slope side of a dwelling.

**9. VEGETATIVE CLEARANCE**

- a. Notification. Applications for building permits shall contain a site plan with sufficient detail to allow for evaluation of clearances between vegetative fuels and structures.
- b. Defensible Space. The following minimum clearances shall be maintained, notwithstanding Appendix II-A, Section 16 of the Uniform Fire Code:
  - i. Dead Material. All dead vegetative material shall be removed and maintained clear at least 100 feet from dwellings and 50 feet from non-inhabited structures.
  - ii. Defensible Space. Each defensible space shall meet the following specifications:
    - (1) Grasses and Spreading Plants. Grasses, spreading plants and ground cover within 50 feet of dwellings must be of types that are identified as fire resistant. The Fire Chief will make information on fire resistant species available to property owners.
    - (2) Shrubs. Shrubs may be used for ornamental plantings against the walls or foundations of dwellings if such shrubs are served by an automated sprinkler or other irrigation system approved by the building inspection official.
    - (3) Trees. Trees must be at least 30 feet at the base from dwellings or at least 30 feet from other trees, non-deciduous shrubs and native brush, except that up to five trees may be grouped together if a clearance of at least 50 feet is maintained to any dwelling or to other trees, non- deciduous shrubs and native brush.
    - (4) Native Brush. Native species, such as scrub oak and other indigenous vegetation, may not be within 50 feet of dwellings unless such vegetation is grouped into islands not more than 30 feet on their longest axis. Such islands must be kept free of any dead vegetative material in accordance with Part 8,b,i and must be at least 30 feet from other trees, shrubs or brush unless protected by an automated sprinkler system. Islands must be at least 30 feet from dwellings or 10 feet if served by an automatic sprinkler system approved by the building inspection official. Native grasses must be removed, replaced with fire resistant species or maintained at a height not to exceed 6 inches unless protected by an automatic sprinkler system.
  - iii. Public Lands. Defensible Space on property adjacent to public lands, whether controlled by Alpine City, the State of Utah, the United States Government or any other governmental entity, shall meet the same fuel break requirements as any other cluster not so located.
- c. Disposal of Vegetation. Disposal of flammable vegetation shall be completed prior to final building inspection. Such vegetation may be disposed of by chipping, burying or removal to an approved landfill. Burning of such materials is prohibited.

- d. Fuel Tanks. Propane or fuel tanks shall have no ground vegetation more than 4 Inches in height within a 10 foot radius, notwithstanding Section 82.109 of the Uniform Fire Code. Trees and brush shall be trimmed so as to maintain a clearance of at least 3 feet from the sides and top of the tank.
- e. Fire Hydrants. Vegetation and other obstructions shall be maintained at no more than 4 inches in height around a fire hydrant, notwithstanding Section 01-7-2 of the Uniform Fire Code. Clearance shall be provided for three feet on all sides of the hydrant and must extend to the roadway.
- f. Recreational Fires. Open recreational fires shall be located a minimum of 25 feet from a structure or combustible material unless contained in an approved barbecue pit located a minimum of 10 feet from combustible foliage, walls or roofs. An opening in any overhead vegetative canopy shall be provided to prevent pyrolysis of the foliage.
  - i. Fuel Pile Limitation. Fuel piles for recreational fires shall be no larger than 3 feet in diameter and 2 feet high.
  - ii. Extinguishing Devices. A garden hose connected to a water supply or other approved fire extinguishing device shall be readily available for use at recreational fires. A person knowledgeable in the use of such fire extinguishing devices shall supervise the burning material until the fire has been extinguished.

#### 10. ENFORCEMENT

- a. Responsibility. The conditions outlined in the urban/wildland overlay shall be maintained by the property owner and/or the applicable homeowners' association as a condition of maintaining "adequate fire protection" in accordance with Section 11-7-1 of the Utah Code Annotated and protective agreements, if any, made with Alpine City at the time of annexation.
- b. Non-Exclusive Nature. The provisions of the urban/wildland overlay represent minimum standards. each owner of property in the Urban/Wildland Interface area is expected to use reasonable care in mitigating potential fire hazards, whether or not the potential hazard is enumerated in this section.
- c. Pre-Existing Conditions. Property not in compliance with the vegetative clearance section of the urban/wildland overlay at the time of passage shall have one year in which to conform to its provisions, except that retrofitting of sprinklers will not be required.
- d. Enforcement Official. Provisions of the urban/wildland overlay shall be enforced by the Alpine City Fire Chief or his appointed designees. The Fire Chief is authorized to recommend alternatives to any of the provisions of this code upon application in writing by the owner, lessee or a duly authorized representative where there are practical difficulties that prevent carrying out the such provisions, provided that the spirit and intent of the code shall be maintained, public safety furthered and substantial justice done. The particulars of such modifications and decision of the Fire chief shall be submitted to the City Council.

- i. Inspections. The Fire Chief or his designee shall conduct inspections to determine compliance with the urban/wildland requirements at the time of building permit inspections and at least once a year or at any other reasonable time. The Fire Chief or designee shall also conduct inspections based on the request of any other property owner, lessee, City official or employee who has reasonable cause to believe that a potential fire hazard exists in violation of the provisions of this ordinance.
  - ii. Notice. The Fire Chief or his designee will annually publish and as needed periodic notices to remind residents of the provisions of the urban/wildland and will make available information on the provisions of the ordinance, as well as guidance on fire-resistant vegetation and suitable landscaping.
- e. Recourse. Any person adversely affected by any decision made in the exercise of the provision of this section may pursue administrative and legal remedies in accordance with the following provisions:
  - i. Procedure. No person may challenge Alpine City's land use decisions under this section in district court until all administrative remedies have been exhausted.
  - ii. Judicial Review. Any person having exhausted all possible administrative remedies may file a petition for review of the decision with the district court within 30 days after the local decision is rendered.
  - iii. Validity of Ordinance. The courts shall presume that land use decisions and regulations are valid and determine only whether or not the decision is arbitrary, capricious or illegal.
- f. Remedies. Alpine City, its officers and employees, the city attorney or any owner of real estate within Alpine City may, in addition to other remedies provided by law, institute proceedings to secure injunction, mandamus, abatement or any other remedies provided by law, including prevention, enjoinder or removal.
- g. Injunction. Alpine City need only establish the violation in order to secure injunction.
- h. Building Permits. Alpine City, its officers and employees, may enforce this ordinance by withholding building permits and it shall be unlawful to erect, construct, alter or change the use of any building or other structure within Alpine City without approval of such building permit.
  - i. Failure to Obtain Permit. Any architect, lending agency, builder, contractor or other person doing or performing such work as described in DCA 3.13.100 Part 6,b shall be deemed guilty of violating this ordinance at least to the same extent or manner as the owner of the premises, or the person for whom the use is established or for whom such buildings are erected or altered, and shall be subject to the penalties herein prescribed for a violation.
  - ii. Compliance. The City may not issue a building permit unless the plans of and for the proposed erection, construction, reconstruction, alteration or use fully conform to all ordinances then in effect.

- i. Violation. Any violation of the provisions of the urban/wildland overlay is punishable as a Class C misdemeanor upon conviction. Each person, firm or corporation found guilty of such violation shall be deemed guilty of a separate offense for every day during which any violation is committed, continued or permitted by such person, persons, firm or corporation, and shall be punished as provided in this ordinance.
  - j. Nothing in this ordinance may be construed to prevent enforcement under the provisions of the current edition of the Uniform Fire Code as adopted by the State of Utah and the City of Alpine.
11. **Warning and Disclaimer.** The degree of wildfire protection required by urban/wildland interface overlay is considered reasonable regulatory purposes and is based on fire safety considerations. This section does not imply that land outside the areas of urban/wildland overlay zone or uses permitted within such areas will be free from damages from wildfires. This ordinance shall not create liability on the part of Alpine City, Utah, any officer or employee thereof, or the city's fire agency for any wildfire damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(Original Ordinance No. 94-11. Amended by Ord. 2001-05. Incorporated into Sensitive Lands Ordinance by Ord. No. 2005-03, 1/25/05)

#### AFTER AMENDMENT

#### 3.12.070 Urban/Wildland Interface Overlay

- 1. **PUPROSE.** To establish standards for development and fire prevention in areas bordering on wildlands. In addition to this section of the Development Code, areas bordering on wildlands shall be subject to the Wildland-Urban Interface Site Plan/Development Review Guide (supplemental document).
- 2. **DEFINITIONS**

~~Urban/Wildland Interface. Whenever the term "Urban/Wildland Interface" is used it shall be held to mean any area where development and heavily forested or brush land remaining in a relatively natural state meet. Specifically, the land that meets this criteria is identified in the overlay map in the Alpine City Hazard Maps of this Chapter.~~

~~Development. The term "Development" shall be construed to include any man-made change to improved or unimproved real estate, including but not limited to paving, excavation, drilling operations, storage of equipment or materials, or landscaping.~~

~~Classification of Roof Coverings. Whenever the term "Classification of Roof Covering" is used it shall be held to refer to the classification of a covering established by the International Building Code (hereinafter "IBC"). The two classifications of roof coverings allowed in the Urban/Wildland Interface are as follows:~~

- a. ~~Class A. These roof coverings are effective against severe fire exposures. Under such exposures, roof coverings of this class are not readily flammable, afford a fairly high degree of fire protection to the roof deck, do not slip from position and pose no flying brand hazard.~~
- b. ~~Class B. These roof coverings are effective against moderate fire exposures. Under such exposures, roof coverings of this class are not readily flammable, afford a moderate degree of fire protection to the roof deck, do not slip from position and pose no flying brand hazard.~~

~~Construction. For use in this section, "Construction" means the erection, building, enlargement, alteration, repairing or moving of a structure. This term also applies to the wiring, piping, heating, cooling, ventilation, refrigeration, sanitation or transportation of fixtures and equipment therein, as well as to the excavation, filling or paving of land.~~

~~Defensible Space. Whenever the term Defensible Space is used it will refer to an area denoted by a thinning of native vegetation, removal of dead plant material and/or the replacing of highly flammable vegetation with fire resistant plants and/or irrigated areas as indicated in this ordinance.~~

### 3. **PERMITS**

~~Requirement. Consistent with Section 68-27-109(5)(a) of the Utah Code Annotated 1953 as amended, which provides for the issuance of permits, no new building or structure shall commence construction nor be occupied until a Fire Safety Permit therefore has been issued by the Fire Chief stating the conditions under which the building has been approved in accordance with the provisions of this ordinance. This requirement shall not apply to dwellings outside of the Urban/Wildland Interface area identified in Alpine City Hazard Maps. Fire Safety Permit. All requests or applications for a building permit within the Urban/Wildland Interface area shall be deemed to be a concurrent request for a Fire Safety Permit providing certification by the Fire Chief that the provisions of this ordinance are being met. Conditions. No building permit for sites within the Urban/Wildland Interface area shall be issued until a Fire Safety Permit is approved and issued by the Fire Chief. All construction and use of the premises shall be in accord with such conditions as may be attached to the Fire Safety Permit.~~

### 4. **ROADS**

~~Access. All developments in the Urban/Wildland Interface area shall have more than one access route which provides simultaneous access for emergency equipment and civilian evacuation. The design of access routes shall take into consideration traffic circulation and provide for looping of roads as required to ensure at least two access points. Looped roads with a single access are not allowed. Exceptions. Where terrain features or other physical obstacles make provision of a second access impractical, a single access may be approved by the City Council after obtaining the recommendation of the Fire Chief and the Planning Commission. Specifications. All secondary access roads shall have a minimum paved width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches to permit two-way traffic. These provisions will apply in lieu of those provided in Article 9.02-2-1 of the Uniform Fire Code.~~

### 5. **ADDRESSES**

- a. Specifications. Notwithstanding Section 9.01-4-4 of the Uniform Fire Code, each premise must have approved numbers or addresses, a minimum of 5 inches in size, placed in such a position as to be plainly visible and legible from the road fronting the property. Numbers shall contrast with their background and their positions shall be suited for visibility in all seasons.

**6. FIRE HYDRANTS**

~~Standards. Notwithstanding Appendix III-B of the Uniform Fire Code, each fire hydrant shall be installed in accordance with the recommendations of the City Engineer, Fire Chief and Table No. A-III, B-1 of the Uniform Fire Code. Requirement. No combustible materials may be installed, framed or assembled within the Urban/Wildland Interface area unless within 250 feet of a usable fire hydrant connected to the city water supply.~~

**7. CHIMNEYS AND FLUES**

~~Spark Arresters. Notwithstanding Appendix II-P Section 7 of the Uniform Fire Code, every chimney, flue or vent shall be provided with an approved spark arresting device consisting of 12-gauge welded or woven wire mesh with openings not exceeding 1/2 inch. Clearance. In accordance with Appendix I-A of the Uniform Fire Code, chimney outlets shall be constructed with at least a 15-foot clearance from all vegetation and obstructions.~~

**8. STRUCTURAL DESIGN AND CONSTRUCTION**

- a. ~~Roof Coverings. Non-combustible roof coverings are required on all new structures within the Urban/Wildland Interface area. Roof coverings shall be constructed of UL listed Class A or B materials in accordance with Chapter 32 of the UBC. No wood roof coverings are permitted in the Urban/Wildland Interface. Homes previously constructed in the Urban/Wildland Interface, which do not comply with this Part will be brought into compliance when one-half or more of the existing roof covering is replaced. The Fire Chief will provide notice of this requirement to any homeowners who may be affected upon passage of this ordinance.~~
- b. Sprinkler Protection. ~~All new homes in the Urban/Wildland Interface area shall be~~ For structures receiving a HIGH HAZARD or EXTREME HAZARD rating on the Fire Hazard Severity Form, found in the Wildland-Urban Interface Site Plan/Development Review Guide, shall be provided with automatic sprinkler protection in accordance with the National Fire Protection Association (NFPA) Standard 13 R, modified as follows:
  - i. Decks and Walks. Decks and walkways greater than 4 feet wide shall have quick response sprinkler heads placed ten feet on center if an exposure hazard is present. Eaves of the structure will also be provided with sprinkler heads 10 feet on center and attic vents shall be similarly protected if an exposure hazard is present. For the purposes of this Part, an exposure hazard is defined as the presence of any of the following at the time of construction or evidence of such in the construction plans provided:

- (1) ~~Shrubs within 20 feet of the structure, unless in islands of no more than five shrubs separated from other vegetation by at least 50 feet. Trees within 30 feet of the structure, unless separated from other trees by at least 30 feet measured at the base. Native brush, including oak, within 100 feet of the structure, unless in islands not to exceed 30 feet on their longest axis, separated from other vegetation by at least 50 feet and at least 30 feet from the structure.~~
- ii. Flows. The system calculations shall be based on a minimum of four flowing quick-response sprinklers hydraulically calculated to provide flows in accordance with manufacturer's specifications for sprinklers. Calculations shall be based on 90% of the available flow at the base of the riser.
  - iii. Loop Systems. The use of anti-freeze loop systems is allowed when an acceptable back-flow prevention assembly is provided. Anti-freeze loops shall be relieved by using either an approved expansion tank or relief valve. Drilled clapper valves are not permitted.
  - iv. Inspection. An inspector's test valve is required upstream of the anti-freeze loop check valve.
  - v. Control Valves. Automatic sprinkler systems shall be provided with an indicating control valve accessible to the fire department.
  - vi. Certification. Approval of any system shall be based on final inspection and receipt of hydrostatic and flushing certificates provided by the installer.
  - vii. Notwithstanding Article 10 Section 1.001.5.2 of the Uniform Fire Code, automatic sprinkler protection, where installed, shall be inspected annually at the owner's expense by a licensed sprinkler contractor. A copy of the inspection shall be submitted to the Fire Chief by December 31st of each year.
- c. ~~Other Construction Features. Other construction features, vents, overhangs and stilt construction shall meet the following standards:~~
- i. ~~Projections. Combustible projections of 10 inches or more and wood decks shall be protected as follows:~~  
~~Vents. All vents shall be screened with a corrosion resistant, non-combustible wire mesh with nominal openings not to exceed 1/4 inch. Materials specified in Section 7.d above shall be applied to the underside of the exposed edge or, in the case of a deck, a wall shall be constructed around its perimeter using the aforementioned materials; or The use of heavy timber in compliance with the provisions of the code; or An approved outside sprinkler system shall be provided on the underside of the projection or deck.~~
- d. ~~Construction Materials. Exterior vertical walls shall be constructed of concrete masonry, brick veneer not less than 3 inches in thickness, cement plaster in compliance with the exterior finish requirements of the UBC, or any other non-combustible material (including some types of siding) meeting the intent of this code if such material is approved by the building official.~~

- e. ~~Windows. Glazed openings having three or more trees or shrubs within 30 feet shall be provided with double pane or safety glass. Double pane or safety glass shall be utilized in all windows on the down slope side of a dwelling.~~

9. **VEGETATIVE CLEARANCE**

- a. ~~Defensible Space. The following minimum clearances shall be maintained, notwithstanding Appendix II-A, Section 16 of the Uniform Fire Code:
  - i. ~~Defensible Space. Each defensible space shall meet the following specifications:~~
  - ii. ~~Public Lands. Defensible Space on property adjacent to public lands, whether controlled by Alpine City, the State of Utah, the United States Government or any other governmental entity, shall meet the same fuel break requirements as any other cluster not so located.~~~~
- b. ~~Disposal of Vegetation. Disposal of flammable vegetation shall be completed prior to final building inspection. Such vegetation may be disposed of by chipping, burying or removal to an approved landfill. Burning of such materials is prohibited.~~
- c. ~~Fuel Tanks. Propane or fuel tanks shall have no ground vegetation more than 4 inches in height within a 10 foot radius, notwithstanding Section 82.109 of the Uniform Fire Code. Trees and brush shall be trimmed so as to maintain a clearance of at least 3 feet from the sides and top of the tank.~~
- d. ~~Fire Hydrants. Vegetation and other obstructions shall be maintained at no more than 4 inches in height around a fire hydrant, notwithstanding Section 01-7-2 of the Uniform Fire Code. Clearance shall be provided for three feet on all sides of the hydrant and must extend to the roadway.~~
- e. ~~Recreational Fires. Open recreational fires shall be located a minimum of 25 feet from a structure or combustible material unless contained in an approved barbecue pit located a minimum of 10 feet from combustible foliage, walls or roofs. An opening in any overhead vegetative canopy shall be provided to prevent pyrolysis of the foliage.  
Fuel Pile Limitation. Fuel piles for recreational fires shall be no larger than 3 feet in diameter and 2 feet high. Extinguishing Devices. A garden hose connected to a water supply or other approved fire extinguishing device shall be readily available for use at recreational fires. A person knowledgeable in the use of such fire extinguishing devices shall supervise the burning material until the fire has been extinguished.~~

~~Notification. Applications for building permits shall contain a site plan with sufficient detail to allow for evaluation of clearances between vegetative fuels and structures. Dead Material. All dead vegetative material shall be removed and maintained clear at least 100 feet from dwellings and 50 feet from non-inhabited structures. Grasses and Spreading Plants. Grasses, spreading plants and ground cover within 50 feet of dwellings must be of types that are identified as fire resistant. The Fire Chief will make information on fire resistant species available to property owners. Shrubs. Shrubs may be used for ornamental plantings against the walls or foundations of dwellings if such shrubs are served by an automated sprinkler or other irrigation system approved by the building inspection official. Trees. Trees must be at least 30 feet at the base from dwellings or at~~

~~least 30 feet from other trees, non-deciduous shrubs and native brush, except that up to five trees may be grouped together if a clearance of at least 50 feet is maintained to any dwelling or to other trees, non-deciduous shrubs and native brush. Native Brush. Native species, such as scrub oak and other indigenous vegetation, may not be within 50 feet of dwellings unless such vegetation is grouped into islands not more than 30 feet on their longest axis. Such islands must be kept free of any dead vegetative material in accordance with Part 8,b,i and must be at least 30 feet from other trees, shrubs or brush unless protected by an automated sprinkler system. Islands must be at least 30 feet from dwellings or 10 feet if served by an automatic sprinkler system approved by the building inspection official. Native grasses must be removed, replaced with fire resistant species or maintained at a height not to exceed 6 inches unless protected by an automatic sprinkler system.~~

#### 10. ENFORCEMENT

- a. Responsibility. The conditions outlined in the urban/wildland overlay shall be maintained by the property owner and/or the applicable homeowners' association as a condition of maintaining "adequate fire protection" in accordance with Section 11-7-1 of the Utah Code Annotated and protective agreements, if any, made with Alpine City at the time of annexation.
- b. Non-Exclusive Nature. The provisions of the urban/wildland overlay represent minimum standards. each owner of property in the Urban/Wildland Interface area is expected to use reasonable care in mitigating potential fire hazards, whether or not the potential hazard is enumerated in this section.
- c. Pre-Existing Conditions. Property not in compliance with the vegetative clearance section of the urban/wildland overlay at the time of passage shall have one year in which to conform to its provisions, except that retrofitting of sprinklers will not be required.
- d. Enforcement Official. Provisions of the urban/wildland overlay shall be enforced by the Alpine City Fire Chief or his appointed designees. The Fire Chief is authorized to recommend alternatives to any of the provisions of this code upon application in writing by the owner, lessee or a duly authorized representative where there are practical difficulties that prevent carrying out the such provisions, provided that the spirit and intent of the code shall be maintained, public safety furthered and substantial justice done. The particulars of such modifications and decision of the Fire chief shall be submitted to the City Council.
  - i. Inspections. The Fire Chief or his designee shall conduct inspections to determine compliance with the urban/wildland requirements at the time of building permit inspections and at least once a year or at any other reasonable time. The Fire Chief or designee shall also conduct inspections based on the request of any other property owner, lessee, City official or employee who has reasonable cause to believe that a potential fire hazard exists in violation of the provisions of this ordinance.

- ii. Notice. The Fire Chief or his designee will annually publish and as needed periodic notices to remind residents of the provisions of the urban/wildland and will make available information on the provisions of the ordinance, as well as guidance on fire-resistant vegetation and suitable landscaping.
- e. Recourse. Any person adversely affected by any decision made in the exercise of the provision of this section may pursue administrative and legal remedies in accordance with the following provisions:
  - i. Procedure. No person may challenge Alpine City's land use decisions under this section in district court until all administrative remedies have been exhausted.
  - ii. Judicial Review. Any person having exhausted all possible administrative remedies may file a petition for review of the decision with the district court within 30 days after the local decision is rendered.
  - iii. Validity of Ordinance. The courts shall presume that land use decisions and regulations are valid and determine only whether or not the decision is arbitrary, capricious or illegal.
- f. Remedies. Alpine City, its officers and employees, the city attorney or any owner of real estate within Alpine City may, in addition to other remedies provided by law, institute proceedings to secure injunction, mandamus, abatement or any other remedies provided by law, including prevention, enjoinder or removal.
- g. Injunction. Alpine City need only establish the violation in order to secure injunction.
- h. Building Permits. Alpine City, its officers and employees, may enforce this ordinance by withholding building permits and it shall be unlawful to erect, construct, alter or change the use of any building or other structure within Alpine City without approval of such building permit.
  - i. Failure to Obtain Permit. Any architect, lending agency, builder, contractor or other person doing or performing such work as described in DCA 3.13.100 Part 6,b shall be deemed guilty of violating this ordinance at least to the same extent or manner as the owner of the premises, or the person for whom the use is established or for whom such buildings are erected or altered, and shall be subject to the penalties herein prescribed for a violation.
  - ii. Compliance. The City may not issue a building permit unless the plans of and for the proposed erection, construction, reconstruction, alteration or use fully conform to all ordinances then in effect.
- i. Violation. Any violation of the provisions of the urban/wildland overlay is punishable as a Class C misdemeanor upon conviction. Each person, firm or corporation found guilty of such violation shall be deemed guilty of a separate offense for every day during which any violation is committed, continued or permitted by such person, persons, firm or corporation, and shall be punished as provided in this ordinance.

j. Nothing in this ordinance may be construed to prevent enforcement under the provisions of the current edition of the Uniform Fire Code as adopted by the State of Utah and the City of Alpine.

11. **Warning and Disclaimer.** The degree of wildfire protection required by urban/wildland interface overlay is considered reasonable regulatory purposes and is based on fire safety considerations. This section does not imply that land outside the areas of urban/wildland overlay zone or uses permitted within such areas will be free from damages from wildfires. This ordinance shall not create liability on the part of Alpine City, Utah, any officer or employee thereof, or the city's fire agency for any wildfire damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(Original Ordinance No. 94-11. Amended by Ord. 2001-05. Incorporated into Sensitive Lands Ordinance by Ord. No. 2005-03, 1/25/05)

PASSED AND ADOPTED BY THE ALPINE CITY COUNCIL

	<b>AYE</b>	<b>NAY</b>	<b>ABSENT</b>	<b>ABSTAIN</b>
Lon Lott	_____	_____	_____	_____
Kimberly Bryant	_____	_____	_____	_____
Carla Merrill	_____	_____	_____	_____
Ramon Beck	_____	_____	_____	_____
Jason Thelin	_____	_____	_____	_____

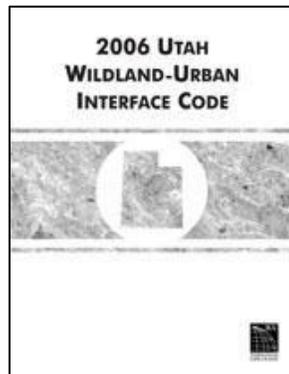
Presiding Officer

Attest

\_\_\_\_\_  
Troy Stout, Mayor, Alpine City

\_\_\_\_\_  
Charmayne G. Warnock, City  
Recorder Alpine City

# Wildland-Urban Interface Site Plan/Development Review Guide



This document is a graphic representation of the major provisions of the Utah Wildland-Urban Interface Code and amendments adopted by the Lone Peak Fire District.

This material is designed to be used as code interpretation for code authorities, architects, contractors, engineers and individual property owners. Questions pertaining to this document can be obtained by calling the Lone Peak Fire District at 801-763-5365.

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## Submittal Requirements:

☐ Completed Fire Severity Hazard Form

☐ Site Plan detailing the following:

- topography
- width and percent of grade of access roads
- landscape and vegetation details
- locations of structures or building envelopes
- existing or proposed overhead utilities
- existing or proposed above or below ground propane tanks
- structures and their appendages
- defensible space envelope

☐ Fire Protection Plan

- The plan shall be based upon a site-specific wildfire risk assessment that includes considerations 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.

☐ Vegetation Management Plan

- Vegetation management plans shall describe all actions that will be taken to prevent a fire from being carried toward or away from the building. A vegetation management plan shall include at least the following information:
  1. A copy of the site plan.
  2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
  3. A plan for maintaining the proposed fuel-reduction measures.

☐ Vicinity Plan

- Plan shall include details regarding the vicinity within 300' of property lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads. (This may be incorporated into the site plan.)

## Procedure:

1. Complete the Fire Severity Hazard Form. Consult the following table for defensible space requirement.

WILDLAND-URBAN INTERFACE AREA	FUEL MODIFICATION DISTANCE (feet) <sup>a</sup>
Moderate hazard	30
High hazard	50
Extreme hazard	100

For SI: 1 foot = 304.8 mm.  
 a. Distances are allowed to be increased due to site-specific analysis based on local conditions and the fire protection plan.

2. Obtain water supply information.

Available Fire-flow

Water Tank Capacity

Location of nearest fire hydrants

3. Develop site plan. Site plan must include the items listed on page 3.
4. Submit application to municipality. Review cannot be completed without all of the items listed on page 3.

Upon receipt of a complete application the Fire Chief or Designer will conduct a site visit. The following table will be used to determine the level of exterior fire rated construction.

**TABLE 503.1  
IGNITION-RESISTANT CONSTRUCTION<sup>a</sup>**

DEFENSIBLE SPACE <sup>c</sup>	FIRE HAZARD SEVERITY					
	Moderate Hazard		High Hazard		Extreme Hazard	
	Water Supply <sup>b</sup>		Water Supply <sup>b</sup>		Water Supply <sup>b</sup>	
	Conforming <sup>d</sup>	Nonconforming <sup>e</sup>	Conforming <sup>d</sup>	Nonconforming <sup>e</sup>	Conforming <sup>d</sup>	Nonconforming <sup>e</sup>
Nonconforming	IR 2	IR 1	IR 1	IR 1 N.C.	IR 1 N.C.	Not Permitted
Conforming	IR 3	IR 2	IR 2	IR 1	IR 1	IR 1 N.C.
1.5 × Conforming	Not Required	IR 3	IR 3	IR 2	IR 2	IR 1

a. Access shall be in accordance with Section 402.

b. Subdivisions shall have a conforming water supply in accordance with Section 402.1.

IR 1 = Ignition-resistant construction in accordance with Section 504.

IR 2 = Ignition-resistant construction in accordance with Section 505.

IR 3 = Ignition-resistant construction in accordance with Section 506.

N.C. = Exterior walls shall have a fire-resistance rating of not less than 1-hour and the exterior surfaces of such walls shall be *noncombustible*. Usage of log wall construction is allowed.

c. Conformance based on Section 603.

d. Conformance based on Section 404.

e. A nonconforming water supply is any water system or source that does not comply with Section 404, including situations where there is no water supply for structure protection or fire suppression.

## **Fire Department Access Requirements:**

**Restricted access.** Where emergency vehicle access is restricted because of secured access roads or driveways or where immediate access is necessary for life-saving or fire-fighting purposes, the code official is authorized to require a key box to be installed in an accessible location. The key box shall be of a type *approved* by the code official and shall contain keys to gain necessary access as required by the code official. **[UWUIC 403.1]**

**Building and Facilities:** Fire apparatus access roads must be provided such that no portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150-feet from fire apparatus access as measured by an approved route around the exterior of the building or facility. **[IFC 503.1.1]**

**Specifications:** Fire Department Access must be of an all-weather surface, a minimum clear width of 20-feet and a minimum vertical clear height of 13-feet 6-inches (13'-6"). **[IFC 503.2.1]**

**Surface:** Fire apparatus access roads must be designed and maintained to support the imposed loads of 75,000 lbs for fire apparatus. **[IFC 503.2.3 & D102.1]**

**Turning Radius:** The turning radius of 28-feet must be provided for the fire apparatus access road. **[IFC 503.2.4]**

**Dead Ends:** Dead-end fire apparatus access roads in excess of 150-feet in length must be provided with approved provisions for the turning around of fire apparatus. **[IFC 503.2.5]**

**Bridges and Elevated Surfaces:** When a bridge or an elevated surface is part of a fire apparatus access road, it must be constructed and maintained in accordance with AASHTO Standard Specification for Highway Bridges and must be designed for a live loading sufficient to carry the imposed loads of fire apparatus. **[IFC 503.2.6]**

**Grade:** The gradient for a fire apparatus access road must not exceed 10%, unless approved by the Fire Code Official. **[IFC 503.2.7]**

**Access Road Identification:** Approved signs must be provided and maintained for fire apparatus access roads to identify the road and prohibit the obstruction thereof or both. **[IFC 503.3]**

All road identification signs and supports shall be of noncombustible materials. Signs shall have minimum 4-inch-high (102 mm) reflective letters with 1/2 inch (12.7 mm) stroke on a contrasting 6-inch-high (152 mm) sign. Road identification signage shall be mounted at a height of 7 feet (2134 mm) from the road surface to the bottom of the sign. **[UWUIC 403.4]**

## Water Supply Requirements:

**Required water supply.** An *approved* water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. [IFC 507.1]

**Required fire flow will be based upon building construction type as defined in the IBC as well as gross square footage of the proposed structure. For the purpose of determining fire flow the gross square footage shall include all areas within the exterior walls, beneath the roof line, finished and unfinished habitable space.**

### **Fire hydrant systems. [IFC 507.5]**

**Where required.** Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an *approved* route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the *fire code official*.

#### **Exceptions:**

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2. For buildings equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

## Code Modification:

**Practical difficulties.** When there are practical difficulties involved in carrying out the provisions of this code, the code official is authorized to grant modifications for individual cases on application in writing by the owner or a duly authorized representative. The code official shall first find that a special individual reason makes enforcement of the strict letter of this code impractical, the modification is in conformance to the intent and purpose of this code, and the modification does not lessen any fire protection requirements or any degree of structural integrity. The details of any action granting modifications shall be recorded and entered into the files of the code enforcement agency.

If the code official determines that difficult terrain, danger of erosion or other unusual circumstances make strict compliance with the vegetation control provisions of the code detrimental to safety or impractical, enforcement thereof may be suspended, provided that reasonable alternative measures are taken. [UWUIC 105.1]

## Definitions:

**ACCESSORY STRUCTURE.** A building or structure used to shelter or support any material, equipment, chattel or occupancy other than a habitable building.

**DEFENSIBLE SPACE.** An area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

**FIRE PROTECTION PLAN.** A document prepared for a specific project or development proposed for the *wildland-urban interface area*. It describes ways to minimize and mitigate the fire problems created by the project or development, with the purpose of reducing impact on the community's fire protection delivery system.

**FIRE-RESISTANCE-RATED CONSTRUCTION.** The use of materials and systems in the design and construction of a building or structure to safeguard against the spread of fire within a building or structure and the spread of fire to or from buildings or structures to the *wildland-urban interface area*.

**FLAME SPREAD INDEX.** A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E 84.

**FUEL BREAK.** An area, strategically located for fighting anticipated fires, where the native vegetation has been permanently modified or replaced so that fires burning into it can be more easily controlled. Fuel breaks divide fire-prone areas into smaller areas for easier fire control and to provide access for fire fighting.

**FUEL MODIFICATION.** A method of modifying fuel load by reducing the amount of nonfireresistive vegetation or altering the type of vegetation to reduce the fuel load.

**IGNITION-RESISTANT BUILDING MATERIAL.** A type of building material that resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in Section 503.

**IGNITION-RESISTANT CONSTRUCTION, CLASS 1.** A schedule of additional requirements for construction in wildland-urban interface areas based on extreme fire hazard.

**IGNITION-RESISTANT CONSTRUCTION, CLASS 2.** A schedule of additional requirements for construction in wildland-urban interface areas based on high fire hazard.

**IGNITION-RESISTANT CONSTRUCTION, CLASS 3.** A schedule of additional requirements for construction in wildland-urban interface areas based on moderate fire hazard.

**LOG WALL CONSTRUCTION.** A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is at least 6 inches (152 mm).

**NONCOMBUSTIBLE.** As applied to building construction material means a material that, in the form in which it is used, is either one of the following:

1. Material of which no part will ignite and burn when subjected to fire. Any material conforming to ASTM E 136 shall be considered noncombustible within the meaning of this section.

2. Material having a structural base of *noncombustible* material as defined in Item 1 above, with a surfacing material not over 1/8 inch (3.2 mm) thick, which has a flame spread index of 50 or less. Flame spread index as used herein refers to a flame spread index obtained according to tests conducted as specified in ASTM E 84 or UL 723. “Noncombustible” does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classified as noncombustible that is subject to increase in combustibility or flame spread index, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition.

**NONCOMBUSTIBLE ROOF COVERING.** One of the following:

1. Cement shingles or sheets.
2. Exposed concrete slab roof.
3. Ferrous or copper shingles or sheets.
4. Slate shingles.
5. Clay or concrete roofing tile.
6. *Approved* roof covering of *noncombustible* material.

**TREE CROWN.** The primary and secondary branches growing out from the main stem, together with twigs and foliage.

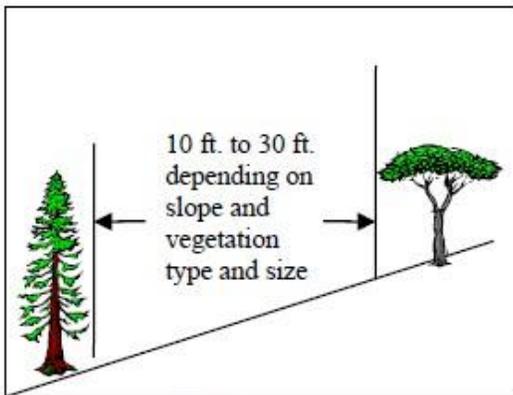
**UNENCLOSED ACCESSORY STRUCTURE.** An accessory structure without a complete exterior wall system enclosing the area under roof or floor above.

**WILDLAND-URBAN INTERFACE AREA.** The line, area or zone where structures or other human development (including critical infrastructure that if destroyed would result in hardship to communities) meet or intermingle with undeveloped wildland or vegetative fuel.

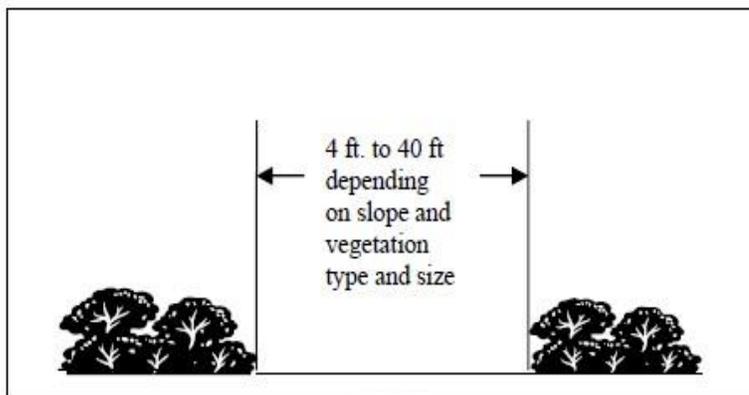
## Supplemental Information:

### Vegetation Clearance Guidelines:

Plant Spacing Guidelines	
Guidelines are designed to break the continuity of fuels and be used as a "rule of thumb"	
<b>Trees</b>	<b>Minimum horizontal space from edge of one tree canopy to the edge of the next</b>
	Slope
	0% to 20 %
	20% to 40%
<b>Shrubs</b>	<b>Minimum horizontal space between edges of shrub</b>
	Slope
	0% to 20 %
	20% to 40%
<b>Vertical Space</b>	<b>Minimum vertical space between top of shrub and bottom of lower tree branches:</b>
	3 times the height of the shrub

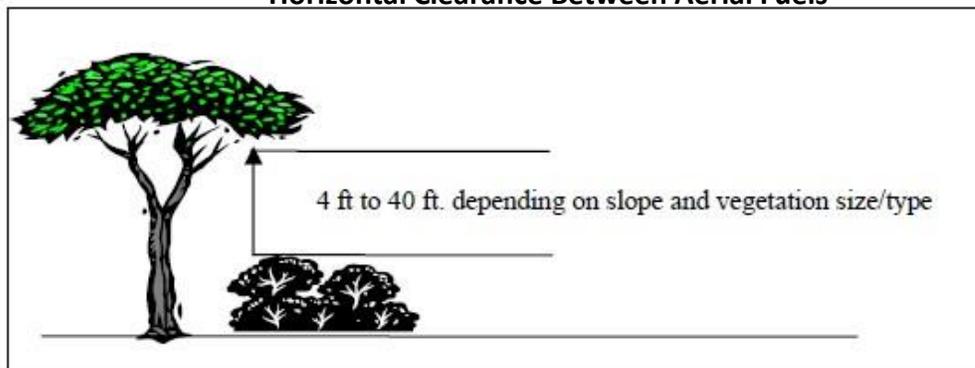


Trees



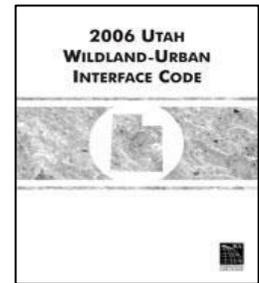
Shrubs

#### Horizontal Clearance Between Aerial Fuels



#### Vertical Clearance Between Aerial Fuels

# 2006 UTAH WILDLAND-URBAN INTERFACE CODE™



## SECTION 405

### Fire Protection Plan:

**405.1 Purpose.** The plan is to provide a basis to determine overall compliance with this code, for determination of Ignition Resistant Construction (IRC) (See Table 503.1) and for determining the need for alternative materials and methods.

**405.2 General.** When required by the code official, a fire protection plan shall be prepared.

**405.3 Content.** The plan shall be based upon a site-specific wildfire risk assessment that includes considerations 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.

**405.4 Cost.** The cost of fire protection plan preparation and review shall be the responsibility of the applicant.

**405.5 Plan retention.** The fire protection plan shall be retained by the code official.

## SECTION 504

### Class 1- Ignition-resistant Construction:

**504.1 General.** Class 1 ignition-resistant construction shall be in accordance with Sections 504.2 through 504.11

**504.2 Roof covering.** Roofs shall have a Class A roof covering or a Class A roof assembly. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire-stopped to preclude entry of flames or embers.

**504.3 Protection of eaves.** Eaves and soffits shall be protected on the exposed underside by materials approved for a minimum of 1-hour fire-resistance-rated construction, 2-inch (51 mm) nominal dimension lumber, or 1-inch (25.4 mm) nominal fire-retardant-treated lumber or ¾-inch (19 mm) nominal fire-retardant-treated plywood, identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code. Fascias are required and shall be protected on the backside by materials approved for a minimum of 1-hour fire-resistance-rated construction or 2-inch (51 mm) nominal dimension lumber.

**504.4 Gutters and downspouts.** Gutters and downspouts shall be constructed of noncombustible material.

**504.5 Exterior walls.** Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials.

**Exception:** Heavy timber or log wall construction. Such material shall extend from the top of the foundation to the underside of the roof sheathing.

**504.6 Unenclosed under-floor protection.** Buildings or structures shall have all under-floor areas enclosed to the ground with exterior walls in accordance with Section 504.5.

**Exception:** Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

**504.7 Appendages and projections.** Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of 1-hour fire-resistance-rated construction, heavy timber construction or constructed of approved noncombustible materials or fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the

structure shall have all under-floor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5.

**504.8 Exterior glazing.** Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes.

**504.9 Exterior doors.** Exterior doors shall be approved noncombustible construction, solid core wood not less than 1¾ inches thick (45 mm), or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 504.8.

**Exception:** Vehicle access doors.

**504.10 Vents.** Attic ventilation openings, foundation or under-floor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m<sup>2</sup>) each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed ¼ inch (6.4 mm), or shall be designed and approved to prevent flame or ember penetration into the structure.

Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet (3048 mm) from property lines. Under-floor ventilation openings shall be located as close to grade as practical.

**504.11 Detached accessory structures.** Detached accessory structures located less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction, heavy timber, log wall construction or constructed with approved noncombustible materials on the exterior side.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all under-floor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5 or under-floor protection in accordance with Section 504.6.

**Exception:** The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction.

See Section 504.2 for roof requirements.

## SECTION 505

### Class 2 - Ignition-resistant Construction:

**505.1 General.** Class 2 ignition-resistant construction shall be in accordance with Section 505.

**505.2 Roof covering.** Roofs shall have at least a Class A roof covering, Class B roof assembly or an *approved noncombustible* roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire-stopped to preclude entry of flames or embers.

**505.3 Protection of eaves.** Combustible eaves, fascias and soffits shall be enclosed with solid materials with a minimum thickness of 3/4 inch (19 mm). No exposed rafter tails shall be permitted unless constructed of heavy timber materials.

**505.4 Gutters and downspouts.** Gutters and downspouts shall be constructed of *noncombustible* material.

**505.5 Exterior walls.** Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with noncombustible materials.

**Exception:** Heavy timber or log wall construction. Such material shall extend from the top of the foundation to the underside of the roof sheathing.

**505.6 Unenclosed under floor protection.** Buildings or structures shall have all under floor areas enclosed to the ground, with exterior walls in accordance with Section 505.5.

**Exception:** Complete enclosure shall not be required where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

**505.7 Appendages and projections.** *Unenclosed accessory structures* attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of 1-hour fire resistancerated construction, heavy timber construction or constructed of non-combustible materials.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all under floor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5.

**505.8 Exterior glazing.** Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire-protection rating of not less than 20 minutes.

**505.9 Exterior doors.** Exterior doors shall be *approved noncombustible* construction, solid core wood not less than 13/4-inches thick (45 mm), or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Section 505.8.

**Exception:** Vehicle access doors.

**505.10 Vents.** Attic ventilation openings, foundation or under-floor vents or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches (0.0929 m<sup>2</sup>) each. Such vents shall be covered with *noncombustible* corrosion-resistant mesh with openings not to exceed 1/4 inch (6.4 mm) or shall be designed and *approved* to prevent flame or ember penetration into the structure.

Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves, or in other overhang areas. Gable end and dormer vents shall be located at least 10 feet (3048 mm) from property lines. Under floor ventilation openings shall be located as close to grade as practical.

**505.11 Detached accessory structures.** Detached accessory structures located less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials *approved* for a minimum of 1-hour fire resistance-rated construction, heavy timber, log wall construction, or constructed with *approved noncombustible* materials.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all under floor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5 or under floor protection in accordance with Section 505.6.

**Exception:** The enclosure shall not be required where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant treated wood on the exterior side. The fire-retardant treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

## SECTION 506

### Class 3 - Ignition-resistant Construction:

**506.1 General.** Class 3 ignition-resistant construction shall be in accordance with Sections 506.

**506.2 Roof covering.** Roofs shall have at least a Class A covering, Class C roof assembly or an *approved noncombustible* roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be fire-stopped to preclude entry of flames or embers.

**506.3 Unenclosed under-floor protection.** Buildings or structures shall have all under-floor areas enclosed to the ground with exterior walls.

**Exception:** Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

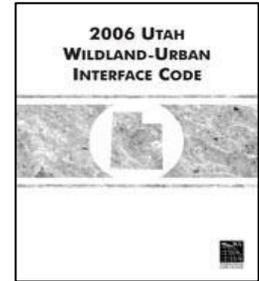
**506.4 Vents.** Attic ventilation openings, soffit vents, foundation or under-floor vents or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion resistant mesh with openings not to exceed ¼ inch.

## SECTION 507

### Replacement or Repair of Roof Coverings:

The roof covering on buildings or structures in existence prior to the adoption of this code that are replaced or have 25 percent or more replaced in a 12-month period shall be replaced with a roof covering required for new construction based on the type of ignition-resistant construction specified in accordance with Section 503.

# 2006 UTAH WILDLAND-URBAN INTERFACE CODE™



## SECTION 603

### Defensible Space:

**603.1 Objective.** Provisions of this section are intended to modify the fuel load in areas adjacent to structures to create a *defensible space*.

**603.2 Fuel modification.** In order to qualify as a conforming defensible space for individual buildings or structures on a property, fuel modification shall be provided within a distance from buildings or structures as specified in Table 603.2. For all other purposes the *fuel modification* distance shall not be less than 30 feet (9144 mm) or to the property line, whichever is less. Distances specified in Table 603.2 shall be measured on a horizontal plane from the perimeter or projection of the building or structure as shown in Figure 603.2. Distances specified in Table 603.2 are allowed to be increased by the code official because of a site-specific analysis based on local conditions and the fire protection plan.

Persons owning, leasing, controlling, operating or maintaining buildings or structures requiring defensible spaces are responsible for modifying or removing non fire-resistive vegetation on the property owned, leased or controlled by said person.

Trees are allowed within the *defensible space*, provided the horizontal distance between crowns of adjacent trees and crowns of trees and structures, overhead electrical facilities or unmodified fuel is not less than 10 feet (3048 mm). Deadwood and litter shall be regularly removed from trees.

Where ornamental vegetative fuels or cultivated ground cover, such as green grass, ivy, succulents or similar plants are used as ground cover, they are allowed to be within the designated *defensible space*, provided they do not form a means of transmitting fire from the native growth to any structure.

**TABLE 603.2**

#### REQUIRED DEFENSIBLE SPACE

Wildland-Urban Interface Area	Fuel Modification Distance (feet)
Moderate Hazard	30
High Hazard	50
Extreme Hazard	100

## SECTION 604

### Maintenance of Defensible Space:

**604.1 General.** Defensible spaces required by Section 603 shall be maintained in accordance with Section 604.

**604.2 Modified area.** Non fire-resistive vegetation or growth shall be kept clear of buildings or structures, in accordance with Section 603, in such a manner as to provide a clear area for fire suppression operations.

**604.3 Responsibility.** Persons owning, leasing, controlling, operating or maintaining buildings or structures are responsible for maintenance of *defensible spaces*. Maintenance of the *defensible space* shall include modifying or removing non fire-resistive vegetation and keeping leaves, needles and other dead vegetative material regularly removed from roofs of buildings and structures.

**604.4 Trees.** Tree crowns extending to within 10 feet (3048mm) of any structure shall be pruned to maintain a minimum horizontal clearance of 10 feet (3048 mm). Tree crowns within the *defensible space* shall be pruned to remove limbs located less than 6 feet (1829 mm) above the ground surface adjacent to the trees.

Portions of tree crowns that extend within 10 feet of the outlet of a chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet.

Deadwood and litter shall be regularly removed from trees.

## SECTION 605

### Spark Arrestors:

Chimneys serving fireplaces, barbecues, incinerators or decorative heating appliances in which solid or liquid fuel is used, shall be provided with a spark arrester. Spark arresters shall be constructed of woven or welded wire screening of 12 USA standard gage wire (0.1046 inch) (2.66 mm) having openings not exceeding 1/2 inch (12.7 mm).

The net free area of the spark arrester shall not be less than four times the net free area of the outlet of the chimney.

## SECTION 606

### Liquefied Petroleum Gas Installations:

**606.1 General.** The storage of liquefied petroleum gas (LP gas) and the installation and maintenance of pertinent equipment shall be in accordance with the *International Fire Code* or, in the absence thereof, recognized standards.

**606.2 Location of containers or tanks.** LP-gas containers or tanks shall be located within the *defensible space* in accordance with the *International Fire Code*.

*(See Figures 1 and 2 on Page 20)*

## SECTION 607

### Storage of Firewood and Combustible Materials:

**607.1 General.** Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. When required by the code official, storage of firewood and combustible material stored in the *defensible space* shall be located a minimum of 20 feet (6096 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4572 mm).

**607.2 Storage for off-site use.** Firewood and combustible materials not for consumption on the premises shall be stored so as to not pose a hazard.

## Utah Fire Resistive Species

Adapted from "Utah Forest Facts: Firewise Plants for Utah Landscapes"

Utah State University Extension, 2002

### Grasses:

*Agropyron cristatum* (Crested Wheatgrass)  
*Agropyron smithii* (Western Wheatgrass)  
*Huchloe dactyloides* (Buffalograss)  
*Dactylis glomerata* (Orchardgrass)  
*Festuea cinerea* and other species (Blue Fescue)  
*Lolium* species (Rye Grass)  
*Poa pratensis* (Kentucky Bluegrass)  
*Poa secunda* (Sandberg Bluegrass)

### Herbaceous Perennials

*Achillea clavennae* (Silvery Yarrow)  
*Achillea jilipendulina* (Femleaf Yarrow)  
*Achillea* - other species & hybrids (Yarrow)\*  
*Aquilegia* - species & hybrids (Columbine)  
*Armeria maritime* (Sea Pink, Sea Thrift)  
*Artemisia stelleriana* (Beach Wonnwood, Dusty Miller)  
*Artemisia* - other species & hybrids (Various names)\*  
*Bergenia* ..... species & hybrids (Bergenia)  
*Geranium* species (Geranium)  
*Hemerocallis* species (Daylily)  
*Heuchera sanguinea* (Coral Bells, Alum Root)  
*Iberis sempervirens* (Evergreen Candy tuft)  
*Iris* species & hybrids (Iris)  
*Kniphofia* species & hybrids (Red-hot Poker)  
*Lavandula* species (Lavender)  
*Leucanthemum X superbum* (Shasta Daisy)  
*Limonium latijolium* (Sea-lavender, Statice)  
*Linum* species (Flax)  
*Liriope spicata* (Lily-turf)  
*Lupinus* species & hybrids (Lupine)\*  
*Medicago sativus* (Alfalfa)  
*Oenothera* species (Primrose)  
*Papaver* species (Poppy)  
*Penstemon* species & hybrids (Penstemon)  
*Perovskia atriplicifolia* (Russian Sage, Azure Sage)  
*Potentilla nepalensis* (Nepal Cinquefoil)  
*Potentilla tridentata* (Wineleaf Cinquefoil)  
*Centranthus ruber* (Red Valerian, Jupiter's Beard)  
*Cerastium tomentosum* (Snow-in-summer)  
*Potentilla verna (tabernaemontani)* (Spring Cinquefoil; Creeping Potentilla)  
*Coreopsis auriculata* var. *Nana* (Dwarf Mouse Ear Coreopsis)  
*Coreopsis* .. ~ other perennial species (Coreopsis)  
*Potentilla* .. other non-shrubby species & hybrids (Cinquefoil, Potentilla)\*

*Delosperma nubigenum* (Hardy Ice Plant)  
*Dianthus plumarius* & others (Pinks)  
*Erigeron* hybrids (Fleabane)\*  
*Gaillardia X grandiflora* (Blanket Flower)  
*Geranium cinereum* (Hardy Geranium)  
*Geranium sanguineum* (Bloody Cranesbill, Bloodred Geranium)  
*Salvia* species & hybrids (Salvia, Sage)\*  
*Sedum* species (Stonecrop, Sedum)  
*Sempervivum tectorum* (Hen and Chicks)  
*Stachys byzantina* (Lamb's Ear)  
*Yuccafilamentosa* (Yucca)

### Shrubs and Woody Vines

*Atriplex* species (Saltbush)  
*Ceanothus americanus* (New Jersey Tea)  
*Ceanothus ovatus* & others (Ceanothus)  
*Cistus* species (Rock-rose)  
*Cotoneaster dammeri* (Bearberry Cotoneaster)  
*Cotoneaster horizontalis* (Rockspray or Rock Cotoneaster)  
*Cotoneaster* - other compact species (Cotoneaster)  
*Hedera helix* (English Ivy)  
*Lonicera* species & hybrids (Honeysuckle)  
*Mahonia repens* (Creeping Oregon Grape)  
*Parthenocissus quinquefolia* (Virginia Creeper)  
*Prunus besseyi* (Sand Cherry)  
*Purshia tridentata* (Bitterbrush, Antelope Bitterbrush)  
*Pyracantha* species (Firethorn, Pyracantha)  
*Rhamnus* species (Buckthorn)  
*Rhus trilobata* (Skunkbush Sumac)  
*Rhus* -- other species (Sumac)  
*Ribes* species (Currant, Gooseberry)  
*Rosa rugosa* & other hedge roses (Rugosa Rose)  
*Shepherdia canadensis* (Russet Buffaloberry)  
*Syringa vulgare* (Lilac)  
*Vinca major* (Large Periwinkle)  
*Vinca minor* (Dwarf Periwinkle, Common Periwinkle)

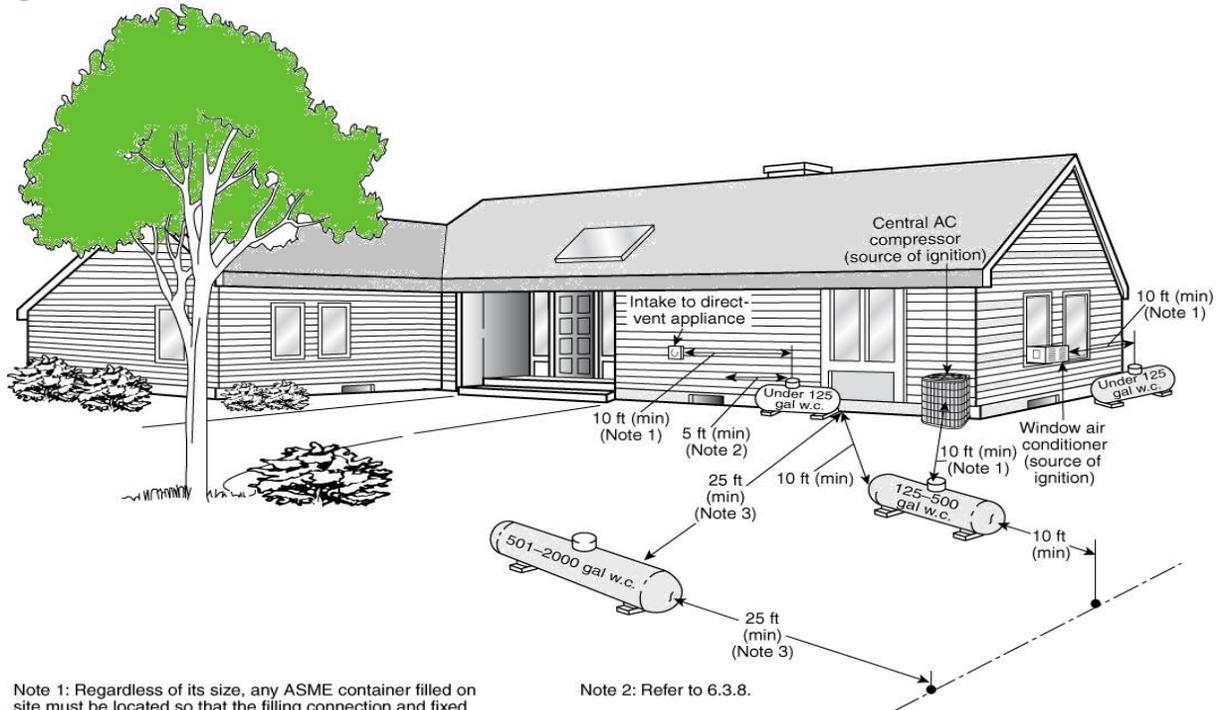
### Trees

*Acer* species (Maple)  
*Betula* species (Birch)  
*Cercis canadensis* (Eastern Redbud)  
*Populus tremuloides* (Quaking Aspen)  
*Populus* - other species (Poplar, Cottonwood)  
*Salix* species (Willow)

**\* Plants or groups of plants marked with an asterisk (\*) can become weedy in certain circumstances, and may even be noxious weeds with legal restrictions against their planting and cultivation. Check with your local Extension office or State Department of Agriculture for information on noxious weeds in your area.**

Note: Some of the listed plants may not be considered "water-wise" or drought-tolerant for arid climate

**Figure 1: Above Ground LPG Tank Installation Guidelines:**

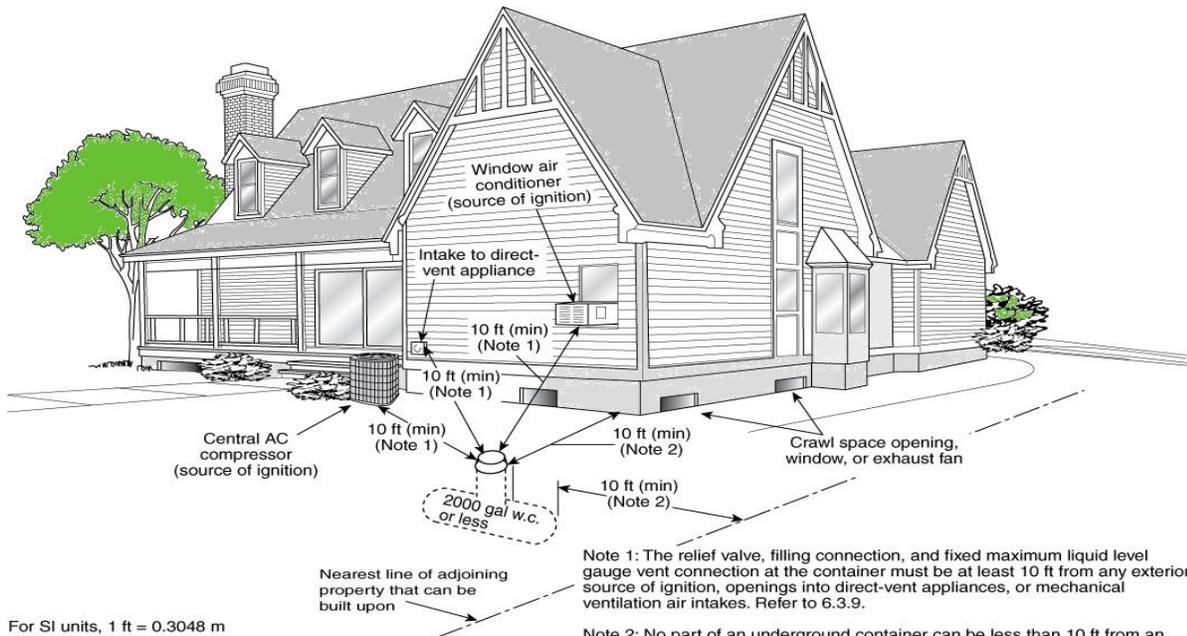


Note 1: Regardless of its size, any ASME container filled on site must be located so that the filling connection and fixed maximum liquid level gauge are at least 10 ft from any external source of ignition (e.g., open flame, window AC, compressor), intake to direct-vented gas appliance, or intake to a mechanical ventilation system. Refer to 6.3.9.

Note 2: Refer to 6.3.8.

Note 3: This distance can be reduced to no less than 10 ft for a single container of 1200 gal (4.5 m<sup>3</sup>) water capacity or less, provided such container is at least 25 ft from any other LP-Gas container of more than 125 gal (0.5 m<sup>3</sup>) water capacity. Refer to 6.3.3.

**Figure 2: Underground LPG Tank Installation Guidelines:**



For SI units, 1 ft = 0.3048 m

Nearest line of adjoining property that can be built upon

Note 1: The relief valve, filling connection, and fixed maximum liquid level gauge vent connection at the container must be at least 10 ft from any exterior source of ignition, openings into direct-vented appliances, or mechanical ventilation air intakes. Refer to 6.3.9.

Note 2: No part of an underground container can be less than 10 ft from an important building or line of adjoining property that can be built upon. Refer to 6.3.4.2.

## APPENDIX C FIRE HAZARD SEVERITY FORM

	Points		Points
<b>A. Subdivision Design</b>		<b>C. Topography</b>	
1. Ingress/Egress		Located on flat, base of hill, or setback at crest of hill	1__
Two or more primary roads	1__	On slope with 0-20% grade	5__
One road	10__	On slope with 21-30% grade	10__
One-lane road in, one-lane road out	15__	On slope with 31% grade or greater	15__
2. Width of Primary Road		At crest of hill with unmitigated vegetation below	20__
20 feet or more	1__		
Less than 20 feet	5__		
3. Accessibility		<b>D. Roofing Material</b>	
Road grade 5% or less	1__	Class A Fire Rated	1__
Road grade 5-10%	5__	Class B Fire Rated	5__
Road grade greater than 10%	10__	Class C Fire Rated	10__
4. Secondary Road Terminus		Nonrated	20__
Loop roads, cul-de-sacs with an outside turning radius of 45 feet or greater	1__	<b>E. Fire Protection—Water Source</b>	
Cul-de-sac turnaround	5__	500 GPM hydrant within 1,000 feet	1__
Dead-end roads 200 feet or less in length	8__	Hydrant farther than 1,000 feet or draft site	5__
Dead-end roads greater than 200 feet in length	10__	Water source 20 min. or less, round trip	10__
5. Street Signs		Water source farther than 20 min., and 45 min. or less round trip.	15__
Present but unapproved	3__	Water source farther than 45 min., round trip	20__
Not present	5__		
<b>B. Vegetation (IUVIC Definitions)</b>		<b>F. Siding and Decking</b>	
1. Fuel Types		Noncombustible siding/deck	1__
Surface		Combustible siding/no deck	5__
Lawn/noncombustible	1__	Noncombustible siding/combustible deck	10__
Grass/short brush	5__	Combustible siding and deck	15__
Scattered dead/down woody material	10__	<b>G. Utilities (gas and/or electric)</b>	
Abundant dead/down woody material	15__	All underground utilities	1__
Overstory		One underground, one aboveground	3__
Deciduous trees (except tall brush)	3__	All aboveground	5__
Mixed deciduous trees and tall brush	10__		
Clumped/scattered conifers and/or tall brush	15__		
Contiguous conifer and/or tall brush	20__		
2. Defensible space		<b>TOTAL FOR SUBDIVISION:</b>	_____
70% or more of lots completed	1__	<b>FIRE HAZARD SEVERITY</b>	
30% to 70% of lots completed	10__	MODERATE HAZARD	50-75
Less than 30% of lots completed	20__	HIGH HAZARD	76-100
		EXTREME HAZARD	101+

*2006 UTAH WILDLAND-URBAN INTERFACE CODE*

**Project Information:**

**Project Number:** \_\_\_\_\_  
**Project Address:** \_\_\_\_\_  
**Applicant:** \_\_\_\_\_

**Note:**

**5-20 points will be added based on fire apparatus travel time.**



## Utah County Commission

Bill Lee                      100 East Center      801-851-8136  
Tanner Ainge              Suite 2300              Fax 801-851-8146  
Nathan Ivie                  Provo, UT 84606      www.utahcounty.gov

February 28, 2019

Austin Roy  
Alpine City  
20 North Main Street  
Alpine, UT 84004

Re: 2019 Municipal Recreation Grant Program  
Dear Grant Administrator,

The Utah County Commission has determined that the total funding available for the 2019 Municipal Recreation Grant Program is \$300,000.00. Available funds have been divided among municipalities based on the Mountainland Association of Governments 2017 Utah Census population estimates, with a minimum grant amount of \$1,000. These funds are payable on a reimbursement basis only.

The 2019 grant amount available to your city is: **\$5,177.33**.

Grant regulations are enclosed, along with an application form. Applications are due no later than 5:00 p.m. on Monday, May 20, 2019. **Applications received after the deadline will not be approved and funding will be forfeited.** Applications are to be delivered via email, in person, post, or fax:

Utah County Commission  
Attn: Ezra Nair  
100 E. Center St. Suite #2300  
Provo, UT 84606  
Fax: (801) 851-8146  
ezran@utahcounty.gov

Upon approval of grant requests, the Utah County Attorney's office will prepare interlocal agreements and encumber funds that will be available for reimbursement through **Friday, October 25, 2019**. The County will disperse funds to municipalities upon receipt of payment verification and supporting documentation. **Reimbursement requests received after Friday, October 25, 2019 will not be accepted and funds will be forfeited.**

Your city may elect to carry forward its funding allocation for the next year if you meet the requirements. To declare an intent to do so, you must notify the Board of Commissioners by filling out a Funding Rollover Request and submitting it no later than the application deadline.

Please contact me with any questions at 801-851-8136 or ezran@utahcounty.gov.

Sincerely,  
Ezra Nair  
Utah County Commission Office  
Encl.: Application, Guidelines





## Utah County Commission

Bill Lee                      100 East Center      801-851-8136  
Tanner Ainge              Suite 2300              Fax 801-851-8146  
Nathan Ivie                      Provo, UT 84606      www.utahcounty.gov

# 2019 Municipal Recreation Grants

### Available Funds

The Utah County Board of Commissioners has determined that the total available funding for the 2019 Municipal Recreation Grant program will be \$300,000.00. As usual, funding allocations were determined by population (Mountainland Association of Governments 2017 Utah Census population estimates), with a \$1,000.00 minimum grant awarded. Only those cities being awarded the minimum \$1,000.00 are eligible to “roll over” funds for 2 consecutive years, with the intent to save the grant funds in preparation for funding a project that will cost more than the yearly grant of \$1000.00. Any city wishing to “roll over” grant funds to the next year **must make a written request** to the Utah County Board of Commissioners **prior to the application deadline of Monday May 20, 2019 @ 5pm**. Unused grant funds will be forfeited if request is not received prior to the application deadline or if funds are not approved for “roll over” by the Board of Commissioners.

### Funding Source

Funds for this grant program come from the Tourism, Recreation, Culture and Convention Tax (TRCC or Arestaurant tax@). This tax is imposed pursuant to Section 59-12-601 et seq., *Utah Code Annotated*, 1953 as amended, and Section 21-4-1 et seq., Utah County Code.

### Project Eligibility

In order to be eligible for funding, a project must involve the development or construction of tourism, recreation, cultural, and/or convention facilities. All project applications must be for publicly owned or operated facilities and must be sponsored by a municipality within Utah County. Individuals and private organizations are not eligible to apply, nor may any municipality apply on their behalf. Per state statute, Utah County may not Aappropriate money in the aid of any private enterprise@ (Section 17-50-303, *Utah Code Annotated*, 1953 as amended).

### Application Procedure

The Utah County Board of Commissioners will provide to each city an application form. Each city must complete this application and submit a detailed project description. The application and project description must be delivered to the Utah County Commission Office by 5:00 p.m. on Monday, May 20, 2019. **Applications received after the deadline will not be considered for approval for 2019 Recreation Grant funding.**

### Approval of Projects

Each application, upon receipt by the County Commission Office, will be subject to review by the Utah County Attorney’s Office for compliance with state statute. The Tourism Tax Advisory