



ALPINE CITY PLANNING COMMISSION MEETING

NOTICE is hereby given that the **PLANNING COMMISSION** of Alpine City, UT will hold a **Regular Meeting** at **Alpine City Hall**, 20 North Main, Alpine, Utah on **Tuesday, February 4, 2020 at 7:00 pm** as follows:

I. GENERAL BUSINESS

- A. Welcome and Roll Call: Jane Griener
- B. Prayer/Opening Comments: John Mackay
- C. Pledge of Allegiance: By Invitation

II. PUBLIC COMMENT

Any person wishing to comment on any item not on the agenda may address the Planning Commission at this point by stepping to the microphone and giving his or her name and address for the record.

III. ACTION ITEMS

A. Public Hearing – Short Term Rentals

Planning Commission will hold a public hearing regarding a proposed ordinance to prohibit Short Term Rentals

B. Amendment to Ordinance – Short Term Rentals

Planning Commission will review proposed amendment to prohibit Short Term Rentals in Alpine City and make a recommendation to City Council.

C. Public Hearing – FEMA Updates

Planning Commission will hold a public hearing regarding updated FEMA maps and proposed amendment to reference new maps in ordinance.

D. Amendment to Ordinance – FEMA Updates

Planning Commission will review proposed amendment to update ordinance to reference the most current maps applicable to the City and make a recommendation to City Council.

E. Road Grade Exception Request – Brookside Meadows Subdivision

Planning Commission will consider approving an exception to Alpine City road grade standards for street intersections.

F. Major Subdivision Final Plat – Brookside Meadows Subdivision

Planning Commission will review the final plat and plans for the Brookside Meadows Subdivision and make a recommendation to City Council.

IV. COMMUNICATIONS

V. APPROVAL OF PLANNING COMMISSION MINUTES: January 21, 2020

ADJOURN

Chairman Jane Griener
February 4, 2020

THE PUBLIC IS INVITED TO ATTEND ALL PLANNING COMMISSION MEETINGS. If you need a special accommodation to participate in the meeting, please call the City Recorder's Office at 801-756-6347 ext. 5.

CERTIFICATION OF POSTING. The undersigned duly appointed recorder does hereby certify that the above agenda notice was posted at Alpine City Hall, 20 North Main, Alpine, UT. It was also 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 the City's web site at www.alpinecity.org and on the Utah Public Meeting Notices website at 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, 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 PLANNING COMMISSION AGENDA

SUBJECT: Public Hearing – Amendment to Ordinance – Short Term Rentals

FOR CONSIDERATION ON: 4 February 2020

PETITIONER: Staff

ACTION REQUESTED BY PETITIONER: Hold a public hearing, review the proposed ordinance and make a recommendation to City Council.

BACKGROUND INFORMATION:

In October 2019 the Planning Commission reviewed and discussed a proposed ordinance that would allow Short Term Rentals with certain restrictions. After some discussion the Planning Commission expressed that they felt that downsides to allowing Short Term Rentals outweighed the benefits.

Staff subsequently prepared a proposed ordinance which would prohibit Short Term Rentals in Alpine City, and it was discussed at the January 7, 2020 meeting. The Planning Commission asked that staff make changes to the proposed language.

The proposed ordinance has been updated based on feedback from the January 2020 meeting and is now returning to Planning Commission for a public hearing and recommendation.

STAFF RECOMMENDATION:

Hold a public hearing, review and discuss Ordinance 2020-2 and make a recommendation to City Council.

SAMPLE MOTION TO APPROVE:

I motion to recommend that Ordinance 2020-2 be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:

I motion to recommend that Ordinance 2020-2 be approved with the following conditions/changes:

- ***Insert Finding***

SAMPLE MOTION TO DENY:

I motion to recommend that Ordinance 2020-2 be denied based on the following:

- ***Insert Finding***

**ALPINE CITY
ORDINANCE 2020-2**

**AN ORDINANCE ADOPTING AMENDMENTS TO ARTICLE 3.01.110; 3.02.090; 3.03.100;
3.04.100; 3.05.100; AND 3.07.080 OF THE ALPINE CITY DEVELOPMENT CODE
PERTAINING TO SHORT TERM RENTALS.**

WHEREAS, The Alpine City Council has deemed it in the best interest of Alpine City to prohibit Short Term Rentals within City boundaries; and

WHEREAS, the Alpine City Planning Commission has reviewed the proposed Amendments to the Development Code, held a public hearing, and has forwarded a recommendation to the City Council; and

WHEREAS, the Alpine City Council has reviewed the proposed Amendments to the Development Code:

NOW THEREFORE, be it ordained by the Council of Alpine City, in the State of Utah, as follows: The amendments to Article 3.01.110; 3.02.090; 3.03.100; 3.04.100; 3.05.100; and 3.07.080 contained in the attached document will supersede Article 3.01.110; 3.02.090; 3.03.100; 3.04.100; 3.05.100; and 3.07.080 as previously adopted. This ordinance shall take effect upon posting.

SECTION 1: **AMENDMENT** “3.01.110 Definitions” of the Alpine City Development Code is hereby *amended* as follows:

BEFORE AMENDMENT

3.01.110 Definitions

ACCESSORY APARTMENT. A subordinate dwelling unit within and part of a principle dwelling and which has its own cooking, sleeping and sanitation facilities.

ACCESSORY BUILDING. A detached subordinate building, the use of which is appropriate, subordinate, and customarily incidental to that of the main building or to the main use of the land and which is located on the same lot or parcel of land with the main building or use.

AGRICULTURE. The tilling of soil, the raising of crops, horticulture, the gardening, but not including the keeping or raising of domestic animals or fowl, except household pets, and not including any agricultural industry or business such as fruit packing plants, commercial egg production, or similar uses.

APIARY. Any place where one (1) or more colonies of bees are located.

AVERAGE SLOPE OF LOT. The average slope of a lot, expressed as the percent of slope, to be determined via computer modeling. AutoCAD or ESRI products are acceptable programs to be used for determining the average slope of lot; any other program must be pre-approved by the City Engineer.

BEEKEEPING EQUIPMENT. Anything used in the operation of an apiary, such as hive bodies, supers, frames, top and bottom boards, and extractors.

BUILDABLE AREA. (Ord. 94-02, 2/8/94) A lot or portion thereof possessing all of the following physical characteristics:

1. The area contains no territory having a natural slope of twenty (20) percent or greater;
2. The area contains no territory which is located in any identified flood plain or within any recognized inundation zone, mud flow zone or zone of deformation, or lands subject to earth slippage, landslide or rockfall;
3. The engineering properties of the soil provide adequate structural support for the intended use;
4. The area does not possess any other recognized natural condition, which renders it unsafe for building purposes;
5. The area is within the building setback envelope as determined in accordance with the setback provisions of the zone; and
6. The area is readily capable of vehicular access from the adjacent public street over a driveway having a slope of not more than twelve (12) percent with no cut or fill greater than five feet as measured at the finished grade of the centerline alignment.

BUILDING. Any structure having a roof supported by columns or walls, built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind.

CIVIC BUILDING. A structure owned by the City and used for governmental purposes, including administrative buildings (City Hall) fire stations, police stations, libraries, but not including shop and repair facilities.

COLONY. Bees in a hive including queens, workers, or drones.

CONDITIONAL USE. A use of land that, because of its unique characteristics or potential impact on the municipality, surrounding neighbors, or adjacent land uses, may not be compatible in some areas or may be compatible only if certain conditions are required that mitigate or eliminate the detrimental impacts.

CUSTOMARY RESIDENTIAL ACCESSORY STRUCTURE. A structure constructed on the same zoning lot as a dwelling and which is intended for the incidental and exclusive use of the residents of said dwelling, including but not limited to detached garages, carports, swimming pools, tennis courts, green houses, storage buildings, and satellite dishes.

DEVELOPMENT. Any change to a parcel of ground, which alters it from its natural state in any way. This includes clearing, excavation, grading, installation of any infrastructure or erection of any types of buildings.

DWELLING CLUSTER. A Group of three (3) or more single-unit detached Dwellings whose respective Buildable Areas are located no more than 400 feet from one Buildable Area to the next closest Buildable Area as measured from the midpoint of each Buildable Area.

DWELLING UNIT. One or more rooms in a building or portion thereof designed, occupied, or intended as a residence for a family with complete and independent facilities for living, sleeping, eating, cooking, and sanitation provided within the dwelling unit. See also Dwelling, Single Family.

DWELLING, MULTIPLE-UNIT. A building arranged to be occupied by two (2) or more families, the structure having two (2) or more attached dwelling units.

DWELLING, SINGLE FAMILY. A building arranged or designed to include only one (1) dwelling unit occupied by one (1) family, including extended living areas or an accessory apartment which may be approved as provided elsewhere in this Code.

FAMILY. An individual or two (2) or more persons related by blood, marriage, adoption, or guardianship; or a group of not more than four (4) persons, (excluding domestic help) who are not related, living in a dwelling unit as a single housekeeping unit and using common cooking facilities. "Family" does not exclude the care of foster children.

FENCES. A fence shall include any tangible barrier, an obstruction of any material, a line of obstacles, lattice work, screen, wall, hedge, or continuous growth of shrubs with the purpose of preventing passage or view across a boundary or lot line. (Ord. 2004-13, 9/28/04)

1. Privacy fences are structures where the field of vision through the fence is less than 50%.
2. Open-style fences are structures where the field of vision through the fence is 50% or greater.

FRONTAGE. The width of the lot or parcel of land measured at the required front setback-line.

GARAGE/CARPORT (PRIVATE). A structure for the parking or temporary storage of automobiles, but which does not involve commercial repairing or storage.

GEOLOGIC HAZARD. A hazard inherent in the surface or subsurface of the earth or artificially created, which is dangerous or potentially dangerous to life, property, or improvements, due to movement, failure, or shifting of earth.

GROUP LIVING ARRANGEMENT. A group living or congregate living arrangement where groups of more than four unrelated persons live together in a single dwelling unit, including, but not limited to, a batching apartment, boarding house, Congregate Living Unit, Assisted Living Facility, Nursing Care Facility, Residential Facility for Persons With a Disability, dormitory, student housing, fraternity, club, institutional group, half-way house, or similar group living or congregate living arrangement.

GUEST HOUSE. An accessory building constructed on the same zoning lot as the principle Single-Unit dwelling to be used for temporary occupancy.

HANDICRAFT PRODUCTION. Production of an individual's one-of-a-kind objects for sale on the site.

HELICOPTER. A manned aircraft in which lift, flight and landing is achieved by means of one or more power-driven horizontal propellers.

HELIPORT. An area on land or upon a building or structure set aside and used for the landing or takeoff of helicopters or other manned rotary wing aircrafts capable of vertical takeoff or landing.

HIVE. A frame hive, box hive, box, barrel, log, gum skep, or other artificial or natural receptacle which may be used to house bees.

HOME OCCUPATION. Any gainful occupation, service, profession or similar activity conducted in a consistent and ongoing manner within a dwelling. Business activity consisting primarily of the sale of goods produced elsewhere on the premises (i.e. retail sales establishment) shall not qualify as a home occupation.

HOBBY BEEKEEPER. A person who owns or has charge of eight (8) or fewer hives of bees.

HONEYBEE. The common honeybee, *Apis mellifera* species, at any stage of development, but not including the African honeybee, *Apis mellifera scutellata* species, or any hybrid thereof.

HOUSEHOLD PETS. Animals or fowl ordinarily permitted to a residence and kept for company or pleasure, such as dogs, cats, fish and canaries. Household pets do not include inherently or potentially dangerous animals or fowl, or those normally considered agricultural livestock.

IMPERVIOUS MATERIAL. Matter that is impenetrable as by moisture.

LOT. A parcel or unit of land describable either by metes and bounds, or by other legal plat designation held or intended to be held in separate ownership or leasehold or a parcel or unit of land shown as a lot or parcel on a recorded subdivision map, or shown on a plat used in the lease or sale of land resulting from the division of a larger tract into smaller units. Lots shall be generally rectangular in nature, and shall have no more than five sides without an exception being recommended by the Planning Commission and approved by the City Council; the front of a property, located at the front right of way, does not count against this requirement.

LOT, CORNER. Shall mean a lot located at the junction of and fronting on two (2) or more intersecting streets.

MOBILE HOME. A detached dwelling designed for long-term occupancy and to be transported on its own wheels, or on a flatbed or other trailer or detachable wheels, and arriving at the site where it is to be occupied as a complete dwelling unit ready for occupancy except for connections to utilities and other minor work. Removal of such wheels or placing such dwelling unit on a foundation shall not remove such unit from classification as a mobile home. Excluded from this definition shall be those permanent dwelling structures that are constructed of component parts that are transported to the building site and which meet structural requirements of the Uniform Building Code and which are finished with exterior building material that is typical of permanent residential buildings.

NON-CONFORMING USE. A building or structure, or portion thereof, or use of a building or land which does not conform to use regulations for the district in which it is situated, but which is in conformity with said regulations, if any, at the time of its establishment.

OFF STREET PARKING. An area adjoining a building providing for the parking of automobiles which does not include a public street but has convenient access to it.

OFFICE, PROFESSIONAL. A building or space used by persons such as accountants, architects, artists, dentists, designers, engineers, lawyers, physicians, realtors, teachers, and others who, by virtue of training and for license, are qualified to perform services of a professional nature, and where storage of goods and sale of merchandise is minimal and secondary to performance of the service.

OPEN SPACE. The use of land which leaves soil generally undisturbed and upon which natural vegetation, whether or not native to the area, occupies the major visible aspect of the land.

PERMITTED USE. A use of land for which no conditional use permit is required.

PUBLIC USE. A use operated or supervised exclusively by a public body, such use having the purpose of serving the public health, safety, or general welfare, and including uses such as public schools, parks, playgrounds, and other recreational facilities, administrative and service facilities, and public utilities.

QUASI PUBLIC USE. A use operated by a private non-profit educational, religious, recreational, charitable or philanthropic institution, having the primary purpose of serving the general public, such as churches, private schools, hospitals and similar uses.

REASONABLE ACCOMMODATION. A reasonable change in any rule, policy, practice, or service necessary to afford persons with a disability equal opportunity to use and enjoy a dwelling when compared to similarly-situated persons or groups.

RECREATION, PUBLIC. Recreation facilities operated by a public agency and open to the public with or without a fee.

RESIDENCE. A dwelling unit where an individual or family is actually domiciled at a given point in time and not a place of temporary sojourn or transient visit. Temporary sojourn or transient visit shall be thirty (30) days or less.

RESIDENTIAL FACILITY FOR PERSONS WITH A DISABILITY. A residence in which no more than eight (8) unrelated persons with a disability resides and which is:

1. Licensed or certified by the Department of Human Services under Title 62A, Chapter 2, of the Utah Code, Licensure of Programs and Facilities; or
2. Licensed or certified by the Department of Human Health under Title 26, Chapter 21, Health Care Facilities Licensing and Inspection Act.

RETAINING WALL. Any structure designed to resist the lateral displacement of soil or other materials. Examples include block walls, rock walls, concrete walls and segmented walls. A retaining wall is not considered a fence.

SIGN. Any device for visual communication to the public displayed out-of-doors, including signs painted on exterior walls, and interior illuminated signs, to be viewed from out-of-doors, but not including a flag, badge, or ensign of any government or government agency.

STREET, PUBLIC. A thoroughfare which has been dedicated and accepted by proper public authority (or abandoned to the public) or a thoroughfare not less than twenty-four (24) feet wide which has been made public by right of use and which affords the principal means of access to abutting property.

STRUCTURE. Anything constructed, the use of which requires fixed location upon the ground, or attached to something having a fixed location upon the ground, and which creates an impervious material on or above the ground; definition includes "building."

YARD. A required space on a lot other than a court, unoccupied and unobstructed from the ground upward, by buildings, except as otherwise provided herein.

YARD, FRONT. A space between the front of the main building on a lot and the front lot line or line of an abutting street or right-of-way and extending across the full width of a lot. The depth (or setback) of the front yard is the minimum distance between the front lot line, and the front-most part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches, and decks).

YARD, REAR. A space between the back wall of the nearest main building extending the full width of the lot and the lot line that is most distant from, and is most nearly parallel with, the front lot line. If the rear lot line is less than ten feet (10') in length, or if the lot comes to a point at the rear, the rear lot line shall be deemed to be a ten foot (10') line parallel to the front line, lying wholly within the lot for the purpose of establishing the minimum rear yard. The depth (or setback) of the rear yard is the minimum distance between the rear lot line and the rearmost part of the primary structure of the nearest main building at the foundation level.

(Primary structure includes overhangs, porches and decks. See drawing in Appendix A). (Ord. 2004-13, 9/28/04)

YARD, SIDE. A yard that is neither a front yard nor a rear yard. The depth (or setback) of the side yard is the minimum distance between the side lot line and the nearest part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches and decks).

ZONING LOT (Ord. 94-02, 2/8/94). A lot or parcel of land which:

1. Meets all area (lot size), frontage (width), setback (yard), and other zoning requirements applicable within the zone in which it is located;
2. Abuts upon and has direct access to a street which has been dedicated to the City or otherwise accepted by the City as a City Street;
3. Is served by the minimum level of improvements required for issuance of a building permit or for which the construction of the minimum level of improvements is secured through the posting of a performance guarantee; and
4. Is shown as a separate lot on the final plat of a subdivision or similar development, which has been approved in accordance with the applicable ordinance, or is legally exempted from compliance with said ordinance. A parcel which is part of an unapproved or illegal subdivision shall not qualify as a zoning lot.

(Amended by Ord. 2004-14 on 9/28/04; Ord. 2009-16, 10/13/09; Ord. 20011-06, 03/08/11; Ord. 2011-12, 10/25/11; Ord. 2014-11, 6/24/14; Ord. 2015-02, 02/10/15; Ord. 2015-07, 05/26/15)

A F T E R A M E N D M E N T

3.01.110 Definitions

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IMPERVIOUS MATERIAL. Matter that is impenetrable as by moisture.

LOT. A parcel or unit of land describable either by metes and bounds, or by other legal plat designation held or intended to be held in separate ownership or leasehold or a parcel or unit of land shown as a lot or parcel on a recorded subdivision map, or shown on a plat used in the lease or sale of land resulting from the division of a larger tract into smaller units. Lots shall be generally rectangular in nature, and shall have no more than five sides without an exception being recommended by the Planning Commission and approved by the City Council; the front of a property, located at the front right of way, does not count against this requirement.

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OFF STREET PARKING. An area adjoining a building providing for the parking of automobiles which does not include a public street but has convenient access to it.

OFFICE, PROFESSIONAL. A building or space used by persons such as accountants, architects, artists, dentists, designers, engineers, lawyers, physicians, realtors, teachers, and others who, by virtue of training and for license, are qualified to perform services of a professional nature, and where storage of goods and sale of merchandise is minimal and secondary to performance of the service.

OPEN SPACE. The use of land which leaves soil generally undisturbed and upon which natural vegetation, whether or not native to the area, occupies the major visible aspect of the land.

PERMITTED USE. A use of land for which no conditional use permit is required.

PUBLIC USE. A use operated or supervised exclusively by a public body, such use having the purpose of serving the public health, safety, or general welfare, and including uses such as public schools, parks, playgrounds, and other recreational facilities, administrative and service facilities, and public utilities.

QUASI PUBLIC USE. A use operated by a private non-profit educational, religious, recreational, charitable or philanthropic institution, having the primary purpose of serving the general public, such as churches, private schools, hospitals and similar uses.

REASONABLE ACCOMMODATION. A reasonable change in any rule, policy, practice, or service necessary to afford persons with a disability equal opportunity to use and enjoy a dwelling when compared to similarly-situated persons or groups.

RECREATION, PUBLIC. Recreation facilities operated by a public agency and open to the public with or without a fee.

RESIDENCE. A dwelling unit where an individual or family is actually domiciled at a given point in time and not a place of temporary sojourn or transient visit. Temporary sojourn or transient visit shall be thirty (30) days or less.

RESIDENTIAL FACILITY FOR PERSONS WITH A DISABILITY. A residence in which no more than eight (8) unrelated persons with a disability resides and which is:

1. Licensed or certified by the Department of Human Services under Title 62A, Chapter 2, of the Utah Code, Licensure of Programs and Facilities; or
2. Licensed or certified by the Department of Human Health under Title 26, Chapter 21, Health Care Facilities Licensing and Inspection Act.

RETAINING WALL. Any structure designed to resist the lateral displacement of soil or other materials. Examples include block walls, rock walls, concrete walls and segmented walls. A retaining wall is not considered a fence.

SHORT TERM RENTAL. ~~A place of temporary sojourn or transient visit~~ Temporary lodging or place of stay that is rented (including but not limited to: hotels, motels, bed and breakfast, boarding houses, etc.): Temporary sojourn or transient visit shall be for a period of thirty (30) consecutive days or less.

SIGN. Any device for visual communication to the public displayed out-of-doors, including signs painted on exterior walls, and interior illuminated signs, to be viewed from out-of-doors, but not including a flag, badge, or ensign of any government or government agency.

STREET, PUBLIC. A thoroughfare which has been dedicated and accepted by proper public authority (or abandoned to the public) or a thoroughfare not less than twenty-four (24) feet wide which has been made public by right of use and which affords the principal means of access to abutting property.

STRUCTURE. Anything constructed, the use of which requires fixed location upon the ground, or attached to something having a fixed location upon the ground, and which creates an impervious material on or above the ground; definition includes "building."

YARD. A required space on a lot other than a court, unoccupied and unobstructed from the ground upward, by buildings, except as otherwise provided herein.

YARD, FRONT. A space between the front of the main building on a lot and the front lot line or line of an abutting street or right-of-way and extending across the full width of a lot. The depth (or setback) of the front yard is the minimum distance between the front lot line, and the front-most part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches, and decks).

YARD, REAR. A space between the back wall of the nearest main building extending the full width of the lot and the lot line that is most distant from, and is most nearly parallel with, the front lot line. If the rear lot line is less than ten feet (10') in length, or if the lot comes to a point at the rear, the rear lot line shall be deemed to be a ten foot (10') line parallel to the front line, lying wholly within the lot for the purpose of establishing the minimum rear yard. The depth (or setback) of the rear yard is the minimum distance between the rear lot line and the rearmost part of the primary structure of the nearest main building at the foundation level.

(Primary structure includes overhangs, porches and decks. See drawing in Appendix A). (Ord. 2004-13, 9/28/04)

YARD, SIDE. A yard that is neither a front yard nor a rear yard. The depth (or setback) of the side yard is the minimum distance between the side lot line and the nearest part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches and decks).

ZONING LOT (Ord. 94-02, 2/8/94). A lot or parcel of land which:

1. Meets all area (lot size), frontage (width), setback (yard), and other zoning requirements applicable within the zone in which it is located;
2. Abuts upon and has direct access to a street which has been dedicated to the City or otherwise accepted by the City as a City Street;
3. Is served by the minimum level of improvements required for issuance of a building permit or for which the construction of the minimum level of improvements is secured through the posting of a performance guarantee; and
4. Is shown as a separate lot on the final plat of a subdivision or similar development, which has been approved in accordance with the applicable ordinance, or is legally exempted from compliance with said ordinance. A parcel which is part of an unapproved or illegal subdivision shall not qualify as a zoning lot.

(Amended by Ord. 2004-14 on 9/28/04; Ord. 2009-16, 10/13/09; Ord. 20011-06, 03/08/11; Ord. 2011-12, 10/25/11; Ord. 2014-11, 6/24/14; Ord. 2015-02, 02/10/15; Ord. 2015-07, 05/26/15)

SECTION 2: AMENDMENT “3.02.090 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

BEFORE AMENDMENT

3.02.090 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

(Ord. 2015-02, 02/10/15)

AFTER AMENDMENT

3.02.090 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Short Term Rentals.** All types of Short Term Rentals shall be strictly prohibited.

(Ord. 2015-02, 02/10/15)

SECTION 3: AMENDMENT “3.03.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

BEFORE AMENDMENT

3.03.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

(Ord. 95-24, 11/14/95; Ord. 2014-11, 6/24/14)

AFTER AMENDMENT

3.03.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Shorter Term Rentals.** All types of Shorter Term Rentals shall be strictly prohibited.

(Ord. 95-24, 11/14/95; Ord. 2014-11, 6/24/14)

SECTION 4: **AMENDMENT** “3.04.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

BEFORE AMENDMENT

3.04.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

(CR-1 Created by Ord. 91-01, 4/9/91 and amended by Ord. 95-04, 2/3/95; Ord. 2014-11, 6/24/14)

AFTER AMENDMENT

3.04.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Short Term Rentals.** All types of Short Term Rentals shall be strictly prohibited.

(CR-1 Created by Ord. 91-01, 4/9/91 and amended by Ord. 95-04, 2/3/95; Ord. 2014-11, 6/24/14)

SECTION 5: **AMENDMENT** “3.05.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

BEFORE AMENDMENT

3.05.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

(Ord. 95-28, 11/28/95)

AFTER AMENDMENT

3.05.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Short Term Rentals.** ~~All types of Short Term Rentals shall be strictly~~ are prohibited.

(Ord. 95-28, 11/28/95)

SECTION 6:**AMENDMENT** “3.07.080 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

B E F O R E A M E N D M E N T

3.07.080 Special Provisions

1. **Uses Within Buildings.** All commercial activities and storage shall be conducted entirely within a fully enclosed building, except those uses deemed by the City to be customarily and appropriately conducted in the open, including gasoline dispensing, plant nursery displays, temporarily parked automobiles in need of repair, and temporary sale of Christmas trees.
2. **Site Plan to Be Approved For All New Commercial Uses.** Prior to the establishment of a new commercial use or the construction of a new building, a site plan shall be submitted, reviewed and recommended by the Planning Commission and approved by the City Council. (Amended by Ord. 2004-13, 9/28/04).
3. **Off-street Parking.** Off-street parking area which requires backing from the off-street parking space onto the street right-of-way in order to exit shall not be permitted. All ingress and egress shall be by forward motion only.

All points of ingress and egress to a commercial use or off-street parking areas shall be as shown on the site plan and shall be located not less than forty (40) feet from any intersection of public streets.

All off-street parking areas shall be hard-surfaced and shall be bordered by a curb or other barrier.

The number of required parking spaces and other particulars about the design and construction of off-street parking shall conform to the provisions of DCA 3.24.

4. **Trash Storage.** Adequate facilities for the disposal of solid waste shall be provided. All containers for the temporary storage and disposal solid waste material shall be of a size, type and quantity approved by the City shall be maintained in a location as shown on the Site Plan.
5. **Storage Containers.** The use of any portable unit, pod, or similar type of storage container is prohibited in this zone unless approved by the city.

6. **Surface Water Drainage to be Retained On-site.** All additional surface drainage generated as a result of development activity shall be disposed of on-site, as determined by the City Engineer.
7. **Height of Buildings.** The maximum height of any dwelling or other main building shall be thirty-four (34) feet, as determined in accordance with the provisions of DCA 3.21.080. (Ord. 96-15, 12/18/96).
8. **Landscaping Required.** As a means of mitigating safety hazards or adverse visual impacts all areas of the site not devoted to buildings or off street parking shall be landscaped. The landscaped area shall be not less than twenty (20) percent of the total area of the site. In addition to all other plan elements, the site plan shall contain a landscape plan showing the location, type and initial size of all planting materials and other landscape features, and the location of the proposed sprinkler system.
9. **Design of Commercial Structures.** Commercial buildings shall comply with the following architectural design criteria. (Preliminary architectural design drawings of all building elevations shall be presented to the Planning Commission for review).
 - a. The exterior of all commercial buildings shall be finished predominantly with wood and/or brick, stucco, stone or similar materials in accordance with guidelines in the Historical/Commercial/Residential Ordinance. Pitched roofs are preferred.
 - b. The architectural styles of the business district should be consistent and harmonious. The style of building design and trim should be compatible with the relatively uncomplicated rural, small town character of Alpine. Extremely irrelevant, contrived or inconsistent styles will be discouraged.
10. **Water Rights Conveyance Requirements.** Water rights shall be conveyed to the City in accordance with the provisions of DCA 3.21.070.
11. **Nuisances Prohibited.** No land or building shall be used in any manner so as to create dangerous, injurious, noxious or otherwise objectionable fire, explosive, or other hazard, noise, or vibration, smoke, dust, odor, or other form of air pollution; liquid or solid refuse or wastes; or other substance, condition or element in such a manner or in such an amount as to adversely affect the surrounding area or adjoining premises.
12. **Accessory Buildings.** All accessory buildings shall be located in accordance with the following (Ordinance 2002-13) (Amended by Ord. 2006-14, 9/12/06; Ord. 2010-03, 8/24/10):
 - a. Setback from main building. Accessory buildings which are located twelve (12) feet or closer to a main building and are attached to the main building by a common roof or wall shall be considered as part of the main building and shall meet the same setbacks as the main building.
 - b. Side Setback - Corner Lot, Side Abutting a Street. Accessory buildings shall be set back not less than forty (40) feet from the side lot line which abuts on a street.
 - c. Front Setback. Accessory buildings shall be set back not less than forty (40) feet from the front property line.
 - d. Side and Rear Setback - Interior Lot Line. Accessory buildings shall be set back not less than ten (10) feet from the rear lot line and five (5) feet from the side lot

line, except that no minimum rear or side setback shall be required when all the following conditions are met:

- i. The accessory building is located more than twelve (12) feet from an existing dwelling on the same or adjacent lot;
 - ii. The accessory building contains no openings on the side contiguous to the lot line;
 - iii. No drainage from the roof will be discharged onto an adjacent lot;
 - iv. The accessory building shall be constructed of non-combustive materials or have fire resistive walls rated at one (1) hour or more;
 - v. The building will not be placed on land designated as a recorded easement, such as a utility or trail easement; and
 - vi. The building will not be taller than ten (10) feet to the top of the roof line.
- e. **Accessory Building Height.** The maximum height of any accessory building shall be twenty (20) feet as measured from the average finished grade of the ground surface adjacent to the foundation of the structure to the top of the ridge line.
- i. **Exceptions to the Height Requirement.** Chimneys, flag poles, television antennas, and similar ancillary structures not used for human occupancy shall be excluded in determining height, provided that no such ancillary structure shall extend to a height in excess of fifteen (15) feet above the building.
 - ii. **Additional Accessory Building Height.** For every one (1) foot of additional height above twenty (20) feet, an additional two (2) feet of side yard and rear yard setback will be required. The maximum height of the accessory building as measured to the ridgeline shall be thirty (30) feet.

13. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

AFTER AMENDMENT

3.07.080 Special Provisions

1. **Uses Within Buildings.** All commercial activities and storage shall be conducted entirely within a fully enclosed building, except those uses deemed by the City to be customarily and appropriately conducted in the open, including gasoline dispensing, plant nursery displays, temporarily parked automobiles in need of repair, and temporary sale of Christmas trees.
2. **Site Plan to Be Approved For All New Commercial Uses.** Prior to the establishment of a new commercial use or the construction of a new building, a site plan shall be submitted, reviewed and recommended by the Planning Commission and approved by the City Council. (Amended by Ord. 2004-13, 9/28/04).

3. **Off-street Parking.** Off-street parking area which requires backing from the off-street parking space onto the street right-of-way in order to exit shall not be permitted. All ingress and egress shall be by forward motion only.

All points of ingress and egress to a commercial use or off-street parking areas shall be as shown on the site plan and shall be located not less than forty (40) feet from any intersection of public streets.

All off-street parking areas shall be hard-surfaced and shall be bordered by a curb or other barrier.

The number of required parking spaces and other particulars about the design and construction of off-street parking shall conform to the provisions of DCA 3.24.

4. **Trash Storage.** Adequate facilities for the disposal of solid waste shall be provided. All containers for the temporary storage and disposal solid waste material shall be of a size, type and quantity approved by the City shall be maintained in a location as shown on the Site Plan.
5. **Storage Containers.** The use of any portable unit, pod, or similar type of storage container is prohibited in this zone unless approved by the city.
6. **Surface Water Drainage to be Retained On-site.** All additional surface drainage generated as a result of development activity shall be disposed of on-site, as determined by the City Engineer.
7. **Height of Buildings.** The maximum height of any dwelling or other main building shall be thirty-four (34) feet, as determined in accordance with the provisions of DCA 3.21.080. (Ord. 96-15, 12/18/96).
8. **Landscaping Required.** As a means of mitigating safety hazards or adverse visual impacts all areas of the site not devoted to buildings or off street parking shall be landscaped. The landscaped area shall be not less than twenty (20) percent of the total area of the site. In addition to all other plan elements, the site plan shall contain a landscape plan showing the location, type and initial size of all planting materials and other landscape features, and the location of the proposed sprinkler system.
9. **Design of Commercial Structures.** Commercial buildings shall comply with the following architectural design criteria. (Preliminary architectural design drawings of all building elevations shall be presented to the Planning Commission for review).
 - a. The exterior of all commercial buildings shall be finished predominantly with wood and/or brick, stucco, stone or similar materials in accordance with guidelines in the Historical/Commercial/Residential Ordinance. Pitched roofs are preferred.
 - b. The architectural styles of the business district should be consistent and harmonious. The style of building design and trim should be compatible with the relatively uncomplicated rural, small town character of Alpine. Extremely irrelevant, contrived or inconsistent styles will be discouraged.

10. **Water Rights Conveyance Requirements.** Water rights shall be conveyed to the City in accordance with the provisions of DCA 3.21.070.
11. **Nuisances Prohibited.** No land or building shall be used in any manner so as to create dangerous, injurious, noxious or otherwise objectionable fire, explosive, or other hazard, noise, or vibration, smoke, dust, odor, or other form of air pollution; liquid or solid refuse or wastes; or other substance, condition or element in such a manner or in such an amount as to adversely affect the surrounding area or adjoining premises.
12. **Accessory Buildings.** All accessory buildings shall be located in accordance with the following (Ordinance 2002-13) (Amended by Ord. 2006-14, 9/12/06; Ord. 2010-03, 8/24/10):
 - a. **Setback from main building.** Accessory buildings which are located twelve (12) feet or closer to a main building and are attached to the main building by a common roof or wall shall be considered as part of the main building and shall meet the same setbacks as the main building.
 - b. **Side Setback - Corner Lot, Side Abutting a Street.** Accessory buildings shall be set back not less than forty (40) feet from the side lot line which abuts on a street.
 - c. **Front Setback.** Accessory buildings shall be set back not less than forty (40) feet from the front property line.
 - d. **Side and Rear Setback - Interior Lot Line.** Accessory buildings shall be set back no less than ten (10) feet from the rear lot line and five (5) feet from the side lot line, except that no minimum rear or side setback shall be required when all the following conditions are met:
 - i. The accessory building is located more than twelve (12) feet from an existing dwelling on the same or adjacent lot;
 - ii. The accessory building contains no openings on the side contiguous to the lot line;
 - iii. No drainage from the roof will be discharged onto an adjacent lot;
 - iv. The accessory building shall be constructed of non-combustive materials or have fire resistive walls rated at one (1) hour or more;
 - v. The building will not be placed on land designated as a recorded easement, such as a utility or trail easement; and
 - vi. The building will not be taller than ten (10) feet to the top of the roof line.
 - e. **Accessory Building Height.** The maximum height of any accessory building shall be twenty (20) feet as measured from the average finished grade of the ground surface adjacent to the foundation of the structure to the top of the ridge line.
 - i. **Exceptions to the Height Requirement.** Chimneys, flag poles, television antennas, and similar ancillary structures not used for human occupancy shall be excluded in determining height, provided that no such ancillary structure shall extend to a height in excess of fifteen (15) feet above the building.

- ii. Additional Accessory Building Height. For every one (1) foot of additional height above twenty (20) feet, an additional two (2) feet of side yard and rear yard setback will be required. The maximum height of the accessory building as measured to the ridgeline shall be thirty (30) feet.

13. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

14. **Short Term Rentals.** ~~All types of Short Term Rentals shall be strictly prohibited.~~

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

SECTION 7: AMENDMENT “3.07.030 Conditional Uses” of the Alpine City Development Code is hereby *amended* as follows:

B E F O R E A M E N D M E N T

3.07.030 Conditional Uses

The following buildings, structures and uses of land shall be permitted upon compliance with the requirements set forth in this Ordinance and after approval has been given by the designated reviewing agencies (Approval of other agencies or levels of government may be required.):

1. Planned Commercial Developments Projects which are designed, approved, constructed and maintained in accordance with the provisions of DCA 3.10.
2. Commercial Condominium Projects subject to the applicable provisions of law relating thereto.
3. Hotels and motels.
4. Schools, churches, hospitals (human care), nursing homes and other similar quasi-public buildings subject to approval by the Planning Commission.
5. Civic Buildings. (Ord. 95-10, 4/25/9)
6. Restaurants, provided that any such facility providing drive-up window service shall also include an area for inside service to patrons in an amount not less than fifty (50%) of the total floor area of the structure. In addition, the following shall apply to restaurants. (Ord. 97-05, 5/27/97)
 - a. A traffic analysis shall be provided as part of the conditional use application.
 - b. The drive-up window and driveway shall be unobtrusive and be screened from the street by berming and landscaping.
 - c. Odors and noise shall be controlled as to not have an adverse impact on any nearby residential structures.
 - d. Restaurants must comply with provisions of the sign ordinance.
 - e. Restaurants must comply with the landscaping and design provisions in the B-C zone.

- f. Any drive-through window must be located on the side of the restaurant building which does not abut a public street and must be screened from the street side with berming and landscaping.
 - g. Any drive-through window must have a stacking lane which will accommodate at least six cars off of the public street.
7. Single family dwellings (conventional construction) when proposed for placement on a lot not in a recorded subdivision, subject to compliance with the applicable conditions within the zone and approval of a site plan by the Planning Commission.
 8. Seasonal sales such as produce or Christmas trees provided a business license is obtained from Alpine City.
 9. Sexually-oriented businesses are a conditional use in the Business Commercial (BC) zone and are subject to the provisions of this chapter, including (Ord. 2010-07, 5/11/10):
 - a. No sexually-oriented business shall be located within:
 - i. One thousand (1,000) feet of a school, day care facility, public park, library, and religious institution;
 - ii. Four hundred (400) feet of any residential use (no matter which zoning district) or residential zoning boundary;
 - iii. One thousand (1,000) feet of a liquor store; and
 - iv. One thousand (1,000) feet of any other sexually-oriented business.

For the purposes of this section, distance shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the sexually-oriented business is located, and:

- (1) The closest property line of any school, day care facility, public park, library, and religious institution;
 - (2) The nearest property line of any residential use or residential zone;
 - (3) The nearest property line of any liquor store; and
 - (4) The closest exterior wall of another sexually-oriented business.
10. Home occupations, subject to the provisions of DCA 3.23.070 Part 3.
 11. Accessory apartments, subject to the provisions of DCA 3.23.070 Part 1.
 12. Mechanical Automotive Repair Shops
 - a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. There shall be no more than 5 automobile bays.
 - c. No automobiles shall be stored on the property for more than 14 days.
 - d. Mechanical automotive repair shops shall comply with the regulations of the applicable entities including but not limited to the State of Utah, Timpanogos Service District, Lone Peak Fire Marshall, and Environmental Protection Agency.
 - e. Mechanical automotive repair shops must abut directly upon and have access to Main Street (south of southern property line of the property located at 30 South Main Street) or Canyon Crest Road within the Business Commercial zone.

- f. Mechanical auto repair shops shall comply with the off-street parking requirements excepting there shall be no more than 3 parking spaces provided per bay.
 - g. Mechanical automotive repair shops shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
13. Dog Kennels/Boarding Facilities
- a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. Dogs shall be kept primarily indoors, with the exception of short periods of time for the dogs to exercise, relieve themselves, go on walks, etc.
 - c. Shall have no more than twenty (20) individual dog kennel runs, with total dogs not to exceed 1.2 times the number of kennel runs.
 - d. No more than one dog shall share a kennel run without the owner's permission.
 - e. Facility shall be sound proofed, and include an indoor dog run.
 - f. Shall comply with City off-street parking requirements.
 - g. Shall provide daily disposal of all animal feces and wastes.
 - h. Shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
 - i. There shall be adequate and effective means of control of insects and rodents at all times, such control shall be carefully monitored.
 - j. Operator shall bear full responsibility for recapturing and controlling any escaped animal.
 - k. Must have an active DVM relationship to immediately treat a sick or injured animal requiring medical attention.
 - l. Facility shall be located not less than 150 from the nearest neighboring dwelling structure.

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

A F T E R A M E N D M E N T

3.07.030 Conditional Uses

The following buildings, structures and uses of land shall be permitted upon compliance with the requirements set forth in this Ordinance and after approval has been given by the designated reviewing agencies (Approval of other agencies or levels of government may be required.):

1. Planned Commercial Developments Projects which are designed, approved, constructed and maintained in accordance with the provisions of DCA 3.10.
2. Commercial Condominium Projects subject to the applicable provisions of law relating thereto.
- ~~3. Hotels and motels.~~
4. Schools, churches, hospitals (human care), nursing homes and other similar quasi-public buildings subject to approval by the Planning Commission.
5. Civic Buildings. (Ord. 95-10, 4/25/9)
6. Restaurants, provided that any such facility providing drive-up window service shall also

include an area for inside service to patrons in an amount not less than fifty (50%) of the total floor area of the structure. In addition, the following shall apply to restaurants.
(Ord. 97-05, 5/27/97)

- a. A traffic analysis shall be provided as part of the conditional use application.
 - b. The drive-up window and driveway shall be unobtrusive and be screened from the street by berming and landscaping.
 - c. Odors and noise shall be controlled as to not have an adverse impact on any nearby residential structures.
 - d. Restaurants must comply with provisions of the sign ordinance.
 - e. Restaurants must comply with the landscaping and design provisions in the B-C zone.
 - f. Any drive-through window must be located on the side of the restaurant building which does not abut a public street and must be screened from the street side with berming and landscaping.
 - g. Any drive-through window must have a stacking lane which will accommodate at least six cars off of the public street.
7. Single family dwellings (conventional construction) when proposed for placement on a lot not in a recorded subdivision, subject to compliance with the applicable conditions within the zone and approval of a site plan by the Planning Commission.
 8. Seasonal sales such as produce or Christmas trees provided a business license is obtained from Alpine City.
 9. Sexually-oriented businesses are a conditional use in the Business Commercial (BC) zone and are subject to the provisions of this chapter, including (Ord. 2010-07, 5/11/10):
 - a. No sexually-oriented business shall be located within:
 - i. One thousand (1,000) feet of a school, day care facility, public park, library, and religious institution;
 - ii. Four hundred (400) feet of any residential use (no matter which zoning district) or residential zoning boundary;
 - iii. One thousand (1,000) feet of a liquor store; and
 - iv. One thousand (1,000) feet of any other sexually-oriented business.

For the purposes of this section, distance shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the sexually-oriented business is located, and:

- (1) The closest property line of any school, day care facility, public park, library, and religious institution;
 - (2) The nearest property line of any residential use or residential zone;
 - (3) The nearest property line of any liquor store; and
 - (4) The closest exterior wall of another sexually-oriented business.
10. Home occupations, subject to the provisions of DCA 3.23.070 Part 3.
 11. Accessory apartments, subject to the provisions of DCA 3.23.070 Part 1.
 12. Mechanical Automotive Repair Shops

- a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. There shall be no more than 5 automobile bays.
 - c. No automobiles shall be stored on the property for more than 14 days.
 - d. Mechanical automotive repair shops shall comply with the regulations of the applicable entities including but not limited to the State of Utah, Timpanogos Service District, Lone Peak Fire Marshall, and Environmental Protection Agency.
 - e. Mechanical automotive repair shops must abut directly upon and have access to Main Street (south of southern property line of the property located at 30 South Main Street) or Canyon Crest Road within the Business Commercial zone.
 - f. Mechanical auto repair shops shall comply with the off-street parking requirements excepting there shall be no more than 3 parking spaces provided per bay.
 - g. Mechanical automotive repair shops shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
13. Dog Kennels/Boarding Facilities
- a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. Dogs shall be kept primarily indoors, with the exception of short periods of time for the dogs to exercise, relieve themselves, go on walks, etc.
 - c. Shall have no more than twenty (20) individual dog kennel runs, with total dogs not to exceed 1.2 times the number of kennel runs.
 - d. No more than one dog shall share a kennel run without the owner's permission.
 - e. Facility shall be sound proofed, and include an indoor dog run.
 - f. Shall comply with City off-street parking requirements.
 - g. Shall provide daily disposal of all animal feces and wastes.
 - h. Shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
 - i. There shall be adequate and effective means of control of insects and rodents at all times, such control shall be carefully monitored.
 - j. Operator shall bear full responsibility for recapturing and controlling any escaped animal.
 - k. Must have an active DVM relationship to immediately treat a sick or injured animal requiring medical attention.
 - l. Facility shall be located not less than 150 from the nearest neighboring dwelling structure.

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

PASSED AND ADOPTED BY THE ALPINE CITY COUNCIL

_____.

	AYE	NAY	ABSENT	ABSTAIN
Lon Lott	_____	_____	_____	_____
Judi Pickell	_____	_____	_____	_____
Carla Merrill	_____	_____	_____	_____
Gregory Gordon	_____	_____	_____	_____
Jason Thelin	_____	_____	_____	_____

Presiding Officer

Attest

Troy Stout, Mayor, Alpine City

Charmayne G. Warnock, City
Recorder Alpine City

**ALPINE CITY
ORDINANCE 2020-2**

**AN ORDINANCE ADOPTING AMENDMENTS TO ARTICLE 3.01.110; 3.02.090; 3.03.100;
3.04.100; 3.05.100; AND 3.07.080 OF THE ALPINE CITY DEVELOPMENT CODE
PERTAINING TO SHORT TERM RENTALS.**

WHEREAS, The Alpine City Council has deemed it in the best interest of Alpine City to prohibit Short Term Rentals within City boundaries; and

WHEREAS, the Alpine City Planning Commission has reviewed the proposed Amendments to the Development Code, held a public hearing, and has forwarded a recommendation to the City Council; and

WHEREAS, the Alpine City Council has reviewed the proposed Amendments to the Development Code:

NOW THEREFORE, be it ordained by the Council of Alpine City, in the State of Utah, as follows: The amendments to Article 3.01.110; 3.02.090; 3.03.100; 3.04.100; 3.05.100; and 3.07.080 contained in the attached document will supersede Article 3.01.110; 3.02.090; 3.03.100; 3.04.100; 3.05.100; and 3.07.080 as previously adopted. This ordinance shall take effect upon posting.

SECTION 1: **AMENDMENT** “3.01.110 Definitions” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.01.110 Definitions

ACCESSORY APARTMENT. A subordinate dwelling unit within and part of a principle dwelling and which has its own cooking, sleeping and sanitation facilities.

ACCESSORY BUILDING. A detached subordinate building, the use of which is appropriate, subordinate, and customarily incidental to that of the main building or to the main use of the land and which is located on the same lot or parcel of land with the main building or use.

AGRICULTURE. The tilling of soil, the raising of crops, horticulture, the gardening, but not including the keeping or raising of domestic animals or fowl, except household pets, and not including any agricultural industry or business such as fruit packing plants, commercial egg production, or similar uses.

APIARY. Any place where one (1) or more colonies of bees are located.

AVERAGE SLOPE OF LOT. The average slope of a lot, expressed as the percent of slope, to be determined via computer modeling. AutoCAD or ESRI products are acceptable programs to be used for determining the average slope of lot; any other program must be pre-approved by the City Engineer.

BEEKEEPING EQUIPMENT. Anything used in the operation of an apiary, such as hive bodies, supers, frames, top and bottom boards, and extractors.

BUILDABLE AREA. (Ord. 94-02, 2/8/94) A lot or portion thereof possessing all of the following physical characteristics:

1. The area contains no territory having a natural slope of twenty (20) percent or greater;
2. The area contains no territory which is located in any identified flood plain or within any recognized inundation zone, mud flow zone or zone of deformation, or lands subject to earth slippage, landslide or rockfall;
3. The engineering properties of the soil provide adequate structural support for the intended use;
4. The area does not possess any other recognized natural condition, which renders it unsafe for building purposes;
5. The area is within the building setback envelope as determined in accordance with the setback provisions of the zone; and
6. The area is readily capable of vehicular access from the adjacent public street over a driveway having a slope of not more than twelve (12) percent with no cut or fill greater than five feet as measured at the finished grade of the centerline alignment.

BUILDING. Any structure having a roof supported by columns or walls, built for the support, shelter, or enclosure of persons, animals, chattels, or property of any kind.

CIVIC BUILDING. A structure owned by the City and used for governmental purposes, including administrative buildings (City Hall) fire stations, police stations, libraries, but not including shop and repair facilities.

COLONY. Bees in a hive including queens, workers, or drones.

CONDITIONAL USE. A use of land that, because of its unique characteristics or potential impact on the municipality, surrounding neighbors, or adjacent land uses, may not be compatible in some areas or may be compatible only if certain conditions are required that mitigate or eliminate the detrimental impacts.

CUSTOMARY RESIDENTIAL ACCESSORY STRUCTURE. A structure constructed on the same zoning lot as a dwelling and which is intended for the incidental and exclusive use of the residents of said dwelling, including but not limited to detached garages, carports, swimming pools, tennis courts, green houses, storage buildings, and satellite dishes.

DEVELOPMENT. Any change to a parcel of ground, which alters it from its natural state in any way. This includes clearing, excavation, grading, installation of any infrastructure or erection of any types of buildings.

DWELLING CLUSTER. A Group of three (3) or more single-unit detached Dwellings whose respective Buildable Areas are located no more than 400 feet from one Buildable Area to the next closest Buildable Area as measured from the midpoint of each Buildable Area.

DWELLING UNIT. One or more rooms in a building or portion thereof designed, occupied, or intended as a residence for a family with complete and independent facilities for living, sleeping, eating, cooking, and sanitation provided within the dwelling unit. See also Dwelling, Single Family.

DWELLING, MULTIPLE-UNIT. A building arranged to be occupied by two (2) or more families, the structure having two (2) or more attached dwelling units.

DWELLING, SINGLE FAMILY. A building arranged or designed to include only one (1) dwelling unit occupied by one (1) family, including extended living areas or an accessory apartment which may be approved as provided elsewhere in this Code.

FAMILY. An individual or two (2) or more persons related by blood, marriage, adoption, or guardianship; or a group of not more than four (4) persons, (excluding domestic help) who are not related, living in a dwelling unit as a single housekeeping unit and using common cooking facilities. "Family" does not exclude the care of foster children.

FENCES. A fence shall include any tangible barrier, an obstruction of any material, a line of obstacles, lattice work, screen, wall, hedge, or continuous growth of shrubs with the purpose of preventing passage or view across a boundary or lot line. (Ord. 2004-13, 9/28/04)

1. Privacy fences are structures where the field of vision through the fence is less than 50%.
2. Open-style fences are structures where the field of vision through the fence is 50% or greater.

FRONTAGE. The width of the lot or parcel of land measured at the required front setback-line.

GARAGE/CARPORT (PRIVATE). A structure for the parking or temporary storage of automobiles, but which does not involve commercial repairing or storage.

GEOLOGIC HAZARD. A hazard inherent in the surface or subsurface of the earth or artificially created, which is dangerous or potentially dangerous to life, property, or improvements, due to movement, failure, or shifting of earth.

GROUP LIVING ARRANGEMENT. A group living or congregate living arrangement where groups of more than four unrelated persons live together in a single dwelling unit, including, but not limited to, a batching apartment, , Congregate Living Unit, Assisted Living Facility, Nursing Care Facility, Residential Facility for Persons With a Disability, dormitory, student housing, fraternity, club, institutional group, half-way house, or similar group living or congregate living arrangement.

GUEST HOUSE. An accessory building constructed on the same zoning lot as the principle Single-Unit dwelling to be used for temporary occupancy.

HANDICRAFT PRODUCTION. Production of an individual's one-of-a-kind objects for sale on the site.

HELICOPTER. A manned aircraft in which lift, flight and landing is achieved by means of one or more power-driven horizontal propellers.

HELIPORT. An area on land or upon a building or structure set aside and used for the landing or takeoff of helicopters or other manned rotary wing aircrafts capable of vertical takeoff or landing.

HIVE. A frame hive, box hive, box, barrel, log, gum skep, or other artificial or natural receptacle which may be used to house bees.

HOME OCCUPATION. Any gainful occupation, service, profession or similar activity conducted in a consistent and ongoing manner within a dwelling. Business activity consisting primarily of the sale of goods produced elsewhere on the premises (i.e. retail sales establishment) shall not qualify as a home occupation.

HOBBY BEEKEEPER. A person who owns or has charge of eight (8) or fewer hives of bees.

HONEYBEE. The common honeybee, *Apis mellifera* species, at any stage of development, but not including the African honeybee, *Apis mellifera scutellata* species, or any hybrid thereof.

HOUSEHOLD PETS. Animals or fowl ordinarily permitted to a residence and kept for company or pleasure, such as dogs, cats, fish and canaries. Household pets do not include inherently or potentially dangerous animals or fowl, or those normally considered agricultural livestock.

IMPERVIOUS MATERIAL. Matter that is impenetrable as by moisture.

LOT. A parcel or unit of land describable either by metes and bounds, or by other legal plat designation held or intended to be held in separate ownership or leasehold or a parcel or unit of land shown as a lot or parcel on a recorded subdivision map, or shown on a plat used in the lease or sale of land resulting from the division of a larger tract into smaller units. Lots shall be generally rectangular in nature, and shall have no more than five sides without an exception being recommended by the Planning Commission and approved by the City Council; the front of a property, located at the front right of way, does not count against this requirement.

LOT, CORNER. Shall mean a lot located at the junction of and fronting on two (2) or more intersecting streets.

MOBILE HOME. A detached dwelling designed for long-term occupancy and to be transported on its own wheels, or on a flatbed or other trailer or detachable wheels, and arriving at the site where it is to be occupied as a complete dwelling unit ready for occupancy except for connections to utilities and other minor work. Removal of such wheels or placing such dwelling unit on a foundation shall not remove such unit from classification as a mobile home. Excluded from this definition shall be those permanent dwelling structures that are constructed of component parts that are transported to the building site and which meet structural requirements of the Uniform Building Code and which are finished with exterior building material that is typical of permanent residential buildings.

NON-CONFORMING USE. A building or structure, or portion thereof, or use of a building or land which does not conform to use regulations for the district in which it is situated, but which is in conformity with said regulations, if any, at the time of its establishment.

OFF STREET PARKING. An area adjoining a building providing for the parking of automobiles which does not include a public street but has convenient access to it.

OFFICE, PROFESSIONAL. A building or space used by persons such as accountants, architects, artists, dentists, designers, engineers, lawyers, physicians, realtors, teachers, and others who, by virtue of training and for license, are qualified to perform services of a professional nature, and where storage of goods and sale of merchandise is minimal and secondary to performance of the service.

OPEN SPACE. The use of land which leaves soil generally undisturbed and upon which natural vegetation, whether or not native to the area, occupies the major visible aspect of the land.

PERMITTED USE. A use of land for which no conditional use permit is required.

PUBLIC USE. A use operated or supervised exclusively by a public body, such use having the purpose of serving the public health, safety, or general welfare, and including uses such as public schools, parks, playgrounds, and other recreational facilities, administrative and service facilities, and public utilities.

QUASI PUBLIC USE. A use operated by a private non-profit educational, religious, recreational, charitable or philanthropic institution, having the primary purpose of serving the general public, such as churches, private schools, hospitals and similar uses.

REASONABLE ACCOMMODATION. A reasonable change in any rule, policy, practice, or service necessary to afford persons with a disability equal opportunity to use and enjoy a dwelling when compared to similarly-situated persons or groups.

RECREATION, PUBLIC. Recreation facilities operated by a public agency and open to the public with or without a fee.

RESIDENCE. A dwelling unit where an individual or family is actually domiciled at a given point in time and not a place of temporary sojourn or transient visit. Temporary sojourn or transient visit shall be thirty (30) days or less.

RESIDENTIAL FACILITY FOR PERSONS WITH A DISABILITY. A residence in which no more than eight (8) unrelated persons with a disability resides and which is:

1. Licensed or certified by the Department of Human Services under Title 62A, Chapter 2, of the Utah Code, Licensure of Programs and Facilities; or
2. Licensed or certified by the Department of Human Health under Title 26, Chapter 21, Health Care Facilities Licensing and Inspection Act.

RETAINING WALL. Any structure designed to resist the lateral displacement of soil or other materials. Examples include block walls, rock walls, concrete walls and segmented walls. A retaining wall is not considered a fence.

SHORT TERM RENTAL. Temporary lodging or place of stay that is rented (including but not limited to: hotels, motels, bed and breakfast, boarding houses, etc.) for a period of thirty (30) consecutive days or less.

SIGN. Any device for visual communication to the public displayed out-of-doors, including signs painted on exterior walls, and interior illuminated signs, to be viewed from out-of-doors, but not including a flag, badge, or ensign of any government or government agency.

STREET, PUBLIC. A thoroughfare which has been dedicated and accepted by proper public authority (or abandoned to the public) or a thoroughfare not less than twenty-four (24) feet wide which has been made public by right of use and which affords the principal means of access to abutting property.

STRUCTURE. Anything constructed, the use of which requires fixed location upon the ground, or attached to something having a fixed location upon the ground, and which creates an impervious material on or above the ground; definition includes "building."

YARD. A required space on a lot other than a court, unoccupied and unobstructed from the ground upward, by buildings, except as otherwise provided herein.

YARD, FRONT. A space between the front of the main building on a lot and the front lot line or line of an abutting street or right-of-way and extending across the full width of a lot. The depth (or setback) of the front yard is the minimum distance between the front lot line, and the front-most part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches, and decks).

YARD, REAR. A space between the back wall of the nearest main building extending the full width of the lot and the lot line that is most distant from, and is most nearly parallel with, the front lot line. If the rear lot line is less than ten feet (10') in length, or if the lot comes to a point at the rear, the rear lot line shall be deemed to be a ten foot (10') line parallel to the front line, lying wholly within the lot for the purpose of establishing the minimum rear yard. The depth (or setback) of the rear yard is the minimum distance between the rear lot line and the rearmost part of the primary structure of the nearest main building at the foundation level.

(Primary structure includes overhangs, porches and decks. See drawing in Appendix A). (Ord. 2004-13, 9/28/04)

YARD, SIDE. A yard that is neither a front yard nor a rear yard. The depth (or setback) of the side yard is the minimum distance between the side lot line and the nearest part of the primary structure of the nearest main building at the foundation level. (Primary structure includes overhangs, porches and decks).

ZONING LOT (Ord. 94-02, 2/8/94). A lot or parcel of land which:

1. Meets all area (lot size), frontage (width), setback (yard), and other zoning requirements applicable within the zone in which it is located;
2. Abuts upon and has direct access to a street which has been dedicated to the City or otherwise accepted by the City as a City Street;
3. Is served by the minimum level of improvements required for issuance of a building permit or for which the construction of the minimum level of improvements is secured through the posting of a performance guarantee; and
4. Is shown as a separate lot on the final plat of a subdivision or similar development, which has been approved in accordance with the applicable ordinance, or is legally exempted from compliance with said ordinance. A parcel which is part of an unapproved or illegal subdivision shall not qualify as a zoning lot.

(Amended by Ord. 2004-14 on 9/28/04; Ord. 2009-16, 10/13/09; Ord. 20011-06, 03/08/11; Ord. 2011-12, 10/25/11; Ord. 2014-11, 6/24/14; Ord. 2015-02, 02/10/15; Ord. 2015-07, 05/26/15)

SECTION 2: **AMENDMENT** "3.02.090 Special Provisions" of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.02.090 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Short Term Rentals.** Short Term Rentals are prohibited.

(Ord. 2015-02, 02/10/15)

SECTION 3: **AMENDMENT** “3.03.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.03.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Shorter Term Rentals.** Short Term Rentals are prohibited.

(Ord. 95-24, 11/14/95; Ord. 2014-11, 6/24/14)

SECTION 4: **AMENDMENT** “3.04.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.04.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.
2. **Short Term Rentals.** Short Term Rentals are prohibited.

(CR-1 Created by Ord. 91-01, 4/9/91 and amended by Ord. 95-04, 2/3/95; Ord. 2014-11, 6/24/14)

SECTION 5: **AMENDMENT** “3.05.100 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.05.100 Special Provisions

1. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

2. **Short Term Rentals.** Short Term Rentals are prohibited.

(Ord. 95-28, 11/28/95)

SECTION 6: **AMENDMENT** “3.07.080 Special Provisions” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.07.080 Special Provisions

1. **Uses Within Buildings.** All commercial activities and storage shall be conducted entirely within a fully enclosed building, except those uses deemed by the City to be customarily and appropriately conducted in the open, including gasoline dispensing, plant nursery displays, temporarily parked automobiles in need of repair, and temporary sale of Christmas trees.
2. **Site Plan to Be Approved For All New Commercial Uses.** Prior to the establishment of a new commercial use or the construction of a new building, a site plan shall be submitted, reviewed and recommended by the Planning Commission and approved by the City Council. (Amended by Ord. 2004-13, 9/28/04).
3. **Off-street Parking.** Off-street parking area which requires backing from the off-street parking space onto the street right-of-way in order to exit shall not be permitted. All ingress and egress shall be by forward motion only.

All points of ingress and egress to a commercial use or off-street parking areas shall be as shown on the site plan and shall be located not less than forty (40) feet from any intersection of public streets.

All off-street parking areas shall be hard-surfaced and shall be bordered by a curb or other barrier.

The number of required parking spaces and other particulars about the design and construction of off-street parking shall conform to the provisions of DCA 3.24.

4. **Trash Storage.** Adequate facilities for the disposal of solid waste shall be provided. All containers for the temporary storage and disposal solid waste material shall be of a size, type and quantity approved by the City shall be maintained in a location as shown on the Site Plan.
5. **Storage Containers.** The use of any portable unit, pod, or similar type of storage container is prohibited in this zone unless approved by the city.

6. **Surface Water Drainage to be Retained On-site.** All additional surface drainage generated as a result of development activity shall be disposed of on-site, as determined by the City Engineer.
7. **Height of Buildings.** The maximum height of any dwelling or other main building shall be thirty-four (34) feet, as determined in accordance with the provisions of DCA 3.21.080. (Ord. 96-15, 12/18/96).
8. **Landscaping Required.** As a means of mitigating safety hazards or adverse visual impacts all areas of the site not devoted to buildings or off street parking shall be landscaped. The landscaped area shall be not less than twenty (20) percent of the total area of the site. In addition to all other plan elements, the site plan shall contain a landscape plan showing the location, type and initial size of all planting materials and other landscape features, and the location of the proposed sprinkler system.
9. **Design of Commercial Structures.** Commercial buildings shall comply with the following architectural design criteria. (Preliminary architectural design drawings of all building elevations shall be presented to the Planning Commission for review).
 - a. The exterior of all commercial buildings shall be finished predominantly with wood and/or brick, stucco, stone or similar materials in accordance with guidelines in the Historical/Commercial/Residential Ordinance. Pitched roofs are preferred.
 - b. The architectural styles of the business district should be consistent and harmonious. The style of building design and trim should be compatible with the relatively uncomplicated rural, small town character of Alpine. Extremely irrelevant, contrived or inconsistent styles will be discouraged.
10. **Water Rights Conveyance Requirements.** Water rights shall be conveyed to the City in accordance with the provisions of DCA 3.21.070.
11. **Nuisances Prohibited.** No land or building shall be used in any manner so as to create dangerous, injurious, noxious or otherwise objectionable fire, explosive, or other hazard, noise, or vibration, smoke, dust, odor, or other form of air pollution; liquid or solid refuse or wastes; or other substance, condition or element in such a manner or in such an amount as to adversely affect the surrounding area or adjoining premises.
12. **Accessory Buildings.** All accessory buildings shall be located in accordance with the following (Ordinance 2002-13) (Amended by Ord. 2006-14, 9/12/06; Ord. 2010-03, 8/24/10):
 - a. Setback from main building. Accessory buildings which are located twelve (12) feet or closer to a main building and are attached to the main building by a common roof or wall shall be considered as part of the main building and shall meet the same setbacks as the main building.
 - b. Side Setback - Corner Lot, Side Abutting a Street. Accessory buildings shall be set back not less than forty (40) feet from the side lot line which abuts on a street.
 - c. Front Setback. Accessory buildings shall be set back not less than forty (40) feet from the front property line.
 - d. Side and Rear Setback - Interior Lot Line. Accessory buildings shall be set back not less than ten (10) feet from the rear lot line and five (5) feet from the side lot

line, except that no minimum rear or side setback shall be required when all the following conditions are met:

- i. The accessory building is located more than twelve (12) feet from an existing dwelling on the same or adjacent lot;
 - ii. The accessory building contains no openings on the side contiguous to the lot line;
 - iii. No drainage from the roof will be discharged onto an adjacent lot;
 - iv. The accessory building shall be constructed of non-combustive materials or have fire resistive walls rated at one (1) hour or more;
 - v. The building will not be placed on land designated as a recorded easement, such as a utility or trail easement; and
 - vi. The building will not be taller than ten (10) feet to the top of the roof line.
- e. Accessory Building Height. The maximum height of any accessory building shall be twenty (20) feet as measured from the average finished grade of the ground surface adjacent to the foundation of the structure to the top of the ridge line.
- i. Exceptions to the Height Requirement. Chimneys, flag poles, television antennas, and similar ancillary structures not used for human occupancy shall be excluded in determining height, provided that no such ancillary structure shall extend to a height in excess of fifteen (15) feet above the building.
 - ii. Additional Accessory Building Height. For every one (1) foot of additional height above twenty (20) feet, an additional two (2) feet of side yard and rear yard setback will be required. The maximum height of the accessory building as measured to the ridgeline shall be thirty (30) feet.

13. **Heliports.** The installation of a heliport for the use of a helicopter or other manned rotary wing aircrafts capable of vertical takeoff or landing is prohibited.

14. **Short Term Rentals.** Short Term Rentals are prohibited.

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

SECTION 7: AMENDMENT “3.07.030 Conditional Uses” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.07.030 Conditional Uses

The following buildings, structures and uses of land shall be permitted upon compliance with the requirements set forth in this Ordinance and after approval has been given by the designated reviewing agencies (Approval of other agencies or levels of government may be required.):

1. Planned Commercial Developments Projects which are designed, approved, constructed and maintained in accordance with the provisions of DCA 3.10.
2. Commercial Condominium Projects subject to the applicable provisions of law relating thereto.
3. Schools, churches, hospitals (human care), nursing homes and other similar quasi-public buildings subject to approval by the Planning Commission.
4. Civic Buildings. (Ord. 95-10, 4/25/9)
5. Restaurants, provided that any such facility providing drive-up window service shall also include an area for inside service to patrons in an amount not less than fifty (50%) of the total floor area of the structure. In addition, the following shall apply to restaurants. (Ord. 97-05, 5/27/97)
 - a. A traffic analysis shall be provided as part of the conditional use application.
 - b. The drive-up window and driveway shall be unobtrusive and be screened from the street by berming and landscaping.
 - c. Odors and noise shall be controlled as to not have an adverse impact on any nearby residential structures.
 - d. Restaurants must comply with provisions of the sign ordinance.
 - e. Restaurants must comply with the landscaping and design provisions in the B-C zone.
 - f. Any drive-through window must be located on the side of the restaurant building which does not abut a public street and must be screened from the street side with berming and landscaping.
 - g. Any drive-through window must have a stacking lane which will accommodate at least six cars off of the public street.
6. Single family dwellings (conventional construction) when proposed for placement on a lot not in a recorded subdivision, subject to compliance with the applicable conditions within the zone and approval of a site plan by the Planning Commission.
7. Seasonal sales such as produce or Christmas trees provided a business license is obtained from Alpine City.
8. Sexually-oriented businesses are a conditional use in the Business Commercial (BC) zone and are subject to the provisions of this chapter, including (Ord. 2010-07, 5/11/10):
 - a. No sexually-oriented business shall be located within:
 - i. One thousand (1,000) feet of a school, day care facility, public park, library, and religious institution;
 - ii. Four hundred (400) feet of any residential use (no matter which zoning district) or residential zoning boundary;
 - iii. One thousand (1,000) feet of a liquor store; and
 - iv. One thousand (1,000) feet of any other sexually-oriented business.

For the purposes of this section, distance shall be measured in a straight line, without regard to intervening structures or objects, from the closest exterior wall of the structure in which the sexually-oriented business is located, and:

- (1) The closest property line of any school, day care facility, public park, library, and religious institution;

- (2) The nearest property line of any residential use or residential zone;
 - (3) The nearest property line of any liquor store; and
 - (4) The closest exterior wall of another sexually-oriented business.
- 9. Home occupations, subject to the provisions of DCA 3.23.070 Part 3.
- 10. Accessory apartments, subject to the provisions of DCA 3.23.070 Part 1.
- 11. Mechanical Automotive Repair Shops
 - a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. There shall be no more than 5 automobile bays.
 - c. No automobiles shall be stored on the property for more than 14 days.
 - d. Mechanical automotive repair shops shall comply with the regulations of the applicable entities including but not limited to the State of Utah, Timpanogos Service District, Lone Peak Fire Marshall, and Environmental Protection Agency.
 - e. Mechanical automotive repair shops must abut directly upon and have access to Main Street (south of southern property line of the property located at 30 South Main Street) or Canyon Crest Road within the Business Commercial zone.
 - f. Mechanical auto repair shops shall comply with the off-street parking requirements excepting there shall be no more than 3 parking spaces provided per bay.
 - g. Mechanical automotive repair shops shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
- 12. Dog Kennels/Boarding Facilities
 - a. Odors and noise shall be controlled as to not have an unreasonable adverse impact on nearby structures and/or property.
 - b. Dogs shall be kept primarily indoors, with the exception of short periods of time for the dogs to exercise, relieve themselves, go on walks, etc.
 - c. Shall have no more than twenty (20) individual dog kennel runs, with total dogs not to exceed 1.2 times the number of kennel runs.
 - d. No more than one dog shall share a kennel run without the owner's permission.
 - e. Facility shall be sound proofed, and include an indoor dog run.
 - f. Shall comply with City off-street parking requirements.
 - g. Shall provide daily disposal of all animal feces and wastes.
 - h. Shall conform to the provisions of the Gateway/Historic Zone (DCA 3.11).
 - i. There shall be adequate and effective means of control of insects and rodents at all times, such control shall be carefully monitored.
 - j. Operator shall bear full responsibility for recapturing and controlling any escaped animal.
 - k. Must have an active DVM relationship to immediately treat a sick or injured animal requiring medical attention.
 - l. Facility shall be located not less than 150 from the nearest neighboring dwelling structure.

(Ord. 95-22, 8/22/95 and Ord. 2002-13, Amended by Ord. 2011-09, 5/10/11; Ord. 2014-04, 3/25/14)

PASSED AND ADOPTED BY THE ALPINE CITY COUNCIL

_____.

	AYE	NAY	ABSENT	ABSTAIN
Lon Lott	_____	_____	_____	_____
Judi Pickell	_____	_____	_____	_____
Carla Merrill	_____	_____	_____	_____
Gregory Gordon	_____	_____	_____	_____
Jason Thelin	_____	_____	_____	_____

Presiding Officer

Attest

Troy Stout, Mayor, Alpine City

Charmayne G. Warnock, City
Recorder Alpine City

DRAFT 8-24-19

Chapter 7 SHORT-TERM RENTALS

Sections:

7.01 Findings; Purpose. Definitions.

7.02 Permit required. Minimum duration. Where permitted. Exceptions.

7.03 Minimum Duration Permit application and renewal; Approval standards.

7.04 Exceptions

7.05 Permit Application and Renewal

7.06 Display of Permit

7.07 Exterior display of contact information.

7.08 Occupancy Limits

7.09 Parking

7.10 Maintenance

7.11 Binding Effect

7.12 Inspections

7.13 Reserved

7.14 Fees

7.15 Violations and Penalties.

The City Council finds that while short-term rental properties may provide additional lodging opportunities for visitors to the City, such use is, essentially, a commercial use that can have a significant adverse impact on the appearance, tranquility and standard of living in the surrounding neighborhoods and, therefore, merits careful regulation and enforcement. The purpose of this chapter is to regulate short-term rentals in the City in order to safeguard the peace, safety and general welfare of existing neighborhoods by reducing or eliminating detrimental effects caused by noise, vandalism, overcrowding, congestion, traffic, parking and other adverse effects that may accompany the introduction of transient populations in neighborhoods as a result of the operation of short-term rental properties.

7.01 Definitions.

A. "Bedroom" means a room designated and used primarily for sleeping and rest on a bed. Every bedroom shall have at least one operable emergency escape and rescue opening that

complies with all applicable requirements and standards set forth in the latest version of the International Building Code adopted by the City.

B. "Director" means the city's planner, his designee, or any other designee of the City.

C. "Short-term rental" means the rental, letting of rooms or sub-leasing/renting of any structure, dwelling or portion thereof for occupancy, dwelling, lodging or sleeping purposes for at least three but not more than 30 consecutive days in duration.

D. "Short-term rental operator" or "operator" means the owner or a responsible party designated by the owner of a short-term rental property to act for and in behalf of the owner in managing the property. If the operator is not the owner, the actions, undertakings and certifications of the operator shall be binding on the owner. To assure prompt response to complaints and _ issues concerning a short-term rental property, the operator must:

1. maintain a call center or other complaint "hotline" that is staffed by a live person (i.e.—mere voicemail or an answering machine is non-compliant with this requirement) and fully responsive 24 hours per day, 365 days per year;
2. cause a responsible party with decision-making authority to be on-site

at the short-term rental property within one hour after the telephonic lodging of a complaint reasonably requiring the operator's on-site presence, including, without limitation, complaints from neighbors and the city concerning the behavior of occupants or guests of the short-term rental property; and

3. continuously maintain on file with the city the operator's current (i) address, (ii) telephone number, and (iii) facsimile number and/or e-mail address, for the city's use in contacting the operator for purposes of this chapter and Title 5 of this code, which information shall be promptly updated on the city's records by the operator as such information changes.

E. "Short-term rental property" means real property licensed under this chapter for use for short-term rental purposes.

7.02 Permit required.

All short-term rental properties shall obtain a short-term rental permit from the city prior to operation. A short-term rental permit is a conditional use permit that is in addition to, and not in substitution for, a business license for each short-term rental property required by title 7.08 of this code. A short-term rental permit previously granted as provided in this chapter, and which has not been previously terminated, may be renewed annually upon application by the holder to the director. The holder's failure to, annually renew a short-term rental permit as provided in this chapter is, of itself, grounds for revocation of such conditional.

7.03-Minimum duration.

Renting, letting of rooms or sub- leasing/renting of any structure or dwelling or portion thereof for occupancy, dwelling, lodging or sleeping purposes for less than three consecutive calendar days in duration is prohibited in any zone in the city where residential use is a permitted or conditional use unless use of such structure, etc. as a hotel, motel, bed and breakfast or similar use has been specifically authorized as a permitted or conditional use of such parcel.

A. Short-term rental permits, and renewals thereof, may be approved by the director as conditional uses in the city's TR 10,000, CR- 20,000, CR- 40,000, CE-5 and Business Commercial zoning districts.

7.04 Exceptions.

Rentals of more than 30 consecutive days in duration in any of the city's residential zoning districts are not required to obtain a short-term rental permit.

7.05 Permit application and renewal; Approval standards.

Application for, and issuance of, a short-term rental permit shall proceed as follows:

A. The applicant shall submit an application for a short-term rental permit, or annual renewal thereof, to the city on a city-approved form, paying all applicable fees and complying with all required inspections. Unless sooner revoked, issued permits initially shall expire on the first July 1 "that follows issuance of the permit by at least five months, with renewal permits expiring each July 1, thereafter. The City shall provide to the operator a written renewal notice for each currently issued short- term rental permit. Failure to renew a short-term rental permit within one month after the deadline specified in such renewal notice shall, of itself, constitute grounds for revocation of such conditional use. The applicant may be the operator of the proposed short-term rental property or the operator's agent. Both the operator and the applicant (if different from the operator) shall be responsible for compliance with all provisions of this chapter. and all other applicable ordinances regulating or applicable to short-term rentals, including, without

B. An initial or renewal application for a short-term rental permit shall include a declaration of compliance with all legal requirements and all other applicable laws, which shall be signed and sworn to by the operator under penalty of perjury. Material misstatements in such declaration by the operator, or elsewhere in the application, shall, of itself, constitute grounds for rejection of the application or revocation of any resulting conditional use (issued in error based on such improper application).

C. The application shall be granted unless the director makes one or more of the following findings:

1. The proposed use is not a conditional use under this chapter;
2. The permit should not be granted due to (a) uncured violations of this chapter or of any other applicable law, ordinance, rule or regulation, (b) the occurrence of three or more violations for such short-term rental property during the (typically, 12-month)

term of the preceding permit (in which event the operator may not re-apply for any available short-term rental permit or business license for such property for two years from the date of denial), or (c) any other reason for which the short-term rental permit application legally could have been denied; or

3, The City is unable to impose reasonable conditions to mitigate the reasonably anticipated detrimental effects of the proposed use on the surrounding residential properties and neighborhood.

In recognition that short-term rental uses are commercial in nature, and can have a significant adverse impact on the appearance, tranquility and standard of living in surrounding residential neighborhoods, the following special operational standards are mandatory for all short-term rental properties in order to protect the health, safety, welfare and tranquility of the surrounding residential neighborhoods:

A. Each short-term rental operator shall ensure that the occupants and guests of its short-term rental property do not create unreasonable noise or disturbances (judged against, inter alia, the nature of the neighborhood where the short-term rental property is located, the time of day of the noise or disturbance, and the level of noise or similar disturbances then emanating from surrounding properties), engage in disorderly conduct, or violate provisions of this code or any other applicable federal, state, county, city or other law, rule or regulation (collectively, “applicable laws”) pertaining to noise, disorderly conduct, overcrowding,

illegal consumption of alcohol, use of illegal drugs, or otherwise. An operator shall be deemed to have ensured compliance with applicable laws if it

1. clearly advises its occupants and guests of such requirements before they take occupancy of the property;
2. promptly and appropriately responds to complaints concerning the behavior of its occupants and guests as required by this chapter;
3. promptly evicts from the short-term rental property any who have failed to comply with applicable laws on two or more occasions (“persistent violations”) during their period of

occupancy of a short-term rental property; and

4. refuses to allow any persons who have engaged in or been party to persistent violations of applicable laws in their occupancy of a short-term rental property to occupy in the future any short-term rental property under such operator’s ownership or control.

B. Promptly upon notification that the occupants or guests of a short-term rental property have violated subsection 7. (A) above, the operator shall use its most diligent best efforts to prevent a recurrence of such conduct by those occupants or guests and all future occupants

and guests. Such response by the operator to the notification shall occur within one hour after receipt. Failure to timely or properly respond to a complaint regarding any such violation as provided in this subsection shall constitute a violation of this chapter and shall be grounds for imposition of the penalties specified in section 7. below.

C. Each operator shall ensure that the operation of its short-term rental property complies with all other requirements of this code and all other applicable laws.

D. The director shall be authorized to prospectively impose additional reasonable conditions, applicable to all short-term rental properties in the city, as necessary to achieve the intent and objectives of this chapter. The city shall endeavor to notify all short-term rental operators of any change in the standards applicable to short-term rentals and short-term rental properties.

E. A short-term rental property shall not contain more than four (4) bedrooms. Only one short term rental is allowed per property.

F, Short-term rental properties and all related or accessory structures or improvements shall be properly maintained, painted and kept in good repair, and grounds and landscaped areas shall be properly maintained and watered in order that the use in no way detracts from the general appearance of the surrounding neighborhood.

G. Snow shall be removed from sidewalks and driveways as provided by the City Municipal Code.

H. A short-term rental property shall not have any signs visible from the exterior of the premises that advertise the use, other than as required by this chapter.

I. The use of a property in a residential neighborhood for short-term rental purposes shall not change the exterior appearance of the property so that it appears dissimilar from residential properties in the surrounding neighborhood.

J. Outdoor pools, hot tubs, saunas or spas shall not be used between the hours of 10:00 p.m. and 8:00 a.m.

K. Occupants and guests of a short- term rental property shall not create unreasonable noise or disturbances, engage in disorderly conduct, or violate provisions of this code or any other applicable federal, state, county, city or other law, rule' or _ regulation (collectively, "applicable laws") pertaining to noise, disorderly conduct, overcrowding, illegal consumption of alcohol, use of illegal drugs, or otherwise.

7.06 Display of permit.

Each operator shall affix and maintain a copy of its short-term rental permit on the inside of the main entry door of the short-term rental property to which it applies.

7.07 Exterior display of contact information.

A. Short-term rental operators shall prominently display in a city-approved location on the exterior of the short-term rental property that is visible to the general public and/or the

common areas of the surrounding neighborhood, the name and 24-hour per day, 365-days per year telephone number for the short-term rental operator who will take and resolve complaints regarding operation of the short-term rental property and its © occupants and guests. Such display also shall include (1) a telephone number to report violations of this chapter to a city code compliance officer 24 hours per day, 365 days per year; (2) the identifying number of the city-issued business license for the property; and (3) the date of the last city inspection of the property. The city will prescribe the form of said display of contact and other information. Applicants also — shall provide such information to all property owners residing within 300 feet of the short-term rental property. Operators shall provide updated contact information to all recipients, and for all purposes, specified hereunder as such information changes.

B. Operators shall respond (in person, if appropriate) to telephonic complaints within one hour after such complaint is made. Inappropriate and/or non-response to such complaints shall constitute a violation of this chapter, and shall be grounds for imposition of the

The operator must continuously maintain in force and effect a city business license for the short-term rental property and timely shall pay all taxes and fees relating to such business, including, without limitation, the city's transient room tax.

7.08 Occupancy limits.

A. The city has determined that the preferred means to avoid or minimize safety concerns and the adverse impacts on the surrounding neighborhood attending a large transient population residing in one dwelling is to limit both the occupancy of each short term rental property and the bedrooms available for use at such property. Consequently, occupancy in any short-term rental property shall not exceed the lesser of:

1. Up to two adults (persons aged 18 and above) and two related children (persons under age 18) per bedroom,
2. Total occupancy (adults and children) of no more than 12 persons in the entire short-term rental property.

B. A short-term rental property may not be artificially divided or partitioned for the purpose of increasing the available occupancy of an otherwise standard dwelling unit such as a house, a condominium unit, or an apartment.

7.09 Parking.

Occupants or guests of any short- term rental property shall not park more vehicles at the short-term rental property than can be legally parked in the garage or carport or on the driveway. Parking of occupant or guest vehicles on the public right-of-way adjoining the short-

term rental property, or on areas of the property designated as (or intended for, based on the landscaping of the surrounding neighborhood) yard or lawn, is prohibited. Required parking areas shall be properly maintained and be available for use at all times.

7.10 Maintenance.

All short-term rental properties shall comply with chapter 7.05 of this code, entitled “Nuisances and Abatement.”

7.11 Binding effect.

A. The requirements of this chapter shall be in effect throughout the time that a short-term rental permit is in effect for a property, notwithstanding that such property may be used intermittently by its owner or non-paying guests, based on the city’s determinations that, inter alia,

1. Given the practical difficulty of determining whether or not the occupants are paying guests, enforcement of this chapter should be based on whether the property is licensed as a short-term rental property rather than the identity of its occupants from time to time;
2. Such a property essentially exists to provide lodging for a transient population (which may include a non-resident owner or its non-resident guests) that may not honor neighborhood mores or exhibit neighborly consideration to the same extent as more permanent residents; and
3. Requiring such compliance may encourage an owner that is not actively engaged in a short-term rental business for a property to terminate the short-term rental permit for such property, thereby mitigating the adverse impact on the character of the surrounding neighborhood posed by the potential

B. A short-term rental permit may be terminated at any time by the owner of a short-term rental property upon submission to the city of the property owner’s signed, notarized written notice of such termination.

7.12 Inspections.

A. The city has determined that the preferred method of assuring compliance with this chapter is through regular annual inspections of the short-term rental property at the time of permit application or renewal; through possible additional intermittent regular inspections upon prior notice to the operator during the term of a permit; and through special inspections immediately upon the city’s reasonable determination that a violation of this chapter may have occurred. Consequently, the city shall have the right to inspect a short-term rental property for compliance with the requirements of this code. Such an inspection (a “renewal inspection”) shall occur after application and before issuance of the short-term rental permit or any renewal thereof.

B. Additional inspections (“intermittent inspections”) may occur during the term of an issued permit upon at least 24 hours’ prior telephonic or written (via e-mail, facsimile or personal delivery) notice to the operator (measured from the time of delivery of such notice), using the operator’s contact information on file with the city.

C. The city also shall have the right to immediately inspect (a “violation inspection”) a short term rental property for compliance with this chapter upon issuance of a citation for violation of this chapter.

D. All inspections under this chapter shall comply with the requirements of section 7.12 (or its successor) of this code.

E. If necessary to gain entry for inspection purposes, the city may obtain an administrative search warrant.

F. Failure by an owner, operator, occupant or guest to allow inspection of a short-term rental property as provided in this section shall, of itself, constitute grounds for

1. Revocation of an issued short- term rental permit for such property as provided, in the case of an intermittent inspection or a violation inspection, or
2. Rejection of an application for renewal of a short-term rental permit, in the case of a renewal inspection.

7.13 (Reserved).

7.14 Fees.

The operator of a short-term rental property shall pay a yearly business license fee for the short-term rental property. An applicant for a short-term rental permit also shall pay

A. A one-time application fee conditional uses, as specified in the consolidated fee schedule; and

B. An annual permit renewal fee as specified in the consolidated fee schedule.

7.15 Violations and penalties.

A. Failure to comply with this chapter shall constitute a violation of this code for which a citation may be issued and penalties may be imposed by the city. Each day that a violation occurs or continues is a separate violation.

B. Operation of a property in the city for short-term rental purposes

without a permit or a business license shall be a violation of this code and shall be punishable as provided in this section of this code, with each day of unlicensed operation constituting a separate offense.

C. For noncompliance with this chapter of a permitted and licensed short-term rental property, the issuing officer shall issue a written citation to the operator, specifying the violation and the penalty to be imposed for such violation. Except as otherwise provided in this chapter, the penalty for violation of this chapter shall be as follows:

1. For the first violation within any 12 month period, the penalty shall be \$250;

2. For a second violation within any 12-month period, the penalty shall be an additional \$500; and,
3. For a third violation within any 12 month period, the penalty shall be an additional \$1,000 and revocation of the short term rental permit and the business license for the subject property; provided, however, that the operator may not re-apply for any available short- term rental permit or business license for such property for two years from the date of such revocation.

7.16 Appeals.

An operator desiring to contest a citation must appeal the citation to the City's appeal authority.

SHORT TERM RENTAL CONSIDERATIONS

There are currently approximately 30-35 Short Term Rentals in Alpine. If Alpine considered a Short Term Rental Ordinance (STR) what are the questions that should be answered?

How many short term rental units would be allowed in the City

There could be no limit on the number of units or for example Sandy City limits STRs to 2 per 100 dwellings. In Alpine's case this would allow 50 STRs.

How many rentals in each home would be allowed? This could be as low as one or up to three or four.

How many bedrooms would be allowed in each unit? The City could set a limit on the number of bedrooms allowed.

Should a short term rental be owner occupied? An STR could require that the rental be owner occupied or that a local manager be required.

Permits & licenses- A STR would be required to obtain a Business License

Which Zones would STRs be allowed? They could be allowed in any zone.

How many people would be allowed to stay in the units? The City could limit the number of people allowed to stay in the unit.

Parking- Parking could be limited to the garage and driveway.

Revenue- How much revenue would be generated by STRs

One time Application Fee of $\$250 \times 30 = \7500

Annual Renewal $\$150 \times 30 = \4500 per year

Transient Room Tax of 1% assuming 30 rentals bringing in \$50,000 per year each would be \$1,500,000 and would generate \$15,000 per year in taxes.

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Public Hearing – Amendment to Ordinance – FEMA Updates

FOR CONSIDERATION ON: 4 February 2020

PETITIONER: Staff

ACTION REQUESTED BY PETITIONER: Hold a public hearing, review and recommend approval of the proposed update.

BACKGROUND INFORMATION:

FEMA is updating maps for Utah County in June 2020. Prior to doing so, they are requiring cities to update and reference the new map. In order to be in compliance with this update, the City needs to amend the ordinance to reference the most current maps applicable to the area.

STAFF RECOMMENDATION:

Review and approve the proposed update.

SAMPLE MOTION TO APPROVE

I motion to recommend approval the proposed updates to the ordinance in reference to the 2020 FEMA maps.

SAMPLE MOTION TO TABLE

I motion to table this item based on the following:

- ****INSERT FINDING****

**ALPINE CITY
ORDINANCE 2020-03**

AN ORDINANCE ADOPTING AMENDMENTS TO ARTICLE 3.12.040.4 OF THE ALPINE CITY DEVELOPMENT CODE PERTAINING TO FLOOD PLAIN LANDS IN THE SENSITIVE LAND ORDINANCE.

WHEREAS, The Alpine City Council has deemed it in the best interest of Alpine City to update the classification of Flood Plain Lands; and

WHEREAS, the Alpine City Planning Commission has reviewed the proposed Amendments to the Development Code, held a public hearing, and has forwarded a recommendation to the City Council; and

WHEREAS, the Alpine City Council has reviewed the proposed Amendments to the Development Code:

NOW THEREFORE, be it ordained by the Council of Alpine City, in the State of Utah, as follows: The amendments to Article 3.12.040.4 contained in the attached document will supersede Article 3.12.040.4 as previously adopted. This ordinance shall take effect upon posting.

SECTION 1: **AMENDMENT** “3.12.040 Sensitive Land Classifications” of the Alpine City Development Code is hereby *amended* as follows:

A M E N D M E N T

3.12.040 Sensitive Land Classifications

The following factors shall be used to determine the classification of various lands and their constraints to building and development on them:

1. **Geologic Hazard Lands.** Lands identified on the Official Alpine City Hazards map as having landslide, debris flow, rock fall, soil liquefaction or surface-fault-rupture hazards.
2. **Hillside Lands.** Lands identified on the Official Alpine City Hazard map as having an elevation above 5350 feet Mean Sea level.
3. **Wildland Urban Interface Lands.** Lands identified on the Official Alpine City Hazard map as having potential wild fire hazard.
4. **Flood Plain Lands.** Lands with potential stream flow and flood hazard. Flood plain lands consist of all lands contained within the 1% annual chance flood as defined by Federal Emergency Management Agency, in the most current Flood Insurance Rate Map (FIRM) shown for Alpine City. The FIRM map is also adopted as the Official Alpine City Hazard map for flood damage prevention overlay zone.

(Original Ordinance No. 2002-01. Amended by Ordinance 2005-03, 1/25/05)

PASSED AND ADOPTED BY THE ALPINE CITY COUNCIL

_____.

	AYE	NAY	ABSENT	ABSTAIN
Lon Lott	_____	_____	_____	_____
Judi Pickell	_____	_____	_____	_____
Carla Merrill	_____	_____	_____	_____
Gregory Gordon	_____	_____	_____	_____
Jason Thelin	_____	_____	_____	_____

Presiding Officer

Attest

Troy Stout, Mayor, Alpine City

Charmayne G. Warnock, City
Recorder Alpine City

**ALPINE CITY
ORDINANCE 2020-03**

AN ORDINANCE ADOPTING AMENDMENTS TO ARTICLE 3.12.040.4 OF THE ALPINE CITY DEVELOPMENT CODE PERTAINING TO FLOOD PLAIN LANDS IN THE SENSITIVE LAND ORDINANCE.

WHEREAS, The Alpine City Council has deemed it in the best interest of Alpine City to update the classification of Flood Plain Lands; and

WHEREAS, the Alpine City Planning Commission has reviewed the proposed Amendments to the Development Code, held a public hearing, and has forwarded a recommendation to the City Council; and

WHEREAS, the Alpine City Council has reviewed the proposed Amendments to the Development Code:

NOW THEREFORE, be it ordained by the Council of Alpine City, in the State of Utah, as follows: The amendments to Article 3.12.040.4 contained in the attached document will supersede Article 3.12.040.4 as previously adopted. This ordinance shall take effect upon posting.

SECTION 1: **AMENDMENT** “3.12.040 Sensitive Land Classifications” of the Alpine City Development Code is hereby *amended* as follows:

B E F O R E A M E N D M E N T

3.12.040 Sensitive Land Classifications

The following factors shall be used to determine the classification of various lands and their constraints to building and development on them:

1. **Geologic Hazard Lands.** Lands identified on the Official Alpine City Hazards map as having landslide, debris flow, rock fall, soil liquefaction or surface-fault-rupture hazards.
2. **Hillside Lands.** Lands identified on the Official Alpine City Hazard map as having an elevation above 5350 feet Mean Sea level.
3. **Wildland Urban Interface Lands.** Lands identified on the Official Alpine City Hazard map as having potential wild fire hazard.
4. **Flood Plain Lands.** Lands with potential stream flow and flood hazard. Flood plain lands consist of all lands contained within the 100-year flood plain as defined by Federal Emergency Management Agency, in Flood Insurance Rate Map (FIRM) #490228005A, dated April 4, 1983. The April 4, 1983 FIRM map is also adopted as the Official Alpine City Hazard map for flood damage prevention overlay zone.

(Original Ordinance No. 2002-01. Amended by Ordinance 2005-03, 1/25/05)

AFTER AMENDMENT

3.12.040 Sensitive Land Classifications

The following factors shall be used to determine the classification of various lands and their constraints to building and development on them:

1. **Geologic Hazard Lands.** Lands identified on the Official Alpine City Hazards map as having landslide, debris flow, rock fall, soil liquefaction or surface-fault-rupture hazards.
2. **Hillside Lands.** Lands identified on the Official Alpine City Hazard map as having an elevation above 5350 feet Mean Sea level.
3. **Wildland Urban Interface Lands.** Lands identified on the Official Alpine City Hazard map as having potential wild fire hazard.
4. **Flood Plain Lands.** Lands with potential stream flow and flood hazard. Flood plain lands consist of all lands contained within the ~~100-year~~ 1% annual chance flood ~~plain~~ as defined by Federal Emergency Management Agency, in the most current Flood Insurance Rate Map (FIRM) ~~#490228005A, dated April 4, 1983~~ shown for Alpine City. The ~~April 4, 1983~~ FIRM map is also adopted as the Official Alpine City Hazard map for flood damage prevention overlay zone.

(Original Ordinance No. 2002-01. Amended by Ordinance 2005-03, 1/25/05)

PASSED AND ADOPTED BY THE ALPINE CITY COUNCIL

_____.

	AYE	NAY	ABSENT	ABSTAIN
Lon Lott	_____	_____	_____	_____
Judi Pickell	_____	_____	_____	_____
Carla Merrill	_____	_____	_____	_____
Gregory Gordon	_____	_____	_____	_____
Jason Thelin	_____	_____	_____	_____

Presiding Officer

Attest

Troy Stout, Mayor, Alpine City

Charmayne G. Warnock, City
Recorder Alpine City

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Road Grade Exception Request – Brookside Meadows Subdivision

FOR CONSIDERATION ON: 4 February 2020

PETITIONER: Greg Wilding, representing David Gifford.

ACTION REQUESTED BY PETITIONER: Review and approve exception.

BACKGROUND INFORMATION:

Developer is seeking an exception to the City standard for road grades in an intersection. Specifically, five percent (5%) grades through the intersections of the Brookside Meadows Subdivision. Development Code states (4.07.090):

“Street intersections: Shall have a vertical alignment such that the grade shall not exceed three percent (3%) for a minimum distance of fifty feet (50') each way from the centerline of the intersection.”

STAFF RECOMMENDATION

Approve the exception with the outlined conditions.

SAMPLE MOTION TO APPROVE (Staff’s recommendation)

I motion to APPROVE the exception request based on the following:

- The 5% design would reduce retaining walls;
- The sight distance outside the site triangle will be better due to less cut slopes;
- Due to low traffic volume, the need for vehicular storage area is not anticipated;
- The request follows generally accepted planning and engineering;
- The request does not vary the zone, use or lot size of the development.

SAMPLE MOTION TO DENY

I motion to DENY the exception request based on the following:

- ****INSERT FINDING****



**ALPINE CITY
STAFF REPORT**
January 29, 2020

To: Alpine City Planning Commission & City Council

From: Staff

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

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: Brookside Meadows – ROAD GRADE EXCEPTION REQUEST

Applicant: Greg Wilding of Wilding Engineering, representing David Gifford
Project Location: Approximately 430 North 400 West
Zoning: CR-20,000 Zone
Acreage: 13.306 Acres
Lot Number & Size: 15 lots ranging from 0.31 acres to 0.63 acres
Request: Recommend approval of an exception to the roadway intersection grading requirements

SUMMARY

Brookside Meadows consists of 15 lots on 13.306 acres. The development is located at approximately 430 North 400 West, and in the CR 20,000 zone. The final plan shows a connection to the Whitby Woodlands Subdivision on the east side of the property. The Developer is requesting an exception to the development code's street intersection standard which states (DC 4.07.090 (4)):

“Street intersections: Shall have a vertical alignment such that the grade shall not exceed three percent (3%) for a minimum distance of fifty feet (50') each way from the centerline of the intersection.”

The Developer is requesting to be able to use 5% grades instead of 3% as required by code.

Regarding Exceptions in this circumstance, DC 4.01.202 states:

“When in the opinion of the City Planner and City Engineer, the best interest of the City would not be served by the literal enforcement of the design or improvement standards in this ordinance, the City Council may grant an exception from these standards.

Prior to the City Council considering the exception, the City Planner and City Engineer shall submit a written recommendation to the Planning Commission. The recommended exception shall be based on generally accepted planning and engineering. The recommended exception may not vary the zone, use or lot size of the development. The Planning Commission shall review the recommendation and advise the City Council as to whether or not the exception should or should not be granted.”

BACKGROUND

At the time this letter is written the development has been approved through Preliminary applications and is submitted for Final Approval with road grades that meet current ordinance. The Developer feels an exception to the Street Intersections code would:

1. reduce the height of retaining walls;
2. improve the safety and sight distances at the intersection by reduction of the cut slope heights;
3. reduce depths of cuts on uphill lots.

It is also stated that 5% grades are common among other surrounding cities.

The Developer’s request letter is attached as Exhibit A.

ANALYSIS

Staff has reviewed each item mentioned in the request and found the following:

Reduce the height of retaining walls

The Developer had previously submitted a 5% intersection design which did show less height and quantity of retaining walls. To be more specific, along Soldier Circle the 5% design showed no retaining walls at all. There were some other grading redlines on that plan which would affect the design. A corrected 5% design may not completely eliminate the retaining walls on this section of road but it would reduce them.

It appears that regardless of a 3% or 5% intersection design, the tiered retaining walls shown along Whitby Woodlands Drive will remaining. So no change there.

Exhibits B and C are the plan views of the 5% and 3% intersection designs respectively.

Improve the safety and sight distances at the intersection by reduction of the cut slope heights

The cut slope at the intersection, as measured along the outer edge of the sight triangle, remains the same on each design. Both designs show six feet of cut on the edge of the sight triangle. The difference is the total cut slope height which is less with the 5% design. In terms of sight triangle safety or sight distance within the site triangle, there is no change or added benefit.

Does this mean drivers only look for visual cues in just the site triangle? No. Drivers will look as far ahead up the approaching road as they can as they enter the intersection. This means they’re using more area for visual cues than just the sight triangle to try to see oncoming traffic as they approach the intersection. With the 5% intersection design, the total cut slope height beyond the site triangle is less than the 3% design. It is difficult to say how much less because the 5% design submitted was not a refined final design. Having said that, the overall grading

would be less impactful on the lot with a 5% design and therefore, outside the site triangle, there would be better visual clarity of oncoming traffic.

Reduction of cut slopes heights on uphill lots

This item was partially mentioned in the first, reduction of retaining wall heights. As mentioned there, retaining walls may or may not be eliminated on Soldier Circle with a 5% design but would definitely be there with a 3% design. Less retaining walls and less cut slopes translates to less future maintenance for the City and to Lots that are more accessible for driveways and easier to build on.

5% Intersection designs are common among surrounding cities

The following is data collected from some surrounding cities regarding intersection design:

- Draper City – 5% (9-16-050 (i))
- Park City – 2% (15-7.3-4 (g)) Includes grading the sight triangle for visibility
- Lindon City – 3% (17.32.160 (4))
- Cedar Hills – unspecified
- Pleasant Grove - unspecified
- Provo City – unspecified
- Mapleton City – unspecified

It is safe to say that the “generally accepted...engineering” for intersection design grades is somewhere between 0 and 5 percent based on surrounding city codes.

ALPINE CITY STAFF RESEARCH

AASHTO (American Association of State Highway Officials) is the standard by which most cities in the nation base their roadway design from. AASHTO covers a broad range of street design (ie – freeway, highway, local, and rural roads). Chapter 9 discusses intersections in depth. Exhibit D is page 586 of AASHTO that covers this topic. It specifically says “*intersecting roads should be as flat as practical on those sections that are to be used for storage of stopped vehicles...*” It talks about how 3 percent is a grade not to exceed without making changes in design elements but goes on to say, “*Where conditions make such designs too expensive, grades should not exceed about 6 percent, with a corresponding adjustment in specific geometric design elements.*”

This intersection will have a very low volume of traffic and therefore Staff does not anticipate this intersection to “be used for storage of stopped vehicles.”

Staff has also looked at the intersecting slopes of many intersections around town. There are many locations in the city that do not adhere to the 3 percent design rule. In newer subdivisions, intersections meet the ordinance, but a large portion of the city was built prior to the ordinance and therefore older intersections typically do not meet ordinance. This isn’t to say that because the City has intersections that don’t meet ordinance it’s ok to keep building them that way; this is stated because there are a large majority of intersections that do not meet the 3% intersection design rule and most drivers have no problem navigating these intersections safely.

STAFF RECOMMENDATION

Review staff report and findings and make a motion to approve or deny the proposed exception.

Findings are outlined below.

Findings for a Positive Motion:

- A. The 5% design would reduce retaining walls which will be the City's responsibility for maintenance once development is done. This is clearly in the "best interest of the city," as stated by Alpine City Ordinance;
- B. With less height of cut slopes at the intersection, the sight distance outside the site triangle will be better;
- C. The intersection is not expected to have a high volume of traffic and therefore is not anticipated to need a large flat area to "store vehicles" waiting to enter/exit the intersection. Without the need to "store vehicles", the need for flatter slopes mentioned by AASHTO is minimized;
- D. The request falls within "generally accepted planning and engineering," as stated by Alpine City Ordinance;
- E. The request does not "vary the zone, use or lot size of the development."

Findings for a Motion to Deny:

- A. The site triangle is unchanged as far as site distances are concerned;
- B. The 5% design simply has steeper grades and is not as safe as a 3% design, particularly in slick conditions.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE (Staff's recommendation)

I motion to APPROVE the exception request based on the following:

- A. The 5% design would reduce retaining walls;
- B. The sight distance outside the site triangle will be better due to less cut slopes;
- C. Due to low traffic volume, the need for vehicular storage area is not anticipated;
- D. The request follows generally accepted planning and engineering;
- E. The request does not vary the zone, use or lot size of the development.

SAMPLE MOTION TO TABLE

I motion to DENY the exception request based on the following:

- ****INSERT FINDING****

EXHIBIT A

Exception Request Letter



January 21, 2020

Alpine City Planning Commission
20 N. Main Street
Alpine, UT 84004

Re: Request for exception to Alpine city Municipal Code 4.07.090 Road Grades for the Brookside Meadows Subdivision

Commissioners,

Thank you for your review and consideration of the following request for an exception to the Alpine City Municipal Code section 4.07.090 (4), wherein it states

Street Intersections: Have a vertical alignment such that the grade shall not exceed three percent (3%) for a minimum distance of fifty feet (50') each way from the centerline of the intersection.

We request an exception to allow five percent (5%) grades through the intersections on this project.

The Brookside Meadows subdivision is situated in a section of Alpine City where there is terrain with steeper grades and we are working hard on an engineering design that will conform better with the slopes. This exception will minimize the required cutting and filling to construct the roadways. This exception will benefit the design by:

1. Reducing the height of retaining walls.
2. Improving safety and sight distances at the intersection by reducing the cut slope heights.
3. Reducing depths of cuts on uphill lots

It is our professional opinion that this is an appropriate design criteria for this location, and quite frankly for any hillside development intersections. It is the same requirement that other cities in this area use for intersection design.

Sincerely,
WILDING ENGINEERING, INC.

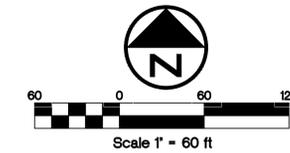
Jason Peterson, PE

EXHIBIT B

5% Intersection Design

BROOKSIDE MEADOWS

GRADING & DRAINAGE PLAN



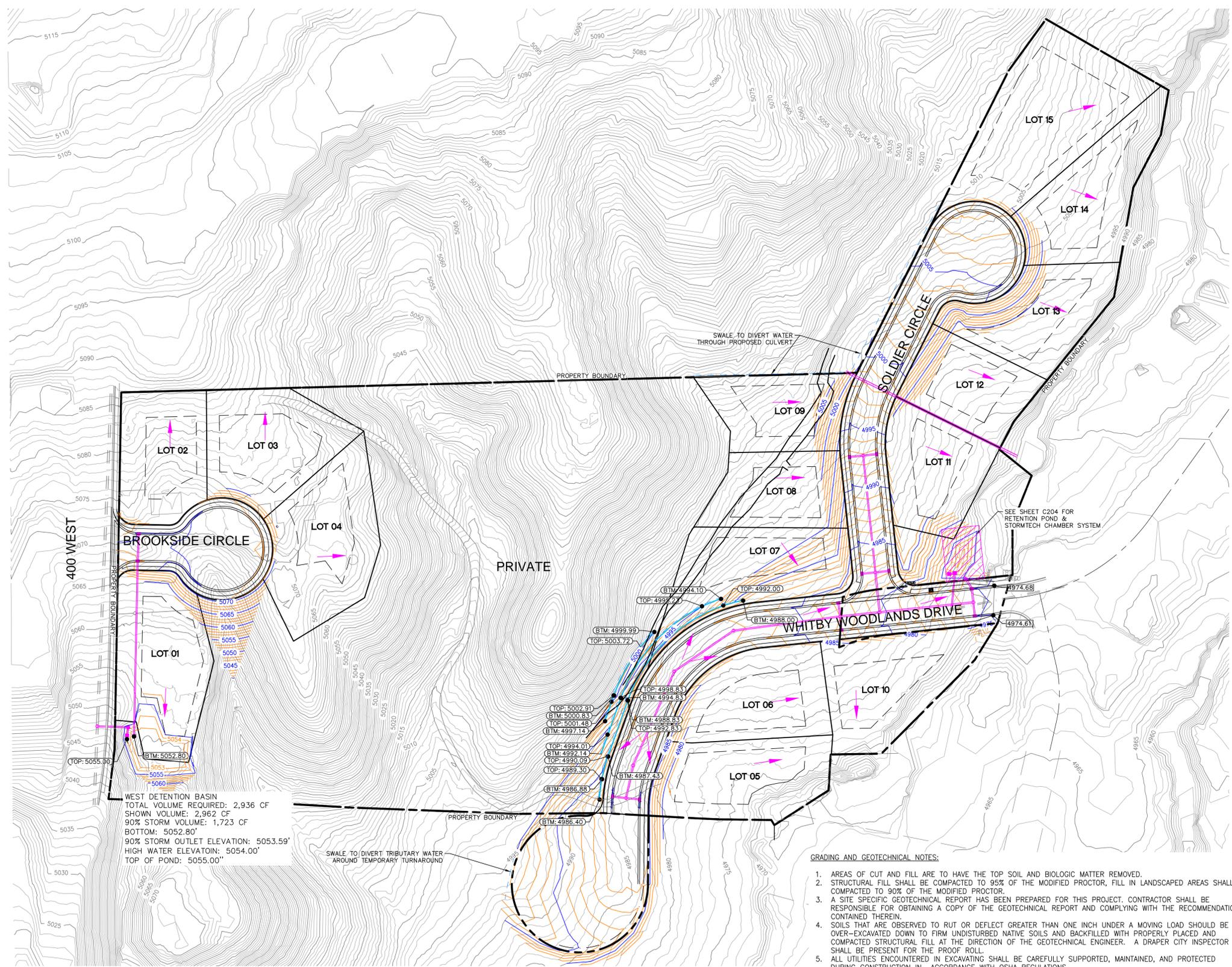
WILDING
ENGINEERING

14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM

DRAWING NOTES:

DRAINAGE NOTES

1. WHEN APPLYING FOR BUILDING PERMITS, EACH LOT SHALL SUBMIT A SEPARATE GRADING & DRAINAGE PLAN TO SHOW HOW IT WILL RETAIN A 100-YEAR EVENT, WITH THE EXCEPTION OF LOTS 1, 7, 8, AND 9.
2. WATER IS NOT TO CROSS PROPERTY LINES. PROPERTY LINE BERMS MAY BE NEEDED.
3. ARROWS SHOW ANTICIPATED FLOW DIRECTION.



WEST DETENTION BASIN
TOTAL VOLUME REQUIRED: 2,936 CF
SHOWN VOLUME: 2,962 CF
90% STORM VOLUME: 1,723 CF
BOTTOM: 5052.80'
90% STORM OUTLET ELEVATION: 5053.59'
HIGH WATER ELEVATION: 5054.00'
TOP OF POND: 5055.00'

- GRADING AND GEOTECHNICAL NOTES:**
1. AREAS OF CUT AND FILL ARE TO HAVE THE TOP SOIL AND BIOLOGIC MATTER REMOVED.
 2. STRUCTURAL FILL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR, FILL IN LANDSCAPED AREAS SHALL BE COMPACTED TO 90% OF THE MODIFIED PROCTOR.
 3. A SITE SPECIFIC GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A COPY OF THE GEOTECHNICAL REPORT AND COMPLYING WITH THE RECOMMENDATIONS CONTAINED THEREIN.
 4. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT GREATER THAN ONE INCH UNDER A MOVING LOAD SHOULD BE OVER-EXCAVATED DOWN TO FIRM UNDISTURBED NATIVE SOILS AND BACKFILLED WITH PROPERLY PLACED AND COMPACTED STRUCTURAL FILL AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER. A DRAPER CITY INSPECTOR SHALL BE PRESENT FOR THE PROOF ROLL.
 5. ALL UTILITIES ENCOUNTERED IN EXCAVATING SHALL BE CAREFULLY SUPPORTED, MAINTAINED, AND PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH OSHA REGULATIONS.
 6. ALL PIPING SHALL BE PROTECTED FROM LATERAL DISPLACEMENT AND POSSIBLE DAMAGE RESULTING FROM IMPACT OR UNBALANCED LOADING DURING BACKFILLING OPERATIONS BY BEING ADEQUATELY BEDDED.
 7. THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION.

LEGEND

- PROPOSED CONTOUR —
- PROPOSED INDEX —
- EXISTING CONTOUR —
- EXISTING INDEX CONTOUR —
- UTILITY EASEMENT ---
- PROPOSED SWALE ---
- DRAINAGE DIRECTION →
- PROPOSED CATCH BASIN ■
- PROPOSED CLEANOUT □
- PROPOSED SD MANHOLE ○
- PROPOSED FINISHED GRADE ● 4987.28
- EXISTING GRADE ● 4974.61

NO.	REVISION	DATE

PROJECT INFORMATION

BROOKSIDE MEADOWS

GRADING & DRAINAGE PLAN

ALPINE CITY, UTAH

DRAWN TMS	CHECKED JRP	PROJECT # 19011
DATE 11/05/2019		SCALE 1" = 60'
SHEET C203-04/14		ENGINEER'S STAMP

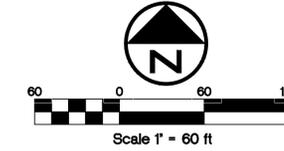
C:\DATA\19011_01con_Property\dwg\19011_Base.dwg
PLOT DATE: Nov 05, 2019

EXHIBIT C

3% Intersection Design

BROOKSIDE MEADOWS

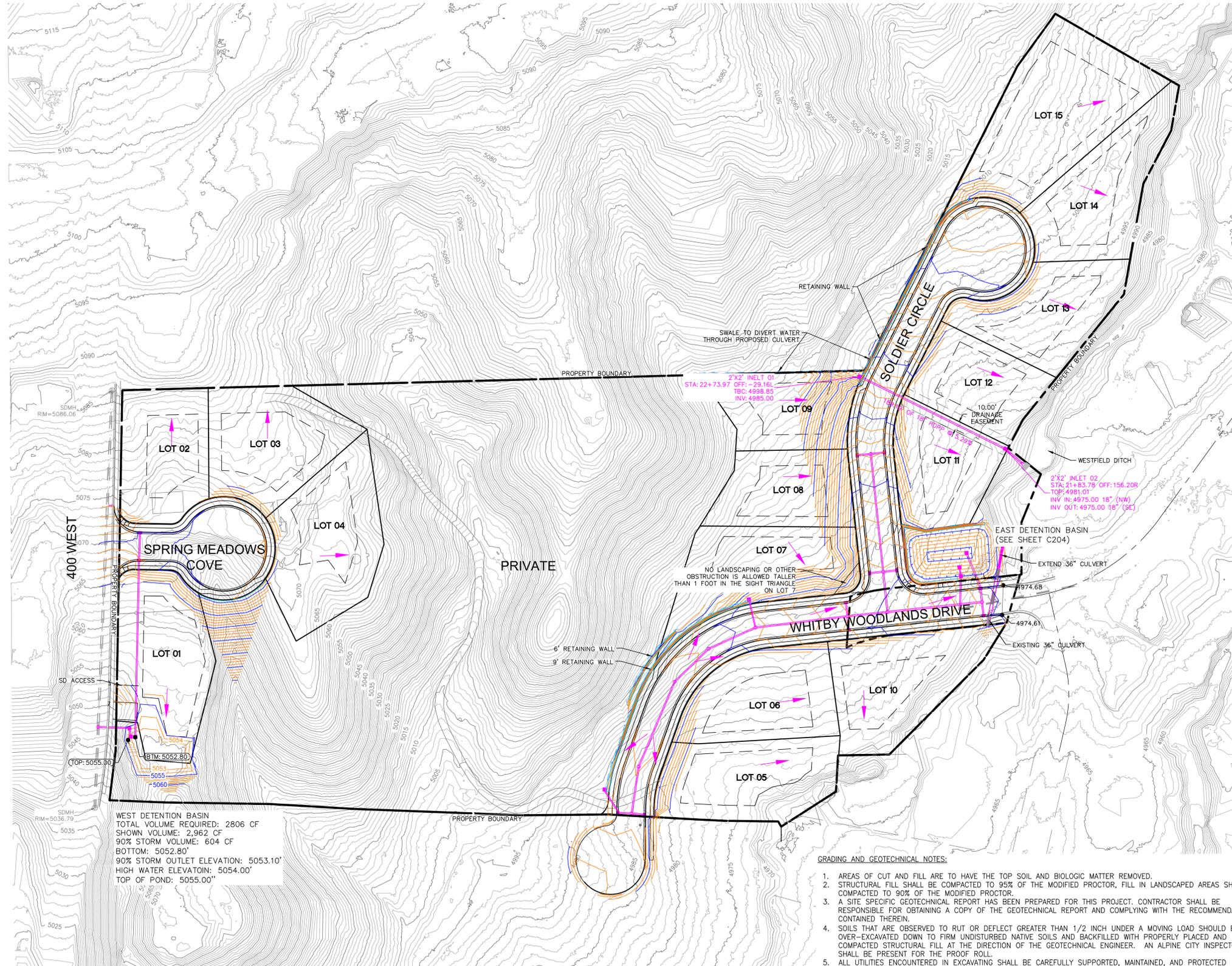
GRADING & DRAINAGE PLAN



WILDING
ENGINEERING

14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM

- DRAWING NOTES:**
- DRAINAGE NOTES**
1. WHEN APPLYING FOR BUILDING PERMITS, EACH LOT SHALL SUBMIT A SEPARATE GRADING & DRAINAGE PLAN TO SHOW HOW IT WILL RETAIN A 100-YEAR EVENT, WITH THE EXCEPTION OF LOTS 1, 7, 8, AND 9.
 2. WATER IS NOT TO CROSS PROPERTY LINES. PROPERTY LINE BERMS MAY BE NEEDED.
 3. ARROWS SHOW ANTICIPATED FLOW DIRECTION.



LEGEND

PROPOSED CONTOUR	
PROPOSED INDEX	
EXISTING CONTOUR	
EXISTING INDEX CONTOUR	
UTILITY EASEMENT	
PROPOSED SWALE	
DRAINAGE DIRECTION	
PROPOSED CATCH BASIN	
PROPOSED CLEANOUT	
PROPOSED SD MANHOLE	
PROPOSED FINISHED GRADE	
EXISTING GRADE	

C:\DATA\19011_Olson_Property\dwg\19011_Base.dwg
PLOT DATE: Jun 17, 2020

WEST DETENTION BASIN
TOTAL VOLUME REQUIRED: 2806 CF
SHOWN VOLUME: 2,962 CF
90% STORM VOLUME: 604 CF
BOTTOM: 5052.80'
90% STORM OUTLET ELEVATION: 5053.10'
HIGH WATER ELEVATION: 5054.00'
TOP OF POND: 5055.00'

- GRADING AND GEOTECHNICAL NOTES:**
1. AREAS OF CUT AND FILL ARE TO HAVE THE TOP SOIL AND BIOLOGIC MATTER REMOVED.
 2. STRUCTURAL FILL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR, FILL IN LANDSCAPED AREAS SHALL BE COMPACTED TO 90% OF THE MODIFIED PROCTOR.
 3. A SITE SPECIFIC GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A COPY OF THE GEOTECHNICAL REPORT AND COMPLYING WITH THE RECOMMENDATIONS CONTAINED THEREIN.
 4. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT GREATER THAN 1/2 INCH UNDER A MOVING LOAD SHOULD BE OVER-EXCAVATED DOWN TO FIRM UNDISTURBED NATIVE SOILS AND BACKFILLED WITH PROPERLY PLACED AND COMPACTED STRUCTURAL FILL AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER. AN ALPINE CITY INSPECTOR SHALL BE PRESENT FOR THE PROOF ROLL.
 5. ALL UTILITIES ENCOUNTERED IN EXCAVATING SHALL BE CAREFULLY SUPPORTED, MAINTAINED, AND PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH OSHA REGULATIONS.
 6. ALL PIPING SHALL BE PROTECTED FROM LATERAL DISPLACEMENT AND POSSIBLE DAMAGE RESULTING FROM IMPACT OR UNBALANCED LOADING DURING BACKFILLING OPERATIONS BY BEING ADEQUATELY BEDDED.
 7. THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION.

NO.	REVISION	DATE

PROJECT INFORMATION
BROOKSIDE MEADOWS
GRADING & DRAINAGE PLAN
ALPINE CITY, UTAH

DRAWN TMS	CHECKED JRP	PROJECT # 19011
---------------------	-----------------------	---------------------------

DATE
11/05/2019

SCALE
1" = 60'

SHEET
C203-04/14



EXHIBIT D

AASHTO INTERSECTION DESIGN, PAGE 586

Intersection Design

Profile

Combinations of grade lines that make vehicle control difficult should be avoided at intersections. Substantial grade changes should be avoided at intersections, but it is not always practical to do so. Adequate sight distance should be provided along both intersecting roads and across their included corners, as discussed below, even where one or both intersecting roads are on vertical curves.

The gradients of intersecting roads should be as flat as practical on those sections that are to be used for storage of stopped vehicles, sometimes referred to as “storage platforms.”

The calculated stopping and accelerating distances for passenger cars on grades of 3 percent or less differ little from the corresponding distances on the level. Grades steeper than 3 percent may need changes in several design elements to sustain operations equivalent to those on level roads. Most drivers are unable to judge the effect of steep grades on stopping or accelerating distances. Their normal deductions and reactions may thus be in error at a critical time. Accordingly, grades in excess of 3 percent should be avoided on the intersecting roads in the vicinity of the intersection. Where conditions make such designs too expensive, grades should not exceed about 6 percent, with a corresponding adjustment in specific geometric design elements.

The profile gradelines and cross sections on the legs of an intersection should be adjusted for a distance back from the intersection proper to provide a smooth junction and proper drainage. Normally, the gradeline of the major road should be carried through the intersection and that of the minor road should be adjusted to it. This design involves a transition in the crown of the minor road to an inclined cross section at its junction with the major road. For simple unchannelized intersections involving low design speeds and stop or signal control, it may be desirable to warp the crowns of both roads into a plane at the intersection; the appropriate plane depends on the direction of drainage and other conditions. Changes from one cross slope to another should be gradual. Intersections at which a minor road crosses a multilane divided highway with a narrow median on a superelevated curve should be avoided whenever practical because of the difficulty in adjusting grades to provide a suitable crossing. Gradelines of separate turning roadways should be designed to fit the cross slopes and longitudinal grades of the intersection legs.

The alignment and grades are subject to greater constraints at or near intersections than on the open road. At or near intersections, the combination of horizontal and vertical alignment should provide traffic lanes that are clearly visible to drivers at all times, clearly understandable for any desired direction of travel, free from the potential for conflicts to appear suddenly, and consistent in design with the portions of the highway just traveled.

The combination of vertical and horizontal curvature should allow adequate sight distance at an intersection. As discussed in Chapter 3, “Combinations of Horizontal and Vertical Alignment,” a sharp horizontal curve following a crest vertical curve is undesirable, particularly on intersection approaches.

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Major Subdivision Final Plat – Brookside Meadows Subdivision

FOR CONSIDERATION ON: 4 February 2020

PETITIONER: Greg Wilding, representing David Gifford

ACTION REQUESTED BY PETITIONER: Recommend approval of the final plat.

BACKGROUND INFORMATION:

Brookside Meadows consists of 15 lots on 13.306 acres. The development is located at approximately 430 North 400 West, and in the CR 20,000 zone. The final plan shows a connection to the Whitby Woodlands Subdivision on the east side of the property.

The City Council has reviewed and approved the concept plan and Planned Residential Development (PRD) status of the subdivision and the Planning Commission has approved the Preliminary Plan. The developer is now seeking approval of the Final Plat.

STAFF RECOMMENDATION:

Review and approve the Final Plat and Plans.

SAMPLE MOTION TO APPROVE

I motion to recommend approval the Brookside Meadows final plan with the following conditions:

- Prior to recording the developer:
 - Remove existing buildings or include the removal of existing buildings in the bond;
 - Meet the Water Policy;
 - Provide escrow funds for a roadway preservation coat;
 - Provide a cost estimate for development;
 - Address the redlines on the plat and plans.
- The Developer address landscaping and open style fence requirements on the retaining wall plans prior to construction of said items.

SAMPLE MOTION TO TABLE

I motion to table the Brookside Meadows final plan based on the following:

- ****INSERT FINDING****



**ALPINE CITY
STAFF REPORT**
January 28, 2020

To: Alpine City Planning Commission & City Council

From: Staff

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

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: **Brookside Meadows – FINAL**

Applicant: Greg Wilding of Wilding Engineering, representing David Gifford
Project Location: Approximately 430 North 400 West
Zoning: CR-20,000 Zone
Acreage: 13.306 Acres
Lot Number & Size: 15 lots ranging from 0.31 acres to 0.63 acres
Request: Recommend and approve the Final Plat

SUMMARY

Brookside Meadows consists of 15 lots on 13.306 acres. The development is located at approximately 430 North 400 West, and in the CR 20,000 zone. The final plan shows a connection to the Whitby Woodlands Subdivision on the east side of the property.

BACKGROUND

The City Council has reviewed and approved the concept plan and Planned Residential Development (PRD) status of the subdivision. The Planning Commission has approved the Preliminary Plan. The developer is now seeking approval of the Final Plat.

ANALYSIS

PRD Status and Requirements

The City Council approved PRD at Concept. The open space is to be dedicated as “private” as a condition of approval.

Lot Width and Area

Lot width requirements for the CR-20,000 zone are 110 feet for a standard lot, and 80 feet for a cul-de-sac lot located on a curve. Lots located within a PRD shall have a width of not less than 90 feet (measured 30 feet back from the front property line) and the length of the front lot line abutting the City street shall not be less than 60 feet. The proposed lots appear to meet the lot with requirements for a PRD.

Lots in the CR-20,000 zone are required to be a minimum of 20,000 square feet in size. However, the Brookside Meadows Subdivision has been approved as a PRD, which grants density bonuses for the dedication of open space. The proposed final plan appears to meet the density requirements set forth in the PRD ordinance.

Use

The developer is proposing that the lots be used for single-unit detached dwellings, which is consistent with the permitted uses for the CR-20,000 zone.

Sensitive Lands (Wildland Urban Interface)

See the Engineering and Public Works, and the Lone Peak Fire Department Reviews below for further comments on sensitive lands requirements.

Trails

The City Trail Master Plan shows no trails within the development area, nor any proposed trails. Not applicable to the subdivision.

General Plan

As part of the City General Plan, the Street Master Plan, shows a proposed new local street running through the Brookside Meadows property, connecting Whitby Woodlands Drive with 200 North street. The proposed final plan has incorporated the proposed new local street from the street master plan, which connects earlier phases of the Whitby Woodlands PRD Subdivision to future phases of the Whitby Woodlands PRD Subdivision.

Other

Previous plans showed a conflicting street name for the cul-de-sac, this has been changed to Spring Meadows Cove, which does not conflict with any other street name in the city and is approved.

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

At Final, Engineering reviews previous redline comments on the construction drawings and reviews the final plat. Most of the comments have been corrected and are approved. There are a few minor remaining redline comments for both the construction drawings and plat that need corrected and approved by Staff prior to recording. All major items discussed at Preliminary

have been addressed. For informational purposes only, the review comments from Preliminary are left in this report and are as follows:

Streets

The plans show a compliant cul-de-sac extending off 400 West (less than 450 feet), an extension of Whitby Woodlands Drive which terminates in a temporary turn-a-round, and a cul-de-sac running northward off Whitby Woodlands Drive. The roads meet ordinance regarding width, length, grade, and curvature. There is a large roadway cut at the intersection of Whitby Woodlands Drive and the proposed Soldier Circle. Because of the cut, there is the potential to block the sight triangle with landscaping at this intersection on Lot 7. Dev. Code 3.21.060.5 states that *“The sight triangle on corner lots shall not be obstructed. Privacy fences, walls, or hedges shall not exceed three (3) feet in height, and open-style fences shall not exceed four (4) feet...”* The grading on this corner lot shows dirt over six (6) feet high within the sight triangle, on the outer edge, this is could cause an obstruction of the sight triangle. Engineering recommends EITHER a retaining wall be added just outside the sight triangle to lower the grading OR a landscaping restriction be added restricting all shrubs/trees/landscaping features to be less than one (1) foot tall to reduce all obstructions within the sight triangle area. **(This has been addressed by requiring landscaping to be less than one foot tall in the sight triangle. It was shown on the construction drawings but redlined to be shown on the plat.)**

Staff was concerned that the grading of Soldier Circle would make it difficult, if not impossible, to construct driveways to the uphill lots 7 – 9. The Developer submitted a driveway design showing how the worst-case scenario, lot 9, could have a driveway built and therefore the lots are viable lots.

Dev. Code 4.17 and Standard Detail 1b require roadway cuts to remain within fifty (50) feet of the public right of way. Where they do extend into this area, a slope easement shall be placed on the plat for the slopes (to be reviewed at Final Approval. **This was reviewed and redlined on the plat**). The grading for Brookside Circle shows a large nine (9) foot tall retaining wall on the south side to reduce the amount of fill pushing into the private open space and to keep the fill slope within the fifty (50) foot clear zone. If the retaining wall was eliminated, the grading would extend another forty (40) feet into private open space. In this instance, Staff would be in favor of an exception to the 50-foot clear zone requirement to eliminate a large retaining wall that would be the city’s responsibility to maintain in the future. See attached Exhibit A showing the differences between the two situations. **(An exception to the grading was granted.)**

Speaking of retaining walls, a tiered wall system is proposed on the west side of Whitby Woodlands Drive as well as another on the west and north sides of the easterly detention basin. The tiered retaining wall along Whitby Woodlands Dr. will require landscaping per Dev. Code 3.32.030.5.f and the wall in the detention basin will require an open style fence on the north side per Dev. Code 3.32.030.5.g.

For reference, these sections state:

“f. For terraced walls viewable from the nearest public right-of-way, the horizontal separation between walls shall be planted with a minimum of five shrubs for every 20 linear feet of planting area. The size of the shrubs shall be less than one-half the width of the terrace. Shrubs shall be watered by drip

irrigation to minimize erosion by property owner, not by Alpine City.

g. Walls greater than four (4) feet in height (H) placed within H/2 of an adjacent property line, which would create a drop-off for the adjacent property, shall install a fence along the top of the wall in accordance with ADC 3.21.060.”

(Retaining wall designs are to be submitted prior to construction, landscaping and a fence will be part of those plans.)

The Fire Chief has approved road grades and design. His report is attached.

Lots

Lots, and slopes on lots, were covered extensively at Concept. Since Concept, a Geotech report has been submitted requiring certain setbacks from the tops and bottoms of steep slopes. The report specifically mentions lots 1-9. The final plat needs to reflect the setbacks mentioned in the report. This can be discussed further at that time. **(The plat alluded towards these setbacks but was redlined to more clearly call them out.)**

Utilities

A detailed utility plan has been submitted and reviewed. The subdivision has been accounted for within the utility master plans. Horrocks Engineers has modeled each utility system and has given recommendations regarding line sizing. That letter is attached and the plans reflect the recommendations.

Sewer System. 8-inch sewer mains exist in both Whitby Woodlands Dr. and 400 West which can serve the development. 8-inch mains and 4-inch sewer laterals would be required and are shown for each new lot. Sewer (along with culinary and pressurized irrigation) is shown to stub southward for a future phase on development. An existing home located at 430 N 400 W was recently removed. The sewer lateral for that lot can be either reused or capped in place, 10-feet behind sidewalk.

Culinary Water System. The subdivision is well below the 5350-foot elevation, which is the highest elevation the existing water system can serve and still provide a minimum 40 psi required by ordinance. There are currently 8 and 12-inch waterlines in the surrounding roads which would serve the development. The plans show connection to these lines with 8-inch lines throughout the development. 1-inch water service laterals with ¾-inch meters would be required. New laterals are shown to be constructed for each lot. The existing culinary service for 430 N 400 W would be re-used for lot 1. The Fire Chief has approved the location of proposed fire hydrants.

Pressurized Irrigation System. Similar to the culinary, 6-inch pressurized irrigation lines exist in the surrounding roads which would serve the development. The plans show connection to these lines with 6-inch and 4-inch lines throughout the development. Horrocks review letter recommends 6 and 4-inch lines within the development. 1-inch laterals are shown to be constructed for each new lot. The two existing services for 430 N 400 W would be re-used for lots 1 and 2.

Storm Water Drainage System. The development shows a storm drain system that meets City Standards. The storm drain system report is attached for reference. In general, two detention ponds are proposed for the east and west sides of development. Each pond retains the 90th percentile storm and detains all storms larger, up to the 100-yr event storm. The larger storms are released at a controlled rate to the existing systems in 400 W or within Whitby Woodlands system.

A storm water pollution prevention plan (SWPPP) was submitted with the plans. A City Land Disturbance permit will be obtained prior to construction which incorporates the SWPPP and requires a state storm water permit as well. The contractor will be required to follow erosion and control guidelines during construction to prevent erosion, dust, and downstream pollution.

Natural Hazards

Sensitive Lands. The proposed development falls within the Geologic Hazards Overlay Zone which has areas identified as having the potential for rockfall, slide, and debris flows. Within these areas the Sensitive Lands Ordinance applies (DC 3.12). Section 3.12.090.4.e states *“Development shall not be allowed within fifty (50) feet of slopes in excess of forty (40) percent, areas subject to landsliding, or other high-hazard geologic areas as determined by a soils report and/or geology report produced pursuant to the requirements of item H-5 documentation.”* Lots 3-5 and 7-9 would be affected by this ordinance and be required to show setbacks from the 40% and greater slopes at a minimum. A rockfall study, if more restrictive, would override that. Lot 9 would be impacted the most as the 50-foot setback extends deep into the lot. Slope stability is the concern when building on top of steep slopes. The added pressure of a structure could cause the slope to fail. Two geotechnical reports were submitted which did show slope stability tests for all areas of concern. The slope stability analysis has shown that the stability of Lot 9 would be safe if built to the regular zoning setbacks; the 50-foot setback can be reduced to the typical setbacks of the zone as shown.

Rockfall, debris flow, and slides were also reviewed and, in each instance, were shown to have a low risk for such an event. With this information, Staff would be in support of the preliminary plan as shown, with typical zoning setbacks applied to each lot, subject to the top/toe of slope recommendations as previously mentioned.

Flood Plain. The property is situated away from the mapped flood plains of Fort and Dry Creek.

Irrigation Ditches. Westfield Ditch runs along the east side of the development. Ditches are typically required to be piped when development occurs (Dev. Code 4.07.190) but this section of ditch (Westfield Ditch, north of 200 North) is specifically required to be left open per agreement with Alpine Irrigation Company. The plans reflect this and an easement is shown for the ditch on the plat.

Other

The property has existing buildings onsite. Prior to the recordation of any phase of development that contains existing buildings, the existing building(s) must be removed, existing services either re-used or cut/capped/removed; or a bond provided to ensure those things will happen prior to a building permit being issued on the affected lot(s).

There are minor redlines on the drawings which need corrected and approved by Staff prior to Final submittal.

Alpine City specifications require escrow funds for a roadway preservation coat (See Alpine City Construction Standard Specifications 300.030 & 600.020). The amount for this requirement will be calculated based on current preservation coat costs at the time of recording. **The escrow funds for this roadway preservation coat will be required of the Developer prior to recording.**

The water policy will need to be met for this development.

An engineer's cost estimate will be required for bonding purposes.

LONE PEAK FIRE DEPARTMENT REVIEW

See the attached review from the Lone Peak Fire Department.

HORROCKS ENGINEER'S REVIEW

See the attached review from Horrocks Engineering.

NOTICING

Notice has been properly issued in the manner outlined in City and State Code

STAFF RECOMMENDATION

Review staff report and findings and make a motion to approve or table the proposed subdivision. Findings are outlined below.

Findings for a Positive Motion:

- A. The streets and layout appear to meet ordinance;
- B. Plan appears to comply with the General Plan and Street Master Plan, showing a local street running through the southeast corner of the property, connecting Whitby Woodlands Drive to future phases of the Whitby Woodlands PRD Subdivision.
- C. The property appears to meet the requirements of a PRD, based on slope analysis, lot width, and density requirements, as well as the other requirements including:
 - a. Recognize and incorporate natural conditions of site;
 - b. Efficiently utilize land resources and benefit the public in delivery of utilities and services;
 - c. Help to provide variety to style of dwelling available;
 - d. Preserve open space for recreational, scenic and public service needs;
 - e. Be consistent with objectives of underlying zone;
- D. There are no major hazards of concern mentioned in the geotechnical reports.

Findings for a Motion to Table:

- A. None.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I motion to approve the Brookside Meadows final plan with the following conditions:

- Prior to recording the Developer:
 - Remove existing buildings or include the removal of existing buildings in the bond;
 - Meet the Water Policy;
 - Provide escrow funds for a roadway preservation coat;
 - Provide a cost estimate for development;
 - Address the redlines on the plat and plans.
- The Developer address landscaping and open style fence requirements on the retaining wall plans prior to construction of said items.

SAMPLE MOTION TO TABLE

I motion to table the Brookside Meadows final plan based on the following:

- ****INSERT FINDING****



LONE PEAK FIRE DISTRICT
5582 PARKWAY WEST DRIVE
HIGHLAND, UTAH 84003
(801) 763-5365
WWW.LONEPEAKFIRE.COM

REED M. THOMPSON, FIRE CHIEF

MEMORANDUM

DATE: 9 December 2019

TO: Jed Muhlestein, City Engineer, Alpine City
Austin Roy, City Planner, Alpine City
CC: Shane Sorensen, City Administrator, Alpine City
FROM: Reed M. Thompson, Fire Chief *Reed M. Thompson*

SUBJECT: BROOKSIDE MEADOWS SUBDIVISION PRELIMINARY DESIGN

The preliminary plans for Brookside Meadows submitted on 5 November 2019, formerly submitted as concept drawings under the name of Alpine Ridge Estates on 12 Aug 2019. Fire hydrants appear to be located in accordance with appropriate spacing as required by the International Fire Code.

The update to those plans and review of the new plans have the following items that need to be addressed:

- The cover page general/construction notes need to reflect language identifying this project as within the Wildland Urban Interface Area and as such is subject to compliance with the Alpine City Sensitive Land Ordinance and Wildland-Urban Interface Site Plan/Development Review Guide.
- The temporary turnaround on Whitby Woodlands Drive to the south of the project boundary shall be an all-weather access road capable of sustaining the weight limits of fire apparatus as required in the International Fire Code.
- The area designated as open space shall be cleared of all dead fall, leaf litter, and standing dead oak in an effort to address fire spread mitigation.
- No vertical construction shall commence until water lines are tested, streets are accessible including turnarounds.

To: Jed Muhlestein
Alpine City

From: John E. Schiess, P.E.

Date: Aug 28, 2019

Memorandum

Subject: Alpine Ridge Hydraulic Modeling Results and Recommendations

The proposed development consists of 9 single family home lots split between Hog Hollow Rd (4) and Whitby Woodlands Dr (5).

The development proposes 9 culinary ERC's, 2.3 irrigated acres, and 9 sanitary sewer ERU's. The current master plan anticipated 4 culinary ERC's, 6.2 irrigated acres, and 4 sanitary sewer ERU's. Proposed connections are slightly different than the master plan projected. 5 more culinary and sanitary sewer connection will not adversely affect operations of those systems. Less irrigated acreage will enhance buildout service in the PI system.

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 proposed pressurized irrigation improvements have been modeled in both the current and buildout models under both wet and dry year supply conditions. The proposed improvements fit well within the City's pressurized irrigation master plan and modeling shows them to be adequate.

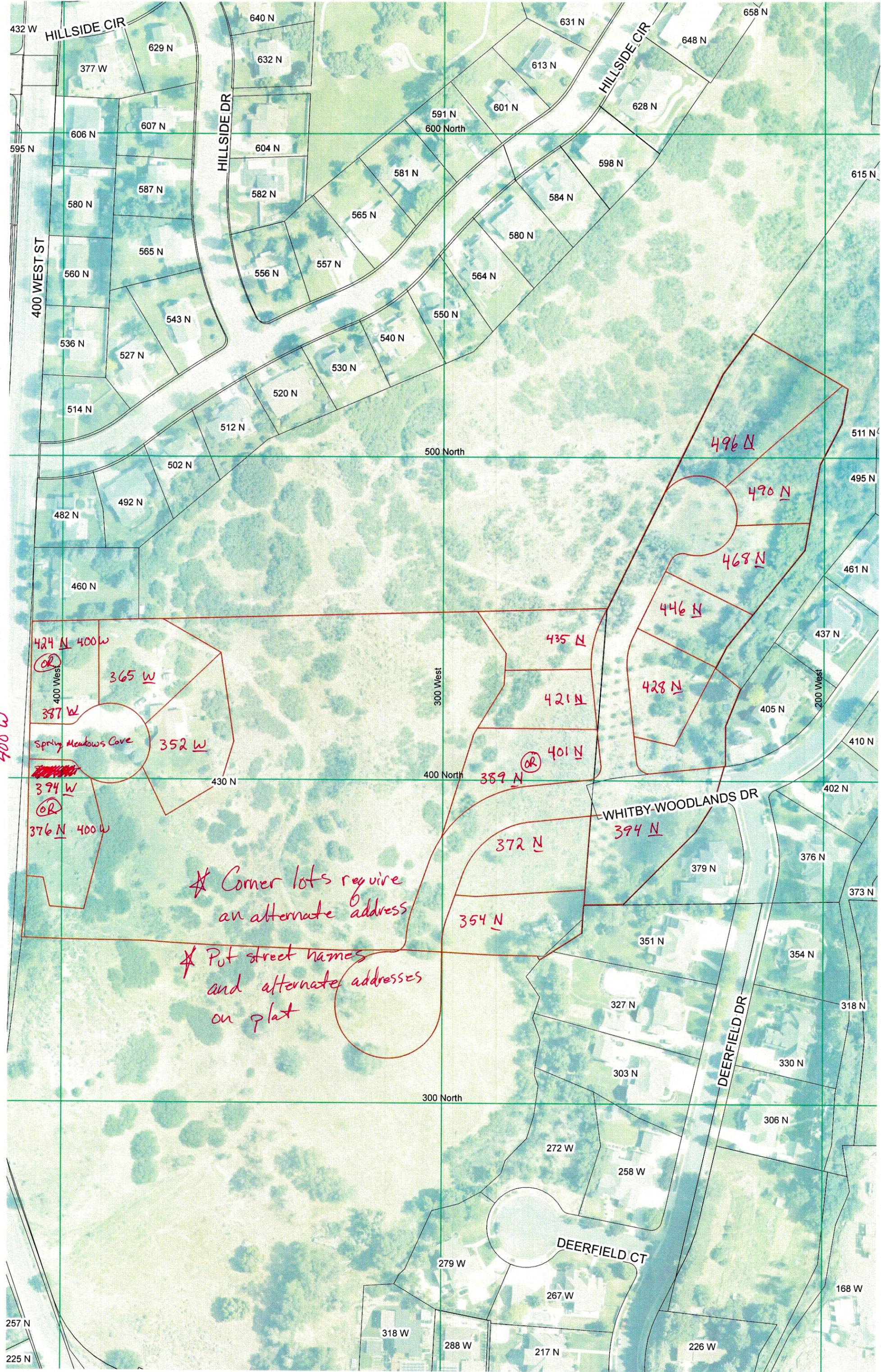
The proposed sanitary sewer improvements have been modeled in both the current and buildout models. The proposed improvements fit well within the City's sanitary sewer master plan and modeling shows them to be adequate.

Recommendations:

1. None.

Comments:

2. Fire flow available in the area surrounding the proposed improvements should be over 2,500 gallons per minute at 20 psi for the proposed lines.



* Corner lots require an alternate address

* Put street names and alternate addresses on plat

424 N 400 W

365 W

400 West

387 W

Spring Meadows Cove

352 W

394 W

430 N

376 N 400 W

435 N

421 N

401 N

389 N

372 N

354 N

496 N

490 N

468 N

446 N

428 N

394 N

WHITBY WOODLANDS DR

DEERFIELD DR

DEERFIELD CT

BROOKSIDE MEADOWS P.R.D.

LOCATED IN THE NORTH HALF OF SECTION 24,
TOWNSHIP 4 SOUTH, RANGE 1 EAST,
SALT LAKE BASE AND MERIDIAN,
CITY OF ALPINE, UTAH COUNTY, UTAH

SURVEYOR'S CERTIFICATE

I, KAGAN M. DIXON, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR AND THAT I HOLD LICENSE NO. 9061091 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAN AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS AND STREETS HEREAFTER TO BE KNOWN AS

BROOKSIDE MEADOWS P.R.D.

AND THAT SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAN. I FURTHER CERTIFY THAT ALL LOTS MEET FRONTAGE, WIDTH, AND AREA REQUIREMENTS OF THE APPLICABLE ZONING ORDINANCES.

BOUNDARY DESCRIPTION

A TRACT OF LAND BEING SITUATE IN THE NORTH HALF OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, HAVING A BASIS OF BEARINGS OF NORTH 89°38'36" WEST BETWEEN THE EAST QUARTER AND THE WEST QUARTER OF SAID SECTION 24, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHICH IS NORTH 89°38'36" WEST ALONG THE QUARTER SECTION LINE A DISTANCE OF 2882.94 FEET AND NORTH 17.27 FEET FROM THE EAST QUARTER OF SECTION 24, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, SAID POINT ALSO BEING THE NORTHWESTERLY CORNER OF LOT 7, PLAT A, DEERFIELD SUBDIVISION, ON FILE WITH THE OFFICE OF THE UTAH COUNTY RECORDER AS MAP FILING NO. 10153, AND RUNNING THENCE NORTH 30°16'09" WEST 6.91 FEET; THENCE NORTH 89°15'56" WEST 61.10 FEET; THENCE NORTH 87°28'36" WEST 27.89 FEET; THENCE NORTH 86°48'27" WEST 109.48 FEET; THENCE SOUTH 89°23'07" WEST 100.18 FEET; THENCE NORTH 87°50'37" WEST 193.36 FEET; THENCE NORTH 86°42'12" WEST 100.37 FEET; THENCE NORTH 89°08'14" WEST 120.91 FEET; THENCE NORTH 87°48'00" WEST 65.93 FEET TO THE EAST RIGHT-OF-WAY LINE OF 400 WEST STREET; THENCE ALONG SAID RIGHT-OF-WAY LINE THE FOLLOWING TWO (2) COURSES, (1) NORTH 07°04'00" EAST 58.16 FEET, (2) NORTH 01°04'00" EAST 417.73 FEET TO THE SOUTHWEST CORNER OF MOUNTAINVILLE HEIGHTS PUD, ON FILE WITH THE OFFICE OF THE UTAH COUNTY RECORDER AS MAP FILING NO. 2468; THENCE ALONG SAID PLAT THE FOLLOWING THREE (3) COURSES, (1) NORTH 88°28'55" EAST 864.51 FEET, (2) NORTH 26°46'20" EAST 395.43 FEET, (3) NORTH 38°03'20" EAST 74.92 FEET TO THE WESTERLY CORNER OF PARCEL 101C, PLAT C, WHITBY WOODLANDS PRD, ON FILE WITH THE OFFICE OF THE UTAH COUNTY RECORDER AS MAP FILING NO. 11809; THENCE ALONG SAID PLAT THE FOLLOWING TEN (10) COURSES, (1) SOUTH 60°00'00" EAST 166.36 FEET, (2) SOUTH 10°00'00" WEST 52.88 FEET, (3) SOUTH 27°39'52" WEST 68.81 FEET, (4) SOUTH 10°00'00" WEST 130.00 FEET, (5) SOUTH 39°00'00" WEST 187.00 FEET, (6) SOUTH 27°40'00" WEST 37.00 FEET, (7) SOUTH 51°16'50" EAST 48.84 FEET, (8) SOUTH 22°00'00" WEST 60.16 FEET, (9) SOUTH 60.52 FEET TO THE POINT OF A NON-TANGENT 200.00 FOOT RADIUS CURVE TO THE RIGHT, (10) ALONG SAID CURVE A DISTANCE OF 1.76 FEET THROUGH A CENTRAL ANGLE OF 00°01'01" (CHORD BEARS SOUTH 83°44'27" WEST 1.76 FEET) TO THE NORTHEAST CORNER OF THAT CERTAIN WARRANTY DEED RECORDED ON AUGUST 11, 2005, AS ENTRY 88437-2005, ON FILE WITH THE OFFICE OF THE UTAH COUNTY RECORDER, AND RUNNING THENCE ALONG SAID WARRANTY DEED THE FOLLOWING THREE (3) COURSES, (1) SOUTH 84°00'00" WEST 151.02 FEET TO THE POINT OF A 254.00 FOOT RADIUS CURVE TO THE LEFT, (2) ALONG SAID CURVE A DISTANCE OF 48.46 FEET THROUGH A CENTRAL ANGLE OF 10°55'54" (CHORD BEARS SOUTH 78°32'03" WEST 48.39 FEET), (3) SOUTH 04°10'24" WEST 50.18 FEET TO THE POINT OF A NON-TANGENT 200.00 FOOT RADIUS CURVE TO THE RIGHT, (4) SOUTH 84°00'00" EAST 166.62 FEET TO THE WEST LINE OF SAID PLAT C, WHITBY WOODLANDS PRD; THENCE ALONG SAID WEST LINE THE FOLLOWING TWO (2) COURSES, (1) SOUTH 04°10'24" WEST 50.18 FEET TO THE POINT OF A NON-TANGENT 200.00 FOOT RADIUS CURVE TO THE RIGHT, (2) SOUTH 89°00'44" WEST 98.67 FEET, (3) SOUTH 03°23'29" WEST 41.92 FEET, (4) SOUTH 57°26'29" WEST 75.64 FEET TO THE POINT OF BEGINNING.

CONTAINS 15 LOTS, 576,669 SQUARE FEET, OR 13.238 ACRES, MORE OR LESS.

OWNERS' DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED OWNER(S) OF THE ABOVE DESCRIBED TRACT OF LAND HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, PARCELS, AND STREETS, TOGETHER WITH EASEMENTS AND RIGHTS-OF-WAY, TO BE HEREAFTER KNOWN AS

BROOKSIDE MEADOWS P.R.D.

AND DO HEREBY DEDICATE FOR PERPETUAL USE OF THE PUBLIC AND CITY ALL PARCELS, LOTS, STREETS, EASEMENTS, RIGHTS-OF-WAY, AND PUBLIC AMENITIES SHOWN ON THIS PLAN AS INTENDED FOR PUBLIC OR CITY USE. THE OWNER(S) VOLUNTARILY DEFEND, INDEMNIFY, AND SAVE HARMLESS THE CITY AGAINST ANY EASEMENTS OR OTHER ENCUMBRANCE ON A DEDICATED STREET WHICH WILL INTERFERE WITH THE CITY'S USE, MAINTENANCE, AND OPERATION OF THE STREET. THE OWNER(S) AND ALL AGENTS, SUCCESSORS, AND ASSIGNS VOLUNTARILY DEFEND, INDEMNIFY, AND HOLD HARMLESS THE CITY FROM ANY CLAIM ARISING FROM THE OWNER'S CREATION OF THIS SUBDIVISION, THE ALTERATION OF THE GROUND SURFACE, VEGETATION, DRAINAGE, OR SURFACE OR SUB-SURFACE WATER FLOWS WITHIN THIS SUBDIVISION, AND THE DEVELOPMENT ACTIVITY WITHIN THIS SUBDIVISION BY THE OWNERS AND ALL AGENTS, SUCCESSORS AND ASSIGNS.

IN WITNESS WHEREOF I HAVE SET FORTH MY HAND THIS ___ DAY OF ___, A.D. 20__

SIGNATURE _____ PRINT NAME _____

ACKNOWLEDGMENT:

STATE OF UTAH

COUNTY OF _____

ON THIS ___ DAY OF ___, A.D. ___, PERSONALLY APPEARED BEFORE ME _____ WHO BEING DULY SWORN OF AFFIRMED, DID SAY THAT (S)HE IS THE SIGNER OF THE WITHIN OWNER'S DEDICATION AND THAT SAID DEDICATION WAS SIGNED BY HER FREELY AND VOLUNTARILY AND FOR THE PURPOSES THEREIN STATED.

SIGNATURE _____

PRINTED NAME, A NOTARY PUBLIC COMMISSIONED IN UTAH _____

COMMISSION NUMBER _____

EXPIRATION DATE _____

APPROVAL BY LEGISLATIVE BODY

THE CITY COUNCIL OF THE CITY OF ALPINE, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON, AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR THE PUBLIC PURPOSE OF THE PERPETUAL USE OF THE PUBLIC.

THIS ___ DAY OF ___, A.D. 20__

ENGINEER _____ CITY RECORDER (SEE SEAL BELOW)

PLANNING COMMISSION APPROVAL

APPROVED THIS ___ DAY OF ___, A.D. 20__ BY THE ALPINE CITY PLANNING COMMISSION.

DIRECTOR-SECRETARY _____

CHAIRMAN, PLANNING COMMISSION _____

BROOKSIDE MEADOWS P.R.D.

LOCATED IN THE NORTH HALF OF SECTION 24,
TOWNSHIP 4 SOUTH, RANGE 1 EAST,
SALT LAKE BASE AND MERIDIAN,
CITY OF ALPINE, UTAH COUNTY, UTAH

SURVEYOR'S SEAL CITY ENGINEER SEAL CLERK-RECORDER SEAL



Curve #	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	48.46'	254.00'	10°55'54"	S78°32'03"W	48.39'
C2	1.76'	200.00'	0°30'10"	N83°44'27"E	1.76'
C3	22.59'	19.93'	64°57'55"	S57°43'58"E	21.40'
C4	21.71'	19.83'	62°42'06"	S58°43'02"W	20.64'
C5	305.66'	60.00'	291°53'18"	N01°04'00"E	67.20'
C6	14.65'	15.00'	55°56'39"	N60°57'37"W	14.07'
C7	14.65'	15.00'	55°56'39"	N63°05'40"E	14.07'
C8	39.91'	60.00'	38°06'51"	S54°10'46"W	39.18'
C9	74.59'	60.00'	71°13'56"	N71°08'50"W	69.88'
C10	74.81'	60.00'	71°26'17"	N00°11'16"E	70.06'
C11	87.34'	60.00'	83°24'01"	N77°36'25"E	79.83'
C12	29.01'	60.00'	27°42'14"	S46°50'28"E	28.73'
C14	58.96'	177.00'	19°05'06"	S10°02'30"W	58.69'
C15	40.97'	123.00'	19°05'06"	S10°02'30"W	40.78'
C16	199.00'	177.00'	64°24'57"	S51°47'31"W	188.68'
C17	43.75'	177.00'	14°09'44"	S26°39'55"W	43.64'
C18	155.25'	177.00'	50°15'13"	S58°52'23"W	150.32'
C19	138.29'	123.00'	64°24'57"	S51°47'31"W	131.12'
C20	31.43'	20.00'	90°02'00"	N38°59'00"E	28.29'
C21	31.40'	20.00'	89°58'00"	S51°01'00"E	28.28'
C22	101.34'	177.00'	32°48'20"	S10°22'10"W	99.97'
C23	91.32'	177.00'	29°33'42"	S11°59'29"W	90.31'
C24	10.02'	177.00'	3°14'38"	S04°24'41"E	10.02'
C25	70.43'	123.00'	32°48'20"	S10°22'10"W	69.47'
C26	69.49'	123.00'	32°22'15"	S10°09'08"W	68.57'
C27	0.93'	123.00'	0°26'05"	S26°33'18"W	0.93'
C28	272.19'	60.00'	259°55'17"	N23°16'02"W	91.98'
C29	113.64'	60.00'	108°31'06"	S81°01'54"W	97.40'
C30	62.25'	60.00'	59°26'46"	N14°59'09"W	59.50'
C31	96.30'	60.00'	91°57'23"	N60°42'55"E	86.29'
C32	27.90'	20.00'	79°55'18"	S66°43'58"W	25.69'
C33	85.88'	150.00'	32°48'20"	S10°22'10"W	84.72'
C34	168.64'	150.00'	64°24'57"	S51°47'31"W	159.90'
C35	49.96'	150.00'	19°05'06"	S10°02'30"W	49.73'

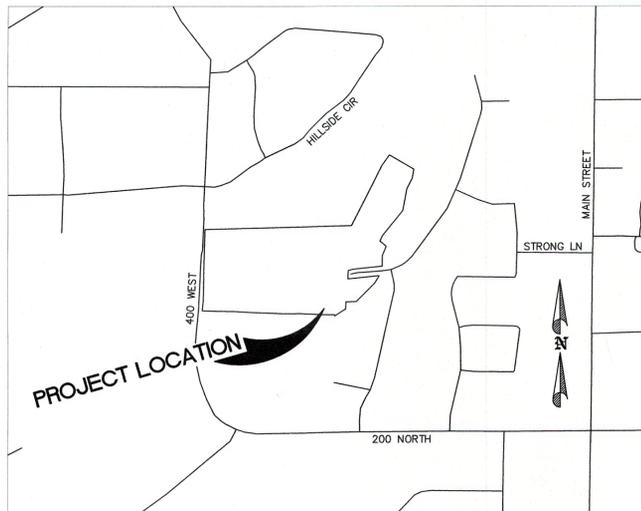
Line #	Length	Direction	Line #	Length	Direction
L1	6.91'	N30°16'09"W	L21	50.78'	S32°00'00"W
L2	61.10'	N89°15'56"W	L22	155.00'	S45°00'00"W
L3	27.89'	N87°26'36"W	L23	59.67'	S89°00'44"W
L4	109.48'	N86°48'27"W	L24	41.92'	S03°23'29"W
L5	100.18'	S89°28'07"W	L25	75.64'	S57°26'29"W
L6	193.36'	N87°50'37"W	L26	41.99'	S88°56'21"E
L7	100.37'	N86°42'12"W	L27	41.12'	N88°55'06"W
L8	120.91'	N89°08'14"W	L28	24.91'	N85°04'24"W
L9	65.93'	N87°48'00"W	L29	44.17'	N12°47'27"W
L10	58.16'	N07°04'00"E	L30	51.77'	N85°31'14"W
L11	74.92'	N36°03'20"E	L31	122.17'	S14°10'22"W
L12	52.88'	S10°00'00"W	L32	81.27'	S14°22'53"E
L13	69.81'	S27°39'52"W	L33	80.87'	N26°06'26"W
L14	130.00'	S10°00'00"W	L34	28.86'	S77°02'00"E
L15	187.00'	S39°00'00"W	L35	135.73'	S63°48'47"E
L16	37.00'	S27°40'00"W			
L17	48.84'	S51°16'59"E			
L18	60.16'	S22°00'00"W			
L19	60.52'	S00°00'00"E			
L20	50.18'	S04°12'04"W			

Parcel #	Address
1	384 WEST
2	387 WEST
3	366 WEST
4	446 NORTH
5	364 NORTH
6	378 NORTH
7	431 NORTH
8	447 NORTH
9	463 NORTH
10	217 WEST
11	454 NORTH
12	468 NORTH
13	484 NORTH
14	498 NORTH
15	514 NORTH

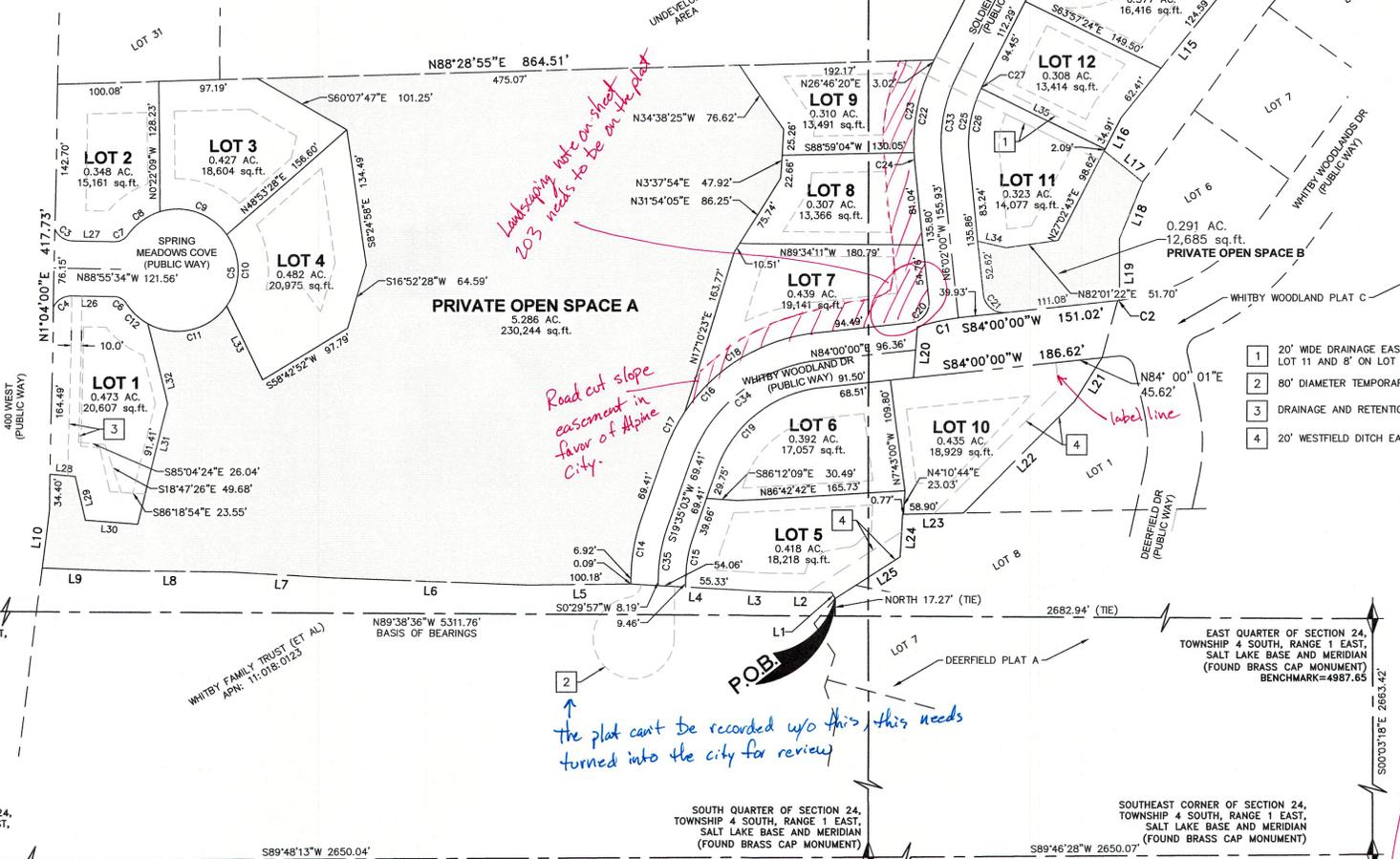
APPROVAL AS TO FORM

APPROVED TO FORM THIS ___ DAY OF ___, A.D. 20__

CITY ATTORNEY _____



VICINITY MAP
SCALE: 1" = 500'
ALPINE, UTAH



Landscaping note on sheet 203 needs to be on the plat

Road cut slope easement in favor of Alpine City.

the plat cant be recorded w/o this, this needs turned into the city for review

Add street name

see separate redlines

- NOTES:
- OPEN SPACE PARCELS ARE PRIVATE AND ARE TO BE OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.
 - ALL OF OPEN SPACE A AND OPEN SPACE B IS A PUBLIC UTILITY, PRIVATE DETENTION, AND PRIVATE DRAINAGE EASEMENT.
 - ALL LOTS SHALL BE SUBJECT TO PUBLIC UTILITY EASEMENTS AS FOLLOWS:
10 FEET ON FRONT AND REAR
5 FEET ON EXTERIOR LINES OF SUBDIVISION
5 FEET ON SIDE LOT LINES
 - THE SETBACK ADJACENT TO THE SLOPES SHALL BE THE MORE RESTRICTIVE OF EITHER THE READ SETBACK SPECIFIED ON THIS PLAN OR THE SETBACK FROM THE SLOPE AS SPECIFIED IN SOILS REPORT.
 - CUT SLOPES ON THE LOTS TO BE GRADED BACK AND RETAINING WALLS TO BE USED AS NECESSARY TO CREATE BUILDABLE PADS.

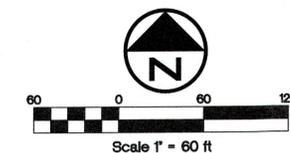
Name the exact report and call out the lots it specifies

This subdivision is located in

WILDING ENGINEERING
14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM

BROOKSIDE MEADOWS

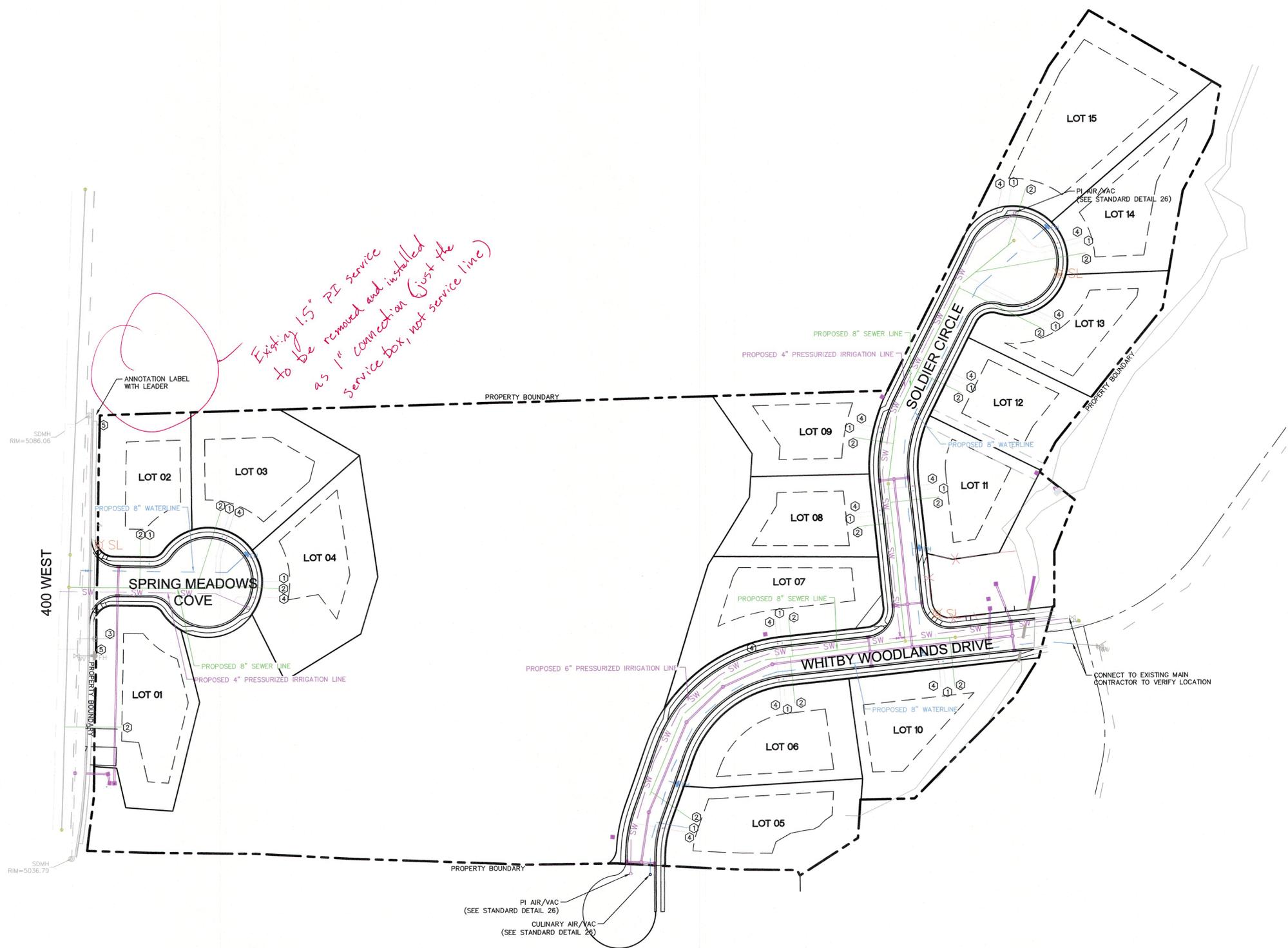
UTILITY PLAN



WILDING
ENGINEERING

14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM

- DRAWING NOTES:**
- GENERAL NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE TO BE IN ACCORDANCE WITH ALL ALPINE CITY STANDARDS AND SPECIFICATION.
 2. ADA RAMP'S TO BE LOCATED ALL INTERSECTIONS WITH SIDEWALKS. RAMP'S SHALL MEET ADA REQUIREMENTS FOR SLOPE.
- UTILITY NOTES:**
1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALPINE CITY STANDARDS AND SPECIFICATIONS.
 2. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL UTILITIES SHOWN OR NOT SHOWN.
 3. ALL UTILITIES SHALL REMAIN ACTIVE DURING CONSTRUCTION.
- WATERLINE NOTES:**
1. THRUST BLOCKS OR MECHANICAL RESTRAINING DEVICES SHALL BE USED FOR TEES, VALVES, PLUGS, CAPS AND BENDS.
 2. MINIMUM BURY DEPTH OF WATERLINE IS 4'.
 3. DUCTILE IRON PIPE SHALL BE USED FOR ALL CULINARY DRINKING WATER MAINS UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER OR HIS/HER DESIGNEE.
- SEWER NOTES:**
1. ALL CONSTRUCTION SHALL COMPLY WITH SOUTH VALLEY SEWER DISTRICT'S DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS.
 2. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND INVERTS ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES BEFORE STAKING OR CONSTRUCTION ANY NEW SEWER LINES.
 3. FOUR FEET OF COVER IS REQUIRED OVER ALL SEWER LINES.
 4. PVC SEWER LINES TO BE SDR-35 PVC PIPE.
- PRESSURIZED IRRIGATION NOTES:**
1. THRUST BLOCKS OR MECHANICAL RESTRAINING DEVICES SHALL BE USED FOR TEES, VALVES, PLUGS, CAPS AND BENDS.
 2. MINIMUM BURY DEPTH OF THE PRESSURIZED IRRIGATION LINE IS 2'.
 3. PRESSURIZED IRRIGATION LINES ARE TO BE PVC C-900.



LEGEND

- ① 1" CTS POLY WATER LATERAL
- ② 4" SEWER LATERAL
- ③ EXISTING WATER LATERAL
- ④ 1" SECONDARY WATER LATERAL
- ⑤ EXISTING SECONDARY WATER LATERAL (MODIFY FOR A 1" METER)
- PROPOSED 8" SEWER
- PROPOSED 8" WATERLINE
- PROPOSED SECONDARY WATERLINE (SIZE VARIES)
- PROPOSED FIRE HYDRANT W/ ASSEMBLY
- EXISTING SEWER
- EXISTING WATERLINE
- EXISTING SECONDARY LINE
- EXISTING FIRE HYDRANT
- PROPOSED STREET LIGHT

NO.	REVISION	DATE

PROJECT INFORMATION

BROOKSIDE MEADOWS

UTILITY PLAN

ALPINE CITY, UTAH

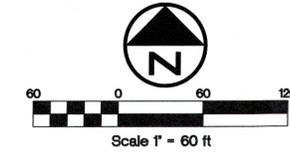
DRAWN TMS	CHECKED JRP	PROJECT # 19011
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<p>ENGINEER'S STAMP</p>	DATE 11/05/2019
	SCALE 1" = 60'
	SHEET C202-03/14

G:\DATA\19011 Olson_Property\dwg\19011_Base.dwg
PLOT DATE: Jan 17, 2020

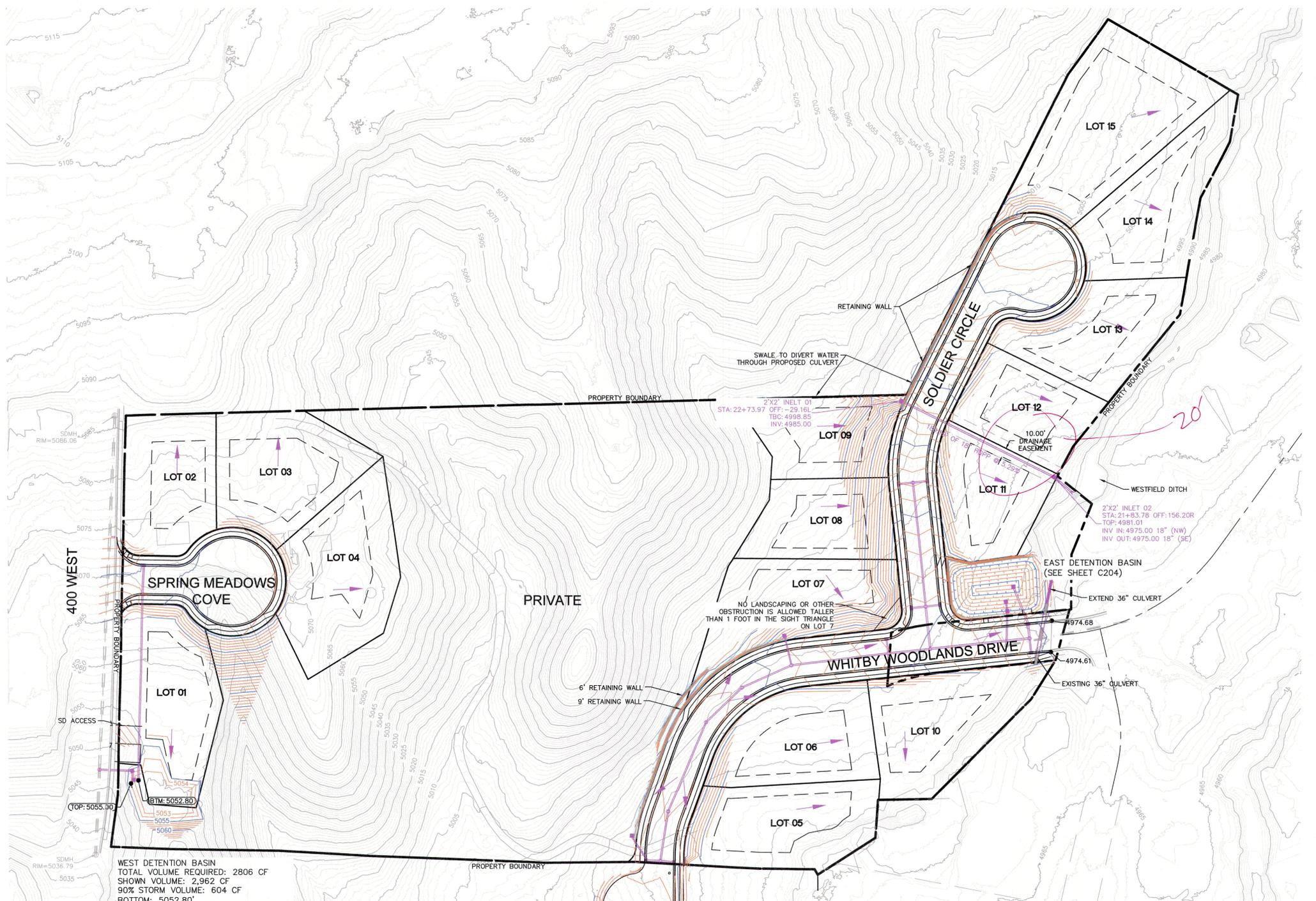
BROOKSIDE MEADOWS

GRADING & DRAINAGE PLAN



WILDING
ENGINEERING

14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM



DRAWING NOTES:

DRAINAGE NOTES:

1. WHEN APPLYING FOR BUILDING PERMITS, EACH LOT SHALL SUBMIT A SEPARATE GRADING & DRAINAGE PLAN TO SHOW HOW IT WILL RETAIN A 100-YEAR EVENT, WITH THE EXCEPTION OF LOTS 1, 7, 8, AND 9.
2. WATER IS NOT TO CROSS PROPERTY LINES. PROPERTY LINE BERMS MAY BE NEEDED.
3. ARROWS SHOW ANTICIPATED FLOW DIRECTION.

LEGEND

PROPOSED CONTOUR	
PROPOSED INDEX	
EXISTING CONTOUR	
EXISTING INDEX CONTOUR	
UTILITY EASEMENT	
PROPOSED SWALE	
DRAINAGE DIRECTION	
PROPOSED CATCH BASIN	
PROPOSED CLEANOUT	
PROPOSED SD MANHOLE	
PROPOSED FINISHED GRADE	
EXISTING GRADE	

NO.	REVISION	DATE

PROJECT INFORMATION

BROOKSIDE MEADOWS

GRADING & DRAINAGE PLAN

ALPINE CITY, UTAH

DRAWN TMS	CHECKED JRP	PROJECT # 19011
DATE 11/05/2019		SCALE 1" = 60'
SHEET C203-04/14		ENGINEER'S STAMP

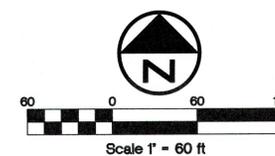
- GRADING AND GEOTECHNICAL NOTES:**
1. AREAS OF CUT AND FILL ARE TO HAVE THE TOP SOIL AND BIOLOGIC MATTER REMOVED.
 2. STRUCTURAL FILL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR, FILL IN LANDSCAPED AREAS SHALL BE COMPACTED TO 90% OF THE MODIFIED PROCTOR.
 3. A SITE SPECIFIC GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A COPY OF THE GEOTECHNICAL REPORT AND COMPLYING WITH THE RECOMMENDATIONS CONTAINED THEREIN.
 4. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT GREATER THAN 1/2 INCH UNDER A MOVING LOAD SHOULD BE OVER-EXCAVATED DOWN TO FIRM UNDISTURBED NATIVE SOILS AND BACKFILLED WITH PROPERLY PLACED AND COMPACTED STRUCTURAL FILL AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER. AN ALPINE CITY INSPECTOR SHALL BE PRESENT FOR THE PROOF ROLL.
 5. ALL UTILITIES ENCOUNTERED IN EXCAVATING SHALL BE CAREFULLY SUPPORTED, MAINTAINED, AND PROTECTED DURING CONSTRUCTION IN ACCORDANCE WITH OSHA REGULATIONS.
 6. ALL PIPING SHALL BE PROTECTED FROM LATERAL DISPLACEMENT AND POSSIBLE DAMAGE RESULTING FROM IMPACT OR UNBALANCED LOADING DURING BACKFILLING OPERATIONS BY BEING ADEQUATELY BEDED.
 7. THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION.

WEST DETENTION BASIN
TOTAL VOLUME REQUIRED: 2806 CF
SHOWN VOLUME: 2,962 CF
90% STORM VOLUME: 604 CF
BOTTOM: 5052.80'
90% STORM OUTLET ELEVATION: 5053.10'
HIGH WATER ELEVATION: 5054.00'
TOP OF POND: 5055.00'

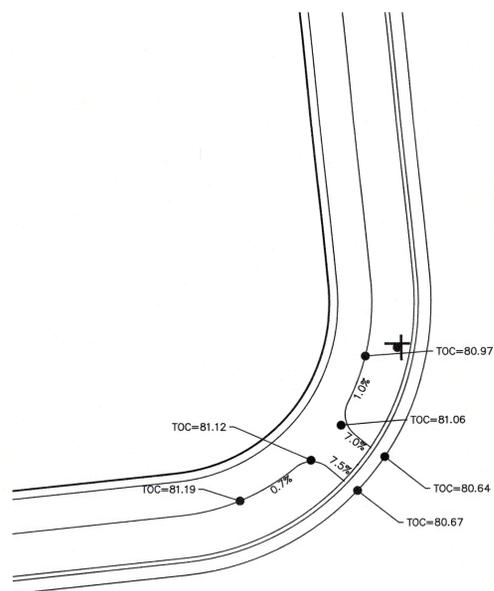
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PLOT DATE: Jan 17, 2020

BROOKSIDE MEADOWS

ADA DESIGN

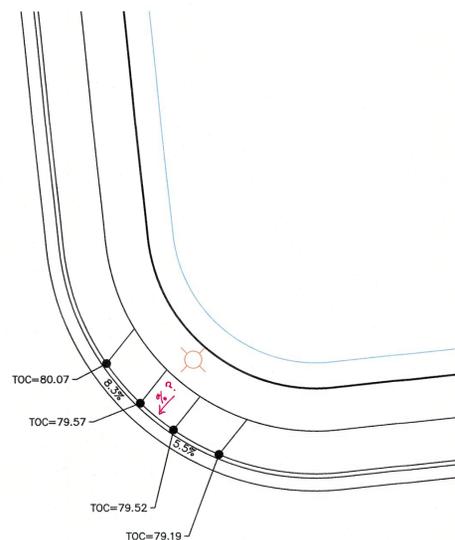


DRAWING NOTES:

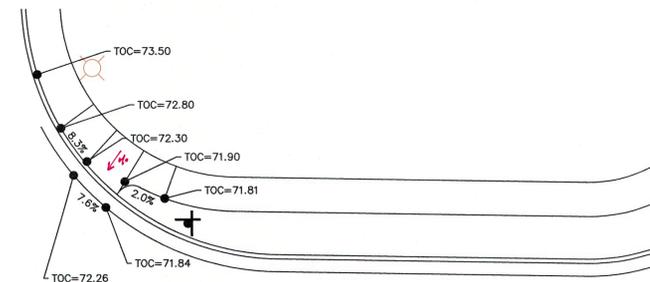


WHITBY WOODLANDS DRIVE

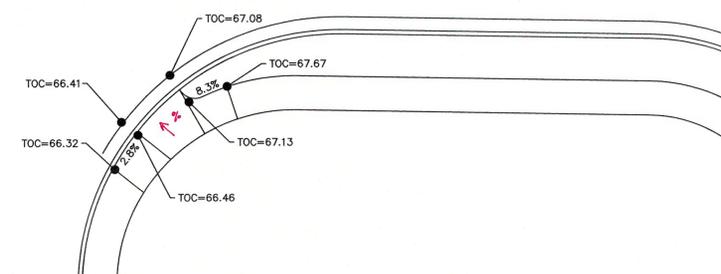
SOLDIER CIRCLE



400 WEST



SPRING MEADOWS COVE



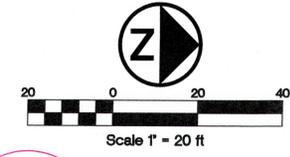
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PLOT DATE: Jan 17, 2020

NO.	REVISION	DATE

PROJECT INFORMATION
BROOKSIDE MEADOWS
 ADA DESIGN
 ALPINE CITY, UTAH

DRAWN JRP	CHECKED JRP	PROJECT # 19011
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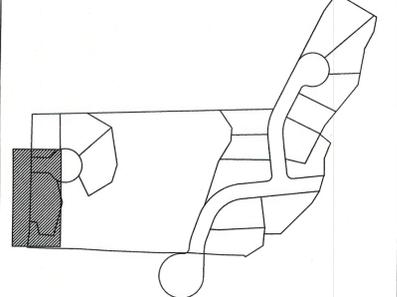
	DATE 11/05/2019
	SCALE 1" = 60'
	SHEET C208



**WILDING
ENGINEERING**

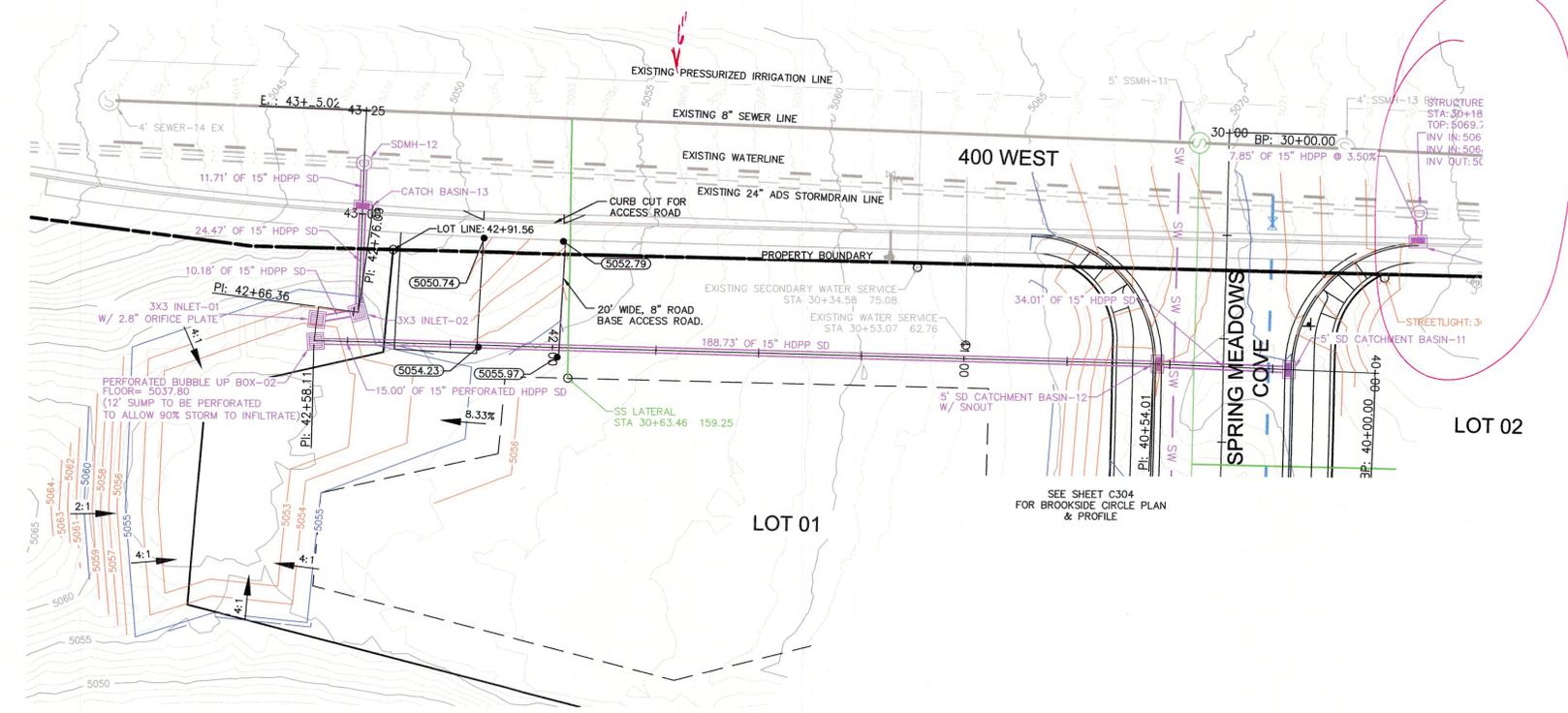
14721 SOUTH HERITAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM

DRAWING NOTES:



VICINITY MAP

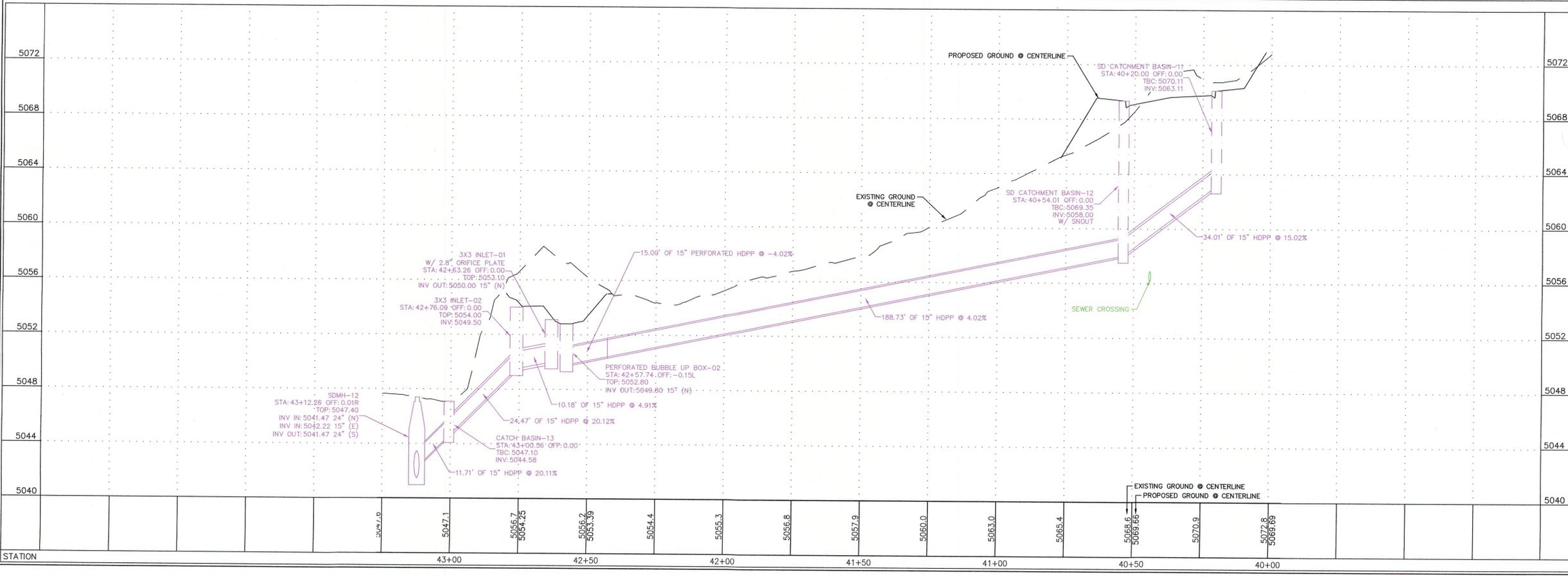
1. THE VERTICAL DATUM USED IS THE 1988 NORTH AMERICAN VERTICAL DATUM.
2. THE ORIFICE PLATE SHALL BE BOLTED TO THE OUTLET OF THE SPECIFIED STRUCTURE.
3. STUB ALL UTILITY LATERALS 10' PAST THE SIDEWALK, MARK WITH 4X4 POST PAINTED GREEN (SEWER), PURPLE (SECONDARY WATER) OR BLUE (CULINARY WATER)



SCALES
HOR. 1" = 20'
VER. 1" = 4'

LEGEND

- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED STORM DRAIN
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED PRESSURIZED IRRIGATION
- PUBLIC UTILITY EASEMENT
- PROPOSED FIRE HYDRANT
- PROPOSED STREET LIGHT
- PROPOSED SEWER MANHOLE
- EXISTING STORMDRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED CLEANOUT BOX



NO.	REVISION	DATE

PROJECT INFORMATION
BROOKSIDE MEADOWS
PLAN & PROFILE
TO WEST RETENTION
STA 30+00 - 32+03.05
ALPINE CITY, UTAH

DRAWN: TMS CHECKED: JRP PROJECT #: 19011



DATE: 11/05/2019
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'
SHEET: C305-12/14

G:\DATA\19011_Olsen_Property\dwg\19011_Base.dwg
PLOT DATE: Jan 17, 2020

BROOKSIDE MEADOWS SUBDIVISION

HYDROLOGY AND HYDRAULICS CALCULATIONS

Property location:
430 North 400 West
Alpine, Utah

Prepared for:
DAVE GIFFORD

DECEMBER 2019



PREPARED BY:
Jason Peterson PE

WILDING ENGINEERING

14721 SOUTH HERITAGE CREST DRIVE
BLUFFDALE, UTAH 84065

INTRODUCTION 3

SITE OVERVIEW 3

STORM DRAIN DESIGN 4

CERTIFICATION 5

APPENDIX

- A1 Grading and Drainage Plan
- A2 Sub Basin Map
- A3 Junction and Pipe Map
- A4 FEMA exhibit
- A5 Sub Basin Areas and Runoff Coefficients Calculations
- A6 SSA model layout
- A7 Storm and Sanitary Analysis Input and Output Report (10-year event)
- A8 Storm and Sanitary Analysis Input and Output Report (100-year event)
- A9 Detention Basin Calculations
- A10 Detention/ Retention Calculations

INTRODUCTION

This report presents the drainage calculations for the Brookside Meadows Subdivision site located at 430 North 400 West in Alpine, Utah located in Section 24 of Township 4 South, Range 1 East. The purpose of this report is to show the proposed storm drain system has the capacity to convey storm water within the site to the proposed outfalls as shown on the grading and drainage plan in the appendix.

SITE OVERVIEW

The subdivision has a total area of 13.461 acres with 5.567 acres consisting of private open space. The site used to have a ditch running through the middle of it that has been filled. Now there is a ditch that runs along the east property line called the Westfield Ditch. The Westfield Ditch is a manmade ditch designed to flow at 1500 gpm with the addition of a 100-year storm event. The proposed roadway will pass over an existing 36" culvert for the Westfield Ditch. The site is in "zone C", area of minimal flooding, per FEMA panel 4902280005A shown in the appendix.

The site will be developed into single family residential lots and supporting facilities. A storm drain system will drain the site to one of two proposed detention basins which will then release the runoff at 0.07 cfs/ac into the existing municipal storm drain system. We do not anticipate the subdivision runoff to significantly affect the downstream system due to the detention basin releasing runoff at pre-development runoff conditions.

The site can generally be split up into three separate portions. The first is the west side of the property, where the proposed Brookside Circle shown in the grading plan will drain towards 400 West. The existing grade in this area slopes generally to the south at 5% to 20%. The second portion is the east side of the property, where the existing road Whitby Woodlands Drive and proposed road Soldier Circle are located. The existing grade in this area slope to the southeast generally at 5% to 20%. The last portion of this subdivision is in the middle shown as private open space. Within this area are higher slope generally in the southern direction. In the middle of this section there is a dirt road that acts as a swale.

There is an undeveloped offsite area north of Lot 9 that will drain onto Solider Circle. We have proposed the runoff from this offsite area be directed to a

proposed culvert using swales. The culvert will then discharge the flows into the Westfield Ditch. The area and runoff calculations can be found in the appendix.

STORM DRAIN DESIGN

To analyze stormdrain capacity, the site was divided into 16 sub basins according to proposed catch basin placement and is shown on the Sub-Basin Map found in the appendix. The sub basins were divided into permeable (lot, natural) and impermeable (paved) area to determine the amount of runoff at each catch basin as shown in the storm drainage calculations in the appendix. The time of concentration was assumed to be 10 minutes for each sub basin, based on the size and shape of the sub basin. This was determined using the Velocity Method. The travel times for the runoff from a typical back yard, down a driveway to the curb and gutter was estimated to be slightly over 10 minutes for the average sub basin. The precipitation data from Alpine City's Drainage Design Manual was used to determine the peak flows.

The storm drain inlets and piping from each basin were analyzed to be sure they would have capacity for a 10-year storm. The sub basins and stormdrain system was modeled in Storm and Sanitary Analysis. The modified rational method was used to model the Hydrology. The input and output report from the model can be found in the appendix of this report.

The storm drain system has capacity for the 10-year event. Larger storms will be conveyed within the right of way and to the low point of the site over the surface within the right of way.

The proposed site is split into two systems each with a detention basin and a connection to the existing storm drain system. The west system includes the Brookside Circle area and consists of 2 catch basins running to a detention basin located South of Lot 1. The required volume for the West Detention Basin is 2806 Cu ft for the 100-year event. The 90th percentile storm volume is designed to be retained in the basin before any stormwater is released into the existing drainage system. The volume that has been calculated to be retained on this west portion of the site is 604 cu ft. Once that volume has been retained, it will enter the outlet structure with an orifice plate to restrict the flows to 0.07 cfs/ acre. At the highwater mark of the basin there is a 3'x3' overflow structure that will allow additional flows into the existing system to avoid the basin overtopping and eroding the basin rim.

The east system includes the Whitby Woodlands Drive and Solider Circle area and consists of 12 catch basins running to a detention basin located South of Lot 11. The required volume for the east Detention Basin is 11,765 Cu ft for the 100-year event. The 90th percentile storm volume is designed to be retained in the basin before any stormwater is released into the existing drainage system. The volume that has been calculated to be retained on this east portion of the site is 3610 cu ft. Once that volume has been retained, it will enter the outlet structure at the elevation of 4972.50 with an orifice plate to restrict the flows to 0.07 cfs/acre. At the highwater mark of the basin there is a 3'x3' overflow structure that will allow additional flows into the existing system to avoid the basin overtopping and eroding the basin rim.

Lots 4-6 and 10-14 will be required to retain the 100-year event on their own lots. These lots are "downhill" lots and it has been assumed that the runoff above the 90th percentile storm will not be directed to the right of way.

The stormdrain inlets have been located to keep the spread under 9.25 feet wide. Due to the subdivision layout, the maximum spacing for storm drain inlets was never attained so the gutter spread does not reach the maximum width. The spread widths can be found under the Inlet Results section of the SSA output reports in the appendix.

The ground water was not encountered in the test pits during the geotechnical investigation on site. The test pits were dug to a depth of 12'; therefore, groundwater is more than 12' lower than our site.

CERTIFICATION

I hereby certify that this report for the onsite drainage of this development was prepared by me in accordance with the provisions of the Alpine City Storm Water Drainage Design Manual, and was designed to comply with the provisions thereof

APPENDIX

Grading and Drainage Plan
Sub Basin Map
Junction and Pipe Map
FEMA exhibit
Sub Basin Areas and Runoff Coefficients Calculations
SSA model layout
Storm and Sanitary Analysis Input and Output Report (10-year event)
Storm and Sanitary Analysis Input and Output Report (100-year event)
Detention Basin Calculations
Detention/Retention Calculations

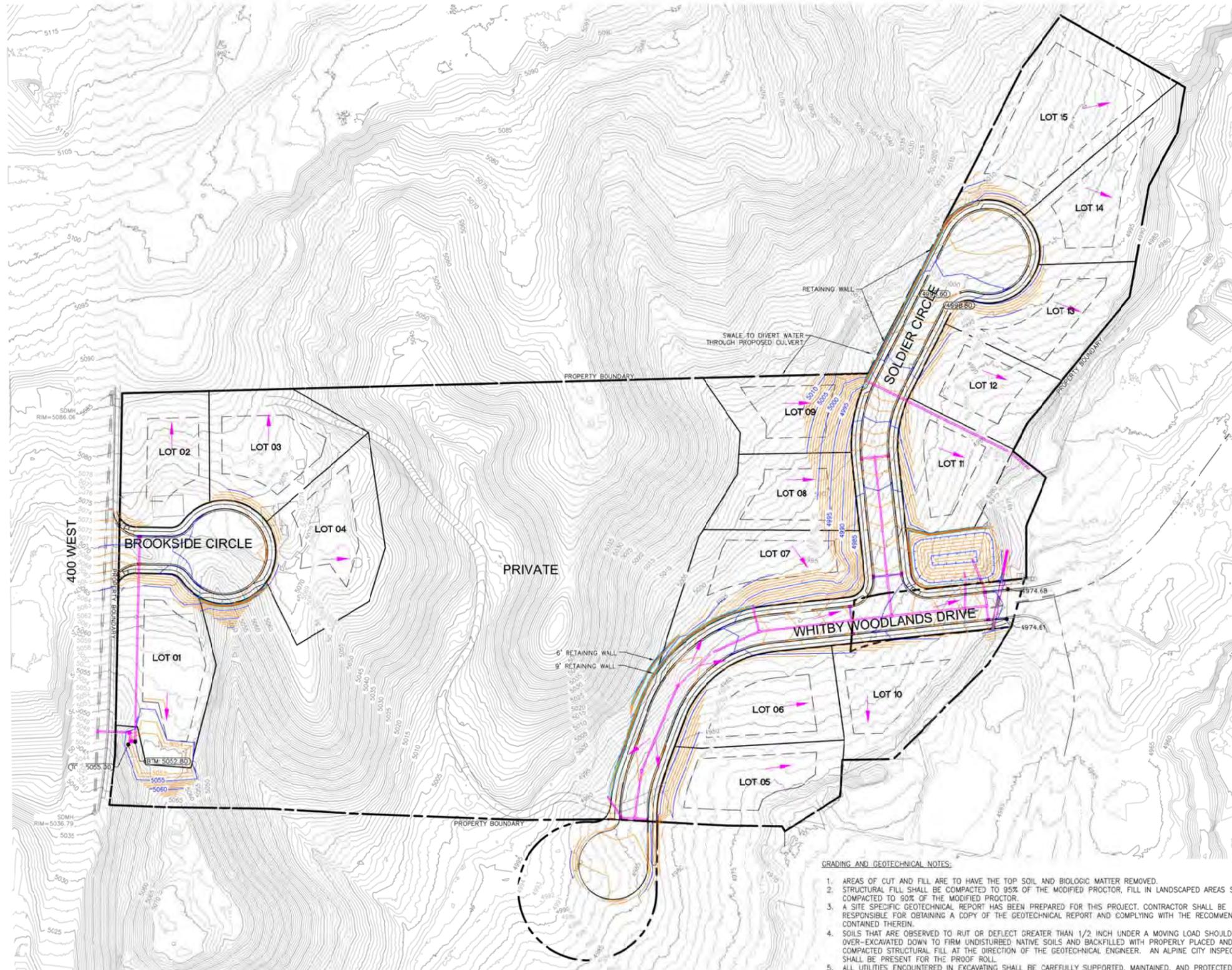
BROOKSIDE MEADOWS

GRADING & DRAINAGE PLAN



WILDING
ENGINEERING

14721 SOUTH HERFAGE CREST WAY
BLUFFDALE, UTAH 84065
801.553.8112
WWW.WILDINGENGINEERING.COM



- DRAWING NOTES:**
- DRAINAGE NOTES:**
1. WHEN APPLYING FOR BUILDING PERMITS, EACH LOT SHALL SUBMIT A SEPARATE GRADING & DRAINAGE PLAN TO SHOW HOW IT WILL RETAIN A 100-YEAR EVENT, WITH THE EXCEPTION OF LOTS 1, 7, 8, AND 9.
 2. WATER IS NOT TO CROSS PROPERTY LINES. PROPERTY LINE BERMS MAY BE NEEDED.
 3. ARROWS SHOW ANTICIPATED FLOW DIRECTION.

LEGEND

PROPOSED CONTOUR	
PROPOSED INDEX	
EXISTING CONTOUR	
EXISTING INDEX CONTOUR	
UTILITY EASEMENT	
PROPOSED SWALE	
DRAINAGE DIRECTION	
PROPOSED CATCH BASIN	
PROPOSED CLEANOUT	
PROPOSED SD MANHOLE	
PROPOSED FINISHED GRADE	
EXISTING GRADE	

G:\DATA\19011 Olson Property\dwg\19011 Base.dwg
PLOT DATE: Dec 23, 2019

NO.	REVISION	DATE

PROJECT INFORMATION
BROOKSIDE MEADOWS

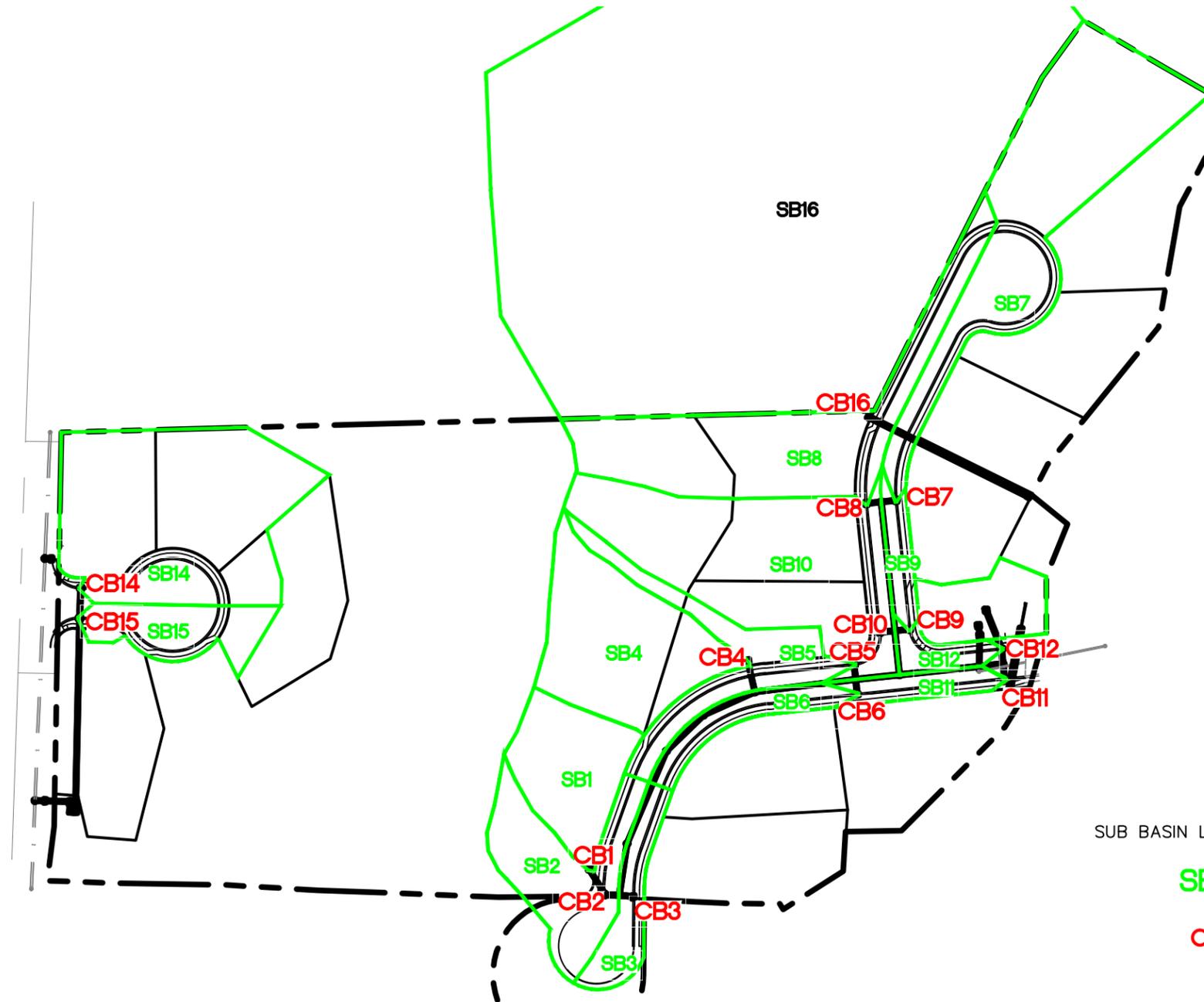
GRADING & DRAINAGE PLAN

ALPINE CITY, UTAH

DRAWN TMS	CHECKED JRP	PROJECT # 19011
DATE 11/05/2019		SCALE 1" = 60'
SHEET C203-04/14		ENGINEER'S STAMP

- GRADING AND GEOTECHNICAL NOTES:**
1. AREAS OF CUT AND FILL ARE TO HAVE THE TOP SOIL AND BIOLOGIC MATTER REMOVED.
 2. STRUCTURAL FILL SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR, FILL IN LANDSCAPED AREAS SHALL BE COMPACTED TO 90% OF THE MODIFIED PROCTOR.
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BROOKSIDE MEADOWS



LEGEND

- SUB BASIN LINE —————
- SB7 SUB BASIN NUMBER CORRESPONDING TO DRAINAGE REPORT
- CB4 CATCH BASIN NUMBER CORRESPONDING TO DRAINAGE REPORT



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14721 SOUTH HERITAGE CREEK WAY
BLUFFDALE, UTAH 84065
801-553-8112
WWW.WILDINGENGINEERING.COM

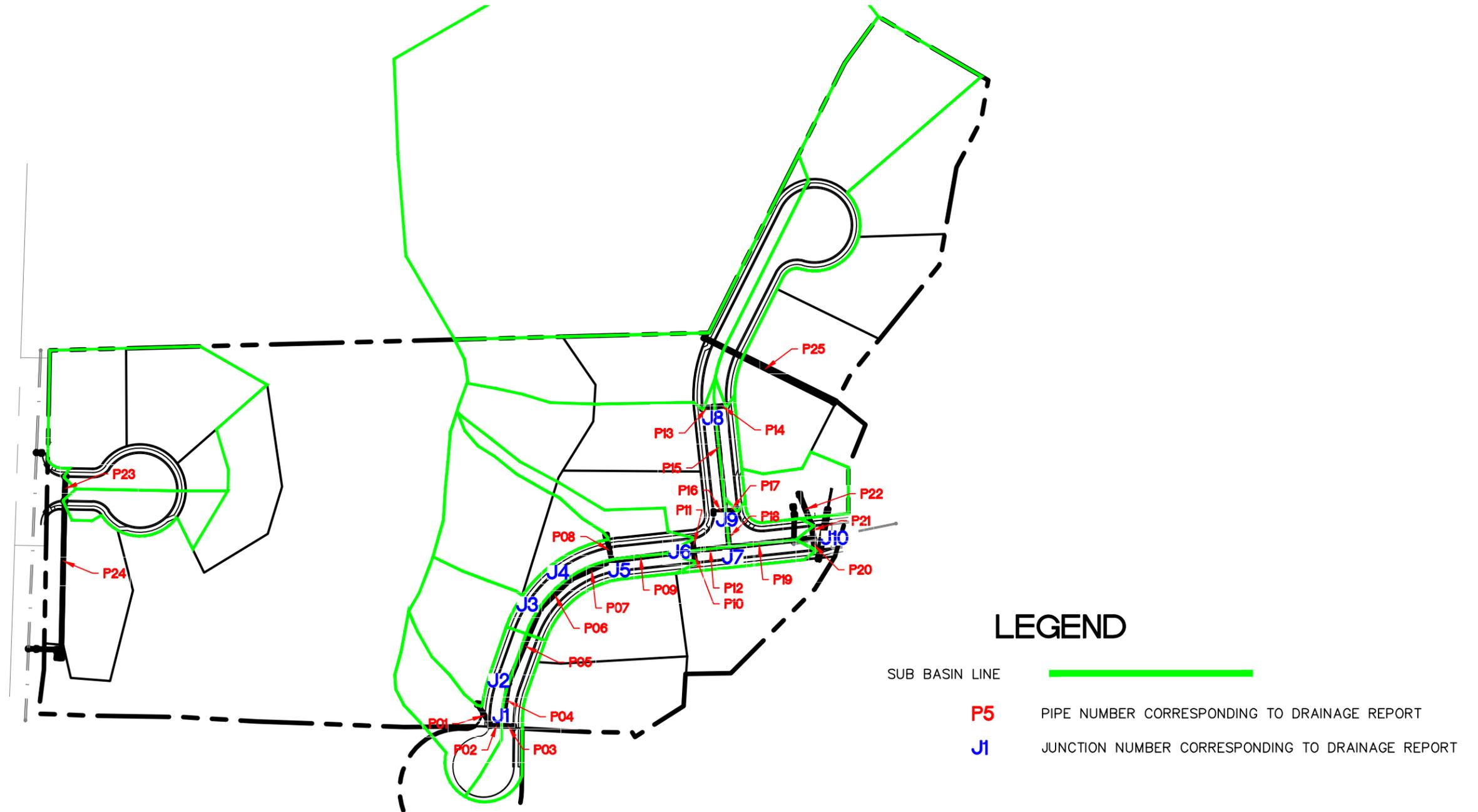
NO.	REVISION	DATE

DRAWING TITLE	SUB BASIN MAP
LOCATION	ALPINE, UTAH

PROJECT NAME	BROOKSIDE MEADOWS
DRAWN	JRP
CHECKED	
FILE NAME:	G:\DATA\19011...\DWG\19011 HYDROLOGY

DATE	12/20/19
SCALE	1"=150'
SHEET	1 OF 1

BROOKSIDE MEADOWS



LEGEND

- SUB BASIN LINE —————
- P5 PIPE NUMBER CORRESPONDING TO DRAINAGE REPORT
- J1 JUNCTION NUMBER CORRESPONDING TO DRAINAGE REPORT

 <p>WILDING ENGINEERING</p> <p>14721 SOUTH HERITAGE CREEK WAY BLUFFDALE, UTAH 84065 801-553-8112 WWW.WILDINGENGINEERING.COM</p>				DRAWING TITLE	PROJECT NAME	DATE
				PIPE AND JUNCTION MAP	BROOKSIDE MEADOWS	12/20/19
				ALPINE, UTAH		
				LOCATION	DRAWN	CHECKED
					JRP	
					FILE NAME:	
					G:\DATA\19011...\DWG\19011 HYDROLOGY	
						SHEET
						1 OF 1

Sub-Basin Areas and Runoff Coefficients

Project: Brookside Meadows Subdivision
Location: Alpine, Utah
Prepared By: Jason Peterson
Date: December 23, 2019

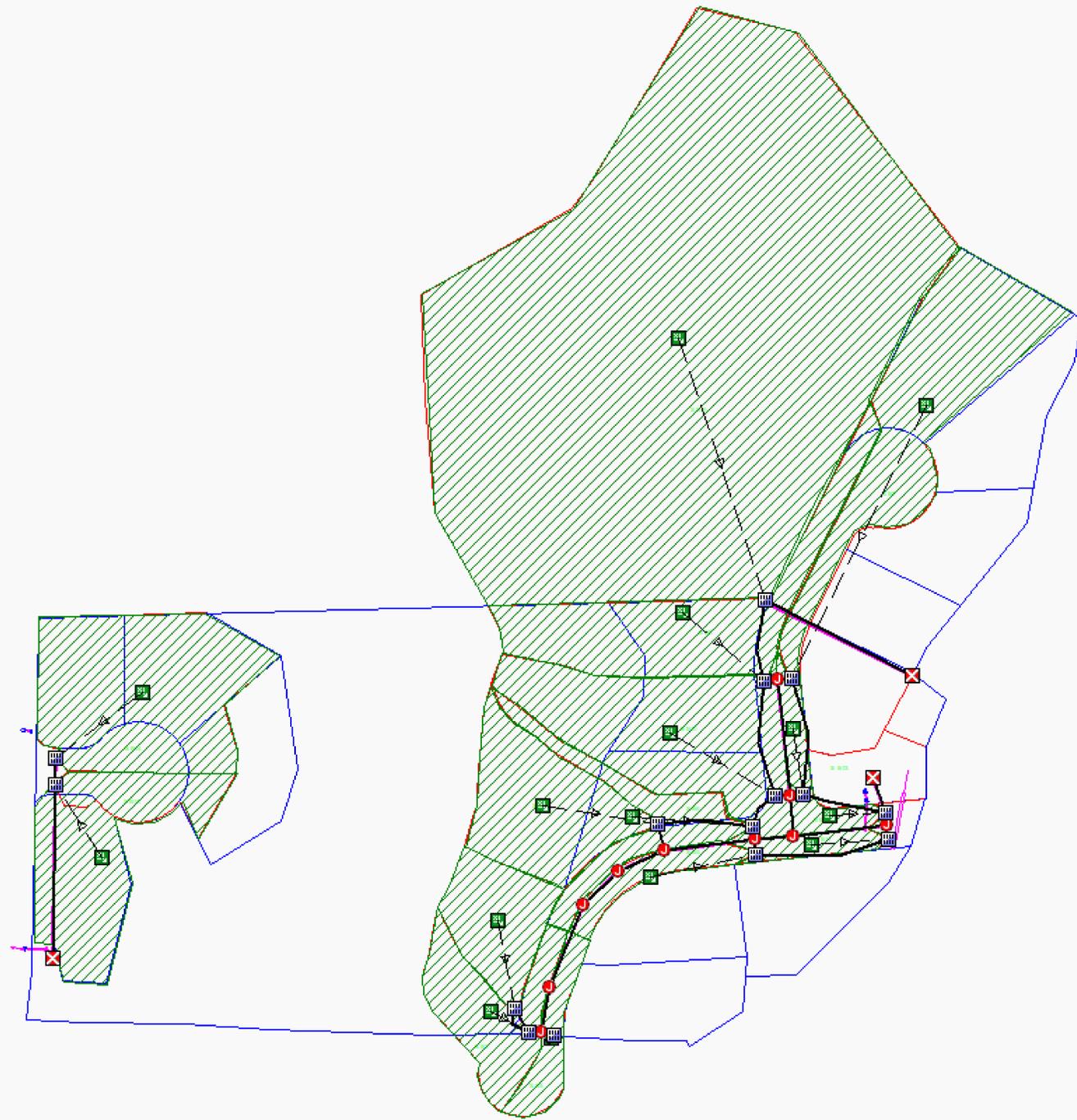
Sub-Basin	Total Area (SF)	Total Area (acres)	Roadway Area (sq ft)	Roadway Area (acres)	C _R	Lot areas (sq ft)	Lot Areas (acres)	C _L	Undisturbed Areas (acres)	C _U	Composite C
Sub-Basin 1	15690	0.36	0	0.00	0.9	0	0.00	0.3	0.36	0.2	0.200
Sub-Basin 2	17085	0.39	5825	0.13	0.9	0	0.00	0.3	0.26	0.2	0.439
Sub-Basin 3	7459	0.17	5859	0.13	0.9	0	0.00	0.3	0.04	0.2	0.750
Sub-Basin 4	25632	0.59	0	0.00	0.9	4890	0.11	0.3	0.48	0.2	0.219
Sub-Basin 5	14061	0.32	5753	0.13	0.9	4530	0.10	0.3	0.09	0.2	0.519
Sub-Basin 6	6311	0.14	5227	0.12	0.9	0	0.00	0.3	0.02	0.2	0.780
Sub-Basin 7	41693	0.96	12740	0.29	0.9	26860	0.62	0.3	0.05	0.2	0.478
Sub-Basin 8	34218	0.79	6746	0.15	0.9	13490	0.31	0.3	0.32	0.2	0.377
Sub-Basin 9	3890	0.09	3204	0.07	0.9	0	0.00	0.3	0.02	0.2	0.777
Sub-Basin 10	41999	0.96	5271	0.12	0.9	23115	0.53	0.3	0.31	0.2	0.343
Sub-Basin 11	4408	0.10	3569	0.08	0.9	0	0.00	0.3	0.02	0.2	0.767
Sub-Basin 12	3552	0.08	3072	0.07	0.9	0	0.00	0.3	0.01	0.2	0.805
Sub-Basin 13	9302	0.21	0	0.00	0.9	0	0.00	0.3	0.21	0.2	0.200
Sub-Basin 14	43955	1.01	5658	0.13	0.9	37320	0.86	0.3	0.02	0.2	0.375
Sub-Basin 15	9814	0.23	5670	0.13	0.9	520	0.01	0.3	0.08	0.2	0.610
Sub-Basin 16	288702	6.63	0	0.00	0.9	0	0.00	0.3	6.63	0.2	0.200
Total Site		13.03	68594	1.57	0.9	110725	2.54	0.3	8.92	0.2	0.304

Sample Runoff Coefficient Calculation (Sub-Basin 1):

Composite 'C':

$$C_{\text{Sub-Basin 1}} = \frac{(\text{Road Areas})(C_R) + (\text{Lot Areas})(C_L) + (\text{Undisturbed Areas})(C_U)}{A_{\text{Sub-Basin 1}}}$$

$$= \frac{0.00 (0.90) + 0.00 (0.30) + 0.36 (0.20)}{0.36} = \mathbf{0.200}$$



Project Description

File Name 19011 Brookside Meadows SSA.SPF

Project Options

Flow Units CFS
Elevation Type Elevation
Hydrology Method Modified Rational
Time of Concentration (TOC) Method User-Defined
Link Routing Method Kinematic Wave
Enable Overflow Ponding at Nodes YES
Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Jan 01, 2019 00:00:00
End Analysis On Jan 02, 2019 00:00:00
Start Reporting On Jan 01, 2019 00:00:00
Antecedent Dry Days 0 days
Runoff (Dry Weather) Time Step 0 01:00:00 days hh:mm:ss
Runoff (Wet Weather) Time Step 0 00:05:00 days hh:mm:ss
Reporting Time Step 0 00:05:00 days hh:mm:ss
Routing Time Step 30 seconds

Number of Elements

	Qty
Rain Gages	0
Subbasins.....	15
Nodes.....	28
<i>Junctions</i>	10
<i>Outfalls</i>	3
<i>Flow Diversions</i>	0
<i>Inlets</i>	15
<i>Storage Nodes</i>	0
Links.....	33
<i>Channels</i>	0
<i>Pipes</i>	33
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	0
Land Uses	0

Rainfall Details

Return Period..... 10 year(s)

Subbasin Summary

SN	Subbasin ID	Area (ac)	Weighted Runoff Coefficient	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	Sub01	0.36	0.2000	0.45	0.09	0.03	0.19	0 00:10:00
2	Sub02	0.39	0.4400	0.45	0.20	0.08	0.46	0 00:10:00
3	Sub03	0.17	0.7500	0.45	0.33	0.06	0.34	0 00:10:00
4	Sub04	0.59	0.2200	0.45	0.10	0.06	0.35	0 00:10:00
5	Sub05	0.32	0.5200	0.45	0.23	0.07	0.44	0 00:10:00
6	Sub06	0.14	0.7800	0.45	0.35	0.05	0.29	0 00:10:00
7	Sub07	0.96	0.4800	0.45	0.21	0.20	1.23	0 00:10:00
8	Sub08	0.79	0.3800	0.45	0.17	0.13	0.80	0 00:10:00
9	Sub09	0.09	0.7800	0.45	0.35	0.03	0.19	0 00:10:00
10	Sub10	0.96	0.3400	0.45	0.15	0.14	0.87	0 00:10:00
11	Sub11	0.10	0.7700	0.45	0.34	0.03	0.21	0 00:10:00
12	Sub12	0.08	0.8100	0.45	0.36	0.03	0.17	0 00:10:00
13	Sub14	1.01	0.3800	0.45	0.17	0.17	1.02	0 00:10:00
14	Sub15	0.23	0.6100	0.45	0.27	0.06	0.37	0 00:10:00
15	Sub16	6.63	0.2000	0.64	0.13	0.84	2.53	0 00:20:00

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surchage Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	J01	Junction	4978.33	4985.83	0.99	4978.71	0.00	7.12	0 00:00	0.00	0.00
2	J02	Junction	4977.92	4986.09	0.98	4978.30	0.00	7.79	0 00:00	0.00	0.00
3	J03	Junction	4977.12	4986.44	0.97	4977.50	0.00	8.94	0 00:00	0.00	0.00
4	J04	Junction	4976.70	4985.74	0.97	4977.10	0.00	8.64	0 00:00	0.00	0.00
5	J05	Junction	4976.35	4984.32	1.28	4977.48	0.00	6.84	0 00:00	0.00	0.00
6	J06	Junction	4973.60	4981.09	1.90	4973.97	0.00	7.12	0 00:00	0.00	0.00
7	J07	Junction	4972.20	4979.62	5.00	4972.75	0.00	6.87	0 00:00	0.00	0.00
8	J08	Junction	4979.76	4987.26	1.79	4980.09	0.00	7.17	0 00:00	0.00	0.00
9	J09	Junction	4973.46	4980.81	3.14	4973.96	0.00	6.85	0 00:00	0.00	0.00
10	J10	Junction	4968.27	4975.77	5.21	4968.82	0.00	6.95	0 00:00	0.00	0.00
11	outletE	Outfall	4966.00		5.38	4966.61					
12	outletW	Outfall	5049.80		1.38	5050.09					
13	OutOffsite	Outfall	4975.00		2.19	4975.33					

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)
1	BPCB01	Pipe	CB01	CB02	40.55	4979.00	4977.88	2.7600	18.000	0.0150	0.00	0.00	0.00	0.00	0.00
2	BPCB04	Pipe	CB04	CB05	112.69	4980.71	4974.14	5.8300	0.000	0.0150	0.00	0.00	0.00	0.00	0.00
3	BPCB05	Pipe	CB05	CB10	46.99	4974.14	4973.98	0.3400	0.000	0.0150	0.01	0.00	0.00	0.00	0.00
4	BPCB06	Pipe	CB06	CB11	159.79	4974.14	4968.80	3.3400	0.000	0.0150	0.02	0.00	0.00	0.00	0.00
5	BPCB07	Pipe	CB07	CB09	140.09	4980.30	4973.98	4.5100	0.000	0.0150	0.24	0.00	0.00	0.00	0.00
6	BPCB08	Pipe	CB08	CB10	139.51	4980.29	4973.98	4.5200	0.000	0.0150	0.08	0.00	0.00	0.00	0.00
7	BPCB09	Pipe	CB09	CB12	99.00	4973.98	4967.27	6.7800	0.000	0.0150	0.01	0.00	0.00	0.00	0.00
8	BPCB16	Pipe	CB16InletOffsite	CB08	97.56	4985.00	4980.29	4.8300	0.000	0.0150	0.33	0.00	0.00	0.00	0.00
9	P01	Pipe	CB01	CB02	28.83	4980.00	4978.88	3.8800	12.000	0.0150	0.19	6.09	0.03	3.54	0.12
10	P02	Pipe	CB02	J01	17.04	4978.88	4978.33	3.2300	15.000	0.0150	0.65	10.06	0.06	4.59	0.21
11	P03	Pipe	CB03	J01	16.07	4978.88	4978.33	3.4200	15.000	0.0150	0.34	10.36	0.03	3.90	0.15
12	P04	Pipe	J01	J02	54.99	4978.33	4977.92	0.7500	15.000	0.0150	0.98	4.83	0.20	3.10	0.38
13	P05	Pipe	J02	J03	106.82	4977.92	4977.12	0.7500	15.000	0.0150	0.97	4.84	0.20	3.11	0.38
14	P06	Pipe	J03	J04	55.05	4977.12	4976.70	0.7600	15.000	0.0150	0.97	4.89	0.20	3.12	0.38
15	P07	Pipe	J04	J05	59.66	4976.70	4976.35	0.5900	15.000	0.0150	0.97	4.29	0.23	2.84	0.40
16	P08	Pipe	CB04	J05	33.57	4980.71	4977.35	10.0100	12.000	0.0150	0.35	9.77	0.04	5.87	0.13
17	P09	Pipe	J05	J06	180.14	4976.35	4973.60	1.5300	15.000	0.0150	1.28	6.92	0.18	4.34	0.36
18	P10	Pipe	CB06	J06	17.00	4974.14	4973.60	3.1800	15.000	0.0150	0.43	9.98	0.04	4.06	0.18
19	P11	Pipe	CB05	J06	17.00	4974.14	4973.60	3.1800	15.000	0.0150	0.28	9.98	0.03	3.59	0.14
20	P12	Pipe	J06	J07	46.69	4973.60	4972.20	3.0000	15.000	0.0150	1.90	9.69	0.20	6.15	0.37
21	P13	Pipe	CB08	J08	16.99	4980.29	4979.76	3.1200	15.000	0.0150	0.80	9.89	0.08	4.84	0.24
22	P14	Pipe	CB07	J08	17.01	4980.30	4979.76	3.1700	15.000	0.0150	0.99	9.98	0.10	5.20	0.27
23	P15	Pipe	J08	J09	137.38	4979.76	4973.46	4.5900	15.000	0.0150	1.78	11.99	0.15	7.03	0.33
24	P16	Pipe	CB10	J09	17.00	4973.98	4973.46	3.0600	15.000	0.0150	0.96	9.79	0.10	5.08	0.26
25	P17	Pipe	CB09	J09	17.00	4973.98	4973.46	3.0600	15.000	0.0150	0.41	9.79	0.04	3.98	0.17
26	P18	Pipe	J09	J07	46.94	4973.46	4972.20	2.6800	15.000	0.0150	3.14	9.17	0.34	6.78	0.50
27	P19	Pipe	J07	J10	110.70	4972.20	4968.27	3.5500	18.000	0.0150	4.99	17.15	0.29	8.43	0.55
28	P20	Pipe	CB11	J10	17.00	4968.80	4968.27	3.1200	15.000	0.0150	0.22	9.89	0.02	3.22	0.13
29	P21	Pipe	J10	CB12	17.00	4968.27	4967.27	5.8800	18.000	0.0150	5.21	22.08	0.24	10.22	0.50
30	P22	Pipe	CB12	outletE	43.01	4967.27	4966.00	2.9500	18.000	0.0150	5.38	15.64	0.34	8.03	0.61
31	P23	Pipe	CB14	CB15	34.01	5063.11	5058.00	15.0200	15.000	0.0150	1.02	21.70	0.05	9.10	0.18
32	P24	Pipe	CB15	outletW	188.73	5058.00	5049.80	4.3400	15.000	0.0150	1.38	11.67	0.12	6.43	0.29
33	P25	Pipe	CB16InletOffsite	OutOffsite	193.73	4985.00	4975.00	5.1600	18.000	0.0150	2.19	20.68	0.11	8.70	0.33

Peak Flow
Depth/
Total Depth
Ratio

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.12
0.17
0.12
0.31
0.30
0.30
0.32
0.13
0.29
0.14
0.11
0.30
0.19
0.21
0.26
0.21
0.14
0.40
0.37
0.11
0.33
0.40
0.15
0.23
0.22

Inlet Summary

SN Element ID	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Peak Flow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
1 CB01	On Grade	1	4980.00	4987.56	0.19	0.19	0.00	99.31	9.25	1.05	4987.61
2 CB02	On Sag	1	4978.88	4985.88	0.46	N/A	N/A	N/A	9.25	2.47	4986.04
3 CB03	On Sag	1	4978.88	4985.88	0.34	N/A	N/A	N/A	9.25	1.84	4986.00
4 CB04	On Grade	1	4980.71	4986.24	0.35	0.35	0.00	99.99	9.25	1.46	4986.33
5 CB05	On Grade	1	4974.14	4981.14	0.29	0.28	0.01	96.23	9.25	1.59	4981.22
6 CB06	On Grade	1	4974.14	4981.14	0.44	0.43	0.02	96.23	9.25	2.42	4981.26
7 CB07	On Grade	1	4980.30	4987.30	1.23	0.99	0.24	80.85	9.25	4.36	4987.47
8 CB08	On Grade	1	4980.29	4987.29	0.80	0.72	0.08	89.70	9.25	3.15	4987.44
9 CB09	On Grade	1	4973.98	4980.83	0.19	0.18	0.01	96.23	9.25	1.02	4980.88
10 CB10	On Sag	1	4973.98	4980.83	0.87	N/A	N/A	N/A	9.25	3.71	4981.14
11 CB11	On Sag	1	4968.80	4975.80	0.21	N/A	N/A	N/A	9.25	0.88	4975.87
12 CB12	On Sag	1	4967.27	4975.81	0.17	N/A	N/A	N/A	9.25	0.93	4975.87
13 CB14	On Sag	1	5063.11	5070.11	1.02	N/A	N/A	N/A	9.25	5.50	5070.47
14 CB15	On Sag	1	5058.00	5069.35	0.37	N/A	N/A	N/A	9.25	2.02	5069.48
15 CB16InletOffsite	On Grade	1	4985.00	4998.85	2.53	2.20	0.33	86.84	9.25	3.79	4999.15

Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)
1	J01	4978.33	4985.83	7.50
2	J02	4977.92	4986.09	8.17
3	J03	4977.12	4986.44	9.32
4	J04	4976.70	4985.74	9.04
5	J05	4976.35	4984.32	7.97
6	J06	4973.60	4981.09	7.49
7	J07	4972.20	4979.62	7.42
8	J08	4979.76	4987.26	7.50
9	J09	4973.46	4980.81	7.35
10	J10	4968.27	4975.77	7.50

Junction Results

SN Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1 J01	0.99	0.00	4978.71	0.38	0.00	7.12	4978.33	0.00	0 00:10	0 00:00	0.00	0.00
2 J02	0.98	0.00	4978.30	0.38	0.00	7.79	4977.92	0.00	0 00:10	0 00:00	0.00	0.00
3 J03	0.97	0.00	4977.50	0.38	0.00	8.94	4977.12	0.00	0 00:10	0 00:00	0.00	0.00
4 J04	0.97	0.00	4977.10	0.40	0.00	8.64	4976.70	0.00	0 00:11	0 00:00	0.00	0.00
5 J05	1.28	0.00	4977.48	1.13	0.00	6.84	4977.35	1.00	0 00:10	0 00:00	0.00	0.00
6 J06	1.90	0.00	4973.97	0.37	0.00	7.12	4973.60	0.00	0 00:11	0 00:00	0.00	0.00
7 J07	5.00	0.00	4972.75	0.55	0.00	6.87	4972.21	0.01	0 00:10	0 00:00	0.00	0.00
8 J08	1.79	0.00	4980.09	0.33	0.00	7.17	4979.76	0.00	0 00:10	0 00:00	0.00	0.00
9 J09	3.14	0.00	4973.96	0.50	0.00	6.85	4973.47	0.01	0 00:10	0 00:00	0.00	0.00
10 J10	5.21	0.00	4968.82	0.55	0.00	6.95	4968.28	0.01	0 00:10	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Manning's Roughness	Initial Flow (cfs)
1	BPCB01	40.55	4979.00	4977.88	1.12	2.7600	Dummy	0.000	0.0150	0.00
2	BPCB04	112.69	4980.71	4974.14	6.57	5.8300	Dummy	0.000	0.0150	0.00
3	BPCB05	46.99	4974.14	4973.98	0.16	0.3400	Dummy	0.000	0.0150	0.00
4	BPCB06	159.79	4974.14	4968.80	5.34	3.3400	Dummy	0.000	0.0150	0.00
5	BPCB07	140.09	4980.30	4973.98	6.32	4.5100	Dummy	0.000	0.0150	0.00
6	BPCB08	139.51	4980.29	4973.98	6.31	4.5200	Dummy	0.000	0.0150	0.00
7	BPCB09	99.00	4973.98	4967.27	6.71	6.7800	Dummy	0.000	0.0150	0.00
8	BPCB16	97.56	4985.00	4980.29	4.71	4.8300	Dummy	0.000	0.0150	0.00
9	P01	28.83	4980.00	4978.88	1.12	3.8800	CIRCULAR	12.000	0.0150	0.00
10	P02	17.04	4978.88	4978.33	0.55	3.2300	CIRCULAR	15.000	0.0150	0.00
11	P03	16.07	4978.88	4978.33	0.55	3.4200	CIRCULAR	15.000	0.0150	0.00
12	P04	54.99	4978.33	4977.92	0.41	0.7500	CIRCULAR	15.000	0.0150	0.00
13	P05	106.82	4977.92	4977.12	0.80	0.7500	CIRCULAR	15.000	0.0150	0.00
14	P06	55.05	4977.12	4976.70	0.42	0.7600	CIRCULAR	15.000	0.0150	0.00
15	P07	59.66	4976.70	4976.35	0.35	0.5900	CIRCULAR	15.000	0.0150	0.00
16	P08	33.57	4980.71	4977.35	3.36	10.0100	CIRCULAR	12.000	0.0150	0.00
17	P09	180.14	4976.35	4973.60	2.75	1.5300	CIRCULAR	15.000	0.0150	0.00
18	P10	17.00	4974.14	4973.60	0.54	3.1800	CIRCULAR	15.000	0.0150	0.00
19	P11	17.00	4974.14	4973.60	0.54	3.1800	CIRCULAR	15.000	0.0150	0.00
20	P12	46.69	4973.60	4972.20	1.40	3.0000	CIRCULAR	15.000	0.0150	0.00
21	P13	16.99	4980.29	4979.76	0.53	3.1200	CIRCULAR	15.000	0.0150	0.00
22	P14	17.01	4980.30	4979.76	0.54	3.1700	CIRCULAR	15.000	0.0150	0.00
23	P15	137.38	4979.76	4973.46	6.30	4.5900	CIRCULAR	15.000	0.0150	0.00
24	P16	17.00	4973.98	4973.46	0.52	3.0600	CIRCULAR	15.000	0.0150	0.00
25	P17	17.00	4973.98	4973.46	0.52	3.0600	CIRCULAR	15.000	0.0150	0.00
26	P18	46.94	4973.46	4972.20	1.26	2.6800	CIRCULAR	15.000	0.0150	0.00
27	P19	110.70	4972.20	4968.27	3.93	3.5500	CIRCULAR	18.000	0.0150	0.00
28	P20	17.00	4968.80	4968.27	0.53	3.1200	CIRCULAR	15.000	0.0150	0.00
29	P21	17.00	4968.27	4967.27	1.00	5.8800	CIRCULAR	18.000	0.0150	0.00
30	P22	43.01	4967.27	4966.00	1.27	2.9500	CIRCULAR	18.000	0.0150	0.00
31	P23	34.01	5063.11	5058.00	5.11	15.0200	CIRCULAR	15.000	0.0150	0.00
32	P24	188.73	5058.00	5049.80	8.20	4.3400	CIRCULAR	15.000	0.0150	0.00
33	P25	193.73	4985.00	4975.00	10.00	5.1600	CIRCULAR	18.000	0.0150	0.00

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)
1 BPCB01	0.00	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
2 BPCB04	0.00	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
3 BPCB05	0.01	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
4 BPCB06	0.02	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
5 BPCB07	0.24	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
6 BPCB08	0.08	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
7 BPCB09	0.01	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
8 BPCB16	0.33	0 00:20	0.00	0.00	0.00		0.00	0.00	0.00
9 P01	0.19	0 00:10	6.09	0.03	3.54	0.14	0.12	0.12	0.00
10 P02	0.65	0 00:10	10.06	0.06	4.59	0.06	0.21	0.17	0.00
11 P03	0.34	0 00:10	10.36	0.03	3.90	0.07	0.15	0.12	0.00
12 P04	0.98	0 00:10	4.83	0.20	3.10	0.30	0.38	0.31	0.00
13 P05	0.97	0 00:10	4.84	0.20	3.11	0.57	0.38	0.30	0.00
14 P06	0.97	0 00:11	4.89	0.20	3.12	0.29	0.38	0.30	0.00
15 P07	0.97	0 00:11	4.29	0.23	2.84	0.35	0.40	0.32	0.00
16 P08	0.35	0 00:10	9.77	0.04	5.87	0.10	0.13	0.13	0.00
17 P09	1.28	0 00:11	6.92	0.18	4.34	0.69	0.36	0.29	0.00
18 P10	0.43	0 00:10	9.98	0.04	4.06	0.07	0.18	0.14	0.00
19 P11	0.28	0 00:10	9.98	0.03	3.59	0.08	0.14	0.11	0.00
20 P12	1.90	0 00:11	9.69	0.20	6.15	0.13	0.37	0.30	0.00
21 P13	0.80	0 00:10	9.89	0.08	4.84	0.06	0.24	0.19	0.00
22 P14	0.99	0 00:10	9.98	0.10	5.20	0.05	0.27	0.21	0.00
23 P15	1.78	0 00:10	11.99	0.15	7.03	0.33	0.33	0.26	0.00
24 P16	0.96	0 00:10	9.79	0.10	5.08	0.06	0.26	0.21	0.00
25 P17	0.41	0 00:10	9.79	0.04	3.98	0.07	0.17	0.14	0.00
26 P18	3.14	0 00:10	9.17	0.34	6.78	0.12	0.50	0.40	0.00
27 P19	4.99	0 00:10	17.15	0.29	8.43	0.22	0.55	0.37	0.00
28 P20	0.22	0 00:10	9.89	0.02	3.22	0.09	0.13	0.11	0.00
29 P21	5.21	0 00:10	22.08	0.24	10.22	0.03	0.50	0.33	0.00
30 P22	5.38	0 00:10	15.64	0.34	8.03	0.09	0.61	0.40	0.00
31 P23	1.02	0 00:10	21.70	0.05	9.10	0.06	0.18	0.15	0.00
32 P24	1.38	0 00:10	11.67	0.12	6.43	0.49	0.29	0.23	0.00
33 P25	2.19	0 00:20	20.68	0.11	8.70	0.37	0.33	0.22	0.00

Inlet Input

SN Element ID	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Inlet Depth (ft)	Grate Clogging Factor (%)
1 CB01	On Grade	1	4980.00	4987.56	7.56	0.00
2 CB02	On Sag	1	4978.88	4985.88	7.00	0.00
3 CB03	On Sag	1	4978.88	4985.88	7.00	0.00
4 CB04	On Grade	1	4980.71	4986.24	5.53	0.00
5 CB05	On Grade	1	4974.14	4981.14	7.00	0.00
6 CB06	On Grade	1	4974.14	4981.14	7.00	0.00
7 CB07	On Grade	1	4980.30	4987.30	7.00	0.00
8 CB08	On Grade	1	4980.29	4987.29	7.00	0.00
9 CB09	On Grade	1	4973.98	4980.83	6.85	0.00
10 CB10	On Sag	1	4973.98	4980.83	6.85	0.00
11 CB11	On Sag	1	4968.80	4975.80	7.00	0.00
12 CB12	On Sag	1	4967.27	4975.81	8.54	0.00
13 CB14	On Sag	1	5063.11	5070.11	7.00	0.00
14 CB15	On Sag	1	5058.00	5069.35	11.35	0.00
15 CB16InletOffsite	On Grade	1	4985.00	4998.85	13.85	0.00

Roadway & Gutter Input

SN Element ID	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (in)	Allowable Spread (ft)
1 CB01	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
2 CB02	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
3 CB03	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
4 CB04	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
5 CB05	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
6 CB06	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
7 CB07	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
8 CB08	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
9 CB09	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
10 CB10	N/A	0.0300	0.0160	0.0620	2.00	0.0656	9.25
11 CB11	N/A	0.0300	0.0160	0.0620	2.00	0.0656	9.25
12 CB12	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
13 CB14	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
14 CB15	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
15 CB16InletOffsite	0.0500	0.1000	0.0300	0.0620	2.00	0.0656	9.25

Inlet Results

SN Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1 CB01	0.19	0.19	0.19	0.00	99.31	1.05	4987.61	0.05	0 00:10	0.00	0.00
2 CB02	0.46	0.46	N/A	N/A	N/A	2.47	4986.04	0.16	0 00:10	0.00	0.00
3 CB03	0.34	0.34	N/A	N/A	N/A	1.84	4986.00	0.12	0 00:10	0.00	0.00
4 CB04	0.35	0.35	0.35	0.00	99.99	1.46	4986.33	0.09	0 00:10	0.00	0.00
5 CB05	0.29	0.29	0.28	0.01	96.23	1.59	4981.22	0.08	0 00:09	0.00	0.00
6 CB06	0.44	0.44	0.43	0.02	96.23	2.42	4981.26	0.12	0 00:10	0.00	0.00
7 CB07	1.23	1.23	0.99	0.24	80.85	4.36	4987.47	0.17	0 00:10	0.00	0.00
8 CB08	0.80	0.80	0.72	0.08	89.70	3.15	4987.44	0.15	0 00:10	0.00	0.00
9 CB09	0.19	0.19	0.18	0.01	96.23	1.02	4980.88	0.05	0 00:10	0.00	0.00
10 CB10	0.87	0.87	N/A	N/A	N/A	3.71	4981.14	0.31	0 00:10	0.00	0.00
11 CB11	0.21	0.21	N/A	N/A	N/A	0.88	4975.87	0.07	0 00:10	0.00	0.00
12 CB12	0.17	0.17	N/A	N/A	N/A	0.93	4975.87	0.06	0 00:10	0.00	0.00
13 CB14	1.02	1.02	N/A	N/A	N/A	5.50	5070.47	0.36	0 00:10	0.00	0.00
14 CB15	0.37	0.37	N/A	N/A	N/A	2.02	5069.48	0.13	0 00:10	0.00	0.00
15 CB16 InletOffsite	2.53	2.53	2.20	0.33	86.84	3.79	4999.15	0.30	0 00:20	0.00	0.00

Project Description

File Name 19011 Brookside Meadows SSA.SPF

Project Options

Flow Units CFS
Elevation Type Elevation
Hydrology Method Modified Rational
Time of Concentration (TOC) Method User-Defined
Link Routing Method Kinematic Wave
Enable Overflow Ponding at Nodes YES
Skip Steady State Analysis Time Periods NO

Analysis Options

Start Analysis On Jan 01, 2019 00:00:00
End Analysis On Jan 02, 2019 00:00:00
Start Reporting On Jan 01, 2019 00:00:00
Antecedent Dry Days 0 days
Runoff (Dry Weather) Time Step 0 01:00:00 days hh:mm:ss
Runoff (Wet Weather) Time Step 0 00:05:00 days hh:mm:ss
Reporting Time Step 0 00:05:00 days hh:mm:ss
Routing Time Step 30 seconds

Number of Elements

	Qty
Rain Gages	0
Subbasins.....	15
Nodes.....	28
<i>Junctions</i>	10
<i>Outfalls</i>	3
<i>Flow Diversions</i>	0
<i>Inlets</i>	15
<i>Storage Nodes</i>	0
Links.....	33
<i>Channels</i>	0
<i>Pipes</i>	33
<i>Pumps</i>	0
<i>Orifices</i>	0
<i>Weirs</i>	0
<i>Outlets</i>	0
Pollutants	0
Land Uses	0

Rainfall Details

Return Period..... 100 year(s)

Subbasin Summary

SN	Subbasin ID	Area (ac)	Weighted Runoff Coefficient	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ac-in)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	Sub01	0.36	0.2000	0.87	0.17	0.06	0.37	0 00:10:00
2	Sub02	0.39	0.4400	0.87	0.38	0.15	0.89	0 00:10:00
3	Sub03	0.17	0.7500	0.87	0.65	0.11	0.66	0 00:10:00
4	Sub04	0.59	0.2200	0.87	0.19	0.11	0.68	0 00:10:00
5	Sub05	0.32	0.5200	0.87	0.45	0.14	0.87	0 00:10:00
6	Sub06	0.14	0.7800	0.87	0.68	0.09	0.57	0 00:10:00
7	Sub07	0.96	0.4800	0.87	0.42	0.40	2.40	0 00:10:00
8	Sub08	0.79	0.3800	0.87	0.33	0.26	1.56	0 00:10:00
9	Sub09	0.09	0.7800	0.87	0.68	0.06	0.37	0 00:10:00
10	Sub10	0.96	0.3400	0.87	0.30	0.28	1.70	0 00:10:00
11	Sub11	0.10	0.7700	0.87	0.67	0.07	0.40	0 00:10:00
12	Sub12	0.08	0.8100	0.87	0.70	0.06	0.34	0 00:10:00
13	Sub14	1.01	0.3800	0.87	0.33	0.33	2.00	0 00:10:00
14	Sub15	0.23	0.6100	0.87	0.53	0.12	0.73	0 00:10:00
15	Sub16	6.63	0.2000	1.24	0.25	1.64	4.93	0 00:20:00

Node Summary

SN	Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)	Max Surchage Depth Attained (ft)	Min Freeboard Attained (ft)	Time of Peak Flooding Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1	J01	Junction	4978.33	4985.83	1.92	4978.88	0.00	6.95	0 00:00	0.00	0.00
2	J02	Junction	4977.92	4986.09	1.92	4978.47	0.00	7.62	0 00:00	0.00	0.00
3	J03	Junction	4977.12	4986.44	1.90	4977.66	0.00	8.78	0 00:00	0.00	0.00
4	J04	Junction	4976.70	4985.74	1.90	4977.28	0.00	8.46	0 00:00	0.00	0.00
5	J05	Junction	4976.35	4984.32	2.50	4977.53	0.00	6.79	0 00:00	0.00	0.00
6	J06	Junction	4973.60	4981.09	3.65	4974.13	0.00	6.96	0 00:00	0.00	0.00
7	J07	Junction	4972.20	4979.62	9.86	4973.02	0.00	6.60	0 00:00	0.00	0.00
8	J08	Junction	4979.76	4987.26	3.04	4980.19	0.00	7.07	0 00:00	0.00	0.00
9	J09	Junction	4973.46	4980.81	6.32	4974.22	0.00	6.59	0 00:00	0.00	0.00
10	J10	Junction	4968.27	4975.77	10.37	4969.09	0.00	6.68	0 00:00	0.00	0.00
11	outletE	Outfall	4966.00		10.71	4966.91					
12	outletW	Outfall	5049.80		2.70	5050.21					
13	OutOffsite	Outfall	4975.00		3.81	4975.44					

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Average Slope (%)	Diameter or Height (in)	Manning's Roughness	Peak Flow (cfs)	Design Flow Capacity (cfs)	Peak Flow/ Design Flow Ratio	Peak Flow Velocity (ft/sec)	Peak Flow Depth (ft)
1	BPCB01	Pipe	CB01	CB02	40.55	4979.00	4977.88	2.7600	18.000	0.0150	0.00	0.00	0.00	0.00	0.00
2	BPCB04	Pipe	CB04	CB05	112.69	4980.71	4974.14	5.8300	0.000	0.0150	0.02	0.00	0.00	0.00	0.00
3	BPCB05	Pipe	CB05	CB10	46.99	4974.14	4973.98	0.3400	0.000	0.0150	0.04	0.00	0.00	0.00	0.00
4	BPCB06	Pipe	CB06	CB11	159.79	4974.14	4968.80	3.3400	0.000	0.0150	0.14	0.00	0.00	0.00	0.00
5	BPCB07	Pipe	CB07	CB09	140.09	4980.30	4973.98	4.5100	0.000	0.0150	0.84	0.00	0.00	0.00	0.00
6	BPCB08	Pipe	CB08	CB10	139.51	4980.29	4973.98	4.5200	0.000	0.0150	0.39	0.00	0.00	0.00	0.00
7	BPCB09	Pipe	CB09	CB12	99.00	4973.98	4967.27	6.7800	0.000	0.0150	0.01	0.00	0.00	0.00	0.00
8	BPCB16	Pipe	CB16InletOffsite	CB08	97.56	4985.00	4980.29	4.8300	0.000	0.0150	1.10	0.00	0.00	0.00	0.00
9	P01	Pipe	CB01	CB02	28.83	4980.00	4978.88	3.8800	12.000	0.0150	0.37	6.09	0.06	4.28	0.17
10	P02	Pipe	CB02	J01	17.04	4978.88	4978.33	3.2300	15.000	0.0150	1.26	10.06	0.13	5.61	0.30
11	P03	Pipe	CB03	J01	16.07	4978.88	4978.33	3.4200	15.000	0.0150	0.66	10.36	0.06	4.72	0.21
12	P04	Pipe	J01	J02	54.99	4978.33	4977.92	0.7500	15.000	0.0150	1.92	4.83	0.40	3.73	0.55
13	P05	Pipe	J02	J03	106.82	4977.92	4977.12	0.7500	15.000	0.0150	1.90	4.84	0.39	3.74	0.54
14	P06	Pipe	J03	J04	55.05	4977.12	4976.70	0.7600	15.000	0.0150	1.90	4.89	0.39	3.74	0.54
15	P07	Pipe	J04	J05	59.66	4976.70	4976.35	0.5900	15.000	0.0150	1.89	4.29	0.44	3.40	0.58
16	P08	Pipe	CB04	J05	33.57	4980.71	4977.35	10.0100	12.000	0.0150	0.65	9.77	0.07	7.04	0.18
17	P09	Pipe	J05	J06	180.14	4976.35	4973.60	1.5300	15.000	0.0150	2.49	6.92	0.36	5.22	0.52
18	P10	Pipe	CB06	J06	17.00	4974.14	4973.60	3.1800	15.000	0.0150	0.72	9.98	0.07	4.74	0.23
19	P11	Pipe	CB05	J06	17.00	4974.14	4973.60	3.1800	15.000	0.0150	0.54	9.98	0.05	4.35	0.20
20	P12	Pipe	J06	J07	46.69	4973.60	4972.20	3.0000	15.000	0.0150	3.65	9.69	0.38	7.34	0.53
21	P13	Pipe	CB08	J08	16.99	4980.29	4979.76	3.1200	15.000	0.0150	1.49	9.89	0.15	5.80	0.33
22	P14	Pipe	CB07	J08	17.01	4980.30	4979.76	3.1700	15.000	0.0150	1.55	9.98	0.16	5.91	0.33
23	P15	Pipe	J08	J09	137.38	4979.76	4973.46	4.5900	15.000	0.0150	3.03	11.99	0.25	8.16	0.43
24	P16	Pipe	CB10	J09	17.00	4973.98	4973.46	3.0600	15.000	0.0150	2.12	9.79	0.22	6.38	0.39
25	P17	Pipe	CB09	J09	17.00	4973.98	4973.46	3.0600	15.000	0.0150	1.19	9.79	0.12	5.39	0.29
26	P18	Pipe	J09	J07	46.94	4973.46	4972.20	2.6800	15.000	0.0150	6.31	9.17	0.69	8.06	0.76
27	P19	Pipe	J07	J10	110.70	4972.20	4968.27	3.5500	18.000	0.0150	9.85	17.15	0.57	10.05	0.81
28	P20	Pipe	CB11	J10	17.00	4968.80	4968.27	3.1200	15.000	0.0150	0.54	9.89	0.05	4.31	0.20
29	P21	Pipe	J10	CB12	17.00	4968.27	4967.27	5.8800	18.000	0.0150	10.37	22.08	0.47	12.30	0.72
30	P22	Pipe	CB12	outletE	43.01	4967.27	4966.00	2.9500	18.000	0.0150	10.71	15.64	0.68	9.53	0.91
31	P23	Pipe	CB14	CB15	34.01	5063.11	5058.00	15.0200	15.000	0.0150	1.99	21.70	0.09	11.06	0.26
32	P24	Pipe	CB15	outletW	188.73	5058.00	5049.80	4.3400	15.000	0.0150	2.70	11.67	0.23	7.78	0.41
33	P25	Pipe	CB16InletOffsite	OutOffsite	193.73	4985.00	4975.00	5.1600	18.000	0.0150	3.81	20.68	0.18	10.13	0.44

Peak Flow
Depth/
Total Depth
Ratio

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.17
0.24
0.17
0.44
0.43
0.43
0.47
0.18
0.41
0.18
0.16
0.43
0.26
0.27
0.34
0.32
0.24
0.61
0.54
0.16
0.48
0.61
0.20
0.33
0.29

Inlet Summary

SN Element ID	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Peak Flow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)
1 CB01	On Grade	1	4980.00	4987.56	0.37	0.37	0.00	99.31	9.25	2.04	4987.66
2 CB02	On Sag	1	4978.88	4985.88	0.89	N/A	N/A	N/A	9.25	4.82	4986.20
3 CB03	On Sag	1	4978.88	4985.88	0.66	N/A	N/A	N/A	9.25	3.58	4986.12
4 CB04	On Grade	1	4980.71	4986.24	0.67	0.66	0.02	97.11	9.25	2.72	4986.38
5 CB05	On Grade	1	4974.14	4981.14	0.57	0.53	0.04	92.66	9.25	2.97	4981.28
6 CB06	On Grade	1	4974.14	4981.14	0.87	0.72	0.14	83.60	9.25	4.05	4981.30
7 CB07	On Grade	1	4980.30	4987.30	2.40	1.55	0.84	64.89	9.25	6.37	4987.51
8 CB08	On Grade	1	4980.29	4987.29	1.56	1.17	0.39	75.23	9.25	5.07	4987.48
9 CB09	On Grade	1	4973.98	4980.83	0.36	0.35	0.01	96.23	9.25	1.99	4980.93
10 CB10	On Sag	1	4973.98	4980.83	1.70	N/A	N/A	N/A	9.25	6.25	4981.25
11 CB11	On Sag	1	4968.80	4975.80	0.40	N/A	N/A	N/A	9.25	1.71	4975.94
12 CB12	On Sag	1	4967.27	4975.81	0.34	N/A	N/A	N/A	9.25	1.82	4975.93
13 CB14	On Sag	1	5063.11	5070.11	2.00	N/A	N/A	N/A	9.25	9.65	5070.55
14 CB15	On Sag	1	5058.00	5069.35	0.73	N/A	N/A	N/A	9.25	3.94	5069.61
15 CB16InletOffsite	On Grade	1	4985.00	4998.85	4.93	3.83	1.10	77.61	9.25	4.73	4999.25

Junction Input

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Ground/Rim (Max) Offset (ft)
1	J01	4978.33	4985.83	7.50
2	J02	4977.92	4986.09	8.17
3	J03	4977.12	4986.44	9.32
4	J04	4976.70	4985.74	9.04
5	J05	4976.35	4984.32	7.97
6	J06	4973.60	4981.09	7.49
7	J07	4972.20	4979.62	7.42
8	J08	4979.76	4987.26	7.50
9	J09	4973.46	4980.81	7.35
10	J10	4968.27	4975.77	7.50

Junction Results

SN Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
	(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1 J01	1.92	0.00	4978.88	0.55	0.00	6.95	4978.34	0.01	0 00:10	0 00:00	0.00	0.00
2 J02	1.92	0.00	4978.47	0.55	0.00	7.62	4977.93	0.01	0 00:10	0 00:00	0.00	0.00
3 J03	1.90	0.00	4977.66	0.54	0.00	8.78	4977.13	0.01	0 00:10	0 00:00	0.00	0.00
4 J04	1.90	0.00	4977.28	0.58	0.00	8.46	4976.71	0.01	0 00:10	0 00:00	0.00	0.00
5 J05	2.50	0.00	4977.53	1.18	0.00	6.79	4977.35	1.00	0 00:10	0 00:00	0.00	0.00
6 J06	3.65	0.00	4974.13	0.53	0.00	6.96	4973.61	0.01	0 00:11	0 00:00	0.00	0.00
7 J07	9.86	0.00	4973.02	0.82	0.00	6.60	4972.21	0.01	0 00:10	0 00:00	0.00	0.00
8 J08	3.04	0.00	4980.19	0.43	0.00	7.07	4979.77	0.01	0 00:10	0 00:00	0.00	0.00
9 J09	6.32	0.00	4974.22	0.76	0.00	6.59	4973.47	0.01	0 00:10	0 00:00	0.00	0.00
10 J10	10.37	0.00	4969.09	0.82	0.00	6.68	4968.28	0.01	0 00:10	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length (ft)	Inlet Invert Elevation (ft)	Outlet Invert Elevation (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (in)	Manning's Roughness	Initial Flow (cfs)
1	BPCB01	40.55	4979.00	4977.88	1.12	2.7600	Dummy	0.000	0.0150	0.00
2	BPCB04	112.69	4980.71	4974.14	6.57	5.8300	Dummy	0.000	0.0150	0.00
3	BPCB05	46.99	4974.14	4973.98	0.16	0.3400	Dummy	0.000	0.0150	0.00
4	BPCB06	159.79	4974.14	4968.80	5.34	3.3400	Dummy	0.000	0.0150	0.00
5	BPCB07	140.09	4980.30	4973.98	6.32	4.5100	Dummy	0.000	0.0150	0.00
6	BPCB08	139.51	4980.29	4973.98	6.31	4.5200	Dummy	0.000	0.0150	0.00
7	BPCB09	99.00	4973.98	4967.27	6.71	6.7800	Dummy	0.000	0.0150	0.00
8	BPCB16	97.56	4985.00	4980.29	4.71	4.8300	Dummy	0.000	0.0150	0.00
9	P01	28.83	4980.00	4978.88	1.12	3.8800	CIRCULAR	12.000	0.0150	0.00
10	P02	17.04	4978.88	4978.33	0.55	3.2300	CIRCULAR	15.000	0.0150	0.00
11	P03	16.07	4978.88	4978.33	0.55	3.4200	CIRCULAR	15.000	0.0150	0.00
12	P04	54.99	4978.33	4977.92	0.41	0.7500	CIRCULAR	15.000	0.0150	0.00
13	P05	106.82	4977.92	4977.12	0.80	0.7500	CIRCULAR	15.000	0.0150	0.00
14	P06	55.05	4977.12	4976.70	0.42	0.7600	CIRCULAR	15.000	0.0150	0.00
15	P07	59.66	4976.70	4976.35	0.35	0.5900	CIRCULAR	15.000	0.0150	0.00
16	P08	33.57	4980.71	4977.35	3.36	10.0100	CIRCULAR	12.000	0.0150	0.00
17	P09	180.14	4976.35	4973.60	2.75	1.5300	CIRCULAR	15.000	0.0150	0.00
18	P10	17.00	4974.14	4973.60	0.54	3.1800	CIRCULAR	15.000	0.0150	0.00
19	P11	17.00	4974.14	4973.60	0.54	3.1800	CIRCULAR	15.000	0.0150	0.00
20	P12	46.69	4973.60	4972.20	1.40	3.0000	CIRCULAR	15.000	0.0150	0.00
21	P13	16.99	4980.29	4979.76	0.53	3.1200	CIRCULAR	15.000	0.0150	0.00
22	P14	17.01	4980.30	4979.76	0.54	3.1700	CIRCULAR	15.000	0.0150	0.00
23	P15	137.38	4979.76	4973.46	6.30	4.5900	CIRCULAR	15.000	0.0150	0.00
24	P16	17.00	4973.98	4973.46	0.52	3.0600	CIRCULAR	15.000	0.0150	0.00
25	P17	17.00	4973.98	4973.46	0.52	3.0600	CIRCULAR	15.000	0.0150	0.00
26	P18	46.94	4973.46	4972.20	1.26	2.6800	CIRCULAR	15.000	0.0150	0.00
27	P19	110.70	4972.20	4968.27	3.93	3.5500	CIRCULAR	18.000	0.0150	0.00
28	P20	17.00	4968.80	4968.27	0.53	3.1200	CIRCULAR	15.000	0.0150	0.00
29	P21	17.00	4968.27	4967.27	1.00	5.8800	CIRCULAR	18.000	0.0150	0.00
30	P22	43.01	4967.27	4966.00	1.27	2.9500	CIRCULAR	18.000	0.0150	0.00
31	P23	34.01	5063.11	5058.00	5.11	15.0200	CIRCULAR	15.000	0.0150	0.00
32	P24	188.73	5058.00	5049.80	8.20	4.3400	CIRCULAR	15.000	0.0150	0.00
33	P25	193.73	4985.00	4975.00	10.00	5.1600	CIRCULAR	18.000	0.0150	0.00

Pipe Results

SN Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged
	(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)
1 BPCB01	0.00	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
2 BPCB04	0.02	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
3 BPCB05	0.04	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
4 BPCB06	0.14	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
5 BPCB07	0.84	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
6 BPCB08	0.39	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
7 BPCB09	0.01	0 00:10	0.00	0.00	0.00		0.00	0.00	0.00
8 BPCB16	1.10	0 00:20	0.00	0.00	0.00		0.00	0.00	0.00
9 P01	0.37	0 00:10	6.09	0.06	4.28	0.11	0.17	0.17	0.00
10 P02	1.26	0 00:10	10.06	0.13	5.61	0.05	0.30	0.24	0.00
11 P03	0.66	0 00:10	10.36	0.06	4.72	0.06	0.21	0.17	0.00
12 P04	1.92	0 00:10	4.83	0.40	3.73	0.25	0.55	0.44	0.00
13 P05	1.90	0 00:10	4.84	0.39	3.74	0.48	0.54	0.43	0.00
14 P06	1.90	0 00:10	4.89	0.39	3.74	0.25	0.54	0.43	0.00
15 P07	1.89	0 00:11	4.29	0.44	3.40	0.29	0.58	0.47	0.00
16 P08	0.65	0 00:10	9.77	0.07	7.04	0.08	0.18	0.18	0.00
17 P09	2.49	0 00:11	6.92	0.36	5.22	0.58	0.52	0.41	0.00
18 P10	0.72	0 00:10	9.98	0.07	4.74	0.06	0.23	0.18	0.00
19 P11	0.54	0 00:10	9.98	0.05	4.35	0.07	0.20	0.16	0.00
20 P12	3.65	0 00:11	9.69	0.38	7.34	0.11	0.53	0.43	0.00
21 P13	1.49	0 00:10	9.89	0.15	5.80	0.05	0.33	0.26	0.00
22 P14	1.55	0 00:10	9.98	0.16	5.91	0.05	0.33	0.27	0.00
23 P15	3.03	0 00:10	11.99	0.25	8.16	0.28	0.43	0.34	0.00
24 P16	2.12	0 00:10	9.79	0.22	6.38	0.04	0.39	0.32	0.00
25 P17	1.19	0 00:10	9.79	0.12	5.39	0.05	0.29	0.24	0.00
26 P18	6.31	0 00:10	9.17	0.69	8.06	0.10	0.76	0.61	0.00
27 P19	9.85	0 00:10	17.15	0.57	10.05	0.18	0.81	0.54	0.00
28 P20	0.54	0 00:10	9.89	0.05	4.31	0.07	0.20	0.16	0.00
29 P21	10.37	0 00:10	22.08	0.47	12.30	0.02	0.72	0.48	0.00
30 P22	10.71	0 00:10	15.64	0.68	9.53	0.08	0.91	0.61	0.00
31 P23	1.99	0 00:10	21.70	0.09	11.06	0.05	0.26	0.20	0.00
32 P24	2.70	0 00:10	11.67	0.23	7.78	0.40	0.41	0.33	0.00
33 P25	3.81	0 00:20	20.68	0.18	10.13	0.32	0.44	0.29	0.00

Inlet Input

SN Element ID	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Inlet Depth (ft)	Grate Clogging Factor (%)
1 CB01	On Grade	1	4980.00	4987.56	7.56	0.00
2 CB02	On Sag	1	4978.88	4985.88	7.00	0.00
3 CB03	On Sag	1	4978.88	4985.88	7.00	0.00
4 CB04	On Grade	1	4980.71	4986.24	5.53	0.00
5 CB05	On Grade	1	4974.14	4981.14	7.00	0.00
6 CB06	On Grade	1	4974.14	4981.14	7.00	0.00
7 CB07	On Grade	1	4980.30	4987.30	7.00	0.00
8 CB08	On Grade	1	4980.29	4987.29	7.00	0.00
9 CB09	On Grade	1	4973.98	4980.83	6.85	0.00
10 CB10	On Sag	1	4973.98	4980.83	6.85	0.00
11 CB11	On Sag	1	4968.80	4975.80	7.00	0.00
12 CB12	On Sag	1	4967.27	4975.81	8.54	0.00
13 CB14	On Sag	1	5063.11	5070.11	7.00	0.00
14 CB15	On Sag	1	5058.00	5069.35	11.35	0.00
15 CB16InletOffsite	On Grade	1	4985.00	4998.85	13.85	0.00

Roadway & Gutter Input

SN Element ID	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (in)	Allowable Spread (ft)
1 CB01	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
2 CB02	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
3 CB03	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
4 CB04	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
5 CB05	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
6 CB06	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
7 CB07	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
8 CB08	0.0500	0.0200	0.0160	0.0620	2.00	0.0656	9.25
9 CB09	0.0300	0.0200	0.0160	0.0620	2.00	0.0656	9.25
10 CB10	N/A	0.0300	0.0160	0.0620	2.00	0.0656	9.25
11 CB11	N/A	0.0300	0.0160	0.0620	2.00	0.0656	9.25
12 CB12	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
13 CB14	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
14 CB15	N/A	0.0200	0.0160	0.0620	2.00	0.0656	9.25
15 CB16InletOffsite	0.0500	0.1000	0.0300	0.0620	2.00	0.0656	9.25

Inlet Results

SN Element ID	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Max Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-in)	Total Time Flooded (min)
1 CB01	0.37	0.37	0.37	0.00	99.31	2.04	4987.66	0.10	0 00:10	0.00	0.00
2 CB02	0.89	0.89	N/A	N/A	N/A	4.82	4986.20	0.32	0 00:10	0.00	0.00
3 CB03	0.66	0.66	N/A	N/A	N/A	3.58	4986.12	0.24	0 00:10	0.00	0.00
4 CB04	0.67	0.67	0.66	0.02	97.11	2.72	4986.38	0.14	0 00:10	0.00	0.00
5 CB05	0.57	0.57	0.53	0.04	92.66	2.97	4981.28	0.14	0 00:10	0.00	0.00
6 CB06	0.87	0.87	0.72	0.14	83.60	4.05	4981.30	0.16	0 00:10	0.00	0.00
7 CB07	2.40	2.40	1.55	0.84	64.89	6.37	4987.51	0.21	0 00:10	0.00	0.00
8 CB08	1.56	1.56	1.17	0.39	75.23	5.07	4987.48	0.19	0 00:10	0.00	0.00
9 CB09	0.36	0.36	0.35	0.01	96.23	1.99	4980.93	0.10	0 00:10	0.00	0.00
10 CB10	1.70	1.70	N/A	N/A	N/A	6.25	4981.25	0.42	0 00:10	0.00	0.00
11 CB11	0.40	0.40	N/A	N/A	N/A	1.71	4975.94	0.14	0 00:10	0.00	0.00
12 CB12	0.34	0.34	N/A	N/A	N/A	1.82	4975.93	0.12	0 00:10	0.00	0.00
13 CB14	2.00	2.00	N/A	N/A	N/A	9.65	5070.55	0.44	0 00:10	0.00	0.00
14 CB15	0.73	0.73	N/A	N/A	N/A	3.94	5069.61	0.26	0 00:10	0.00	0.00
15 CB16InletOffsite	4.93	4.93	3.83	1.10	77.61	4.73	4999.25	0.40	0 00:20	0.00	0.00

Storm Drainage Detention Calculations
Brookside Meadows
East Portion
100-yr, 24-hr Post-Development Rational Method Calculations¹

Area and Weighted C Calculation

Description	Acres	C ²
Total Roads	1.590	0.90
Total Undeveloped	1.900	0.20
Total Lot Area	1.690	0.30
Total:	5.180	0.45

Storage requirements by duration (maximum volume is bolded)

Duration (min)	C _w	i (100 yr.)	Area (ac)	Q(cfs)	Vol. (cf)	Allowable Release (cf)	Storage ³ (cf)	Storage (ac-ft)
5	0.45	6.71	5.18	15.64	4,692	166	4,526	0.10
10	0.45	5.11	5.18	11.91	7,147	332	6,815	0.16
15	0.45	4.22	5.18	9.84	8,853	498	8,355	0.19
30	0.45	2.84	5.18	6.62	11,916	997	10,919	0.25
60	0.45	1.76	5.18	4.10	14,769	1,993	12,776	0.29
120	0.45	0.97	5.18	2.27	16,347	3,987	12,360	0.28
180	0.45	0.67	5.18	1.55	16,766	5,980	10,786	0.25
360	0.45	0.37	5.18	0.86	18,579	11,960	6,619	0.15
720	0.45	0.22	5.18	0.52	22,456	23,920	-1,464	-0.03
1,440	0.45	0.11	5.18	0.263	22,758	47,840	-25,082	-0.58

Orifice Size

C (sharp edge constant)	0.61	$A = \frac{Q}{C\sqrt{2gh}}$ $r = \sqrt{\frac{A}{\pi}}$
Q (release rate x area, cfs)	0.554	
H (Depth of pond, ft)	6.0	
A (Area of orifice, ft ²)	0.046	
A (Area of orifice, in ²)	6.6	
r (radius of orifice, in)	1.5	

- 1) Per Alpine City Storage Requirements
- 2) Runoff Coefficients from "*Hydrologic Analysis and Design*", Richard H. McCuen, 1998
- 3) Storage = Storm Volume - Allowable Release



Storm Drainage Detention Calculations
Brookside Meadows
West Portion
100-yr, 24-hr Post-Development Rational Method Calculations¹

Area and Weighted C Calculation

Description	Acres	C ²
Total Roads	0.310	0.90
Total Undeveloped	0.130	0.20
Total Lot Area	0.890	0.30
Total:	1.330	0.43

Storage requirements by duration (maximum volume is bolded)

Duration (min)	C _w	i (100 yr.)	Area (ac)	Q(cfs)	Vol. (cf)	Allowable Release (cf)	Storage ³ (cf)	Storage (ac-ft)
5	0.43	6.71	1.33	3.84	1,151	28	1,123	0.03
10	0.43	5.11	1.33	2.92	1,753	56	1,698	0.04
15	0.43	4.22	1.33	2.41	2,172	84	2,088	0.05
30	0.43	2.84	1.33	1.62	2,924	168	2,756	0.06
60	0.43	1.76	1.33	1.01	3,624	335	3,288	0.08
120	0.43	0.97	1.33	0.56	4,011	670	3,340	0.08
180	0.43	0.67	1.33	0.38	4,114	1,005	3,108	0.07
360	0.43	0.37	1.33	0.21	4,558	2,011	2,547	0.06
720	0.43	0.22	1.33	0.13	5,509	4,022	1,488	0.03
1,440	0.43	0.11	1.33	0.065	5,584	8,044	-2,460	-0.06

Orifice Size

C (sharp edge constant)	0.61	$A = \frac{Q}{C\sqrt{2gh}}$ $r = \sqrt{\frac{A}{\pi}}$
Q (release rate x area, cfs)	0.093	
H (Depth of pond, ft)	2.2	
A (Area of orifice, ft ²)	0.013	
A (Area of orifice, in ²)	1.8	
r (radius of orifice, in)	0.8	

- 1) Per Alpine City Storage Requirements
- 2) Runoff Coefficients from "Hydrologic Analysis and Design", Richard H. McCuen, 1998
- 3) Storage = Storm Volume - Allowable Release



Storm Drainage Detention/ Retention Calculations

Brookside Meadows

East Portion

Areas	Sq ft	Acres
East		
Roads	69,129	1.59
Undeveloped	82,727	1.90
Lots	73,485	1.69
		5.17
East total	225,341	5.17

Total 100 year detention	12,776	
90% volume for lots	1010	subtract this from total detention volume
Volume to detained	11,765	
<u>retained volume</u>		
90% volume for roads	2852	
90% volume for undev.	758	3610 volume to be retained

Storm Drainage Detention/ Retention Calculations
Brookside Meadows
West Portion

Areas	Sq ft	Acres
<u>West</u>		
Roads	13,392	0.31
Undeveloped	5,644	0.13
Lots	38,887	0.89
		1.33
West total	57,923	1.33

Total 100 year detention	3,340	
90% volume for lots	535	subtract this from total detention volume
Volume to detained	2,806	
<u>retained volume</u>		
90% volume for roads	552	
90% volume for undev.	52	604 volume to be retained

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Planning Commission Minutes January 21, 2020

FOR CONSIDERATION ON: February 4, 2020

PETITIONER: Staff

ACTION REQUESTED BY PETITIONER: Approve Minutes

BACKGROUND INFORMATION:

Minutes from the January 21, 2020 Planning Commission Meeting.

STAFF RECOMMENDATION:

Review and approve the Planning Commission Minutes.

ALPINE CITY PLANNING COMMISSION MEETING
Alpine City Hall, 20 North Main, Alpine, UT
January 21, 2020

I. GENERAL BUSINESS

A. Welcome and Roll Call: The meeting was called to order at 7:00 p.m. by Vice-Chairman Bryce Higbee. The following were present and constituted a quorum:

Vice-Chairman: Bryce Higbee

Commission Members: Jane Griener, Alan MacDonald, John MacKay, Jessica Smuin, Sylvia Christiansen

Staff: Austin Roy, Jed Muhlestein, Marla Fox

Others: None noted.

B. Prayer/Opening Comments: Alan MacDonald

C. Pledge of Allegiance: Bryce Higbee

II. PUBLIC COMMENT

There were no public comments.

III. ACTION ITEMS

A. Election of Chair and Vice Chair

Bryce Higbee said a vacancy in the Planning Commission had left an unexpired term to be filled in the position of the Chair. Planning Commission needed to elect a member to fill the remainder of the unexpired term. Depending on the results of the election, this may also require a new Vice-Chair to be elected as well.

Jane Griener asked Austin Roy to explain what duties the Chair was responsible for other than running the Planning Commission meetings. Austin Roy said the Chair went over the agenda with him before the meeting to get on the same page, and the Chair also attended City Council meetings to represent the Planning Commission.

MOTION: Sylvia Christiansen moved to nominate Jane Griener for Chair. Alan MacDonald seconded the motion.

Jane Griener said she may not be staying for another term and already spoke to the Mayor about it. She asked Bryce Higbee if he wanted to fulfill the roll. Bryce Higbee said he did not mind doing so but said he did not have the time. Alan MacDonald said he was happy to serve in the position but traveled out of town a lot. Jane Griener said she would be willing to stay for another year.

There were 6 Ayes and 0 Nays (recorded below). The motion passed.

Ayes:

- Bryce Higbee
- Jane Griener
- John MacKay
- Alan MacDonald
- Jessica Smuin
- Sylvia Christiansen

Nays:

None

1 **MOTION:** Alan MacDonald moved to nominate Bryce Higbee as Vice-Chair. Jane Griener seconded the
 2 motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed.

3
 4 **Ayes:**

5 Bryce Higbee
 6 Jane Griener
 7 John MacKay
 8 Alan MacDonald
 9 Jessica Smuin
 10 Sylvia Christiansen

Nays:

None

11
 12 **B. E-Bike Discussion**

13 Austin Roy said under the current ordinance all motorized vehicles were prohibited on Alpine City open
 14 space, and it had been interpreted that this applied to all types of E-bikes. However, both the State of Utah
 15 and the United States Forest Service defined certain types of E-bikes (Class 1, Class 2, or Class 3) as a
 16 “bicycle.”

17
 18 Staff recommended that Alpine City consider defining “bicycle” the same as the State of Utah and the
 19 United States Forest Service to avoid confusion and to make enforcement easier. The City Council
 20 discussed E-bikes at the January 14, 2020 meeting and indicated that they wanted to allow Class 1 E-Bikes
 21 on Alpine City trails. Class 1 E-bikes were pedal-assisted and electric assisted and had a max speed of 20
 22 MPH with no speedometer. Austin Roy said per State Law, wherever a regular bike could go an E-Bike
 23 can go as well. He said the Planning Commission could be more restrictive if they wanted or they could
 24 follow the State Law.

25
 26 Alan MacDonald said he did a lot of road and mountain biking. He said this was a good proposal by the
 27 City Council because the Class 1 was a peddle bike with a little assist. At the speeds he could ride his bike,
 28 his wife could keep up with an E-Bike. He said it would not go any faster than an elite road biker. He said
 29 E-Bikes looked like other bikes and did not go faster than regular bikes, so there should not be any fear
 30 with them. He said this would let some people who were not in the best physical shape have a little more
 31 help on the trails. This was a good compromise to the current law.

32
 33 Sylvia Christiansen and John Mackay wanted to know how this was governed. Bryce Higbee said the Trails
 34 Committee should look at this distinction to see if certain trails should be marked for these bikes. He said
 35 whatever the Council did it was not enforceable; it was policed by the bikers and the people who used the
 36 trails.

37
 38 Jane Griener inquired as to what initiated this discussion. Austin Roy said the City wanted to know if they
 39 should be on the same page as the State. Jed Muhlestein said the City had an ordinance of no motorized
 40 vehicles in Lambert Park and these bikes were motorized, so clarity was needed as to if E-Bikes were
 41 excluded in this ban.

42
 43 Alan MacDonald said a Class 1 E-Bike was indistinguishable from a regular bike. No one was going to be
 44 in Corner Canyon or Lambert Park on the many miles of trails enforcing this. Jane Griener said she agreed
 45 that the Planning Commission should recommend allowing the Class 1 E-Bike but wanted to ask the Trail
 46 Committee’s opinion. Bryce Higbee agreed and said he wanted the Trail Commission to report back to the
 47 Planning Commission.

48
 49 **C. Moderate-Income Housing Discussion**

50 Austin Roy said in October 2019, the Alpine City Council adopted a revised Moderate-Income Housing
 51 Element as part of the General Plan. Three new policies were included:

- 1 • Allow accessory apartments within owner-occupied dwellings throughout the City.
- 2 • Preserve existing moderate-income housing.
- 3 • Provide a mortgage assistance program for employees of the municipality or of an employer that
- 4 provides contracted services to the municipality.

5
6 By the end of 2020 Alpine City was required to report to the Department of Workforce Services (DWS) the
7 progress that was made in implementing these new policies.

8
9 The Planning Commission had a discussion on what was required to register an apartment and said it would
10 be a good idea for the Mayor to remind the citizens to come forward and register their accessory apartments.

11
12 **IV. Communications**

13 Jessica Smuin asked if the new bank sign was up to code. She said it blocked the view and she did not like
14 the billboard signs popping up on Main Street. Austin Roy said the sign was up to code and met the
15 ordinance. Jessica Smuin said the Planning Commission should look at their ordinance and make changes
16 if needed.

17
18 Alan MacDonald said he did not like the “Commit to the Limit” signs in Alpine City.

19
20 Sylvia Christiansen said she had a conflict with the February 4th meeting and wanted to know if the Planning
21 Commission would still have a Quorum if she was absent.

22
23 Alan MacDonald said he would be happy to be on the Trails Committee. Jessica Smuin said she would be
24 happy to help with the Moyle Park Committee.

25
26 **V. APPROVAL OF PLANNING COMMISSION MINUTES: January 7, 2020**

27
28 **MOTION:** John MacKay moved to approve the minutes for January 7, 2020 with corrections (Jane was
29 absent from the previous meeting; change “co-chairman” to “vice chairman”).

30
31 Alan MacDonald seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion
32 passed.

33
34 **Ayes:**

- 35 Bryce Higbee
- 36 Jane Griener
- 37 John MacKay
- 38 Alan MacDonald
- 39 Jessica Smuin
- 40 Sylvia Christiansen

34 **Nays:**

35 None

41
42 The meeting was adjourned at 7:58 p.m.