ALPINE CITY PLANNING COMMISSION MEETING
AMENDED

NOTICE is hereby given that the **PLANNING COMMISSION** of Alpine City, Utah will hold a **Public Meeting** on **Tuesday, April 19, 2022, at 7:00 pm at City Hall, 20 North Main Street, Alpine, Utah.**

The public may attend the meeting in person or view the meeting via the **Alpine City YouTube Channel**. A direct link to the channel can be found on the home page of the Alpine City website: **alpinecity.org**

I. GENERAL BUSINESS
- A. Welcome and Roll Call: Jane Griener
- B. Prayer/Opening Comments: Susan Whittenburg
- C. Pledge of Allegiance: Ethan Allen

II. PUBLIC COMMENT

Any person wishing to comment on any item not on the agenda may address the Planning Commission. Comments may be given in person at the meeting.

III. REPORTS AND PRESENTATIONS
- **A. BYU/MAG Study – Connectivity Between Municipalities**

IV. ACTION ITEMS
- **A. Public Hearing – Petition of Annexation – Box Elder South**
- **B. Pickleball Courts at Creekside Park**
- **C. Site Plan – Design Update – Montdella Townhomes**
- **D. Site Plan – Elway's Doggie Wash at the Alpine Animal Hospital – 424 South Alpine Highway**
- **E. Plat Amendment – Forest Creek Estates Subdivision Amended**
- **F. Conditional Use – Guesthouse – 2600 North Mountain Springs Road**

V. COMMUNICATIONS

VI. APPROVAL OF PLANNING COMMISSION MINUTES: March 15, 2022

ADJOURN

Chair Jane Griener
April 19, 2022

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 CITY COUNCIL AGENDA

SUBJECT: Public Hearing – Petition of Annexation – Box Elder South

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Residents of the Box Elder South Subdivision

ACTION REQUESTED BY PETITIONER: Review and approve the proposed annexation.

BACKGROUND INFORMATION:

Residents of the Box Elder South Subdivision have submitted an annexation petition to annex the entire Box Elder South Plat A subdivision, including 59 developed lots on a total of 43.9 acres, into Alpine City. On March 22, 2022, the City Council accepted the annexation petition and sent it to the Planning Commission for further consideration.

The Planning Commission and City Council must now review the proposed annexation, and weigh the potential pros and cons. In doing so, the following criteria should be considered (ADC 5.03):

1. *Whether or not it is in the interest of the City to annex additional land at that time.*
2. *The capability of Alpine City to supply adequate municipal services to the area proposed for annexation, such as public streets, water, sewer, police and fire protection including what necessary improvements will be a requirement of the petitioners/owners of the property.*
3. *Whether or not Water Rights will be required of all property annexed into Alpine City. If the property has a current water system, the City Council may require the dedication of the that system and the water rights with any necessary improvements being made to the system by the owners of the water system as a condition of annexation.*
4. *Whether or not the proposed annexation is consistent with the City's General Plan.*
5. *What conditions, if any, should be attached to proposed annexations in order to provide adequate services, protect health or safety, or are necessary for proper implementation of the General Plan such as dedications for parks, trails, open space, road, of other public facilities.*
6. *Whether as a condition and requirement of annexation, an annexation fee will be negotiated between the City and the petitioners. This fee may be separate and distinct from, and in addition to, any development impact fee assessed pursuant to the terms of the City's impact fee ordinance. The purpose of these fees shall be to reimburse the city for any extraordinary impacts on the City and infrastructure which may be created by the annexation.*
7. *Such other information as may be required or necessary to understand and evaluate the application/petition.*

STAFF RECOMMENDATION

Review staff report and findings and make a motion to approve, table, or deny the proposed annexation of Box Elder South Subdivision.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I move to recommend approval of the annexation of Box Elder South Subdivision with the following conditions:

- **INSERT FINDING**

SAMPLE MOTION TO TABLE

I move to table the annexation of Box Elder South Subdivision based on the following:

- **INSERT FINDING**

SAMPLE MOTION TO DENY

I move to deny the annexation of Box Elder South Subdivision based on the following:

- **INSERT FINDING**

ALPINE CITY
STAFF REPORT
April 19, 2022

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: Box Elder South Petition of Annexation

Applicant:	Residents of Box Elder South Subdivision
Project Location:	Approximately 3927 West Box Elder Way
Zoning:	Utah County TR-5 Zone (adjacent to Alpine City CR-40,000 zone)
Acreage:	43.9 Acres
Lots & Size:	59 lots, with average lot size of 21,913 Square Feet
Request:	Recommend and approve the amended plat

SUMMARY

Residents of the Box Elder South Subdivision have submitted an annexation petition to annex the entire Box Elder South Plat A subdivision, including 59 developed lots on a total of 43.9 acres, into Alpine City. On March 22, 2022, the City Council accepted the annexation petition and sent it to the Planning Commission for further consideration.

The Planning Commission and City Council must now review the proposed annexation, and weigh the potential pros and cons. In doing so, the following criteria should be considered (ADC 5.03):

1. *Whether or not it is in the interest of the City to annex additional land at that time.*
2. *The capability of Alpine City to supply adequate municipal services to the area proposed for annexation, such as public streets, water, sewer, police and fire protection including what necessary improvements will be a requirement of the petitioners/owners of the property.*
3. *Whether or not Water Rights will be required of all property annexed into Alpine City. If the property has a current water system, the City Council may require the dedication of*

the that system and the water rights with any necessary improvements being made to the system by the owners of the water system as a condition of annexation.

4. *Whether or not the proposed annexation is consistent with the City's General Plan.*
5. *What conditions, if any, should be attached to proposed annexations in order to provide adequate services, protect health or safety, or are necessary for proper implementation of the General Plan such as dedications for parks, trails, open space, road, of other public facilities.*
6. *Whether as a condition and requirement of annexation, an annexation fee will be negotiated between the City and the petitioners. This fee may be separate and distinct from, and in addition to, any development impact fee assessed pursuant to the terms of the City's impact fee ordinance. The purpose of these fees shall be to reimburse the city for any extraordinary impacts on the City and infrastructure which may be created by the annexation.*
7. *Such other information as may be required or necessary to understand and evaluate the application/petition.*

BACKGROUND

Before the Box Elder South Subdivision was developed, the developer approached Alpine City about the possibility of annexing into the City. However, an agreement regarding the proposed use and density of the land could not be reached. Ultimately, the subdivision was developed in Utah County.

In February 2017, the City Council adopted Ordinance 2017-03, which included an update to the City's Annexation Policy Plan and Map (a copy of the plan is included in the packet). The proposed annexation area was included in this plan. Properties included in the Annexation Policy Plan and Map are not guaranteed an annexation request will be approved by the City but rather that they may be considered.

ANALYSIS

Whether or not it is in the interest of the City to annex additional land at that time.
This determination should be made by the City Council, following a detailed review of the proposed annexation and a recommendation of the Planning Commission.

The capability of Alpine City to supply adequate municipal services to the area proposed for annexation, such as public streets, water, sewer, police and fire protection including what necessary improvements will be a requirement of the petitioners/owners of the property.
The area currently receives water, sewer, and garbage from the City. Also, the area is receiving police and fire services from Lone Peak Public Safety because they are the nearest on call services. The area does NOT receive snow removal service from the City, see further discussion on this in the Engineering and Public Works section below.

Whether or not Water Rights will be required of all property annexed into Alpine City. If the property has a current water system, the City Council may require the dedication of the that

system and the water rights with any necessary improvements being made to the system by the owners of the water system as a condition of annexation.
Water rights have been previously received for this area. The Box Elder South Subdivision is on the City's culinary water system already. See Engineering and Public Works review for further details.

Whether or not the proposed annexation is consistent with the City's General Plan.
The Box Elder South Subdivision does not meet the Planning and Zoning standards as outlined in the City's General Plan. The average size of a lot in Box Elder South is 21,913 Square Feet, which is approximately half the density of the neighboring CR-40,000 zone. The development appears to have been developed in what would be similar to a City PRD, with areas of private open space being dedicated to promote clustering of lots. However, as it stands the area would not meet the City's PRD ordinance, with only 20 percent of open space being dedicated (City requires minimum 25 percent for the base density). If the property would have been originally developed in the City, base density would've been 28 lots with a max bonus density (requiring 50% total open space) of 35 lots. The existing subdivision has 59 lots.

See below sections for analysis of streets and trails.

What conditions, if any, should be attached to proposed annexations in order to provide adequate services, protect health or safety, or are necessary for proper implementation of the General Plan such as dedications for parks, trails, open space, road, of other public facilities.
This determination should be made by the City Council, following a detailed review of the proposed annexation and a recommendation of the Planning Commission.

Whether as a condition and requirement of annexation, an annexation fee will be negotiated between the City and the petitioners. This fee may be separate and distinct from, and in addition to, any development impact fee assessed pursuant to the terms of the City's impact fee ordinance. The purpose of these fees shall be to reimburse the city for any extraordinary impacts on the City and infrastructure which may be created by the annexation.
Potential annexation fees should be addressed between the City and the petitioners prior to approval of the annexation. It should be noted that no sewer or water impact fees can be charged since the area is already on the City's sewer and water system. Also, with half the subdivision already built, building and impact fees would only be assessed to future builds.

Such other information as may be required or necessary to understand and evaluate the application/petition.
See below sections for information which may be helpful in understanding and evaluating the proposed annexation. The Planning Commission and City Council may also ask for further information as the proposed annexation is reviewed and discussed.

ADDITIONAL ANALYSIS

Lot Width and Area
The lots in the Box Elder South Subdivision do not meet the City's lot width and area requirements. The City requires lots in this area to be at least 40,000 square feet in size and have

a width of 110 feet. The lots in Box Elder South are on average 21,913 square feet in size and multiple lots have widths less than 110 feet.

Use
The use of the lots is compatible with the City's General Plan and zoning standards. Single family dwellings are the primary use within the Box Elder South Subdivision.

Sensitive Lands (Wildland Urban Interface)
The property is in sensitive lands. Wildland Urban Interface requirements will apply to all structures to be built on the property. Also, developments within the Wildland Urban Interface require two access points. In 2018, the Fourth District Court determined that the existing access through Box Elder North and the existing emergency access road through Lambert Park met this requirement (see packet materials for further information).

Trails
The plat for the Box Elder South Subdivision shows a "Public Access and Trail Easement" along the south and east sides of the plat. The area is maintained by the HOA. This area could provide potential trails along forest land and Lambert Park.

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
This section constitutes the engineering review for the Box Elder South Annexation.

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. With the homes being built in a high risk zone, the City may want to explore the possibility of indemnification from lawsuits related to natural disasters. See Annexation Policy Plan and Map for analysis.

Utilities in general
Alpine City is already serving the area with sewer and culinary water. The infrastructure is in place to do so, the master plans have accounted for it, and no change would need to take place in this regard. Water rights have previously been acquired for the City to be able to serve the area water. Pressurized irrigation does not serve the area and never will as the area is above an elevation which the city system can serve.

Streets
As constructed, the streets meet or exceed Alpine City standards for a "minor street," which is what this would be classified as per city standards. What exits is a 5' sidewalk, 6' park strip, 2' curb, and 34' asphalt for a total of 60 feet worth of right-of-way (ROW). Alpine City standards

are slightly smaller: 4' sidewalk, 5' park strip, and 30' of asphalt for a total of 54' of ROW. Obviously, there would be 4 more feet worth of road to plow from what our snowplow drivers are accustomed to for residential roads but other than that, there are no concerns in terms of street infrastructure from an engineering standpoint.

Traffic

The development is already in existence and any impacts to traffic that would occur are already occurring. There is no pro/con to annexation in terms of traffic impacts to Alpine City.

Storm water: Prior to development, the project was highly scrutinized for geologic hazards safety, specifically in terms of stormwater runoff/debris flow events due to the 2012 fire that occurred in area. The result of these studies required a large berm to be built on the east side of the homes to redirect any potential debris flows southward and around the homes. That berm is in place. It started out somewhat small (2.5' high, 2.5' deep) but was later enlarged per the recommendations of the reports. The reports regarding this will be attached in the packet. It is of our opinion that the area has been adequately protected in this regard and no further action would be needed at this point.

Open Space

The property contains a 2.3 acre park that is developed with grass and a sprinkler system. What happens with this open space? If this area was dedicated to Alpine City as public open space, it would add to the already large list of parks our Park's Department maintains. The Parks Department is not a large department. They do a great job maintaining what the City currently has with very few employees. We can't keep adding parks for City crews to maintain without adding more employees. Also, this park feels more like a "pocket park." Pocket parks are parks that only serve those in the immediate area, not the city as a whole. In this case, if annexed into the city, Engineering would recommend the 2.3 acres of interior open space come in as private open space, NOT maintained by the City Park's Department.

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, table, or deny the proposed annexation of Box Elder South Subdivision.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I move to recommend approval of the annexation of Box Elder South Subdivision with the following conditions:

- **INSERT FINDING**

SAMPLE MOTION TO TABLE

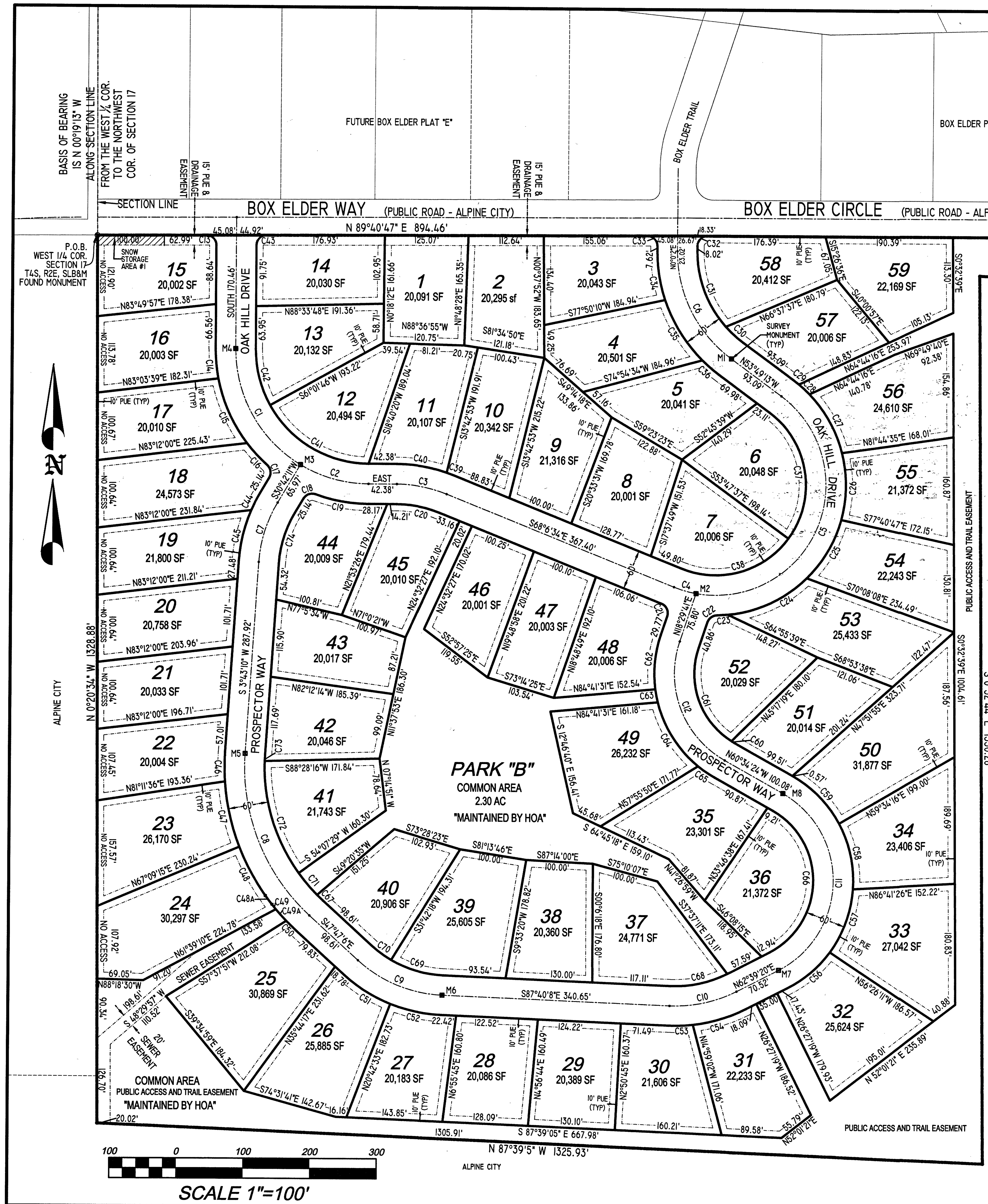
I move to table the annexation of Box Elder South Subdivision based on the following:

- **INSERT FINDING**

SAMPLE MOTION TO DENY

I move to deny the annexation of Box Elder South Subdivision based on the following:

- **INSERT FINDING**



BOX ELDER SOUTH PLAT "A"

RESIDENTIAL SUBDIVISION
UTAH COUNTY, STATE OF UTAH
SCALE: 1" = 100 FEET

LEGEND

▢ M# SURVEY MONUMENT

URBAN WILDLAND INTERFACE AREA

9.6.2 COMMON AREAS AND SNOW STORAGE EASEMENTS ARE USED FOR SNOW STORAGE.
9.6.3 DRIVEWAYS SHALL BE A MINIMUM OF 12 FEET IN WIDTH WITH TURNAROUNDS REQUIRED EVERY 400 FEET.
9.6.5 ALL HOMES TO HAVE AUTOMATIC FIRE SPRINKLER PROTECTION.
9.6.7 VEGETATION CLEARANCE REVIEW IS REQUIRED BY THE UTAH COUNTY FIRE MARSHAL. A SITE PLAN FOR EACH HOME IS TO BE SUBMITTED TO THE FIRE MARSHAL WHO WILL DETERMINE THE REQUIRED VEGETATIVE CLEARANCES.

FAULT TRENCH

"WHERE TRENCH STUDIES ARE REQUIRED, THE TRENCHES SHALL BE DUG AT LEAST 20 FEET BEYOND THE EXTERIOR OF THE PROPOSED STRUCTURE OR USE; OR, IF THE FAULT IS FOUND, TO THE FAULT ITSELF, WHICHEVER IS CLOSER. APPROVAL BY A QUALIFIED GEOLOGIST OF THE LOCATION AND DEPTH OF ANY SUCH TRENCH IS REQUIRED BEFORE DIGGING IS COMMENCED, AND TRENCHES, WHEN COMPLETED AND LOGGED, SHALL BE REVIEWED BY THE GEOLOGIST BEFORE BACKFILLING."

P.U.E NOTE

ALL 10' PUE'S AS SHOWN ON THIS PLAT SERVE AS BOTH A PUBLIC UTILITY EASEMENT AND IRRIGATION EASEMENT AROUND THE PERIMETER OF EACH LOT.

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD	BEARING
C1	206.99	200.00	59°17'49"	197.87	S29°38'55"E
C2	107.17	200.00	30°42'11"	105.90	S74°38'55"E
C3	76.41	200.00	21°53'26"	75.95	S79°03'16"E
C4	34.63	165.00	12°01'35"	34.57	S74°07'21"E
C5	442.58	165.00	153°41'04"	321.34	N23°01'19"E
C6	187.87	200.00	53°49'14"	181.04	N26°54'35"W
C7	94.19	200.00	26°59'00"	93.32	S17°12'40"W
C8	269.68	300.00	51°30'16"	260.69	S22°01'58"E
C9	139.22	200.00	39°53'02"	136.43	S67°43'37"E
C10	103.59	200.00	29°40'32"	102.43	N77°29'36"E
C11	322.61	150.00	123°13'45"	263.93	N01°02'28"E
C12	207.00	150.00	79°04'05"	190.96	N21°02'22"W
C13	23.65	15.00	90°19'13"	21.27	S45°9'36"E
C14	44.63	230.00	11°07'07"	44.56	S5°33'34"E
C15	106.33	230.00	26°29'14"	105.38	S24°21'45"E
C16	44.59	230.00	11°06'26"	44.52	S43°09'35"E
C17	20.79	15.00	79°24'58"	19.17	S9°00'19"E
C18	20.79	15.00	79°24'58"	19.17	N70°24'40"E
C19	82.76	230.00	20°07'09"	80.35	S79°56'26"E
C20	64.95	170.00	21°53'26"	64.56	S79°3'17"E
C21	22.67	15.00	86°36'14"	20.58	S24°48'26"E
C22	18.48	15.00	70°35'54"	17.34	N53°47'37"E
C23	16.60	195.00	04°52'36"	16.59	N86°39'16"E
C24	132.47	195.00	38°55'23"	129.94	N64°45'17"E
C25	102.83	195.00	30°12'53"	101.65	N30°11'09"E
C26	101.31	195.00	29°42'52"	100.00	N00°13'17"E
C27	101.13	195.00	29°42'52"	100.00	N29°29'35"W
C28	21.62	195.00	6°21'11"	21.61	N47°31'36"W
C29	10.61	195.00	3°07'01"	10.61	N52°15'42"W
C30	35.64	170.00	12°00'38"	35.57	N47°48'53"W
C31	124.05	170.00	41°48'36"	121.32	N20°54'16"W
C32	23.56	15.00	89°59'58"	21.21	N45°00'01"E
C33	23.65	15.00	90°19'15"	21.27	S45°09'36"E
C34	75.00	230.00	18°41'00"	74.67	S09°20'28"E
C35	107.31	230.00	26°43'57"	106.34	S32°02'56"E
C36	33.74	230.00	08°24'17"	33.71	S49°37'04"E
C37	211.61	135.00	89°48'32"	190.60	S08°54'56"E
C38	178.84	135.00	75°54'06"	166.05	S73°56'23"W
C39	12.16	230.00	3°01'42"	12.16	N69°37'25"W
C40	75.72	230.00	18°51'44"	75.38	N80°34'08"W
C41	179.70	170.00	60°33'50"	171.45	N59°43'05"W
C42	87.34	170.00	29°26'10"	86.38	N14°43'05"W
C43	23.48	15.00	89°40'47"	21.15	N44°50'23"E
C44	30.16	230.00	7°30'43"	30.13	S26°56'49"W
C45	78.16	230.00	19°28'17"	77.79	S13°27'19"W
C46	44.28	330.00	7°41'17"	44.25	S00°07'28"E
C47	100.62	330.00	17°28'13"	100.23	S12°42'12"E
C48	82.88	330.00	14°23'22"	82.66	S28°38'00"E
C48A	20.03	330.00	3°28'41"	20.03	S37°34'01"E
C49	5.46	330.00	0°56'53"	5.46	S39°46'48"E
C49A	23.20	330.00	4°01'40"	23.19	S42°16'05"E
C50	20.18	330.00	3°30'11"	20.17	S46°02'00"E
C51	81.90	230.00	20°24'06"	81.47	S57°59'09"E
C52	78.21	230.00	19°28'56"	77.83	S77°55'40"E
C53	36.52	230.00	09°05'54"	36.48	N87°43'29"E
C54	82.60	230.00	20°34'39"	82.15	N72°58'10"E
C56	83.71	180.00	26°38'41"	82.95	N49°20'00"E
C57	101.33	180.00	32°15'19"	100.00	N19°53'00"E
C58	101.33	180.00	32°15'19"	100.00	N12°22'19"W
C59	100.76	180.00	32°04'26"	99.45	N44°32'12"W
C60	5.85	120.00	2°47'42"	5.85	N59°10'33"W
C61	159.75	120.00	76°16'23"	148.21	N19°38'31"W
C62	82.35	180.00	26°12'51"	81.64	S05°23'15"W
C63	20.11	180.00	6°24'01"	20.10	S10°55'11"E
C64	115.47	180.00	36°45'15"	113.50	S32°29'49"E
C65	30.47	180.00	9°41'58"	30.44	S55°43'25"E
C66	258.09	120.00	123°13'45"	211.15	S01°02'28"W
C67	12.08	270.00	2°33'48"	12.08	N46°30'12"W
C68	88.05	170.00	29°40'32"	87.07	S77°29'36"W
C69	81.77	170.00	27°33'34"	80.99	N73°53'21"W
C70	36.57	170.00	12°19'28"	36.50	N53°56'50"W
C71	42.84	270.00	9°05'24"	42.79	N40°40'36"W
C72	178.44	270.00	37°51'55"	175.21	N17°11'56"W
C73	9.36	270.00	1°59'09"	9.36	N02°43'36"E
C74	80.06	170.00	26°59'00"	79.32	N17°12'40"E

QUESTAR GAS COMPANY

Questar approves this plat solely for the purpose of confirming that the plat contains public utility easements. Questar may require other easements in order to serve this development. This approval does not constitute abrogation or waiver of any other existing rights, obligations or liabilities provided by law or equity. This approval does not constitute acceptance, approval or acknowledgement of any terms contained in the plat, including those set forth in the Owners Dedication and the Notes and does not constitute a guarantee of particular terms of natural gas service. For further information please contact Questar's Right-of-Way department at 800-366-6532

Approved this 5th day of January 2016

QUESTAR GAS COMPANY

By Don Newman

Title Pre Const Specialist

NOTES

1. CULINARY, IRRIGATION, & LANDSCAPE WATER IS SUPPLIED BY ALPINE CITY.
2. SEWER COLLECTION SYSTEM IS SERVED BY ALPINE CITY.
3. ALL SURFACE DRAINAGE WILL BE MAINTAINED ON-SITE.
4. NO BUILDING PERMIT WILL BE ISSUED UNTIL AN APPROVED ROAD SYSTEM HAS BEEN INSTALLED AND FOUND TO BE IN GOOD WORKING ORDER.
5. FEMA FIRM MAP FOR 100 YEAR FLOOD SHOWS ZONE C DESIGNATION (MINIMAL FLOODING)
6. GARBAGE COLLECTION WILL BE AT THE STREET FOR EACH LOT. SOLID WASTE DISPOSAL SERVICES WILL BE PROVIDED TO THE DEVELOPMENT BY INCORPORATION OF THE DEVELOPMENT INTO THE ALPINE CITY WATER REMOVAL SERVICE AREA.
7. ALL OCCUPIED STRUCTURES, INCLUDING SINGLE FAMILY RESIDENCES SHALL BE ENGINEERED TO RESIST FLUID ENTRY AT ANY POINT UP TO AN EQUIVALENT FLUID PRESSURE LOAD OF 19,640 N/M3 (125 LBS/FT^3).
8. ALL PORTIONS OF THIS DEVELOPMENT LIE IN THE DESIGNATED NATURAL HAZARDS OVERLAY (NHO) ZONE, AND ARE SUBJECT TO THE REQUIREMENTS OF SECTION 5-12 OF THE UTAH COUNTY LAND USE ORDINANCE (UCLUO), INCLUDING REQUIREMENTS THAT A NATURAL HAZARDS ASSESSMENT REPORT AND A NATURAL HAZARDS CLEARANCE BE OBTAINED IN ADDITION TO OTHER REQUIREMENTS OF THE NATURAL HAZARDS OVERLAY ZONE.
9. BUILDING DESIGN AND CONSTRUCTION SHALL NOT PLACE SUB-GRADE WINDOW WELLS AND DOORS ON THE EAST, NORTH AND SOUTH SIDES OF THE HOMES WHERE THE POTENTIAL FOR INUNDATION FROM WATER AND DEBRIS FLOWING DOWN-SLOPE IS GREATEST, AS RECOMMENDED IN THE GEOLOGICAL HAZARDS ASSESSMENT PREPARED BY EARTHTEC TESTING AND ENGINEERING, P.C., JOB NO. 072247.
10. A DETAILED RADON MITIGATION SYSTEM SHALL BE REQUIRED TO BE INSTALLED IN EACH DWELLING. THE POTENTIAL RISK FROM RADON GAS EXPOSURE IN ENCLOSED STRUCTURES IS MODERATE TO HIGH ON THE ENTIRE SITE. THIS RELATIVE RISK ASSESSMENT IS BASED ON MAPPING BY THE UTAH GEOLOGICAL SURVEY. RADON LEVELS IN BUILDINGS CAN VARY FROM SITE TO SITE AND ARE USUALLY INFLUENCED BY A NUMBER OF GEOLOGICAL AND STRUCTURAL FACTORS. INDOOR RADON TESTING WOULD BE REQUIRED TO DETERMINE ACTUAL RADON LEVELS IN FUTURE BUILDINGS AT THE SITE. BASED ON THE MODERATE TO HIGH RADON RISK AT THE SITE, ESTABLISHED RADON MITIGATION MEASURES ARE WARRANTED FOR ANY FUTURE HABITABLE STRUCTURES IN THE DEVELOPMENT. SUCH MITIGATION MEASURES SHALL BE INCORPORATED INTO NEW CONSTRUCTION FOR ALL HABITABLE STRUCTURES.
11. A GEOLOGICAL HAZARDS ASSESSMENT WAS COMPLETED FOR THIS DEVELOPMENT ON SEPTEMBER 27, 2007. THIS ASSESSMENT CONCLUDED THAT THE SUBJECT PROPERTY IS LOCATED IN A GEOLOGICALLY SENSITIVE LOCATION WHERE SEVERAL TYPES OF HAZARDS ARE PRESENT. ALL CURRENT OR FUTURE PROPERTY OWNERS AND/OR OCCUPANTS ON THE SUBJECT PROPERTY SHOULD FULLY UNDERSTAND THE FINDINGS AND CONCLUSION OF THIS ASSESSMENT AND THE POTENTIAL RISKS ASSOCIATED WITH OWNING PROPERTY AND/OR LIVING AT THE SITE. BY CHOOSING TO LIVE IN A POTENTIALLY GEOLOGICALLY SENSITIVE LOCATION, ALL PROPERTY OWNERS AND/OR OCCUPANTS MUST ACCEPT THE ASSOCIATED GEOLOGICAL HAZARD RISKS. THE ASSESSMENT WILL BE KEPT WITH THE SUBDIVISION FILE AND IS AVAILABLE FOR PUBLIC VIEWING.
12. A LOT SPECIFIC INSPECTION IS REQUIRED BY A GEOTECHNICAL ENGINEER TO OBSERVE THE BASEMENT EXCAVATION TO DETERMINE FAULTING HAZARDS ON A LOT BY LOT BASIS. THIS INSPECTION WILL MITIGATE THE IDENTIFIED HAZARD.
13. LOTS 15 - 32 WILL NOT HAVE ACCESS TO THE REAR OF THEIR PROPERTIES FROM LAMBERT PARK. HOMEOWNER'S WILL NOT HAVE THE RIGHT TO DUMPS GRASS CLIPPINGS, TREE LIMBS, GARBAGE, WEEDS OR ANY OTHER TYPE OF DEBRIS ONTO CITY PROPERTY. ALPINE CITY WILL PURSUE ACTION AGAINST INDIVIDUALS WHO VIOLATE THIS POLICY.
14. UPON THE WRITTEN REQUEST OF UTAH COUNTY, THE HOMEOWNER'S ASSOCIATION SHALL COLLECT AN ANNUAL FIRE PROTECTION ASSESSMENT, AND/OR AN ANNUAL EMERGENCY MEDICAL SERVICES ASSESSMENT, FROM EACH LOT OWNER IN SUCH AMOUNT AS DETERMINED BY UTAH COUNTY, AND SHALL PAY SUCH COLLECTED ASSESSMENT TO THE ENTITY AS DESIGNATED BY UTAH COUNTY.

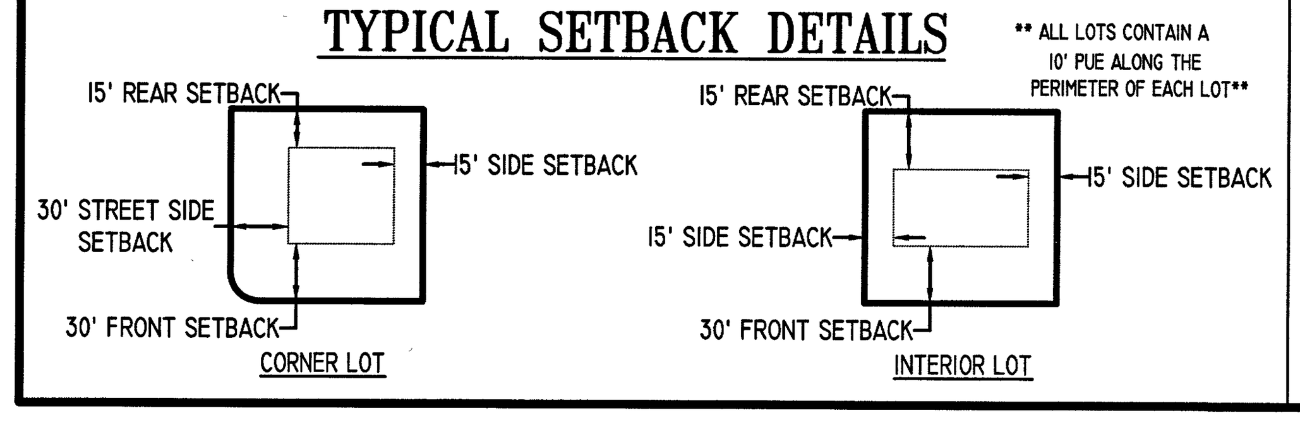
14927

TABULATIONS

TOTAL PROPERTY AREA	= 43.900 AC	
AREA DEDICATED FOR PUBLIC ROADS	= 5.336 AC	= 12.2%
COMMON AREA	= 8.79 AC	= 20.0%
REMAINDER AREA IN LOTS	= 29.775 AC	= 67.8%
NUMBER OF BUILDING LOTS	= 59	
AVERAGE LOT AREA	= 0.505 OR 21,983 SF	

TYPICAL SETBACK DETAILS

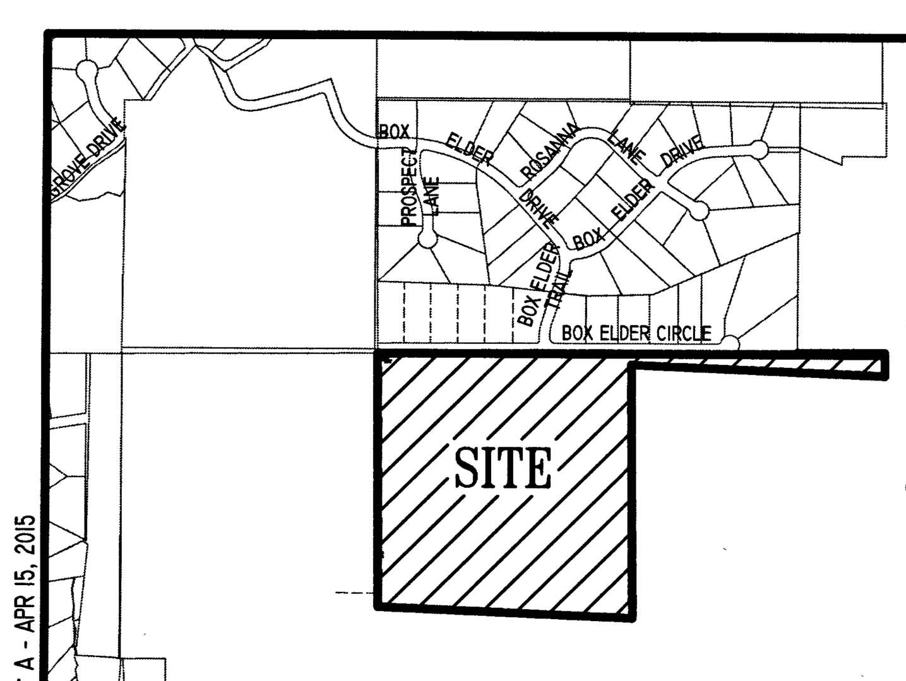
** ALL LOTS CONTAIN A 10' PUE ALONG THE PERIMETER OF EACH LOT**



CORNER LOT   INTERIOR LOT

ADDRESS TABLE

LOT#	ADDRESS	LOT#	ADDRESS	LOT#	ADDRESS	LOT#	ADDRESS
1	______ OAK HILL DRIVE	15	______ OAK HILL DRIVE	31	______ OAK HILL DRIVE	46	______ OAK HILL DRIVE
2	______ OAK HILL DRIVE	(OR)	______ BOX ELDER WAY	32	______ BOX ELDER WAY	47	______ OAK HILL DRIVE
3	______ OAK HILL DRIVE	17	______ OAK HILL DRIVE	33	______ OAK HILL DRIVE	48	______ OAK HILL DRIVE
(OR)	______ BOX ELDER WAY	18	______ PROSPECTOR WAY	34	______ PROSPECTOR WAY	(OR)	______ PROSPECTOR WAY
4	______ OAK HILL DRIVE	19	______ PROSPECTOR WAY	35	______ PROSPECTOR WAY	49	______ PROSPECTOR WAY
5	______ OAK HILL DRIVE	20	______ PROSPECTOR WAY	36	______ PROSPECTOR WAY	50	______ PROSPECTOR WAY
6	______ OAK HILL DRIVE	21	______ PROSPECTOR WAY	37	______ PROSPECTOR WAY	51	______ PROSPECTOR WAY
7	______ OAK HILL DRIVE	22	______ PROSPECTOR WAY	38	______ PROSPECTOR WAY	52	______ PROSPECTOR WAY
8	______ OAK HILL DRIVE	23	______ PROSPECTOR WAY	39	______ PROSPECTOR WAY	53	______ OAK HILL DRIVE
9	______ OAK HILL DRIVE	24	______ PROSPECTOR WAY	40	______ PROSPECTOR WAY	54	______ OAK HILL DRIVE
10	______ OAK HILL DRIVE	25	______ PROSPECTOR WAY	41	______ PROSPECTOR WAY	55	______ OAK HILL DRIVE
11	______ OAK HILL DRIVE	26	______ PROSPECTOR WAY	42	______ PROSPECTOR WAY	56	______ OAK HILL DRIVE
12	______ OAK HILL DRIVE	27	______ PROSPECTOR WAY	43	______ PROSPECTOR WAY	57	______ OAK HILL DRIVE
13	______ OAK HILL DRIVE	28	______ PROSPECTOR WAY	44	______ PROSPECTOR WAY	58	______ OAK HILL DRIVE
14	______ OAK HILL DRIVE	29	______ PROSPECTOR WAY	(OR)	______ OAK HILL DRIVE	(OR)	______ BOX ELDER CIRCLE
(OR)	______ BOX ELDER WAY	30	______ PROSPECTOR WAY	45	______ OAK HILL DRIVE	59	______ BOX ELDER CIRCLE



VICINITY SKETCH
SCALE: 1"=1000'

SURVEYOR'S CERTIFICATE

I, DAVID V. THOMAS, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD A LICENSE IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, UTAH CODE ANNOTATED, 1953 AS AMENDED, CERTIFICATE NO. 163947. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, UTAH CODE ANNOTATED, 1953 AS AMENDED, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXISTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN SECTION 54-8A-2, UTAH CODE ANNOTATED, 1953 AS AMENDED, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

JAN 8, 2016 — DATE   [signature] — SURVEYOR (SEE SEAL BELOW)

BOUNDARY DESCRIPTION

BEGINNING AT THE WEST QUARTER CORNER OF SECTION 17, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN; THENCE NORTH 89°40'47" EAST 894.46 FEET; THENCE EAST ALONG THE SOUTHERLY BOUNDARY OF BOX ELDER PLAT "F" SUBDIVISION A DISTANCE OF 1289.85 FEET; THENCE NORTH ALONG THE EASTERLY BOUNDARY OF SAID SUBDIVISION A DISTANCE OF 7.21 FEET; THENCE NORTH 89°40'47" EAST 454.29 FEET; THENCE SOUTH 0°46'04" EAST ALONG QUARTER SECTION LINE A DISTANCE OF 120.70 FEET TO THE MONUMENTED CENTER OF SECTION 17; THENCE NORTH 87°42'08" WEST ALONG QUARTER SECTION LINE A DISTANCE OF 1321.16 FEET; THENCE SOUTH 00°32'44" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 17 A DISTANCE OF 1330.28 FEET; THENCE NORTH 87°39'05" WEST ALONG THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 17 A DISTANCE OF 1325.93 FEET; THENCE NORTH 00°20'34" WEST ALONG THE SECTION LINE A DISTANCE OF 1328.88 FEET TO THE POINT OF BEGINNING.

CONTAINS: 43.900 ACRES

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, BLOCKS, STREETS AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC, THE PUBLIC UTILITY EASEMENTS TO ALL UTILITY PROVIDERS, PUBLIC OR PRIVATE, COMMON AREAS, DRAINAGE EASEMENTS & THE IRRIGATION EASEMENTS TO ALL LOT OWNERS AND THEIR SUCCESSORS & ASSIGNS IN PERPETUITY.

[signature] PATTERSON CONSTRUCTION, INC BY JAMES K. PATTERSON, PRESIDENT   1-18-2016 DATE

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
COUNTY OF UTAH

ON THE 18 DAY OF January, A.D. 2016 PERSONALLY APPEARED BEFORE ME JAMES K. PATTERSON, SIGNER OF THE FOREGOING DEDICATION AS A PRESIDENT OF PATTERSON CONSTRUCTION, INC WHO DULY ACKNOWLEDGES TO ME THAT THEY DID EXECUTE THE SAME.

MY COMMISSION NUMBER 668491   [signature] SIGNED (A NOTARY PUBLIC COMMISSIONED IN UTAH)

MY COMMISSION EXPIRES 07-17-2017   Kent P. Smith PRINTED NAME OF NOTARY

ACCEPTANCE BY LEGISLATIVE BODY

THE Board of Commissioners OF Utah County, Utah APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS AND EASEMENTS FOR THE PERPETUAL USE OF THE PUBLIC THIS 7th DAY OF January, A.D. 2014

[signature] COMMISSION CHAIRMAN   [signature]

[signature]

APPROVED [signature] ENGINEER (SEE SEAL BELOW)   ATTEST [signature] CLERK-RECORDER (SEE SEAL BELOW)

APPROVAL BY OWNERS AND OPERATORS OF UNDERGROUND UTILITIES AND OTHER UTILITY FACILITIES

THE UNDERSIGNED OWNERS OR OPERATORS OF THE UNDERGROUND UTILITIES AND OTHER UTILITY FACILITIES LOCATED ON THIS PLAT HEREBY APPROVE THE BOUNDARY, COURSE, DIMENSIONS, AND INTENDED USE OF THE RIGHT-OF-WAY AND EASEMENT GRANTS OF RECORD; HEREBY APPROVE THE LOCATION OF EXISTING UNDERGROUND AND UTILITY FACILITIES; AND HEREBY APPROVE THE CONDITIONS OR RESTRICTIONS GOVERNING THE LOCATION OF THE FACILITIES WITHIN THE RIGHT-OF-WAY, AND EASEMENT GRANTS OF RECORDS, AND UTILITY FACILITIES WITHIN THE SUBDIVISION, AS SHOWN IN THIS PLAT. Map # 14927

[signature] NAME: Teria Walker — ROCKY MOUNTAIN POWER

[signature] NAME: Ryan Allred — CENTURYLINK   [signature] NAME: Don Newman — QUESTAR

APPROVAL BY THE CULINARY WATER AUTHORITY

THE UNDERSIGNED CULINARY WATER AUTHORITY HEREBY APPROVES THIS PLAT FOR CULINARY WATER PURPOSES, SUBJECT TO THE CONDITIONS STATED ON THIS PLAT

[signature] NAME

APPROVAL BY THE SANITARY SEWER AUTHORITY

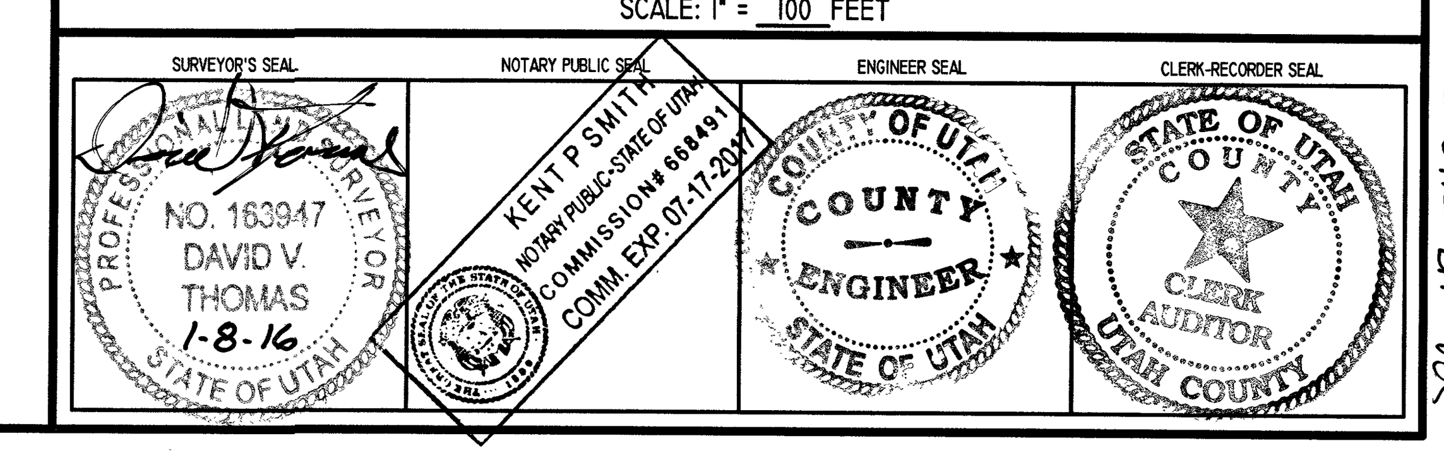
THE UNDERSIGNED SANITARY SEWER AUTHORITY HEREBY APPROVES THIS PLAT FOR SANITARY SEWER PURPOSES, SUBJECT TO THE CONDITIONS STATED ON THIS PLAT

[signature] NAME

ENT 5565:2016 Map # 14927
JEFFERY SMITH
UTAH COUNTY RECORDER
2016 Jan 21 1:33 pm FEE 91.00

BOX ELDER SOUTH PLAT "A"

RESIDENTIAL SUBDIVISION
UTAH COUNTY, STATE OF UTAH
SCALE: 1" = 100 FEET



SEC. 17, T4S, R2E SLB&M
T4000

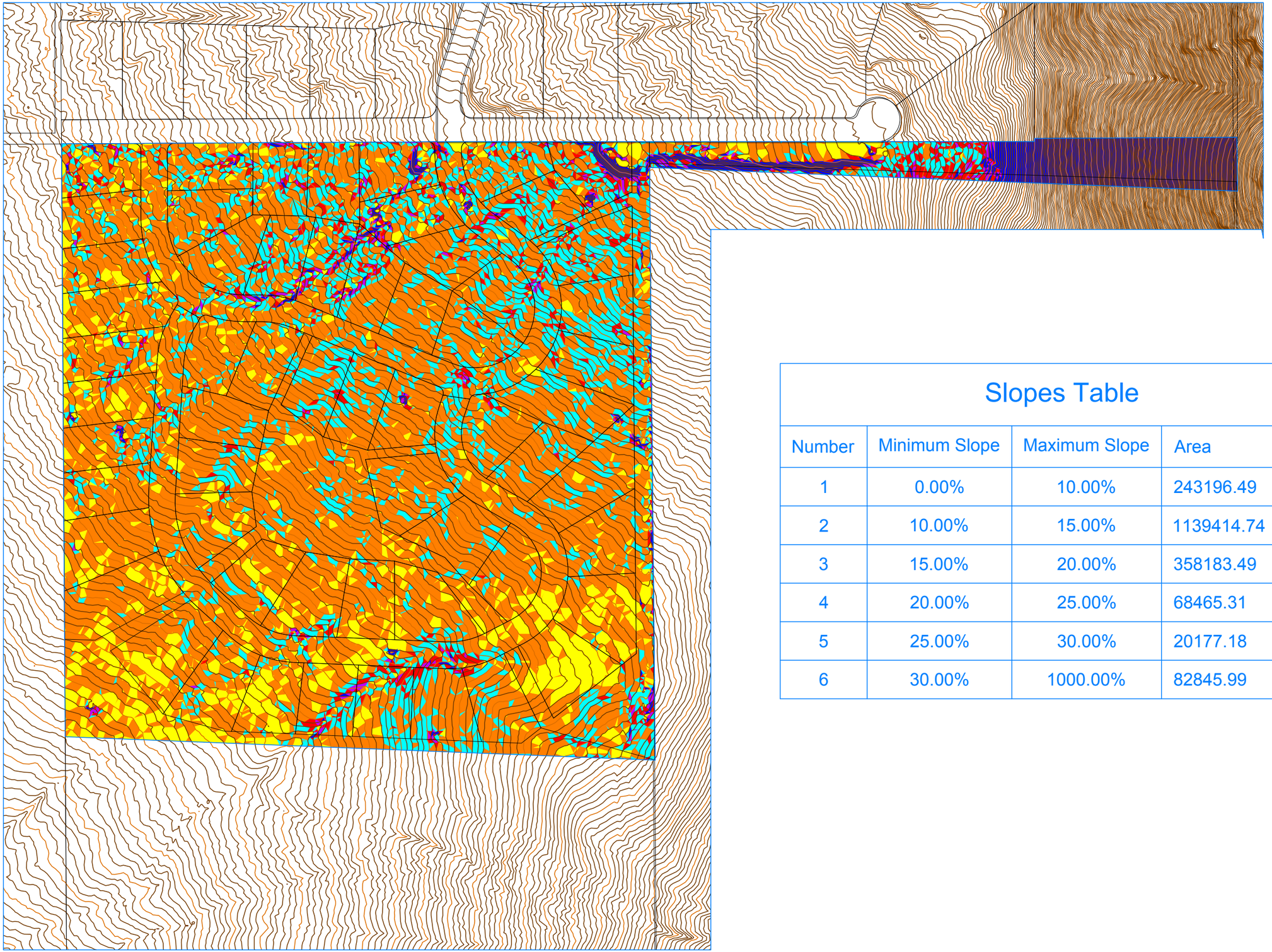
Box Elder South PRD Evaluation

Fall 2013 Lidar Contours used
CE-40,000 Zone
April 15, 2022

Slope Range		Percent of Total	Area	Area (acres)	CE-40 Zone Required Acres/Unit	Base Density Potential Units
Beg. Range	End Range					
0.00%	9.99%	12.74%	243,196	5.58	1.00	5.58
10.00%	14.99%	59.68%	1,139,415	26.16	1.50	17.44
15.00%	19.99%	18.76%	358,183	8.22	2.00	4.11
20.00%	24.99%	3.43%	65,465	1.50	3.00	0.50
25.00%	29.99%	1.06%	20,177	0.46	4.00	0.12
30.00%	100.00%	4.34%	82,846	1.90	5.00	0.38
		100.00%	**1,909,283**	**43.83**		**28.13**

Base Density (Lots):	**28**	Lots
Max allowed lots, assuming open space requirements were met (Base +25%):	**35**	Lots
Total Acreage	**43.83**	Acres
Min. Open Space Required to be PRD (25%)	**10.96**	Acres
Open Space Provided	**8.79**	Acres
Open Space Provided (%)	**20%**	%

Minimum Open Space Requirement met?	**No**
Would not be allowed as PRD by Alpine City Ordinance	



Slopes Table

Number	Minimum Slope	Maximum Slope	Area	Color
1	0.00%	10.00%	243196.49	
2	10.00%	15.00%	1139414.74	
3	15.00%	20.00%	358183.49	
4	20.00%	25.00%	68465.31	
5	25.00%	30.00%	20177.18	
6	30.00%	1000.00%	82845.99	

SCALE: N.T.S.

0 1"

Water Resources
Public Services
Storm Water
Engineering

Alpine Public Works

REMARKS

Fall 2013 Lidar Contours used

BOX ELDER SOUTH
Slope Analysis
Based on PRD formula

PRD Slope Analysis

Engineering File Number:
-

Drawing: 1
Sheet: 1 of 1

5.01 Intent

This ordinance is intended to outline procedures and conditions with Title 10-2-401 et, seq., Utah Code Annotated, 1953, as amended, and all other applicable State law for the purpose of annexation of additional property into Alpine City boundaries. Annexations are legislative in nature. The City is not required to approve a petition for annexation even though the petitioners may comply with all provisions required for annexation.

(Ord. 97-01 7/27/97)

5.02 Annexation Application And Petition

The owners of a majority of the private property as shown in the records of the County Recorder's office and the owners of at least one-third in value of the real property as shown by the last assessment rolls, in property contiguous to the corporate boundaries of the City may file with the City Recorder a written annexation application, together with the following:

1. An original and copy of an accurate plat or map of the territory proposed to be annexed made under the supervision of and certified by the municipal engineer or a registered land surveyor licensed to do such work in the State of Utah, which plat or map shall be suitable for recording.
2. A written petition for the proposed annexation signed by a the owners of the majority of private real property and of at least one-third in value as shown in the latest assessment rolls.
3. The Application Review Fee, Plat Review and other required fees as may be set by the Alpine City Council by resolution.
4. The name, address, and telephone numbers of up to five sponsors of the annexation one of whom shall be designated the contact sponsor for the City to work with.
5. The sponsors shall also deliver or mail a copy of the petition to the Utah County Clerk.

(Ord. 97-01 7/27/97)

5.03 City Council Review And Action

The City Council shall review the application/petition for annexation and may send the application to the Planning Commission, Staff, and/or Consultants for recommendations. The City Council may request the application/petition be reviewed according to the following review criteria:

1. Whether or not it is in the interest of the City to annex additional land at that time.

2. The capability of Alpine City to supply adequate municipal services to the area proposed for annexation, such as public streets, water, sewer, police and fire protection including what necessary improvements will be a requirement of the petitioners/owners of the property.
3. Whether or not Water Rights will be required of all property annexed into Alpine City. If the property has a current water system, the City Council may require the dedication of the that system and the water rights with any necessary improvements being made to the system by the owners of the water system as a condition of annexation.
4. Whether or not the proposed annexation is consistent with the City's General Plan.
5. What conditions, if any, should be attached to proposed annexations in order to provide adequate services, protect health or safety, or are necessary for proper implementation of the General Plan such as dedications for parks, trails, open space, road, of other public facilities.
6. Whether as a condition and requirement of annexation, an annexation fee will be negotiated between the City and the petitioners. This fee may be separate and distinct from, and in addition to, any development impact fee assessed pursuant to the terms of the City's impact fee ordinance. The purpose of these fees shall be to reimburse the city for any extraordinary impacts on the City and infrastructure which may be created by the annexation.
7. Such other information as may be required or necessary to understand and evaluate the application/petition.

(Ord. 97-01 7/27/97)

5.04 Annexations Not To Create Unincorporated Islands

In no event shall the City Council approve annexations which would result in unincorporated islands being left within the boundaries of the City except pursuant to State Law existing stands or peninsulas within the City may he annexed, if they are already developed and require the delivery of municipal type service.

(Ord. 97-01 7/27/97)

5.05 Acceptance Or Rejection By City Council

After reviewing the annexation request and the recommendations from the Planning Commission, Staff or Consultants, if any were requested, the City Council shall vote to either accept or reject the annexation petitions. If the annexation request is rejected the City Recorder shall notify the contact sponsor and the County Clerk of the rejection within five days of the decision to reject the annexation application.

(Ord. 97-01 7/27/97)

5.06 Certification Of Petitions

If the annexation application is accepted the City Recorder shall within thirty days review the annexation petitions to determine if they comply with all applicable law. If the City recorder certifies that the petitions rue valid and sufficient the Recorder shall notify the City Council and the sponsors in writing. If the City Recorder determines that the petitions are insufficient, the Recorder shall notify the City Council and the sponsors of the deficiencies in the petitions and the sponsors may modify the petitions and refile the annexation with the City.

(Ord. 97-01 7/27/97)

5.07 Notice Of Intent To Annex

The City Council shall cause a public notice to be published and mailed as required by law. The notice shall be published within ten days from the date the petitions are certified as valid and sufficient and shall be published once a week for three successive weeks. The notice shall state:

1. That a petition has been filed, accepted and certified by the City.
2. That the complete petition is available for inspection and copying at the office of the City Recorder.
3. That the City may grant the petition unless a written protest to the annexation is filed with the County Boundary Commission and filed with the City Recorder;
4. The address of the Boundary Commission;
5. The date before which a protest must be filed;
6. That a protest may be filed by property owners if it contains the signatures of the owners of private real property that is located in the unincorporated county within 2 mile of the area proposed for annexation and covers at least 25% of the private land area located in the unincorporated area within 2 mile of the proposed annexation and is equal in value to at least 15% percent of all real property located in the unincorporated area within 2 mile of the area proposed for annexation.

(Ord. 97-01 7/27/97)

5.08 Public Hearing

If no protest is filed within the protest period or if the Boundary Commission approves the annexation after the protest is heard, the City Council may proceed to annex the property. Before acting on the annexation, the City Council shall hold a public hearing and provide notice. At least seven (7) days prior to such hearing notice of the time and place of the hearing and the location(s) shall be published in a newspaper of general circulation within the City and the area proposed for annexation.

(Ord. 97-01 7/27/97)

5.09 Ordinance Of Annexation

Following the public hearing, the City Council may adopt an Annexation Ordinance which is consistent with the decision of the Boundary Commission, if any.

(Ord. 97-01 7/27/97)

5.10 Recording Of Annexation Plat And Documents

Upon passage of the ordinance of annexation, the territory shall be deemed to be annexed. Thereafter, the final duly executed annexation plat, and the ordinance of annexation, shall be recorded within thirty days with the office of the County Recorder.

(Ord. 97-01 7/27/97)

5.11 Water Requirements

(Ord. 95-07, 3/29/95). It is intended that land annexed into the City be accompanied by water rights in an amount sufficient to satisfy the needs of the existing and future occupants of the annexed territory. The water rights conveyance requirements of this section shall be considered as a condition and requirement of annexation.

(Ord. 97-01 7/27/97)

5.11.010 Water Rights Required; Determination Of Amount

Any person annexing land into the City shall, as a condition of annexation, convey to the City water rights that entitle the owner to an annual quantity and rate of flow in an amount which is sufficient to meet the water use requirements of the proposed future development. The amount of water rights required shall be determined as follows:

1. Residential Uses. Sufficient water rights to satisfy the water use requirements of each lot as shown on the proposed development plan for the territory within the annexation area in accordance with the following formula:
   Water Right Requirement (in acre feet) = (1.66) area in lots (in acres) + (.45) Number of lots
2. Other Users. An amount sufficient to satisfy the projected needs of the proposed development, as determined by Alpine City.
3. Rate of Flow. In addition to the annual quantity of water, determined in accordance with Parts 1 or 2, the water rights conveyed to the City shall entitle the owner to divert the water at a rate of flow sufficient to meet the demands imposed for peak use during the summer months of July and August.

NOTE: The above requirements are based on the results of the 1994 Alpine City Water Use Study by Horrocks Engineers and reflected in an amendment to the Alpine City General Plan adopting a water rights acquisition policy.

(Ord. 97-01 7/27/97)

5.11.020 Type Of Water Right Acceptable For Conveyance

Water rights proposed for conveyance to the City shall be of a type which allow for municipal use within the City, or, if not, the water rights must be of the type which can be amended to provide for municipal use in accordance with the procedures of Utah's change application statute, Utah Code Ann. section 73-3-3. The water rights may include one or a combination of the following:

1. **Alpine Irrigation Company Stock**
   Primary Shares - One-third share for each acre-foot of water right required.
   Secondary Shares - One full share for each acre-foot required.
2. **Other irrigation water stock or water rights**. Sufficient water rights to equal the number of acre feet required for the proposed development, after any reduction in quantity by the State Engineer.
3. **Well Rights**. The right to divert from a well source. These water rights shall be evidenced by an approved application to appropriate, an underground clamor court decree.
4. **Previously Conveyed Rights**. Assignment of interest in water shares or credits to the use of water which have been previously conveyed to the City in anticipation of development (e.g., Busch Well).

Prior to acceptance of water rights, the City shall evaluate the rights proposed for conveyance and may refuse to accept any right which it determines to be insufficient in annual quantity or flow rate, or not reasonably likely to be approved for change to municipal purposes within the City by the State Engineer. In determining the quantity of water available under the water rights, the City will evaluate the priority of the water rights and the historic average quantities of water available to the water rights.

(Ord. 97-01 7/27/97)

5.11.030 Supply And Delivery Facilities May Be Required

In addition to furnishing water rights, the applicant may be required to pay all costs required to construct the needed facilities to supply, store and distribute the water in accordance with the culinary waterworks system component of the Alpine City Capital Improvements Plan as reflected in ordinance No. 93-09 and any subsequent amendments thereto; the adequate public facilities requirement at adopted level of service standards as established by the Alpine City Construction Standards reflected in the subdivision ordinance pursuant to Ordinance No. 93-10 and any subsequent amendments thereto; and the studies and analysis with respect to the Alpine City culinary waterworks system which were part of the Alpine City impact fee study; and the adoption of connection and impact fees for the culinary waterworks system. Items of construction may include, but are not necessarily limited to, wells, storage reservoirs, spring development, pressure regulating stations, booster pumping stations, distribution lines, etc.

(Ord. 97-01 7/27/97)

5.11.040 Adjustments To Water Conveyance Requirements Permitted Under Certain Circumstances

1. Territory Conveyed to City at Time of Annexation. In determining the amount of water right required to be conveyed, any territory conveyed to the City for a major street or other public purpose as required pursuant to the terms of the policy declaration or Annexation Ordinance, prior to recording the annexation plat shall be excluded.
2. Lands Which are Restricted Against Future Development. Where the annexation contains lands where, as a result of topographic extremes (e.g., steep slopes) or other environmentally sensitive or fragile conditions, the availability of existing irrigation water and facilities for use on the property, voluntary limitation by the applicant or other similar purposes, will be permanently restricted from uses or activities requiring the use of water from the City's culinary system, the City may reduce the amount of water right required to be conveyed in an amount commensurate with the portion of the area so restricted against the use of water. Any request for reduction shall include enforceable provisions for securing the restricted condition in a form to be approved by Alpine City.
3. Lands Owned by Non-Signatory Owners. Whenever land is annexed without the consent of the owner, the conveyance of water rights by the non-signatory owners will not be required at the time of annexation provided, however, that the resolution or ordinance annexing the territory shall note all parcels annexed without the owner's consent and shall provide that future development of these lands will require the conveyance of water rights prior to the granting of any approval of development or the issuance of a building permit. The City may also file a notice of interest to that effect in the office of the County Recorder and maintain a map showing all parcels which have been annexed without satisfying the water rights requirements.

(Ord. 97-01 7/27/97)

5.11.050 Time Of Conveyance

For all parcels signatory to the petition, the conveyance of title to the water rights shall occur prior to the time of recording the annexation plat.

(Ord. 97-01 7/27/97)

ORDINANCE NO. 2017-03

AN ORDINANCE AMENDING THE ALPINE CITY ANNEXATION POLICY PLAN AND MAP

WHEREAS, the Alpine City Council has adopted a General Plan which includes an Annexation Element and Annexation Policy Plan and Map; and

WHEREAS, the Planning Commission has reviewed proposed amendments to the Alpine City Annexation Policy Plan and Map; and

WHEREAS, the Planning Commission has submitted proposed amendments and made a recommendation to the City Council; and

WHEREAS, both the Planning Commission and City Council have posted notice and held the requisite public hearings on the Proposed Amendments to the Annexation Policy Plan and Map.

NOW THEREFORE, BE IT ORDAINED BY THE ALPINE CITY COUNCIL AS FOLLOWS:

1. The attached Exhibit "A" is hereby adopted as the Alpine City Annexation Policy Plan and Map and are hereby made a part of the Alpine City General Plan.

2. This ordinance shall take effect immediately upon posting.

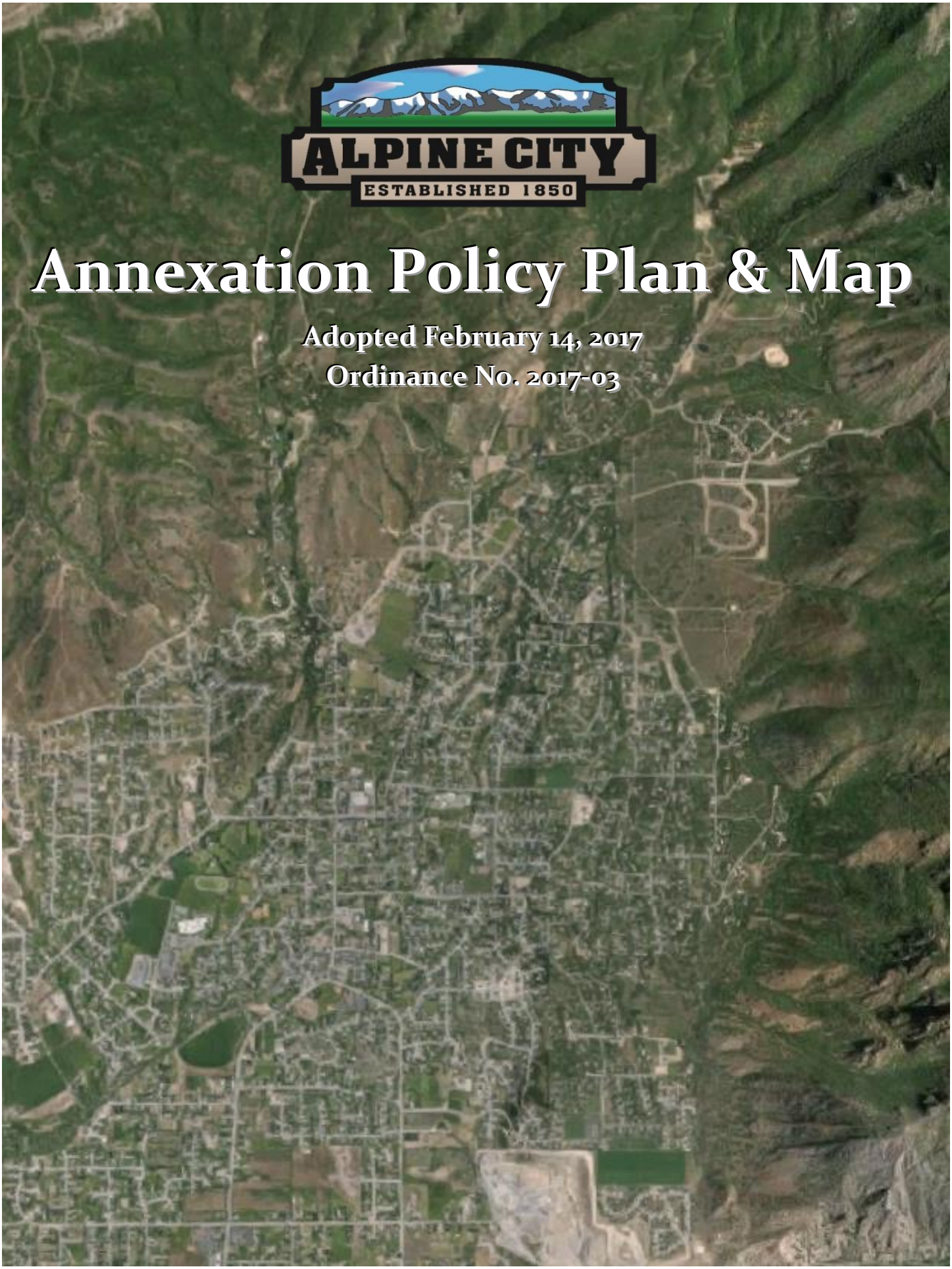
Passed and dated this 14th of February, 2017.

Mayor Sheldon Wimmer

ATTEST:

Charmayne G. Warnock, City Recorder

Alpine City CORPORATE Seal Utah County, Utah



Annexation Policy Plan & Map

Adopted February 14, 2017
Ordinance No. 2017-03

TABLE OF CONTENTS

INTRODUCTION

In accordance with Section 10-2-401.5, Utah State Code (Exhibit G), "no municipality may annex unincorporated area located within a specified county unless the municipality has adopted an annexation policy plan." An Annexation Policy Plan is created by a city to guide decision making regarding future annexations and helps a city plan for future expansion in conjunction with neighboring political entities. Open communication between a city and other political entities, particularly the County, is a priority in the process of developing an Annexation Policy Plan. The following document addresses the requirements outlined in Section 10-2-401.5.

EXPANSION AREA MAP

Alpine City shall adopt and maintain an expansion area or a proposed annexation map (Exhibit A) that represents the growth boundary which includes territories outside, but adjacent to the community, that may be annexed into the City. This map is consistent with the Alpine City Land Use Map (Exhibit B). The annexation area plan shall incorporate the long-range planning objectives contained in the land use plan of the community and shall represent a graphic representation of the areas for which the City intends to provide services. The Alpine City Annexation Policy Plan anticipates the annexation of the following areas:

Chart 1 – Annexation Areas

Alpine Cove	76.21 acres	62 lots
South of Box Elder	41.00 acres	59 lots
East Area	20.29 acres	≈ 12 lots
Schoolhouse Springs Area	280.56 acres	0 lots
TOTAL	**418.06 acres**	**133 Lots**

Chart 1: See Exhibit C for a review of each area. This plan does not grant nor guarantee any number of lots.

Even though the proposed properties may lie within the expansion area, there is no guarantee that the annexation request will be approved by the City. The petition for annexation may require additional requirements than those contained in the current Annexation Policy Plan, which include:

1. Areas to be annexed must be contiguous to the corporate limits of Alpine City at the time of submission of the annexation request.

2. Alpine City shall avoid gaps between or overlaps with the expansion areas of other municipalities.

3. Proposed annexations will not be approved if they create an island or peninsula of the unincorporated area.

STATEMENT OF CRITERIA

The following is a statement of the criteria Alpine City will use in determining whether or not to approve future annexation petitions.

A. CHARACTER OF THE COMMUNITY

Alpine City was settled in 1850 in the northeast corner of Utah County. In 1855, the settlement was officially incorporated as the City of Alpine. The City highly values its history and reputation as a great place to live and raise a family. An overwhelming majority of its residents chose to live in Alpine because of the family oriented, small town feel of the City and the stunning beauty of the surrounding mountains. Alpine is an excellent location for individuals and families interested in an outdoor lifestyle surrounded by a scenic environment. A primary focus of the City is to preserve and maintain these characteristics and a high quality of life.

The City should also consider annexing lands identified in its Annexation Policy Plan. Annexation of areas along the foothills can assist in preserving and protecting sensitive and critical lands, preserving the natural beauty of the foothills, and encouraging consistent development policy along the foothills. When the annexed property is developed, it should be done in accordance with the Annexation Policy Plan and the Alpine City General Plan.

POLICY STATEMENT: Development in Annexed Areas to Conform to Master Plan

All annexations accepted by Alpine City shall be found in conformance with the Alpine City Land Use Plan. Alpine City may exercise its initiative to prepare and adopt a Master Plan for future development in those extraterritorial areas of interest for future annexation as indicated in this Policy Plan. This Master Plan will define proposed land uses as well as the nature and potential density of development desired in each particular area. Once adopted, any proposed development in an area to be annexed must conform to the Master Plan, notwithstanding the said Master Plan may be amended from time to time as deemed necessary and appropriate. See Exhibit C for details of the Master Plan.

POLICY STATEMENT: Planning Commission to Review Annexation

In order to facilitate orderly growth and development in Alpine City, the Planning Commission shall review all proposed annexations and make recommendations to the City Council (as set forth in State statute) concerning the parcel(s) to be annexed, effects on the City's Land Use Plan, and the recommended zoning designation for the proposed annexed area.

POLICY STATEMENT: Annexation to be Considered Only in Areas of Potential Urban Service

Alpine City's policy is to consider annexation only in those areas where the City has the potential to provide urban services (either directly or through inter-local cooperative agreement). These areas may include locations served or to be served by the City's water system, pressurized irrigation system, sewer system, and emergency services.

POLICY STATEMENT: Islands and Peninsulas of Unincorporated Areas to be Annexed

Alpine City encourages islands and peninsulas of unincorporated territory located within the incorporated area of the City to become annexed.

B. THE NEED FOR MUNICIPAL SERVICES IN DEVELOPED AND UNDEVELOPED UNINCORPORATED AREAS

All areas included in the Annexation Policy Plan will need the municipal services shown below in Chart 2 based on the information outlined in the Master Plan in Exhibit C. Utah County policy is that municipal services should be provided by cities and not by the county.

Chart 2 – Need for Municipal Services

Annexation Area	Streets	Water	Sewer	Storm Drainage	Parks & Trails	Pressurized Irrigation
Alpine Cove	Streets Need to be Improved to Alpine City Standards	Already Completed	Already Completed	Already Completed	Trails would Not be Included	Will Not be Provided
South of Box Elder	Streets Already Improved to Alpine City Standards	Already Completed	Already Completed	Already Completed	Trails would be Included	Will Not be Provided
East Area	Extend Country Manor Lane and High Mountain Dr.	Extend from Lambert Park	Extend from High Mountain Dr.	Detention basin required and storm drain tied into City system	Trails would be Included	Pressurized Irrigation Line Runs across Bennett Farms
Schoolhouse Springs Area	Need for Improved Streets Not Expected	Need for Water Service Not Expected	Need for Sewer Service Not Expected	Need for Storm Drainage Not Expected	Trails would be Included	Will Not be Provided

C. THE MUNICIPALITY'S PLANS FOR EXTENSION OF MUNICIPAL SERVICES

Alpine City has developed Capital Facilities Master Plans for water, sewer, streets, parks, and storm drainage. These plans include the areas outlined in the Annexation Policy Plan. The systems have been master planned to provide sufficient capacity to include the proposed annexation areas.

D. HOW THE SERVICES WILL BE FINANCED

The services will be financed by the developer installing the improvements and by impact fees.

E. AN ESTIMATE OF THE TAX CONSEQUENCES TO RESIDENTS BOTH CURRENTLY WITHIN THE MUNICIPAL BOUNDARIES AND IN THE EXPANSION AREA FOR THE NEXT FIVE YEARS

It is not anticipated that tax rates would change when an annexation takes place. The burden on existing residents would be off-set by the increase in property tax revenue paid on new buildings and by increased sales tax received because of the increase in population.

Chart 3 – Present & Five-Year (Fiscal Year) Projections of the Cost of Municipal Services in the Proposed Annexation Area

MUNICIPAL SERVICES	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
General Government	$ 249,624	$ 257,777	$ 265,930	$ 274,083	$ 282,236	$ 290,388
Water	$ 34,961	$ 35,203	$ 35,445	$ 35,687	$ 35,929	$ 36,171
Sewer	$ 50,464	$ 51,040	$ 51,616	$ 52,192	$ 52,768	$ 53,345
Garbage	$ 21,392	$ 21,546	$ 21,700	$ 21,854	$ 22,008	$ 22,162
Pressurized Irrigation	$ 43,449	$ 43,986	$ 44,523	$ 45,060	$ 45,597	$ 46,134
Storm Drain	$ 9,461	$ 9,581	$ 9,701	$ 9,821	$ 9,941	$ 10,061
TOTAL	$ 409,351	$ 419,133	$ 428,915	$ 438,697	$ 448,479	$ 458,261

Chart 3: Projected cost of services is based on the FY2016 Alpine City Budget. According to the 2015 Census, the population of Alpine is approximately 10,235. The number of households is approximately 2,699 with an average of 3.8 persons per household. Projected costs are calculated by multiplying the projected number of households in the annexation area (133) by the cost per household.

Chart 4 – Present & Five-Year (Fiscal Year) Revenue to the Annexing Municipality

REVENUE SOURCE	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Property Taxes	$ 91,006	$ 92,371	$ 93,736	$ 95,101	$ 96,466	$ 97,831
Sales Taxes	$ 54,151	$ 54,644	$ 55,137	$ 55,630	$ 56,123	$ 56,620
Other Taxes & Fees	$ 229,100	$ 235,703	$ 242,306	$ 248,909	$ 255,512	$ 262,133
Water	$ 35,264	$ 35,946	$ 36,628	$ 37,310	$ 37,992	$ 38,674
Sewer	$ 54,148	$ 54,966	$ 55,784	$ 56,602	$ 57,420	$ 58,242
Garbage	$ 25,991	$ 26,140	$ 26,289	$ 26,438	$ 26,587	$ 26,734
Pressurized Irrigation	$ 51,604	$ 51,954	$ 52,304	$ 52,654	$ 53,004	$ 53,353
Storm Drain	$ 14,999	$ 15,427	$ 15,855	$ 16,283	$ 16,711	$ 17,137
TOTAL	$ 556,263	$ 567,151	$ 577,739	$ 588,927	$ 599,815	$ 610,704

Chart 4: The tax rates used in the calculations and projected revenues for the property taxes (which are based on the assessed valuations of the properties in the proposed annexation areas) are shown in Exhibit D. Projected revenues are based on the FY2016 Alpine City Budget. According to the 2015 Census, the population of Alpine is approximately 10,235. The number of households is approximately 2,699 with an average of 3.8 persons per household. Projected revenues are calculated by multiplying the projected number of households in the annexation area (133) by the revenues generated per household.

F. THE INTERESTS OF ALL AFFECTED ENTITIES

Highland City. Alpine and Highland share a common boundary. In April 2000, both cities signed an agreement that all land west of the current Alpine boundary would be annexed and serviced by Highland. In 2004, and again in 2009, Highland City and Alpine City agreed to adjust the boundary line to accommodate parcels that were split by the southwestern boundary line.

Utah County. Utah County's policy is that municipal type development should take place in cities. Alpine City would be able to serve all of the land shown in the Alpine City Annexation Policy Area.

US Forest Service. Several of the annexations proposed in the Alpine Annexation Policy Area are adjacent to Forest Service lands. It is anticipated that the development of these proposed annexation lands would be compatible with the Forest Service land in preserving open space and not having a

negative impact on the Forest Service land.

Draper City. Draper City abuts Alpine City in the northwest corner. It is anticipated that the Timpanogos Special Service District will provide sewer service to the undeveloped property in Draper that lies within Utah County. Alpine City has no intention to include any lands currently within Draper City boundaries in its Annexation Policy Plan.

Alpine School District. Alpine City is located within the boundaries of the Alpine School District and it is anticipated that Alpine School District will provide school service to the area.

Timpanogos Special Service District (TSSD). The Timpanogos Special Service District provides sewage treatment for Alpine, Lehi, Pleasant Grove, Highland, Cedar Hills, and American Fork. District facilities have been sized to accommodate the growth of member cities.

North Utah County Water Conservancy District (NUCWD). The North Utah County Water Conservancy District controls run-off into Dry Creek and requires detention facilities so that run-off does not exceed historic flows.

Alpine Cove Special Service District. The Alpine Cove Special Service District provides water to the Alpine Cove area.

JUSTIFICATION FOR EXCLUDING AREAS

Utah State law requires the City to justify the exclusion from the expansion area any area containing urban development within ½ mile of the municipality's boundary. No such areas are excluded from the expansion area.

COMMENTS BY AFFECTED ENTITIES

Utah State law requires the City to include a statement addressing any comments made by affected entities at or within ten days after the public meeting under Subsection (2)(a)(ii) of Section 10-2-401.5. When the Annexation Policy Plan and Map were amended in 2009, Draper City submitted a letter asking Alpine City to consider several properties adjacent to Alpine City's western boundary that are currently incorporated into Draper City. Draper City's contention was that it would be easier for Alpine City to provide municipal services to these properties. Upon review of this request, Alpine City does not intend to include these properties in its Annexation Policy Plan. No other entities commented.

PLANNING COMMISSION AND CITY COUNCIL DUTIES

While developing, considering, and adopting the Annexation Policy Plan, the Planning Commission and City Council shall do the following:

A. Attempt to avoid gaps between, or overlaps with, the expansion areas of other municipalities.

Alpine City has reached an agreement with Highland City on the annexation area so there will be no gaps created. All of the unincorporated land west and south of the current and proposed Alpine City limits is planned to be annexed by Highland City.

B. Consider population growth projections for the municipality and adjoining areas for the next 20 years.

Alpine's growth projections, including the areas included in the Annexation Policy Plan, are as follows:

Chart 5 – Projected Population Growth in Alpine for the Next Twenty Years

YEAR	POPULATION	ANNEXATION AREAS	YEAR	POPULATION	ANNEXATION AREAS
2017	10,509	4	2027	12,818	4
2018	10,960	251	2028	13,018	4
2019	11,221	61	2029	13,222	4
2020	11,459	38	2030	13,322	4
2021	11,682	23	2031	13,426	4
2022	11,882	4	2032	13,476	4
2023	12,098	4	2033	13,530	4
2024	12,298	4	2034	13,580	4
2025	12,514	4	2035	13,634	4
2026	12,714	4	2036	13,684	4

Chart 5: "Population" refers to total Alpine City Population. "Annexation Areas" refers to Alpine City population growth from annexation areas. This chart assumes +200 residents per year growth rate for 2017-2026 plus growth from annexation areas, +100 residents per year growth rate for 2027-2031 plus growth from annexation areas and +50 residents per year growth rate for 2032-2036 plus growth from annexation areas.

Chart 6 – Projected Number of Homes in Annexation Areas for the Next Five Years

ANNEXATION AREA	2016	2017	2018	2019	2020	2021	TOTAL
Alpine Cove	0	1	0	1	0	1	3
South of Box Elder	0	5	15	15	10	5	50
East Area	0	0	0	0	0	0	0
Schoolhouse Springs Area	0	0	0	0	0	0	0
TOTAL	0	6	15	16	10	6	53

Chart 7 – Projected Population Growth in Annexation Areas for the Next Five Years

ANNEXATION AREA	2016	2017	2018	2019	2020	2021	TOTAL
Alpine Cove	0.0	3.8	0.0	3.8	0.0	3.8	11.4
South of Box Elder	0.0	19.0	57.0	57.0	38.0	19.0	190.0
East Area	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Schoolhouse Springs Area	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		22.8	57.0	60.8	38.0	22.8	201.4

Chart 7: Assuming growth rate of 3.8 persons per household.

C. Consider current and projected costs of infrastructure, urban services, and public facilities necessary to facilitate full development of the area within the municipality; and to expand the infrastructure, services, and facilities into the area being considered for inclusion in the expansion area.

Alpine City has included costs of serving the Annexation Policy Plan areas in its capital facilities plans. The costs of over-sizing lines and facilities have been included in the City's impact fee analyses. The costs to install lines and facilities in the Annexation Policy Plan area itself will be borne by the developer.

Public Facilities Provided by Other Entities

Sewage Treatment - All of the Annexation Policy Plan area will be included in the Timpanogos Special Service District boundaries.

School - All the Annexation Policy Plan area is included in the Alpine School District boundaries.

Other Taxing Districts - The Annexation Policy Plan area will not affect any other taxing districts.

D. Consider in conjunction with the municipality's General Plan, the need over the next 20 years for additional land suitable for residential, commercial, and industrial development.

Alpine City is surrounded by natural growth boundaries and neighboring municipalities. Draper City's boundary and Highland City's boundary directly abut on Alpine City's boundary. There are only a few areas left of unincorporated land that the City would consider annexing. It is assumed that if these areas are annexed by Alpine City, they would be residential in nature to blend in with existing neighborhoods.

E. Consider the reasons for including agricultural lands, forests, recreational areas, and wildlife management areas in the municipality.

Alpine City intends to promote development which will preserve open space, protect hillsides, and important recreational areas. The proposed expansion area is full of great resources and should be included in the overall land use plan.

F. Be guided by the following principles regarding each proposed annexation. If practical and feasible, the boundaries of an area proposed for annexation shall be drawn:

- *Along the boundaries of existing local districts and special service districts for sewer, water, and other services; along the boundaries of school districts whose boundaries follow city boundaries, or school districts adjacent to school districts whose boundaries follow city boundaries, and along the boundaries of other taxing entities.*

- *To eliminate islands and peninsulas of territory that is not receiving municipal-type services.*

  The Annexation Policy Plan will eliminate any existing islands or peninsulas, and will strive to prevent the creation of new peninsulas and islands.

- *To facilitate the consolidation of overlapping functions of local government.*

  The Annexation Policy Plan will assure that one jurisdiction is providing services to an area.

- *To promote the efficient delivery of services*.

  The Annexation Policy Plan will promote efficient delivery of service by clearly defining who will provide service to a particular area. The Annexation Policy Plan will consider areas that can be feasibly served.

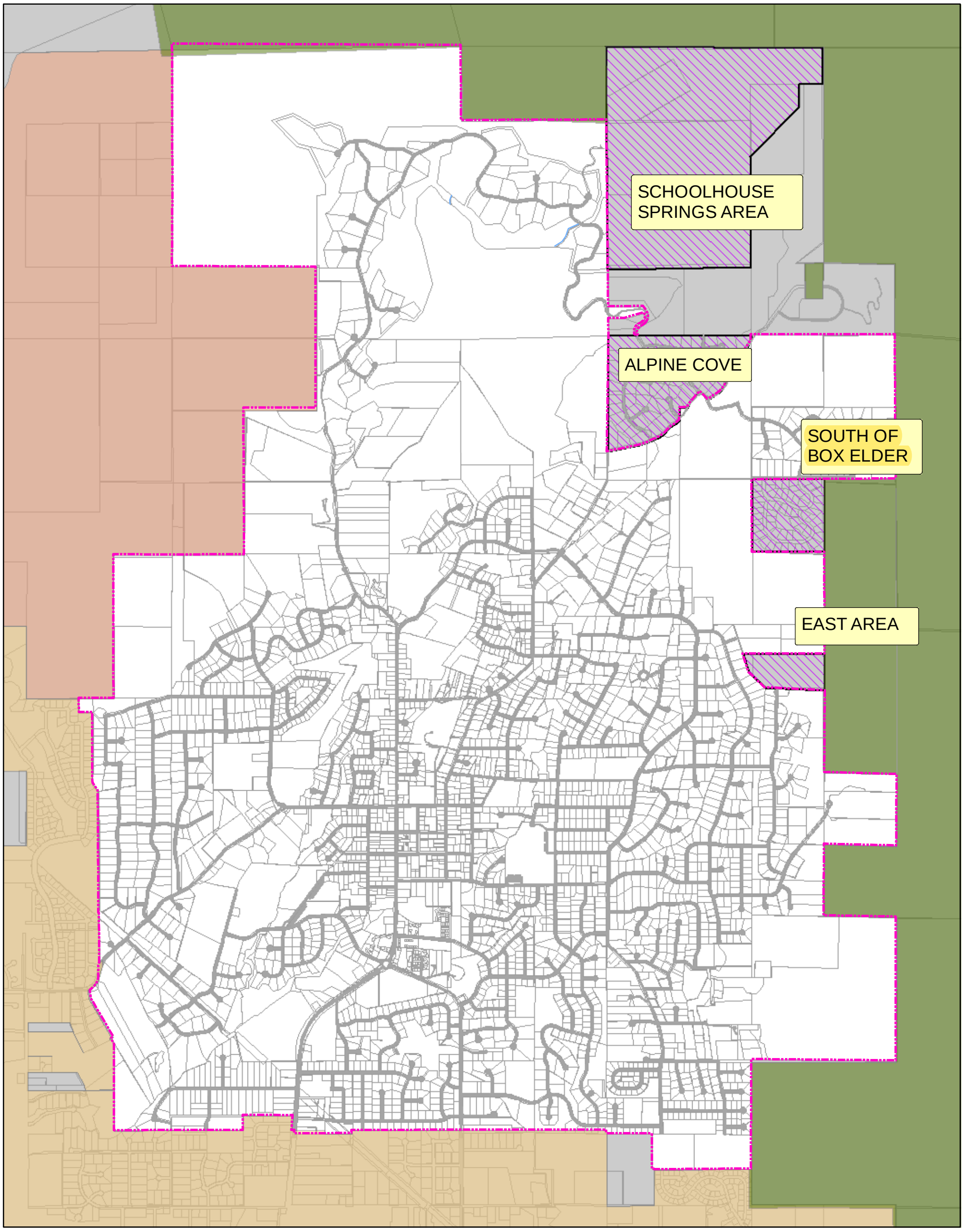
- *Encourage the equitable distribution of community resources and obligations*.

  Alpine City's Capital Facilities Master Plans outline the provision of municipal services in the Annexation Policy Plan Areas and assure that the services will be equitably distributed.

G. Annexation Fees

Annexation fees shall be paid according to the Alpine City Consolidated Fee Schedule as adopted by the Alpine City Council. Off-site improvements may also need to be accomplished by the applicant as part of the Annexation Fee.

EXHIBIT A



N

Ordinance No. 2017-03
Adopted February 14, 2017

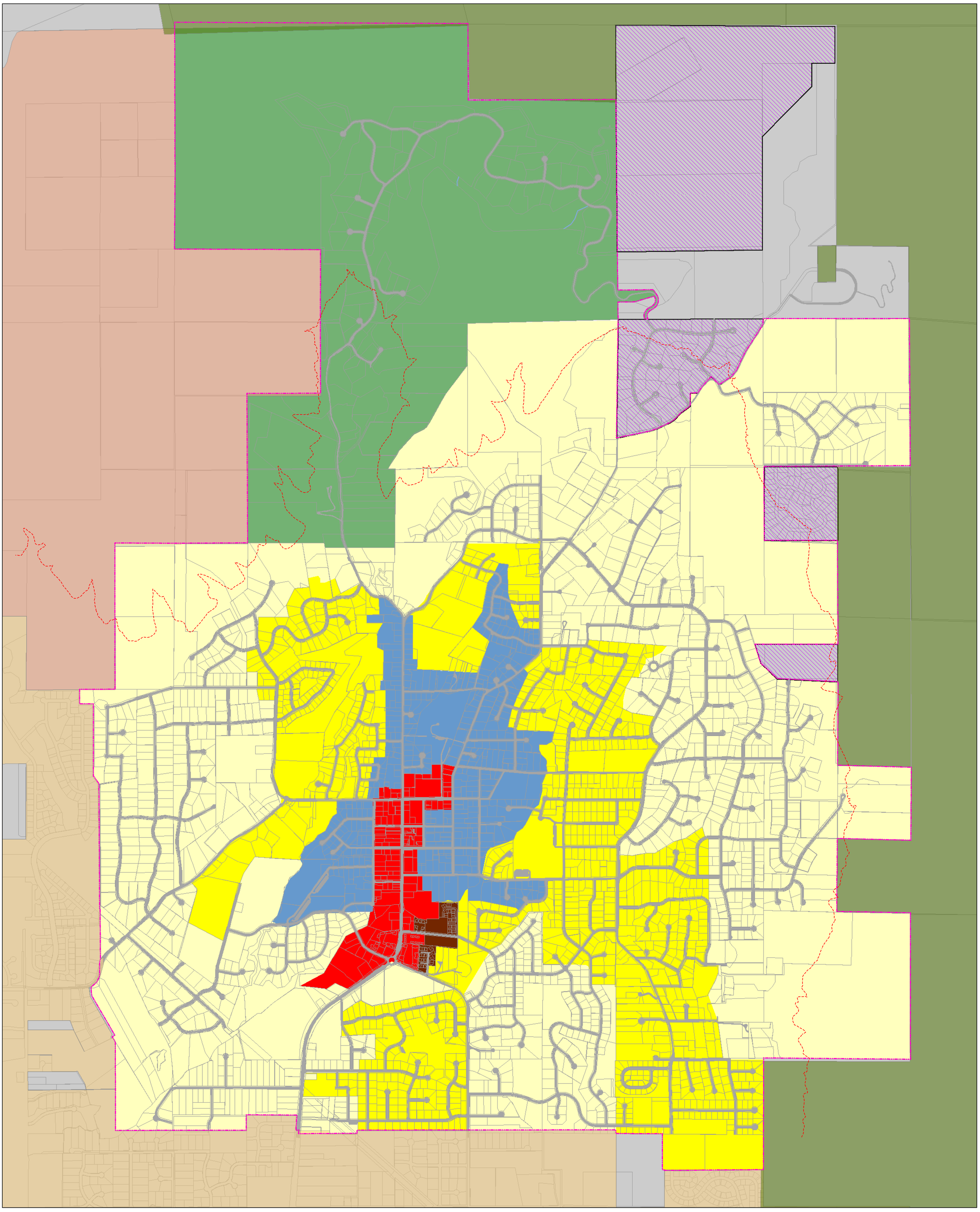
ALPINE CITY
ESTABLISHED 1850

Alpine City Annexation Map

0 650 1,300 2,600 3,900 5,200
Feet

- Future Annexation Areas
- US Forest Service
- Draper City
- Highland City
- Unincorporated Utah County
- Alpine City Boundary

EXHIBIT B



N

Last Updated
February 14, 2107

ALPINE CITY
LAND USE MAP

0 650 1,300 2,600 3,900 5,200
Feet

- US Forest Service
- Draper City
- Highland City
- Future Annexation Areas
- Unincorporated Utah County
- 5350
- Alpine City Boundary
- Business Commercial
- Senior Housing Overlay Zone
- High Density (1/4 acre)
- Medium Density (1/2 acre)
- Low Density (1 acre)
- Very Low Density (5 acre)

Exhibit C

MASTER PLAN

This review of the unincorporated areas surrounding the City analyzes in terms of environmental and land use issues as it relates to possible annexations. The environmental and land use issues that were analyzed are included in the Land Use Element of the General Plan.

Development in sensitive lands will be limited in order to protect and preserve environmentally and geologically sensitive lands in Alpine. New development shall be prohibited above the elevation of 5350 Mean Sea Level unless it is demonstrated that the development would not adversely impact or be impacted by the following:

a. Fault and earthquake hazards
b. Subsurface rock and soil types
c. Slope of the land
d. Groundwater recharge areas and local groundwater conditions
e. Flood hazards and erosion types
f. Viewscapes
g. Flood Plains
h. Elevation
i. Cost of City Services
j. Wildlife habitat
k. Water quality

This review is divided into study areas as follows:

NOTE: The estimated number of lots shown in the study is an example of how many lots could possibly be developed under the proposed land use. It does not imply a commitment to a certain number of lots. The actual number of lots allowed will be determined by the ordinances in effect at the time of annexation and development. It will also depend on the terms of the annexation agreement. This plan does not grant nor guarantee any number of lots.

STUDY AREA		COMMENTS
SOUTH OF BOX ELDER– 41.0 ACRES Located in the northeast area of the City		
a.	Fault & Earthquake Hazards	High - 1 fault through the area
b.	Surface Rock & soil types	Medium
c.	Slope of land	Moderate 0.58 acres above 25%
d.	Groundwater recharge areas & local groundwater conditions	High- recharge Low - groundwater conditions
e.	Flood hazards & erosion hazards	Medium - flood hazards Medium - erosion hazards
f.	Viewscapes	High
g.	Flood plains	Low
h.	Elevation	30.47 acres above 5350
i.	Water quality	High
j.	Cost of City Services	Medium

k.	Wildlife Habitat	High
l.	Sensitive Lands	High 41.0 acres in sensitive lands
m.	Urban/ wildlands Interface	High

Land Use:

a. Current County zoning	TR-5
b. Land Use Plan Designation	CR-40,000
c. Number of lots	59 (Already Approved)

EAST AREA – 20.29 ACRES

Located on the east side of the City

a.	Fault & Earthquake Hazards	Moderate - 2 faults on east side of property
b.	Subsurface rock and soil types	Moderate
c.	Slope of land	Moderate 6.8 acres above 25%
d.	Groundwater recharge area & local groundwater conditions	High - recharge Low - groundwater conditions
e.	Flood hazards and erosion hazards	Low - flood hazards High - erosion hazards
f.	Viewscapes	High
g.	Flood plains	Low
h.	Elevation	1.70 acres above 5350
i.	Cost of city services	High
j.	Wildlife habitat	High
k.	Water quality	High
l.	Sensitive lands	High
m.	Urban Wildland Interface	High

Land Use:

a. Current county zoning	TR-5 & CE-1
b. Land Use Plan designation	CR-40,000
c. Potential number of lots	12

ALPINE COVE – 76.21 ACRES

Located in the northeast area of the City

a.	Fault & Earthquake Hazards	Low
b.	Subsurface rock and soil types	Medium
c.	Slope of land	Moderate
d.	Groundwater recharge area & local groundwater conditions	High - recharge Low - groundwater
e.	Flood hazards and erosion hazards	Low - flood hazards Medium - erosion hazards
f.	Viewscapes	High
g.	Flood plains	Low
h.	Elevation	Approximately 30% above 5350
i.	Cost of city services	High
j.	Wildlife habitat	High
k.	Water quality	High
l.	Sensitive lands	High
m.	Urban Wildland Interface	High

Land Use:

a. Current county zoning	TR-5
b. Land Use Plan designation	CR-40,000
c. Number of lots	62 (Already Approved)

SCHOOLHOUSE SPRINGS AREA– 280.56 ACRES

Located in the north area of the City

a.	Fault & Earthquake Hazards	High
b.	Subsurface rock and soil types	High
c.	Slope of land	High
d.	Groundwater recharge area & local groundwater conditions	High - recharge Low – groundwater conditions
e.	Flood hazards and erosion hazards	Low - flood hazards High - erosion hazards
f.	Viewscapes	High
g.	Flood plains	Low
h.	Elevation	High
i.	Cost of city services	Low
j.	Wildlife habitat	High
k.	Water quality	High
l.	Sensitive lands	High
m.	Urban Wildland Interface	High

Land Use:

a. Current county zoning	CE-1
b. Land Use Plan designation	CE-5 or CE-50
c. Number of lots	0

Total acres in Annexation Study **418.06 acres**

***Estimated # of lots is based on the slope analysis base density plus full density bonus. Hazards and sensitive lands were not taken into account which could result in fewer lots.**

Exhibit D

2016 TAX RATE ANALYSIS

ENTITY	AREA TO BE ANNEXED	ALPINE CITY
Utah County	0.0008340	0.0008340
Central Utah Water Cons. Dist.	0.0004000	0.0004000
Alpine School District	0.0077180	0.0077180
State Assessed	0.0000110	0.0000110
County Assessed	0.0002040	0.0002040
Alpine City		0.0013880
North Utah County Water Dist.	0.0000230	0.0000230
Service Area 6 – Law, Zoning	0.0013790	
Service Area 7 – Fire Service	0.0008310	
Service Area 8 – Planning	0.0003090	
TOTAL RATE	**0.0117090**	**0.0105780**

TOTAL ASSESSED VALUE	**$**	**65,566,100.00**
- Alpine Cove	$	49,120,000.00
- South of Box Elder	$	15,837,600.00
- East Area	$	608,500.00
- Schoolhouse Springs Area	$	0.00
UTAH COUNTY TAX	**$**	**767,713.46**
ALPINE CITY TAX	**$**	**693,558.20**

Exhibit E: Rates were obtained from the 2016 Tax Rate Analysis from the Utah County Treasurer's Department. The total rate is the sum of all rates listed. The Total Assessed Value was calculated by adding together the 2016 assessed values of all proposed annexation areas (Alpine Cove, South of Box Elder, East Area and Schoolhouse Springs Area). The County Tax is calculated by multiplying the Total Assessed Value by the Total Rate for the Area to be Annexed. The Alpine Tax is calculated by multiplying the Total Assessed Value by the Total Rate for Alpine City.

Exhibit E

20 Year Projected Annexation Lot Growth

ANNEXATION AREA	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Alpine Cove	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	10
South of Box Elder	5	15	15	10	5	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	58
East Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Schoolhouse Springs Area	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	15	16	10	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	68

20 Year Projected Annexation Population Growth

ANNEXATION AREA	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	TOTAL
Alpine Cove	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	38.0
South of Box Elder	19.0	57.0	57.0	38.0	19.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	0.0	3.8	220.4
East Area	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Schoolhouse Springs Area	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	22.8	57.0	60.8	38.0	22.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	258.4

Exhibit F

INTERLOCAL COOPERATION AGREEMENT ESTABLISHING AN ANNEXATION BOUNDARY LINE BETWEEN HIGHLAND AND ALPINE

This agreement is made by and between Alpine City and Highland City, municipalities organized and existing under the laws of the State of Utah.

WHEREAS, the boundaries of the two cities surround an island of unincorporated land in Utah County and

WHEREAS, the actual contour of the land makes providing of municipal services in some areas near this line more economical for Highland City and in other areas near the line more economical for Alpine City; and

WHEREAS, in order to avoid disputes between the parties over areas of annexation, it is desirable to agree upon and designate a line in which will represent Alpine's Western limits of annexation and Highland's northern limits of annexations; and

WHEREAS, the parties have been able to agree upon such a designated line:

NOW THEREFORE, the parties hereby agree, pursuant to the Interlocal Cooperation Act, Utah Code Annotated, Section 11-13-1 at seq. (1953 as amended) as follows:

A. The duration of this agreement is as set forth in paragraph 5 below.
B. No separate legal or administrative entity is required or created by this agreement
C. The purpose of this agreement is as set forth in the preamble to this agreement
D. This agreement does not give rise to a joint or cooperative undertaking
E. The method of termination of this agreement is set forth in paragraph 5. Further, there will be no jointly owned property arising from this agreement
F. No administrator or joint board is required to be appointed or established pursuant to this agreement
G. There will be no real personal property acquired, held or disposed of pursuant to this agreement.

1. The boundary line described as Exhibit "A" attached hereto shall constitute the westernmost boundary of the area covered by the Alpine City General Plan for Land Use and Annexation and the northernmost boundary of the area covered by Highland City General Plan for Land Use and Annexation. Exhibit "B" attached hereto plots said boundary line on a map of the area.

2. From and after the date of this agreement and during the term thereof, Alpine City shall not annex, or encourage, entertain, or accept a petition for annexation of any land located west of the line described above without the prior written consent of Highland City. From and after the date of this agreement and during the term thereof, Highland City shall not annex, or encourage, entertain, or accept a petition for annexation of any land located east of the line described above without the prior written consent of Alpine City.

3. The written consent described in paragraph 2 above shall not be unreasonably withheld if the petitioning property owner requests

annexation across said boundary line and it appears to the city council of the city whose consent is required that the city to whom the property owner wishes to be annexed can reasonable provide services to said property without adversely affecting existing, planned, or potential services of the consenting city during the term of this agreement.

A. The intended purpose of this paragraph is to accommodate annexation requests by single household and small-parcel property owners whose properties are situated adjacent to said boundary line.

B. It is not intended to apply to large parcels of primarily undeveloped property or to properties not situated adjacent to the boundary line established herein (or as subsequently modified). Owners and/or developers of such other properties may request consent from a city to allow annexation of their properties to the city situated on the opposite side of the boundary line, but the city from whom consent is sought need not justify any refusal to render the desired consent.

b. This agreement shall be binding upon the parties for a period of fifteen years from the date hereof. Thereafter, it shall automatically be extended for successive periods of six years each unless either party shall give written notice of termination to the other party at least 60 days prior to the expiration of the original term or any extension thereof.

c. This agreement supersedes any oral or written discussions, negotiations, or agreements concerning the annexation boundary line of each city. This document may be amended only by written agreement of the parties hereto.

d. This agreement shall not take effect until it has been approved by the city councils of Alpine and Highland City and has been approved as to form and compatibility with the laws of the State of Utah by each municipality's city attorney. Thereafter, an original of this agreement shall be filled with each municipality's city recorder.

e. A violation of this agreement constitutes valid and sufficient grounds for a protest before the Utah County Boundary Commission in addition to any judicial action deemed necessary to enforce this agreement and to protect the municipality offended or injured by such violation

f. In the even of a breach of this agreement, the breaching party shall be obligated and responsible to pay the reasonable attorney's fees and costs of the non-breaching party, whether or not litigation is commenced, including but not limited to any court costs and other costs of litigation, and any costs associated with a protest which may be occasioned as a result of breach.

IN WITNESS WHEREOF, the parties have executed this agreement by authority of motions of their respected city councils this 25th day of April 2000.

Exhibit G

UTAH STATE CODE

10-2-401.5. Annexation policy plan.

(1) After December 31, 2002, no municipality may annex an unincorporated area located within a specified county unless the municipality has adopted an annexation policy plan as provided in this section.

(2) To adopt an annexation policy plan:

(a) the planning commission shall:

(i) prepare a proposed annexation policy plan that complies with Subsection (3);

(ii) hold a public meeting to allow affected entities to examine the proposed annexation policy plan and to provide input on it;

(iii) provide notice of the public meeting under Subsection (2)(a)(ii) to each affected entity at least 14 days before the meeting;

(iv) accept and consider any additional written comments from affected entities until ten days after the public meeting under Subsection (2)(a)(ii);

(v) before holding the public hearing required under Subsection (2)(a)(vi), make any modifications to the proposed annexation policy plan the planning commission considers appropriate, based on input provided at or within ten days after the public meeting under Subsection (2)(a)(ii);

(vi) hold a public hearing on the proposed annexation policy plan;

(vii) provide reasonable public notice, including notice to each affected entity, of the public hearing required under Subsection (2)(a)(vi) at least 14 days before the date of the hearing;

(viii) make any modifications to the proposed annexation policy plan the planning commission considers appropriate, based on public input provided at the public hearing; and

(ix) submit its recommended annexation policy plan to the municipal legislative body; and

(b) the municipal legislative body shall:

(i) hold a public hearing on the annexation policy plan recommended by the planning commission;

(ii) provide reasonable notice, including notice to each affected entity, of the public hearing at least 14 days before the date of the hearing;

(iii) after the public hearing under Subsection (2)(b)(ii), make any modifications to the recommended annexation policy plan that the legislative body considers appropriate; and

(iv) adopt the recommended annexation policy plan, with or without modifications

(3) Each annexation policy plan shall include:

(a) a map of the expansion area which may include territory located outside the county in which the municipality is located;

(b) a statement of the specific criteria that will guide the municipality's decision whether or not to grant future annexation petitions, addressing matters relevant to those criteria including:

(i) the character of the community;

(ii) the need for municipal services in developed and undeveloped unincorporated areas;

(iii) the municipality's plans for extension of municipal services;

(iv) how the services will be financed;

(v) an estimate of the tax consequences to residents both currently within the municipal boundaries and in the expansion area; and

(vi) the interests of all affected entities;

(c) justification for excluding from the expansion area any area containing urban development within 1/2 mile of the municipality's boundary; and

(d) a statement addressing any comments made by affected entities at or within ten days

after the public meeting under Subsection (2)(a)(ii).

(4) In developing, considering, and adopting an annexation policy plan, the planning commission and municipal legislative body shall:
   (a) attempt to avoid gaps between or overlaps with the expansion areas of other municipalities;
   (b) consider population growth projections for the municipality and adjoining areas for the next 20 years;
   (c) consider current and projected costs of infrastructure, urban services, and public facilities necessary:
      (i) to facilitate full development of the area within the municipality; and
      (ii) to expand the infrastructure, services, and facilities into the area being considered for inclusion in the expansion area;
   (d) consider, in conjunction with the municipality's general plan, the need over the next 20 years for additional land suitable for residential, commercial, and industrial development;
   (e) consider the reasons for including agricultural lands, forests, recreational areas, and wildlife management areas in the municipality; and
   (f) be guided by the principles set forth in Subsection **10-2-403**(5).
(5) Within 30 days after adopting an annexation policy plan, the municipal legislative body shall submit a copy of the plan to the legislative body of each county in which any of the municipality's expansion area is located.
(6) Nothing in this chapter may be construed to prohibit or restrict two or more municipalities in specified counties from negotiating and cooperating with respect to defining each municipality's expansion area under an annexation policy plan.

Enacted by Chapter 206, 2001 General Session

GeoStrata Engineering & Geosciences
14425 S. Center Point Way, Bluffdale, Utah 84065 ~ T: (801) 501-0583 ~ F: (801) 501-0584

November 5, 2013

Mr. Stephen Sowby, P.E.
Patterson Construction
11038 Highland Blvd. Suite 100
Highland, Utah, 84003

GeoStrata Project No. 503-022

RE: Debris Flow Mitigation Analysis
Box Elder South Development, Alpine, Utah.

Mr. Sowby:

As requested, GeoStrata visited the site of the proposed Box Elder South development located in unincorporated Utah County, Utah and approximately 1¾ miles northeast of Alpine City. A geologic hazards assessment was previously completed for the property by Earthtec Testing and Engineering, P.C., (Earthtec) the results of which may be found in a report dated September 27, 2007. In that report, it was noted that the potential for debris flow flooding is considered high for the property, and that remediation is recommended to mitigate this hazard. We understand that it was decided to construct a 2.5-foot tall berm and excavate an adjacent 2.5-foot deep trench along the southern and portions of the eastern sides of the proposed development in order to divert any potential debris flow events. The purpose of our visit was to provide our opinion regarding the adequacy of the Earthtec remediations and to provide additional recommendations if necessary.

GeoStrata visited the site on November 5, 2013. At that time, it was observed that relatively recent debris flow events had occurred on the alluvial fan at the mouth of Wadsworth Canyon as well as within the drainage of a smaller, unnamed canyon located to the east of the subject property. The debris flow sourced by Wadsworth Canyon contained material in excess of 3 feet in diameter, and had a run-out length approximately 1,500 feet from the mouth of the canyon. Fresh debris was observed across large portions of the fan. The debris flow sourced by the unnamed canyon extended approximately 500 feet from the mouth of the canyon.

Based on our observations as well as on our geologic review of the property, the potential exists for a debris flow emanating from Wadsworth Canyon to impact the subject property. Compounding this hazard is the potential for the debris flow to collide perpendicularly with the diversionary berm. Under these conditions, it is likely that the debris flow event would fill the trench and overtop the berm rather than changing direction and flowing along the trench. This geometry, as well as the relatively large amount of sediment transported during the recent Wadsworth debris flow event, the large diameter of the mobilized clasts, and the relatively long run-out distance, it is considered unlikely that the 2.5 foot tall diversionary berm and the 2.5 foot deep trench will be adequate to deflect a large debris flow event, such as the one observed to have occurred recently. As such, GeoStrata recommends that the berm height be increased to 5 feet while still retaining the 2.5 foot deep ditch. As an alternative, a reinforced chain-link fence could be constructed along the top of the diversionary berm. This fence would serve to increase the height of the berm, although it should be understood that the potential remains for a mud slurry to pass through the fence and impact the proposed development. If the fencing is chosen,

we recommend that it be a minimum of 4 feet in height, and constructed of heavy chain-link material. The poles for the fencing should be reinforced to accommodate the potential loading associated with a debris flow by increasing the depth of embedment to a minimum of 5 feet. Finally, it is recommended that no structures should be constructed within 20 feet of the diversionary structure

No laboratory testing or subsurface investigations were performed as a part of this investigation. If you would like to discuss any of the issues contained in this letter in more detail or have additional questions please contact us at your convenience (801) 501-0583.

We appreciate the opportunity to provide these services. Please contact us if you have questions regarding the information provided in this letter.

Respectfully,
GeoStrata

J. Scott Seal, E.I.T.
Staff Geologist

Mike W. Vorkink, P.G.
Senior Geologist

Mark I. Christensen
Senior Geotechnical Engineer

GSH

September 3, 2013
Job No. 1309-004-13

Berg Engineering
11038 Highland Boulevard
Highland, Utah 84003

Attention: Mr. Ken Berg, P.E.

Gentlemen:

Re: Letter
Box Elder South Mitigation Berms
1600 East Box Elder Circle
Alpine, Utah

As requested by Mr. Ken Berg of Berg Engineering, Mr. Bill Turner of GSH Geotechnical, Inc. (GSH) visited the above-referenced site on the afternoon of August 29, 2013. The purpose of the site visit was to observe existing conditions and proposed improvements for the proposed Box Elder South Development located in Alpine, Utah. A geologic hazards assessment report was completed for this site by Earthtec Testing & Engineering, P.C. dated September 27, 2007[1], along with subsequent addendum letters.

At the time of this site visit, Mr. Turner observed the existing grades versus the proposed grades and berm locations, as well as the recent debris flow area emanating from the burn scar on the mountainside east of the site. The referenced report and addendums have addressed using berms along the south side and the south half of the east side of the development to deflect water and debris flows that may emanate from Wadsworth Canyon and adjacent hillsides immediately east of the development. The current plans indicate a 2.5-foot high berm will be constructed at the locations recommended in the referenced report. Thus, it is our opinion that the measures contained in the Box Elder South plans will mitigate these potential hazards at the site and, thereby, adequately address the current requirements of Section 5-12 of the Utah County Land Use Ordinance.

---

1 "Geologic Hazards Assessment, Box Elder South Development, Alpine, Utah" ETE Job No. 072247.

GSH Geotechnical, Inc.
473 West 4800 South
Salt Lake City, Utah 84123
Tel: (801) 685-9190 Fax: (801) 685-2990
www.gshgeo.com

If you have any questions or would like to discuss these items further, please feel free to contact us at (801) 685-9190.

Respectfully submitted,

GSH Geotechnical, Inc.

LICENSED PROFESSIONAL ENGINEER
171715
WILLIAM G.
TURNER
9/3/13
STATE OF UTAH

William G. Turner, P.E.
State of Utah No. 171715
Senior Geotechnical Engineer

WGT:jlh

Addressee (email)

HANSEN ALLEN & LUCE INC
ENGINEERS

MEMORANDUM

DATE: December 17, 2013
TO: Stephen E. Sowby, P.E.
Patterson Construction
11038 N. Highland Blvd. #100
Highland, UT 84003

FROM: Gregory J. Poole, P.E.
Hansen, Allen & Luce, Inc. (HAL)
6771 South 900 East
Midvale, UT 84047

SUBJECT: Box Elder South Offsite Hydrologic Analysis

PROJECT NO.: 344.92.100

INTRODUCTION

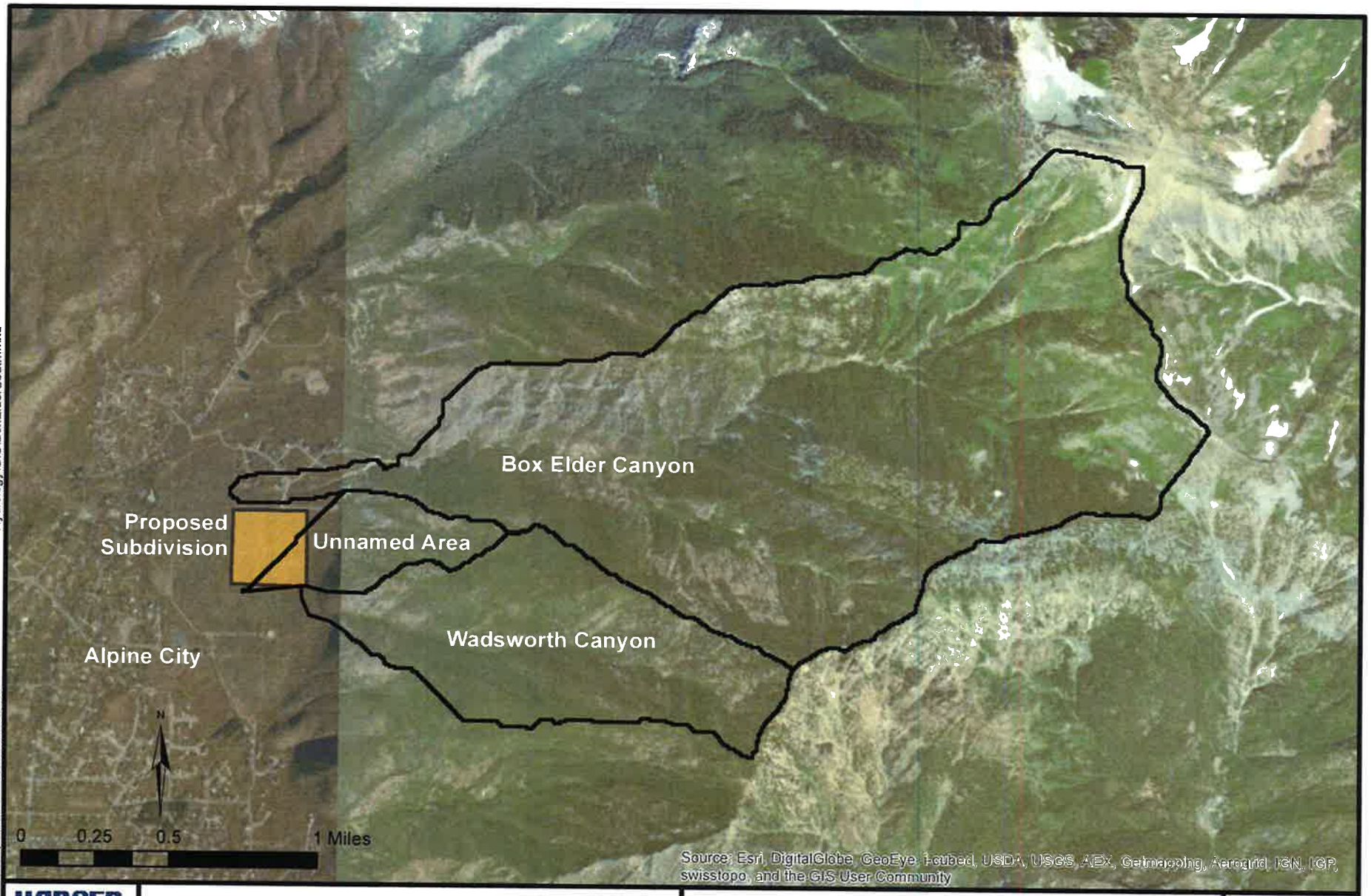
As requested, HAL has reviewed available hydrology and has developed storm runoff predictions for three watersheds adjacent to the proposed Box Elder South Subdivision. See Figure 1. Box Elder Canyon, Wadsworth Canyon, and an unnamed canyon were damaged by a forest fire in July 2012, raising concerns about future flooding on the proposed subdivision site.

OTHER STUDIES

The Natural Resources Conservation Service (NRCS) predicted post-fire 100-yr peak flows of 903 cfs and 556 cfs for Box Elder and Wadsworth Canyons, respectively (Quail Fire DSR report, July 2012).

On Sept. 7, 2013, a major storm occurred in the study area. We contracted a professional meteorologist (Dan Risch, Certified Consulting Meteorologist, Meteorological Solutions Inc.) to investigate the storm.

Weather radar data for the storm is not complete, and was interrupted at about 4:10 p.m. The white line on Figure 2 is shown to help visualize the approximate direction (from the southwest towards the northeast) in which the radar was showing the heavy showers moving towards the region just prior to losing that data at 4:10 PM on the afternoon of September 7, 2013. The code name of the adjacent rainfall gage sites along with the total amount of rain that fell during this storm episode is shown at each point on Figure 2.



Date: 12/13/2013
Document Path: H:\Projects\344 - General Misc\92.100 - Patterson Box Elder Hydrology\GIS\BoxElderSouth.mxd

HANSEN ALLEN & LUCE INC ENGINEERS

PATTERSON CONSTRUCTION
BOX ELDER SOUTH SUBDIVISION HYDROLOGY

STUDY AREA

FIGURE 1

FIGURE 2. Adjacent Rainfall Gages & Storm Totals for The September 7, 2013 Storm

The [1]return periods for the 5, 10, 15 and 30 minute maximum rainfall totals that occurred at the meteorological station ABSU1 located near Alpine, Utah are shown on Table 1. This particular station is part of the federally operated HADS (Hydrometeorological Automated Data System) network, and it reported information every five minutes during the storm period of interest. Precipitation fell at the ABSU1 station on this day between 4:35 PM and 6:50 PM.

TABLE 1. September 7, 2013 Storm Gage ABSU1 Rainfall Depths for Various Durations

Duration Interval minutes	Maximum Rain inches	RETURN PERIOD YEARS
5	0.33	21
10	0.5	21
15	0.66	17
30	0.79	24

[1] Return Period is the inverse of the probability of the event being equaled or exceeded in any given year. For example, a storm with a 1% probability of being equaled or exceeded in any given year has a return period of 100 years (100=1/0.01).

HYDROLOGIC MODELING

We have developed a storm runoff model using the U.S. Army Corps of Engineers Hydrologic Modeling System 3.5 (HEC-HMS 3.5) to simulate runoff conditions. Watershed characteristics were developed for pre-fire conditions using two data sources: 1) data from the U.S. Geological Survey's StreamStats data service, and 2) watershed characteristics from studies of similar watersheds.

Post-fire conditions were modeled assuming a complete burn of all three watersheds resulting in bare soil conditions.

The model was used to define the expected range in storm runoff for the pre-fire and post-fire conditions for a 10-year storm event (the event with a 10% chance of being equaled or exceeded in any given year), 50-year storm event, and 100-year storm event. Results for the 10-year, 50-year, and 100-year analyses are presented in Tables 2, 3, and 4; respectively.

Table 2. 10-year Peak Flow Predictions

Watershed	Pre-fire (cfs)	Post-fire (cfs)
Box Elder Canyon	13-90	309
Unnamed Canyon	6-17	22
Wadsworth Canyon	16-18	80

Table 3. 50-year Peak Flow Predictions

Watershed	Pre-fire (cfs)	Post-fire (cfs)
Box Elder Canyon	40-190	546
Unnamed Canyon	4-12	43
Wadsworth Canyon	31-43	144

Table 4. 100-year Peak Flow Predictions

Watershed	Pre-fire (cfs)	Post-fire (cfs)
Box Elder Canyon	91–300	670
Unnamed Canyon	6–17	64
Wadsworth Canyon	31–61	200

CONCLUSIONS

While higher runoff will result from burned conditions, the 100-yr peak flows predicted here can be mitigated with properly engineered improvements. Having reviewed other predictions and independently developing our own, it is our opinion that the proposed subdivision can be feasibly and adequately protected from flooding in such events.

Box Elder Canyon

Latitude: 40.4784
Longitude: -111.7167
Elevation: 8236 ft*

NOAA Atlas 14
Point Precipitation Frequency Estimates
Alpine, UT

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.143** (0.126-0.167)	**0.182** (0.160-0.212)	**0.249** (0.217-0.289)	**0.309** (0.266-0.359)	**0.403** (0.339-0.474)	**0.491** (0.401-0.582)	**0.594** (0.470-0.712)	**0.714** (0.543-0.871)	**0.909** (0.655-1.14)	**1.09** (0.749-1.40)
10-min	**0.218** (0.191-0.254)	**0.277** (0.243-0.322)	**0.378** (0.330-0.440)	**0.47** (0.405-0.547)	**0.614** (0.516-0.721)	**0.748** (0.611-0.886)	**0.903** (0.715-1.08)	**1.09** (0.826-1.33)	**1.38** (0.997-1.73)	**1.66** (1.14-2.13)
15-min	**0.271** (0.237-0.315)	**0.344** (0.302-0.399)	**0.469** (0.409-0.545)	**0.582** (0.502-0.678)	**0.76** (0.639-0.894)	**0.927** (0.757-1.10)	**1.12** (0.886-1.34)	**1.35** (1.02-1.64)	**1.72** (1.24-2.15)	**2.06** (1.41-2.64)
30-min	**0.364** (0.320-0.424)	**0.463** (0.406-0.538)	**0.631** (0.550-0.733)	**0.784** (0.676-0.913)	**1.02** (0.861-1.20)	**1.25** (1.02-1.48)	**1.51** (1.19-1.81)	**1.81** (1.38-2.21)	**2.31** (1.66-2.89)	**2.77** (1.90-3.55)
60-min	**0.451** (0.395-0.525)	**0.573** (0.503-0.666)	**0.781** (0.681-0.908)	**0.97** (0.836-1.13)	**1.27** (1.06-1.49)	**1.54** (1.26-1.83)	**1.87** (1.48-2.24)	**2.24** (1.71-2.74)	**2.86** (2.06-3.58)	**3.42** (2.36-4.39)
2-hr	**0.576** (0.519-0.652)	**0.718** (0.645-0.812)	**0.935** (0.835-1.06)	**1.14** (1.00-1.29)	**1.46** (1.26-1.67)	**1.76** (1.48-2.03)	**2.11** (1.71-2.47)	**2.52** (1.97-3.02)	**3.19** (2.36-3.93)	**3.81** (2.69-4.81)
3-hr	**0.686** (0.625-0.766)	**0.85** (0.773-0.943)	**1.07** (0.964-1.19)	**1.27** (1.14-1.42)	**1.59** (1.39-1.78)	**1.87** (1.60-2.12)	**2.22** (1.85-2.55)	**2.62** (2.12-3.06)	**3.29** (2.54-3.96)	**3.91** (2.89-4.84)
6-hr	**0.961** (0.888-1.05)	**1.18** (1.09-1.29)	**1.43** (1.31-1.56)	**1.65** (1.51-1.81)	**1.98** (1.78-2.18)	**2.25** (1.99-2.50)	**2.56** (2.23-2.88)	**2.92** (2.48-3.33)	**3.57** (2.94-4.17)	**4.15** (3.33-4.95)
12-hr	**1.29** (1.18-1.41)	**1.57** (1.45-1.73)	**1.89** (1.74-2.08)	**2.18** (1.98-2.40)	**2.59** (2.33-2.87)	**2.92** (2.59-3.27)	**3.28** (2.86-3.71)	**3.68** (3.15-4.22)	**4.27** (3.56-5.02)	**4.76** (3.87-5.70)
24-hr	**1.63** (1.51-1.75)	**1.99** (1.85-2.16)	**2.39** (2.22-2.59)	**2.73** (2.52-2.95)	**3.18** (2.93-3.45)	**3.54** (3.25-3.83)	**3.9** (3.57-4.22)	**4.27** (3.88-4.63)	**4.78** (4.30-5.20)	**5.17** (4.62-5.75)
2-day	**2.01** (1.86-2.17)	**2.47** (2.29-2.68)	**2.98** (2.76-3.23)	**3.4** (3.14-3.69)	**3.98** (3.66-4.31)	**4.43** (4.06-4.80)	**4.9** (4.46-5.32)	**5.38** (4.86-5.86)	**6.03** (5.39-6.59)	**6.53** (5.79-7.17)
3-day	**2.26** (2.08-2.46)	**2.78** (2.56-3.03)	**3.37** (3.10-3.67)	**3.85** (3.54-4.20)	**4.53** (4.14-4.94)	**5.07** (4.61-5.52)	**5.62** (5.09-6.14)	**6.19** (5.57-6.78)	**6.97** (6.20-7.67)	**7.59** (6.69-8.39)
4-day	**2.51** (2.30-2.74)	**3.09** (2.84-3.38)	**3.75** (3.44-4.10)	**4.31** (3.94-4.71)	**5.09** (4.63-5.56)	**5.7** (5.16-6.25)	**6.34** (5.72-6.97)	**7.01** (6.27-7.71)	**7.92** (7.01-8.76)	**8.64** (7.58-9.61)
7-day	**3.11** (2.84-3.43)	**3.84** (3.51-4.23)	**4.65** (4.24-5.13)	**5.33** (4.85-5.88)	**6.27** (5.67-6.92)	**7.01** (6.31-7.74)	**7.78** (6.97-8.60)	**8.56** (7.62-9.49)	**9.65** (8.49-10.7)	**10.5** (9.16-11.7)
10-day	**3.59** (3.29-3.93)	**4.43** (4.05-4.85)	**5.33** (4.87-5.84)	**6.06** (5.52-6.63)	**7.04** (6.38-7.71)	**7.78** (7.04-8.53)	**8.54** (7.69-9.36)	**9.3** (8.33-10.2)	**10.3** (9.15-11.4)	**11.1** (9.77-12.3)
20-day	**4.86** (4.46-5.30)	**5.99** (5.49-6.52)	**7.14** (6.54-7.78)	**8.04** (7.36-8.76)	**9.2** (8.39-10.0)	**10.1** (9.15-11.0)	**10.9** (9.88-11.9)	**11.7** (10.6-12.8)	**12.8** (11.5-14.0)	**13.5** (12.1-14.9)
30-day	**5.93** (5.46-6.43)	**7.29** (6.71-7.91)	**8.65** (7.95-9.40)	**9.72** (8.92-10.6)	**11.1** (10.2-12.1)	**12.1** (11.1-13.2)	**13.2** (12.0-14.3)	**14.1** (12.8-15.4)	**15.4** (13.9-16.9)	**16.3** (14.6-18.0)
45-day	**7.48** (6.91-8.12)	**9.18** (8.47-9.97)	**10.9** (10.0-11.8)	**12.2** (11.2-13.3)	**13.9** (12.8-15.2)	**15.2** (13.9-16.6)	**16.5** (15.0-18.0)	**17.7** (16.1-19.4)	**19.4** (17.4-21.3)	**20.6** (18.4-22.7)
60-day	**8.93** (8.20-9.68)	**11** (10.1-11.9)	**12.9** (11.9-14.1)	**14.5** (13.3-15.7)	**16.4** (15.0-17.9)	**17.9** (16.3-19.5)	**19.3** (17.5-21.0)	**20.6** (18.7-22.6)	**22.3** (20.1-24.5)	**23.6** (21.2-26.0)

Unnamed Canyon

Latitude: 40.4711
Longitude: -111.7431
Elevation: 6255 ft*

NOAA Atlas 14
Point Precipitation Frequency Estimates
Alpine, UT

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.138** (0.121-0.161)	**0.175** (0.154-0.204)	**0.239** (0.209-0.279)	**0.298** (0.257-0.348)	**0.39** (0.328-0.460)	**0.476** (0.389-0.565)	**0.577** (0.456-0.692)	**0.694** (0.528-0.848)	**0.884** (0.637-1.11)	**1.06** (0.729-1.36)
10-min	**0.21** (0.184-0.245)	**0.267** (0.234-0.311)	**0.365** (0.318-0.425)	**0.454** (0.391-0.530)	**0.594** (0.499-0.700)	**0.726** (0.592-0.861)	**0.878** (0.694-1.05)	**1.06** (0.803-1.29)	**1.35** (0.969-1.69)	**1.61** (1.11-2.07)
15-min	**0.26** (0.228-0.304)	**0.331** (0.290-0.385)	**0.452** (0.394-0.526)	**0.563** (0.485-0.656)	**0.737** (0.619-0.867)	**0.899** (0.734-1.07)	**1.09** (0.860-1.31)	**1.31** (0.996-1.60)	**1.67** (1.20-2.09)	**2** (1.38-2.56)
30-min	**0.35** (0.307-0.409)	**0.445** (0.390-0.519)	**0.609** (0.531-0.709)	**0.758** (0.652-0.884)	**0.992** (0.833-1.17)	**1.21** (0.988-1.44)	**1.47** (1.16-1.76)	**1.76** (1.34-2.15)	**2.25** (1.62-2.81)	**2.69** (1.85-3.45)
60-min	**0.434** (0.380-0.506)	**0.551** (0.483-0.642)	**0.754** (0.657-0.877)	**0.938** (0.808-1.09)	**1.23** (1.03-1.45)	**1.5** (1.22-1.78)	**1.81** (1.43-2.18)	**2.18** (1.66-2.67)	**2.78** (2.00-3.48)	**3.33** (2.29-4.27)
2-hr	**0.554** (0.499-0.628)	**0.692** (0.620-0.783)	**0.901** (0.803-1.02)	**1.09** (0.967-1.25)	**1.41** (1.21-1.61)	**1.7** (1.42-1.96)	**2.04** (1.66-2.39)	**2.44** (1.91-2.92)	**3.09** (2.29-3.81)	**3.69** (2.61-4.65)
3-hr	**0.652** (0.593-0.728)	**0.807** (0.734-0.897)	**1.02** (0.918-1.13)	**1.21** (1.08-1.35)	**1.52** (1.33-1.71)	**1.79** (1.53-2.03)	**2.12** (1.77-2.44)	**2.51** (2.02-2.93)	**3.16** (2.43-3.84)	**3.75** (2.77-4.70)
6-hr	**0.896** (0.827-0.981)	**1.1** (1.01-1.21)	**1.33** (1.22-1.46)	**1.54** (1.41-1.70)	**1.85** (1.67-2.04)	**2.11** (1.87-2.35)	**2.4** (2.09-2.71)	**2.74** (2.33-3.14)	**3.37** (2.77-3.94)	**3.92** (3.15-4.74)
12-hr	**1.18** (1.08-1.29)	**1.44** (1.33-1.58)	**1.74** (1.60-1.91)	**2** (1.82-2.20)	**2.38** (2.14-2.63)	**2.68** (2.38-3.00)	**3.01** (2.63-3.41)	**3.38** (2.89-3.87)	**3.93** (3.27-4.61)	**4.38** (3.57-5.24)
24-hr	**1.4** (1.30-1.51)	**1.72** (1.59-1.86)	**2.06** (1.91-2.22)	**2.34** (2.17-2.52)	**2.72** (2.52-2.94)	**3.02** (2.78-3.26)	**3.33** (3.05-3.59)	**3.64** (3.32-3.95)	**4.06** (3.67-4.66)	**4.44** (3.93-5.29)
2-day	**1.74** (1.62-1.88)	**2.14** (1.99-2.31)	**2.57** (2.38-2.77)	**2.92** (2.71-3.15)	**3.41** (3.15-3.68)	**3.79** (3.49-4.08)	**4.17** (3.82-4.51)	**4.57** (4.16-4.95)	**5.1** (4.59-5.54)	**5.51** (4.92-6.02)
3-day	**1.94** (1.79-2.10)	**2.38** (2.20-2.58)	**2.87** (2.65-3.11)	**3.28** (3.02-3.55)	**3.84** (3.53-4.16)	**4.28** (3.91-4.64)	**4.73** (4.31-5.15)	**5.2** (4.70-5.67)	**5.83** (5.22-6.39)	**6.33** (5.62-6.97)
4-day	**2.13** (1.96-2.32)	**2.62** (2.41-2.86)	**3.17** (2.91-3.45)	**3.63** (3.33-3.95)	**4.27** (3.90-4.65)	**4.77** (4.34-5.21)	**5.29** (4.79-5.79)	**5.83** (5.24-6.39)	**6.57** (5.84-7.23)	**7.15** (6.31-7.91)
7-day	**2.61** (2.39-2.86)	**3.21** (2.94-3.52)	**3.87** (3.55-4.25)	**4.42** (4.04-4.85)	**5.18** (4.72-5.69)	**5.77** (5.24-6.34)	**6.39** (5.76-7.02)	**7.01** (6.29-7.73)	**7.87** (6.98-8.71)	**8.53** (7.51-9.49)
10-day	**2.99** (2.74-3.26)	**3.68** (3.38-4.01)	**4.41** (4.04-4.80)	**5** (4.57-5.44)	**5.78** (5.27-6.30)	**6.38** (5.80-6.95)	**6.97** (6.32-7.61)	**7.58** (6.83-8.29)	**8.36** (7.47-9.19)	**8.96** (7.96-9.87)
20-day	**4.01** (3.69-4.36)	**4.94** (4.53-5.36)	**5.87** (5.39-6.37)	**6.59** (6.05-7.16)	**7.52** (6.89-8.18)	**8.2** (7.50-8.93)	**8.87** (8.09-9.65)	**9.51** (8.65-10.4)	**10.3** (9.35-11.3)	**10.9** (9.84-12.0)
30-day	**4.88** (4.50-5.28)	**5.99** (5.52-6.49)	**7.09** (6.53-7.68)	**7.95** (7.31-8.61)	**9.06** (8.31-9.81)	**9.88** (9.04-10.7)	**10.7** (9.74-11.6)	**11.5** (10.4-12.5)	**12.4** (11.2-13.6)	**13.2** (11.8-14.4)
45-day	**6.13** (5.67-6.64)	**7.51** (6.96-8.14)	**8.86** (8.20-9.61)	**9.92** (9.17-10.8)	**11.3** (10.4-12.3)	**12.3** (11.3-13.4)	**13.3** (12.2-14.5)	**14.3** (13.0-15.6)	**15.5** (14.1-17.0)	**16.5** (14.8-18.1)
60-day	**7.3** (6.72-7.90)	**8.96** (8.25-9.70)	**10.6** (9.71-11.4)	**11.8** (10.8-12.7)	**13.4** (12.2-14.5)	**14.5** (13.3-15.7)	**15.6** (14.2-16.9)	**16.7** (15.2-18.1)	**18** (16.3-19.6)	**19** (17.1-20.8)

Wadsworth Canyon

Latitude: 40.4654
Longitude: -111.7318
Elevation: 7024 ft*

NOAA Atlas 14
Point Precipitation Frequency Estimates
Alpine, UT

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.139** (0.122-0.162)	**0.177** (0.155-0.206)	**0.241** (0.210-0.281)	**0.3** (0.259-0.350)	**0.393** (0.330-0.463)	**0.48** (0.392-0.569)	**0.58** (0.459-0.696)	**0.698** (0.531-0.853)	**0.889** (0.641-1.11)	**1.06** (0.734-1.37)
10-min	**0.212** (0.185-0.247)	**0.269** (0.236-0.313)	**0.368** (0.320-0.428)	**0.457** (0.394-0.534)	**0.599** (0.503-0.704)	**0.731** (0.596-0.866)	**0.884** (0.698-1.06)	**1.06** (0.808-1.30)	**1.35** (0.975-1.70)	**1.62** (1.12-2.08)
15-min	**0.262** (0.230-0.306)	**0.334** (0.292-0.388)	**0.456** (0.397-0.530)	**0.567** (0.489-0.662)	**0.742** (0.623-0.873)	**0.905** (0.739-1.07)	**1.09** (0.866-1.31)	**1.32** (1.00-1.61)	**1.68** (1.21-2.10)	**2.01** (1.38-2.58)
30-min	**0.353** (0.310-0.412)	**0.449** (0.394-0.523)	**0.614** (0.535-0.714)	**0.764** (0.658-0.891)	**1** (0.840-1.18)	**1.22** (0.995-1.45)	**1.48** (1.17-1.77)	**1.77** (1.35-2.17)	**2.26** (1.63-2.83)	**2.71** (1.86-3.47)
60-min	**0.437** (0.383-0.510)	**0.556** (0.488-0.647)	**0.76** (0.662-0.884)	**0.945** (0.814-1.10)	**1.24** (1.04-1.46)	**1.51** (1.23-1.79)	**1.82** (1.44-2.19)	**2.2** (1.67-2.68)	**2.8** (2.02-3.50)	**3.35** (2.31-4.30)
2-hr	**0.559** (0.504-0.634)	**0.698** (0.626-0.791)	**0.909** (0.811-1.03)	**1.1** (0.976-1.26)	**1.42** (1.23-1.63)	**1.71** (1.44-1.98)	**2.06** (1.67-2.41)	**2.46** (1.92-2.94)	**3.12** (2.31-3.83)	**3.72** (2.63-4.69)
3-hr	**0.66** (0.600-0.737)	**0.817** (0.743-0.908)	**1.03** (0.929-1.15)	**1.22** (1.10-1.37)	**1.54** (1.35-1.72)	**1.81** (1.55-2.05)	**2.14** (1.79-2.46)	**2.53** (2.05-2.96)	**3.19** (2.46-3.87)	**3.79** (2.80-4.74)
6-hr	**0.912** (0.842-0.998)	**1.12** (1.03-1.23)	**1.36** (1.24-1.49)	**1.57** (1.43-1.72)	**1.88** (1.69-2.08)	**2.14** (1.90-2.38)	**2.44** (2.12-2.75)	**2.79** (2.37-3.18)	**3.42** (2.82-3.99)	**3.98** (3.19-4.76)
12-hr	**1.21** (1.11-1.32)	**1.47** (1.36-1.62)	**1.78** (1.63-1.95)	**2.04** (1.86-2.25)	**2.43** (2.18-2.69)	**2.74** (2.43-3.07)	**3.08** (2.69-3.48)	**3.45** (2.96-3.96)	**4.01** (3.34-4.71)	**4.47** (3.64-5.35)
24-hr	**1.46** (1.36-1.57)	**1.79** (1.66-1.94)	**2.15** (1.99-2.32)	**2.44** (2.26-2.64)	**2.84** (2.63-3.08)	**3.16** (2.90-3.41)	**3.48** (3.19-3.76)	**3.81** (3.47-4.12)	**4.25** (3.84-4.74)	**4.6** (4.12-5.41)
2-day	**1.81** (1.68-1.95)	**2.22** (2.06-2.40)	**2.67** (2.47-2.88)	**3.04** (2.81-3.28)	**3.54** (3.27-3.83)	**3.94** (3.62-4.25)	**4.34** (3.97-4.70)	**4.76** (4.32-5.17)	**5.31** (4.78-5.79)	**5.75** (5.13-6.29)
3-day	**2.02** (1.86-2.19)	**2.48** (2.29-2.69)	**2.99** (2.76-3.24)	**3.41** (3.14-3.71)	**4** (3.67-4.35)	**4.46** (4.08-4.85)	**4.94** (4.49-5.39)	**5.43** (4.90-5.93)	**6.1** (5.45-6.69)	**6.62** (5.86-7.30)
4-day	**2.22** (2.04-2.42)	**2.73** (2.51-2.98)	**3.31** (3.04-3.61)	**3.79** (3.47-4.13)	**4.46** (4.07-4.87)	**4.99** (4.53-5.46)	**5.54** (5.01-6.07)	**6.11** (5.48-6.70)	**6.88** (6.11-7.59)	**7.5** (6.60-8.31)
7-day	**2.73** (2.49-3.00)	**3.36** (3.08-3.69)	**4.06** (3.71-4.46)	**4.64** (4.23-5.10)	**5.44** (4.94-5.99)	**6.07** (5.48-6.67)	**6.72** (6.04-7.40)	**7.38** (6.59-8.15)	**8.28** (7.33-9.20)	**8.99** (7.88-10.0)
10-day	**3.13** (2.87-3.42)	**3.86** (3.54-4.21)	**4.63** (4.24-5.05)	**5.25** (4.79-5.73)	**6.08** (5.53-6.64)	**6.71** (6.08-7.33)	**7.34** (6.64-8.03)	**7.98** (7.18-8.74)	**8.82** (7.86-9.70)	**9.45** (8.37-10.4)
20-day	**4.21** (3.87-4.58)	**5.18** (4.75-5.64)	**6.17** (5.66-6.71)	**6.93** (6.35-7.54)	**7.91** (7.23-8.62)	**8.63** (7.88-9.41)	**9.34** (8.50-10.2)	**10** (9.10-10.9)	**10.9** (9.83-11.9)	**11.5** (10.4-12.7)
30-day	**5.12** (4.72-5.55)	**6.29** (5.79-6.82)	**7.46** (6.86-8.09)	**8.36** (7.68-9.07)	**9.54** (8.73-10.3)	**10.4** (9.50-11.3)	**11.3** (10.2-12.2)	**12.1** (10.9-13.2)	**13.1** (11.8-14.4)	**13.9** (12.5-15.2)
45-day	**6.44** (5.96-6.99)	**7.9** (7.30-8.57)	**9.32** (8.61-10.1)	**10.4** (9.63-11.3)	**11.9** (11.0-12.9)	**13** (11.9-14.1)	**14** (12.8-15.3)	**15.1** (13.7-16.5)	**16.4** (14.8-18.0)	**17.4** (15.6-19.1)
60-day	**7.67** (7.06-8.31)	**9.42** (8.66-10.2)	**11.1** (10.2-12.0)	**12.4** (11.4-13.4)	**14.1** (12.9-15.2)	**15.3** (14.0-16.6)	**16.4** (15.0-17.9)	**17.6** (15.9-19.1)	**19** (17.1-20.7)	**20** (18.0-21.9)

Box Elder South Subdivision
Hydrologic Analysis—Basin Characteristics

12/13/2013 RBS

Assume CN=64 based on other studies of similar watersheds

Parameter	Box Elder	Unnamed	Wadsworth
Mean basin elevation (ft)	8520	5960	7230
Area (mi^2)	2.53	0.17	0.66
Area covered by herbaceous upland (%)	2.15	0.16	0.15
Area covered by forest (%)	80.6	81.9	95.3
Mean annual precipitation (in.)	36.3	28.1	25.9
Average basin slope (%)	62.3	41.0	56.5
Slopes > 30% (%)	92.9	63.7	93.4
Watercourse length	19,100	5,250	9,400
Watercourse slope (%)	0.300	0.297	0.408
Watershed width (ft)	**3,693**	**903**	**1,957**
Hydrologic soil group	B	B	B
CN	64.0	64.0	64.0
S_{nat} (in.)	**5.63**	**5.63**	**5.63**
t_{lag} (min)*	**82.8**	**35.9**	**54.2**

* Lag time calculations follow Simas and Hawkins, "Lag time characteristics for small watersheds in the U.S.," Water Resources Engineering '98 (Reston, VA: ASCE, 1998)

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044199.pdf

S_{nat} (in.) = 1000/CN - 10

width = area/length

t_{lag} (min) = $0.0051 \times width^{0.594} \times slope^{-0.150} \times S_{nat}^{0.313} \times 60$

** See calibration sheet.

Notes

StreamStats

StreamStats & measured

StreamStats

StreamStats

StreamStats

StreamStats

StreamStats

Measured

Measured

Calculated

NRCS

Calibrated**

Calibrated**

Calibrated**

Box Elder South Subdivision
Hydrologic Analysis—Basin Characteristics

12/13/2013 RBS

Characteristics from Stream Stats.

Parameter	Box Elder	Unnamed	Wadsworth	Notes
Mean basin elevation (ft)	8520	5960	7230	StreamStats
Area (mi^2)	2.53	0.17	0.66	StreamStats & measured
Area covered by herbaceous upland (%)	2.15	0.16	0.15	StreamStats
Area covered by forest (%)	80.6	81.9	95.3	StreamStats
Mean annual precipitation (in.)	36.3	28.1	25.9	StreamStats
Average basin slope (%)	62.3	41.0	56.5	StreamStats
Slopes > 30% (%)	92.9	63.7	93.4	StreamStats
Watercourse length	19,100	5,250	9,400	Measured
Watercourse slope (%)	0.300	0.297	0.408	Measured
Watershed width (ft)	3,693	903	1,957	Calculated
Hydrologic soil group	B	B	B	NRCS
CN	49.5	61.0	55.0	Calibrated**
S_{nat} (in.)	10.20	6.39	8.18	Calibrated**
t_{lag} (min)*	99.7	37.4	61.0	Calibrated**

* Lag time calculations follow Simas and Hawkins, "Lag time characteristics for small watersheds in the U.S.," Water Resources Engineering '98 (Reston, VA: ASCE, 1998)

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044199.pdf

S_{nat} (in.) = 1000/CN - 10

width = area/length

t_{lag} (min) = $0.0051 \times width^{0.594} \times slope^{-0.150} \times S_{nat}^{0.313} \times 60$

** See calibration sheet.

IN THE FOURTH DISTRICT COURT, PROVO DEPARTMENT
UTAH COUNTY, STATE OF UTAH

Patterson Construction, Inc., PHI Properties, Inc., Box Elder Development L.C., Box Elder Properties Limited Partnership, Box Elder Alpine Land, LLC, Pine Grove Properties Limited Partnership, Meadowbrook Properties Limited Partnership, Meadowbrook Land, LLC, Sunset Mountain Properties Limited Partnership, Wayne M. Patterson, James K. Patterson, and Blaine E. Patterson Plaintiffs, v. Alpine City and Don Watkins, Defendant.	**Ruling and Order** **GRANTING AND DENYING** **Plaintiffs' Motion For Declaratory Relief Against The City** Case No. 140400466 Judge Low

THE ABOVE-ENTITLED MATTER comes before the court on Plaintiffs' motion for declaratory relief. Oral arguments were held on November 19, 2018.

Ruling

Plaintiffs' seventh cause of action asks for a declaration that Alpine City is obligated to maintain, year-round secondary access to the Box Elder subdivisions, to allow residents to use it, and to pave the secondary access road in accordance with the City's ordinances and Master Road Plan. The City concedes that it has not maintained the road as it ought but denies that it is a road for general public use or that it must be paved. The City is correct on all counts.

The 1992 settlement agreement states as follows:

> As part of the approval of the plat maps for Amended Plat A and Plats B, C, D, E and F of Box Elder and this Settlement Agreement, Patterson will construct a second access from Plat E connecting the proposed Box Elder Trail to Moyle Drive. Such secondary access shall be a graded, gravel surface with a minimum travel surface width of 30 feet. The secondary access shall be for the purpose of providing an alternate means of access for emergency vehicles and shall be constructed and placed in service within one year of the recordation of Plats D or E of Box Elder.

This provision clearly specifies that the secondary access road shall be gravel. Nevertheless, Plaintiffs argue that it contains a latent ambiguity as to whether it shall be paved. In order to create this ambiguity, Plaintiffs rely on the testimony of various individuals—Wayne Patterson, Don Christiansen, David Church, Hunt Willoughby, and Rich Nelson—as to what they believed the agreement meant. Even if this testimony unanimously supported the position that the road would be paved (it does not), it still would not create a latent ambiguity.

In *Mind & Motion Utah Investments, LLC v. Celtic Bank Corp*, 2016 UT 6, 367 P.3d 994, the defendant submitted affidavits supporting its understanding of a real estate purchase contract that, it argued, created a latent ambiguity in the contract. The supreme court "decline[d] to consider the affidavits and conclude[d] that there is no latent

ambiguity in the REPC." *Id.* ¶ 39. In doing so it stated, "Latent ambiguities arise only where a collateral matter arising after the contract is executed renders otherwise clear terms ambiguous." *Id.* But "affidavits setting forth the parties' subjective understanding of contractual terms are insufficient to make this showing." *Id.* In other words, "Parties cannot create a latent ambiguity by simply seeking to endow clear terms with a different interpretation according to his or her own interests." *Id.* at ¶ 42. Instead, "latent ambiguities are *objectively* verifiable and ordinarily cannot be proven based on the parties' *subjective* understanding of contractual terms." *Id.* (emphases in original). Thus using extrinsic evidence to show a latent ambiguity is the exception, rather than the rule. *Id.* at ¶ 40.

The type of extrinsic evidence that uncovers a latent ambiguity is illustrated in the *Mind & Motion* opinion. An agreement to buy a Ford "GT40" contained a latent ambiguity when Ford subsequently shortened the name of the car to "GT." *Id.* at ¶ 41. A latent ambiguity may also exist when extrinsic evidence shows that there is "more than one ship called *Peerless*, or that a particular trade uses 'cotton' in a nonstandard sense." *Id.* at ¶ 42. Nothing like these examples is present here. Plaintiffs only present evidence regarding various individuals' subjective understandings of the settlement agreement. This is not the kind of extrinsic evidence that creates a latent ambiguity.

Plaintiffs also argue that the City's ordinances create a latent ambiguity. Those ordinances, they suggest, define the term "secondary access" in a way that requires the

road to be opened to public use and paved. One ordinance requires developments in urban/wildland interface areas (such as the Box Elder subdivision) to have a secondary access road for emergency equipment and civilian evacuation. Another ordinance requires subdivisions with 20 or more lots to have two working accesses to the development. Neither of these creates a latent ambiguity because the settlement agreement complies with both: it provides for a working secondary access road, as the latter ordinance requires, and it requires that the secondary access road accommodate emergency vehicles, as the former ordinance requires. Neither ordinance requires that the road be open to the public for all uses or that it be paved. Also, even if the agreement did allow something less than these ordinances required, concessions and compromises between land developers and governments—whether as the result of litigation or the approval process—are so common as to be the norm.[1]

The only potential ambiguity the court can find here is whether civilians can use the secondary access road to evacuate in an emergency. The agreement says the road would be for emergency vehicles, but it is not clear whether that includes residents evacuating in an emergency. From this sole potential latent ambiguity, Plaintiffs propose to turn the rest of the provision directly on its head: a gravel road for emergency vehicle use should be interpreted to mean a paved road for public use. This would be a serious exploitation of a minor, latent ambiguity to precisely reverse the meaning of clearest parts of the provision. Nevertheless, Plaintiffs do not express any interest in vindicating the

[1] *See, e.g.*, Utah Code § 10-9a-702 (discussing variances from municipal land-use ordinances).

rights of residents to use the secondary access road for emergency evacuation purposes. And testimony on the point is undisputed that the City would never consider preventing residents from doing so. Therefore, this potential ambiguity is of no consequence here.

Finally, Plaintiffs argue that because the agreement does not specifically state that the secondary access road would be exclusively for emergency vehicles, the court can interpret it to be open for all vehicles. But the City is correct that to follow this logic would render the mention of emergency vehicles, at all, superfluous. Instead, we presume that the expression of one term usually implies the exclusion of another.[2] "We therefore seek to give effect to omissions in statutory language by presuming all omissions to be purposeful." *Id.* Here, the agreement identifies the purpose for the road: to provide an alternate means of access for emergency vehicles. This implies that other purposes—such as general public travel—is excluded.

For the foregoing reasons, Plaintiffs' claim for declaratory relief is granted to the extent it asks that Alpine City be ordered to maintain the secondary access road in a manner that would allow emergency vehicles, including fire ladder trucks, to traverse the road year-round. But it is denied to the extent it asks that the road be opened for public travel or that it be paved.

/

/

[2] *Marion Energy, Inc. v. KFJ Ranch Partnership*, 2011 UT 50, ¶ 14, 267 P.3d 863 (applying the principle in the context of statutory interpretation).

Order

Plaintiffs' motion for declaratory relief is GRANTED as to Alpine City's duty to maintain the secondary access road in a manner that would allow emergency vehicles, including fire ladder trucks, to traverse the road year-round and DENIED as to Alpine City's duty to open the road for public use or to pave it.

DATED this 24 day of November, 2018.

BY THE COURT:

JUDGE LOW

[MAILING CERTIFICATE ON FOLLOWING PAGE]

CERTIFICATE OF NOTIFICATION

I certify that a copy of the attached document was sent to the following people for case 140400466 by the method and on the date specified.

MANUAL EMAIL: MARK R ANDERSON mra@jjoycelawfirm.com
MANUAL EMAIL: BRANDON T CROWTHER btc@prestonandscott.com
MANUAL EMAIL: MICHAEL D JOHNSTON mjohnston@kmclaw.com
MANUAL EMAIL: JOSEPH J JOYCE jjj@jjoycelawfirm.com
MANUAL EMAIL: STANLEY J PRESTON sjp@prestonandscott.com
MANUAL EMAIL: BRYAN M SCOTT bms@prestonandscott.com
MANUAL EMAIL: JUSTIN W STARR jstarr@kmclaw.com
MANUAL EMAIL: ROBERT R WALLACE rwallace@kmclaw.com

Date: 11/27/2018

/s/ JENNI GREER

Deputy Court Clerk

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Pickleball Courts at Creekside Park

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Staff

ACTION REQUESTED BY PETITIONER: Approve additional pickleball courts.

BACKGROUND INFORMATION:
In November of 2020 the City Council approved pickleball courts, a pavilion and playground at Healey Park. Since that time, the City Council has considered changing the overall plans for Healey Park and for the City's pickleball courts in general.

The Planning Commission reviewed a proposal to convert two tennis courts at Creekside Park into pickleball courts on March 15, 2022, and made a recommendation of approval to the City Council.

The City Council reviewed the recommendation from the Planning Commission on March 22, 2022. After some discussion the Mayor and City Council felt that additional noticing would be a good idea. The City Council decided to continue the matter to the next meeting to be able to notify residents on the street near the park and hold a public hearing at the next meeting.

On April 12, 2022, the City Council held a public hearing and reviewed the proposal to convert the tennis courts into pickleball courts, and ultimately decided that the tennis courts should not be altered.

This item is now returning to Planning Commission to consider standalone pickleball courts to be located north of the tennis courts in Creekside Park. The layout would be a 1x4 configuration, for a total of 4 new pickleball courts.

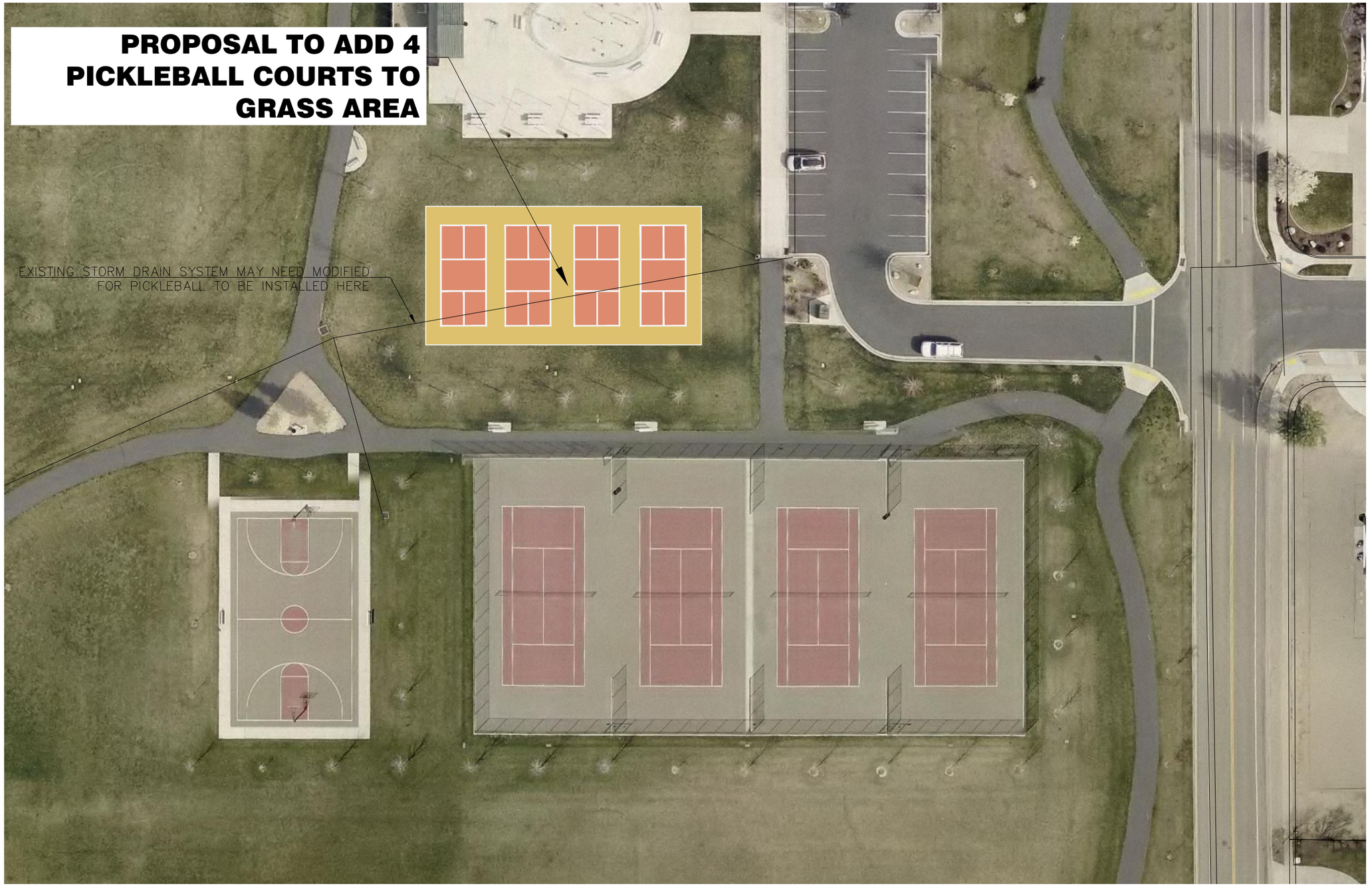
All improvements to public open space require a recommendation from the Planning Commission and a supermajority vote of approval from the City Council (3.16.040).

STAFF RECOMMENDATION:
Staff recommends that a location for new pickleball courts be approved.

SAMPLE MOTION TO APPROVE:
I move to recommend that new pickleball courts at Creekside Park be approved as proposed.

SAMPLE MOTION TO TABLE/DENY:
I move to table/deny the proposed pickleball courts at Creekside Park based on the following:

- ***Insert Finding***



PROPOSAL 1
(not to scale)

Alpine Public Works
Water Resources
Public Services
Storm Water
Engineering

REMARKS
1.

PICKLEBALL COURT OPTION
CREEKSIDE PARK - 2022

Engineering File Number:
–

Drawing: ##
Sheet: # of ##

3.16.040 Special Provisions

1. All public parks in the City of Alpine as noted on the attached map, hereby made a portion of this Ordinance, are included in this Zone and are subject to all of the provisions of this Zone.
2. Land included in these parks shall not be materially changed, improved, altered, disposed of in any manner or used for any other purpose except after a recommendation of the Planning Commission following a public hearing and by a super majority vote of the City Council (4 positive votes out of 5 City Council members are required). A material change shall include, but is not limited to, a change to the park's present and essential defining characteristics, creation of or improvement of roadways or parking lots within the park.

(Ord. 1998-20, 11/24/98; amended Ord. 2007-12, 08/14/07; Ord. 2016-07, 07/26/16; Ord. 2016-24, 11/09/16)

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Site Plan – Design Update – Montdella Townhomes

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Henry Walker Homes

ACTION REQUESTED BY PETITIONER: Approve Design Changes for the Montdella Project.

BACKGROUND INFORMATION:
In 2019, the City Council approved the Montdella Townhomes project. The design of the townhomes was also approved at that time. Since the original approval the project has changed ownership from Cottle Capital to David Wilkes to Henry Walker Homes.

The current owner of the project, Henry Walker Homes, is seeking approval of changes to the originally approved designs. The new design eliminates certain design and building elements and introduce others. Changes include new building materials and color palette.

The petitioner has prepared a design board, perspectives, and elevations of the new design, as well as 3-renderings of the project for Planning Commission and City Council review.

STAFF RECOMMENDATION:
Review the revised design and make a recommendation to the City Council.

SAMPLE MOTION TO APPROVE:
I move to recommend that the new design be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:
I move to recommend that the new design be approve with the following conditions:

- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY:
I move to recommend that the new design be tabled (or denied) based on the following:

- ***Insert Finding***

Painted Brick and Siding:
SW Alabaster
Front Doors:
SW Caviar

Brick Color:
Beehive Sand Hills

Soldier Course Above Windows + Brick Sills

Carriage House Garage Door

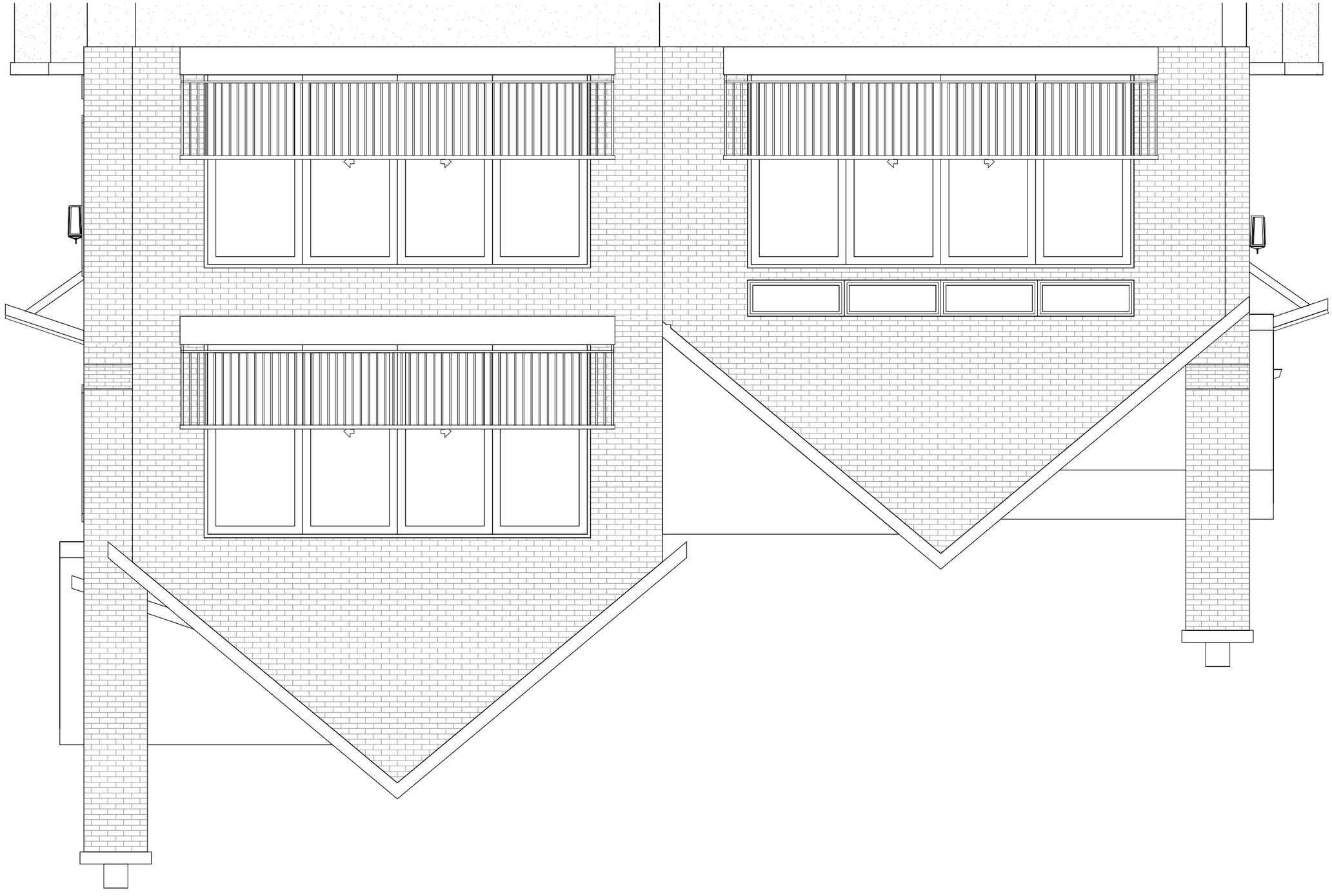
HENRY WALKER HOMES™

Black Metal Roof Accents

Black Amsco Windows

Masonite Vista Grande Front Door Painted SW Caviar

Black Lantern Wall Sconces



ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Site Plan – Elway's Doggie Wash at the Alpine Animal Hospital – 424 South Alpine Highway

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Neil Smart

ACTION REQUESTED BY PETITIONER: Approve the proposed site plan.

BACKGROUND INFORMATION:

The applicant is seeking to build a dog wash station in front of the Alpine Animal Hospital. The site is located within the Business Commercial Zone and the Gateway Historic District. The proposed structure has a footprint of approximately 8'x13' for a single unit or 8'x21' for a double unit. The overall size of the property is 1.01 acres. The applicant is seeking approval of the proposed site plan.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE:
I move to recommend that the site plan for Elway's Doggie Wash be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:
I move to recommend that the site plan for Elway's Doggie Wash be approved with the following conditions/changes:

- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY:
I move to recommend that the site plan for Elway's Doggie Wash be tabled/denied based on the following:

- ***Insert Finding***

ALPINE CITY
STAFF REPORT
April 15, 2022

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: **Site Plan Review – Elway's Doggie Wash**

Applicant:	Neil Smart
Project Location:	424 South Alpine Highway (Alpine Animal Clinic)
Zoning:	Business Commercial Zone
Acreage:	Approximately 1.01 Acres
Building Area:	0.0009 Acres
Request:	Approval of the site plan

SUMMARY

The applicant is seeking to build a dog wash station in front of the Alpine Animal Hospital. The site is located within the Business Commercial Zone and the Gateway Historic District. The proposed structure has a footprint of approximately 8'x13' for a single unit or 8'x21' for a double unit. The overall size of the property is 1.01 acres. The developer is seeking approval of the proposed site plan.

BACKGROUND

The applicant has built other dog washing stations in other communities. He would like to bring the service to Alpine City. The applicant plans to use the same building design that was used in the other communities. The design does require connections to the City's sewer and water services.

ANALYSIS

Location

The structure is proposed to be in approximately the same location as the former Snoasis building. The minimum side and rear setback (3.07.050) for a building in the Business Commercial zone adjacent to another Business Commercial property is 10 feet and the minimum

front setback is 15 feet. The proposed setbacks meet requirements (approximately 63-foot northeast side setback, 113-foot southwest side setback, and 17-foot front setback). The structure would be approximately located 35 feet from the front back of curb.

Off-Street Parking
The off-street parking code does not have a defined use which closely aligns with the intended use of the dog wash. However, with either a single unit or double unit dog wash design available, it is reasonable to assume that there would be a maximum of one to two vehicle owners using the station at any given time. However, it is possible other vehicles could be waiting to use the dog wash, which may require additional parking.

Alpine City code requires (3.24.030) less intensive commercial business to have three and a half (3.5) stalls for every 1,000 square feet. The Alpine Animal Hospital, which is located on the same property, will have a total square footage (5,849 square feet) after the proposed addition. Based on this, the animal hospital requires 20 off-street parking spaces. The animal hospital has 30 total parking stalls (28 standard stalls and 2 ADA accessible stalls), which exceeds requirements. Also, the Alpine Animal Hospital is closed on weekends, which would free up the parking on those days.

Screening
"The sides and rear of any off-street parking area that adjoins a residence or residential zone shall be required to be screened by a masonry wall or solid visual barrier fence" (3.24.020). The off-street parking area does not adjoin a residence or the residential zone.

Landscaping
All areas of a site which are not devoted to buildings or off-street parking are required to be landscaped, with a minimum of twenty (20) percent of the total area to be landscaped (3.07.080). The Alpine Animal Hospital is set to have 23,196 square feet of the property landscaped following construction of additional office space, which is 53 percent of the total lot. The dog wash would be built where there is an existing concrete pad, and thus the landscaping will not be reduced.

Trash Storage
The Alpine Animal Hospital has a dumpster on site. The dog wash would also have a trach bin which would be kept inside the wash bay and mechanical room.

Height of Building
The height of the proposed building meets the requirements of the Business Commercial zone, measuring 9 feet to the highest point of the building. Maximum height for the zone is 34 feet.

Design
The proposed building will use a combination of metal, glass and vinyl materials. The primary colors would be bronze and white.

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

REVIEWS

PLANNING AND ZONING DEPARTMENT REVIEW
The analysis section in the body of this report serves as the Planning and Zoning Department review.

ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW
Streets
The application is for a new building on an existing site. The proposed building is shown to either be 8'x13' or 8'x21'. All site plans must adhere to the Off-Street Parking Ordinance (Article 3.24). The existing parking area consists of a paved parking lot as required by ordinance. Parking is discussed in the Planner's Review. No modifications to the parking are proposed.

A lighting plan for the new building was not submitted as the application states the existing parking lot has lighting and the building itself will also be illuminated.

Utilities
Sewer and water services for the new building will tie into services that already exist on the lot. Timpanogos Special Service District (TSSD) was contacted for comment and informed the City that no special provisions would be required from their perspective for a dog wash, only that the City and owner need to be aware that **the facility shall not be modified to dispose pet waste in the sewer system**.

Stormwater facilities currently exist in the existing parking area. No new improvements to the stormwater system will be required.

Other
The water policy has been previously met for the site.

STAFF RECOMMENDATION
Review staff report and findings and make a recommendation of approval of the proposed site plan.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE
I move to recommend that the site plan for Elway's Doggie Wash be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:
I move to recommend that the site plan for Elway's Doggie Wash be approved with the following conditions/changes:

- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY

I move to recommend that the site plan for Elway's Doggie Wash be tabled/denied based on the following:

- ***Insert Finding***

Medium Bronze

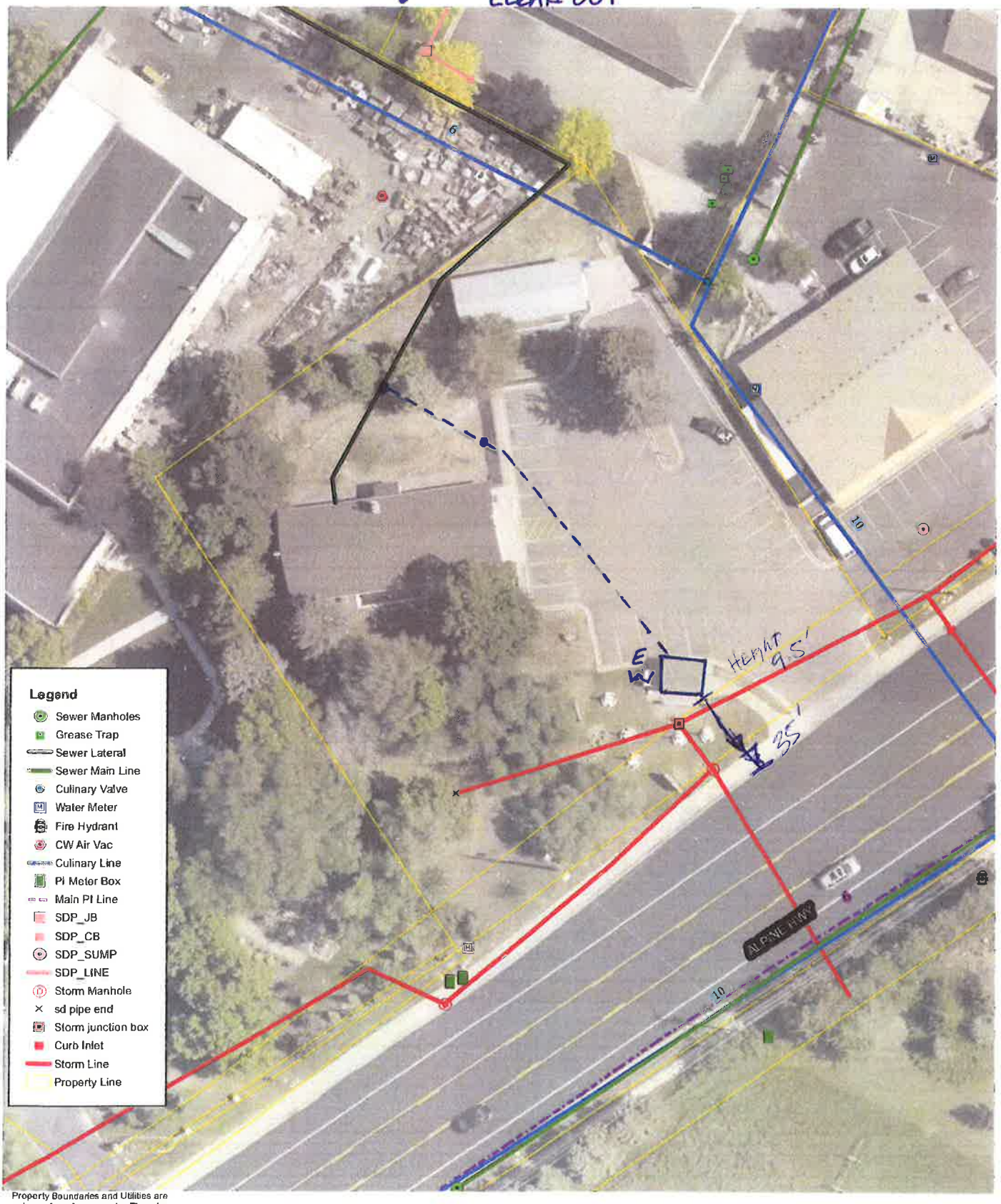
Elway's Doggie Wash

Alpine City Planning and Zoning Submittal

1. Address: 424 Alpine Hwy, Alpine, UT 84004
2. Vicinity Map: included
3. Property boundaries: the current cement pad on Alpine Animal Hospitals property
4. Location of all existing and proposed easements: already in place and no new proposed.
5. Lot dimensions: the cement pad will accommodate an 8'X13' or 8'X21' dog wash.
6. Location and orientation of all structures on lot: included
7. Setbacks of all Structures on lot: already in place
8. Location on garbage dumpster: trash bin kept inside wash bay and mechanical room.
9. Location of all proposed utilities: included
10. Parking: enough parking exists as the busy periods are on weekends and the animal hospital is closed.
11. Lighting: lighting is already on site, but if more is needed, we will install a downward facing light on the existing pole or put a pole with lighting in.
12. Full color, 3-D renderings: included
13. Other info: will provide as needed.

424 ALPINE hwy
ALPINE, UT 84004

------ Proposed Sewer
E ELECTRICITY
W WATER
• CLEAN OUT



Property Boundaries and Utilities are shown for reference only. Though shown generally close, a survey and Blue Stake should be done to locate both accurately.

ALPINE CITY

ALPINE UTILITY MAP

1 inch = 50 feet

0 15 30 60 90 120

Medium Bronze

Medium Bronze

*Artist rendering. Actual unit design may vary slightly.

MAP VIEW

AERIAL VIEW

THIS WORK SHALL CONFORM TO THE FOLLOWING CODES IN EFFECT BUT NOT LIMITED TO THE FOLLOWING:

2018 edition of the International Building Code
2015 edition of the International Residential Code
2018 edition of the International Mechanical Code
2018 edition of the International Plumbing Code
2018 edition of the International Fuel Gas Code
2018 edition of the International Energy Conservation Code
2018 edition of the International Fire Code
2017 edition of the National Electrical Code

THIS NOTE APPLIES TO ALL SHEETS

THE PROFESSIONAL ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE
FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHER'S FAILURE TO OBTAIN AND OR/ FOLLOW THE PROFESSIONAL ENGINEER GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES, OR CONFLICTS WHICH ARE ALLEGED. BUILDINGS TO BE CONSTRUCTED IN FULL CONFORMANCE WITH ALL APPLICABLE CODES AND RESTRICTIONS. PROFESSIONAL ENGINEER TO BE NOTIFIED PRIOR TO CONSTRUCTION IN THE EVENT OF CODE REVISION OR CHANGES.

DRAWING INDEX:

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

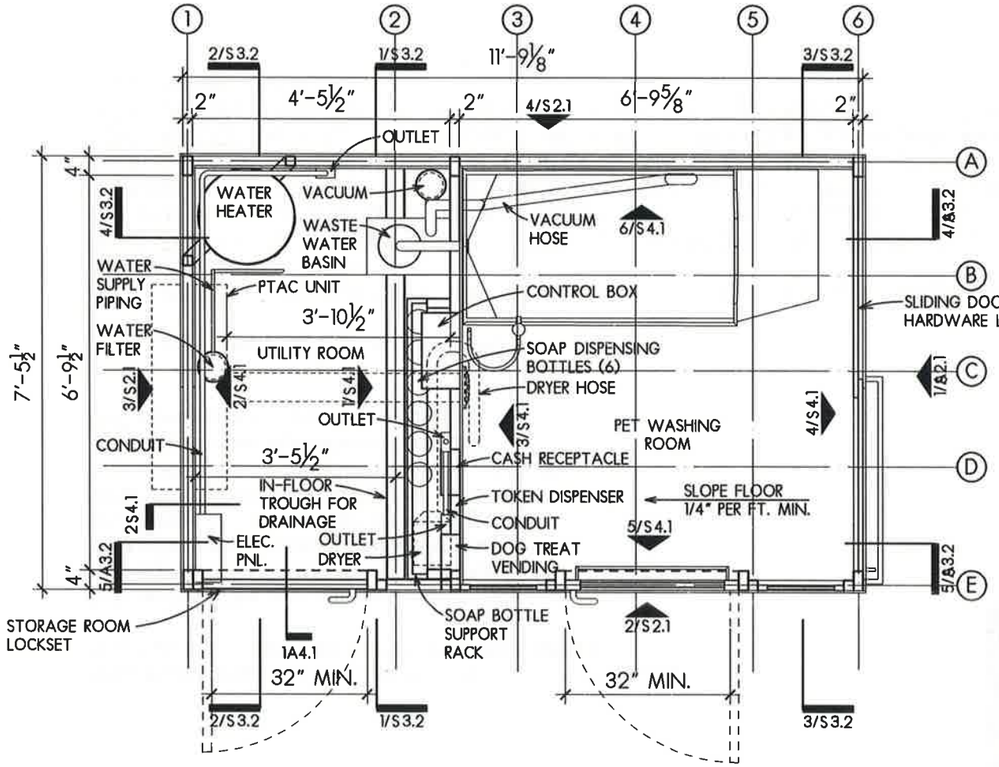
REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104061
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
CODE BLOCK
WORK LOCATION

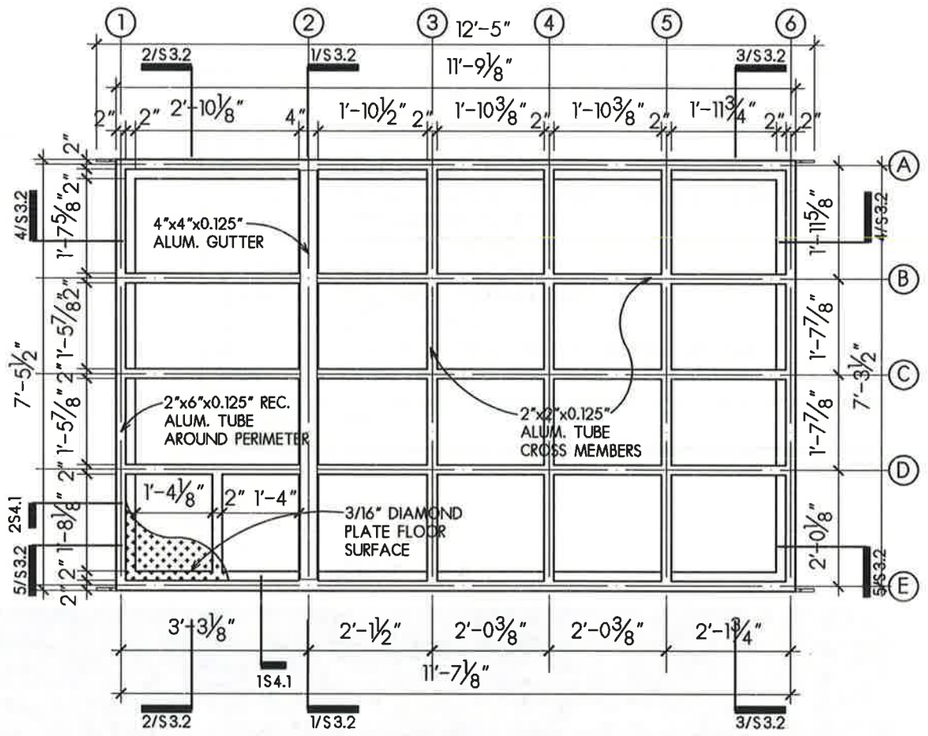
SHEET NUMBER:
SITEPLAN

BP#22-0914



2 FLOOR PLAN

SCALE: 3/8" = 1'-0"



1 FLOOR FRAMING PLAN

SCALE: 3/8" = 1'-0"

GENERAL NOTES

PET WASH FRAMING
BASE PERIMETER IS COMPRISED OF 2"x6"x0.125" WALL RECTANGULAR ALUMINUM TUBE WITH A 2"x4"x0.125" RECTANGULAR TUBING CROSS MEMBERS BASE. THIS INCORPORATES A 4"x4"x0.125" ALUMINUM GUTTER AND A 3/16" ALUMINUM DIAMOND PLATE FLOOR SURFACE. CROSS MEMBERS AND GUTTER ARE WELDED INTO A ONE PIECE GRID. THE DIAMOND PLATE FLOOR IS WELDED TO THE ONE PIECE ALUMINUM TUBE GRID.

WALL AND ROOF FRAMING
ROOF RAFTER/COLUMN IS A 2"x4"x0.125" RECTANGULAR TUBE WELDED AT THE EVE AND RIDGE FORMING A COLUMN RAFTER FRAME. THESE FRAMES ARE WELDED TO A BASE. THE PURLINS IN THE ROOF AND WALLS ARE 2"x2"x0.125" SQUARE TUBES. ALL TUBES ARE WELDED TO THE RAFTER/COLUMN FRAMES. THE INTERIOR WALLS ARE 2"x2"x0.125" SQUARE TUBES AND INCLUDE WELDED BRACKETS AND TABS TO FACILITATE MOUNTING MECHANICAL EQUIPMENT. ENTIRE PET WASH IS WELDED INTO A SINGLE STRUCTURE.

STANDARD ALUMINUM EXTRUSIONS ARE 6063-T52 - TENSILE STRENGTH 27,000 PSI

ALL EXPOSED STRUCTURAL ALUMINUM IS POWDER COATED. 2" CLOSE CELL FOAM INSULATION IS USED IN THE ROOF WALLS AND FLOOR. THE EXTERIOR WALLS AND ROOF ARE 10MM PVC PANELS. THE INTERIOR CEILING AND WASH BAYS ARE 10 MM PVC PANELS. THE INTERIOR SIDE OF THE EXTERIOR WALL IS 10 MM PVC PANELS. THE EQUIPMENT DOOR IS A STEEL DOOR. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE - MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. THE BALANCE OF THE WALL GLAZING IN THE WASH BAY IS TEMPERED SAFETY GLASS.

STRUCTURAL DESIGN BASED ON ASCE 7-10 FOR 50 PSF GROUND SNOW LOAD AND 105 MPH WIND LOAD, EXPOSURE C, RISK CATEGORY I

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DDTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DDTECENGINEERING.COM
ALG@DDTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

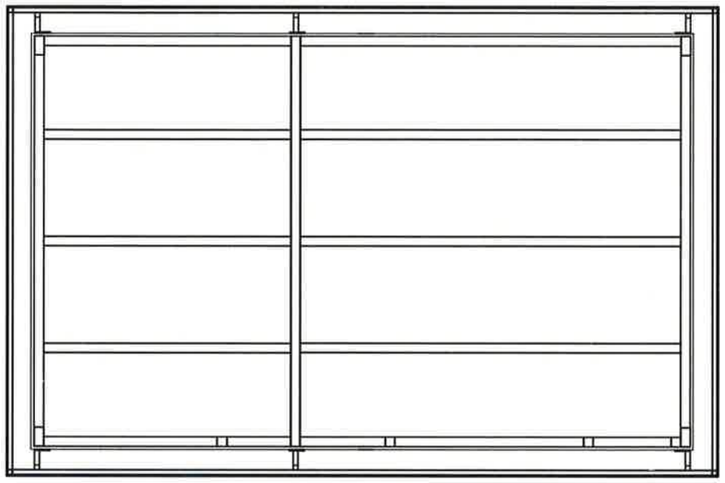
REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

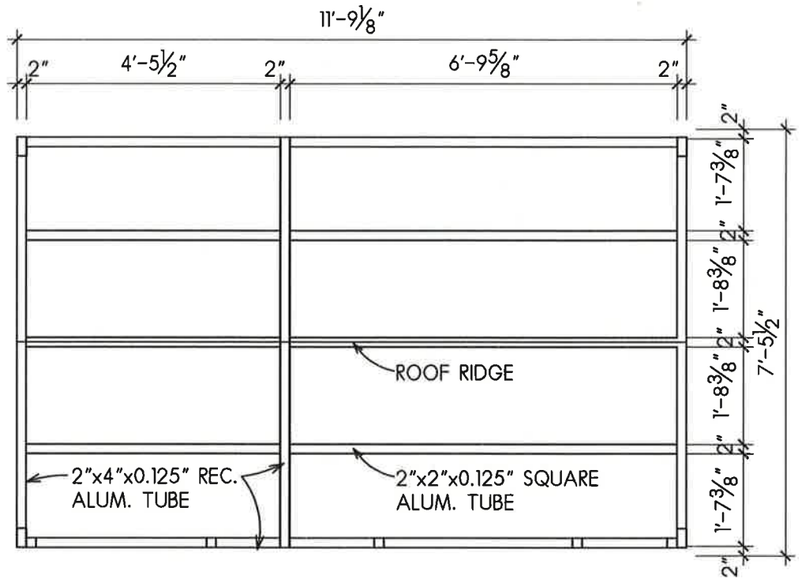
SHEET TITLE:
FLOOR PLANS AND GENERAL NOTES

SHEET NUMBER:
S-1

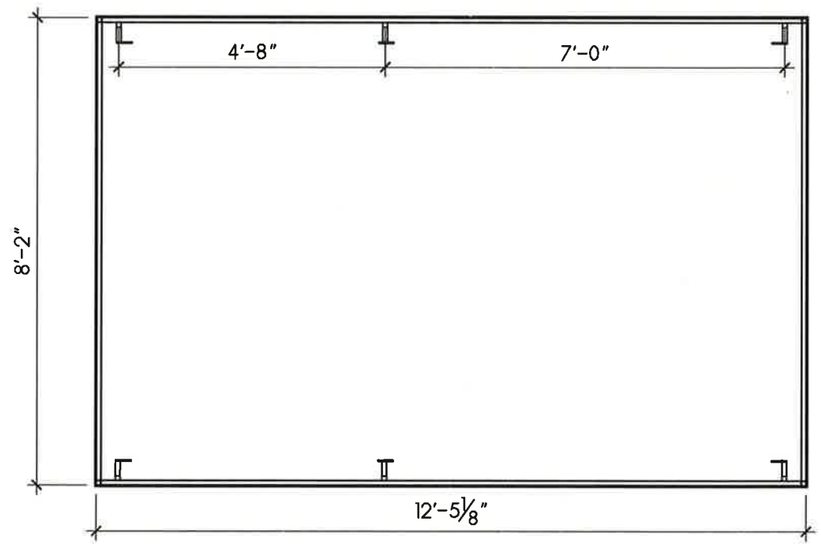
RECEIVED
MAY 12 2021



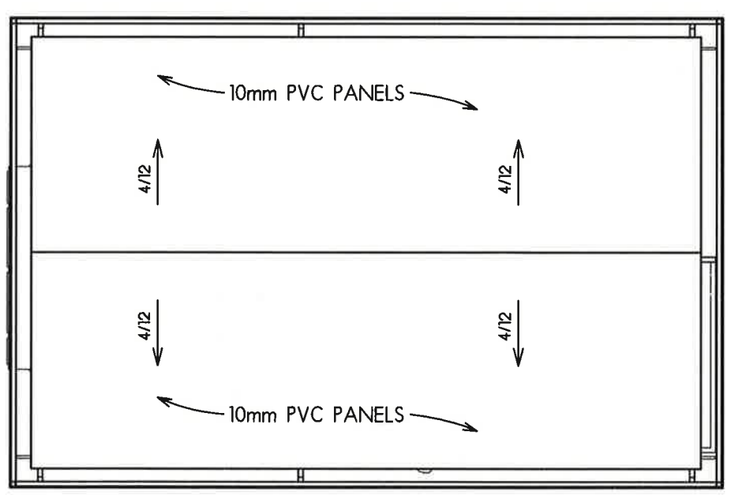
4 ROOF FRAMING PLAN w/ FASCIA
SCALE: 3/8" = 1'-0"



2 ROOF FRAMING PLAN
SCALE: 3/8" = 1'-0"



3 OPTIONAL FASCIA FRAMING
SCALE: 3/8" = 1'-0"



1 ROOF PLAN
SCALE: 3/8" = 1'-0"

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

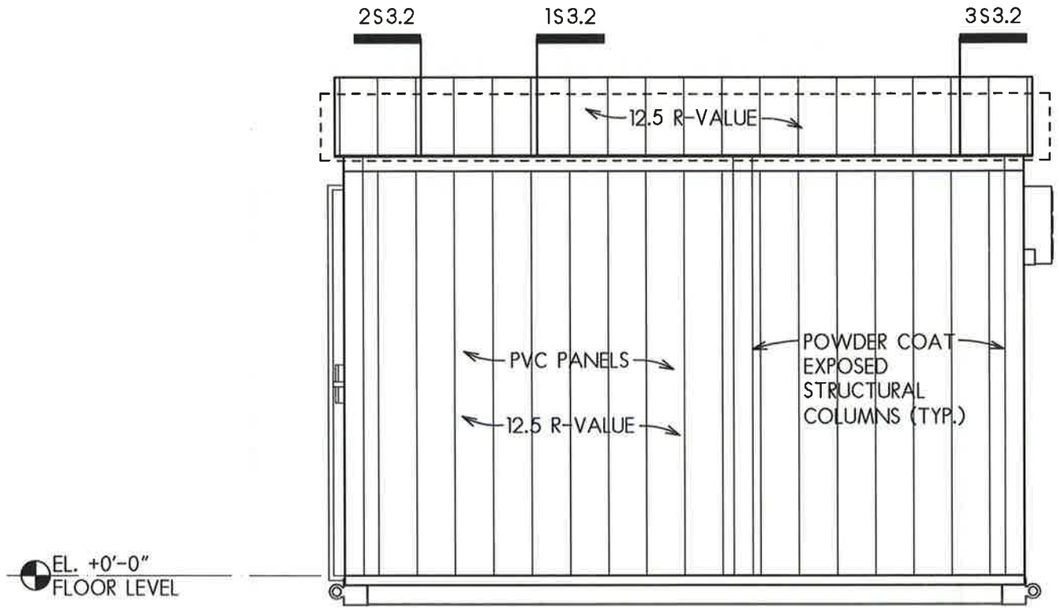
ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

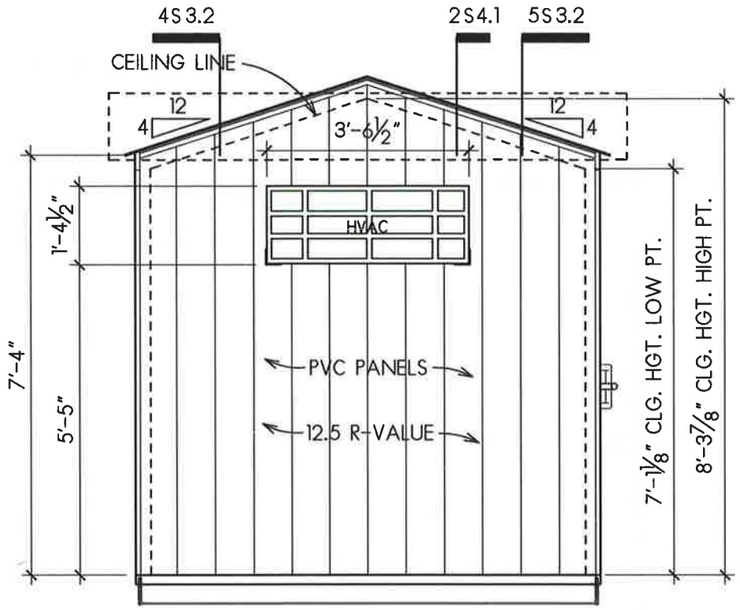
CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
ROOF PLANS

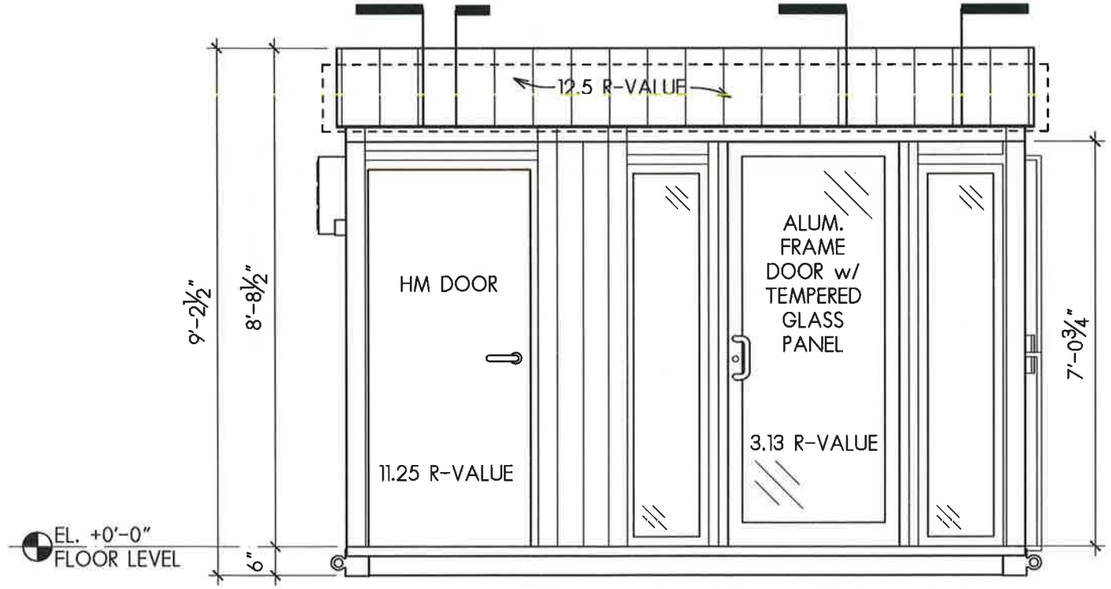
SHEET NUMBER:
S-2



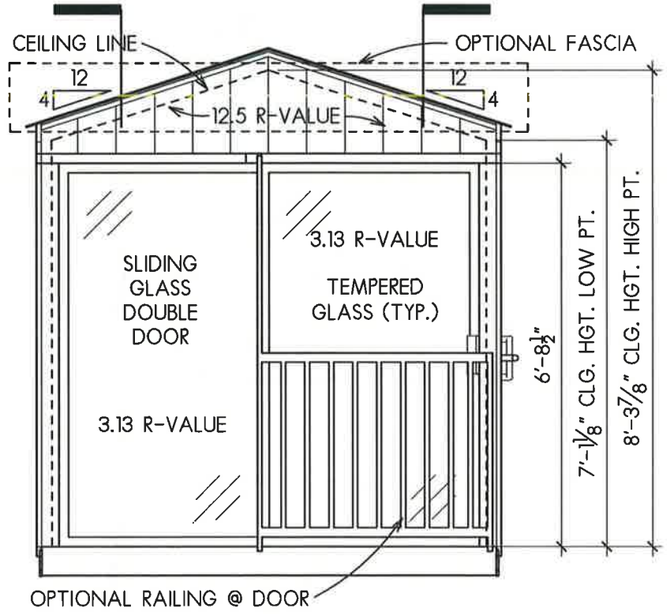
4 REAR ELEVATION
SCALE: 3/8" = 1'-0"



3 RIGHT SIDE ELEVATION
SCALE: 3/8" = 1'-0"



2 FRONT ELEVATION
SCALE: 3/8" = 1'-0"



1 LEFT SIDE ELEVATION
SCALE: 3/8" = 1'-0"

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

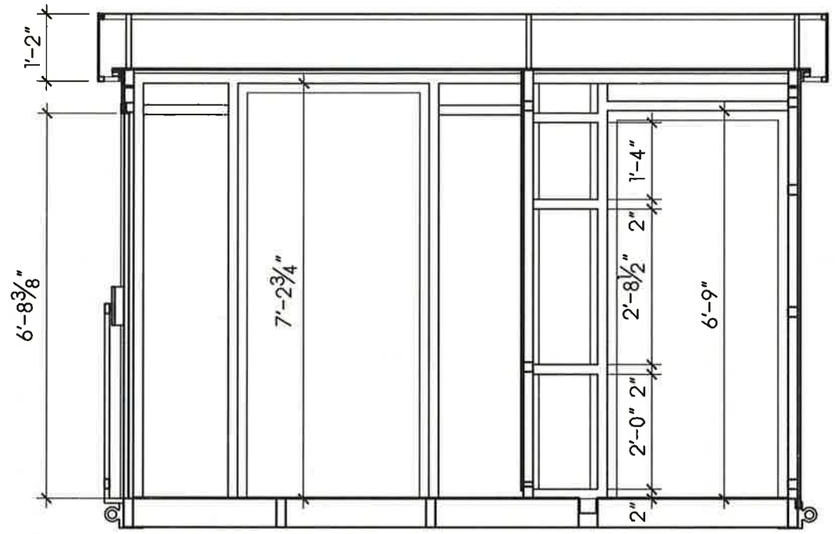
ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

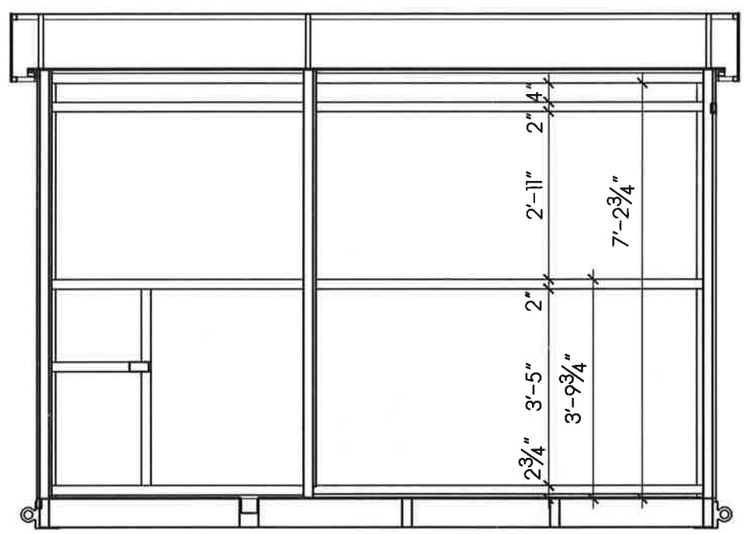
CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
EXTERIOR ELEVATIONS

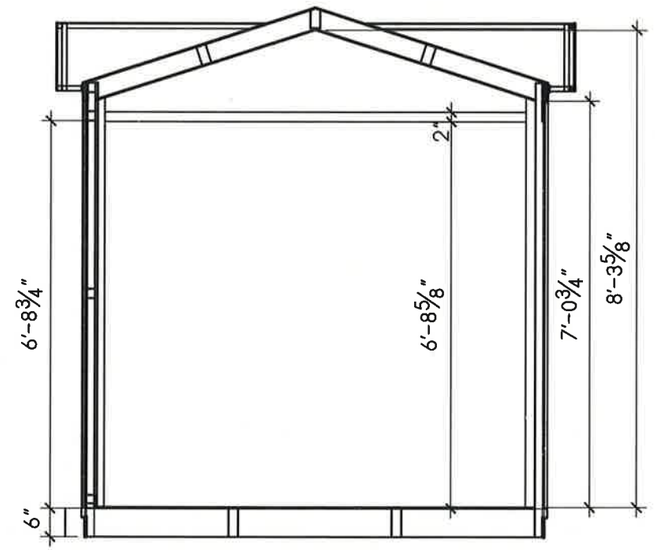
SHEET NUMBER:
S-3.1



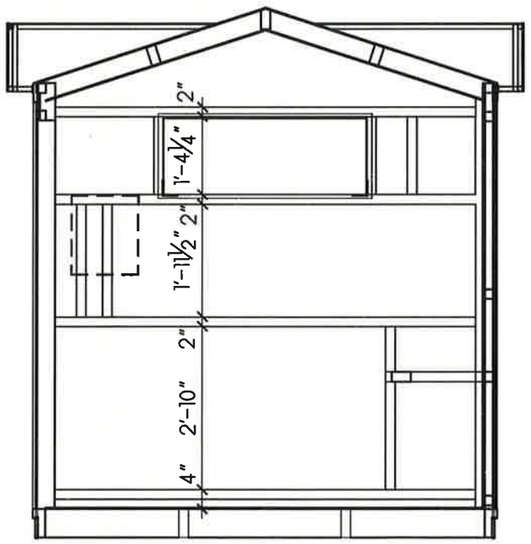
5 BUILDING SECTION
SCALE: 3/8" = 1'-0"



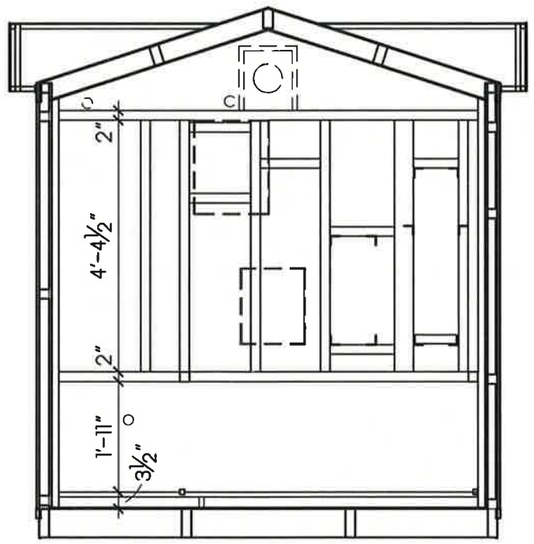
4 BUILDING SECTION
SCALE: 3/8" = 1'-0"



3 BUILDING SECTION
SCALE: 3/8" = 1'-0"



2 BUILDING SECTION
SCALE: 3/8" = 1'-0"



1 BUILDING SECTION
SCALE: 3/8" = 1'-0"

NOTE: INTERIOR EQUIPMENT DELETED OR SHOWN AS DASHED LINES FOR CLARITY

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260 2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

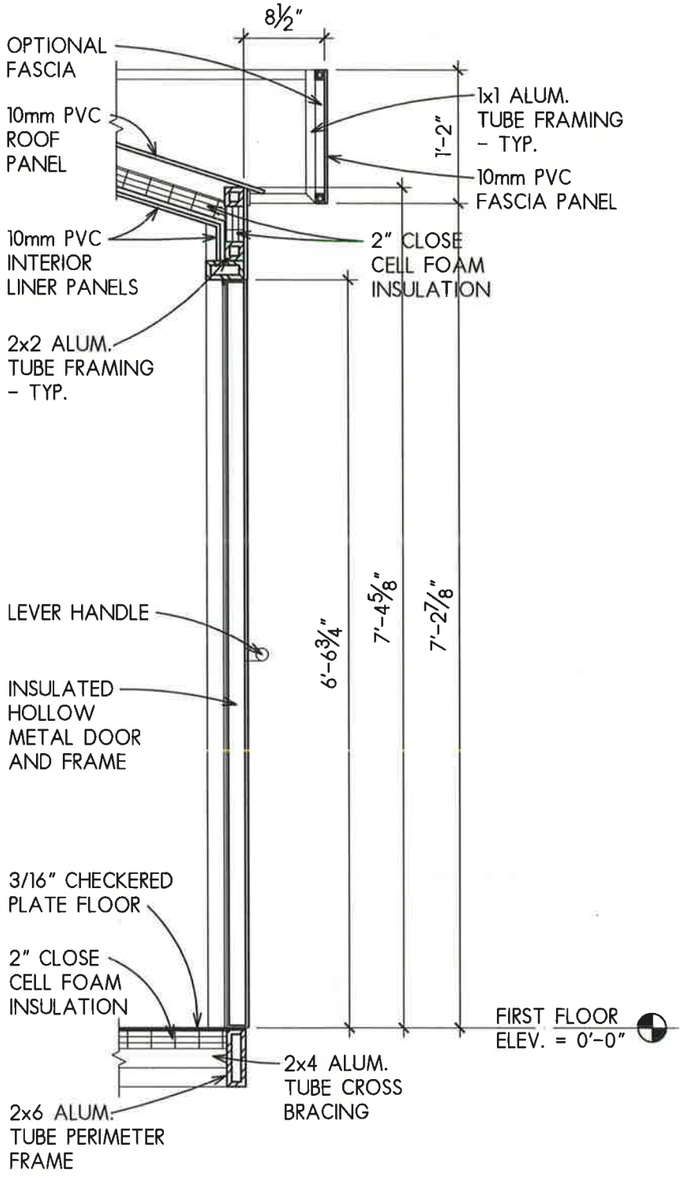
ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

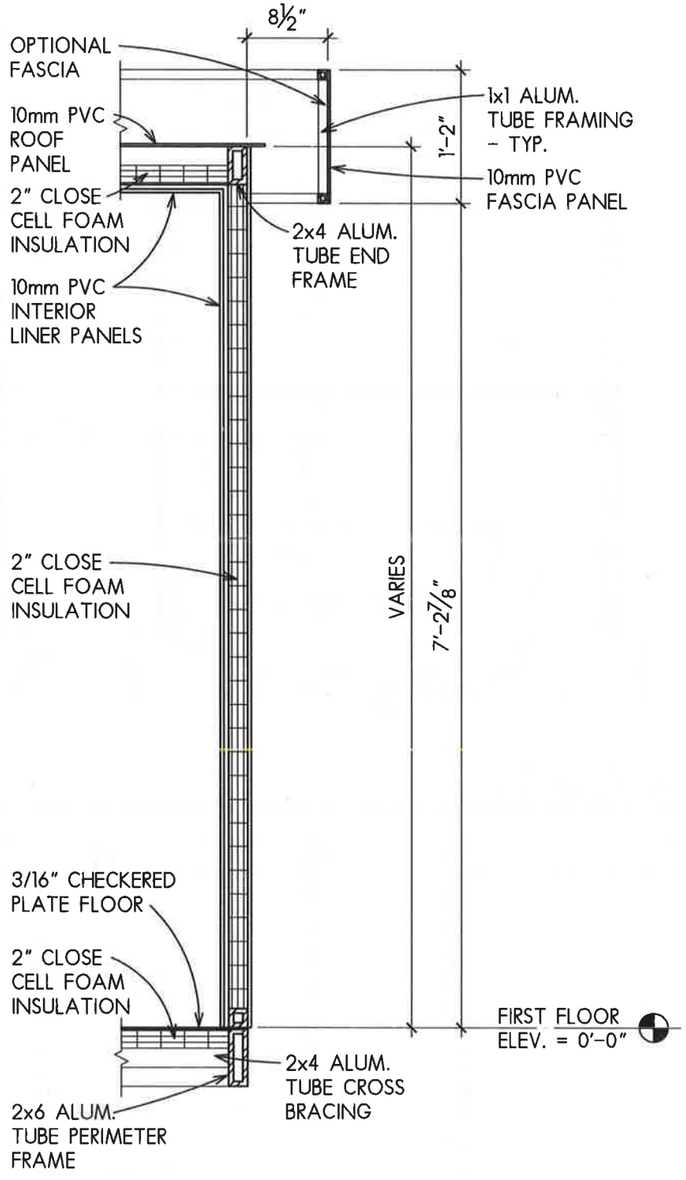
CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
BUILDING SECTIONS

SHEET NUMBER:
S-3.2



1 WALL SECTION
SCALE: 3/4 = 1'-0"



2 WALL SECTION
SCALE: 3/4 = 1'-0"

GENERAL NOTES

PET WASH FRAMING
BASE PERIMETER IS COMPRISED OF 2"x6"x0.125" WALL RECTANGULAR ALUMINUM TUBE WITH A 2"x4"x0.125" RECTANGULAR TUBING CROSS MEMBERS BASE. THIS INCORPORATES A 4"x4"x0.125" ALUMINUM GUTTER AND A 3/16" ALUMINUM DIAMOND PLATE FLOOR SURFACE. CROSS MEMBERS AND GUTTER ARE WELDED INTO A ONE PIECE GRID. THE DIAMOND PLATE FLOOR IS WELDED TO THE ONE PIECE ALUMINUM TUBE GRID.

WALL AND ROOF FRAMING
ROOF RAFTER/COLUMN IS A 2"x4"x0.125" RECTANGULAR TUBE WELDED AT THE EVE AND RIDGE FORMING A COLUMN RAFTER FRAME. THESE FRAMES ARE WELDED TO A BASE. THE PURLINS IN THE ROOF AND WALLS ARE 2"x2"x0.125" SQUARE TUBES. ALL TUBES ARE WELDED TO THE RAFTER/COLUMN FRAMES. THE INTERIOR WALLS ARE 2"x2"x0.125" SQUARE TUBES AND INCLUDE WELDED BRACKETS AND TABS TO FACILITATE MOUNTING MECHANICAL EQUIPMENT. ENTIRE PET WASH IS WELDED INTO A SINGLE STRUCTURE.

STANDARD ALUMINUM EXTRUSIONS ARE 6063-T52 - TENSILE STRENGTH 27,000 PSI

ALL EXPOSED STRUCTURAL ALUMINUM IS POWDER COATED. 2" CLOSE CELL FOAM INSULATION IS USED IN THE ROOF WALLS AND FLOOR. THE EXTERIOR WALLS AND ROOF ARE 10MM PVC PANELS. THE INTERIOR CEILING AND WASH BAYS ARE 10 MM PVC PANELS. THE INTERIOR SIDE OF THE EXTERIOR WALL IS 10 MM PVC PANELS. THE EQUIPMENT DOOR IS A STEEL DOOR. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE - MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. THE BALANCE OF THE WALL GLAZING IN THE WASH BAY IS TEMPERED SAFETY GLASS.

STRUCTURAL DESIGN BASED ON ASCE 7-10 FOR 50 PSF GROUND SNOW LOAD AND 105 MPH WIND LOAD, EXPOSURE C, RISK CATEGORY I

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

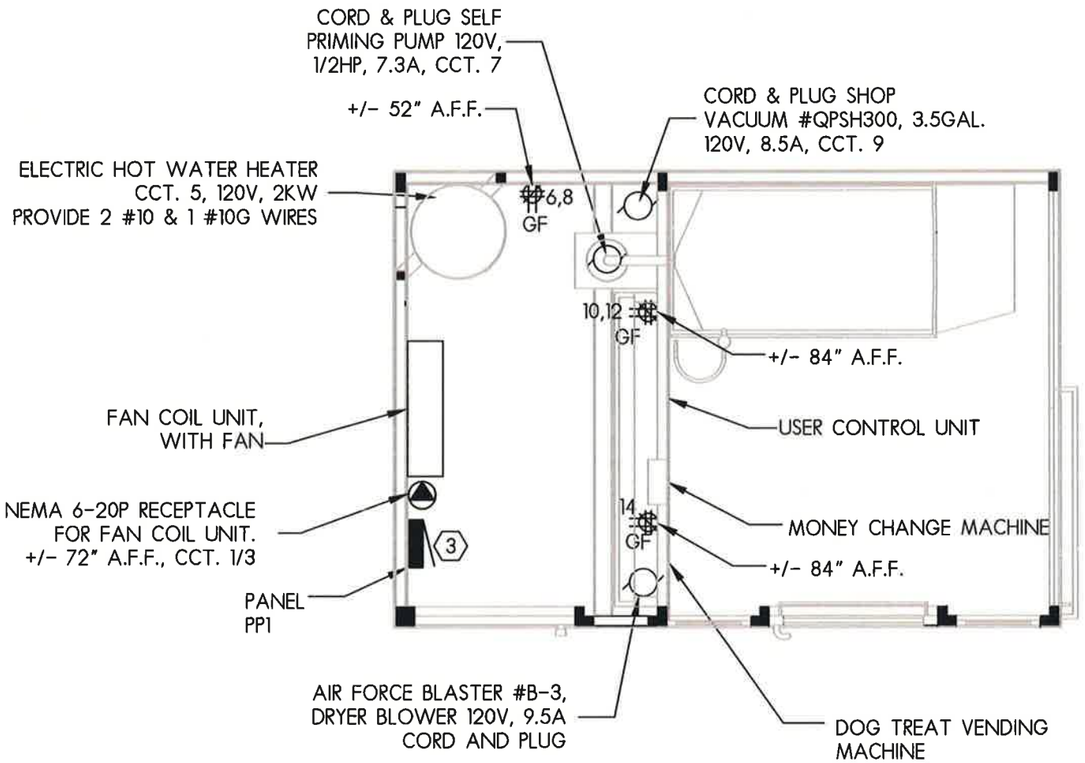
CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

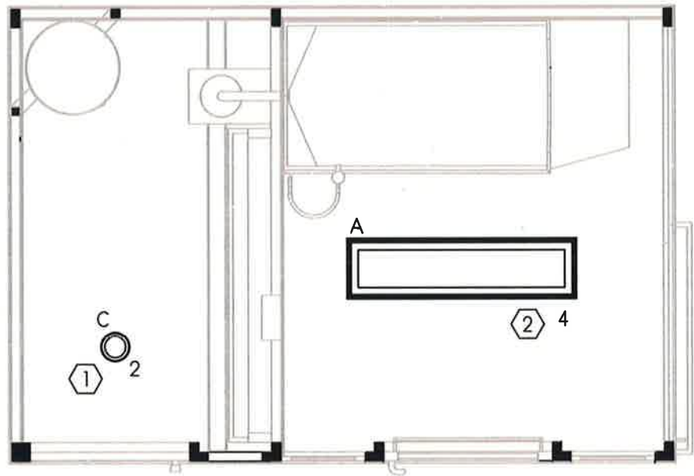
SHEET TITLE:
WALL SECTIONS

SHEET NUMBER:
S-4.1

KEYED NOTES:

1. PORCELAIN SOCKET WITH PULL CHAIN.
2. LITHONIA DMW 232 MVOLT GEB10 IS WITH DUST AND MOISTURE RESISTANT.
3. POWER TO PANEL TO BE PROVIDED PER LOCAL CODE AND PROJECT CONDITION.





SCALE: 3/8" = 1'-0"

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
ELECTRICAL PLAN

SHEET NUMBER:
E-1.1

PANEL NAME / NUMBER: **PP1**

VOLTAGE L-L: 240 | PHASE: 1 | IER (AMPS): 10kA
VOLTAGE L-N: 120 | WIRE: 3 | BUS RATING (AMPS): 50
MAIN BREAKER: 50 AMPS | ENCLOSURE: NEMA 1
MAIN LUG ONLY: AMPS | MOUNTING: Surface

CKT NO.	LOAD DESCRIPTION	LOAD CRITERIA DEM	LOAD CRITERIA VA	BKR AMPS	P	Ø	BKR AMPS	P	LOAD CRITERIA VA	LOAD CRITERIA DEM	LOAD DESCRIPTION	CKT NO.
1	Fan Coil Unit	C	1,600	20/2	2	L1	20	1	50	C	Equipment Room Lights	2
3		C	1,600		2	L2	20	1	60	C	Wash Bay Lights	4
5	Hot Water Heater	C	2,000	30	1	L1	180	1	20	R	Receptacles	6
7	Self Priming Pump	M	900	20	1	L2	180	1	20	R	Receptacles	8
9	Shop Vaccuum		1,020	20	1	L1	180	1	20	R	Receptacles	10
11	Air Force Blster		1,140	20	1	L2	180	1	30	R	Receptacles	12
13	Spare					L1						14
15	Spare					L2						16
17	Spare					L1						18
19	Spare					L2						20

DEM				
	PHASE L1 CONNECTED:	4,710 VA	PHASE L1:	39 AMPS
	PHASE L2 CONNECTED:	3,750 VA	PHASE L2:	31 AMPS
	TOTAL CONNECTED:	8,460 VA	AT: 240 =	35 AMPS
C	CONTINUOUS LOADS (+25%) (PER NEC 210.20a):	2,600 VA		
M	LARGEST MOTOR LOAD (+25%) (PER NEC 430.24):	225 VA		
R	RECEPTACLE LOADS (PER NEC 220.13):	0 VA		
K	KITCHEN LOADS (PER NEC 220.20):	0 VA		
	TOTAL DEMAND:	11,285 VA	AT: 240 =	47 AMPS

NOTES:
1.

KEYED NOTES:

(1) PANEL SHALL HAVE MAXIMUM OF 20 POLES

ELECTRICAL SYMBOLS

WALL | FLOOR BOX | POKE THROUGH | ABOVE COUNTER

QUADPLEX RECEPTACLE

DUPLEX RECEPTACLE

WPXX — ADJACENT LETTERS IN THE SYMBOLS ABOVE INDICATE THE FOLLOWING:

"GF" RECEPTACLE HAS GROUND FAULT CIRCUIT INTERRUPTER
"WP" RECEPTACLE HAS WATERPROOF COVER
"XX" RECEPTACLE CIRCUIT NUMBER

$XX — MANUAL MOTOR CONTROL

"XX" CIRCUIT NUMBER

A / 1a — FLUORESCENT LIGHTING FIXTURE. SIZE AND TYPE AS INDICATED ON SCHEDULE.

A / 1a — INCANDESCENT, FLUORESCENT OR HID LIGHTING FIXTURE. SIZE AND TYPE AS INDICATED ON SCHEDULE.

(X) — MOTOR - SEE SCHEDULE, 'XX' INDICATES TAG

SURFACE MOUNTED NORMAL BRANCH CIRCUIT PANELBOARD

SPECIAL RECEPTACLE

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
PANEL SCHEDULE AND SYMBOL LEGEND

SHEET NUMBER:
E-2.1

ELECTRICAL SPECIFICATIONS

- THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENTS, SIZES, AND LOCATIONS OF EQUIPMENT. ALL EQUIPMENT SHALL BE INSTALLED COMPLETE WITH FURNISHING ALL REQUIRED COMPONENTS.

- ALL WORK INDICATED IS BASED UPON CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE AND IS SUBJECT TO LOCAL CODE INTERPRETATION AND IS CONFINED TO WITH-IN THE FOOTPRINT OF THE UNIT.

  CONFORMANCE TO LOCAL CODE, AND ANY OTHER REQUIREMENTS APPLICABLE TO THIS PRODUCT SHALL BE THE RESPONSIBILITY OF THE END USER. THE END USER SHALL SUBMIT ALL REQUIRED DRAWINGS FOR APPROVAL TO ANY AGENCIES REQUIRING THEM AND OBTAIN NECESSARY PERMITS.

- ALL EQUIPMENT FURNISHED SHALL BE NEMA STANDARD, NEW, AND UL LISTED.

- UNLESS OTHERWISE SPECIFIED, THE MANUFACTURER SHALL FURNISH AND INSTALL CONDUIT, WIRING, AND DISCONNECTS FOR ALL ELECTRICALLY OPERATED EQUIPMENT, INCLUDING FINAL CONNECTIONS TO SAME WITH-IN THE FOOTPRINT OF THE UNIT. DICCONNECT IS NOT REQUIRED FOR PLUG IN EQUIPMENT

- ALL EMT CONDUIT FITTINGS SHALL BE COMPRESSION TYPE AS MANUFACTURED BY APPLETON, CROUSE- HINDS OR RACO.

- ALL CONDUCTORS SHALL BE COPPER TYPE THHN/THWN. MINIMUM SIZE #12 AWG. AS MANUFACTURED BY HATFIELD, COLLIER OR ANACONDA.

- LIGHT FIXTURE OUTLET BOXES SHALL BE A 4" OCTAGON BOX NOT LESS THAN 1-1/2" DEEP. TOGGLE SWITCH, RECEPTACLE OUTLET BOXES SHALL BE 4" SQUARE, NOT LESS THAN 1-1/2" DEEP. GARVIN DEVICE COVERS SHALL BE USED FOR EXPOSED JUNCTION BOX INSTALLATIONS. JUNCTION BOXES SHALL BE AS MANUFACTURED BY APPLETON, RACO OR STEEL CITY.

- CAST SWITCH, OUTLET AND JUNCTION BOXES OR CONDUIT FITTINGS SHALL BE USED IN ALL DAMP OR WET LOCATIONS. THEY SHALL HAVE THREADED HUBS AND GASKETED COVERS. THEY SHALL BE AS MANUFACTURED BY HOFFMAN, ADALET OR APPLETON.

- ALL LOCAL SWITCHES FOR CONTROL OF LIGHTING SHALL BE RATED 20 AMPERE, 277 VOLT A.C. TUMBLER TYPE AS FOLLOWS (COLOR AS SELECTED BY MANUFACTURER): SINGLE POLE HUBBELL #1221. ARROW HART AND P&S APPROVED EQUAL.

- SPECIFICATION GRADE DUPLEX RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT 3 WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362, A-H OR P&S APPROVED EQUAL. DEVICE COLOR AS SELECTED BY MANUFACTURER. G.F.I. RECEPTACLES SHALL BE EQUAL TO HUBBELL #GF5352. SPECIAL RECEPTACLES SHALL BE AS NOTED ON THE DRAWINGS.

- ALL PANELBOARD'S SHALL HAVE COPPER BUSSBARS AND SHALL BE AS MANUFACTURED BY I.T.E., SQUARE D OR WESTINGHOUSE. ALL CIRCUIT BREAKERS SHALL BE BOLT-ON. 15 AND 20 AMP SINGLE POLE BREAKERS SHALL BE RATED FOR SWITCHING DUTY.

  MINIMUM U.L. LISTED INTERRUPTING RATINGS (RMS SYM. AMPS) SHALL BE AS FOLLOWS:

  240 VOLT MAXIMUM BREAKERS

  15-100 AMP = 10,000 AIC
  110-225 AMP = 22,000 AIC

- LIGHT FIXTURES SHALL BE FURNISHED COMPLETE WITH LAMPS, LENSES, END CAPS, MOUNTING HARDWARE, ETC. TO PROVIDE A COMPLETE AND WORKING SYSTEM.

- THESE DRAWINGS ARE NOT SITE SPECIFIC NOR ARE THEY DESIGNED TO LOCAL CODE REQUIREMENTS BUT ENTAIL THE GENERAL DESIGN CONCEPT, COMPONENTS, INTENT AND SHALL BE MODIFIED FOR A SPECIFIC ORDER AND LOCAL CODE REQUIREMENTS.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
ELECTRICAL NOTES

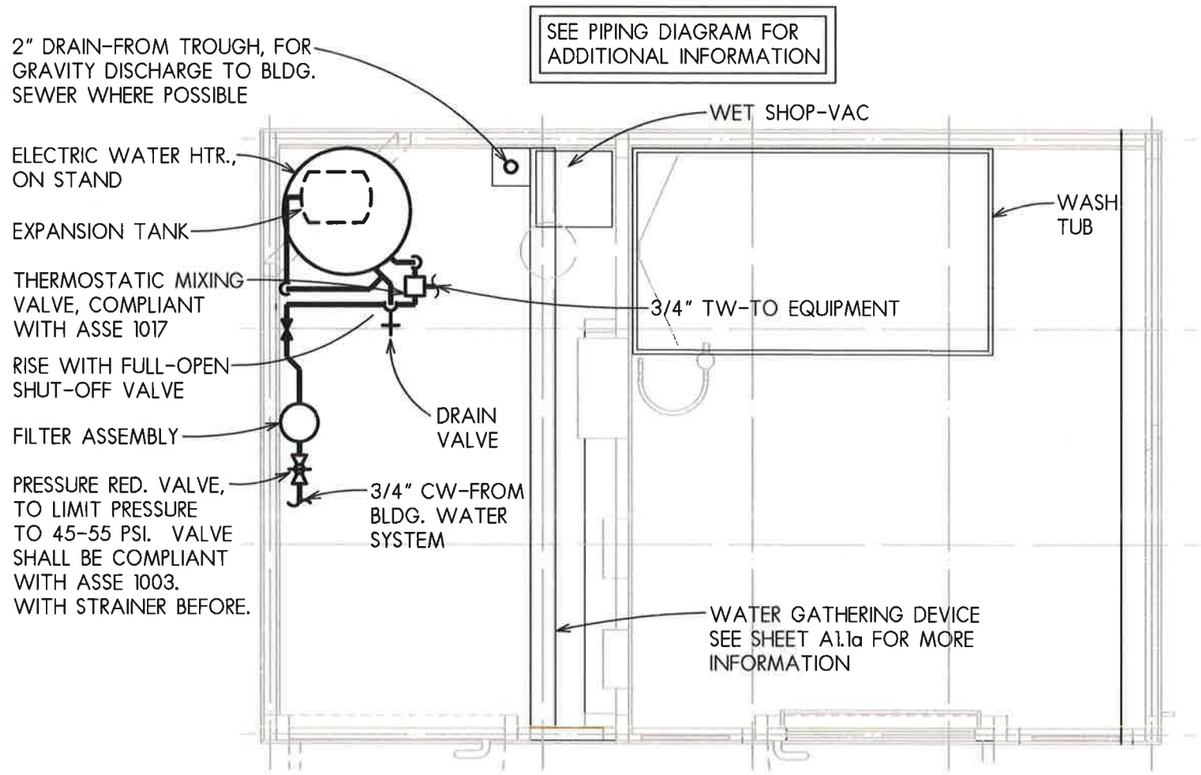
SHEET NUMBER:
E-3.1

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
	PIPE TURNED UP
	PIPE TURNED DOWN
	SHUT-OFF VALVE
	PRESSURE REDUCING VALVE

PLUMBING ABBREVIATIONS

MARK	DESCRIPTION
CW	COLD WATER
HW	HOT WATER
TW	TEMPERED WATER



NOTES:

1. END USER SHALL BE RESPONSIBLE FOR CONNECTING SYSTEM WATER SUPPLY AND SANITARY SEWER TO BUILDING WATER AND SANITARY SEWER SYSTEMS.
2. ALL WATER PIPING SHALL BE PEX MATERIAL COMPLIANT WITH STANDARDS OF ASTM F 876; ASTM F 877; CSA B 137.5.
3. ALL WASTE AND VENT PIPING SHALL BE SCH. 40 PVC COMPLIANT WITH STANDARDS OF ASTM D 2665; ASTM F 891; ASTM F 1488; CSA B 181.2.

SCALE: 1/2" = 1'-0"

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

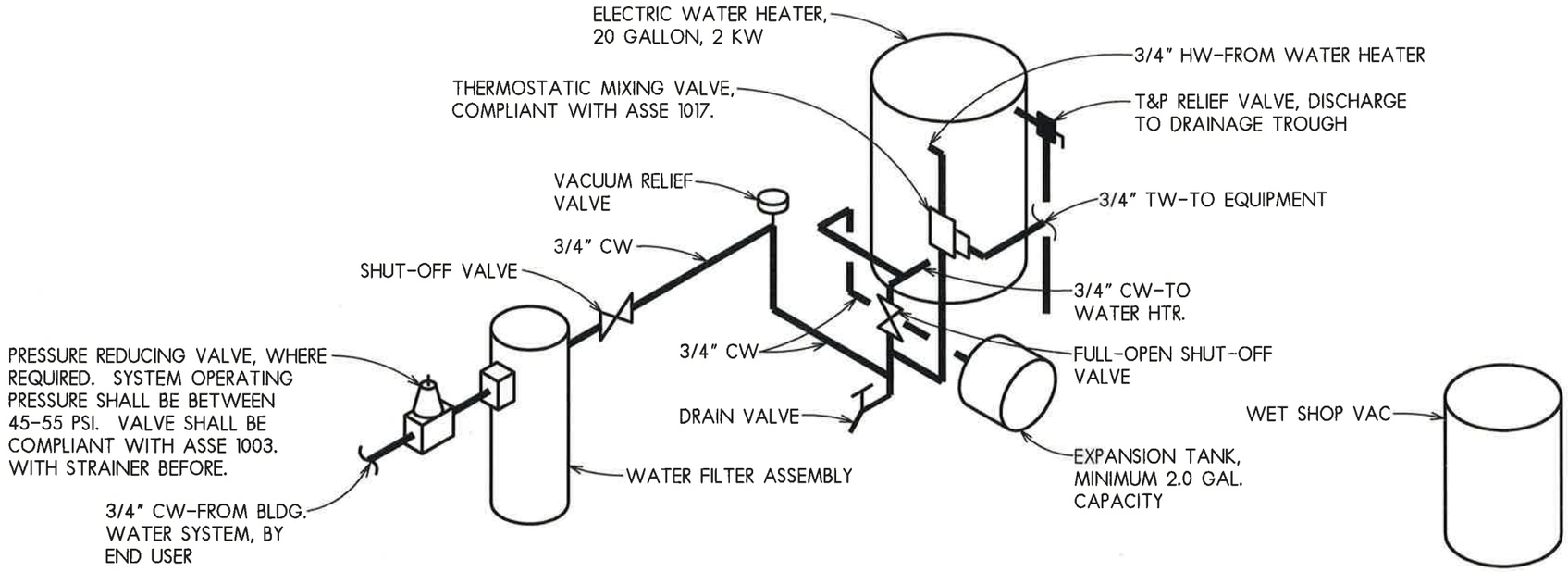
ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

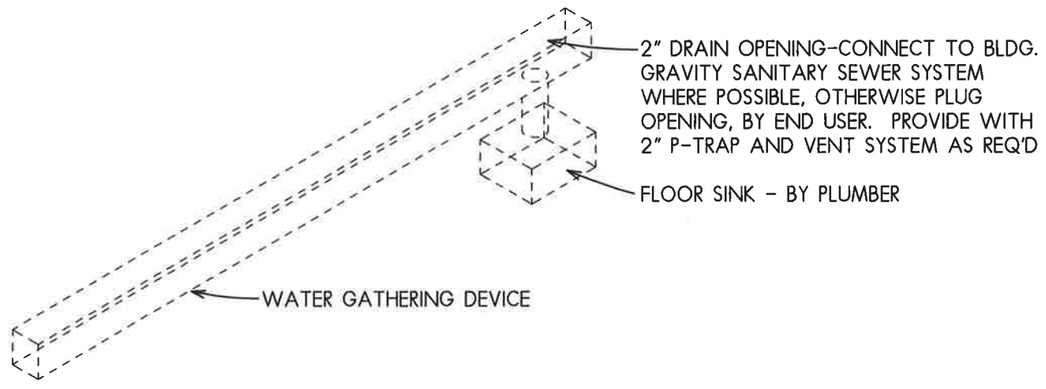
SHEET TITLE:
PLUMBING PLAN

SHEET NUMBER:
P-1.1



NOTES:

1. END USER SHALL BE RESPONSIBLE FOR CONNECTING SYSTEM WATER SUPPLY AND SANITARY SEWER TO BUILDING WATER AND SANITARY SEWER SYSTEMS.
2. ALL WATER PIPING SHALL BE PEX MATERIAL COMPLIANT WITH STANDARDS OF ASTM F 876; ASTM F 877; CSA B 137.5.
3. ALL WASTE AND VENT PIPING SHALL BE SCH. 40 PVC COMPLIANT WITH STANDARDS OF ASTM D 2665; ASTM F 891; ASTM F 1488; CSA B 181.2.



PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

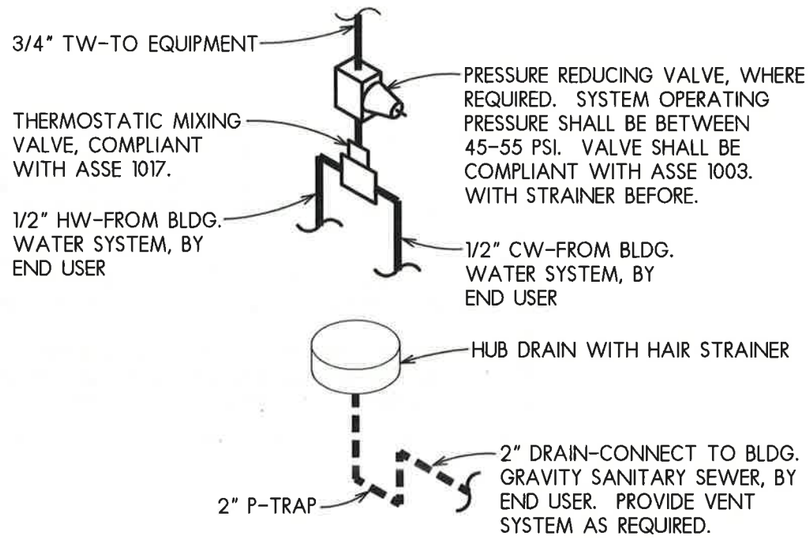
ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
PIPING DIAGRAM

SHEET NUMBER:
P-1.2



NOTES:

1. END USER SHALL BE RESPONSIBLE FOR CONNECTING SYSTEM WATER SUPPLY AND SANITARY SEWER TO BUILDING WATER AND SANITARY SEWER SYSTEMS.
2. ALL WATER PIPING SHALL BE PEX MATERIAL COMPLIANT WITH STANDARDS OF ASTM F 876; ASTM F 877; CSA B 137.5.
3. ALL WASTE AND VENT PIPING SHALL BE SCH. 40 PVC COMPLIANT WITH STANDARDS OF ASTM D 2665; ASTM F 891; ASTM F 1488; CSA B 181.2.

PIPING DIAGRAM-FLIP TUB STYLE

NO SCALE

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
No. 8624260-2202
ILDEFONSO GONZALEZ
STATE OF UTAH

5/7/21

Dr. Al Gonzalez P.E.
DOTec Engineering
424 Jefferson Street
St. Charles, MO 63301
Ph 636-724-9872
Fx 636-724-9032
WWW.DOTECENGINEERING.COM
ALG@DOTECENGINEERING.COM

ADDRESS:
3975 UT-36
ERDA, UT 84074

REVISION: -
DATE: -
REVISION: -
DATE: -
REVISION: -
DATE: -
ISSUE DATE: 5/4/21

CAD FILE: 2104021
DRAWN BY: CG
CHECKED BY: ALG
DESIGNED BY: ALG

SHEET TITLE:
PIPING DIAGRAM
FLIP TUB STYLE

SHEET NUMBER:
P-1.3

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Plat Amendment – Forest Creek Estates Subdivision Amended

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Ken Berg representing Reed Swenson

ACTION REQUESTED BY PETITIONER: Approve the Plat Amendment

BACKGROUND INFORMATION:

The Forest Creek Estates Subdivision Amended Plat consists of 4 lot on 7.84 acres. The property is located at 952 North Fort Canyon Road in the CR-40,000 zone. The proposed plat amendment would clean up and revise lot lines on the existing plat and would convert the development from a Planned Residential Development (PRD) to a standard subdivision. The plat amendment would convert the subdivision from 5 lots to 4 lots and would dissolve the private open space. The private open space would be absorbed into the remaining 4 lots.

STAFF RECOMMENDATION:
Review staff report and findings and make a recommendation to approve or table the proposed plat amendment.

SAMPLE MOTION TO APPROVE
I move to recommend approval of Forest Creek Estates Subdivision Amended with the following conditions:

- An exception be granted:
  - To modify lot lines to reduce angles, corners, and odd configurations, and
  - To allow lots with more than 5 sides.

SAMPLE MOTION TO TABLE
I move to table/deny Forest Creek Estates Subdivision Amended based on the following:

- **INSERT FINDING**

ALPINE CITY
STAFF REPORT
April 19, 2022

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: PLAT AMENDMENT – FOREST CREEK ESTATES SUBDIVISION AMENDED

Applicant:	Ken Berg representing Reed Swenson
Project Location:	952 North Fort Canyon Road
Zoning:	CR-40,000
Acreage:	7.84 Acres
Number of Lots:	4
Request:	Recommend and approve the amended plat

SUMMARY

The Forest Creek Estates Subdivision Amended Plat consists of 4 lot on 7.84 acres. The property is located at 952 North Fort Canyon Road in the CR-40,000 zone. The proposed plat amendment would clean up and revise lot lines on the existing plat and would convert the development from a Planned Residential Development (PRD) to a standard subdivision. The plat amendment would convert the subdivision from 5 lots to 4 lots and would dissolve the private open space. The private open space would be absorbed into the remaining 4 lots.

BACKGROUND

The original plat was recorded in 2000 as PRD, which allowed them to record a 5th lot that was approximately 18,000 square feet in size. However, a home was never built on the 5th lot. The owners have no intention of building on the lot and would instead have it be vacated and become part of their other existing lot.

ANALYSIS

Lot Width and Area

The proposed plat amendment does not meet the minimum width requirements, as more frontage is required for lots with greater percentage of slope. Thus, the applicant is seeking an exception as outlined in 3.04.040.3 of the Development Code, which states:

The City Council may, with a recommendation from the Planning Commission and with input from the applicant, modify lot lines to reduce angles, corners, and odd configurations when:

1. *A concept plan has been provided which meets the criteria set forth in Part 1 of this Section;*
2. *The modified concept plan does not have any more or less lots than were shown in the concept plan;*
3. *The modified concept plan does not contain any lots which have less than 110 feet of frontage or 40,000 square feet in total area;*

The lots on the modified plan each meet the 110 feet of frontage and 40,000 square foot area requirements as outlined above. However, **the modified lot lines require a recommendation from the Planning Commission to be approved as proposed.**

Use
The use of the lot is not changing with the plat amendment. Single family dwellings are a permitted use in the zone

Sensitive Lands (Wildland Urban Interface)
The property is in sensitive lands. Wildland Urban Interface requirements will apply to all structures to be built on the property.

Trails
There are no City trails on the property.

General Plan
The proposed plat appears to be compatible with the General Plan.

Other
None.

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
This section constitutes the engineering review.

Natural Hazards
The flood plain runs through the property and standard restrictions apply to the floodplain area and stream.

Other
The proposed lots have more than 5 sides and will require an exception.

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 plat amendment. Findings are outlined below.

Findings for a Positive Motion:

A. The proposed plat meets ordinance.

Findings for a Motion to Table:

A. None.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I move to recommend approval of Forest Creek Estates Subdivision Amended with the following conditions:

- An exception be granted:
    - To modify lot lines to reduce angles, corners, and odd configurations, and
    - To allow lots with more than 5 sides.

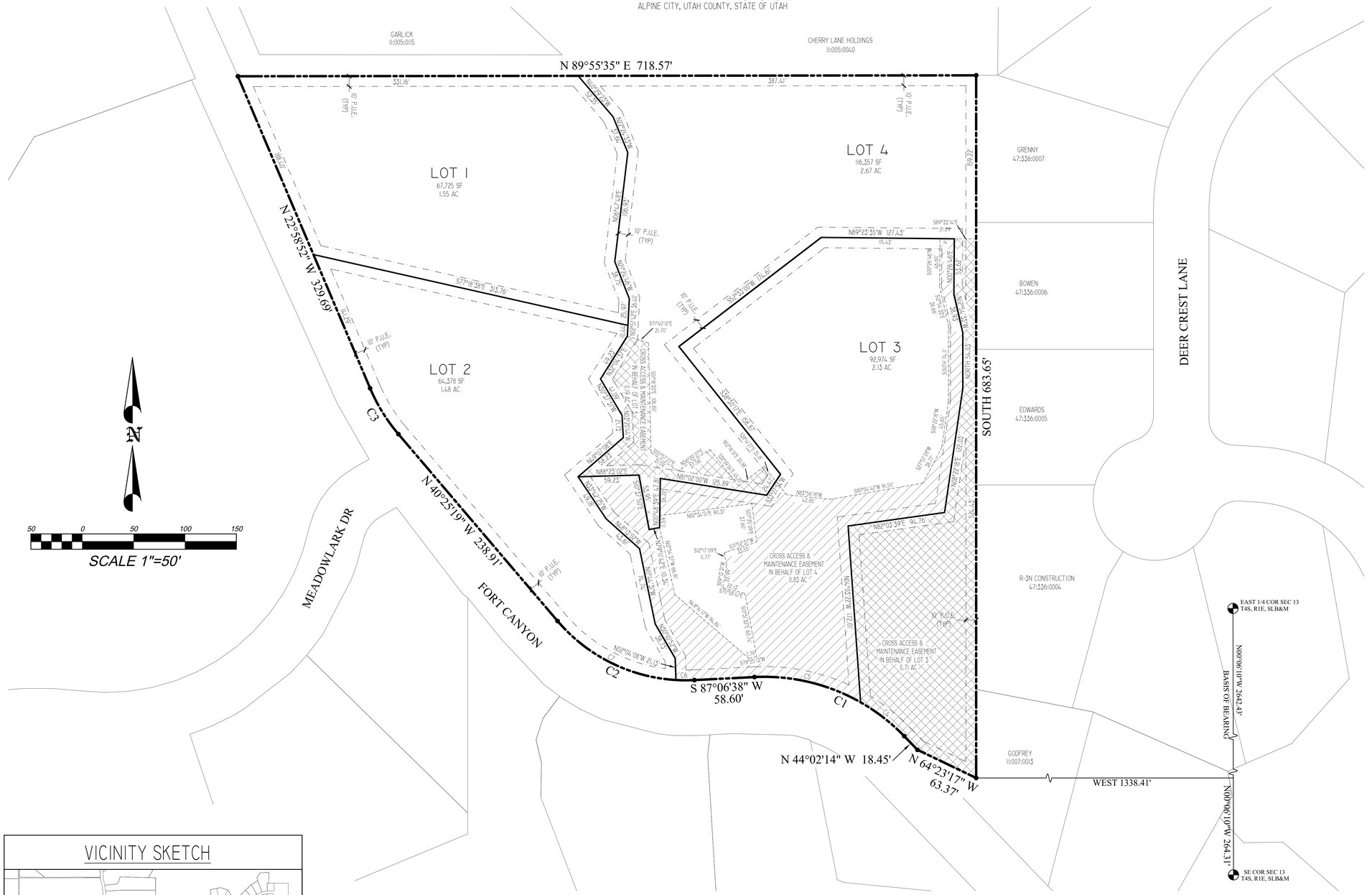
SAMPLE MOTION TO TABLE/DENY

I move to table/deny Forest Creek Estates Subdivision Amended based on the following:

- **INSERT FINDING**

FOREST CREEK ESTATES SUBDIVISION AMENDED

INCLUDING A VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT
LOCATED IN THE SE 1/4 OF SECTION 13, T4S, RIE, S.L.B.&M
ALPINE CITY, UTAH COUNTY, STATE OF UTAH



VICINITY SKETCH

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CHORD	BEARING
C1	189.49	161.56	48°51'07"	156.71	N68°27'48"W
C2	164.00	138.54	52°28'03"	144.99	N66°39'20"W
C3	173.00	52.67	17°26'37"	52.47	N31°42'00"W
C4	189.49	99.39	30°03'11"	98.26	N59°04'21"W
C5	189.49	62.14	18°47'22"	61.86	N83°29'38"W
C6	164.00	17.92	06°15'43"	17.91	N89°45'31"W
C7	164.00	132.26	46°12'20"	128.70	N63°31'29"W

PLAT NOTES

1. DESIGN CRITERIA FOR ELEVATION OF 5,000 FEET
2. DESIGN CRITERIA FOR SNOW LOAD OF 45 LB/SF
3. THE INTERNATION FIRE CODE MAY REQUIRE FIRE SPRINKLERS BASED UPON THE SIZE OF HOME AND FIRE FLOW CAPACITY. A FIRE FLOW TEST MAY BE REQUIRED AT THE TIME OF BUILDING PERMIT.
4. IF FIRE SPRINKLERS ARE PROPOSED THE FIRE FLOW REQUIREMENT IS REDUCED BY 50%.

ADDRESS TABLE	
LOT #	ADDRESS
1	1004 N. FORT CANYON ROAD
2	996 N. FORT CANYON ROAD
3	952 N. FORT CANYON ROAD
4	926 N. FORT CANYON ROAD

APPROVAL AS TO FORM

APPROVED AS TO FORM THIS _____
DAY OF _____ A.D., 20____

CITY ATTORNEY

TABULATIONS

ZONING	CR-40,000
TOTAL AREA	7.84 AC
# OF LOTS	4

PLAT VACATION NOTICE

THE CITY OF ALPINE IS SATISFIED THAT NEITHER THE PUBLIC NOR ANY PERSON WILL BE MATERIALLY INJURED BY THE VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT. THE FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT IS HEREBY VACATED.

2/14/2022

SURVEYOR'S CERTIFICATE

I, _____, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. _____ AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, BLOCKS, STREETS, OPEN SPACES, AND EASEMENTS AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS PLAT IS TRUE AND CORRECT.

SURVEYOR SEAL

_____ _____
DATE SURVEYOR

BOUNDARY DESCRIPTION

Beginning at a point located North 00°06'10" West 264.31 feet along section line and West 1338.41 feet from the Southeast Corner of Section 13, Township 4 South, Range 1 East, Salt Lake Base and Meridian;

thence along the eastern right-of way of Fort Canyon Road the following eight (8) courses: 1) North 64°23'17" West 63.37 feet, 2) North 44°02'14" West 18.45 feet, 3) along the arc of a 189.49 foot radius curve to the left a distance of 161.56 feet (curve having a central angle 48°51'07" and a long chord bears N68°27'48"W 156.71 feet), 4) South 87°06'38" West 58.60 feet, 5) along the arc of a 164.00 foot radius curve to the right a distance of 138.54 feet (curve having a central angle 52°28'03" and a long chord bears N66°39'20"W 144.99 feet), 6) North 40°25'19" West 238.91 feet, 7) along the arc of a 173.00 foot radius curve to the right a distance of 52.67 feet (curve having a central angle 17°26'37" and a long chord bears N31°42'00"W 52.47 feet), and 8) North 22°58'52" West 329.69 feet; thence along a fence line North 89°55'35" East 718.57 feet; thence South 683.65 feet to the point of beginning.

Contains: 341,534 sf or 7.84 ac

OWNER'S DEDICATION

KNOWN ALL MEN BY THESE PRESENTS THAT WE, ALL THE UNDERSIGNED OWNERS OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, OPEN SPACE, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____, A.D. 20

_____ _____
_____ _____
_____ _____

ACKNOWLEDGMENT

STATE OF UTAH
COUNTY OF UTAH

ON THE _____ DAY OF _____, A.D. 20____ PERSONALLY APPEARED BEFORE ME THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGE TO ME THAT THEY DID EXECUTE THE SAME.

NOTARY PUBLIC: _____
COMMISSION NUMBER: _____
MY COMMISSION EXPIRES: _____
A NOTARY PUBLIC COMMISSIONED IN UTAH

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF ALPINE CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, OPEN SPACES, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS _____ DAY OF _____ A.D. 20____

_____ ATTEST _____
MAYOR CARLA MERRILL CLERK - RECORDER
(SEE SEAL BELOW)

APPROVED _____
CITY ENGINEER
(SEE SEAL BELOW)

PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____, A.D. 20 ____ BY THE ALPINE CITY PLANNING COMMISSION.

_____ _____
DIRECTOR - SECRETARY CHAIRMAN, PLANNING COMMISSION

FOREST CREEK ESTATES SUBDIVISION AMENDED

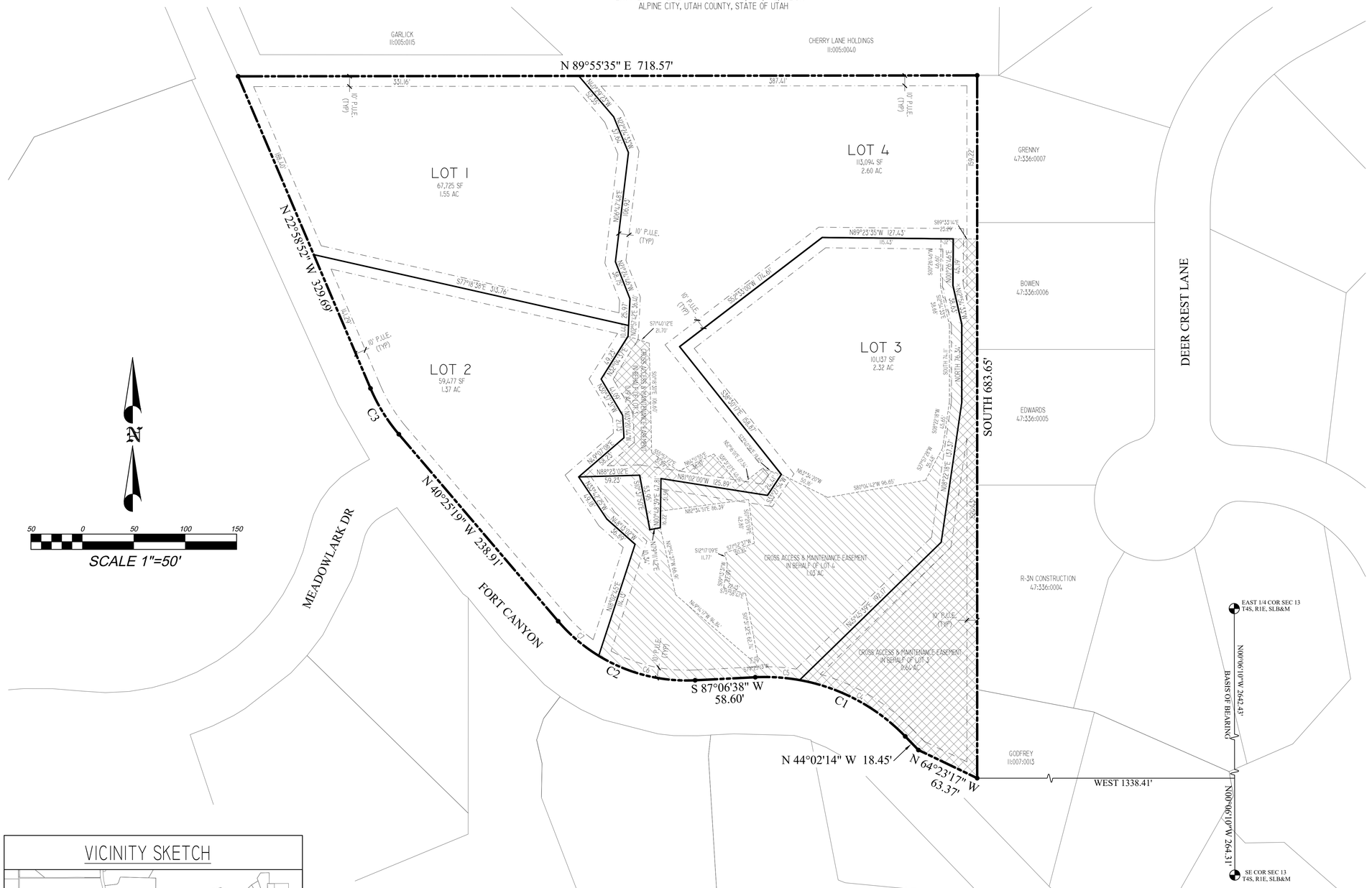
INCLUDING A VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT
LOCATED IN THE SE 1/4 OF SECTION 13, T4S, RIE, S.L.B.&M
ALPINE CITY, UTAH COUNTY, STATE OF UTAH

SCALE: 1"= 30 FEET

CITY ENGINEER SEAL	CITY RECORDER SEAL	COUNTY INFORMATION

FOREST CREEK ESTATES SUBDIVISION AMENDED

INCLUDING A VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT
LOCATED IN THE SE 1/4 OF SECTION 13, T4S, RIE, S.L.B.&M
ALPINE CITY, UTAH COUNTY, STATE OF UTAH



VICINITY SKETCH

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	CHORD	BEARING
C1	189.49	161.56	48°51'07"	156.71	N68°27'48"W
C2	164.00	138.54	52°28'03"	144.99	N66°39'20"W
C3	173.00	52.67	17°26'37"	52.47	N31°42'00"W
C4	189.49	118.30	35°46'12"	116.39	N61°55'52"W
C5	189.49	43.23	13°04'21"	43.14	N86°21'08"W
C6	164.00	98.16	34°19'36"	96.70	N75°44'34"W
C7	164.00	52.02	18°10'27"	51.80	N49°50'32"W

PLAT NOTES

1. DESIGN CRITERIA FOR ELEVATION OF 5,000 FEET
2. DESIGN CRITERIA FOR SNOW LOAD OF 45 LB/SF
3. THE INTERNATION FIRE CODE MAY REQUIRE FIRE SPRINKLERS BASED UPON THE SIZE OF HOME AND FIRE FLOW CAPACITY. A FIRE FLOW TEST MAY BE REQUIRED AT THE TIME OF BUILDING PERMIT.
4. IF FIRE SPRINKLERS ARE PROPOSED THE FIRE FLOW REQUIREMENT IS REDUCED BY 50%.

ADDRESS TABLE

LOT #	ADDRESS
1	1004 N. FORT CANYON ROAD
2	996 N. FORT CANYON ROAD
3	952 N. FORT CANYON ROAD
4	926 N. FORT CANYON ROAD

APPROVAL AS TO FORM

APPROVED AS TO FORM THIS _____
DAY OF _____ A.D., 20____

CITY ATTORNEY

TABULATIONS

ZONING	CR-40,000
TOTAL AREA	7.84 AC
# OF LOTS	4

PLAT VACATION NOTICE

THE CITY OF ALPINE IS SATISFIED THAT NEITHER THE PUBLIC NOR ANY PERSON WILL BE MATERIALLY INJURED BY THE VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT. THE FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT IS HEREBY VACATED.

2/14/2022

SURVEYOR'S CERTIFICATE

I, _____ ,DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. _____ AS PRESCRIBED BY THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, BLOCKS, STREETS, OPEN SPACES, AND EASEMENTS AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS PLAT IS TRUE AND CORRECT.

SURVEYOR SEAL

DATE _____ SURVEYOR _____

BOUNDARY DESCRIPTION

Beginning at a point located North 00°06'10" West 264.31 feet along section line and West 1338.41 feet from the Southeast Corner of Section 13, Township 4 South, Range 1 East, Salt Lake Base and Meridian;

thence along the eastern right-of way of Fort Canyon Road the following eight (8) courses: 1) North 64°23'17" West 63.37 feet, 2) North 44°02'14" West 18.45 feet, 3) along the arc of a 189.49 foot radius curve to the left a distance of 161.56 feet (curve having a central angle 48°51'07" and a long chord bears N68°27'48"W 156.71 feet), 4) South 87°06'38" West 58.60 feet, 5) along the arc of a 164.00 foot radius curve to the right a distance of 138.54 feet (curve having a central angle 52°28'03" and a long chord bears N66°39'20"W 144.99 feet), 6) North 40°25'19" West 238.91 feet, 7) along the arc of a 173.00 foot radius curve to the right a distance of 52.67 feet (curve having a central angle 17°26'37" and a long chord bears N31°42'00"W 52.47 feet), and 8) North 22°58'52" West 329.69 feet; thence along a fence line North 89°55'35" East 718.57 feet; thence South 683.65 feet to the point of beginning.

Contains: 341,534 sf or 7.84 ac

OWNER'S DEDICATION

KNOWN ALL MEN BY THESE PRESENTS THAT WE, ALL THE UNDERSIGNED OWNERS OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, OPEN SPACE, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____ , A.D. 20

_____ _____
_____ _____
_____ _____

ACKNOWLEDGMENT

STATE OF UTAH
COUNTY OF UTAH

ON THE _____ DAY OF _____ , A.D. 20____ PERSONALLY APPEARED BEFORE ME THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGE TO ME THAT THEY DID EXECUTE THE SAME.

_____
NOTARY PUBLIC: _____
COMMISSION NUMBER: _____
MY COMMISSION EXPIRES: _____
A NOTARY PUBLIC COMMISSIONED IN UTAH

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF ALPINE CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, OPEN SPACES, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS _____ DAY OF _____ A.D. 20____

MAYOR CARLA MERRILL — ATTEST _____ CLERK - RECORDER (SEE SEAL BELOW)

APPROVED _____
CITY ENGINEER (SEE SEAL BELOW)

PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____ , A.D. 20 ____ BY THE ALPINE CITY PLANNING COMMISSION.

DIRECTOR - SECRETARY _____ CHAIRMAN, PLANNING COMMISSION _____

FOREST CREEK ESTATES SUBDIVISION AMENDED

INCLUDING A VACATION OF FOREST CREEK ESTATES SUBDIVISION, A PLANNED RESIDENTIAL DEVELOPMENT
LOCATED IN THE SE 1/4 OF SECTION 13, T4S, RIE, S.L.B.&M
ALPINE CITY, UTAH COUNTY, STATE OF UTAH

SCALE: 1"= 30 FEET

CITY ENGINEER SEAL	CITY RECORDER SEAL	COUNTY INFORMATION

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Conditional Use – Guesthouse – 2600 North Mountain Springs Road

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Scott Johnson

ACTION REQUESTED BY PETITIONER: Approve the guest house

BACKGROUND INFORMATION:

In November 2021, the City Council approved an amendment to the guest house ordinance to allow a guest house to have a second driveway when it is accessed from a separate driveway than the main house. The petitioner at the time was Scott Johnson. Mr. Johnson is now submitting his plans for his guest house.

Guest houses are a conditional use in the CE-5 zone and subject to the requirements found in 3.23.070.2. The proposed guest house meets all the requirements found in the ordinance. Guest houses are subject to approval by the City Council. The Planning Commission should review the proposal and make a recommendation to the City Council.

STAFF RECOMMENDATION:
Approve guest house as proposed.

SAMPLE MOTION TO APPROVE
I move to recommend a conditional use permit be granted for a guest house at 2600 North Mountain Springs Road.

SAMPLE MOTION TO TABLE/DENY
I move to table/deny the request for a conditional use permit for the guest house at 2600 North Mountain Road based on the following:

- **INSERT FINDING**


LANDFORMS
DESIGN
landforms.com
801-298-2240

LANDFORMS
DESIGN
landforms.com
801-298-2240

AMENDING LOT 54 OF THREE FALLS SUBDIVISION PLAT "H"
LOCATED IN THE NORTHEAST QUARTER OF SECTION 12,
TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN,
ALPINE CITY, UTAH COUNTY, UTAH

NORTHEAST CORNER SECTIO
TOWNSHIP 4 SOUTH, RANGE 1 E
SALT LAKE BASE & MERI
(FOUND G.L.O. MONUMENT 2" BRASS

PRIVATE OPEN SPACE K
PUBLIC OPEN SPACE B
PRIVATE OPEN SPACE D
PRIVATE OPEN SPACE D
LOT 56
LOT 55
LOT 52
LOT 26
LOT 25
PRIVATE OPEN SPACE J

EAST 58.98'
S64°40'31"E 12.02'
S24°21'57"E 40.39'
S20°44'35"E 21.31'
N36°22'39"E 48.29'
N07°13'26"E 50.00'
S88°29'53"E 307.90'
FAULT SETBACK LINE (SEE NOTES)
N89°24'01"E 55.22'
N45°01'42"E 8.94'
N35°23'25"E 29.90'
N39°35'05"E 17.67'
N46°34'44"E 36.43'
N60°15'50"E 146.72'
S74°09'33"E 62.16'
S14°31'16"E 98.58'
S89°44'37"W 1148.72'
POINT OF BEGINNING
S88°30'52"W 18.99'

HIDDEN SPRINGS CIRCLE
MOUNTAIN PARK ROAD
EMERGENCY ACCESS ROAD
MOUNTAIN PARK ROAD
EMERGENCY ACCESS ROAD

C1
C2
C3
C4
C5
C6
C7

N14°03'22"W 172.32'
S05°20'45"W 141.61'
N81°39'03"W 120.86'

BUILDING ENVELOPE
BUILDING ENVELOPE
BUILDING ENVELOPE
BUILDING ENVELOPE
ROAD

50' DRAINAGE EASEMENT
50' DRAINAGE EASEMENT
50' DRAINAGE EASEMENT
50' DRAINAGE EASEMENT
50' DRAINAGE EASEMENT

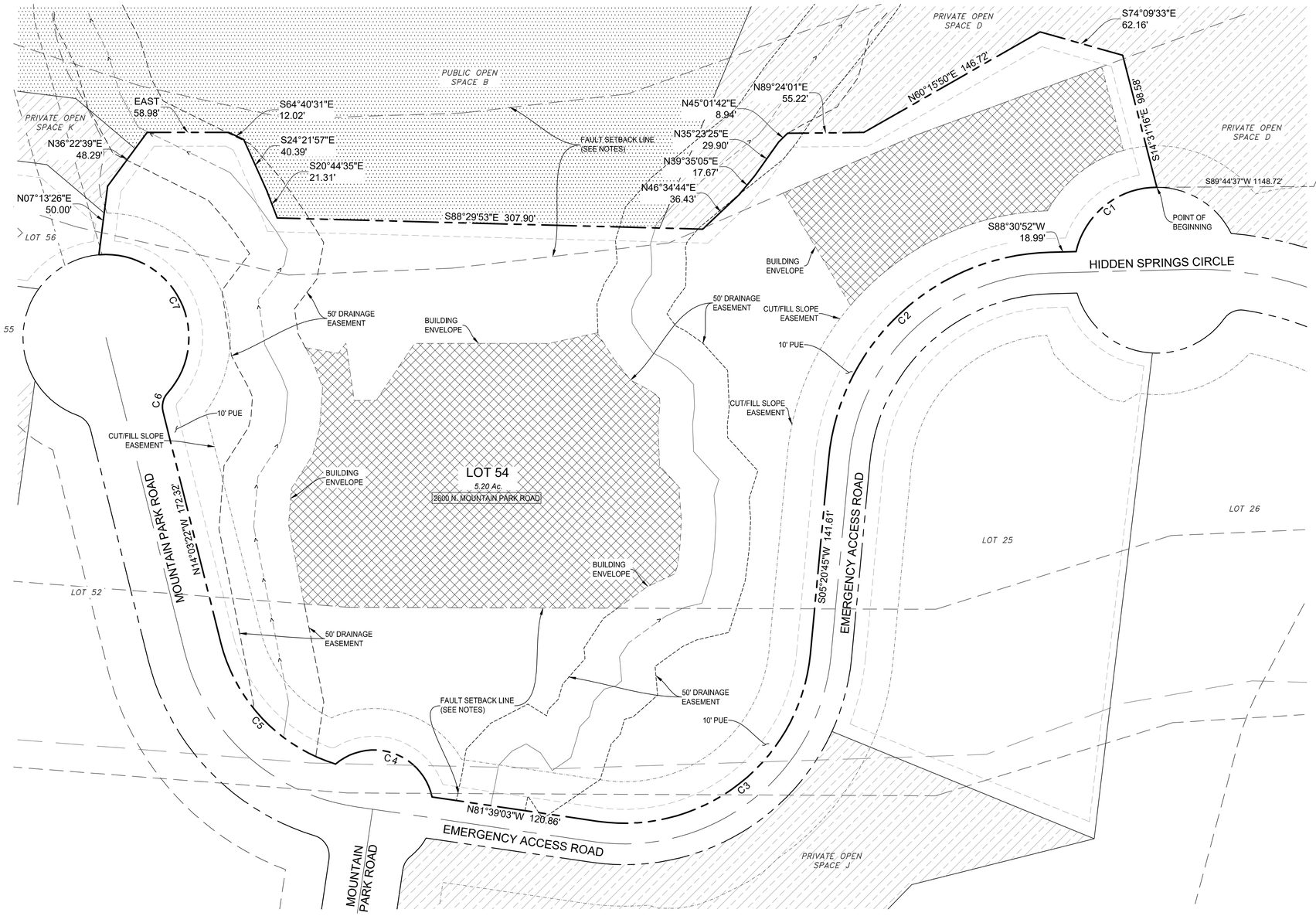
CUT/FILL SLOPE EASEMENT
CUT/FILL SLOPE EASEMENT
CUT/FILL SLOPE EASEMENT

10' PUE
10' PUE
10' PUE


AMENDING LOT 54 OF THREE FALLS SUBDIVISION PLAT "H"
LOCATED IN THE NORTHEAST QUARTER OF SECTION 12,
TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN,
ALPINE CITY, UTAH COUNTY, UTAH
PUBLIC OPEN SPACE B
PRIVATE OPEN SPACE K
PRIVATE OPEN SPACE D
PRIVATE OPEN SPACE J
EAST 58.98'
S64°40'31"E 12.02'
S24°21'57"E 40.39'
N36°22'39"E 48.29'
N07°13'26"E 50.00'
N45°01'42"E 8.94'
N89°24'01"E 55.22'
N35°23'25"E 29.90'
N39°35'05"E 17.67'
N46°34'44"E
N60°15'50"E 146.72'
S74°09'33"E 62.16'
S14°31'16"E 98.58'
S89°44'37"W 1148.72'
POINT OF BEGINNING
FAULT SETBACK LINE (SEE NOTES)
LOT 56
LOT 55
LOT 52
LOT 25
LOT 26
HIDDEN SPRINGS CIRCLE
EMERGENCY ACCESS ROAD
MOUNTAIN PARK ROAD
N14°03'22"W 172.32'
S05°20'45"W 141.61'
10' PUE
CUT/FILL SLOPE EASEMENT
C1
C2
C3
C5
C6
C7

THREE FALLS SUBDIVISION PLAT "I"

AMENDING LOT 54 OF THREE FALLS SUBDIVISION PLAT "H"
LOCATED IN THE NORTHEAST QUARTER OF SECTION 12,
TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN,
ALPINE CITY, UTAH COUNTY, UTAH



CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CH. BRG.	CH. DIST.
C1	80.64'	60.00'	77°00'29"	S51°29'46"W	74.71'
C2	239.51'	165.00'	83°10'07"	S46°55'49"W	219.03'
C3	219.13'	135.00'	93°00'12"	S51°50'51"W	195.86'
C4	88.67'	43.00'	118°08'47"	N71°08'22"W	73.78'
C5	126.15'	123.00'	58°45'40"	N43°26'12"W	120.69'
C6	14.65'	15.00'	55°56'39"	N13°54'58"E	14.07'
C7	143.21'	60.00'	136°45'22"	N26°29'24"W	111.56'

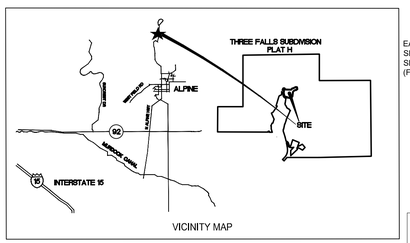
LEGEND

- BOUNDARY LINE
- LOT LINE
- ROAD CENTER LINE
- ROAD RIGHT OF WAY
- TRAIL
- FAULT LINE
- FAULT OFFSET LINE
- CUT/FILL SLOPE EASEMENT
- STREAM FLOW LINE
- STREAM SETBACK LINE
- EASEMENT LINE
- BUILDING ENVELOPE
- PORTION OF BUILDING ENVELOPE WHERE SEWER IS NOT AVAILABLE

PUBLIC OPEN SPACE | PRIVATE OPEN SPACE | BUILDING ENVELOPE

NOTES:

1. ALL PROPERTY LINES TO HAVE A RIVET SET IN THE TOP OF CURB ON THE PROLONGATION OF EACH LOT LINE (AT THE FRONT OF EACH LOT).
2. FAULT SETBACK AREA SHOWN IS FROM A GEOLOGICAL HAZARD ASSESSMENT PREPARED BY IGES, DATED OCTOBER 5, 2020. IGES PROJECT NO. 03469-001.
3. PURPOSE OF THIS PLAT AMENDMENT IS TO DEFINE THE NEW BUILDING ENVELOPE AS SHOWN
4. PUE= PUBLIC UTILITY EASEMENT
   DE= DRAINAGE EASEMENT
5. EXCEPT AS MODIFIED BY THIS AMENDMENT, THE THREE FALLS SUBDIVISION PLAT AND CCR'S "DECLARATION" REMAIN IN FULL FORCE AND EFFECT.



SURVEYORS CERTIFICATE:

I, SHAWN R. VERNON DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NUMBER 270814 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, BLOCKS, STREETS AND EASEMENTS AND THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS PLAT IS TRUE AND CORRECT.

BOUNDARY DESCRIPTION:

ALL OF LOT 54, THREE FALLS SUBDIVISION, PLAT "E", AS RECORDED SEPTEMBER 15, 2017 AS ENTRY NO. 2017-90460 IN THE OFFICE OF THE UTAH COUNTY RECORDER AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT BEING ON THE NORTHERLY LINE OF HIDDEN SPRINGS CIRCLE AND THE SOUTHEAST CORNER OF LOT 54, THREE FALLS SUBDIVISION, PLAT "E" RECORDED SEPTEMBER 15, 2017 AS ENTRY NO. 2017-90460 IN THE OFFICE OF THE UTAH COUNTY RECORDER, SAID POINT ALSO BEING 938.84 FEET NORTH 00°15'23" WEST AND 1148.72 FEET SOUTH 89°44'37" WEST FROM THE EAST QUARTER CORNER OF SECTION 12, TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN AND RUNNING THENCE SOUTHWESTERLY 80.64 FEET ALONG THE ARC OF A 60.00 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 77°00'29", (CHORD BEARS SOUTH 51°29'46" WEST 74.71 FEET); THENCE SOUTH 88°30'52" WEST 18.99 FEET; THENCE SOUTHWESTERLY 239.51 FEET ALONG THE ARC OF A 165.00 FOOT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 83°10'07", (CHORD BEARS SOUTH 46°55'49" WEST 219.03 FEET); THENCE SOUTH 05°20'45" WEST 141.61 FEET; THENCE SOUTHWESTERLY 219.13 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 93°00'12", (CHORD BEARS SOUTH 51°50'51" WEST 195.86 FEET); THENCE NORTH 81°39'03" WEST 120.86 FEET; THENCE NORTHWESTERLY 88.67 FEET ALONG THE ARC OF A 43.00 FOOT NON-TANGENT RADIUS CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 118°08'47", (CHORD BEARS NORTH 71°08'22" WEST 73.78 FEET); THENCE NORTHWESTERLY 126.15 FEET ALONG THE ARC OF A 123.00 FOOT NON-TANGENT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 58°45'40", (CHORD BEARS NORTH 43°26'12" WEST 120.69 FEET); THENCE NORTH 14°03'22" WEST 172.32 FEET; THENCE NORTHERLY 14.65 FEET ALONG THE ARC OF A 15.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 55°56'39", (CHORD BEARS NORTH 13°54'58" EAST 14.07 FEET); THENCE NORTHERLY 143.21 FEET ALONG THE ARC OF A 60.00 FOOT REVERSE CURVE TO THE LEFT, THROUGH A CENTRAL ANGLE OF 136°45'22", (CHORD BEARS NORTH 26°29'24" WEST 111.56 FEET); THENCE NORTH 07°13'26" EAST 50.00 FEET; THENCE NORTH 36°22'39" EAST 48.29 FEET; THENCE EAST 58.98 FEET; THENCE SOUTH 64°40'31" EAST 12.02 FEET; THENCE SOUTH 24°21'57" EAST 40.39 FEET; THENCE SOUTH 20°44'35" EAST 21.31 FEET; THENCE SOUTH 88°29'53" EAST 307.90 FEET; THENCE NORTH 46°34'44" EAST 36.43 FEET; THENCE NORTH 39°35'04" EAST 17.67 FEET; THENCE NORTH 35°23'25" EAST 29.90 FEET; THENCE NORTH 45°01'42" EAST 8.94 FEET; THENCE NORTH 89°24'01" EAST 55.22 FEET; THENCE NORTH 60°15'50" EAST 146.72 FEET; THENCE SOUTH 74°09'33" EAST 62.16 FEET; THENCE SOUTH 14°31'16" EAST 98.58 FEET TO THE POINT OF BEGINNING.

OWNER'S DEDICATION:

KNOW ALL MEN BY THESE PRESENTS THAT I, ONE OF THE UNDERSIGNED OWNERS OF THE PROPERTY DESCRIBED IN THE SURVEYORS CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, BLOCKS, STREETS AND EASEMENTS TO BE HEREAFTER KNOWN AS THE

THREE FALLS SUBDIVISION PLAT E

AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC, IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS ___, DAY OF _____, A.D. 20_.

NAME:_____ TITLE: _____

NAME:_____ TITLE: _____

ACKNOWLEDGEMENT:

STATE OF UTAH
COUNTY OF _____ } S.S.

ON THE _____ DAY OF _____, 20____ PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC IN AND FOR THE COUNTY OF _____, IN SAID STATE OF UTAH, THE SIGNER OF THE ABOVE OWNER'S DEDICATION, WHO DULY ACKNOWLEDGED TO ME THAT HE/SHE, _____, SIGNED IT FREELY AND VOLUNTARILY AND FOR THE USE AND PURPOSE THEREIN MENTIONED.

MY COMMISSION EXPIRES _____.

NOTARY PUBLIC
RESIDING IN _____.

ACCEPTANCE BY LEGISLATIVE BODY:

THE OF _____ OF _____ , COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS ____ DAY OF _____ A.D., 20____.

CITY MAYOR: _____

CITY COUNCIL: _____

CITY ENGINEER: _____

PLANNING COMMISSION APPROVAL:

APPROVED THIS _____ DAY OF _____, A.D. 20____, BY THE ALPINE CITY PLANNING COMMISSION.

_____ _____ _____

DIRECTOR SECRETARY CHAIRMAN, PLANNING COMMISSION

APPROVAL AS TO FORM:

APPROVED THIS _____ DAY OF _____, A.D. 20____..

_____

CITY ATTORNEY

THREE FALLS SUBDIVISION PLAT "I"

AMENDING LOT 54 OF THREE FALLS SUBDIVISION PLAT "H"
LOCATED IN THE NORTHEAST QUARTER OF SECTION 12,
TOWNSHIP 4 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN,
ALPINE CITY, UTAH COUNTY, UTAH

SURVEYORS STAMP	NOTARY PUBLIC SEAL	CITY ENGINEERS SEAL	CLERK-RECORDER SEAL
LICENSED PROFESSIONAL LAND SURVEYOR No. 8744084 SHAWN R. VERNON STATE OF UTAH			

JOHNSON RESIDENCE GARAGE

LOT 54 THREE FALLS ALPINE UTAH

CONSULTANT SCHEDULE

	DESIGNER/ DRAFTER	STRUCTURAL ENGINEER	SURVEYOR/ CIVIL ENGINEER
CONSULTANT	LANDFORMS DESIGN landforms.com	York Engineering	Entellus
CONTACT INFO.	(801) 298-2240 MIKE.H@landforms.com	(801) 876-3501 JAKE@yorkengr.com	181 North 200 West, Suite #4 Bountiful, Utah 84010 Phone 801-298-2236 Fax 801-298-5983
REP.	BLAIR/ MIKE	JAKE	SCOTT

CODE ANALYSIS

UTAH STATE ADOPTED CODES AS OF JULY 1, 2013-

2018 IRC
2018 IBC
2017 NEC
2015 IPC
2015 IMC
2015 IFGC

BUILDING OCCUPANCY: R-3
TYPE 5
B-CONSTRUCTION
2012 UTAH ENERGY CONSERVATION CODE

SQUARE FOOTAGE

-LOCATION-	-SQUARE FOOTAGE-
MAIN LEVEL	
FINISHED BASEMENT	
COLD STORAGE	
-TOTAL LIVING-	
GARAGES	

DEFERRED SUBMITTAL

ALL DEFERRED SUBMITTALS AND CHANGES TO PLANS MUST BE-

A. FIRST APPROVED BY THE DESIGNER OF RECORD PRIOR TO SUBMITTING TO BUILDING OFFICIAL.

B. APPROVED BY THE STRUCTURAL ENGINEER OF RECORD FOR ANY STUCTURAL ITEMS FOR DEFERRED SUBMITTALS

-DEFERRED ITEMS OR PROVIDED BY CONTRACTOR-

1. -FIRE SPRINKLER PLANS (MOD. NFPA 13D)
2. -RADIANT HEAT DESIGN (LAYOUT PLANS, CALCS, & SPECS.
3. -GAS PIPING SCHEMATIC-PROVIDED BY MECH. CONTRACTOR
4. -TRUSS PLANS & CALCS. (IF APPICABLE)
5. -STUCCO SYSTEM. (IF APPLICABLE)
6. -FIREPLACE PRODUCT INFO. (IF APPLICABLE)
7. -CONSTRUCTION MITIGATION PLAN.
8. -GEOTCH. SURVEY (IF APPLICABLE AS DETERMINED BY BUILDING OFFICIAL)
9. -LANDSCAPE PLAN (IF APPLICABLE)
10. -SPECIAL INSPECTIONS FOR WELDING ON THIS PROJECT (IF APPLICABLE)
11. -CONTRACTOR TO PROVIDE EXTERIOR LIGHTING SPECS. PRIOR TO FOUR-WAY INSPECTION
12. -POOL DESIGN BY OTHERS (IF APPLICABLE)

DRAWING SCHEDULE

LANDFORMS DESIGN landforms.com

GENERAL NOTES

A. EXCAVATION, BACK FILL, GRADING & DAMPROOFING

1. All excavations for footings shall be to natural undisturbed soil.
2. All back filling shall be done with granular free draining material. Existing site material may be used so long as existing soils are free from clay soils and any construction debris. Compact all back fill material in 10" lifts to 95% of maximum soil density.
3. Finish grading shall be done so as to provide positive drainage away from all building foundations. A minimum slope of 6" per 10'-0" and shall be maintained with a 1% slope thereafter to approved drainage areas.
4. All raingutter downspouts shall be piped away from the home to an approved drainage area. No raingutters shall drain in window wells, or rock light wells.
5. If any ground water is encountered during excavation, a qualified soils Engineer shall be retained to make an on-site assesment of the situation.
6. Footing drains shall be placed around all exterior footings and gravity fed to an approved drainage area.

B. WINDOWS

1. All windows in rooms used for sleeping shall have sills not more than 44" above the floor with an operable opening of not less than 5.7 square feet. The height of the window shall not be less than 24" with a net clearing width of not less than 20". Exception: grade floor openings shall have a min. net clear opening of 5.0 sq. ft.
2. Habitable rooms require 8% of floor area to be glazing with 1/2 of that glazing to be operable
3. All windows to be double pane insulated glazing of 3/16" double strength "B" grade glass minimum.
4. Wood and vinyl windows are called out differently. Vinyl window sizes are in feet and inches (3068) while wood windows are in inches only (3868). All doors are in feet and inches.

C. VENTILATION

1. Natural ventilation shall be provided to every habitable room with equal to 4% of floor area with operable windows which will provide (35) fresh air changes per hour.
2. No gas connections allowed in any rooms used for sleeping or in any corridors leading to or through any sleeping room.
3. Ventilation shall be provided into all crawl spaces by means of screened vents measuring not less than 7"x14" spaced not more than 25' apart and placed so as to provided cross ventilation.
4. Provide (2) combustion air ducts to furnace room (1) placed at 18" above floor and (1) placed at 12" below the ceiling with an area of not less than (1) square inch per 1000 BTUH input.
5. Provide attic ventilation equal to 1/150 of the area of the space ventilated.
6. Mechanical ventilation may be provided in habitable rooms, where not required for emergency escape. System will be able to provide (35) fresh air changes per hour.

D. FIRE PROTECTION & WARNING

1. Provide 5/8" type "X" gyp. bd. on all supporting walls and ceilings of the garage adjacent to living areas. Nail all 5/8" type "X" gyp. bd. at 6" o.c. (One hour fire rated)
2. Provide 1/2" type "X" gyp. bd. on walls and under side of stairs under any stairway area used for storage. Fire block walls at all stair stringers.
3. Doors leading from the garage into the house shall be solid core wood or honeycomb metal doors not less than 1 3/8" thick.
4. Smoke detectors are required in all hallways leading to sleeping rooms, sleeping rooms, unfinished areas, with a minimum of (1) one each story. Wire all smoke detectors to sound simultaneously. Smoke detectors must have battery back-up.
5. A minimum of 30" shall be provided above all ranged, grills, or cook tops to combustibles.

E. HANDRAILS & GUARDRAILS

1. Handrails are required at all stairways having (2) or more risers.
2. Handrails shall be placed not less than 2'-10" above stair nosing and not more than 3'-2" above stair nosing.
3. Handrail gap size shall have a circular cross section of 1¼" minimum - 2⅜" max. Edges shall have a minimum radius of ⅛". Handrails may project 4½" into the stairway on both sides. Continuous handrails shall be permitted to be interrupted by a newel post at a turn and the use of a volute turn or starting easing shall be allowed on lowest tread.
4. Guardrails are required at all landings or decks or floor levels more than 30" apart.
5. Balusters for guardrails shall be spaced such that a 4" diameter sphere shall not pass through.
6. When a guardrail is combined with a handrail on al open side of stairs, guardrail

LOT# 54 SUBDIVISION THREE FALLS
CITY ALPINE
PLEASE CONTACT LANDFORMS DESIGN OF ANY UNLAWFUL USE.
STATE UTAH DATE 8-26-19

LANDFORMS DESIGN landforms.com

SITE PLAN, NOTES & DWG. SCHEDULE

JOHNSON GARAGE

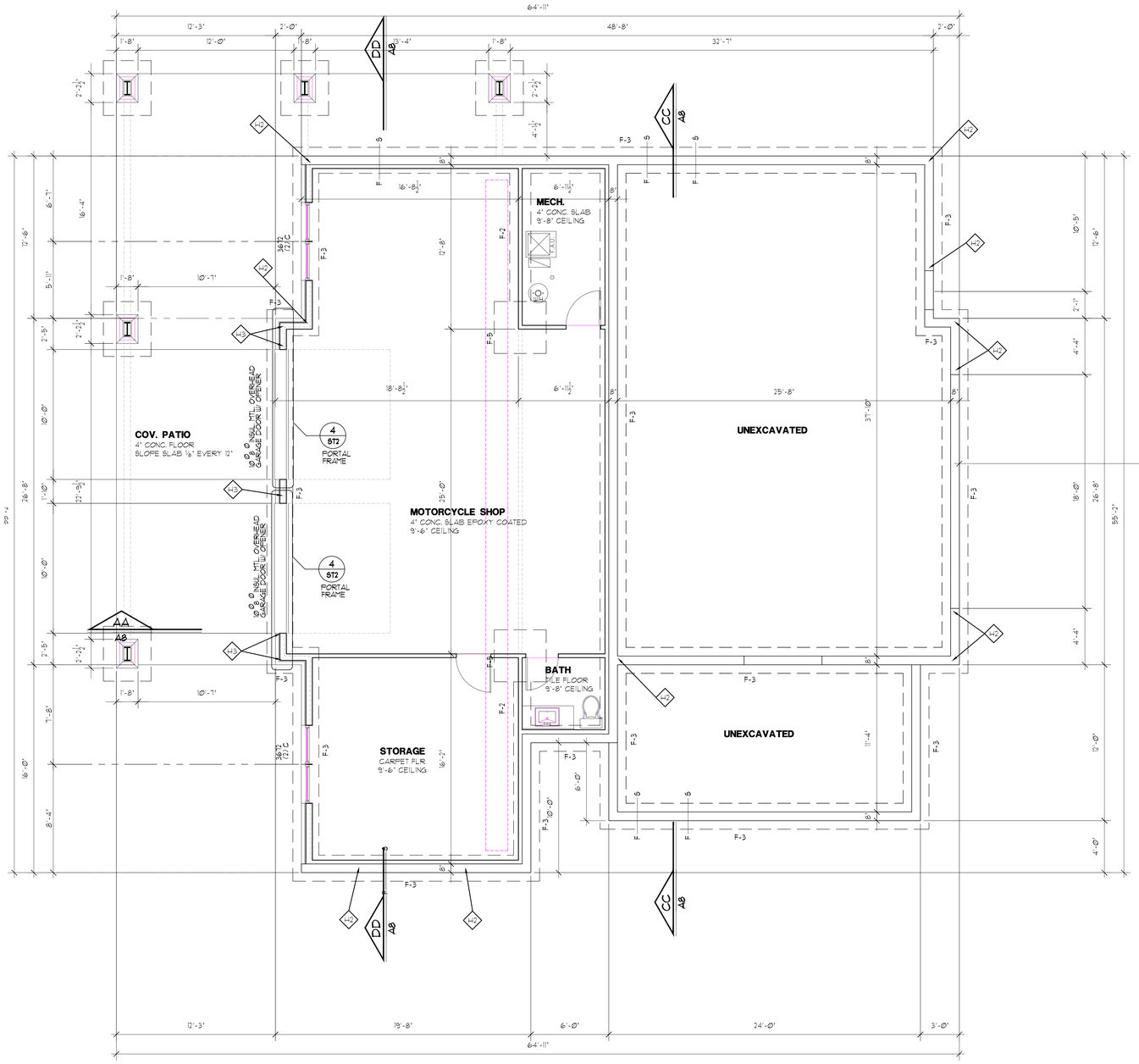
CUSTOM DETACHED GARAGE PLAN

REVISIONS	
date	item

PROFESSIONAL STRUCTURAL ENGINEER
No. 167797-2203
R. LYNN CARLSON
STATE OF UTAH
1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

T1



LOWER LEVEL, FOOTING & FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

NOTE:
F-5 INDICATES A STEP IN FOOTING & FOUNDATION SEE DETAIL 6-ST2

ATTENTION
THESE PLANS, DRAWINGS AND DESIGNS ARE THE PROPERTY OF LANDFORMS DESIGN AND ARE NOT TO BE USED, COPIED, SHALL NOT BE REPRODUCED OR COPIED WITHOUT THE EXPRESSED WRITTEN CONSENT OF LANDFORMS DESIGN. LANDFORMS DESIGN DISCLAIMS ANY LIABILITY TO ANY USE RELEASED FOR ON THE USE FOR CONSTRUCTION ON THE SITE DESCRIBED AS

LOT **54** SUBDIVISION **THREE FALLS**
CITY **ALPINE** PLAT
STATE **UTAH** DATE **8-26-19**

LANDFORMS
DESIGN
landforms.com

FOOTING, FOUNDATION & LOWER LEVEL PLAN

JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN
COPYRIGHT 2018 BY LANDFORMS DESIGN (801) 756-2240

REVISIONS

date	item

PROFESSIONAL STRUCTURAL ENGINEER
No. 167797-2203
R. LYNN CARLSON
STATE OF UTAH
1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A1

FOOTING AND FOUNDATION GENERAL NOTES

1. ALL EXTERIOR FLAT WORK CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH EQUAL TO AT LEAST 3000 PSI WITHIN 28 DAYS AFTER PLACING. FOOTINGS AND FOUNDATION WALLS SHALL BE AT LEAST 3000 PSI.
2. ALL METAL REINFORCEMENT SHALL CONFORM TO A.S.T.M. A615-68 GRADE 60, WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. ALL REINFORCING BARS SHALL BE DETAILED, BOLSTERED AND SUPPORTED IN ACCORDANCE WITH ACI 315.
4. ALL REINFORCEMENT BARS SHALL BE SECURELY ANCHORED TO THE FORMS AND SPACED FROM THEM AS FOLLOWS:
   (a) FOR CONCRETE NOT EXPOSED DIRECTLY TO THE GROUND OR WEATHER, 3/4 IN. IN SLABS AND WALLS.
   (b) FOR CONCRETE EXPOSED TO THE GROUND OR WEATHER, 2 IN. IN WALLS, 3 IN. ABOVE BOTTOM OF FOOTINGS.
5. ALL SPLICES IN CONTINUOUS REINFORCING BARS SHALL LAP 36 BAR DIAMETERS. ALL SUCH SPLICES SHALL BE MADE IN A REGION OF COMPRESSION UNLESS SHOWN OTHERWISE.
6. UNLESS OTHERWISE SHOWN, MAKE ALL CONCRETE SLABS ON EARTH AT LEAST 4 IN. THICK
7. PROVIDE 2 IN. X 4 IN. X CONT. KEY IN ALL WALL FOOTINGS WHERE GROUND WATER IS PRESENT.
8. LARGE AREAS OF SLAB ON GRADE SHALL BE PLACED IN STRIPS SUBDIVIDED BY CONTRACTION OR CONSTRUCTION JOINTS INTO ROUGHLY SQUARES WHOSE SIDES SHALL NOT EXCEED 25 FT. IN EITHER DIRECTION.
9. FOOTINGS SHALL BE ON UNDISTURBED SOIL OR APPROVED FILL AND PROVIDE 36" MIN. FROST PROTECTION
10. CONCRETE FLOOR SLABS, EXCEPT THOSE IN UNHEATED ACCESSORY STRUCTURES, SHALL HAVE A VAPOR RETARDER CONSISTING OF A 6 MIL (.006 inch) POLYETHYLENE OR APPROVED VAPOR RETARDER WITH JOINTS LAPPED NOT LESS THAN 6 INCHES PLACED BETWEEN THE CONCRETE FLOOR SLAB AND THE BASE COURSE OR THE PREPARED SUB-GRADE WHERE NON BASE COURSE EXISTS. -R506.2.3
11. PROVIDE A U-FER GROUND AS PER E3508.1.1 AND NEC 250.50

STEEL

1. ALL STRUCTURAL STEEL AND STRUCTURAL STEEL WORK SHALL COMPLY WITH "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS OF THE A.I.S.C."
2. ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE A.S.T.M. GRADE 50
3. ALL WELDS AND WELDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF "THE AMERICAN WELDING SOCIETY," USING E70XX ELECTRODES.

FOOTING SCHEDULE

ALL FOOTINGS ON THIS SCHEDULE MAY NOT BE USED FOR THIS PLAN

MARK	WIDTH	LENGTH	THICK	CROSSWISE REINF.				LENGTHWISE REINF.				REMARKS
				NO.	SIZE	LENGTH	SPACE	NO.	SIZE	LENGTH	SPACE	
F-1	1'-8"	CONT.	10"	NONE				(2)	#4	CONT.	14"	PERIMETER FTG.
F-2	1'-8"	CONT.	10"	NONE				(2)	#4	CONT.	14"	INTERIOR FOOTING UNDER SLAB
F-3	2'-0"	CONT.	12"	NONE				(3)	#4	CONT.	9"	PERIMETER FTG.
F-4	2'-6"	CONT.	12"	NONE				(4)	#4	CONT.	8"	PERIMETER FTG.
F-5	3'-0"	3'-0"	12"	(4)	#4	2'-6"	10"	(3)	#4	2'-6"	15"	SPOT FTG.
F-6	4'-0"	4'-0"	12"	(5)	#4	3'-6"	10½"	(5)	#4	3'-6"	10½"	SPOT FTG.
F-7	5'-0"	5'-0"	12"	(5)	#4	4'-6"	13½"	(5)	#4	4'-6"	13½"	SPOT FTG.
F-8	4'-0"	CONT.	12"	NONE				(5)	#4	CONT.	10½"	PERIMETER FTG.

FOUNDATION SCHEDULE

3,000 PSI CONCRETE — 60,000 PSI STEEL

MAXIMUM WALL HEIGHT FROM T.O. FOOTING	TOP EDGE SUPPORT	MIN. WALL WIDTH	VERTICAL WALL REINF.		HORIZONTAL WALL REINF.		ADDITIONAL REINF. FOR OPENINGS						MAX. LINTEL LENGTH	MIN. LINTEL DEPTH	FOUNDATION BOLTS	NOTES
							ABOVE		SIDES		BELOW					
			SIZE	SPACING	SIZE	SPACING	NO.	SIZE	NO.	SIZE	NO.	SIZE				
2'-0" TO 5'-0"	NONE	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	2'	6"	5/8" X 10" @ 32" O.C.	
5'-1" TO 6'-0"	NONE	8"	#4	18" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	3'	6"	5/8" X 10" @ 32" O.C.	
6'-1" TO 7'-0"	NONE	8"	#4	12" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	4'	8"	5/8" X 10" @ 32" O.C.	
7'-1" TO 8'-0"	FLOOR	8"	#4	24" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	5'	10"	5/8" X 10" @ 32" O.C.	
8'-1" TO 9'-0"	FLOOR	8"	#4	16" O.C.	#4	18" O.C.	2	#4	1	#4	1	#4	6'	12"	5/8" X 10" @ 32" O.C.	
9'-1" TO 10'-0"	FLOOR	8"	#4	12" O.C.	#4	12" O.C.	2	#4	1	#4	1	#4	6'	12"	5/8" X 10" @ 24" O.C.	
10'-1" TO 11'-0"	FLOOR	8"	#4	6" O.C.	#4	12" O.C.	2	#4	1	#4	1	#4	6'	12"	5/8" X 10" @ 24" O.C.	
11'-1" TO 12'-0"	FLOOR	8"	#4	4" O.C.	#4	12" O.C.	2	#4	1	#4	1	#4	6'	12"	5/8" X 10" @ 24" O.C.	
>12'-0"	REQ. ENG.														CONTACT YORK ENGINEERING	

NOTES:
1. REBAR TO BE PLACED IN THE CENTER OF THE WALL (U.N.O.) AND EXTEND FROM THE FOOTING TO WITHIN 3" OF THE TOP OF THE WALL.
2. #4 FOOTING DOWELS SHALL EXTEND 24" INTO THE FOUNDATION AND MATCH VERTICAL STEEL SIZE AND SPACING. DOWELS SHALL HAVE A 90° STANDARD HOOK AT BOTTOM AND SHALL BE PLACED PER DETAILS.
3. ONE BAR SHALL BE LOCATED IN THE TOP 3" AND ONE BAR IN THE BOTTOM 3" OF THE FOUNDATION WALL. (THE REMAINING EQUALLY SPACED BETWEEN)
4. BARS SHALL BE PLACED WITHIN 2" OF THE OPENING AND EXTEND 24" BEYOND THE EDGE OF THE OPENING.
5. THIS TABLE ASSUMES A MINIMUM OF 1500 PSF BEARING CAPACITY, 38 PSF EQUIVALENT FLUID PRESSURE AND A GLOBALLY STABLE SITE
6. ALL FOUNDATION STEPS SHALL BE 2'-0" MINIMUM.
7. USE 3" X 3" X 1/4" WASHERS ON J-BOLTS. IF SLOTTED WASHER IS USED, ADD CUT WASHER.
8. J-BOLTS MAY BE REPLACED WITH 5/8"⌀ EXPANSION BOLTS INTO SUSPENDED SLAB
9. TITEN HD BOLTS OR EPOXY THREADED RODS MAY BE SUBSTITUTED FOR J-BOLTS OF SAME SIZE AND SPACING. USE 6" TITENS FOR SINGLE SILL PLATE, USE 8" TITENS FOR DOUBLE SILL PLATES.
10. ATTACH SILL PLATE TO FLOOR JOISTS/ BLOCKING WITH A34 CLIP AS PER DETAILS.
11. PERIODIC SPECIAL INSPECTIONS REQUIRED ON 11'-1" TO 12'-0" FOUNDATION WALLS.

2015 REScheck COMPLIANCE UTAH ENERGY CONSERVATION CODE

DESCRIPTION	INSULATION R-VALUE	DOOR/ WINDOW U-VALUE, SHGC VALUE
EXTERIOR OR FURRED BASEMENT WALLS 2x4 STUDS	R-11 W/ R-7 URETHANE	R-18 TOTAL
EXTERIOR STUD WALLS 2x6 STUDS	R-13 W/ R-7 URETHANE	R-20 TOTAL
BLOWN INSULATION OVER LIVING AREA	R-42	PROVIDE INSULATION DEPTH MARKERS EVERY 300 SQ.FT. OF ATTIC AREA
NON-VENTED ROOF INSULATION OVER LIVING AREA	R-19 BATT + 3" CLOSED CELL FOAM (R-21) = R-21 TOTAL	
INSULATED FLOOR OVER GARAGE AREA & CANTILEVERS	R-30	
WINDOWS		U-0.320 SHGC-0.240
EXTERIOR DOORS SOLID/GLASS		U-0.250 SHGC-0.240
CONC. STEM WALL	R-10 RIGID	3'-0" EA WAY (STEM WALL/ UNDER SLAB)
FURNACE EFFICIENCY	MAIN AND UPPER FLOOR = 90%	

FRAMING GENERAL NOTES 2018 IRC

1. ALL BEARING HEADERS, JOISTS AND BEAMS SHALL BE DOUG FIR #2 OR BETTER. ALL BEARING COLUMNS SHALL BE DOUG FIR #2 OR BETTER. ALL BEARING STUDS & TRIMMERS SHALL BE DOUG FIR #2 OR BETTER FOR MAX. HEIGHTS ALLOWED SEE STUD WALL HEIGHT SCHEDULE. GLU-LAMINATED TIMBER MEMBERS SHALL HAVE A MINIMUM ALL ALLOWABLE BENDING STRESS OF 2,400 psi (24F-V4) LAMINATED VENEER LUMBER SHALL HAVE A MINIMUM ALLOWABLE BENDING STRESS OF 2,600 psi
2. PROVIDE SOLID BLOCKING AT LEAST 2 IN. THICK AND FULL DEPTH OF JOIST @ ENDS AND AT EACH SUPPORT OF JOIST. PROVIDE SOLID BLOCKING @ BEARING ENDS OF TRUSSES.
3. LAMINATED BUILT-UP BEAMS OF 2X MEMBERS SHALL BE SPIKED TOGETHER WITH NOT LESS THAN (2) ROWS 16d SPIKES AT SIXTEEN-INCH (16 IN.) CENTERS, STAGGERED. USE (2) ROWS 16d COMMON NAILS AT 3" OFF TOP AND BOTTOM OF BUILT UP BEAM. STAGGER TOP AND BOTTOM ROWS OF NAILS.
4. ALL STRUCTURAL SHEATHING SHALL BE A.P.A. RATED AND SHALL NOT EXCEED MAXIMUM SPAN RATING. ROOF SHEATHING SHALL BE **5/8"** STRUC II WITH A SPAN RATING OF 24/16. ROOF SHEATHING SHALL BE FASTENED TO FRAMING WITH 8d @ 6" O.C. @ BOUNDARY AND EDGES, & W/ 8d @ 12" O.C. @ FIELD. FLOOR SHEATHING SHALL BE **3/4"** STRUCT II T&G WITH A SPAN RATING OF 40/20. FLOOR SHEATHING SHALL BE FASTENED TO FRAMING WITH 8d @ 6" O.C. @ BOUNDARY AND EDGES, & W/ 8d @ 12" O.C. @ FIELD.
5. TRUSSES TO BE DESIGNED & ENGINEERED BY MANUFACTURER AND GUARANTEED TO WITHSTAND LOADS AS SHOWN IN DESIGN BASIS BELOW. TRUSS MANUFACTURER TO DESIGN TRUSSES FOR ALL APPLICABLE SNOW LOADING CONDITIONS PER IRC 2018.
6. PROVIDE FIRE BLOCKING IN ANY STUD CAVITIES GREATER THAN 10'-0".
7. PROVIDE SIMPSON H1 ANCHORS @ EACH TRUSS ON BEARING ENDS OF ALL TRUSSES & RAFTERS.
8. PROVIDE JOIST HANGERS WHERE SHOWN, OR WHERE APPLICABLE.
9. PROVIDE TRIMMERS/STUDS UNDER BEARING ENDS OF GIRDER TRUSSES & BEAMS EQUIVALENT TO THE WIDTH OF THE MEMBER SUPPORTED, OR AS SPECIFIED ON FRAMING PLANS.
10. PROVIDE GABLE END TRUSSES AS REQUIRED.
11. ALL NONBEARING INTERIOR FRAMING @ 16" O.C.
12. FRAMING TO INCLUDE ALL FURR DOWNS, PLANT SHELVES & CEILING RAFTERS AS PER PLAN.
13. ALL WOOD BEAMS AND HEADERS SHALL BEAR ON MINIMUM OF (1) TRIMMER STUD AT EACH END UNLESS SHOWN OTHERWISE.
14. PROVIDE SOLID BLOCKING IN FLOORS TO TRANSFER COLUMN POINT LOADS THROUGH FLOOR (1¾" x 9½", 11⅞", AND 14" L.V.L.'s) TO MATCH FLOOR SYSTEM.
15. HOT TUBS OR OTHER OWNER INSTALLED ITEMS THAT IMPOSE HEAVY LOADS ON STRUCTURAL MEMBERS WILL REQUIRE ADDITIONAL ENGINEERING IF NOT SHOWN ON ORIGINAL PLANS USED FOR DESIGN. STRUCTURAL MEMBERS MAY NEED TO BE INCREASED FOR THE ADDITIONAL IMPOSED LOADING.
16. USE A35s AT EACH CANTILEVERED JOIST TO BEARING WALL PLATE.

DESIGN BASIS

GOVERNING BUILDING CODE .... I.R.C, I.B.C. 2018
SEISMIC DESIGN
SECTION .... 1613.5.6.2 (ASCE 7) CAT. D
WIND DESIGN
BASIC WIND SPEED .... 115 M.P.H.
DESIGN SOIL BEARING PRESSURE .... 1500 P.S.F.
ROOF LIVE LOAD .... 60 P.S.F.
DEAD LOAD .... 15 P.S.F.
SUSPENDED FLOOR LIVE LOAD .... 40 P.S.F.
DEAD LOAD .... 15 P.S.F.
EXTERIOR BALCONY/DECK LIVE LOAD .... 60 P.S.F.
DEAD LOAD .... 10 P.S.F.

HOLDOWN SCHEDULE: 2018 IRC

	MARK	SIMPSON MODEL #	MIN. POST SIZE (FULL HGT. KING POST)	STEM WALL	SLAB ON GRADE	NOTES/ COMMENTS:
SHEARWALL TO FOUNDATION HOLDOWNS	H1	LSDTHD8/8RJ (2)	4x4 OR (2) 2x4	N/A EMBED STRAP 8"	N/A EMBED STRAP 8"	
	H2	STHD10/10RJ (2)	4x4 OR (2) 2x4	N/A EMBED STRAP 10"	N/A EMBED STRAP 10"	
	H3	STHD14/14RJ (2)	4x4 OR (2) 2x4	N/A EMBED STRAP 14"	USE HTT5 OR HDU5 W/ PAB5	
	H4	HTT5/ HDU5	4x4 OR (2) 2x4	SB5/8X24	PAB5	
	H5	HDU8	4x4 OR (2) 2x4	SB7/8X24	SSTB28	
	H6	HDU11/ HDU14	6x6	SB1X30 OR PAB8 SEE PLAN	SB1X30 OR PAB8 SEE PLAN	
UPPER TO LOWER WALL TIE ANCHORS	MARK	SIMPSON MODEL #	MIN. POST SIZE (FULL HGT. KING POST)		NOTES/ COMMENTS:	
	H7	MST48			CENTER STRAP SO EQUAL LENGTHS ARE ON UPPER AND LOWER WALLS	
	H8	MST72			CENTER STRAP SO EQUAL LENGTHS ARE ON UPPER AND LOWER WALLS	
	H9	HDU8			7/8"⌀ THREADED ROD BETWEEN FLOORS INSTALL ON 4x (MIN) POST @ BOTH FLOORS	

1. THE REQUIREMENTS SHOWN IN THIS TABLE ARE A MINIMUM. SEE PLANS FOR SPECIFIC CALLS OUTS.
2. 'RJ' AFTER MODEL INDICATES STHD's FOR RIM JOIST APPLICATIONS. USE RJ MODELS @ ALL RIM JOIST APPLICATIONS
3. USE STANDARD WASHERS WHEN BOLTING HD's TO THE STUDS OPPOSITE THE "HOLDOWN". HD's MUST BE LOCATED ON THE STUDS TO PROVIDE A MINIMUM OF 7 BOLT DIAMETERS BETWEEN THE HOLE AND THE END OF THE STUDS.
4. FOUNDATION CONCRETE STRENGTH SHALL BE 3,000 PSI. INSTALL A MINIMUM OF (1) #4 HORIZONTAL REBAR IN SHEAR CONE ON ALL FOUNDATION "HOLDOWNS".
5. 16d SINKERS MAY BE REPLACED w/ 10d COMMON NAILS w/ NO REDUCTIONS (16d SINKERS = 0.148"⌀ x 3 1/4" LONG, 10d COMMON = 0.148"⌀ x 3"). 'GUN NAILS' MAY NOT BE USED UNLESS SPECIFICALLY NOTED.
6. REFER TO ATTACHED CONCRETE SECTIONS AND DETAILS SHEET OR TO SIMPSON CATALOG C-2018 FOR APPLICABLE DETAILS AND ADDITIONAL INSTALLATION INSTRUCTIONS.
7. ALL HOLDOWNS ON THIS SCHEDULE MAY NOT BE APPLICABLE TO THIS PLAN.

SHEARWALL SCHEDULE

ALL SHEARWALLS NOTED MAY NOT BE USED IN THIS PLAN

TYPE	SHEATHING	NAIL SIZE	NAIL SPACING EDGE	NAIL SPACING FIELD	STAPLE EQ.	BOTT. PL TO RIM ATTACHMENT	RIM/BLOCK TO PL ATTACHMENT BELOW DOUBLE SIDED SHEAR WALLS
TYPICAL[4]	7/16" ONE SIDE[2]	8d	6" O.C.	12" O.C.	16G @ 3" O.C.	16d @ 6" O.C.	LTP4 OR A35 @ 16" O.C.
1 SW-1[4]	7/16" ONE SIDE[2]	8d	4" O.C.[2]	12" O.C.	16G @ 2" O.C.	16d @ 6" O.C.	LTP4 OR A35 @ 16" O.C.
2 SW-2[3]	7/16" ONE SIDE[2]	8d	3" O.C.[2]	12" O.C.	NOT ALLOWED	4" SDS SCREWS @ 8" O.C.[7,8]	LTP4 OR A35 @ 12" O.C.
3 SW-3[3]	7/16" ONE SIDE[2]	8d	2" O.C.[2]	12" O.C.	NOT ALLOWED	4" SDS SCREWS @ 8" O.C.[7,8]	LTP4 OR A35 @ 9" O.C.

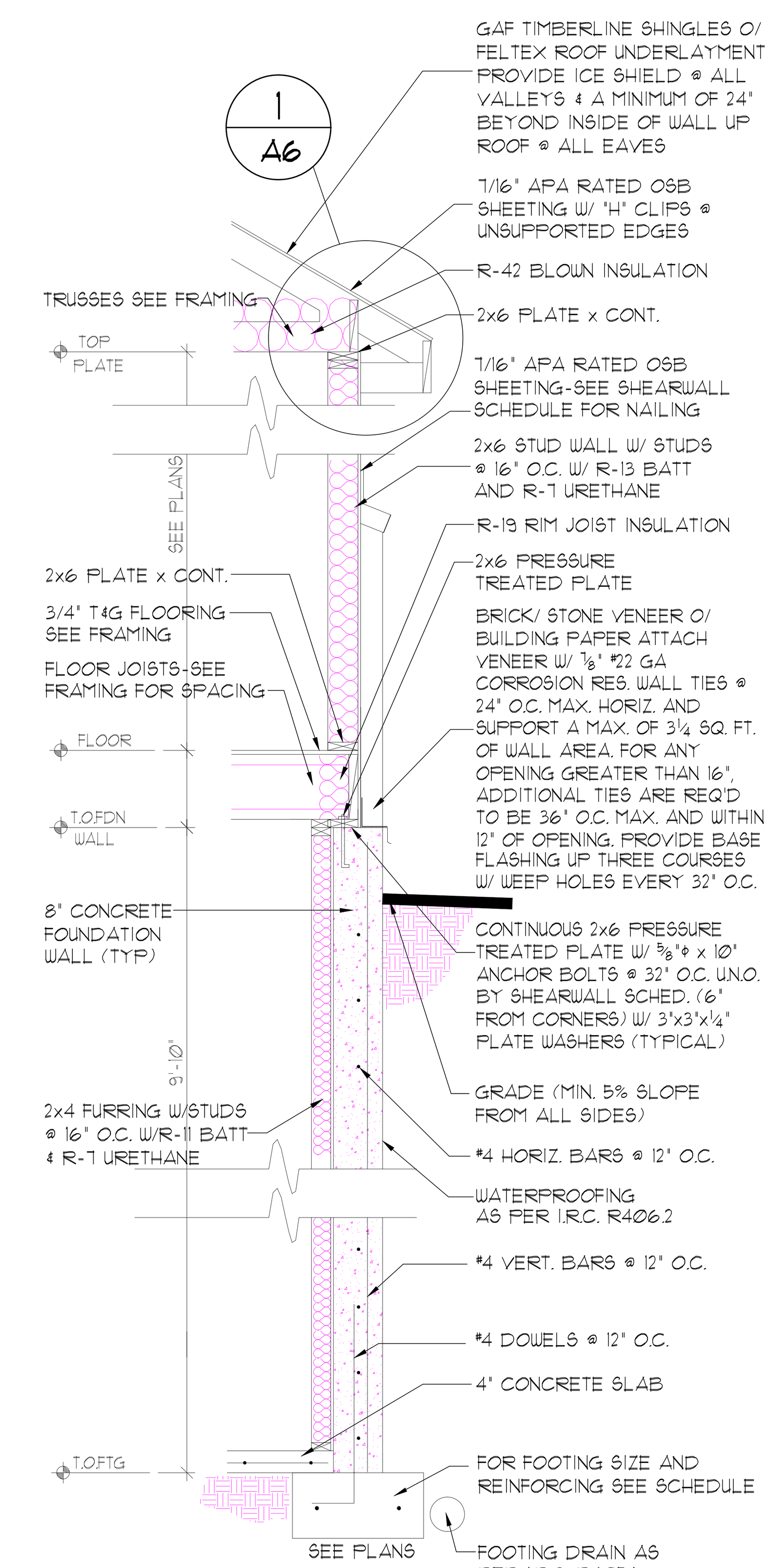
SHEAR WALL NOTES:
ALL EXTERIOR WALLS AND VERTICAL SURFACES SHALL BE SHEATHED PER TYPICAL SHEAR WALL REQUIREMENTS MIN. U.N.O., WITH SHEATHING MANUFACTURED WITH EXTERIOR GLUE. SHEATHING SHALL BE APA RATED 24/16 MIN., NAILS SHALL BE SPACED 1/2" MIN. FROM PANEL EDGE AND DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. BLOCK AND EDGE NAIL ALL HORIZONTAL SHEATHING JOINTS.

1. 16 GAGE X 1-1/2" STAPLES MAY BE SUBSTITUTED FOR 8d NAILS AT 1/2 SPACING ON TYPICAL AND SW-1 WALLS.
2. WHERE SHEAR WALLS ARE INDICATED ON PLANS AT BOTH SIDES OF WALL, PROVIDE SHEATHING BOTH SIDES OF WALL (DBL SIDED SHEAR WALL) AND STAGGER EDGE NAILS.
3. PROVIDE 3X OR DBL 2X MEMBERS AT ADJOINING PANEL EDGES AT SW-2 AND SW-3 AND LAP SHEATHING 1 1/4" MIN. ONTO FRAMING MEMBERS AT PANEL EDGES.
4. AT TYPICAL AND SW-1 WALLS, LAP SHEATHING 3/4" ONTO FRAMING MEMBERS AT PANEL EDGES.
5. LAP SHEATHING 1 1/4" MIN. ONTO SILL PLATES ON FOUNDATIONS.
6. NAILS TO BE COMMON OR GALVANIZED BOX.
7. AT SINGLE SIDED SHEAR WALLS WHERE SHEATHING IS LAPPED TO CENTER OF RIM, WALL TOP PL OR TO SILL PLATE BELOW, 16d @ 6" O.C. MAY BE USED FOR WALL BOTTOM PLATE TO RIM ATTACHMENT.
8. USE 5" SCREWS FOR WALL PLATE TO RIM ATTACHMENT IF FLOOR SHEATHING IS GREATER THAN 3/4" THICK.
9. EDGE NAIL SHEATHING TO POSTS AT HOLDOWNS WITH (2) ROWS EDGE NAILING.

WALL HEIGHT FRAMING SCHED.

WALL TYPE	STUD SPAC'G	LUMBER TYPE	TRUSSES/RAFTERS PERP. TO WALL	TRUSSES/RAFTERS PAR. TO WALL
2x4	16"	DOUG FIR	10'-0" MAX STUD HEIGHT	11'-0" MAX STUD HEIGHT
		HEM FIR	8'-6" MAX STUD HEIGHT	9'-9" MAX STUD HEIGHT
2x4	12"	DOUG FIR	11'-6" MAX STUD HEIGHT	12'-0" MAX STUD HEIGHT
		HEM FIR	10'-0" MAX STUD HEIGHT	11'-6" MAX STUD HEIGHT
2x6	16"	DOUG FIR	16'-0" MAX STUD HEIGHT	17'-0" MAX STUD HEIGHT
		HEM FIR	11'-6" MAX STUD HEIGHT	15'-0" MAX STUD HEIGHT
2x6	12"	DOUG FIR	18'-6" MAX STUD HEIGHT	19'-0" MAX STUD HEIGHT
		HEM FIR	13'-6" MAX STUD HEIGHT	16'-0" MAX STUD HEIGHT
1¾"x5½" LVL STUDS	16"	2800 psi	19'-0" MAX STUD HEIGHT	21'-0" MAX STUD HEIGHT
1¾"x5½" LVL STUDS	12"	2800 psi	21'-0" MAX STUD HEIGHT	21'-0" MAX STUD HEIGHT

NOTES:
1. 115 mph exposure "C" 55 psf roof load
2. Number 2 or better lumber must be used
   Doug fir E= 1,600,000 psi Hem fir E= 1,300,000 psi
3. 17'-0" max truss/rafter bearing
4. Schedule reflects un-braced wall heights.
5. Full height stud walls which are braced laterally (trusses or rafters) wall heights may be reduced to the point at which the first lateral brace occurs. Special stud spacing conditions will be noted on floor plans and sections as designated by structural engineer.



A / A2 **WALL SECTION**
SCALE: 1/2" = 1'-0"

LOT# 54 SUBDIVISION THREE FALLS
CITY ALPINE

LANDFORMS DESIGN
landforms.com

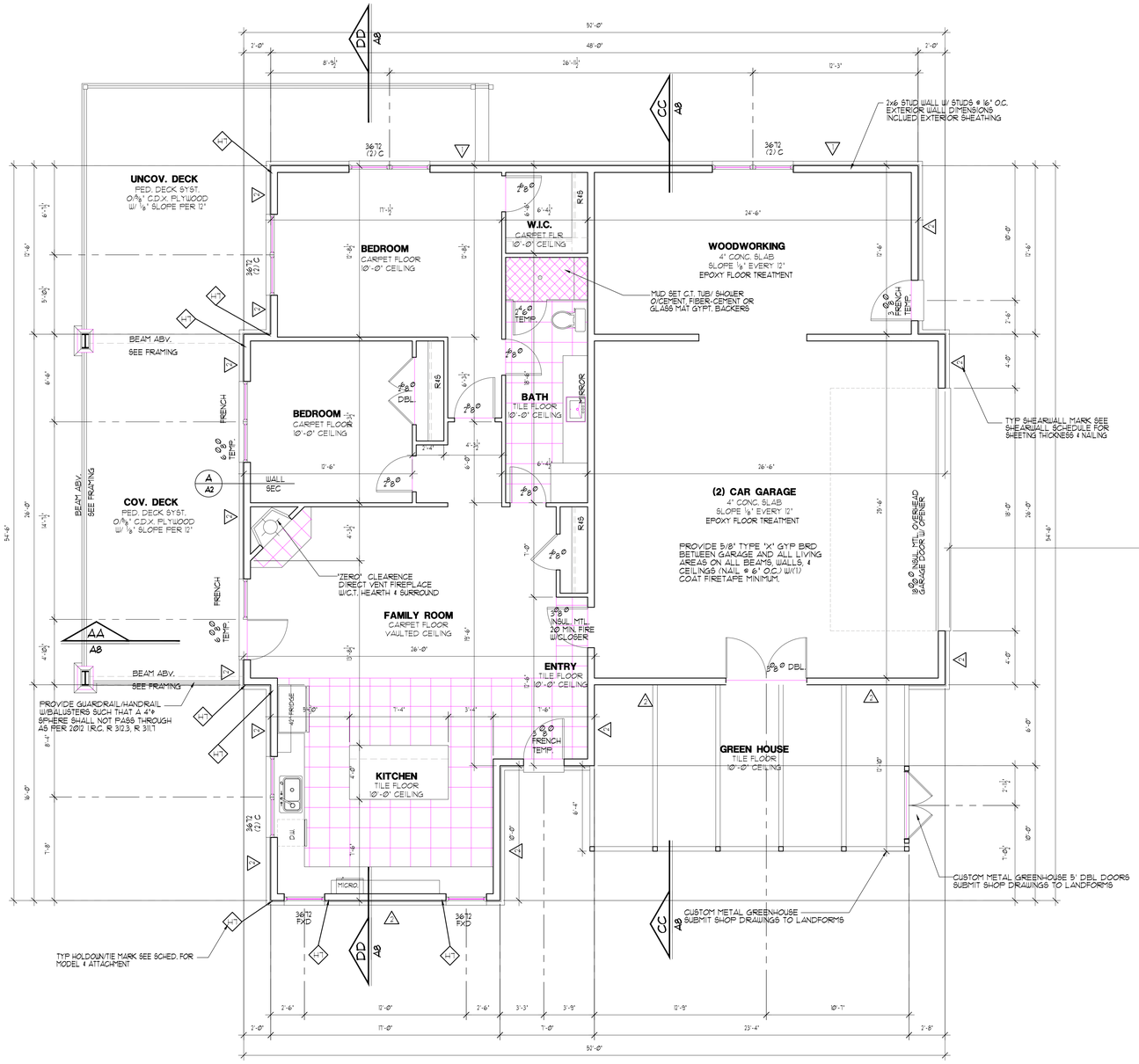
CONSTRUCTION NOTES AND DETAILS
JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN

REVISIONS date	item

PROFESSIONAL STRUCTURAL ENGINEER No. 167797-2203 R. LYNN CARLSON STATE OF UTAH 1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

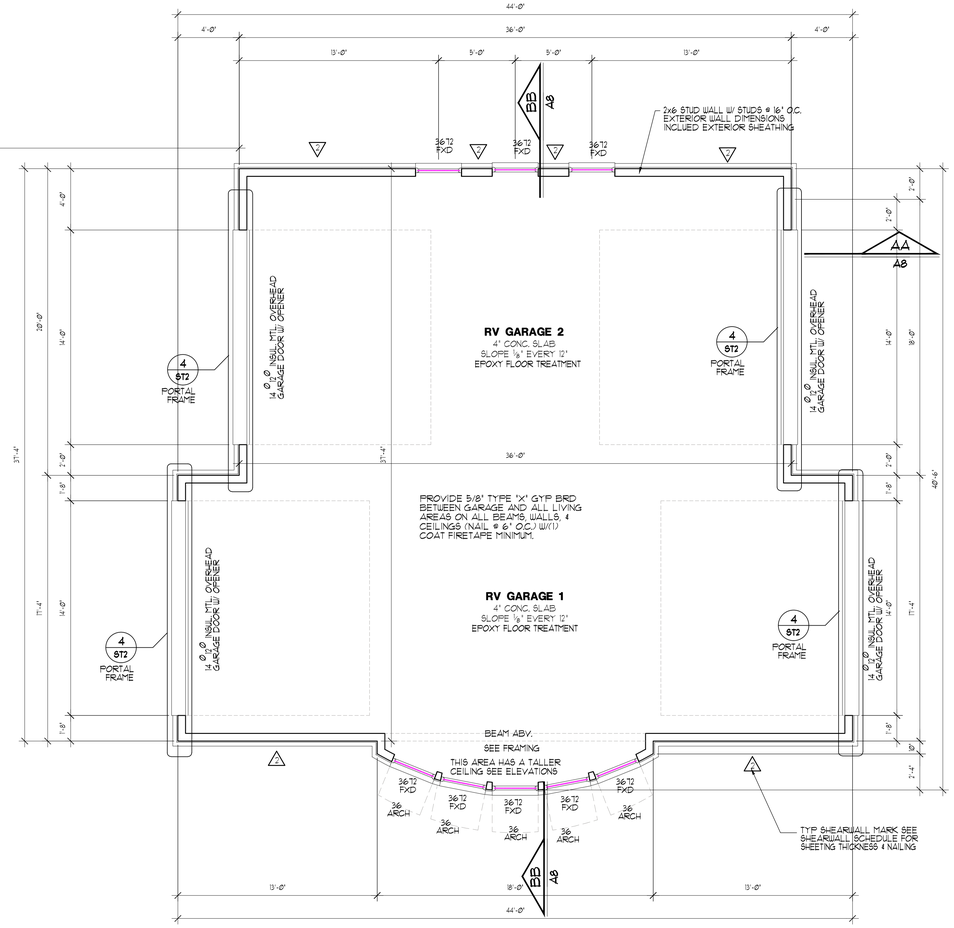
A2



MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0"

SQUARE FOOTAGE:	
MAIN FLOOR FINISHED	1280 S.F.
GARAGES/ WOODWORKING	931 S.F.
GREEN HOUSE	1190 S.F.



GARAGE FLOOR PLAN

SCALE: 1/4" = 1'-0"

SQUARE FOOTAGE:	
GARAGES	1408 S.F.

ATTENTION: PLEASE NOTE: LANDFORMS DESIGN OF ANY UNLAWFUL USE

LOT# **54** SUBDIVISION **THREE FALLS**

CITY **ALPINE** STATE **UTAH** DATE **8-26-19**

LANDFORMS DESIGN
landforms.com

MAIN FLOOR PLAN

JOHNSON GARAGE

CUSTOM DETACHED GARAGE PLAN

REVISIONS

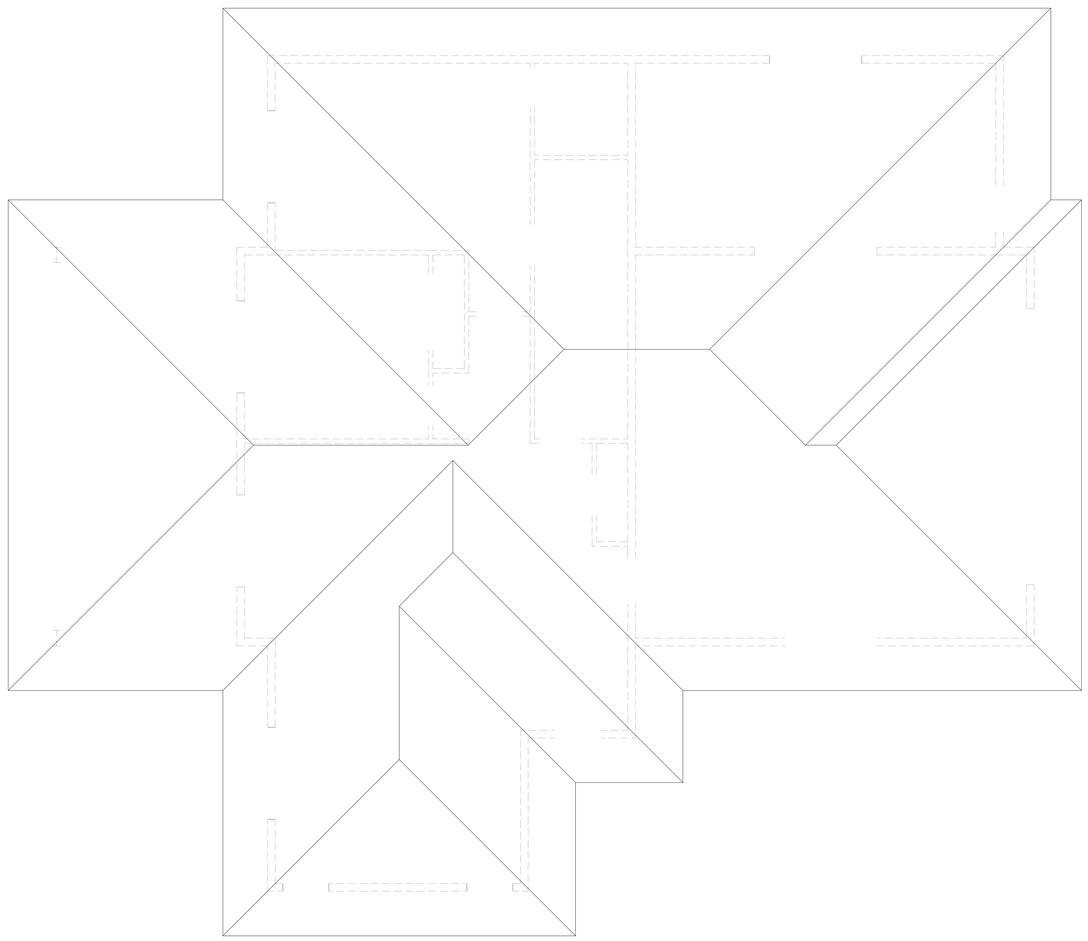
date	item

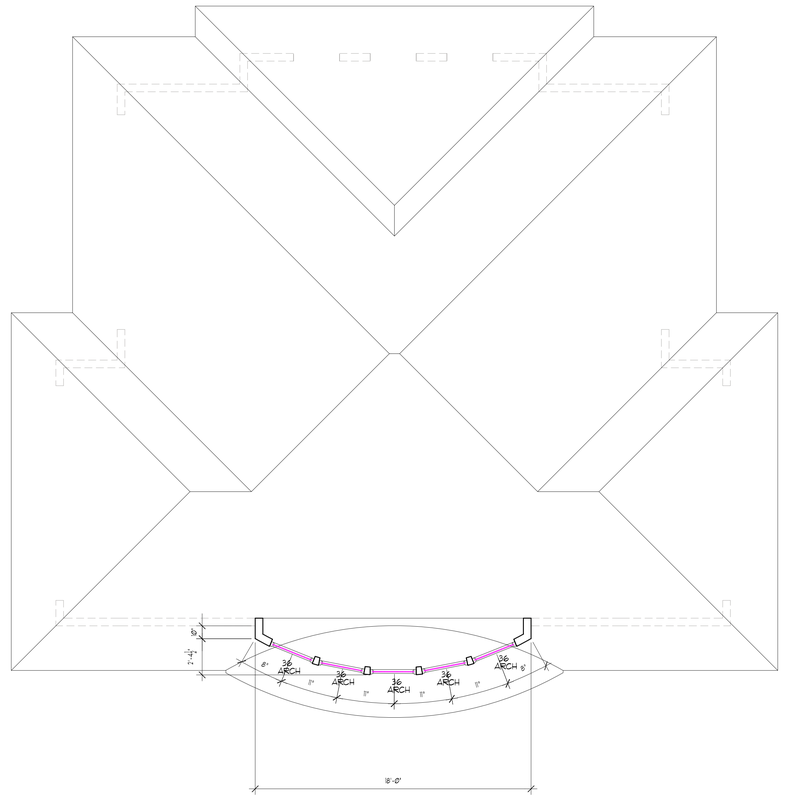
PROFESSIONAL STRUCTURAL ENGINEER
No. 167797-2203
R. LYNN CARLSON
STATE OF UTAH

1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A3





CLERESTORY PLAN

SCALE: 1/4" = 1'-0"

LOT **54** SUBDIVISION **THREE FALLS**
CITY **ALPINE** ASSOCIATED LANDFORMS DESIGN OF ANY UNLAWFUL USE.
STATE **UTAH** DATE **8.26.19**

LANDFORMS DESIGN
landforms.com

CLERESTORY PLAN

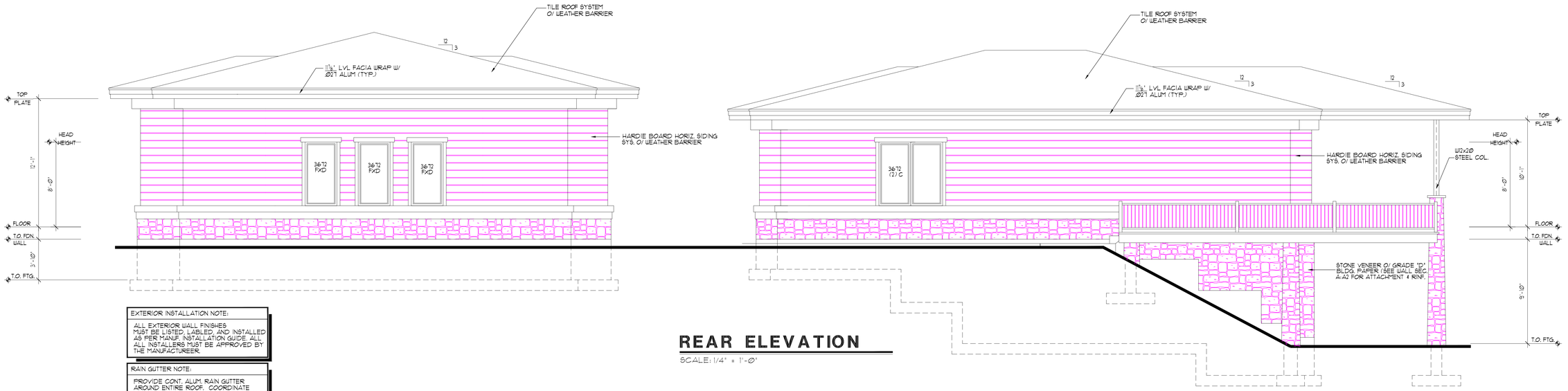
JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN

REVISIONS

date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A4



EXTERIOR INSTALLATION NOTE:

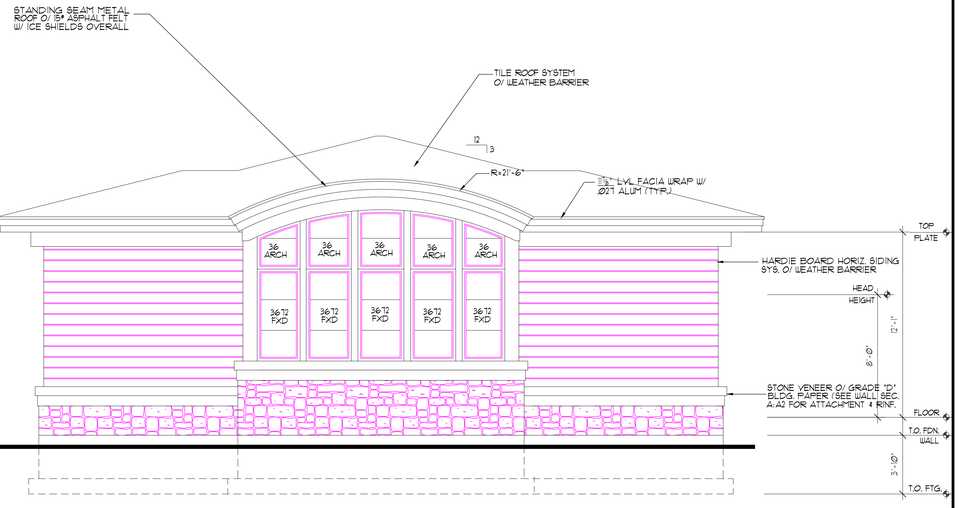
ALL EXTERIOR WALL FINISHES MUST BE LISTED, LABLED, AND INSTALLED AS PER MANUF. INSTALLATION GUIDE. ALL ALL INSTALLERS MUST BE APPROVED BY THE MANUFACTUREER.

RAIN GUTTER NOTE:

PROVIDE CONT. ALUM. RAIN GUTTER AROUND ENTIRE ROOF. COORDINATE DOWNSPOUT LOCATIONS W/ CONTRACTOR.

REAR ELEVATION

SCALE: 1/4" = 1'-Ø"



EXTERIOR INSTALLATION NOTE:

ALL EXTERIOR WALL FINISHES MUST BE LISTED, LABLED, AND INSTALLED AS PER MANUF. INSTALLATION GUIDE. ALL ALL INSTALLERS MUST BE APPROVED BY THE MANUFACTUREER.

RAIN GUTTER NOTE:

PROVIDE CONT. ALUM. RAIN GUTTER AROUND ENTIRE ROOF. COORDINATE DOWNSPOUT LOCATIONS W/ CONTRACTOR.

FRONT ELEVATION

SCALE: 1/4" = 1'-Ø"

SITE DESIGNATION: **THREE FALLS**
LOT# **54** SUBDIVISION
CITY **ALPINE**
PLEASE NOTE: LANDFORMS DESIGN IS NOT RESPONSIBLE FOR ANY UNLAWFUL USE
STATE **UTAH** DATE **8-26-19**

LANDFORMS DESIGN
landforms.com

EXTERIOR ELEVATIONS

JOHNSON GARAGE

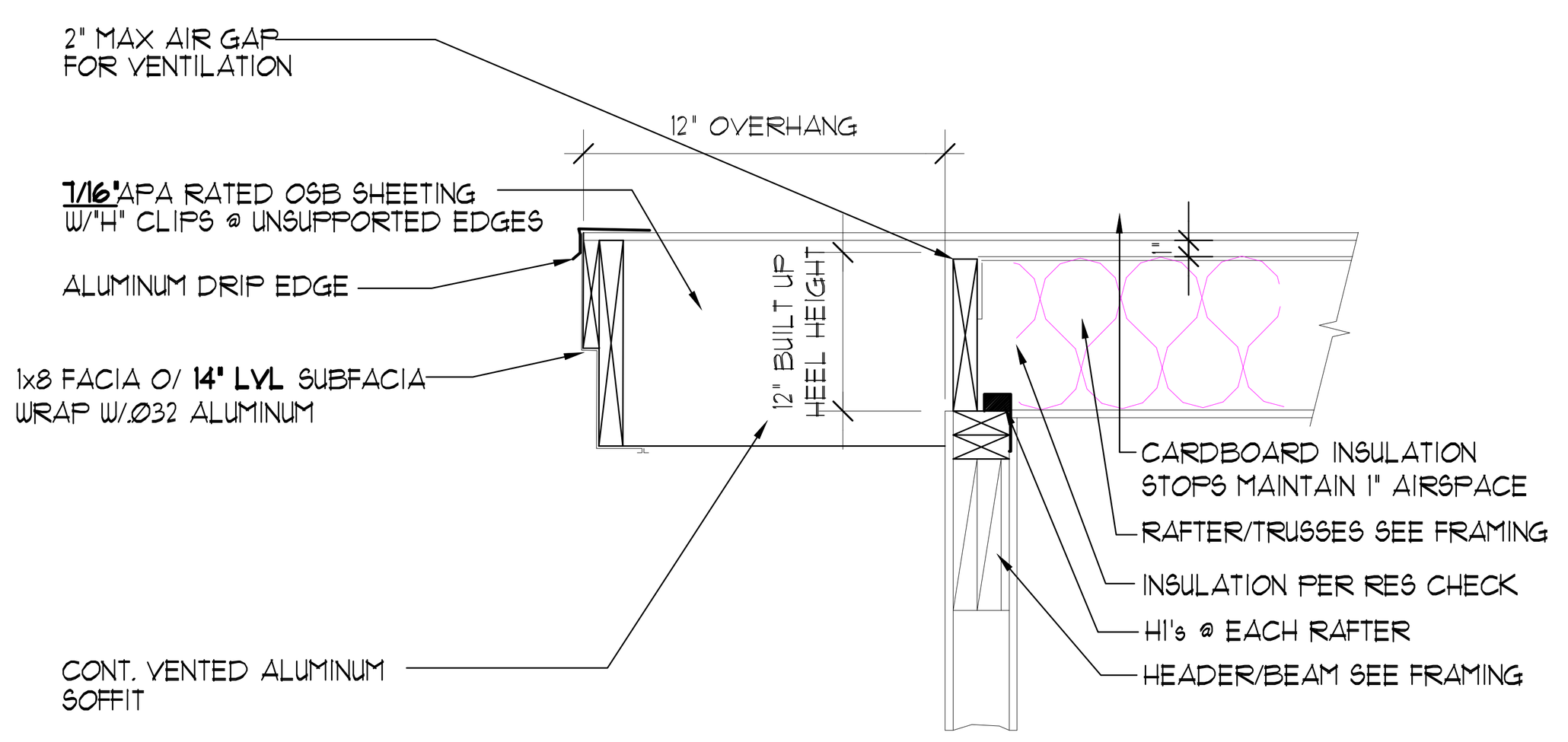
CUSTOM DETACHED GARAGE PLAN

REVISIONS

date	item

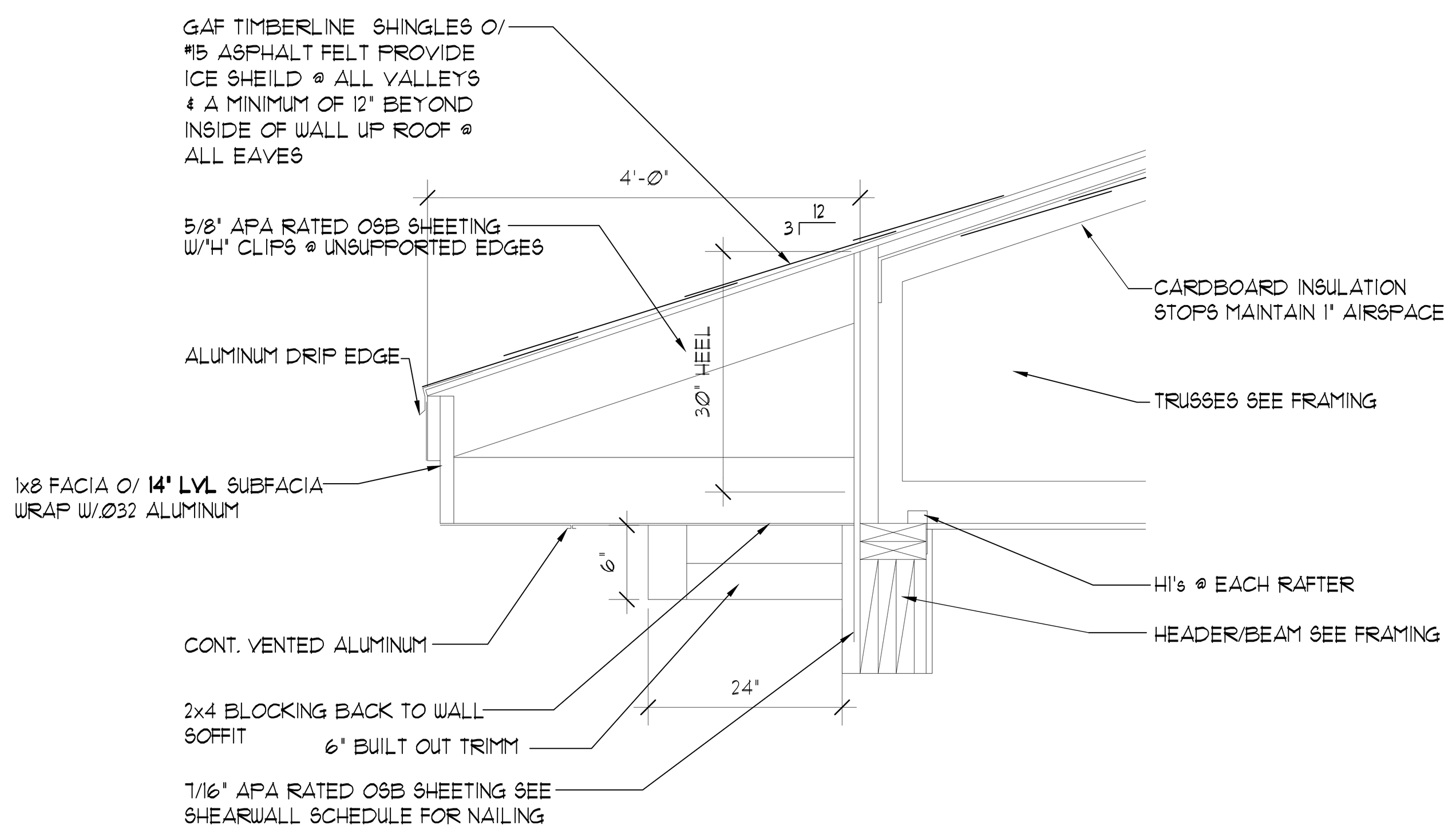
SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A5



3 / A6 **EAVE DETAIL**

SCALE: 1" = 1'-0"

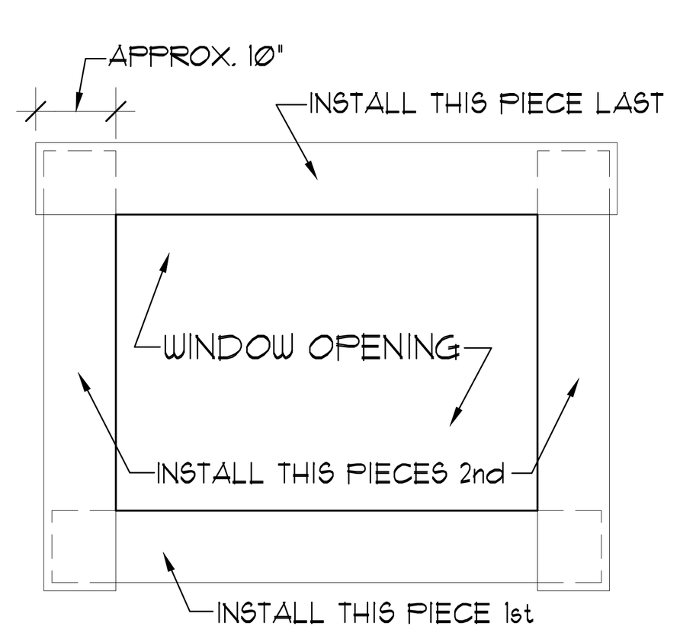


1 / A6 **EAVE DETAIL**

SCALE: 1" = 1'-0"

FLASHING GENERAL NOTES

FLASHING SHALL BE INSTALLED IN SUCH A MANNER SO AS TO PREVENT MOISTURE FROM ENTERING A WALL, ROOF OR FLOOR AND REDIRECT IT TO THE EXTERIOR. FLASHING SHALL BE INSTALLED AT THE PERIMETERS OF EXTERIOR DOOR AND WINDOW ASSEMBLIES, PENETRATIONS AND TERMINATIONS OF EXTERIOR WALL ASSEMBLIES, EXTERIOR WALL ASSEMBLIES, EXTERIOR WALL INTERSECTIONS WITH ROOFS, CHIMNEYS, PORCHES, DECKS, BALCONIES AND SIMILAR PROJECTIONS AND AT BUILT-IN GUTTERS AND SIMILAR LOCATIONS WHERE MOISTURE COULD ENTER THE WALL. FLASHING WITH PROJECTED FLANGES SHALL BE INSTALLED ON BOTH SIDES AND THE ENDS OF COPINGS, UNDER SILLS AND CONTINUOUSLY ABOVE PROJECTED TRIM. A FLASHING SHALL BE INSTALLED AT THE INTERSECTION OF THE FOUNDATION TO STUCCO, MASONRY, SIDING OR BRICK VENEER. THE FLASHING SHALL BE AN APPROVED CORROSION-RESISTANT FLASHING. R703.7.5, R703.8, R903.2, R905



A / A4 **WINDOW FLASHING**

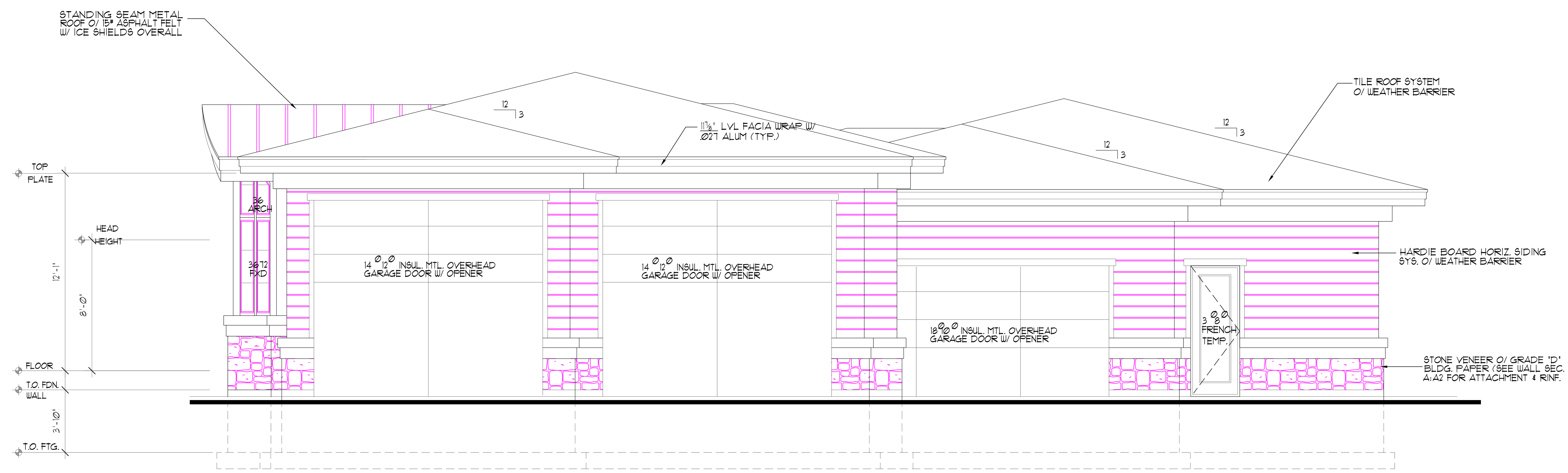
SCALE: NO SCALE

EXTERIOR INSTALLATION NOTE:

ALL EXTERIOR WALL FINISHES MUST BE LISTED, LABLED, AND INSTALLED AS PER MANUF. INSTALLATION GUIDE. ALL ALL INSTALLERS MUST BE APPROVED BY THE MANUFACTUREER.

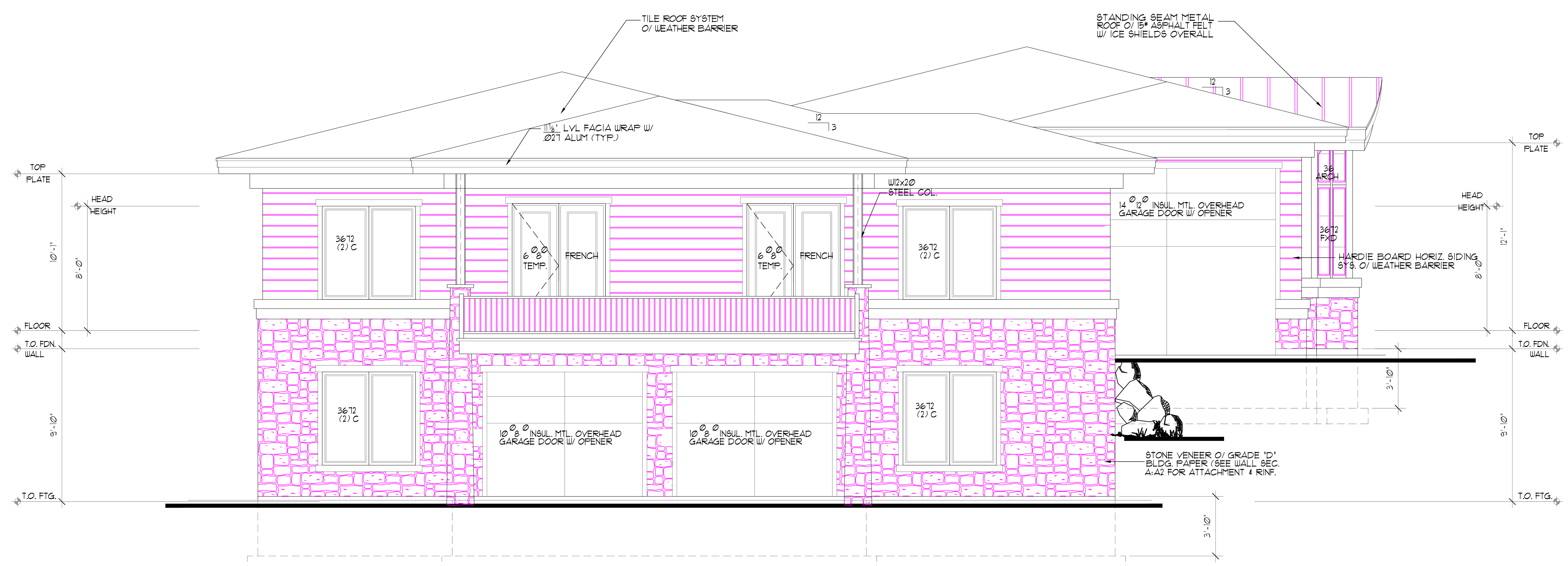
RAIN GUTTER NOTE:

PROVIDE CONT. ALUM. RAIN GUTTER AROUND ENTIRE ROOF. COORDINATE DOWNSPOUT LOCATIONS W/ CONTRACTOR.



RIGHT ELEVATION

SCALE: 1/4" = 1'-0"



LEFT ELEVATION

SCALE: 1/4" = 1'-0"

LOT# **54** SUBDIVISION **THREE FALLS**

CITY **ALPINE**

PLEASE NOTIFY LANDFORMS DESIGN OF ANY UNLAWFUL USE.

STATE **UTAH** DATE **8-26-19**

LANDFORMS DESIGN

landforms.com

EXTERIOR ELEVATIONS

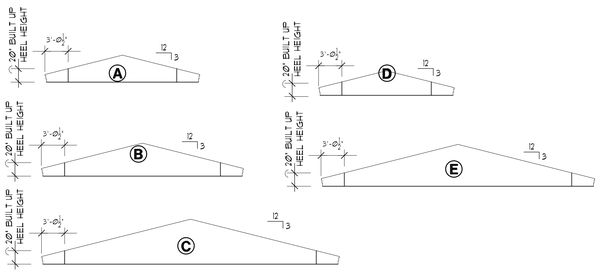
JOHNSON GARAGE

CUSTOM DETACHED GARAGE PLAN

REVISIONS date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A6



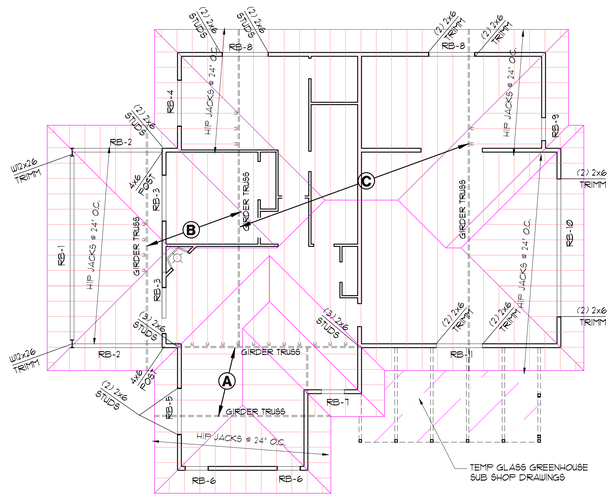
TRUSS NOTE:
IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL TRUSS TYPES SHAPES, SIZES, LAYOUT & PITCH, AND TO COORDINATE W/ ELEVATIONS AND SECTIONS PRIOR TO ORDERING FROM MANUFACTURER. SUBMIT COPY OF TRUSS SPECS. TO LANDFORMS PRIOR TO ASSEMBLY. NOTIFY LANDFORMS OF ANY DISCREPANCIES

TRUSS TYPES

SCALE: 1/8" = 1'-0"

ROOF BEAM SCHEDULE

MARK	TYPE.	SIZE	NOTES
RB-1	STEEL	W12x30	TOP OF BEAM = 1½" BELOW BOTTOM OF JOISTS
RB-2	STEEL	W12x30	TOP OF BEAM = 1½" BELOW BOTTOM OF JOISTS
RB-3	DIM.	(2) 2x10's	HEADER
RB-4	DIM.	(2) 2x10's	HEADER
RB-5	LVL	(2) 1¾"x9½"	HEADER
RB-6	DIM.	(2) 2x10's	HEADER
RB-7	DIM.	(2) 2x10's	HEADER
RB-8	LVL	(2) 1¾"x9½"	HEADER
RB-9	LVL	(3) 1¾"x14"	HEADER
RB-10	LVL	(3) 1¾"x16"	HEADER
RB-11	LVL	(2) 1¾"x9½"	HEADER
RB-12			
RB-13			
RB-14			
RB-15	LVL	(2) 1¾"x14"	HEADER
RB-16	LVL	(2) 1¾"x11⅞"	HEADER
RB-17	DIM.	(2) 2x10's	HEADER
RB-18	LVL	(3) 1¾"x18"	BOTTOM OF BEAM = BOTTOM OF TRUSSES
RB-19	DIM.	(2) 2x10's	TOP OF BEAM = BOTTOM OF TRUSSES
RB-20			
RB-21			
RB-22			
RB-23			
RB-24			
RB-25			
RB-26			
RB-27			
RB-28			
RB-29			

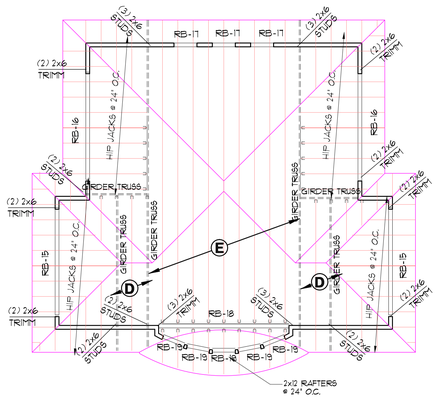


ROOF FRAMING PLAN 60 lb

SCALE: 1/8" = 1'-0"

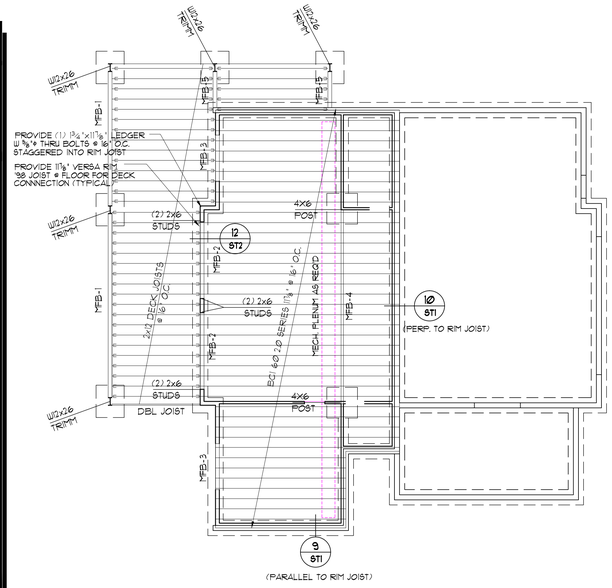
ROOF DIAPHRAGM:
5/8" APA RATED OSB. SHEETING W/ 8d @ 6" O.C. @ DIAPHRAGM BOUNDARIES & SUPPORTED EDGES W/ 8d @ 12" O.C. @ FIELD. PROV. "H" CLIPS ALL UNSUP. EDGES

HEADER NOTE:
ALL EXTERIOR BEARING HEADERS TO BE (2) 2x10's UNLESS NOTED OTHERWISE. ALL INTERIOR BEARING HEADERS TO BE (2) 2x10's UNLESS NOTED OTHERWISE.



MAIN FLOOR BEAM SCHEDULE

MARK	TYPE.	SIZE	NOTES
MFB-1	G.L.B.	5⅛" X 18"	TOP OF BEAM = TOP OF DECK JOISTS EXT. GRADE
MFB-2	LVL	(2) 1¾"x11⅞"	HEADER
MFB-3	DIM.	(2) 2x10's	HEADER
MFB-4	STEEL	W12x30	TOP OF BEAM = 1½" BELOW BOTTOM OF JOISTS
MFB-5	G.L.B.	5⅛" X 18"	TOP OF BEAM = TOP OF DECK JOISTS EXT. GRADE
MFB-6			
MFB-7			
MFB-8			
MFB-9			
MFB-10			
MFB-11			
MFB-12			
MFB-13			
MFB-14			
MFB-15			
MFB-16			
MFB-17			
MFB-18			
MFB-19			
MFB-20			
MFB-21			
MFB-22			
MFB-23			
MFB-24			
MFB-25			
MFB-26			
MFB-27			
MFB-28			

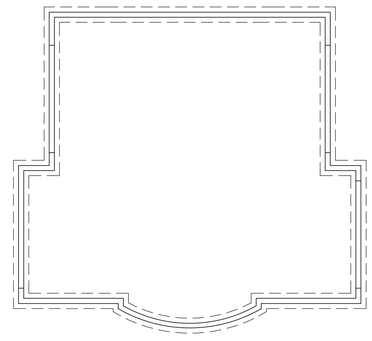


MAIN FLOOR FRAMING PLAN

SCALE: 1/8" = 1'-0"

FLOOR DIAPHRAGM:
3/4" APA RATED T1G OSB. SHEETING GLUED & NAILED W/ 8d @ 6" O.C. @ DIAPHRAGM BOUNDARIES & SUPPORTED EDGES & W/ 8d @ 12" O.C. @ FIELD.

HEADER NOTE:
ALL EXTERIOR BEARING HEADERS TO BE (2) 2x10's UNLESS NOTED OTHERWISE. ALL INTERIOR BEARING HEADERS TO BE (2) 2x10's UNLESS NOTED OTHERWISE.



LOT# 54 SUBDIVISION THREE FALLS
CITY ALPINE
PLEASE NOTIFY LANDFORMS DESIGN OF ANY UNLAWFUL USE

LANDFORMS DESIGN
landforms.com

FRAMING PLANS, TRUSSES & BM. SCHED.

JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN

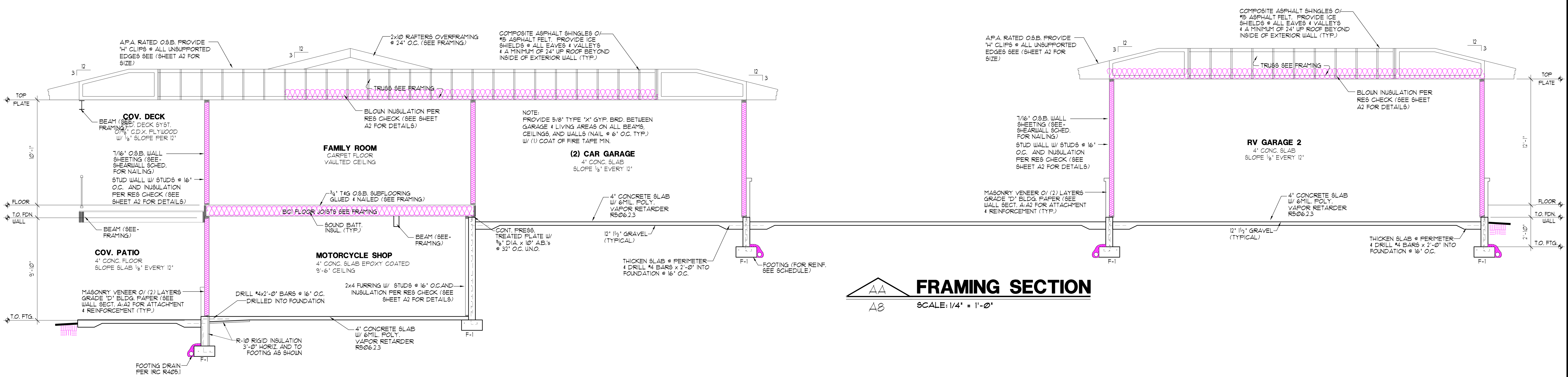
REVISIONS
date | item

PROFESSIONAL STRUCTURAL ENGINEER
No 167797-2203
R. LYNN CARLSON
STATE OF UTAH
1-21-21

SHEET SIZE 30x42

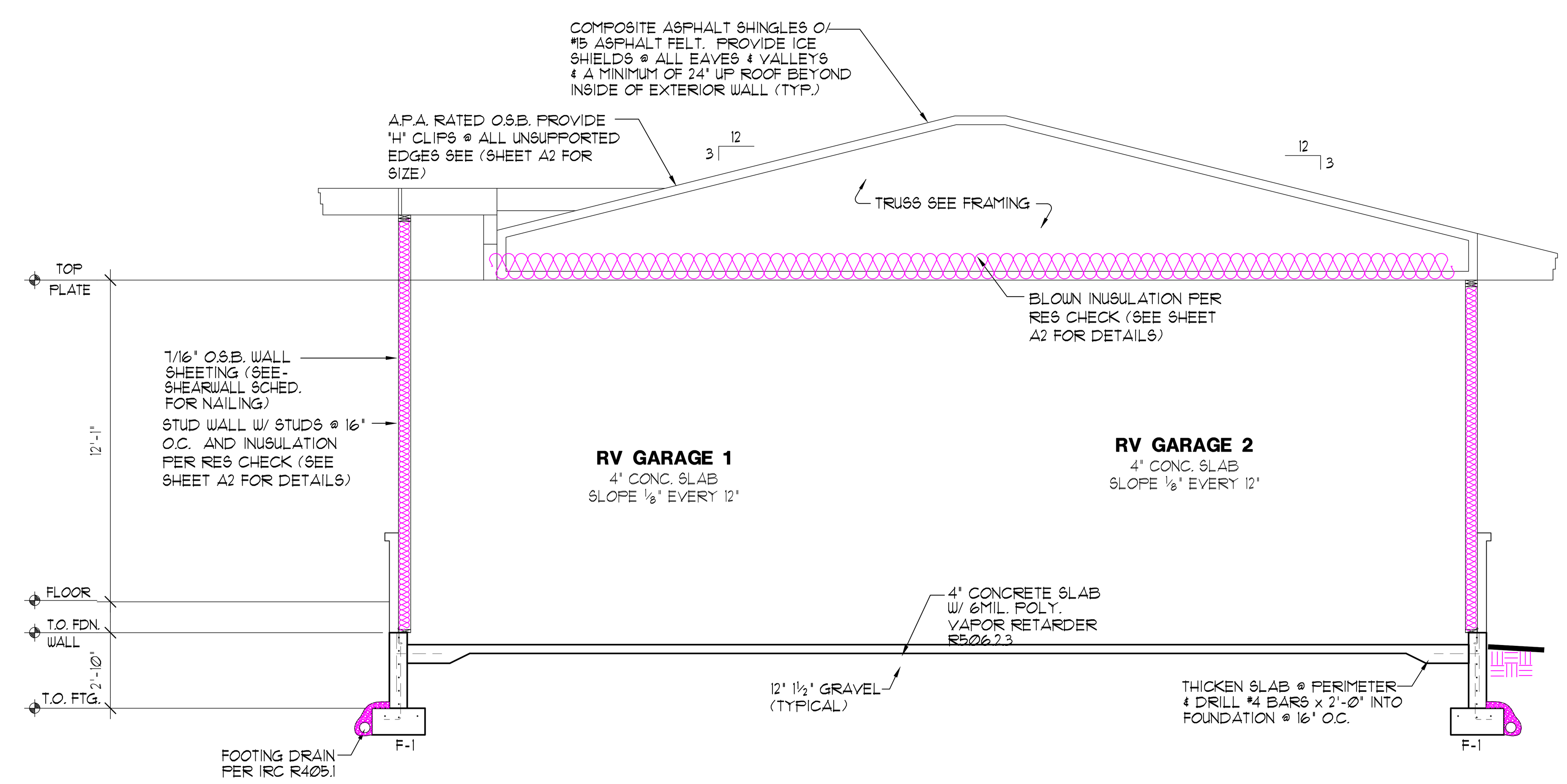
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A7



FRAMING SECTION AA / A8

SCALE: 1/4" = 1'-0"



FRAMING SECTION BB / A8

SCALE: 1/4" = 1'-0"

LOT# 54 SUBDIVISION THREE FALLS
CITY ALPINE
STATE UTAH

LANDFORMS DESIGN
landforms.com

FRAMING SECTIONS

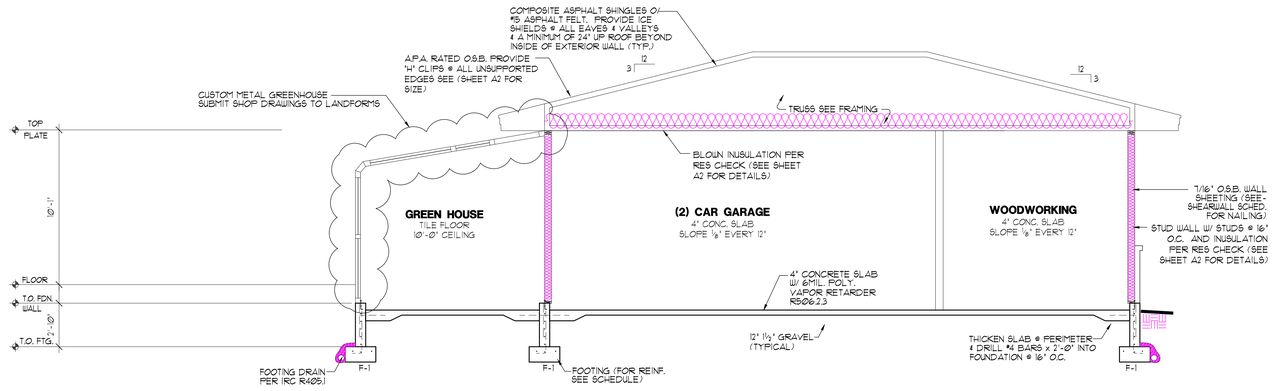
JOHNSON GARAGE

CUSTOM DETACHED GARAGE PLAN

REVISIONS date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

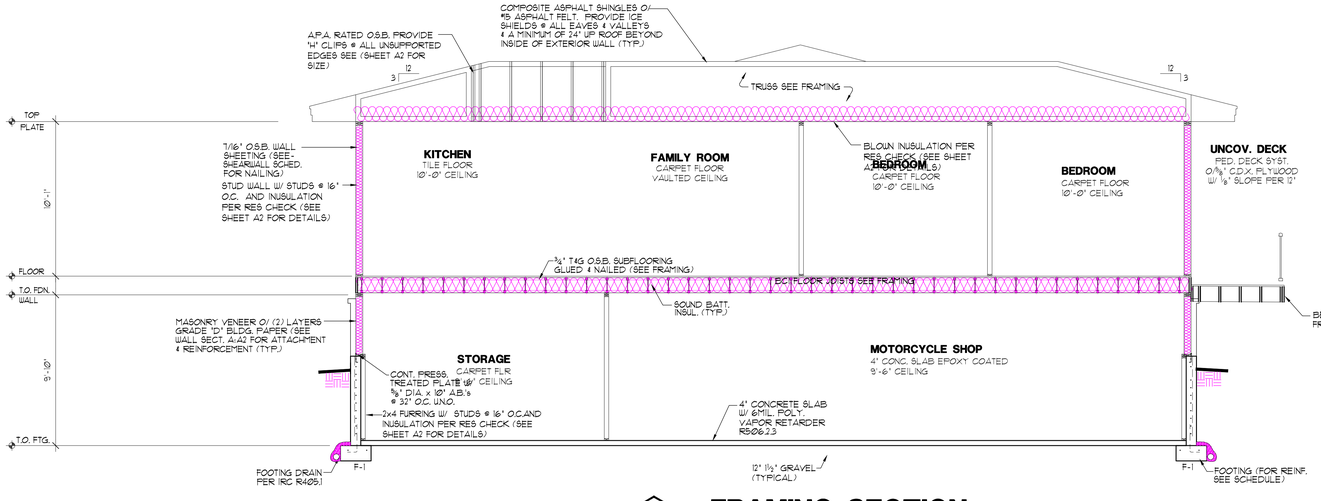
A8



CC
A9

FRAMING SECTION

SCALE: 1/4" = 1'-0"



DD
A9

FRAMING SECTION

SCALE: 1/4" = 1'-0"

LOT **54** SUBDIVISION **THREE FALLS**
CITY **ALPINE**
STATE **UTAH** DATE **8.26.19**

LANDFORMS
DESIGN
landforms.com

FRAMING SECTIONS

JOHNSON GARAGE

CUSTOM DETACHED GARAGE PLAN

REVISIONS date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A9

SEALING OF BUILDING THERMAL ENVELOPE REQUIREMENT: (PICK ONE)

A)

BLOWER DOOR TEST FOR BUILDING ENVELOPE AT FINAL WITH A MAXIMUM AIR LEAKAGE OF 3.5 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL.

-OR-

B)

MEET ALL THE CRITERIA REQUIREMENTS BELOW (THE BUILDER MAY CERTIFY COMPLIANCE TO THE CRITERIA WITH A 3rd PARTY CERTIFICATION FOR ITEMS NOT INSPECTED DURING REGULARLY SCHEDULED INSPECTIONS)

1- A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE.
2- EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER.
3- BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED.
4- AIR-PERMEABLE INSULATION SHALL NOT BE USED AS A SEALING MATERIAL.
5- THE AIR BARRIER IN ANY DROPPED CEILING/ SOFFIT SHALL BE ALIGNED WITH THE INSULATION AND ANY GAPS IN THE AIR BARRIER SEALED.
6- ACCESS OPENINGS, DROP DOWN STAIR OR KNEE WALL DOORS TO UNCONDITIONED ATTIC SPACES SHALL BE SEALED.
7- CORNERS AND HEADERS SHALL BE INSULATED AND THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED.
8- THE JUNCTION OF THE TOP PLATE OF EXTERIOR WALLS SHALLE BE SEALED.
9- EXTERIOR THERMAL ENVELOPE INSULATION FOR FRAMED WALLS SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE AIR BARRIER.
10- KNEE WALLS SHALL BE SEALED.
11- THE SPACE BETWEEN WINDOW/ DOOR JAMBS AND FRAMING AND SKYLIGHTS AND FRAMING SHALL BE SEALED.
12- RIM JOISTS SHALL BE INSULATED AND INCLUDE THE AIR BARRIER.
13- INSULATION SHALL BE INSTALLED TO MAINTAIN PERMANENT CONTACT WITH UNDERSIDE SUBFLOOR DECKING.
14- THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED EDGE OF INSULATION.
15- WHERE PROVIDED IN LIEU OF FLOOR INSULATION, INSULATION SHALL BE PERMANENTLY ATTACHED TO THE CRAWLSPACE WALLS.
16- EXPOSED EARTH IN UNVENTED CRAWL SPACES SHALL BE COVERED WITH A CLASS I VAPOR RETARDER WITH OVERLAPPING JOINTS TAPED.
17- DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING TO EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.
18- INSULATION BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT, OR NARROW CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE.
19- AIR SEALING SHALL BE PROVIDED BETWEEN GARAGE AND CONDITIONED SPACES.
20-RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT, IC RATED, AND SEALED TO THE DRYWALL
21- BATT INSULATION SHALL BE CUT NEATLY TO FIT AROUND WIRING AND PLUMBING IN EXTERIOR WALLS, OR INSULATION THAT ON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE SHALL EXTEND BEHIND PIPING AND WIRING.
22-EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL BE INSULATED AND THE AIR BARRIER INSTALLED SEPARATING THEM FROM THE SHOWERS AND TUBS.
23-THE AIR BARRIER SHALL BE INSTALLED BEHIND ELECTRICAL OR COMMUNICATION BOXES OR AIR SEALED BOXES SHALL BE INSTALLED.
24-HVAC REGISTER BOOTS THAT BENETRATE THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO THE SUBFLOOR OR DRYWALL.
25-AN AIR BARRIER SHALL BE INSTALLED ON FIREPLACE WALLS.
26-FIREPLACES SHALL HAVE GASKETED DOORS.

DUCT WORK OUTSIDE BUILDING ENVELOPE REQUIREMENT: (PICK ONE)

A)

POST CONSTRUCTION TEST: TOTAL AIR LEAKAGE SHALL BE LESS THAN OR EQUAL TO 10 CFM PER 100 SQUARE FEET OF THE CONDITIONED FLOOR AREA.

-OR-

B)

ROUGH-IN TEST: TOTAL AIR LEAKAGE SHALL BE NOT LESS THAN OR EQUAL TO 10 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA. IF THE FURNACE OR AIR HANDLER IS NOT INSTALLED THE TOTAL LEAKAGE SHALL BE NOT LESS THAN OR EQUAL TO 7.5 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR.

EXCEPTION: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS AND AT LEAST 90% OF ALL DUCTS (MEASURED BY LENGTH) ARE LOCATED ENTIRELY WITHIN THE BUILDING ENVELOPE.

ELECTRICAL SYMB.

- CEILING 75 WATT INCANDESCENT RECESSED FIXTURE (DOES NOT INCLUDE TRIM KIT)
- CEILING 45 WATT INCANDESCENT RECESSED FIXTURE (DOES NOT INCLUDE TRIM KIT)
- CEILING MOUNT FAN
- CEILING FIXTURE (COORD W/OWNER)
- STAIR TREAD LIGHT
- PORCELAIN FIXTURE W/PULL CHAIN
- PHOTO ELECTRIC SWITCH
- HEAT LAMP
- WALL MOUNTED INCANDESCENT FIXTURE
- THERMOSTAT (SETBACK MODEL)
- JUNCTION BOX
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- GAS HOOKUPS
- FLUORESCENT FIXTURE (X) TUBES
- DUPLEX OUTLET
- SWITCHED DUPLEX OUTLET
- RANGE/DRYER OUTLET
- GROUND FAULT CIRCUIT INTERRUPT
- DUPLEX OUTLET WITH (2) USB PORTS
- GROUND FAULT CIRCUIT INTERRUPT (WATERPROOF W/ BUBBLE COVER)
- SWITCH
- 3-WAY SWITCH
- VARIABLE SPEED SWITCH
- DIMMER SWITCH
- PUSH BUTTON
- TELEPHONE OUTLET
- TELEVISION OUTLET FOR SATELLITE/CABLE
- ELECTRICAL DISCONNECT
- SPEAKER WIRE (COORD. W/OWNER)
- FLOOR DUPLEX OUTLET
- UNDERCOUNTER LIGHTING (COORD. W/OWNER)

NOTE:
ALL ELECTRICAL FIXTURES MARKED AFP. TO BE ARC FAULT PROTECTED

MECHANICAL GENERAL NOTES

1. ALL WORK PERFORMED SHALL COMPLY WITH ALL CURRENT NATIONAL AND LOCAL BUILDING CODES.
2. MECHANICAL CONTRACTOR TO OBTAIN CITY/STATE BUSINESS LICENSE BEFORE STARTING WORK.
3. MECHANICAL CONTRACTOR TO PROVIDE COMBUSTION AIR TO FURNACE AREA IN ACCORDANCE WITH CURRENT NATURAL GAS COMPANY SPECIFICATIONS. COMBUSTION AIR TO BE PLACED PER LOCATION SHOWN ON MECHANICAL PLAN. PROVIDE WHITE METAL EXTERIOR GRILLE.
4. ALL MECHANICAL SYSTEMS SHALL BE SIZED LARGE ENOUGH TO HEAT/COOL BASEMENTS WHEN FINISHED.
5. ALL SUPPLY AND RETURN AIR PLENUMS ARE SHOWN IN APPROXIMATE LOCATIONS. MECHANICAL CONTRACTOR TO PROVIDE EXPERTISE IN ACTUAL LOCATIONS OF PLENUMS TO MINIMIZE FURR-DOWNS IN FUTURE BASEMENT AREA.
6. MECHANICAL CONTRACTOR TO PROVIDE 4" METAL DUCTING FROM REST ROOM FANS TO EXTERIOR WITH WHITE METAL TERMINATION CAP. SEE MECHANICAL PLAN FOR LOCATION.
7. FOR CONDENSER LOCATIONS SEE MECHANICAL PLANS.
8. VERIFY "FIT" OF DUCTS AND PIPING PRIOR TO FABRICATION.
9. OFFSET FLU STACKS IN ATTIC SPACE TO REAR OF ROOF WHERE POSSIBLE. PAINT ALL FLU STACKS TO MATCH SHINGLE COLOR.
10. MECHANICAL CONTRACTOR TO PROVIDE 4" DIA METAL DUCTING FROM DRYER LOCATION TO EXTERIOR WITH WHITE TERMINATION CAP. DUCTS TO BE METAL WITH SMOOTH INTERIOR SURFACES EQUIPPED W/BACK DRAFT DAMPERS. TERMINATE AT TH EEXTERIOR OF THE BUILDING, AND NOT BE INSTALLED WITH SHEET METAL SCREWS. MAXIMUM DRYER DUCT LENGTH DETERMINED BY IRC M1502.4
11. ALL GAS LINES MUST BE PRESSURE TESTED AT ROUGH INSPECTION. QUESTAR GAS NO LONGER PROVIDES THIS SERVICE AND IS THEREFORE REQUIRED BY THE HVAC CONTRACTOR AT ROUGH INSPECTION.
12. GAS LOG APPLIANCES WITHOUT A FLAME SAFEGUARD DEVICE (AUTO LIGHTING DEVICE OR PILOT) SHALL NOT BE PERMITTED. GAS LOGS AND GAS APPLIANCES SHALL HAVE A SHUT-OFF VALVE WITHIN 6 FEET OF THE APPLIANCE. -IRC G2419
13. FIREPLACE FLUES SHALL BE SEPARATED FROM ATTIC SPACES BY A SHAFT OF ' SHEET ROCK OR ¾" STRUCTURAL BOARD OR PLYWOOD.
14. CSST STAINLESS STEEL GAS LINE MAY BE USED BUT MUST BE SIZED AND APPROVED BEFORE INSTALLATION. ANY CSST INSTALLED MUST BE VISUALLY INSPECTED AND PRESSURE TESTED BEFORE BEING CONCEALED WITHIN CONSTRUCTION.
15. NO CLOTH TYPE DUCT TAPE IS ALLOWED. METALLIC OR FOIL TAPE MUST BE USED.
16. ALL JOINTS, TRANSVERSE AND LONGITUDINAL SEAMS AND CONNECTIONS MUST BE PROPERLY SEALED WITH TAPE OR MASTIC.
17. GAS LINES SHALL NOT PASS THROUGH OR PENETRATE ANY DUCT OR PLENUM
18. GAS PIPING SHALL NOT PENETRATE A BUILDING FOUNDATION BELOW GRADE.
19. VENTS FOR FURNACES AND WATER HEATERS SHALL BE SIZED IN ACCORDANCE WITH THE GAMMA VENT TABLES 803 TO 804 AS LISTED IN THE 2012 IRC.
20. IF FORCED AIR UNIT IS LOCATED WHERE CONDENSATION MAY DAMAGE BUILDING COMPONENTS A WATER DETECTION DEVICE MUST BE INSTALLED OR RUN SECONDARY LINE TO OBSERVABLE LOCATION
21. RANGE HOODS THAT ARE CAPABLE OF EXHAUSTING AIR TO THE OUTSIDE IN EXCESS OF 400 CFM REQUIRE MAKEUP AIR.
22. DRYERS IN CLOSETS THAT ARE CAPABLE OF EXHAUSTING AIR TO THE OUTSIDE IN EXCESS OF 400 CFM REQUIRE MAKEUP AIR.

PLUMBING GENERAL NOTES

1. ALL WORK PERFORMED SHALL COMPLY WITH ALL CURRENT NATIONAL AND LOCAL BUILDING CODES
2. PLUMBING CONTRACTOR TO OBTAIN CITY/STATE BUSINESS LICENSE BEFORE STARTING WORK.
3. PLUMBING CONTRACTOR SHALL PROVIDE ¾" COPPER SUPPLY LINE FROM WATER METER TO FURNACE ROOM. WATER LINE TO BE PLACED UNDER SLAB WHERE APPLICABLE.
4. PLUMBING CONTRACTOR SHALL VERIFY SIZE & LOCATIONS OF UNDERGROUND UTILITIES. COORDINATE WITH ALL OTHER TRADES PRIOR TO MAKING FINAL CONNECTIONS.
5. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL FIXTURES.
6. INTERIOR WASTE AND VENT LINES TO BE ABS.
7. INTERIOR COPPER TO BE TYPE "M" INSTALLED WITH PLASTIC ISOLATORS.
8. NO SUBSTITUTIONS FROM FIXTURE SCHEDULE ARE ALLOWED, EXCEPT BY OWNERS APPROVAL
9. PROVIDE C.P. ESCUTCHEONS AT PIPE SLEEVES FOR EXPOSED BARE PIPE. PACK ANNULUS AT 1 HOUR FIRE WALLS. PLUMBING LINES through GARAGE FIRE WALLS MUST BE METAL PIPING. THIS INCLUDES WASTE LINES, VACUUM LINES, AND SUPPLY LINES. AN APPROVED FIRE STOP MATERIAL MUST BE USED.
10. PROVIDE A PRESSURE REGULATOR AND SHUTOFF VALVE, FOR LOCATION SEE PLUMBING PLAN.
11. OFFSET ALL VENT STACKS IN ATTIC SPACE TO REAR OF ROOF WHERE POSSIBLE.
12. PROVIDE 1.6 GALLON PER FLUSH TOILETS & 2.5 GALLON PER MINUTE SHOWER HEADS.
13. PROVIDE EXPANSION TANKS FOR WATER HEATERS AS PER LOCAL JURISDICTION.
14. NO SLIP JOINT PLUMBING CONNECTIONS IN CONCEALED CONSTRUCTION AREAS (BATH TUBS).
15. INDIVIDUALLY INSULATE ALL PLUMBING, SUPPLY AND DRAIN LINES IN AREAS SUBJECT TO FREEZING (EXTERIOR WALLS, ATTICS, CRAWL SPACES, GARAGES AND EXTERIOR WALLS). SPRAY IN URETHANE HAS BEEN SHOWN TO PREVENT FREEZING PROBLEMS.
16. PLUMBING PENETRATIONS THROUGH GARAGE FIRE WALLS MUST BE METAL PIPING OR HAVE AN APPROVED THROUGH PENETRATION FIRE STOP INSTALLED
17. PROVIDE ANTI-SCALD SHOWER VALVES ON ALL SHOWER AND TUB COMBINATION INSTALLATIONS.
18. PROVIDE 21" CLEARANCE IN FRONT OF SINKS, WATER CLOSETS, AND TUBS. PROVIDE 24" CLEARANCE IN FRONT OF SHOWER DOORS. SHOWER DOORS TO BE A MIN. OF 22" WIDE.
19. IF PLUMBING MANIFOLD SYSTEM IS BEING USED, SYSTEM MUST BE ACCESSIBLE BY LOCAL OFFICALS
20. BATHTUBS & WHIRLPOOL TUB VALVES SHALL LIMIT THE TEMP. TO A MAX. OF 120° F.
21. ALL BASEMENT FIXTURES MUST PASS THROUGH A BACKWATER VALVE UNLESS IT IS EST. THAT A FIXTURE IN THE BASEMENT OR LOWEST LEVEL OF THE HOME IS NOT BELOW THE ELEVATION OF THE UPSTREAM MANHOLE COVER. THIS WILL REQIRE BASEMENTS TO BE PLUMBED INDEPENDANTLY FOM UPPER FLOORS. BACKWATER VALVES MUST BE ACCESSIBLE.

ELECTRICAL GENERAL NOTES

1. ALL WORK PERFORMED SHALL COMPLY WITH ALL NATIONAL AND LOCAL BUILDING CODES.
2. ELECTRICAL CONTRACTOR TO OBTAIN CITY/STATE BUSINESS LICENSE BEFORE STARTING WORK.
3. ALL TELEVISION OUTLETS ARE TO BE INSTALLED WITH A SEPARATE COAXIAL CABLE TO MECHANICAL ROOM. PROVIDE ANTENNA IN ATTIC WITH SINGLE COAXIAL CABLE TO MECHANICAL ROOM. PROVIDE COAXIAL CABLE FROM MECHANICAL ROOM TO EXTERIOR FOR FUTURE CABLE TELEVISION HOOKUP. HOOK UP TELEVISION CABLES IN MECHANICAL ROOM TO DESIRED (ANTENNA, CABLE) CHOICE. PROVIDE T.V. CONNECTION PANEL ON WALL IN MECHANICAL ROOM.
4. ELECTRICAL CONTRACTOR TO PROVIDE A MINIMUM OF 200 AMP SERVICE TO HOME.
5. ALL EXHAUST FANS SHALL BE VENTED TO EXTERIOR WITH METAL DUCT W/ BACK DRAFT DAMPER. PROVIDE WHITE METAL EXTERIOR TERMINATION CAP. EXHAUST FANS NOT TO BE DISCHARGED INTO VENTED SOFFITS.
6. ALL SMOKE DETECTORS SHALL BE WIRED TOGETHER FOR SIMULTANEOUS ALERT SOUNDING. DETECTORS SHALL ALSO BE WIRED TO BUILDING PRIMARY POWER WITH BATTERY BACKUP. ALL SLEEPING ROOMS AT ALL LEVELS TO HAVE SMOKE DETECTORS.
7. SIZE ELECTRICAL PANEL SUFFICIENTLY LARGE ENOUGH TO HANDLE FUTURE BREAKERS WHEN BASEMENT IS FINISHED.
8. PROVIDE (4) PAIR CABLE TO ALL TELEPHONE OUTLETS. HOME RUN ALL TELEPHONE LINES TO MECHANICAL ROOM. PROVIDE 66 STYLE PUNCH DOWN BLOCK WALL MOUNTED FOR FINAL CONNECTIONS.
9. ALL BATHROOM OUTLETS TO BE ON SEPARATE 20 AMP BREAKERS NOT TO EXCEED 2011 N.E.C. REQUIREMENTS
10. CEILING FANS REQUIRE SPECIAL APPROVED BOXES AND ADDITIONAL FRAMING SUPPORT.
11. GARAGE ELECTRICAL OUTLETS TO BE 18" ABOVE FLOOR.
12. PROVIDE A CONCRETE ENCASED ELECTRODE (UFER GROUND) AT FIRST POINT OF DISCONNECT (METER) FOR USE AS A GROUNDING ELECTRODE FOR THE HOUSE WHICH MEETS REQUIREMENTS OF 2014 N.E.C. SECTION 250-50 (C). USE #4 REBAR WIRE TIED TO FOOTING STEEL.
13. ALL 125-VOLT, 15 AND 20 AMP RECEPTACLES INSTALLED INSIDE OR OUTSIDE OF A DUELLING SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. I.R.C. E4002.14
14. A MINIMUM OF 50 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS. -N1104.
15. ALL 15- AND 20- AMPERE RECEPTACLES IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUN ROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DUELLING UNITS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES. -E4002.14 -E3901
16. ALL 125-VOLT, SINGLE PHASE, 15- OR 20- AMPERE RECEPTACLES INSTALLED IN GARAGES SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL. -E3902.2
17. IN KITCHEN, A MINIMUM OF (2) 20 AMP SMALL-APPLICANCE BRANCH CIRCUITS SHALL SERVE ALL WALL & FLOOR RECEPTACLE OUTLETS
18. RECESSED LIGHTS MAY BE INSTALLED IN THE CEILINGS (BUILDING ENVELOPE) OF ANY ATTIC TRUSS ONLY IF THE REQUIRED INSULATION DEPTH OR THICKNESS CAN BE INSTALLED OVER SUCH RECESSED LIGHTS. ALL SUCH RECESSED LIGHTS MUST BE IC RATED.
19. ALL RECEPTACLES SERVING KITCHEN COUNTERTOPS, IN GARAGES, BATHS, UNFINISHED BASEMENTS AND OUTSIDE RECEPTACLES SHALL BE GFCI PROTECTED. -IRC E3902
20. PROVIDE AT LESAT TWO OUTSIDE GRADE LEVEL RECEPTACLES- ONE IN THE FRONT YARD AND ONE IN THE REAR YARD. -IRC E3901.7
21. ALL BRACH CIRCUITS THAT SUPPLY ELECTRICAL IN BEDROOMS NEED TO BE PROVIDED WITH ARC-FAULT PROTECTION. -IRC E3902.11

ATTENTION DESIGNERS/ LANDFORMS DESIGN OF ANY UNLAWFUL USE

LOT# **54** SUBDIVISION **THREE FALLS**
ST.ELEVATION
STATE **UTAH** DATE **8-26-19**

LANDFORMS DESIGN
landforms.com

ELECTRICAL, MECH., AND PLUMBING PLAN

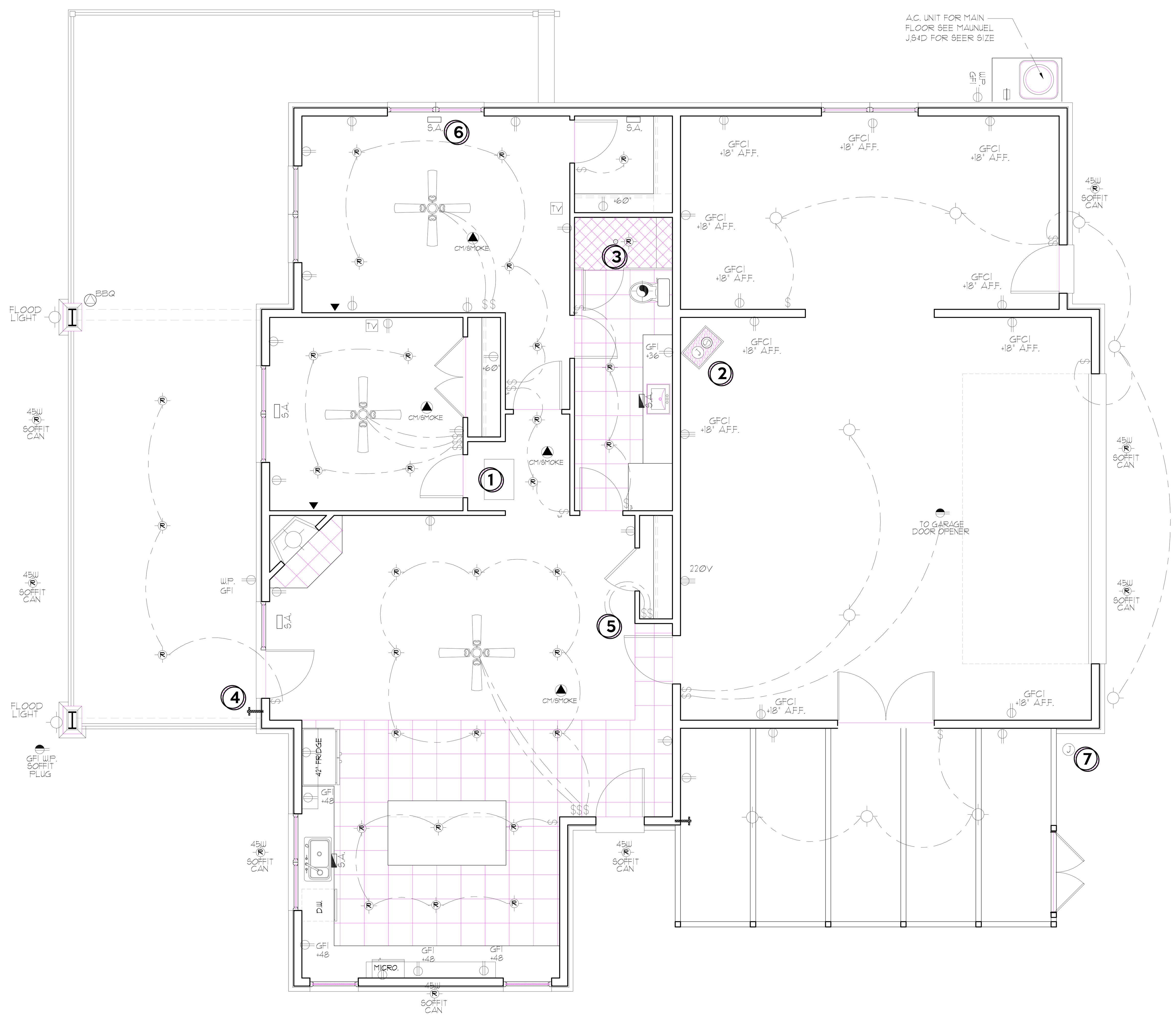
JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN

REVISIONS

date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

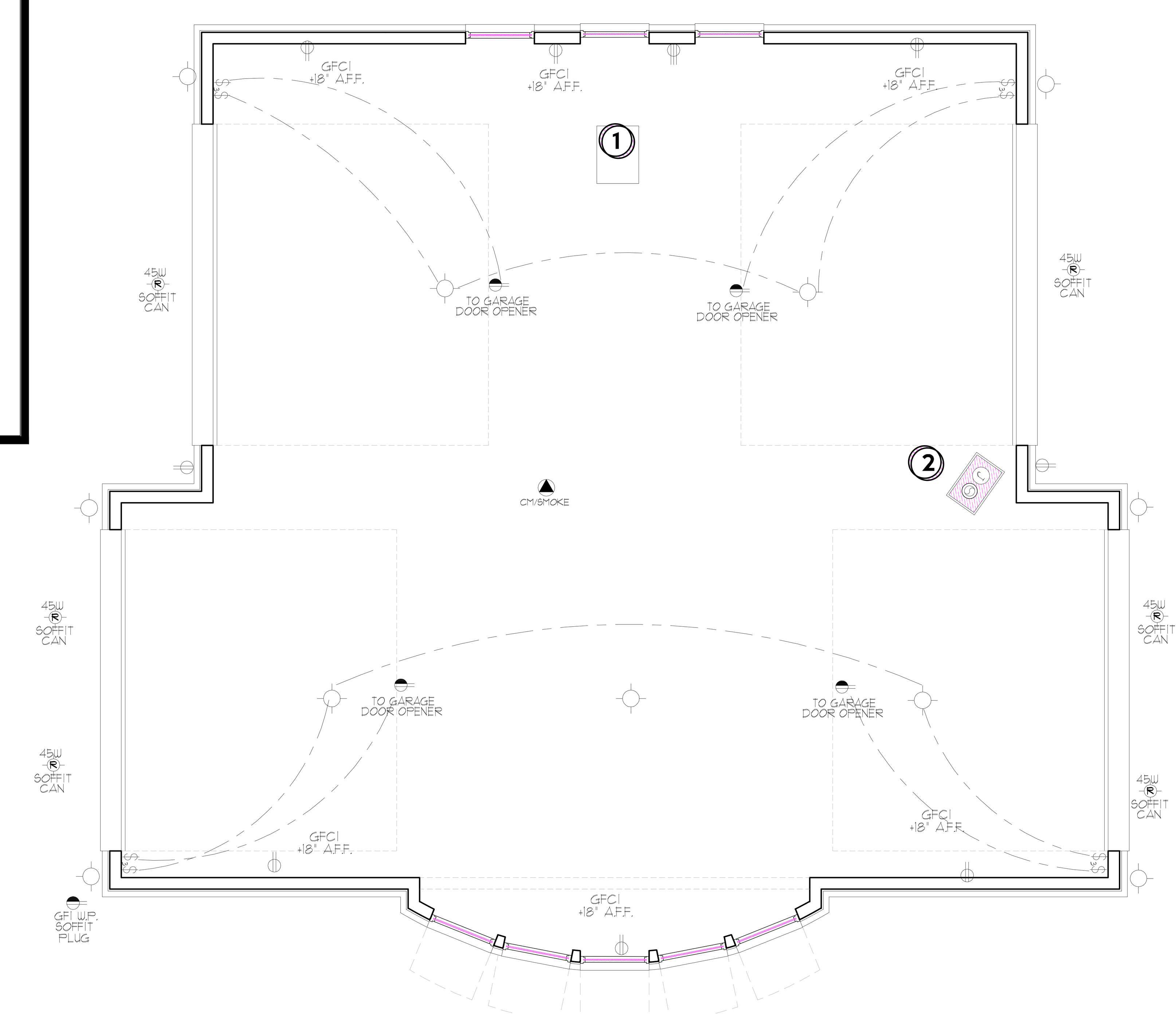
A10



MAIN FLOOR ELECTRICAL, MECHANICAL, AND PLUMBING PLAN

MAIN NOTES

1. 22"x30" ATTIC ACCESS
2. PROVIDE A 50,000 BTU SPACE HEATER
3. PROVIDE WATER PROOF TRIM KIT
4. ANTI SYPHON HOSE BIB
5. TO SOFFIT PLUGS (MAX. 4 PER CIRCUIT)
6. 4"x10" SUPPLY AIR REGISTER COLER BY OWNER PROVIDE INSULATED DUCTWORK IN FLOOR
7. PROVIDE 20 AMP JUNCTION BOX FOR EXTERIOR LIGHTS



GARAGE ELECTRICAL, PLAN

LOT# 54 SUBDIVISION THREE FALLS
CITY ALPINE

LANDFORMS DESIGN
landforms.com

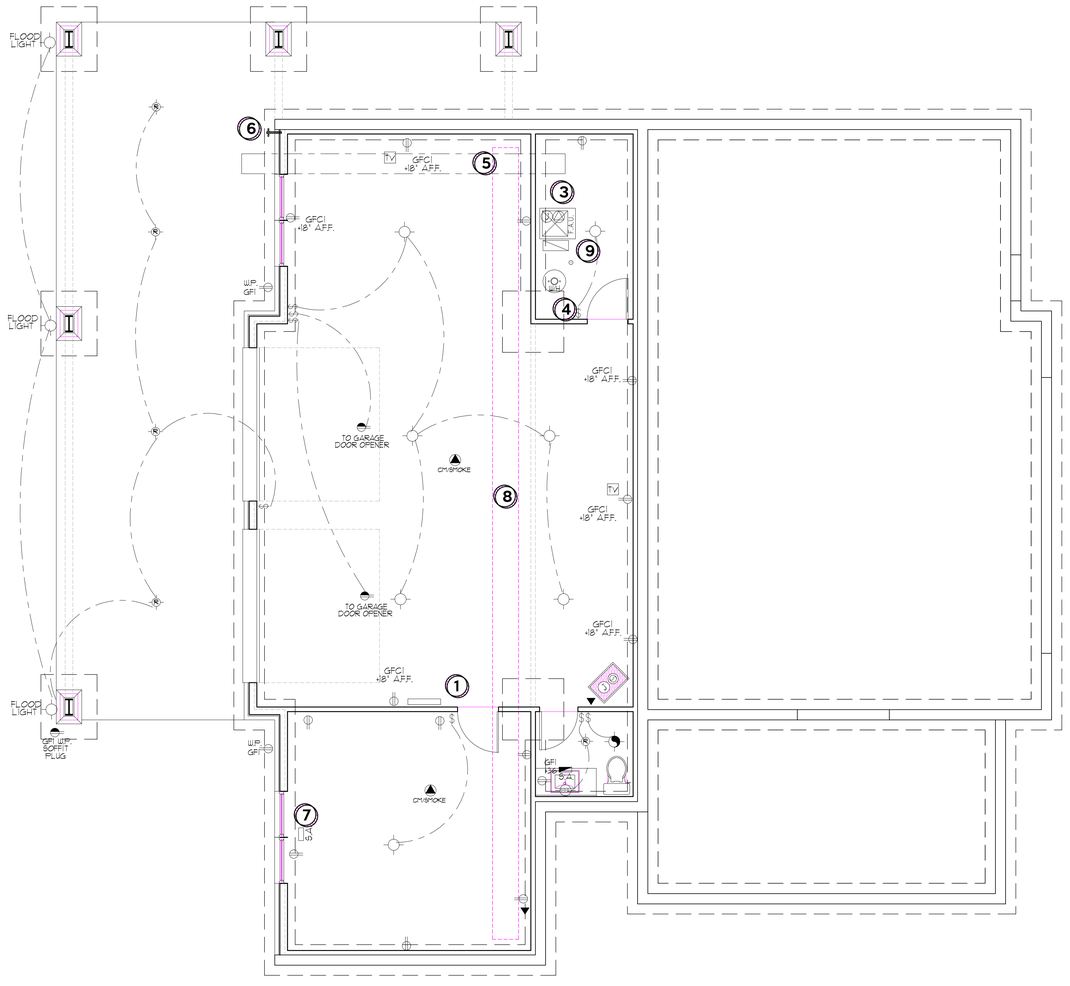
ELECTRICAL, MECH., AND PLUMBING PLAN

JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN

REVISIONS date	item

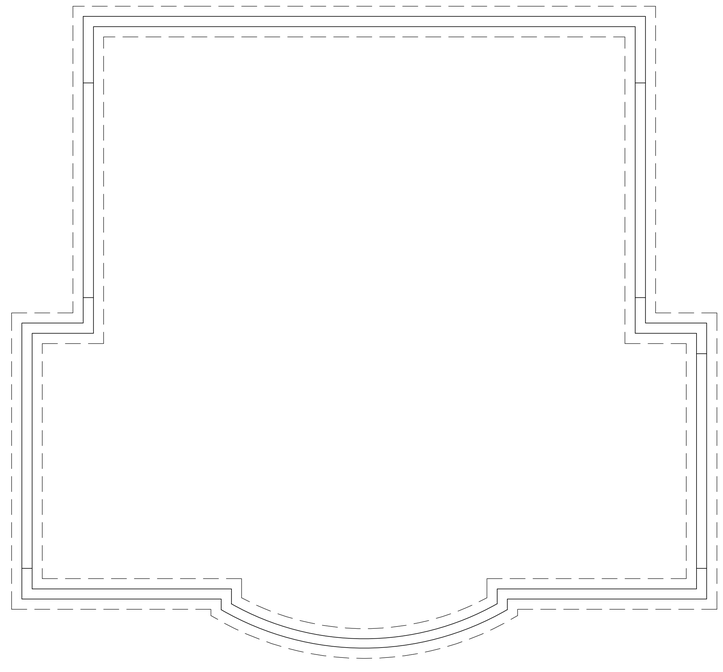
SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

A11



LOWER NOTES

1. ELEC. PANEL IN ACCORDANCE W/ N.E.C. FOR MAIN & BASEMENT FLOORS PROVIDE A PERM. CERTIFICATE ON PANEL LISTING PREDOMINANT R-VALUES, (CEILING, ROOF, WALLS) R-VALUES OF DUCTWORK, U FACTORS & HEAT GAIN COEFFICIENT OF WINDOWS TYPE & EFFICIENCY OF HEATING & COOLING UNITS INCLUDING WATER HEATERS
2. 80% F.A.U. W/ DAMPER SYSTEM, SPACE GUARD AIR CLEANER AND HUMIDIFIER FOR MAIN AND BASEMENT PROVIDE UNDERSLAB P.V.C. COATED DUCTWORK FOR BASEMENT AS REQUIRED/SIZED BY MECH. CONTRACTOR SEE MANUEL J&D)
3. (1) 50 GALLON WATER HEATERS W/ EXPANSION TANK AS REQ'D & PROVIDE SEISMIC STRAPS, ONE IN THE UPPER THIRD AND ONE IN THE LOWER THIRD PORTION OF THE UNIT. -P2801.1 (STATE AMENDMENT)
4. 60,000 GRAIN WATER SOFTENER (SALT STORAGE TANK LOCATED IN GARAGE ABOVE) CONNECT THRU AIR GAP
5. PROVIDE INSUL. COMBUSTION AIR DUCT PLENUM & INLET @ EXTERIOR W/INSECT SCREENS INSUL.
6. NON-FREEZE TYPE BACKFLOW PREVENTER ANTI SYPHON HOSE BIB
7. 4"x10" SUPPLY AIR REGISTER COLER BY OWNER PROVIDE PVC COATED DUCTWORK UNDER SLAB
8. MAIN FLOOR MECH. PLENUM ABV.
9. 4"ø FLOOR DRAIN



BASEMENT ELECTRICAL, MECHANICAL, AND PLUMBING PLAN

LOT# **54** SUBDIVISION **THREE FALLS**
CITY **ALPINE**
PLEASE NOTE: LANDFORMS DESIGN OF ANY UNLAWFUL USE.

LANDFORMS DESIGN
landforms.com

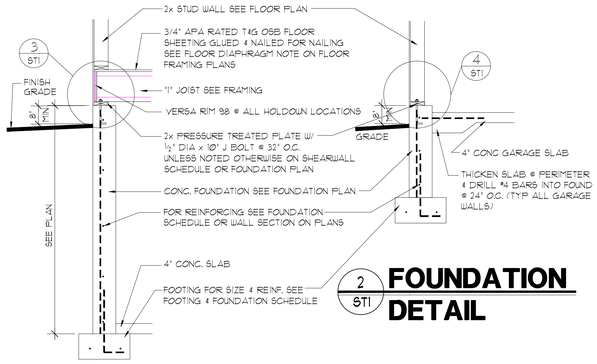
ELECTRICAL, MECH., AND PLUMBING PLAN

JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN
COPYRIGHT 2020 BY LANDFORMS DESIGN (801) 798-2240

REVISIONS	
date	item

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

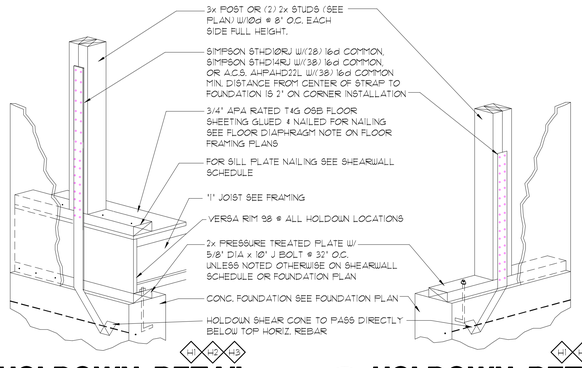
A1



2 S1 FOUNDATION DETAIL

1 S1 FOUNDATION DETAIL

SCALE: NOT TO SCALE

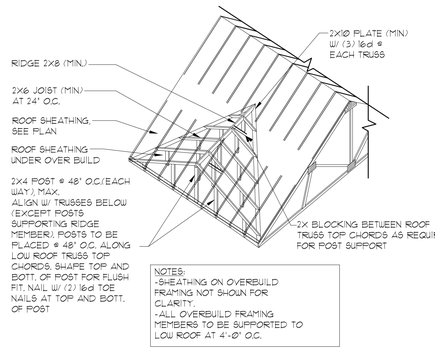


3 S1 HOLDOWN DETAIL

SCALE: NOT TO SCALE SUB-FLOOR

4 S1 HOLDOWN DETAIL

SCALE: NOT TO SCALE STEM WALL

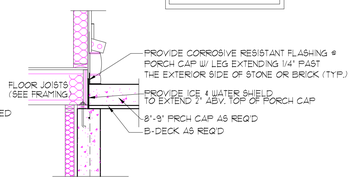


NOTES:
-SHEATHING ON OVERBUILD FRAMING NOT SHOWN FOR CLARITY
-ALL OVERBUILD FRAMING MEMBERS TO BE SUPPORTED TO LOW ROOF AT 4'-0" O.C.

5 S1 ROOF OVERBUILD

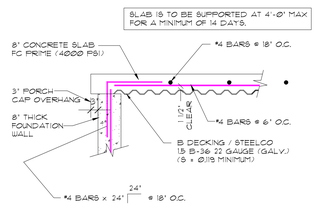
SCALE: NOT TO SCALE

NOTE:
ONLY DETAILS REFERENCED SPECIFIC TO THIS SET OF DRAWINGS ARE APPLICABLE. SEE DRAWINGS FOR FLAGGED DETAIL LOCATIONS. ANY DETAILS NOT FLAGGED ON DRAWINGS ARE NOT APPLICABLE



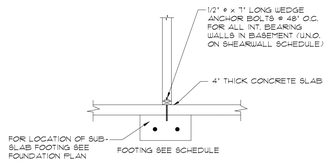
6 S1 PORCH CAP FLASHING

SCALE: ½" = 1'-0"



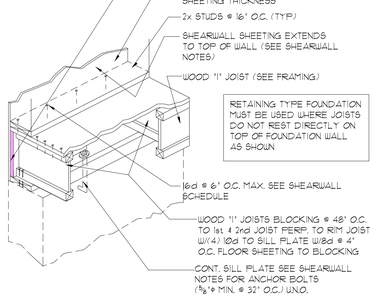
7 S1 PORCH CAP DETAIL

SCALE: NOT TO SCALE



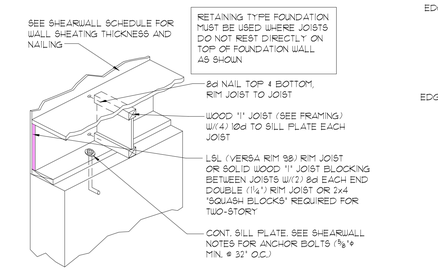
8 S1 INT. BEARING WALL

SCALE: NOT TO SCALE



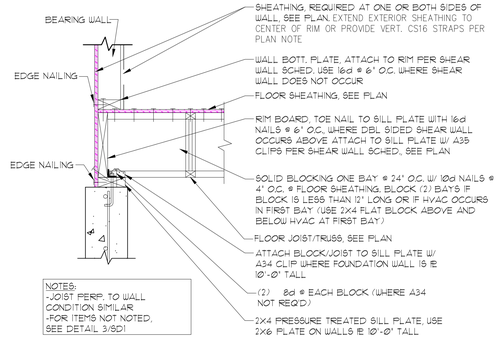
9 S1 WOOD I-JOIST FRAMING

SCALE: ¾" = 1'-0" (PARALLEL TO RIM JOIST)



10 S1 WOOD "I" JOIST FRAMING

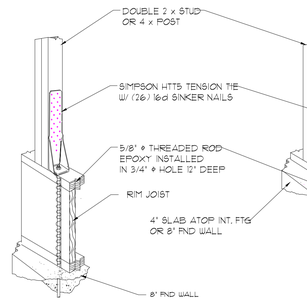
SCALE: ¾" = 1'-0" (PERP. TO RIM JOIST)



NOTES:
-JOIST PERP. TO WALL CONDITION SIMILAR
-FOR ITEMS NOT NOTED, SEE DETAIL 3/6D1

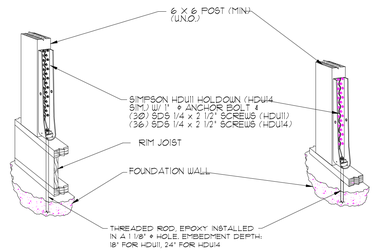
10a S1 WOOD "I" JOIST FRAMING

SCALE: ¾" = 1'-0" (PERP. TO RIM JOIST)



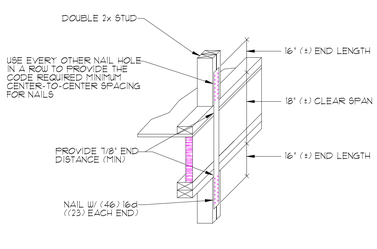
11 S1 STRAP TIE DETAIL

SCALE: NOT TO SCALE



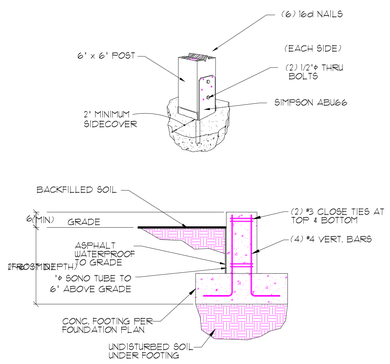
12 S1 HOLDOWN DETAIL

SCALE: NOT TO SCALE (NOT USED THESE DRAWINGS)



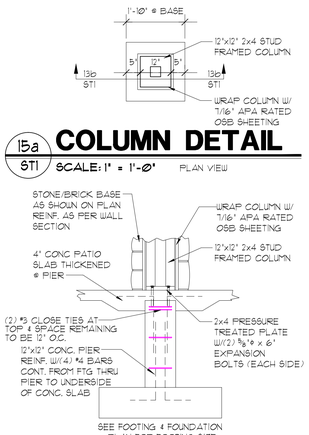
13 S1 HOLDOWN DETAIL

SCALE: NOT TO SCALE



14 S1 COLUMN DETAIL

SCALE: NOT TO SCALE



15a S1 COLUMN DETAIL

SCALE: 1" = 1'-0" PLAN VIEW

15 S1 COLUMN DETAIL

SCALE: ½" = 1'-0" SECTION

ATTENTION:
THESE PLANS, DRAWINGS AND DESIGNS ARE THE PROPERTY OF LANDFORMS DESIGN AND THE USE THEREOF SHALL NOT BE REPRODUCED OR COPIED WITHOUT THE EXPRESSED WRITTEN CONSENT OF LANDFORMS DESIGN AND ARE RELEASED FOR ONE TIME USE FOR CONSTRUCTION ON THE SITE DESCRIBED AS:

LOT: 54 SUBDIVISION: THREE FALLS
CITY: ALPINE LANDFORMS DESIGN OF ANY UNLAWFUL USE.
STATE: UTAH DATE: 8-26-19

LANDFORMS DESIGN
landforms.com

GENERAL NOTES & DETAILS

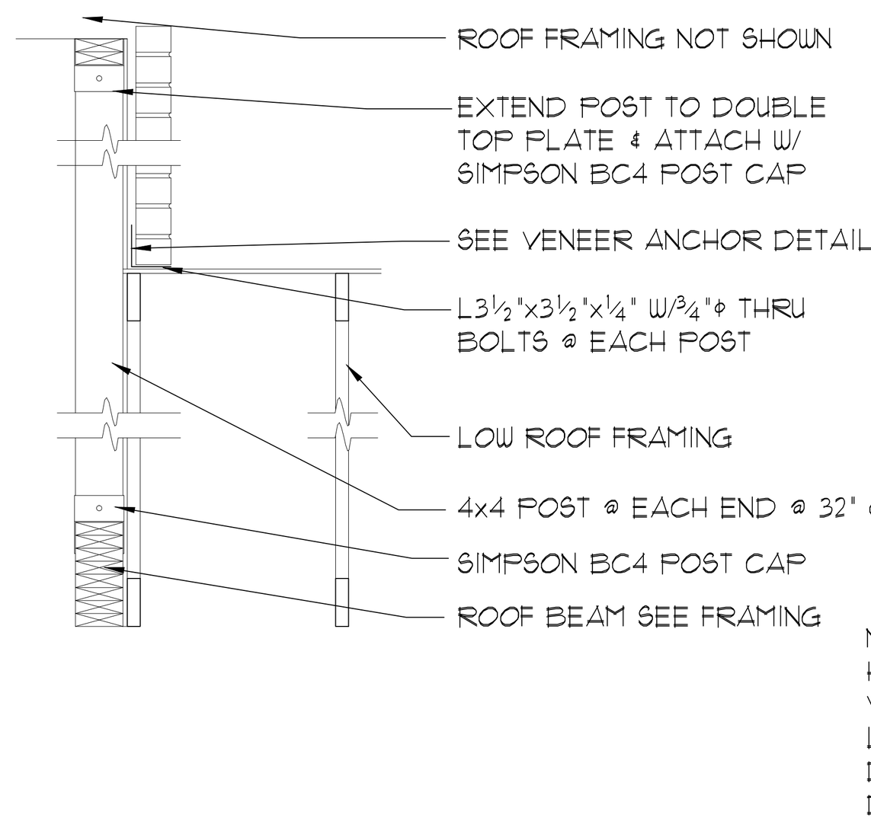
JOHNSON GARAGE
CUSTOM DETACHED GARAGE PLAN
COPYRIGHT 2018 BY LANDFORMS DESIGN (801) 796-1240

REVISIONS	
date	item

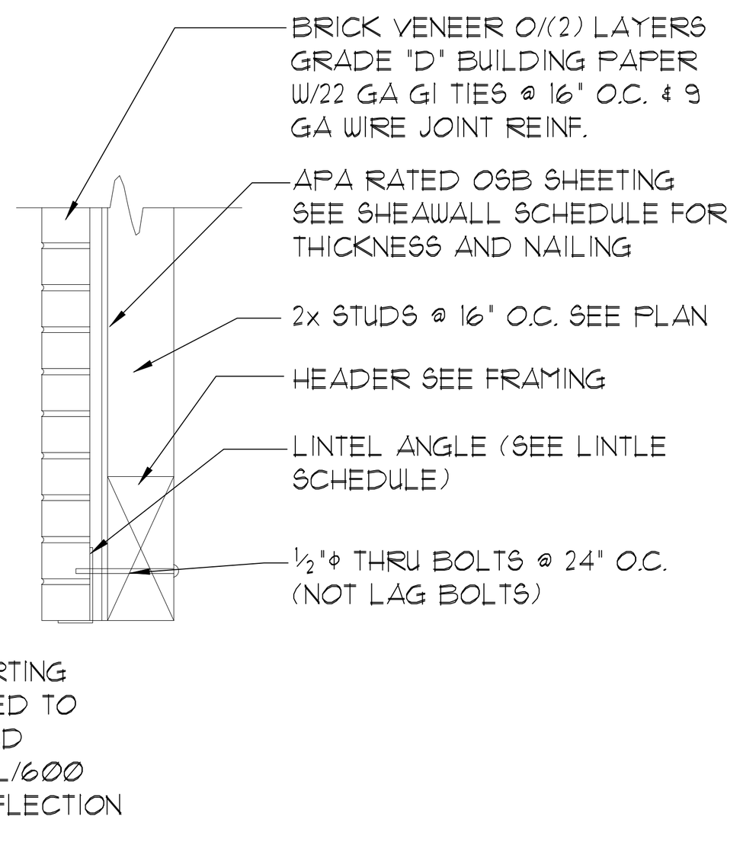
PROFESSIONAL STRUCTURAL ENGINEER
No 10779-2203
R. LYNN CARLSON
STATE OF UTAH
1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

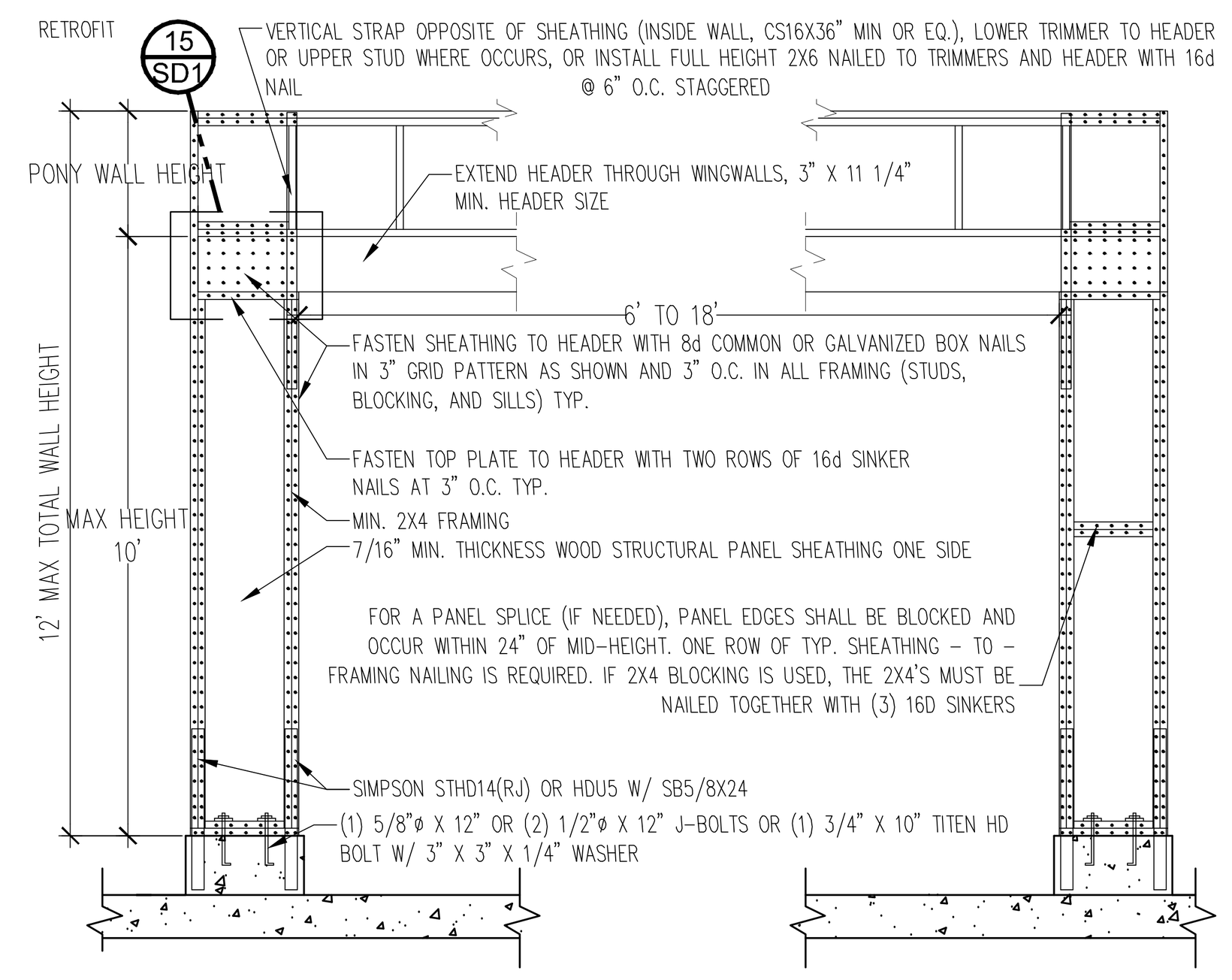
ST1



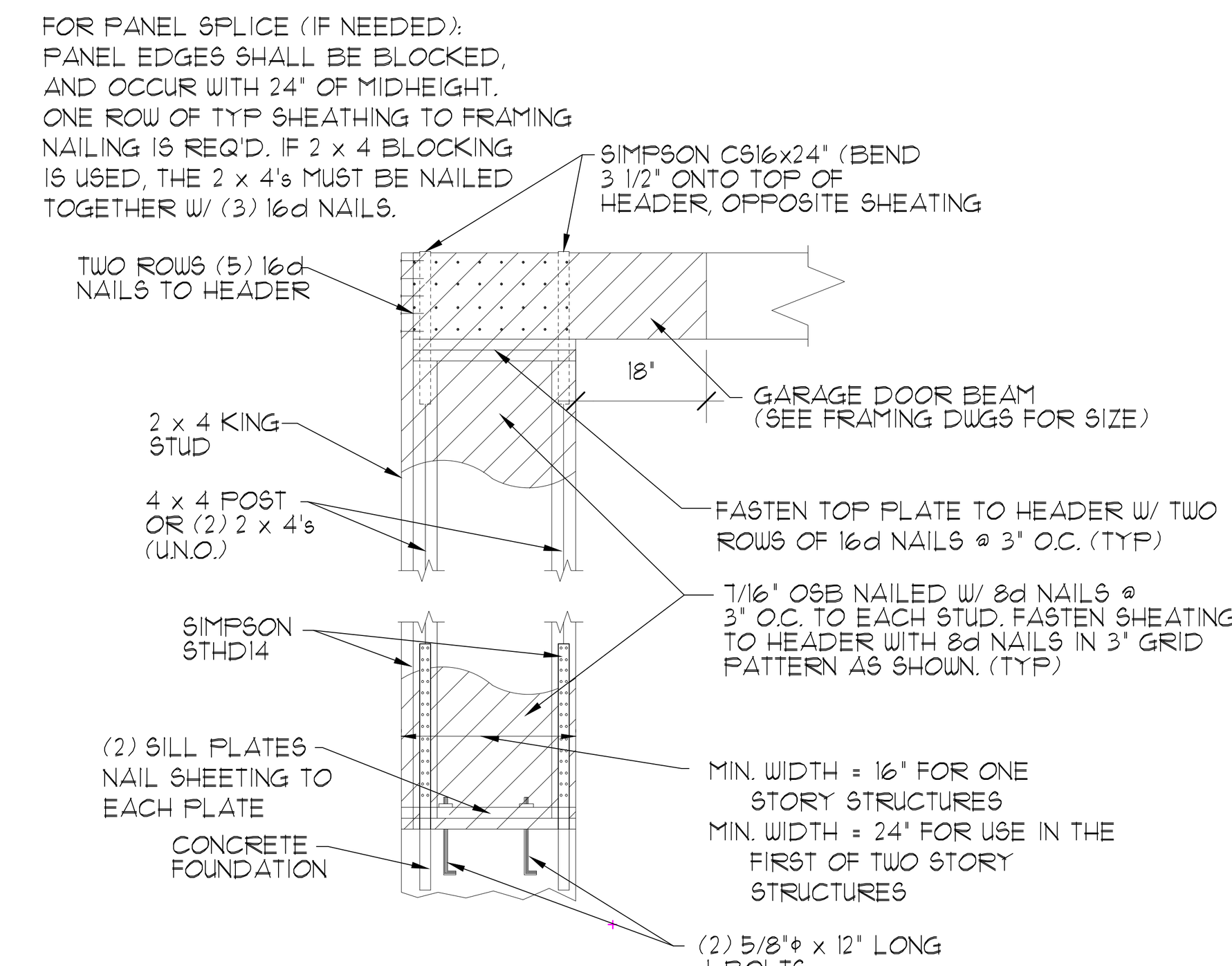
1 ST2 **VENEER OVER LOW ROOF**
SCALE: NTS



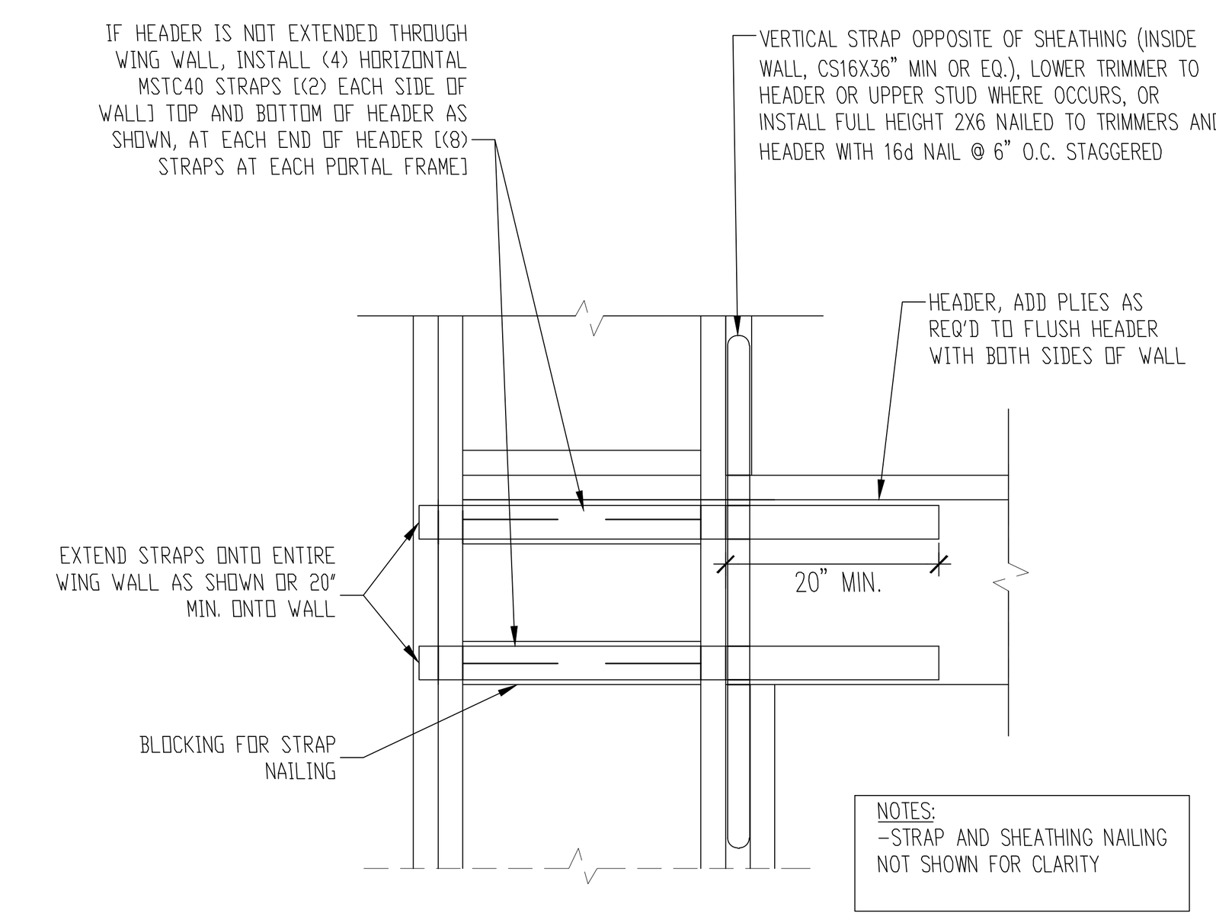
2 ST2 **GARAGE DOOR HEADER DETAIL**
SCALE: NTS



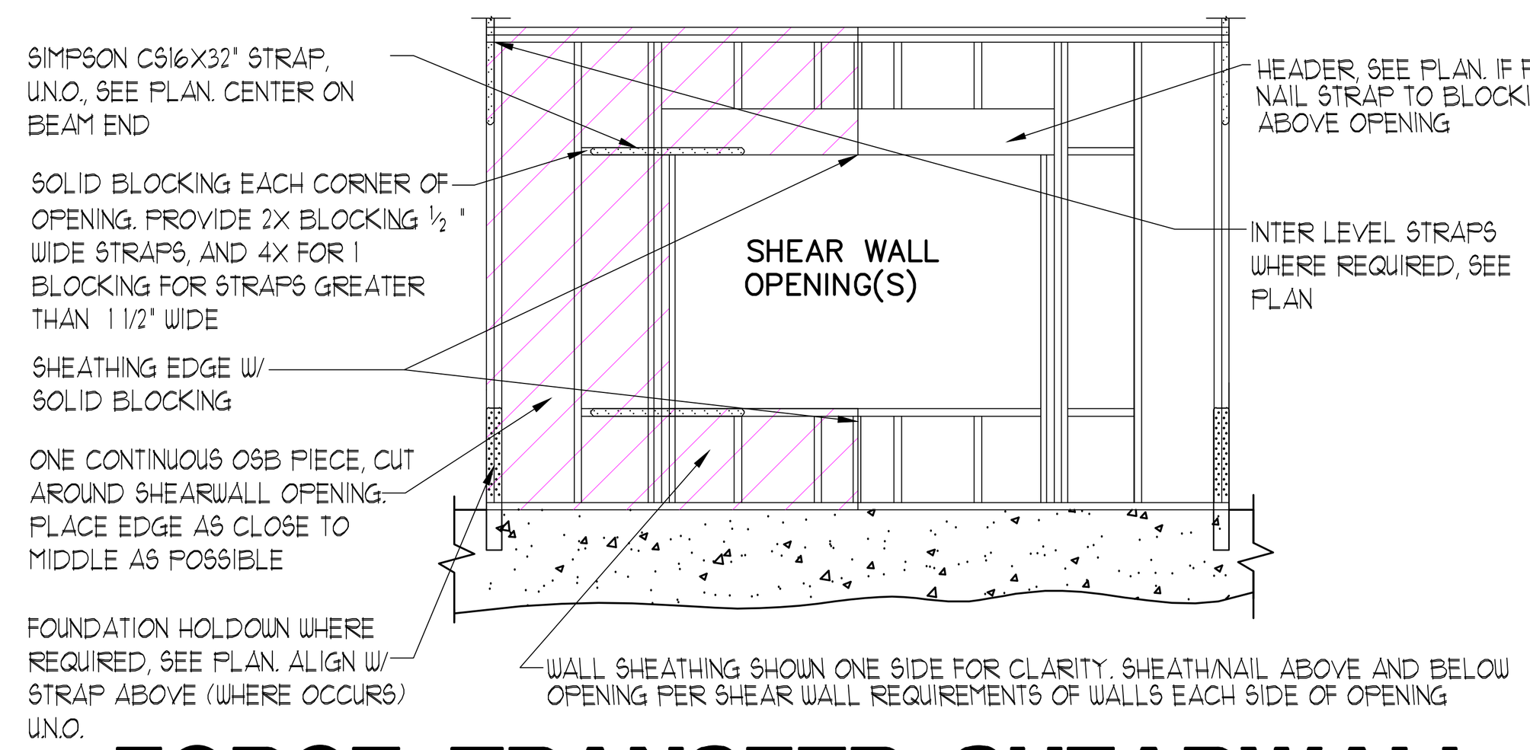
3 ST2 **PORTAL FRAME STRONG TIE**
SCALE: NTS



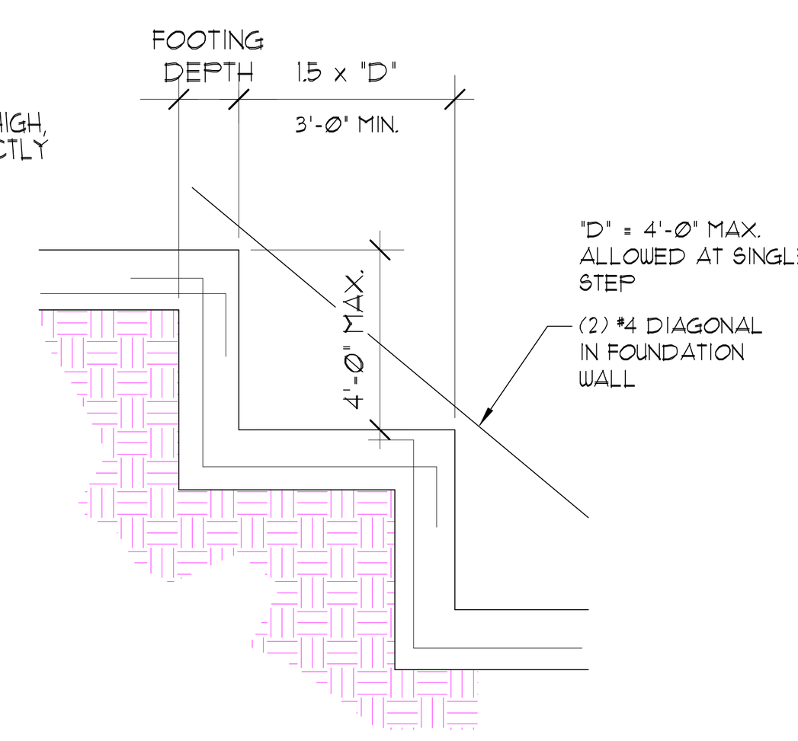
4 ST2 **PORTAL FRAME DETAIL**
SCALE: NTS



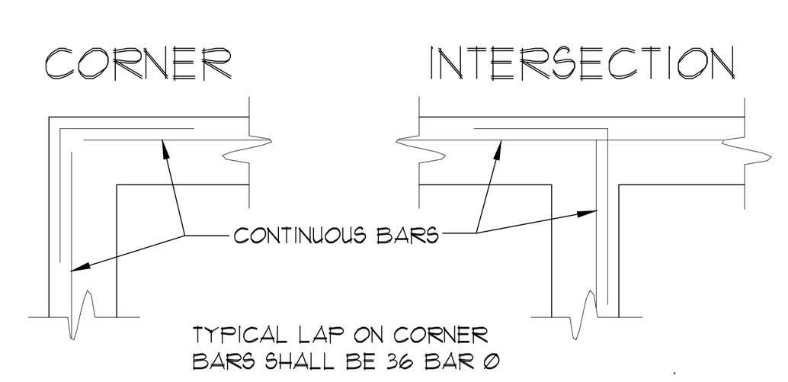
5 ST2 **PORTAL FRAME RETROFIT**
SCALE: NTS



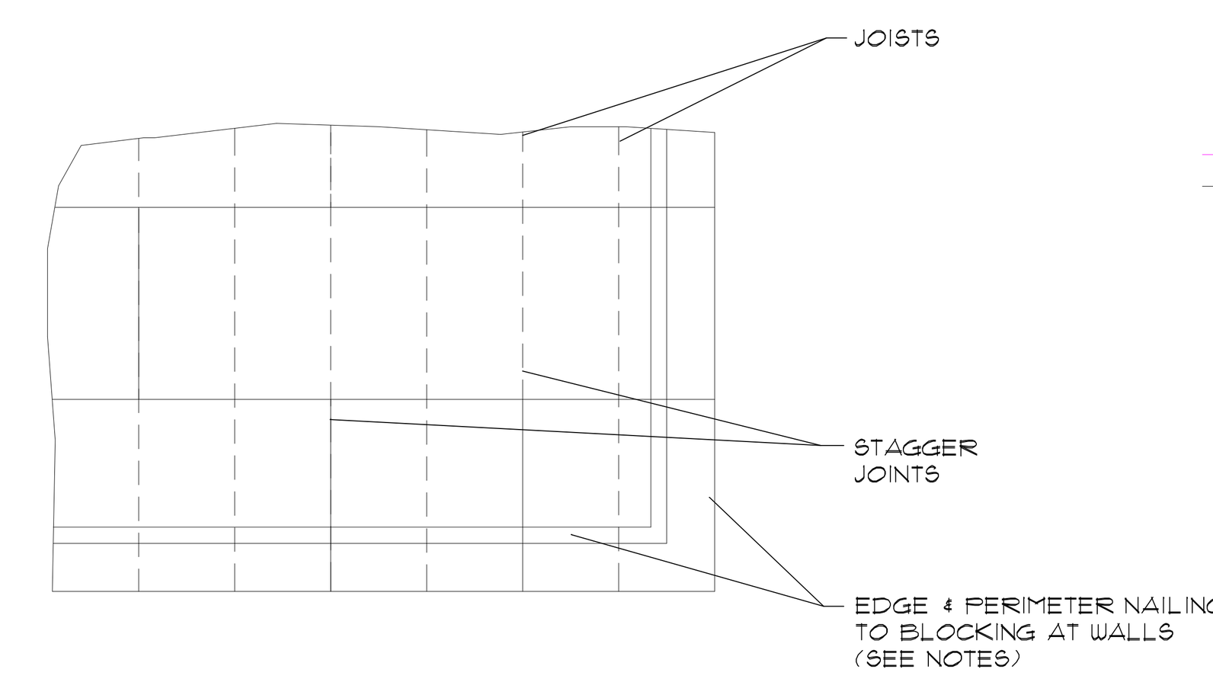
6 ST2 **FORCE TRANSFER SHEARWALL**
SCALE: ¾" = 1'-0"



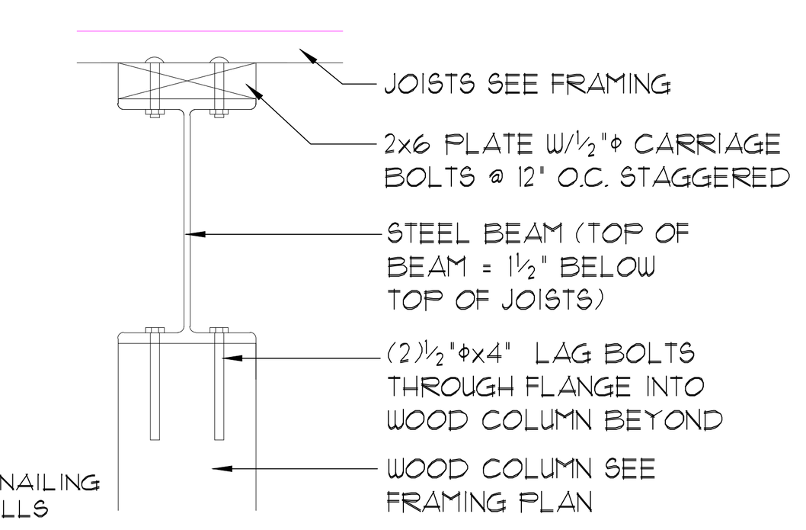
7 ST2 **STEP FTG. DETAIL**
SCALE: NOT TO SCALE



8 ST2 **CORNERS OF CONC. WALL**
SCALE: NOT TO SCALE

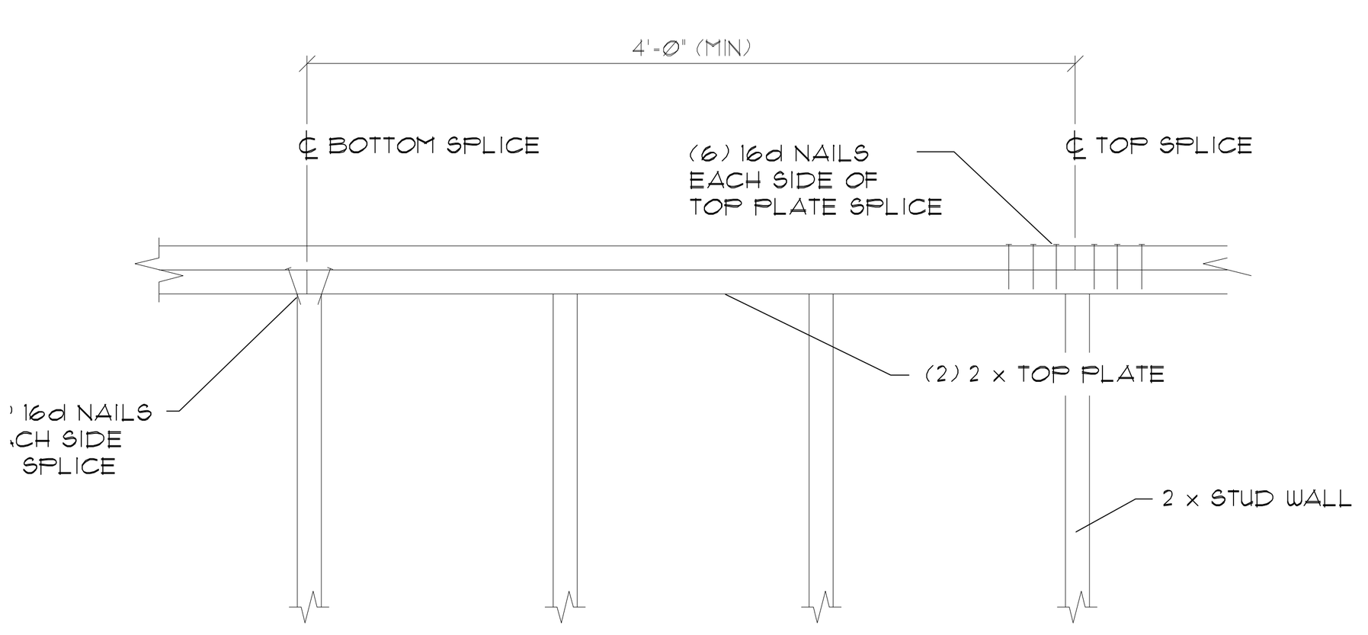


9 ST2 **ROOF SHEATHING**
SCALE: NTS

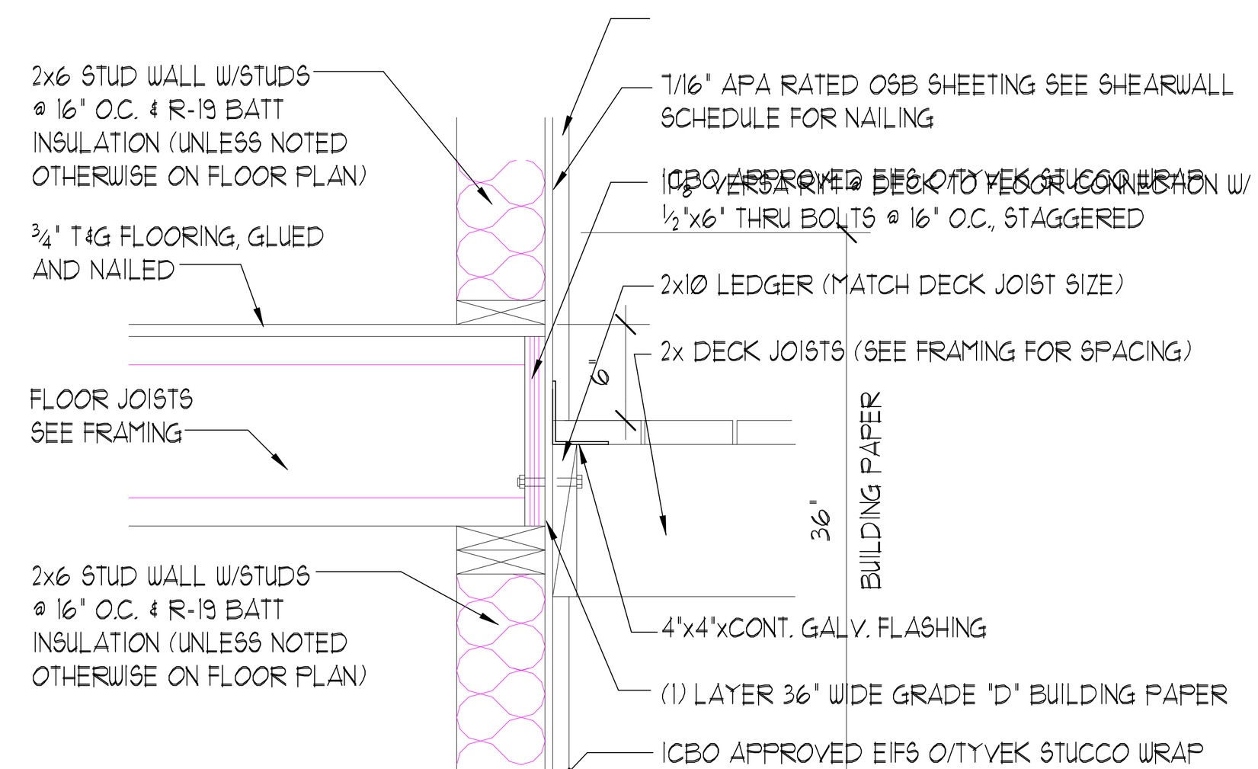


10 ST2 **STEEL BEAM TO WOOD COL.**
SCALE: NTS

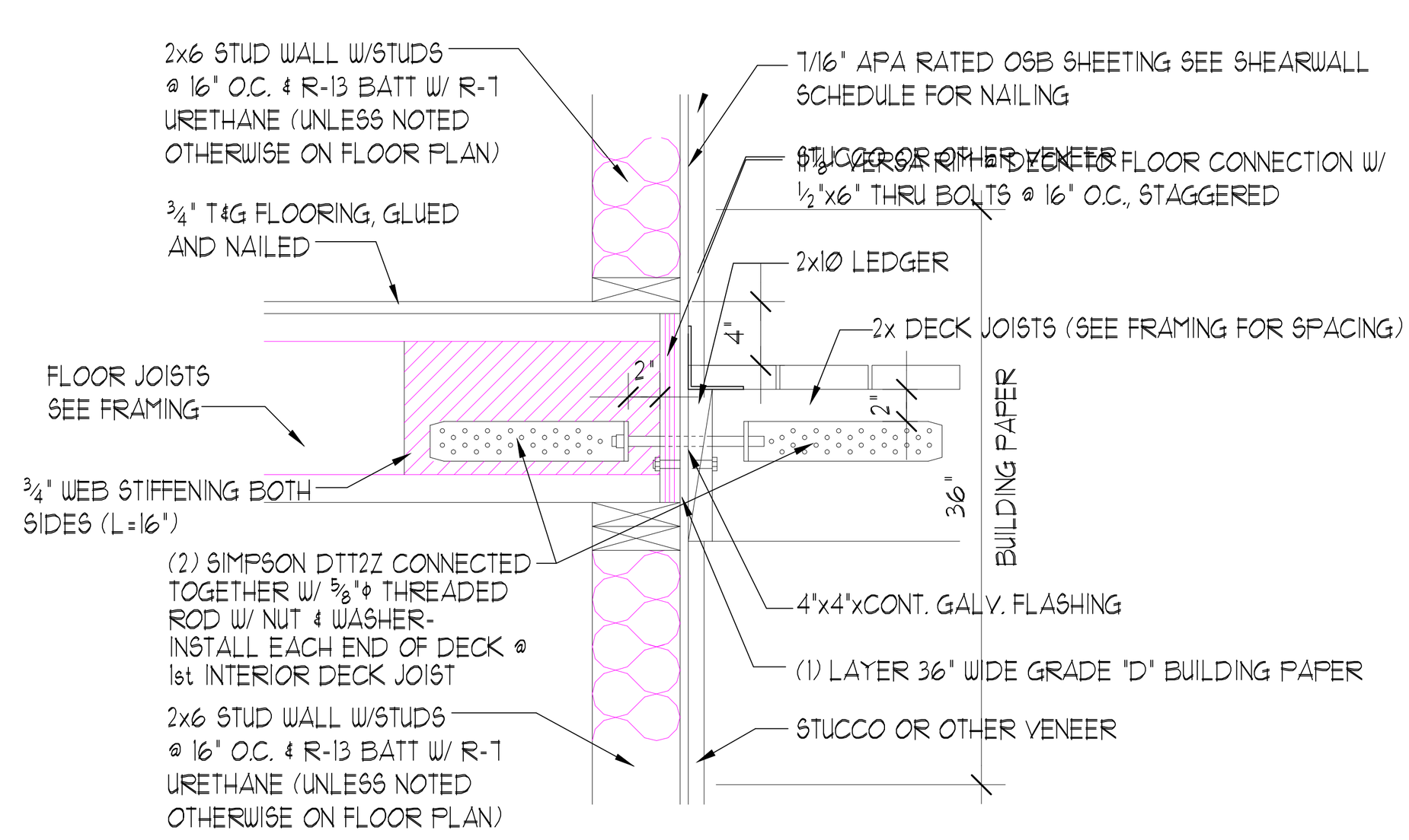
NOTE:
ONLY DETAILS REFERENCED SPECIFIC TO THIS SET OF DRAWINGS ARE APPLICABLE. SEE DRAWINGS FOR FLAGGED DETAIL LOCATIONS. ANY DETAILS NOT FLAGGED ON DRAWINGS ARE NOT APPLICABLE



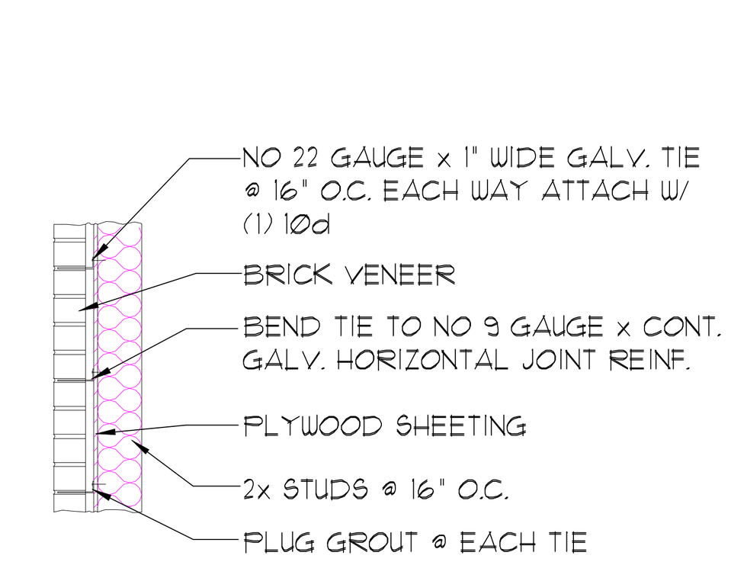
11 ST2 **TOP PLATE SPLICE**
SCALE: NTS



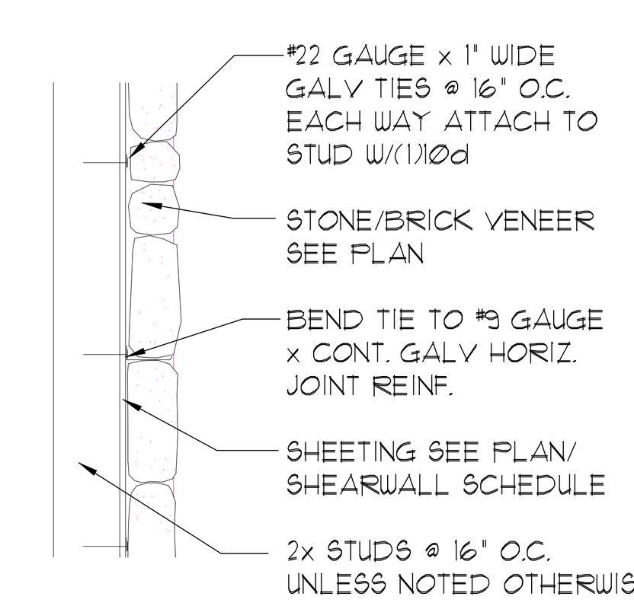
12 ST2 **DECK TO FLOOR DETAIL**
SCALE: 1" = 1'-0"



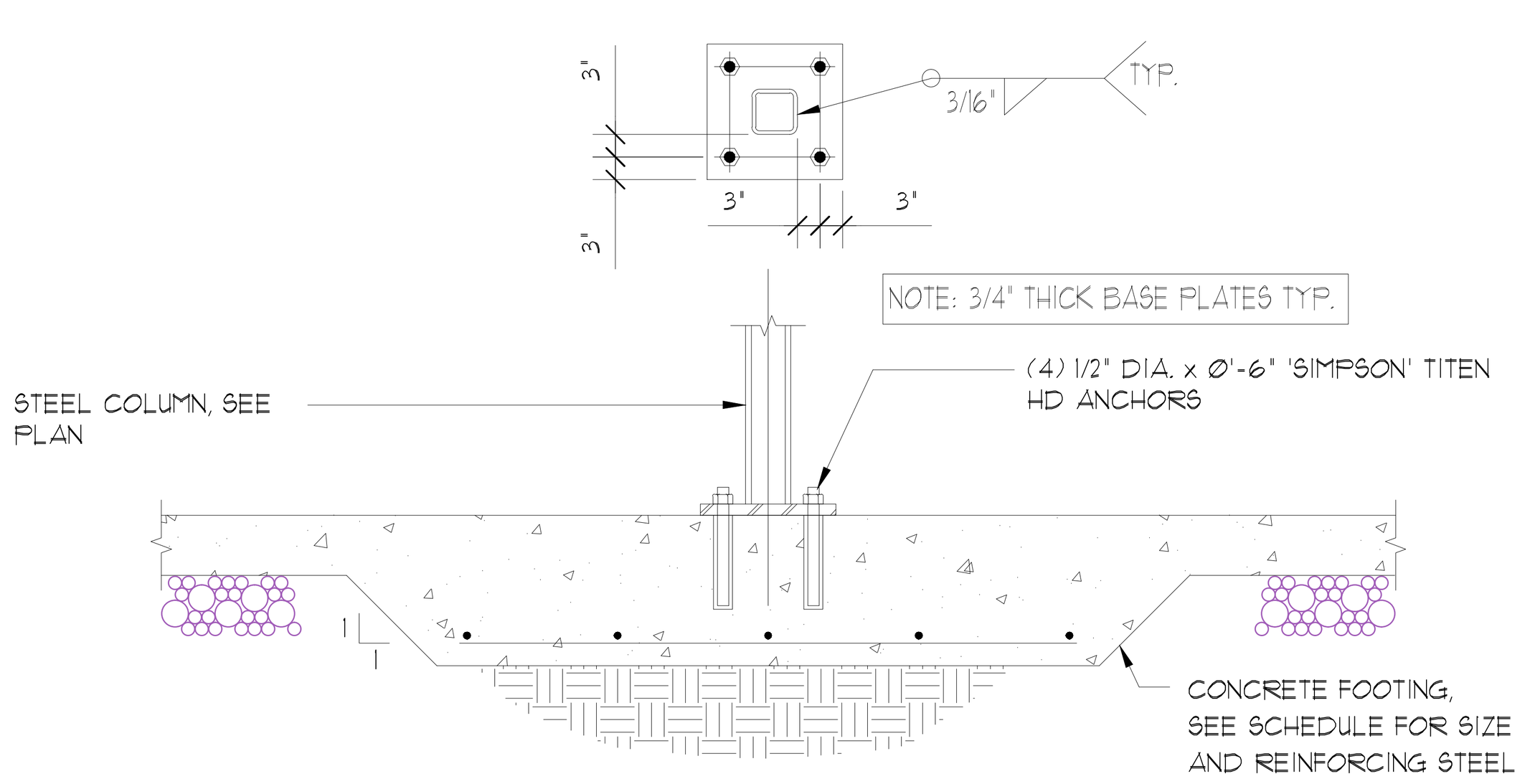
13 ST2 **DECK TO FLOOR DETAIL**
SCALE: 1" = 1'-0" (NOT USED)



14 ST2 **BRICK VENEER VENEER DETAIL**
SCALE: 1/2" = 1'-0"



15 ST2 **STONE VENEER ANCHOR DETAIL**
SCALE: NTS



16 ST2 **STEEL POST**
SCALE: NTS

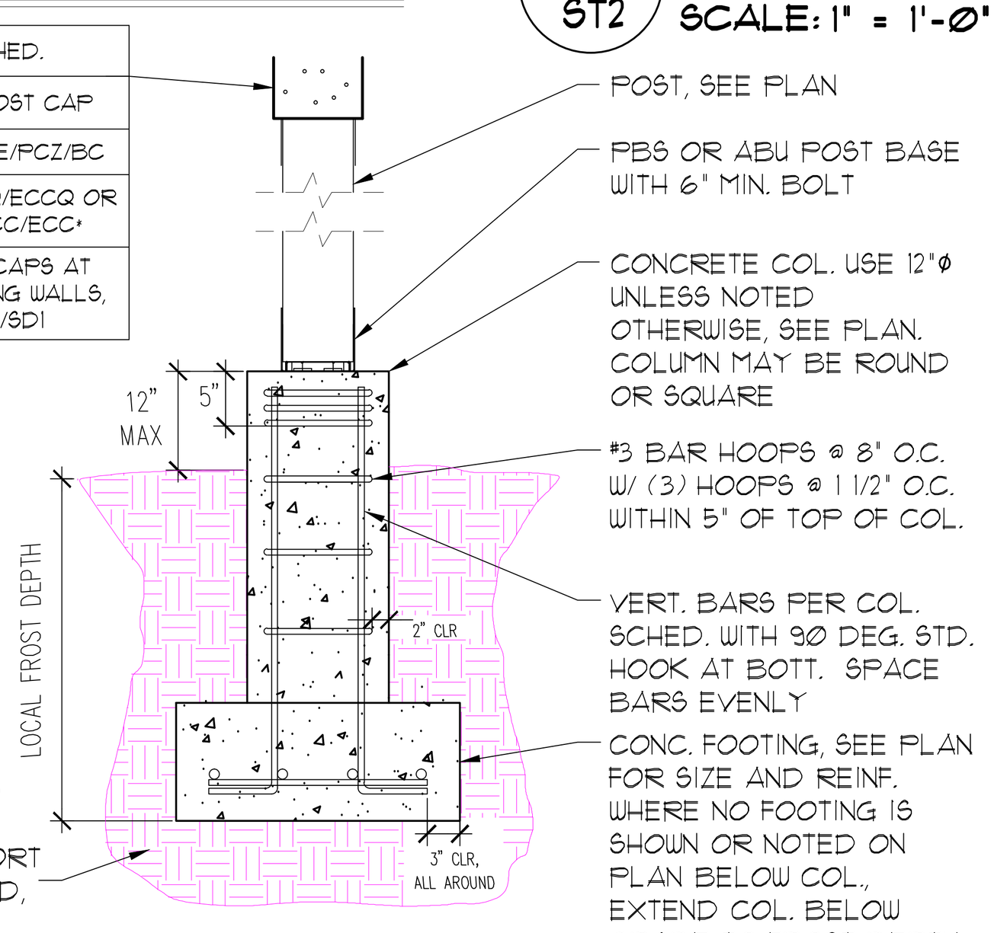
POST CAP SCHED.

BEAM DEPTH	POST CAP
≤ 12"	LCE/PCZ/BC
> 12"	CCQ/ECCQ OR CC/ECC*

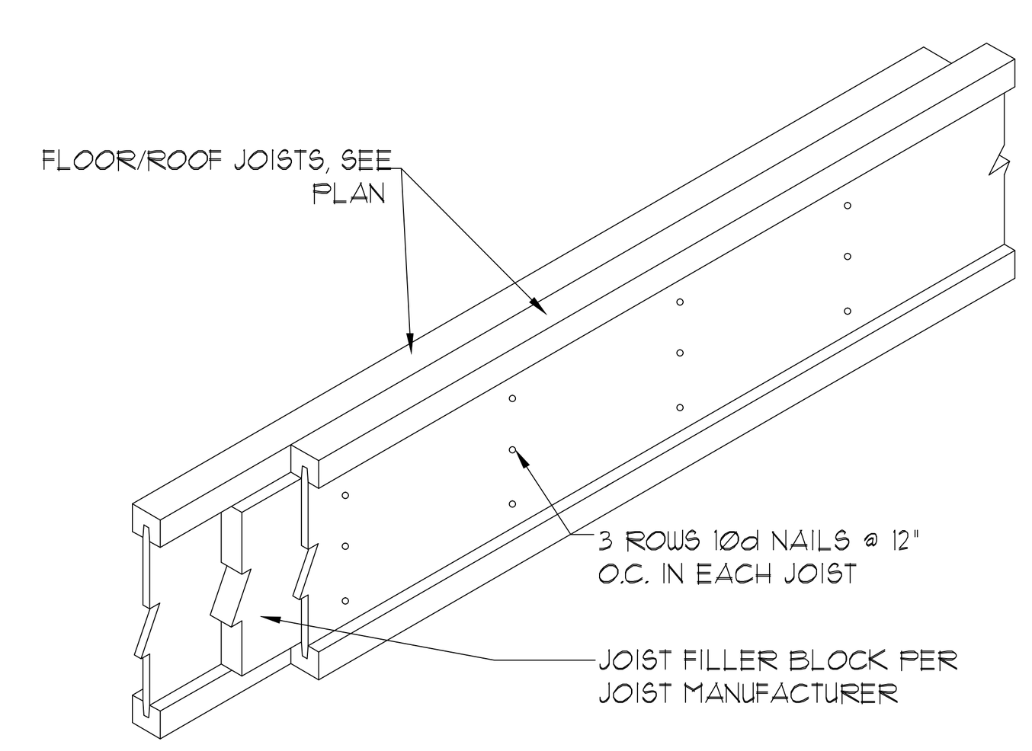
*NOTE: FOR POST CAPS AT HEADERS IN BEARING WALLS, SEE DETAIL 16/SD1

CONCRETE COL. SCHEDULE

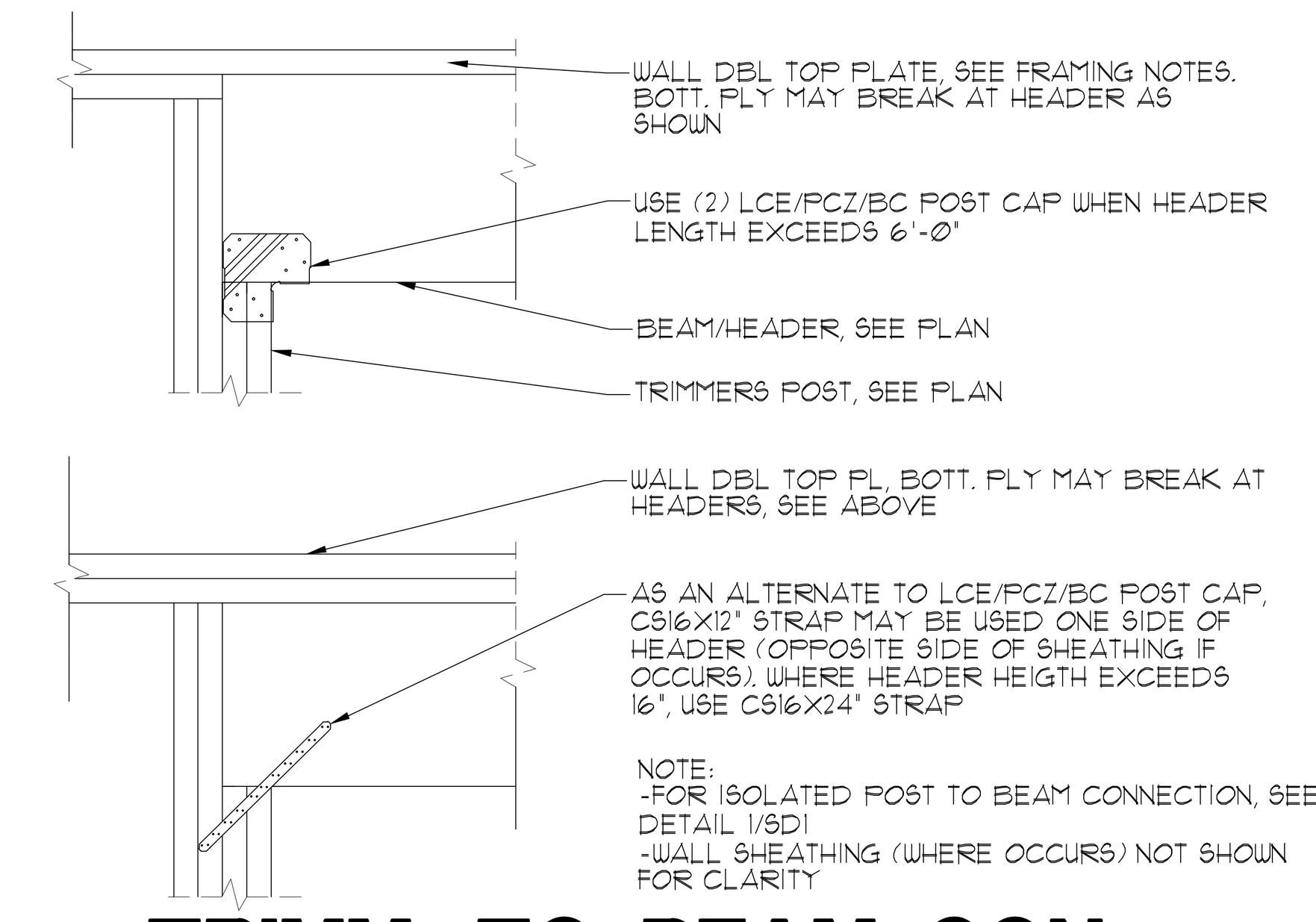
DIAM.	VERT. REINF.
12"	(4) #4
16"	(6) #4
20"	(8) #4
24"	(10) #4
30"	(12) #4
36"	(16) #4



17 ST2 **ISOLATED WOOD POST**
SCALE: NTS



18 ST2 **DOUBLE JOIST**
SCALE: NTS



19 ST2 **TRIMM. TO BEAM CON.**
SCALE: NTS

LOT# 14 SUBDIVISION TRAPPERS CROSSING
CITY WEBER COUNTY
STATE UTAH DATE 1-10-20

LANDFORMS DESIGN
landforms.com

GENERAL NOTES & DETAILS
REDD RESIDENCE
CUSTOM HOME PLAN

REVISIONS date	item

PROFESSIONAL STRUCTURAL ENGINEER No. 10797-2203 R. LYNN CARLSON STATE OF UTAH 1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

ST2

FOOTING, FOUNDATION AND CONCRETE

1. FOOTING DESIGN IS BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF U.N.O., SEE PLAN. IF A PROJECT SOILS REPORT HAS BEEN COMPLETED, FOLLOW ALL REPORT RECOMMENDATIONS. FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY. NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND. ALL FOOTINGS TO BE PLACE AT MIN. BELOW LOCAL FROST DEPTH, AND BE CONTINUOUS AND MONOLITHIC POUR.

2. CHANGES IN ELEV. SHALL BE STEPPED WITH STEP HEIGHT NOT HIGHER THAN 1/2 THE STEP LENGTH AND NOT GREATER THAN 5'. NOTIFY ENGINEER IF GRADE DROPS OVER 8' IN 24' (GREATER THAN 1/3 SLOPE) SO THAT APPROPRIATE DESIGN CHANGES MAY BE MADE TO FOUNDATION AND FOOTINGS.

3. ALL FOOTINGS, FOUNDATIONS, AND INTERIOR SLABS SHALL BE NORMAL WT. CONCRETE WITH A COMPRESSIVE STRENGTH OF 2,500 PSI MIN. U.N.O. TO MEET STRENGTH REQUIREMENTS (SEE CALCS., NO SPECIAL INSPECTIONS REQUIRED U.N.O., SEE PLAN) HOWEVER, PER IRC 402.2 USE 3000 PSI CONCRETE FOR DURABILITY PURPOSES. THE WATER/CEMENT RATIO SHALL BE NO GREATER THAN .50 WITH A MINIMUM CEMENT CONTENT OF 504 LBS. PER CUBIC YARD.

4. ALL CONC. WORK SHALL BE PLACED, CURED, STRIPPED, AND PROTECTED AS REQUIRED BY ACI STANDARDS AND PRACTICES.

5. ALL REINFORCING SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 318. REINFORCEMENT SHALL BE FREE FROM MUD AND OIL AND OTHER NON-METALLIC COATINGS THAT HAMPER BONDING CAPACITY.

6. OWNER½CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS LISTED ON THE DRAWING. VERIFICATION OF ALL SITE CONDITIONS INCLUDING SITE STABILITY IS THE RESPONSIBILITY OF OTHERS

7. ALLOW 14 DAYS FOR CONCRETE TO CURE PRIOR TO BACKFILL.

8. STRUCTURAL CONCRETE EXPOSED TO FREEZE THAW CYCLES SHALL HAVE 5% AIR ENTRAINMENT, MIN.

9. RUN FOOTINGS CONTINUOUS UNDER ALL DOOR OPENINGS, SEE PLAN.

10. SILL PLATE J-BOLTS SHALL BE A307 WITH 7? MIN. EMBEDMENT IN CONCRETE U.N.O., SEE PLAN.

11. TITEN HD BOLTS OR EPOXY THREADED RODS MAY BE USED AS SUBSTITUTION FOR SILL PLATE J-BOLTS AT SAME SIZE AND SPACING AS J-BOLTS. USE 6? TITEN HD FOR SINGLE SILL PLATE AND 8" TITEN HD FOR DBL PLATE.

12. ALL FOUNDATION HOLDOWN STRAPS/ANCHORS SHALL BE ALIGNED WITH END OF SHEAR WALL ABOVE AND SHALL ATTACH TO FULL HEIGHT KING STUDS U.N.O., SEE PLAN. PROVIDE WOOD POST AT EACH HOLDOWN PER THE HOLDOWN SCHEDULE. DIMENSIONS TO HOLDOWN LOCATIONS MUST BE FIELD VERIFIED.

13. FOOTINGS TO BE CENTERED ON WALLS AND COLUMNS/POSTS U.N.O., SEE PLAN.

14. USE SIMPSON SET-XP EPOXY FOR CONCRETE ANCHORS U.N.O., SEE PLAN. CONTINUOUS SPECIAL INSPECTIONS REQUIRED ON ALL EPOXY OPERATIONS UNLESS WAIVED BY ENGINEER AND THE BUILDING OFFICIAL.

15. LAP REBAR 48 BAR DIAMETERS U.N.O., SEE PLAN. REINFORCING IN SLABS ON GRADE MAY BE LAPPED 24?. SPLICES IN BOTTOM STEEL IN CONCRETE BEAMS AND CAST IN PLACE SUSPENDED SLABS SHALL BE STAGGERED 48 BAR DIAMETERS.

16. LINTELS IN CONCRETE WALLS MAY BE AS FOLLOWS U.N.O., SEE PLAN± FOR 3'-0? MAX SPAN, 8? DEEP WITH (2) #4 BOTT. BARS, FOR 6'-0? MAX SPAN, 12? DEEP WITH (2) #4 BOTT. BARS.

17. PROVIDE (2) EDGE BARS ABOVE CONCRETE WALL OPENINGS AND (1) BAR EACH SIDE AND BELOW OPENINGS U.N.O., SEE PLAN. MATCH SIZE OF EDGE BARS WITH TYPICAL WALL REINFORCING AND PLACE WITHIN 4? OF OPENING EDGE. EXTEND BARS 48 BAR DIAMETERS PAST EDGE OF OPENING OR EXTEND AS FAR AS POSSIBLE AND PROVIDE 90? STANDARD HOOK AT END.

18. PROVIDE HORIZONTAL BAR WITHIN 3? OF TOP AND BOTT. OF WALL AND PROVIDE VERTICAL BAR AT ALL WALL CORNERS AND ENDS.

NOTE: THIS ENGINEERING ASSUMES THAT THE CLEARANCE & SETBACK REQUIREMENTS LISTED IN IRC SECTION R403.1.7 ARE MET. IF THESE PROVISIONS ARE NOT MET, CONTACT THE ENGINEER FOR FURTHER DESIGN.

NOTE: THIS ENGINEERING ASSUMES THAT THE SITE IS STABLE HAVING NO GLOBAL STABILITY CONCERNS OR HAZARDS. IF THIS IS NOT TRUE, CONTACT SOILS ENGINEER AND PROVIDE SOILS/SLOPE STABILITY REPORT TO YORK ENGINEERING FOR REVIEW AND FURTHER DESIGN.

SHEATHING NOTES

1. STAGGER ROOF AND FLOOR SHEATHING JOINTS, SEE ROOF SHEATHING LAYOUT DETAIL.
2. INSTALL ROOF AND FLOOR SHEATHING WITH LONG DIMENSION PERPENDICULAR TO TRUSSES/JOISTS U.N.O., SEE PLAN. SHEATHING INSTALLED WITH LONG DIMENSION PARALLEL TO JOISTS/TRUSSES SHALL BE 5 PLY PLYWOOD CONFORMING TO APA STANDARD PS-1.
3. NAILS SHALL BE ? ? MIN FROM SHEATHING EDGE.
4. ALL FLOOR AND ROOF SHEATHING PIECES SHALL BE 48? X 48? MIN.
5. PROVIDE EDGE NAILING AT ALL SUPPORTED AND BLOCKED PANEL EDGES AND PER DETAILS.

WALL SHEATHING: 7/16? APA RATED 24/16 MIN. U.N.O., SEE PLAN. ALL EXTERIOR WALLS AND VERTICAL SURFACES SHALL BE SHEATHED WITH SHEATHING MANUFACTURED WITH EXTERIOR GLUE. SEE PLANS AND SHEAR WALL SCHEDULE FOR NAILING REQUIREMENTS.

ROOF SHEATHING: 7/16? APA RATED 24/16 MIN. WITH 8d NAILS AT 6? O.C. EDGE NAILING AND 12? O.C. FIELD NAILING FOR ROOF SNOW LOAD LESS THAN OR EQUAL TO 40 PSF. FOR ROOF SNOW LOAD GREATER THAN 40 PSF USE 5/8? APA RATED 40/20 MIN. WITH 10d NAILS AT 6? O.C. EDGE NAILING AND 12? O.C. FIELD NAILING U.N.O, SEE PLAN.

FLOOR SHEATHING: 3/4? T&G APA RATED 40/20 MIN. (48/24 WHEN FLOOR TRUSSES/JOISTS ARE AT 24? O.C.) WITH 8d NAILS AT 6? O.C. EDGE NAILING AND 12? O.C. FIELD NAILING U.N.O., SEE PLAN. GLUE SHEATHING TO JOISTS/TRUSSES WITH ADHESIVE CONFORMING TO APA SPECIFICATIONS.

FRAMING NOTES

1. SILL PLATE J-BOLTS SHALL HAVE A 3?X3?X1/4? WASHER AT EACH BOLT. IF SLOTTED WASHER IS USED, ADD CUT WASHER.
2. ALL FOUNDATION HOLDOWN STRAPS/ANCHORS SHALL BE ALIGNED WITH END OF SHEAR WALL AND/OR INTER LEVEL STRAP ABOVE (WHERE OCCURS) AND SHALL ATTACH TO FULL HEIGHT KING STUDS U.N.O., SEE PLAN. PROVIDE WOOD POST AT EACH HOLDOWN PER THE HOLDOWN SCHEDULE.
3. STRAPS CALLED OUT ON FLOOR AND FLOOR FRAMING PLANS ARE VERTICAL INTER LEVEL STRAPS AND SHALL BE CENTERED ON RIM BOARD AND ALIGNED WITH END OF SHEAR WALL ABOVE AND ATTACHED TO FULL HEIGHT KING STUDS UNLESS NOTED OR SHOWN OTHERWISE, SEE PLANS.
4. WALL DBL TOP PLATES SHALL BE 2X MIN. AND SHALL LAP 36? AT ALL SPLICES WITH (12) 16d NAILS STAGGERED EACH SIDE OF SPLICE U.N.O, SEE PLAN. WHERE PLATES DO NOT LAP, PROVIDE CS16X32" STRAP TO SPLICE PLATES. ALIGN WALL STUD WITH PLATE JOINTS.
5. PROVIDE DBL CANTILEVER FLOOR JOISTS BELOW (2) PLY (OR MORE) TRIMMERS/POSTS AND WHERE SHEAR WALL HOLDOWN STRAPS ARE INDICATED.
6. ATTACH (2) PLY HEADERS TOGETHER WITH (3) 16d AT 12? O.C. ¾(2) 16d OK FOR 2X6 HEADERS⅞, USE (3) 16d AT 12? O.C. EACH SIDE FOR (3) PLY HEADERS, USE (4) 16d AT (2) AND (3) PLY HEADERS WHEN HEADER HEIGHT IS GREATER THAN 11?. ATTACH (4) PLY HEADERS TOGETHER WITH (2) ?? THROUGH BOLTS AT 16? O.C. OR (2) SDS 1/4? X 6? SCREWS AT 16? O.C. EACH SIDE OF HEADER U.N.O., SEE PLAN.
7. SEE BEARING WALL CONSTRUCTION TABLE FOR WALL FRAMING REQUIREMENTS.
8. EDGE NAIL SHEATHING TO ALL DRAG MEMBERS.
9. WHEN CHIMNEY IS SUPPORTED BY ROOF/FLOOR FRAMING, TRUSS/JOIST MFR TO DESIGN TRUSSES/JOISTS TO SUPPORT CHIMNEY WEIGHT INCLUDING VENEER WHERE OCCURS. CHIMNEYS CANTILEVERING MORE THAN 4' ABOVE ROOF SHALL BE FRAMED WITH 2X6 @12? O.C., USE LSL 2X6 @ 12? O.C. FOR CHIMNEYS EXTENDING MORE THAN 8' ABOVE THE ROOF. CHIMNEYS EXTENDING MORE THAN 10' ABOVE THE ROOF SHALL BE LATERALLY BRACED (WITHIN 4' OF CHIMNEY TOP) TO THE ROOF FRAMING WITH CABLES OR RODS ANCHORED TO RESIST SEISMIC AND WIND LOADS. CHIMNEYS THAT EXTEND MORE THAN 6' ABOVE THE ROOF AND ARE SUPPORTED BY ROOF FRAMING (FRAMING DOES NOT EXTEND CONTINUOUS THROUGH ROOF) SHALL HAVE A MSTC48B3 ANCHOR AT EACH CORNER (HOOKED UNDER ROOF JOIST OR TRUSS TOP CHORD).
10. ATTACH STEEL BEAMS TO WOOD POSTS PER BEAM POCKET IN WOOD WALL DETAIL.

NAILING SCHEDULE (TABLE 204.9.1 IBC)

	CONNECTION	NAILING
1.	JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2.	BRIDGING TO JOIST, TOENAIL EACH END	2-8d
3.	1"x 6"(25mm x 152mm) SUBFLOOR OR LESS TO EACH JOIST FACE NAIL	2-8d
4.	WIDER THAN 1"x 6" (25mm x 152mm) SUBFLOOR TO EACH JOIST FACE NAIL	3-8d
5.	2" (51mm) SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6.	SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	16d AT 16" (406mm) O.C. 3-16d PER 16" (406mm)
7.	TOP PLATE TO STUD, END NAIL	2-16d
8.	STUD TO SOLE PLATE	4-8d TOENAIL OR 2-16d, END NAIL
9.	DOUBLE STUDS, FACE NAIL	16d @ 24" (610mm) O.C.
10.	DOUBLED TOP PLATES, TYPICAL FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d @ 16" (406mm) O.C. 8-16d
11.	BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12.	RIM JOIST TO TOP PLATE, TOENAIL	8d @ 6" (152mm) O.C.
13.	TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
14.	CONTINUOUS HEADER, TWO PIECES	16d @ 16" (406mm) O.C. ALONG EACH EDGE
15.	CEILING JOISTS TO PLATE, TOENAIL	3-8d
16.	CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17.	CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18.	CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
19.	RAFTER TO PLATE, TOENAIL	3-8d
20.	1"(25mm) BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21.	1"x 8" (25mm x 203mm) SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2-8d
22.	WIDER THAN 1"x 8" (25mm x 203mm) SHEATHING TO EACH BEARING, FACE NAIL	3-8d
23.	BUILT-UP CORNER STUDS	16d @ 24" (610mm) O.C.
24.	BUILT UP GIRDER AND BEAMS	20d @ 32" (813mm) O.C. @ TOP & BOTTOM & STAGGERED 2-20d @ ENDS AND @ EACH SPLICE
25.	2"(51mm) PLANKS	2-16d @ EACH BEARING
26.	WOOD STRUCTURAL PANELS AND PARTICLEBOARD[2]: SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING): 1/2" (12.7 mm) AND LESS 19/32" - 3/4" (15mm -19mm) 7/8" - 1" (22mm - 25mm) 1 1/8" - 1 1/4 (29mm - 32mm COMBINATION SUBFLOOR-UNDERLAYMENT (TO FRAMING): 3/4" (19mm) AND LESS 7/8" - 1" (22mm - 25mm) 1 1/8" - 1 1/4 (29mm - 32mm	 6d[3] 8d[4] OR 6d[5] 8d[3] 10d[4] OR 8d[5] 6d[5] 8d[5] 10d[4] OR 8d[5]
27.	PANEL SIDING (TO FRAMING)[2]: 1/2" (12.7mm) OR LESS 5/8" (16mm)	 6d[6] 8d[6]
28.	FIBERBOARD SHEATHING[7]: 1/2" (12.7mm) 25/32" (20mm)	No. 11 Ga.[8] 6d[4] No. 16 Ga.[9] No. 11 Ga.[8] 8d[4] No. 16 Ga.[9]
29.	INTERIOR PANELING 1/4" (6.4mm) 3/8" (9.5mm)	 4d[10] 6d[11]

[1] COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE STATED
[2] NAILS SPACED AT 6" INCHES (152mm) ON CENTER AT EDGES, 12" (305mm) AT INTERMEDIATE SUPPORTS EXCEPT 6" (152mm) AT ALL SUPPORTS WHERE SPANS ARE 48" (1219mm) OR MORE, for NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2315.3.3 AND 2315.4 NAILS FOR WALL SHEATHING MAY BE COMMON, BOX OR CASING.
[3] COMMON OR DEFORMED SHANK
[4] COMMON
[5] DEFORMED SHANK
[6] CORROSION-RESISTANT SIDING OR CASING NAILS CONFORMING TO THE REQUIREMENTS OF SECTION 2304.3
[7] FASTENERS SPACED 3" (76mm) ON CENTER AT EXTERIOR EDGES AND 6" (152mm) ON CENTER AT INTERMEDIATE SUPPORTS
[8] CORROSION-RESISTANT ROOFING NAILS WITH 7/16" DIAMETER (11mm) HEAD AND 1 1/2" (38mm) LENGTH FOR 1/2" (12.7mm) SHEATHING AND 1 3/4" (44mm) LENGTH FOR 25/32" (20mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2304.3
[9] CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16" (11mm) CROWN AND 1 1/8" (29mm) LENGTH FOR 1/2" (12.7mm) SHEATHING AND 1 1/2" (38mm) LENGTH FOR 25/32" (20mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF SECTION 2304.3
[10] PANEL SUPPORTS AT 16" (406mm) (20" (508mm) IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED). CASING OR FINISH NAILS SPACED 6" (152mm) ON PANEL EDGES, 12" (305mm) AT INTERMEDIATE SUPPORTS.
[11] PANEL SUPPORTS AT 24" (610mm). CASING OR FINISH NAILS SPACED 6" (152mm) ON PANEL EDGES, 12" (305mm) AT INTERMEDIATE SUPPORTS.

BEARING WALL CONSTRUCTION TABLE

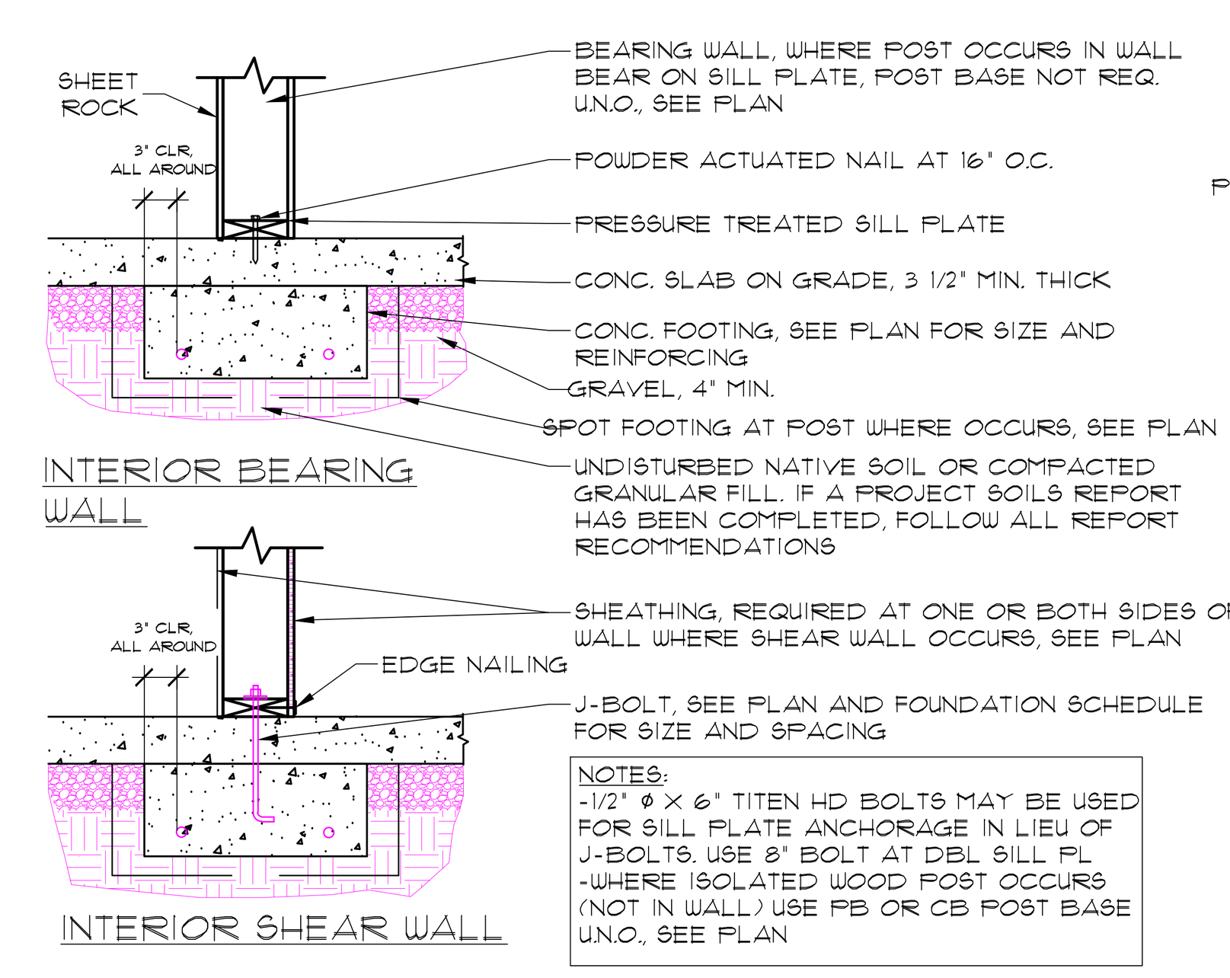
		KING STUDS (K)/ TRIMMERS (T) BASED ON WALL OPENING WIDTH (U.N.O., SEE PLAN)							
WALL HEIGHT	STUD FRAMING	≤2'-6"	2'-7"-5'-0"	5'-1" - 8'-0"	8'-1" - 10"-0"	10'-1" - 12'-0"	12'-1" - 14'-0"	14'-1" - 16'-0"	16'-1" - 18'-0"
0'-10'	2X4's @ 16" O.C.[2]	1 K/1 T	1 K/2 T	1 K/3 T	2 K/3 T	2 K/4 T	2 K/4 T	2 K/5 T	3 K/5 T
10'-1" - 12'	2X4's @ 12" O.C.[2]	1 K/2 T	1 K/ 3 T	2 K/ 4 T	2 K/ 4 T	3 K/ 5 T	3K/3½"X5¼" PSL T	4K/3½"X7" PSL T	4K/3½"X7" PSL T
0'-12'	2X6's @ 24" O.C.	1 K/ 1 T	1 K/ 2 T	2 K/ 2 T	2 K/ 2 T	2 K/ 2 T	2 K/ 3 T	3K / 3T	3K / 4T
12'-1" - 14'	2X6's @ 16" O.C.	1 K/ 1 T	1 K/ 2 T	2 K/ 2 T	2 K/ 2 T	2 K/ 3 T	3 K/ 4 T	3K / 4T	3K / 5T
14-1" '- 16'	2X6's @ 12" O.C.	1 K/ 2 T	1 K/ 2 T	2 K/ 3 T	2 K/ 4 T	3 K/ 4 T	3 K/ 5 T	4K / 5T	4K/5¼"X5¼" PSL T
16'-1" - 20'	2X6 LSL's @ 12" O.C.	2 K/ 2 T	2 K/ 2 T	2 K/ 4 T	2 K/ 5 T	3K/5¼"X5¼" PSL T	4K/5¼"X7" PSL T	4K/5¼"X7" PSL T	4K/5¼"X7" PSL T

NOTES:
1. FOR WALLS TALLER THAN 20' AND/OR OPENINGS GREATER THAN 18' WIDE, SEE PLAN.
2. USE 2X6 STUDS FOR ALL WALLS SUPPORTING 3 OR MORE FLOOR/ROOF LOADS.
3. KING STUDS/TRIMMERS NOTED REQUIRED AT EACH END OF WALL OPENING.
4. NAIL KING/TRIMMER PLYS TOGETHER W/ (2) 16d NAILS @ 9" O.C.

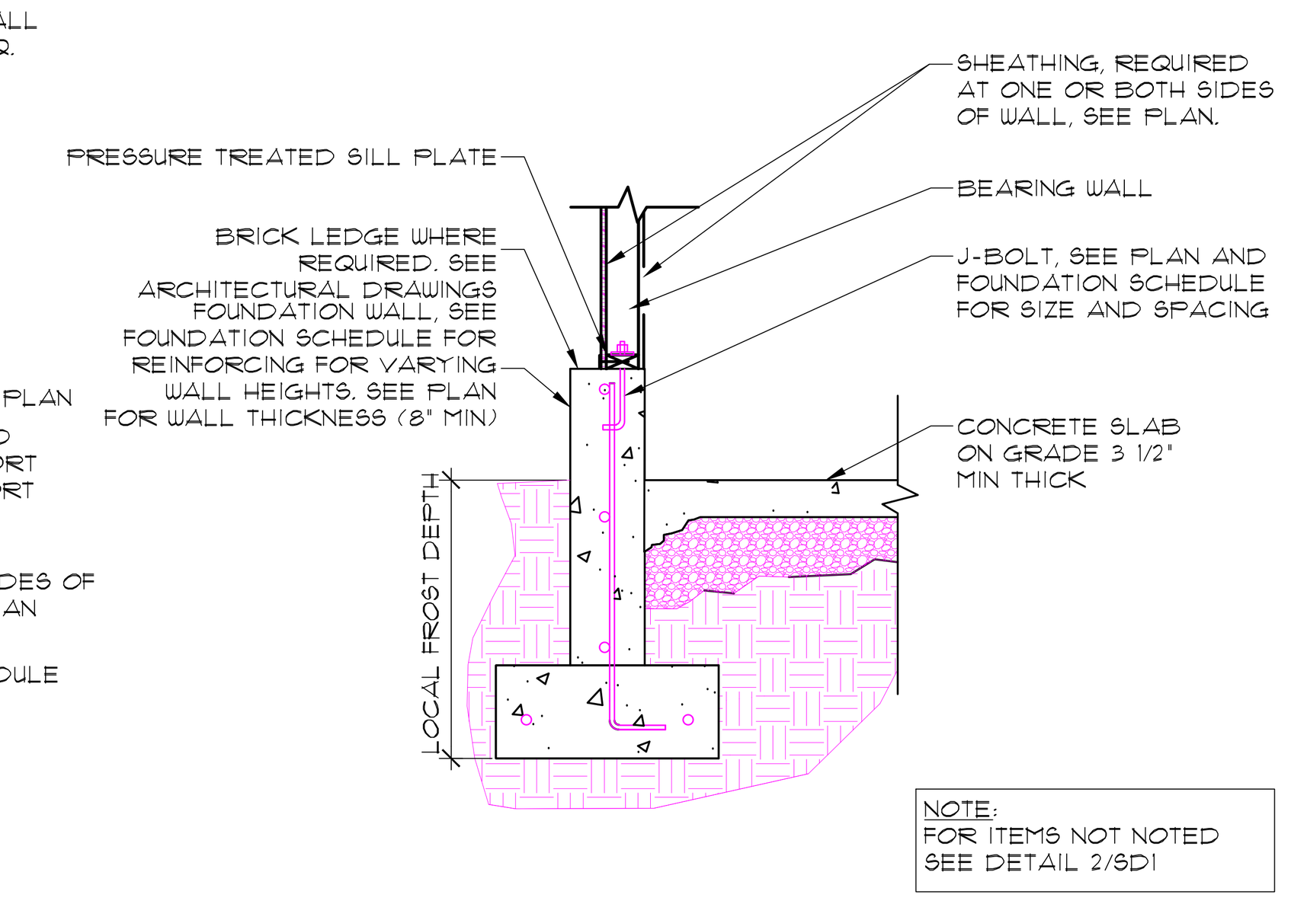
HOLDOWN RETROFIT TABLE

HOLDOWN	RETROFIT OPTIONS
LSTHD8/LSTHD8RJ	THREADED ROD EMBEDDED 10" INTO CONCRETE ØHTT5 WITH 5/8" WITH SIMPSON SET EPOXY OR MST48 WITH (3) 1/2" X 4" TITEN HD BOLTS (CENTER STRAP ON RIM OR TOP OF FND WALL WHERE NO RIM OCCURS, 1/2" BEND MAX.)
STHD10/STHD10RJ	THREADED ROD EMBEDDED 10" INTO CONCRETE ØHTT5 WITH 5/8" WITH SIMPSON SET EPOXY OR MST48 WITH (3) 1/2" X 4" TITEN HD BOLTS (CENTER STRAP ON RIM OR TOP OF FND WALL WHERE NO RIM OCCURS, 1/2" BEND MAX.)
STHD14/STHD14RJ	THREADED ROD EMBEDDED 15" INTO CONCRETE ØHDU8 WITH 7/8" WITH SIMPSON SET EPOXY (IN 8" THICK STEM WALL) OR MST60 WITH OR TOP OF (4) 1/2" X 4" TITEN HD BOLTS (CENTER STRAP ON RIM , 1/2" BEND MAX.) FND WALL WHERE NO RIM OCCURS
HTT5 AND HDU5	THREADED ROD EMBEDDED 15" INTO CONCRETE HDU8 WITH 7/8" WITH SIMPSON SET EPOXY (IN 8" THICK STEM WALL) OR MST60 WITH OR TOP OF (4) 1/2" X 4" TITEN HD BOLTS (CENTER STRAP ON RIM , 1/2" BEND MAX.) FND WALL WHERE NO RIM OCCURS
HDU8	(2) MST48 STRAPS WITH (3) 1/2" X 4" TITEN HD BOLTS IN EACH STRAP, SPACE STRAPS 1" APART (CENTER STRAP ON RIM OR TOP OF FND WALL WHERE NO RIM OCCURS, 1/2" BEND MAX.).
HDU11	(2) MST60 STRAPS WITH (4) 1/2" X 4" TITEN HD BOLTS IN EACH STRAP, SPACE STRAPS 1" APART (CENTER STRAP ON RIM OR TOP OF FND WALL WHERE NO RIM OCCURS, 1/2" BEND MAX.).
HDU14	YORK ENGINEERING TO PROVIDE DETAIL.

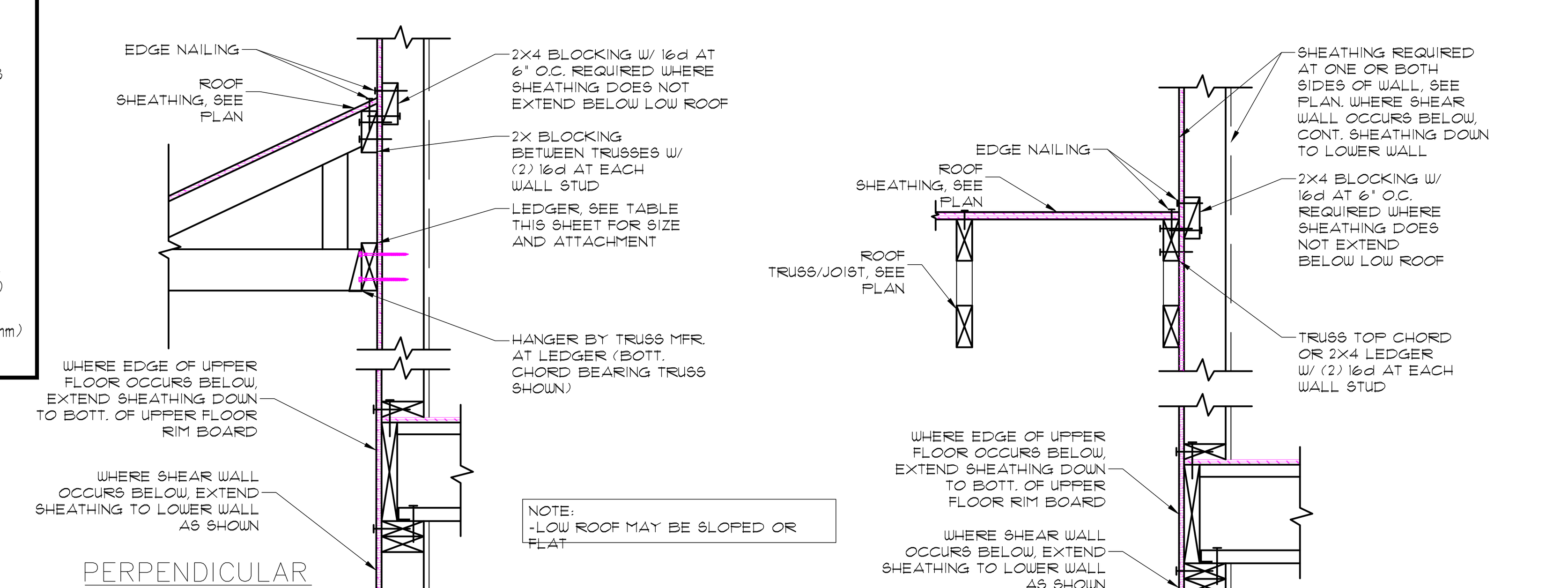
NOTE: YORK ENGINEERING TO PROVIDE DETAIL WHERE STRAPS CANNOT BE INSTALLED WITH 1/2" MAX BEND.



2 / ST3 **INT. BEARING WALL**
SCALE: NOT TO SCALE



1 / ST3 **SLAB ON GRADE**
SCALE: NOT TO SCALE



3 / ST3 **LOW ROOF SHEAR WALL**
SCALE: NOT TO SCALE

LOT# 14 SUBDIVISION TRAPPERS CROSSING
CITY WEBER COUNTY
STATE UTAH DATE 1-10-20

LANDFORMS DESIGN
landforms.com

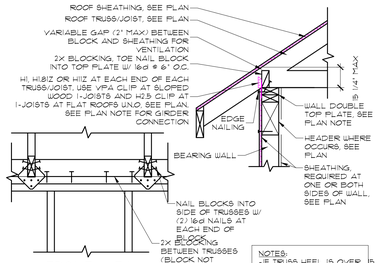
GENERAL NOTES AND DETAILS
REDD RESIDENCE
CUSTOM HOME PLAN

REVISIONS
date	item

1-21-21

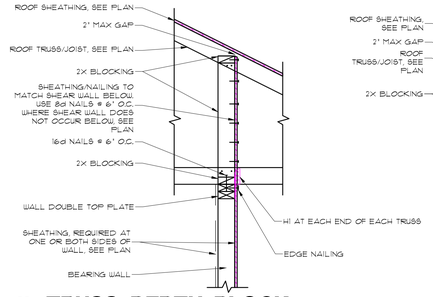
SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

ST3

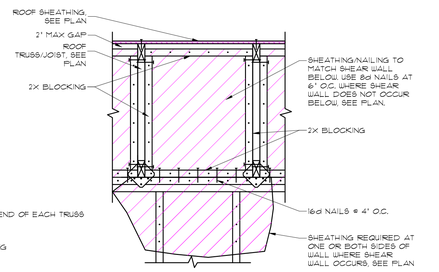


NOTES:
-IF TRUSS HEEL IS OVER 15 1/4" TALL SEE DETAIL 7/SD2 FOR TRUSS DEPTH BLOCKING
-PROVIDE LEB FILLER PER JOIST MFR AT WOOD I-JOISTS FOR CLIP NAILING

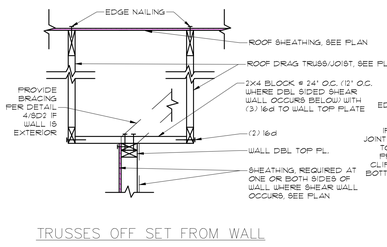
1 ST4 ROOF TRUSS
SCALE: NOT TO SCALE



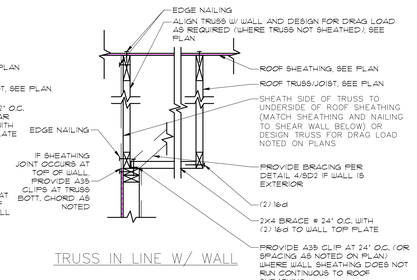
2 ST4 TRUSS DEPTH BLOCK
SCALE: NOT TO SCALE



NOTE:
-PRE-FABRICATED SHEAR PANEL BLOCKING DESIGNED BY THE TRUSS MANUFACTURE MAY BE USED IN LIEU OF BLOCKING SHOWN HERE. BLOCKING TO BE DESIGNED FOR 350 PLF SHEAR LOAD AT TOP OF BLOCK. ATTACH BLOCKING TO WALL TOP PLATE W/ NAILING NOTED OR (1) A35 CLIP OR (1) LTP4 CLIP AT EACH BLOCK.

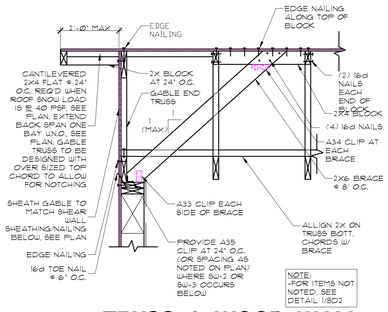


TRUSSES OFF SET FROM WALL



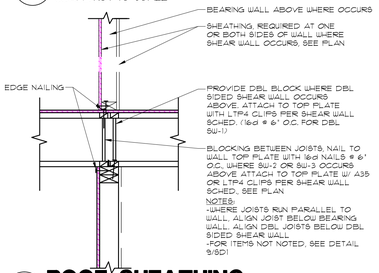
TRUSS IN LINE W/ WALL

NOTES:
-BRACE TRUSS BOTTOM CHORDS PER TRUSS MFR. REQUIREMENTS. BRACING NOT SHOWN FOR CLARITY.
-WHERE ROOF TRUSS IS NOT SHEATHED, TRUSS TO BE DESIGNED FOR DRAG LOAD NOTED ON PLANS (150# LB MIN. IF LOAD NOT NOTED.) TRUSS TO BE DESIGNED TO TRANSFER DRAG LOAD FROM TOP CHORD TO BOTTOM CHORD.

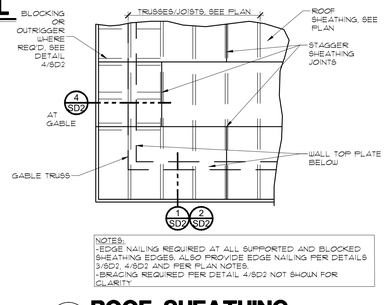


NOTE:
-FOR ITEMS NOT NOTED, SEE DETAIL 1/SD2

3 ST4 TRUSS PAR. TO SHEAR WALL
SCALE: NOT TO SCALE

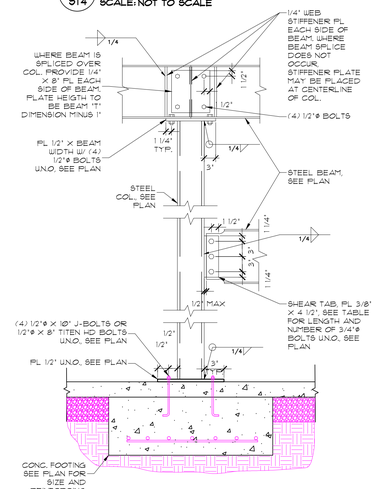


NOTES:
-WHERE JOISTS RUN PARALLEL TO WALL, ALIGN JOIST BELOW BEARING WALL. ALIGN DBL JOISTS BELOW DBL SIDED SHEAR WALL
-FOR ITEMS NOT NOTED, SEE DETAIL 9/SD1



NOTES:
-EDGE NAILING REQUIRED AT ALL SUPPORTED AND BLOCKED SHEATHING EDGES. ALSO PROVIDE EDGE NAILING PER DETAILS 3/SD2, 4/SD2 AND PER PLAN NOTES.
-BRACING REQUIRED PER DETAIL 4/SD2 NOT SHOWN FOR CLARITY

4 ST4 TRUSS @ WOOD WALL
SCALE: NOT TO SCALE

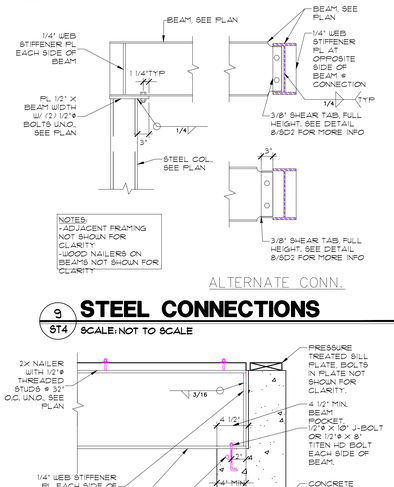


NOTES:
-FOR COL. ON FOUNDATION WALL, USE 8" WIDE BASE PLATE, SPACE BOLTS 3" APART U.N.O. SEE PLAN
-SHEAR TAB CONN. MAY BE USED AT TOP OF COL. IN LIEU OF CAP PLATE
-ADJACENT FRAMING NOT SHOWN FOR CLARITY
-WOOD NAILERS ON BEAMS NOT SHOWN FOR CLARITY
-FOR ITEMS NOT NOTED, SEE DETAIL 2/SD1

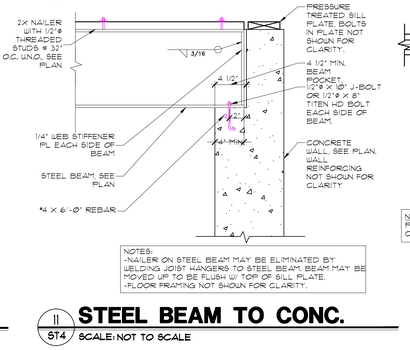
BEAM SIZE	# OF 3/4" DIAM. BOLTS	SHEAR TAB LENGTH	CONN. CAPACITY (ASD)
W8	2	5 1/2"	16.5K
W10	2	5 1/2"	16.5K
W12	3	8 1/2"	28.8K
W14	3	8 1/2"	28.8K
W16	4	11 1/2"	41.5K
W18	5	14 1/2"	54.1K

NOTES:
-BOLTS TO BE A325 U.N.O. SEE PLAN
-CONN. CAPACITY BASED ON AISC TABLE 10-10A

8 ST4 STEEL BEAM TO COL.
SCALE: NOT TO SCALE

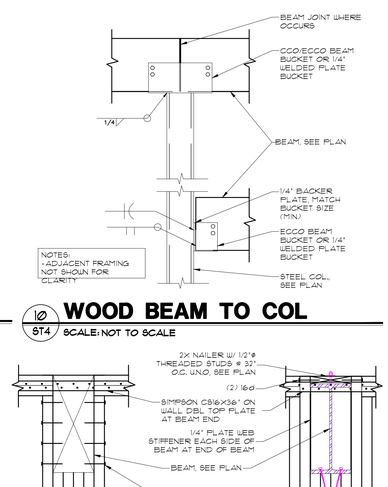


5 ST4 LOW ROOF SHEARWALL
SCALE: NOT TO SCALE

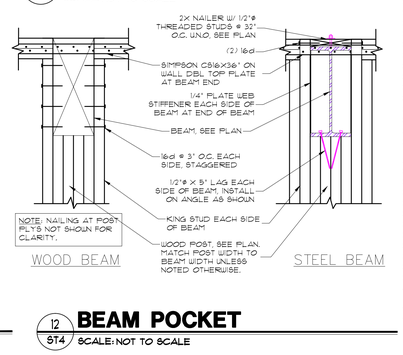


NOTES:
-NAILER ON STEEL BEAM MAY BE ELIMINATED BY WELDING JOIST HANGERS TO STEEL BEAM. BEAM MAY BE MOVED UP TO BE FLUSH W/ TOP OF SILL PLATE.
-FLOOR FRAMING NOT SHOWN FOR CLARITY.

9 ST4 STEEL CONNECTIONS
SCALE: NOT TO SCALE



10 ST4 WOOD BEAM TO COL
SCALE: NOT TO SCALE



11 ST4 STEEL BEAM TO CONC.
SCALE: NOT TO SCALE

12 ST4 BEAM POCKET
SCALE: NOT TO SCALE

MIN. LEDGER SIZE AND ATTACHEMENT TO WALL STUDS AT 16" O.C. (U.N.O. SEE PLAN)					TABLE NOTES
	ROOF OR FLOOR LIVE/SNOW LOAD (PSF)				NAILS TO BE 16d - .148"ø X 3 1/2" MIN. 2. SDS SCREWS TO BE SPACED 3" O.C., 1 1/2" FROM LEDGER EDGE. 3. WHERE LEDGER IS INSTALLED DIRECTLY ON WALL STUDS (NOT ON WALL SHEATHING) 3 1/2" SCREWS MAY BE USED. 4. CENTER LEDGER SCREWS/NAILS IN WALL STUDS
MAX TRUSS/JOIST SPAN, (FT.)	40-50 PSF	50-55 PSF	60-65 PSF	70-75 PSF	
≤ 8'	2X6, (3) 16d	2X8, (4) 16d	2X8, (4) 16d	2X8, (2) SDS 1/4" X 4 1/2"	
12'	2X8, (4) 16d	2X10, (3) SDS 1/4" X 4 1/2"	2X10, (3) SDS 1/4" X 4 1/2"	2X10, (3) SDS 1/4" X 4 1/2"	
16'	2X10, (3) SDS 1/4" X 4 1/2"	2X10, (3) SDS 1/4" X 4 1/2"	1 3/4" X 11 7/8" LVL, (4) SDS 1/4" X 4 1/2"	1 3/4" X 11 7/8" LVL, (4) SDS 1/4" X 4 1/2"	
20'	1 3/4" X 11 7/8" LVL, (4) SDS 1/4" X 4 1/2"	1 3/4" X 11 7/8" LVL, (4) SDS 1/4" X 4 1/2"	1 3/4" X 16" LVL, (5) SDS 1/4" X 4 1/2"	1 3/4" X 16" LVL, (5) SDS 1/4" X 4 1/2"	

GENERAL STRUCTURAL NOTES

1. CONTRACTOR (INCLUDING SUB-CONTRACTORS) SHALL FOLLOW ALL REQUIREMENTS STATED IN THESE DOCUMENTS AND ALL APPLICABLE BUILDING CODES AND STANDARDS AND SHALL BE QUALIFIED TO PERFORM AND EXPERIENCED IN PERFORMING THE WORK REQUIRED FOR THE PROJECT.
2. CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS STATED IN ALL OTHER DOCUMENTS APPLICABLE TO THE PROJECT. IF ANY DISCREPANCIES OCCUR BETWEEN THE STRUCTURAL DOCUMENTS AND OTHER PROJECT DOCUMENTS, NOTIFY YORK ENGINEERING OF THE DISCREPANCY PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS, ETC., PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION AND SHALL PROVIDE SHORING AND BRACING AS REQUIRED TO PROVIDE STRUCTURAL STABILITY AT ALL TIMES DURING CONSTRUCTION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE CORROSION PROTECTION OF ALL STRUCTURAL ELEMENTS.
6. ALL MATERIALS/PRODUCTS SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS.
7. SPECIFIC NOTES AND DETAILS SHALL GOVERN OVER TYPICAL NOTES AND DETAILS.
8. TYPICAL NOTES AND DETAILS APPLY WHERE SPECIFIC NOTES AND DETAILS ARE NOT INDICATED.
9. MATERIALS SHALL BE PLACED ON THE STRUCTURE SUCH THAT THE DESIGN LOADS STATED IN THE DESIGN CRITERIA TABLE ARE NOT EXCEEDED AND THE LOAD BEARING CAPACITY OF TEMPORARY SHORING AND BRACING IS NOT EXCEEDED.
10. EACH PIECE OF STRUCTURAL LUMBER (AND S/HEATHING) SHALL BE MARKED BY A COMPETENT AND RELIABLE ORGANIZATION WHOSE REGULAR BUSINESS IS TO ESTABLISH LUMBER GRADES. THE ORGANIZATION, GRADING AND GRADE MARKINGS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
11. THE SIZING AND SURFACING OF ALL LUMBER SHALL BE MILL SIZED AND SURFACED ON ALL 4 SIDES U.N.O., SEE PLAN. ALL LUMBER SHALL BE FREE OF HEART CENTER. SPLICES SHALL NOT BE PERMITTED EXCEPT WHERE NOTED OR APPROVED BY THE ENGINEER.
12. ALL FRAMING HARDWARE SHALL BE SIMPSON STRONG-TIE OR APPROVED EQUAL U.N.O. AND SHALL BE INSTALLED PER THE MANUFACTURER'S REQUIREMENTS. USE THE MAXIMUM NUMBER AND SIZE OF FASTENERS SPECIFIED BY THE MANUFACTURER U.N.O., SEE PLAN.
13. WHERE A SPECIFIC CONNECTOR TYPE/MODEL IS NOT INDICATED, PROVIDE A CONNECTOR SIZED TO FIT THE MEMBERS BEING CONNECTED.
14. SAWN LUMBER SHALL BE DOUG FIR #2 OR BETTER U.N.O., SEE PLAN. POSTS AND TIMBERS SHALL BE DOUG FIR #1 OR BETTER.
15. INSTALL SOLID FULL HEIGHT BLOCKING BETWEEN TRUSSES/JOISTS AT ALL BEARING POINTS U.N.O, SEE PLAN.
16. WEB FILLERS SHALL BE PROVIDED ON WEBS OF WOOD I-JOISTS PER THE JOIST MANUFACTURER'S REQUIREMENTS AND PER THE HARDWARE MANUFACTURER'S REQUIREMENTS WHERE HARDWARE ATTACHES TO THE I-JOIST.
17. PRE-MANUFACTURED TRUSSES AND JOISTS SHALL BE BRACED PER THE MANUFACTURER'S REQUIREMENTS. MULTI-PLY MEMBERS SHALL BE ATTACHED TOGETHER PER THE MANUFACTURER'S REQUIREMENTS.
18. PRE-MANUFACTURED PRODUCTS SUCH AS WOOD TRUSSES AND I-JOISTS SHALL ONLY BE ALTERED WITH THE APPROVAL OF THE MANUFACTURER AND SHALL BE REPAIRED (WHEN REQUIRED) PER THE MANUFACTURER'S REQUIREMENTS.
19. BOLTS/LAGS AT ALL WOOD TO WOOD, WOOD TO STEEL AND WOOD TO CONCRETE CONNECTIONS SHALL BE A307 U.N.O., SEE PLAN.
20. BOLTS IN WOOD SHALL BE INSTALLED IN HOLES 1/16" IN DIAMETER LARGER THAN THE BOLT DIAMETER AND SHALL HAVE WASHERS BETWEEN HEAD/NUT AND WOOD MEMBER.
21. LAGS SHALL BE INSTALLED IN HOLES PRE-DRILLED AT SAME DIAMETER AS LAG SHAFT FOR UNTHREADED SHAFT PORTION OF HOLE AND 40%-70% OF SHAFT DIAMETER FOR THREADED PORTION.
22. ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED U.N.O, SEE PLAN.
23. ALL FASTENERS AND CONNECTORS (NAILS, SCREWS, BOLTS, NUTS, WASHERS, ETC.) IN CONTACT WITH PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL MEET THE REQUIREMENTS OF IBC 2304.10.5.
24. DO NOT COUNTER SINK BOLT/LAG HEADS INTO WOOD MEMBERS UNLESS SPECIFICALLY NOTED ON PLANS OR APPROVED BY THE ENGINEER.
25. ALL NAILING SHALL BE PER IBC TABLE 2304.10.1 U.N.O., SEE PLAN. ATTACH 2X4 STUDS TO WALL TOP AND BOTT. PLATES WITH (2) 16d NAILS. USE (3) 16d NAILS FOR 2X6 STUDS. BUILT-UP 2X POSTS SHALL BE FACE NAILED TOGETHER WITH (2) 16d AT 9" O.C.
26. PROVIDE POSTS TO MATCH WIDTH OF SUPPORTED BEAMS/HEADERS U.N.O., SEE PLAN. CONTINUE POSTS TO FOUNDATION INCLUDING SQUASH BLOCKING IN FLOORS. MATCH SQUASH BLOCKING SIZE TO POST SIZE.
27. WHERE JOISTS/TRUSSES RUN PARALLEL TO INTERIOR BEARING WALLS, ALIGN JOIST/TRUSS UNDER WALL BOTT. PLATE OR PROVIDE FULL HEIGHT BLOCKING AT 16" O.C. IN FLOOR PERPENDICULAR TO WALL AND BLOCKING ALIGNED UNDER WALL. PROVIDE DBL JOIST/TRUSS UNDER DBL SIDED SHEAR WALLS, SEE INTERIOR SHEAR WALL AT WOOD FLOOR DETAIL.
28. WOOD WALLS SHALL BE BALLOON FRAMED FROM FOUNDATION TO ROOF EXCEPT WHERE FLOORS BREAK WALL STUDS PER FLOOR JOIST AT WOOD WALL DETAIL.
29. SHEATHING SHALL BE PROVIDED ON RIM BOARDS AND NAILED PER REQUIREMENTS OF SHEAR WALL ABOVE.
30. EXCEPT WHERE NOTED OTHERWISE, PROVIDE METAL FRAMING CONNECTOR (HANGER, CLIP, CAP, ETC.) AT ALL WOOD TO CONCRETE, WOOD TO STEEL AND WOOD TO WOOD CONNECTIONS.
31. ATTACH BRICK VENEERS TO FRAMING PER IRC R703.8.
32. PROVIDE 6" X 3 1/2" X 5/16" STEEL ANGLE TO SUPPORT BRICK VENEERS. ATTACH ANGLE WITH (2) 7/16" X 4" LAGS AT 16" O.C., USE (1) ½" X 4-½" TITEN HD BOLT AT 16" O.C. FOR ATTACHMENT TO CONCRETE OR MASONRY.
33. WOOD NAILERS ON STEEL BEAMS SHALL BE 2X WITH ½" DIAM. THREADED STUDS AT 32" O.C. U.N.O, SEE PLAN. NAILERS ON STEEL FRAME BEAMS SHALL BE 3X WITH ¾" DIAM. STUDS AT 24" O.C. U.N.O, SEE PLAN.
34. ¼" WEB STIFFENERS SHALL BE PROVIDED EACH SIDE OF STEEL BEAMS AT ALL BEARING POINTS.
35. USE ¾" DIAM. A325 BOLTS AT ALL STEEL TO STEEL CONNECTIONS U.N.O., SEE PLAN.
36. GROUT BELOW STEEL BASE PLATES (IF USED) SHALL BE 5000 PSI NON-SHRINK GROUT.
37. ALL WELDING SHALL BE DONE PER AISC AND AWS SPECIFICATIONS. WELDERS SHALL BE AWS CERTIFIED.
38. WELD MATERIAL SHALL BE 70 KSI MIN.
39. RIM BOARD TO BE 1 1/8" MIN. U.N.O., SEE PLAN.
40. YORK ENGINEERING LIABILITY IS LIMITED TO FIVE TIMES THE FEE COLLECTED FOR SERVICES. THE CONTRACTOR(S) MUST READ, UNDERSTAND AND ACCEPT ALL YORK ENGINEERING DOCUMENTS APPLICABLE TO THIS DESIGN PRIOR TO UTILIZING THE DESIGN. BY USING THIS DESIGN, THE OWNER/CONTRACTOR ACCEPTS THE DESIGN, ASSUMED LOADS AND LIMITS ON LIABILITY STATED.
41. PERIODIC SPECIAL INSPECTIONS REQUIRED ON TRUSS BRACING AT TRUSSES OVER 5'-0" TALL UNLESS WAIVED BY BUILDING OFFICIAL.
42. PRE-FABRICATED TRUSS LAYOUT PLAN AND CALCULATIONS MUST BE PROVIDED TO YORK ENGINEERING FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

ALL DETAILS MAY NOT BE APPLICABLE TO YOUR PLANS IF MARKED TYPICAL, USE AT ALL APPLICABLE LOCATIONS

LANDFORMS DESIGN
landforms.com

GENERAL NOTES AND DETAILS

RED RESIDENCE
CUSTOM HOME PLAN

REVISIONS	
date	item

PROFESSIONAL STRUCTURAL ENGINEER
No. 10177917-2203
R. KEVIN CARLSON
STATE OF UTAH
1-21-21

SHEET SIZE	30x42
ENGINEER OF RECORD	YORK
CAD TECH	M.H.H.
RELEASE DATE	1-21-21

ST4

ALPINE PLANNING COMMISSION AGENDA

SUBJECT: Planning Commission Minutes March 15, 2022

FOR CONSIDERATION ON: 19 April 2022

PETITIONER: Staff

ACTION REQUESTED BY PETITIONER: Approve Minutes

BACKGROUND INFORMATION:

Minutes from the March 15, 2022 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
March 15, 2021

I. GENERAL BUSINESS

A. Welcome and Roll Call: The meeting was called to order at 7:00 p.m. by Co-Chair Alan MacDonald. The following were present and constituted a quorum:

Chair:
Commission Members: Alan MacDonald, John MacKay, Ethan Allen, Susan Whittenburg, Troy Slade, Jeff Davis
Excused: Jane Griener
Staff: Jed Muhlestein, Austin Roy, Marla Fox

B. Prayer/Opening Comments: Jeff Davis
C. Pledge of Allegiance: John MacKay

II. PUBLIC COMMENT

No Public comment

III. REPORTS AND PRESENTATIONS

None

IV. ACTION ITEMS

A. Public Hearing – Ordinance 2022-08 – Exposed Face of Retaining Walls

Austin Roy explained that the current retaining wall ordinance is not clear on when an exposed face of a retaining wall is considered viewable from the nearest public right of way. The proposed amendments seek to clarify the parameters for regulating retaining walls.

Austin Roy explained that if a retaining wall is visible, it can only be nine feet tall. If it is not visible, it could be taller. He said we want to clarify what it means to have a visible wall. He said this is coming forward because we need to expand the cemetery and all the flat spots have been taken. He said we need to build retaining walls in the cemetery on the hills and this ordinance needs to be changed because we'll need retention walls and some of those will need to be taller than nine feet.

The proposed ordinance would state: Exposed face of retaining wall - *The part of a retaining wall that is above ground and visible. An exposed face of a retaining wall shall be considered visible from the nearest public right of way when the alignment of the wall is within 60 degrees of parallel to the nearest public right of way.*

Alan MacDonald opened the Public Hearing.

Beth West. Resident, wanted to know what 60 degrees parallel meant. Austin Roy explained the meaning of the ordinance.

Andrew Young, resident, wanted to know if this ordinance protects neighbors. He said he didn't think anyone would be upset about wall at the cemetery, but if the walls were next to a neighbor, we need to think if the neighbor would be upset. Austin Roy said we have to go with hard numbers in the ordinance

because each neighbor is going to be different. One neighbor might be okay with a nine-foot wall and the other neighbor is going to be upset with a three-foot wall.

Jeff Davis said the goal is to be consistent in what we do. Alan MacDonald explained what the Planning Commission's duty was and that they are a recommending body, and most items are sent to the City Council for approval. He said the Planning Commission tries to follow the ordinances of the city. Sometimes we get requests for variances and exceptions.

Alan MacDonald closed the Public Hearing.

Austin Roy said the retaining wall ordinance came about because of a wall that was built on the northwest side of town which was visible from very far away with large boulders and people didn't like it. The nine-foot height was a compromise and if you go taller, the wall needs to be tiered with vegetation in between to break it up so it doesn't look like one solid shear face.

MOTION: Commission Member Ethan Allen moved to recommend that Ordinance 2022-08 be adopted as proposed.

Jeff Davis seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed.

Ayes:	**Nays:**
Alan MacDonald	
Ethan Allen	
John MacKay	
Susan Whittenburg	
Troy Slade	
Jeff Davis	

B. Public Hearing – Concept Plan – Three Falls Upper Parking Lot

Austin Roy explained that it is proposed that additional upper parking be approved for the Three Falls Subdivision. The proposed parking lot would provide an upper access point and trailhead to the Three Falls trail system.

The proposed parking lot includes 20 parking stalls and is accessed via an 18-foot-wide driveway off Three Falls Drive. The parking would be just south of the pond.

All improvements to public open space require a recommendation from the Planning Commission and a supermajority vote of approval from the City Council (3.16.040).

Austin Roy explained that this parking lot will be on public open space and will connect to the public trail. It will be an asphalt parking lot. He said currently the land is being used as a staging area for construction, but that would be moved when construction is complete.

Alan MacDonald opened the Public Hearing.

Frasier Bullock 2085 N Three Falls Drive, developer of Three Falls. He said he has three key points to make. Number one is that they were required to redo Fort Canyon Road which cost six million dollars. Two, they were required to build a lower parking lot so the public would have access to the trails. Three, we built a trail system. He said there was a long list of things they agreed to do and in exchange for that,

there were a few key things we asked for from the city. One of these things was to only have two ADA parking spots up higher. He said we provided parking down lower and didn't want a big parking lot in the middle of their subdivision. He said the city agreed to this and it was all part of a package deal.

Mr. Bullock said he is surprised that a deal was made and now the city wants to do a new deal. He said he was personally involved in the deal that everyone collectively agreed to. He said the public wanted access to the area, so they put in a thirty-spot parking lot down lower with a nice bathroom. They added a trail system for public use, and if they are disabled, they can go to the upper ADA parking spots which was in the original plan.

Mr. Bullock said most of the lots have been sold and the residents bought their lots based on the deal that we had with the city. He said it is not right to change the plan at this point because that was not what was agreed upon and the residents who live next to the proposed parking lot are going to say they've been damaged, and it could get ugly. Mr. Bullock said they have spent eight million dollars living up to their side of the agreement.

Austin Roy said this parking plan was not the original plan, to make this change to our public open space it would need a super majority vote from the City Council.

Will Jones, developer, said they were required to put in trails, and he said they have doubled the number of trails required. He said it is not fair to the residents who bought lots in this subdivision to throw a parking lot in there which was not what was agreed upon when the subdivision was approved. He said they have already provided thirty spaces and a nice trail system. He said we have gone beyond our agreement to give nice landscaping; we take care of the landscaping and pay for the water. He said originally, the pond was in the private open space and during the negotiations, it got turned into public open space. He said they plan to have a nice walking path around the pond for the publics use. He said this is a very big concern to the people who will live next to this property. He said they have given and given, and the city keeps wanting to take more and more.

Mr. Ricks, resident, Three Falls Drive, asked if there was a written agreement about this development. Austin Roy said there was a written agreement, but this is city property. Mr. Ricks said that is unfortunate because the residents have bought in this development with agreements in place and if the city goes back on that agreement, then that is bad faith.

Aaron Skonnard, resident, Three Falls, said he is strongly opposed to this parking lot. He said this would be a lack of integrity by the city if they go back on what they agreed upon.

Rob Gardner, resident, Three Falls, said his bedroom window faces the road and he sees and hears all the traffic coming in late at night and is concerned about a hidden spot that people could go to at all hours of the night. He said people are not coming up at those hours to walk the trails.

Mr. Sorenson, resident, Three Falls, said he opposes the parking lot and said residents got last minute notice about this meeting and had they known, it would have been a packed house. He said all the residents have invested a substantial amount of money to build in this development and said the city should honor their agreement. He said he could not be more opposed to this.

Breezy Anson, resident, said he is on the trail committee and said this is the first he has heard of this parking lot. He said the ADA parking for accessibility is great, but most people going up there are biking or running. He said he would like the trail committee to discuss this. He said most bikers access the trails from Corner

Canyon or parking in the lower parking lot. He said he didn't think twenty parking spots up higher would get used.

Alan MacDonald said people are coming into this area on bikes or walking in. He said this parking lot could create a shuttle area for people wanting to ride downhill.

Ethan Allen asked how far it is from the lower parking lot to the pond. Breezy Anson said it is about two miles.

Mrs. Ricks, resident, Three Falls, said the traffic is insane. She said people fly up and down the street and she is concerned about her grandchildren. She said she is concerned about another parking lot and additional traffic.

Mr. Young, Stonehedge, said this is a community of retirees and they want quiet. He said he doesn't care about the millionaires, but this is principle. He said if the city says, this is our property and we can do what we want with it, what are you going to say when they build a parking lot in your backyard?

Alan MacDonald said it is difficult, and the city does listen to the neighbors. He said the Planning Commission has to base their decisions not only on what these neighbors want, but on what is best for all Alpine residents. He said this is public open space and the impact is more than just these neighbors. Others will want to go up there and enjoy the area too and it is a balancing act for us sometimes.

Pete Larkin, resident, asked when the original agreement was made. Will Jones said in 2015. Mr. Larkin asked if the current Mayor and Council were aware of that agreement.

Alan MacDonald closed the Public Hearing.

John MacKay said this is an interesting dilemma. He said this is a safety concern because the parking lot is hidden and isolated from public view. He asked if the parking lot was really needed.

Susan Whittenburg said Three Falls is a beautiful area and said she loves to hike and bike up there. She said she gets the feeling from people there that this is now private, and the public shouldn't be there. She said that is not the case. This is a public area, and it always has been.

Alan MacDonald asked why there is a change from the two ADA spots to twenty parking spots. He asked if there had been a request for this.

Austin Roy said he looks at this as a new proposal and may not have anything to do with the ADA parking.

Jeff Davis said his feeling is that the residents don't want anything more than the two ADA spots that were agreed upon. He said he thinks it would be worse to have a parking lot with fewer stalls because people will drive up there hoping to get a spot and they are full, so they park on the street. He said he would rather have more spots to park to avoid the street parking. He said for the last two years, people have been told they can't go up there. Security has stopped people and told them this is private property. The general perspective has been that the public is not allowed up there.

Breezy Anson said he thinks the people who would use this parking lot are people who want to go to Sliding Rock or the bridge, or to walk up in the area. He doesn't' think you'll get much bike traffic. He said if you give people an option, they'll bypass the two miles and park on the upper lot.

The Planning Commission said this should go before the Trails Committee for discussion. What kind of impact would an upper parking lot have on the trails, the residents, and the traffic?

Breezy Anson said it was concerning that no one knew about this parking lot until today.

Ethan Allen said he is concerned about the past agreement with the city.

Alan MacDonald said he would like to know what the agreement with the city and the Three Falls developers was. He wants to know if we change the two ADA parking spots to a twenty-spot parking lot, does that breach the agreement and expose the city to litigation. He said it is hard to make a recommendation without vetting all the information and concerns by the residents and the city.

Ethan Allen said as a resident, he would like to see parking in the upper area. He said he doesn't know what the agreement says, but if there were a parking lot up there, he would use it.

Susan Whittenburg said the public needs to feel welcome and there needs to be a balance.

Jeff Davis said the residents don't want this parking lot and he understands why. He said he thinks a good majority of the rest of Alpine Residents would want the parking lot for better access to the pond area and public open space.

Alan MacDonald said Jeff Davis makes some good points, but there was an agreement between the city and the developers. The developers could have given certain things up in order to make this agreement and he is concerned about it. Maybe the ADA parking was a recommendation with the city and it's not enforceable. He said the developers gave up abc to get xyz and that included two spaces not twenty spaces.

MOTION: Commission Member John MacKay moved to table the proposed parking plan until we get a report from the Trails Committee and a legal review by the City Attorney of the original Three Falls agreement.

Susan Whittenburg seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed.

Ayes:	**Nays:**
Alan MacDonald	
Ethan Allen	
John MacKay	
Susan Whittenburg	
Troy Slade	
Jeff Davis	

C. Public Hearing – Pickleball Considerations & Concept Plan – Burgess, Creekside, & Healey Parks

Austin Roy explained that in November of 2020 the City Council approved pickleball courts, a pavilion and playground at Healey Park. Since that time, the City Council has considered changing the overall plans for Healey Park and for the City's pickleball courts in general.

All improvements to public open space require a recommendation from the Planning Commission and a supermajority vote of approval from the City Council (3.16.040).

Staff is now seeking approval for improvements to Healey Park. Specifically, the location of the approved pavilion. Also, staff is seeking a decision on additional pickleball courts, whether that be to install new courts at Healey Park, or to modify existing tennis courts at either Burgess Park and/or Creekside Park.

Austin Roy showed on a map where the proposed pavilion could go at Healey Park. He said Creekside Park and Burgess Park already have pavilions and would be a good fit for Healey Park. He said if the pickle ball courts were built at Healey Park, they would be built from scratch because there are no tennis courts there. He said it would be much more expensive than sharing tennis courts.

Austin Roy said the tennis courts at Creekside Park and Burgess Park could be fitted with pickle ball lines so both games could be played on the same court or just convert some of the tennis courts to pickle ball courts. He said he doesn't know what the tennis community would think about that.

Alan MacDonald opened the Public Hearing.

Whitey Anson, 484 Westfield, said we need more pickle ball courts. He said the demand has increased one hundred percent for five years in a row. He said all the churches have added lines on their courts and there is a waiting line to play. He said if we convert the tennis court at Burgess Park, it will cost $40,000. The four courts at Creekside Park would cost $120,000. He said everyone from the elderly to the young can play pickle ball. He said we can build these courts for half the cost if you use the tennis courts. He said we need lights at Creekside Park.

Pete Larkin, resident, said he supports sharing the tennis courts and adding pickle ball courts. He said kids are already using the courts to play pickle ball. He said this would be a good economical decision as well.

Beth West, resident, said parking at Burgess Park is busy because of baseball. She said if residents want to use the park for tennis and pickle ball, then baseball should be managed. She wanted to know if the baseball teams were from Alpine. She said the resident needs should come first. She said we shouldn't cater to sports teams from other cities and that is not Alpine's responsibility.

Alan MacDonald said the baseball fields are a revenue maker. Teams come from all over and the parking is crazy. He said most cities have their own pickle ball courts and feels like the majority of users are from Alpine.

Andrea Gordon said Burgess Park is smaller than Creekside but has a lot of stuff going on with baseball, football, rugby, tennis, basketball, volleyball, two playgrounds and pickle ball. She said the middle school uses this park as well. She said the tennis courts at Burgess Park are being used more than the Creekside courts and said the pickle ball courts should be spread out.

Mr. Young, Stonehedge, said he represents the Healy neighborhood and said they are grateful the city is listening to them and putting the pickle ball courts at a different location. He said they will be happy with the pavilion.

Alan MacDonald closed the Public Hearing.

MOTION: Commission Member Susan Whittenburg moved to recommend that the improvements to Healey Park be approved as proposed and recommend that pickleball courts be located at:

1. Creekside Park on the two west side courts. Each court have two pickle ball courts.

Jeff Davis seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed.

Ayes:	**Nays:**
Alan MacDonald	
Ethan Allen	
John MacKay	
Susan Whittenburg	
Troy Slade	
Jeff Davis	

IV. COMMUNICATIONS

Susan Whittenburg said people didn't know about the parking lot in Three Falls and said we need to let people know. She said the people here tonight were all residents of Three Falls, and the conversation was one sided.

Alan MacDonald said we need to find a way to get the information out to the residents. He said if people want to be informed, they can be, but we could make it easier.

Jeff Davis said where does it stop in Three Falls. If that is public open space, city property, what if the city wants to add a pavilion? Who is going to take care of that property? What about vandalism? Where do people go to the bathroom? What are the hours going to be?

Austin Roy said the more bathrooms that are open, the more work for city staff and we are shorthanded.

V. APPROVAL OF PLANNING COMMISSION MINUTES: March 1, 2022

MOTION: Commission Member John MacKay moved to approve the minutes for March 1, 2022, as written.

Ethan Allen seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed unanimously.

Ayes:	**Nays:**
Alan MacDonald	
Ethan Allen	
John MacKay	
Susan Whittenburg	
Troy Slade	
Jeff Davis	

The meeting was adjourned at 9:10 p.m.