



EAGLE MOUNTAIN CITY COUNCIL MEETING

March 1, 2022, 4:00 PM

Eagle Mountain City Council Chambers

1650 East Stagecoach Run, Eagle Mountain, Utah 84005

4:00 P.M. WORK SESSION - CITY COUNCIL CHAMBERS

1. CITY ADMINISTRATOR INFORMATION ITEMS

This is an opportunity for the City Administrator to provide information to the City Council. These items are for information only and do not require action by the City Council.

1.A UPDATE - City Administrator Items

1.B DISCUSSION - Campus Drive Solutions - Hales Engineering

2. AGENDA REVIEW

The City Council will review items on the Consent Agenda and Policy Session Agenda.

3. ADJOURN TO A CLOSED EXECUTIVE SESSION

The City Council will adjourn into a Closed Executive Session for the purpose of discussing reasonably imminent litigation, the purchase, lease or exchange of real property pursuant to Section 52-4-205(1) of the Utah Code, Annotated.

7:00 P.M. POLICY SESSION - CITY COUNCIL CHAMBERS

4. CALL TO ORDER

5. PLEDGE OF ALLEGIANCE

6. INFORMATION ITEMS/UPCOMING EVENTS

7. PUBLIC COMMENTS

Time has been set aside for the public to express their ideas, concerns and comments. (Please limit your comments to three minutes each.)

8. CITY COUNCIL/MAYOR'S ITEMS

Time has been set aside for the City Council and Mayor to make comments.

9. RECOGNITION

9.A Brett Wright - Planning Commission

10. APPOINTMENTS

10.A Cemetery Advisory Board

1. Carl Canlas - Completing a 4-year Term through 2023

10.B Parks and Recreation Advisory Board

1. Adam Clark - Completing a 3-year Term through 2022

CONSENT AGENDA

11. BID AWARDS

- 11.A Eagle Mountain Boulevard Widening Independent Cost Estimating - Innovative Contracting and Engineering
Innovative Contracting & Engineering Proposal
Scope of Work

- 11.B Landscape & Maintenance Services - Brightview Landscape Services Inc.
Bid Schedule
Bid Opening Form

- 11.C White Hills Well Test Pumping - Wittison Turbine Services

12. BOND RELEASES

- 12.A Antelope Meadows Phase B, Plat 1 - Into Warranty
Bond Release Letter
Recorded Plat

- 12.B Skyline Ridge Phase 2, Plat 5 - Into Warranty
Bond Release Letter
Recorded Plat

- 12.C Evans Ranch Phase C, Plat 1 - Out of Warranty
Bond Release Letter
Recorded Plat

- 12.D Scenic Mountain Phase A, Plat 3 - Out of Warranty
Bond Release Letter
Recorded Plat

- 12.E Scenic Mountain Phase B, Plat 1 - Out of Warranty
Bond Release Letter
Recorded Plat

13. CHANGE ORDERS

- 13.A 2021 New Well Design Change Order #2 - Jones and DeMille

14. MINUTES

- 14.A February 15, 2022 - Regular City Council Meeting
02.15.2022 City Council Minutes - DRAFT

SCHEDULED ITEMS

15. FIRE STATION 253

- 15.A ORDINANCE/PUBLIC HEARING - An Ordinance of Eagle Mountain City, Utah, Approving a Rezone to the Public Facilities Zone for Fire Station 253.

BACKGROUND: *(Presented by Senior Planner Tayler Jensen)* The proposed ordinance rezones a 1.75-acre site to the Public Facilities zone to allow for the construction of a new fire station. The property is located southwest of Frontier Middle School, within Utah County Parcel 59:033:0029.

ORD--Fire Station 253 Rezone
Elevations
Renderings
Site Plan

- 15.B MOTION - Fire Station 253 Site Plan

16. ORDINANCES

- 16.A ORDINANCE - An Ordinance of Eagle Mountain City, Utah, Amending Eagle Mountain Municipal Code Chapter 7.05 Parks, Trails and Special Events.

BACKGROUND: *(Presented by Parks and Recreation Director Brad Hickman)* The ordinance defines and clarifies rules and regulations specific to dog park use within the City.

ORD--EMMC 7.05 Parks, Trails and Special Events
EMMC 7.05 Parks, Trails, and Special Events - Redlines

- 16.B ORDINANCE - An Ordinance of Eagle Mountain City, Utah, Amending Eagle Mountain Municipal Code Chapter 2.27 Board Appointment Process.

BACKGROUND: *(Presented by Councilmember Colby Curtis)* The proposed ordinance

amends the appointment process for board members and staff-level positions requiring City Council consent.

[ORD--EMMC 2.27 Board Appointment Process](#)

[EMMC 2.27 Board Appointment Process - Clean Version](#)

[EMMC 2.27 Board Appointment Process - Redlines](#)

17. RESOLUTIONS

17.A [RESOLUTION - A Resolution of Eagle Mountain City, Utah, Amending the Consolidated Fee Schedule for Water, Sewer, and Storm Water Rates.](#)

BACKGROUND: *(Presented by Assistant to the City Administrator Evan Berrett)* The proposed resolution amends the Eagle Mountain Consolidate Fee Schedule for water, waste water (sewer), and storm water rates. Analysis of the funds have found that rate increases are required to maintain the integrity of all of the funds except for solid waste. Staff seeks to inform City Council of the results of requested additional analysis, answer remaining questions, and receive additional feedback and instruction for any additional requested analysis. This item was presented as a discussion item at the January 18, 2022 City Council meeting and was tabled at the February 1, 2022 City Council meeting.

[RES--Consolidated Fee Schedule - Utility Rates](#)

[Utah State University WaterMAPS Analysis](#)

[Water Rates - Proposal 1](#)

[Water Rates - Proposal 2](#)

[Water Rates - Proposal 3](#)

[Sewer and Storm Water Rates - Proposal](#)

17.B [RESOLUTION - A Resolution of Eagle Mountain City, Utah, Approving the First Amendment to the Eagle Heights Village Master Development Agreement and Conditional Approval of Partial Assignment.](#)

BACKGROUND: *(Presented by Senior Planner Tayler Jensen)* The proposed resolution amends the Eagle Heights Village Master Development Agreement to allow for the construction and sale of single family dwellings instead of duplex units within the Eagle Heights Village subdivision. The development is located south of Eagle Mountain Boulevard and east of the Eagle Point Phases D and E subdivisions.

[RES--Eagle Heights Village Master Development Agreement - 1st Amendment](#)

[First Amendment to the Eagle Heights Village Master Development Agreement](#)

[Exhibits to the First Amendment to the Eagle Heights Village Master Development Agreement](#)

18. ANNEXATION

18.A MOTION - Acceptance of the Gardner Farms Annexation Petition for Further Review.

BACKGROUND: *(Presented by Director of Administrative Services/City Recorder Fionnuala Kofoed)* A petition for the Gardner Farms Annexation was submitted to the Recorder's Office on February 14, 2022. The annexation is approximately 161 acres and is located west of Eagle Mountain Boulevard, Utah County Parcel 58:049:0016. The first action for consideration is the acceptance or denial of the petition by the City Council. This will begin the 30-day review period for certification, after which the annexation will be noticed to interested parties and may be approved by the City Council at a future meeting.

[Annexation Petition](#)

[Annexation Policy Plan Boundary Map](#)

[2018 General Plan](#)

19. MOTION

19.A MOTION - Consideration of a Request to Extend the Hours of a Baseball Tournament to an Overnight Event.

BACKGROUND: *(Presented by Parks and Recreation Director Brad Hickman)* Eagle Mountain Baseball has requested an exemption to Eagle Mountain Municipal Code 12.30.020 Conditions for Issuing a License in order to allow the Heat Stroker Tournament to run from 7:00 PM to 7:00 AM July 7 through July 10, 2022.

20. CITY COUNCIL/MAYOR'S BUSINESS

This time is set aside for the City Council's and Mayor's comments on City business.

21. CITY COUNCIL BOARD LIAISON REPORTS

This time is set aside for Councilmembers to report on the boards they are assigned to as liaisons to the City Council.

22. COMMUNICATION ITEMS

22.A Upcoming Planning Items [CI--Upcoming Agenda Items](#)

23. ADJOURNMENT

THE PUBLIC IS INVITED TO PARTICIPATE IN PUBLIC MEETINGS FOR ALL AGENDAS.

In accordance with the Americans with Disabilities Act, Eagle Mountain City will make reasonable accommodation for participation in all Public Meetings and Work Sessions. Please call the City Recorder's Office at least 3 working days prior to the meeting at 801-789-6610. This meeting may be held telephonically to allow a member of the public body to participate. This agenda is subject to change with a minimum 24-hour notice.

CERTIFICATE OF POSTING

The undersigned, duly appointed City Recorder, does hereby certify that the above agenda notice was posted on this 24th day of February, 2022, on the Eagle Mountain City bulletin boards, the Eagle Mountain City website www.emcity.org, posted to the Utah State public notice website <http://www.utah.gov/pmn/index.html>, and was emailed to at least one newspaper of general circulation within the jurisdiction of the public body.

Fionnuala B. Kofoed, MMC, City Recorder



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	Eagle Mountain Boulevard Widening Independent Cost Estimating - Innovative Contracting and Engineering		
ITEM TYPE:	Bid Award		
FISCAL IMPACT:	\$35,730		
APPLICANT:			
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Chris Trusty, Public Works

PRESENTED BY:

Chris Trusty

RECOMMENDATION:

Staff recommends the City Council award a contract to Innovative Contracting and Engineering in the amount of \$35,730 for independent cost estimating.

BACKGROUND:

With the Eagle Mountain Boulevard project being built using a CM/GC process, our consulting engineer recommended that we include an independent review of contractor pricing to ensure that we get reasonable pricing for the construction of the project. This was an concern that was brought up during the last City Council meeting. In interviewing the consultant, it was mentioned that typically this type of service is able to save more than their fee on any given project.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:

Innovative Contracting & Engineering Proposal
Scope of Work

COST PROPOSAL SPREADSHEET
ICE SERVICES - EAGLE MOUNTAIN BOULEVARD WIDENING (CMGC)
FEE PROPOSAL

Actual Cost per hour:	\$103.37	\$34.62	\$77.52	\$35.34	\$62.02	O. H. Rate	Fixed Fee %
Loaded Cost per hour:	\$308.79	\$103.42	\$231.57	\$105.57	\$185.27	169.120%	10.00%
Tasks	Project Management		Cost Estimating				
Name	Dan Bender	Sarah Chairez	Chris Wilson	Matt Bender	Abdi Fatemi		
Description	Project Manager	Document Control	Structures/ Utilities Estimator	Cost Estimator	Lead Civil Cost Estimator	Total Labor Hours	Loaded Labor Costs
INDEPENDENT COST ESTIMATING SERVICES	17	0	52	88	40	197	\$ 33,991.86
INITIAL APPROACH TO COST AND SCHEDULE MEETING	2		2				
QUANTITY TAKE-OFFS AND QUANTITY RECONCILIATION			2	24			
RISK MANAGEMENT	10		2				
INDEPENDENT COST ESTIMATE			40	60	40		
COST RECONCILIATION	4		4	4			
GMP BID	1		2				
Project Administration	4	8	0	0	0	12	\$2,063
PROJECT MANAGEMENT	4	8					
Hours Subtotal:	21	8	52	88	40	209	
Cost Subtotal:	\$2,170.77	\$276.96	\$4,031.04	\$3,109.92	\$2,480.80		\$36,054.37

CONTRACT SUMMARY	
Total Estimated Direct Labor Cost:	\$12,069
Total Estimated Overhead (Indirect) Cost:	\$20,412
Total Estimated Direct Expenses (Travel Costs):	\$0
Overhead Rate	169.12%
Fixed Fee Rate	10.00%
Subtotal:	\$32,481
Total Estimated Fixed Fee (Profit):	\$3,248
Total Estimated ICE Contract Cost:	\$35,730

SCOPE OF WORK

PROJECT: Eagle Mountain Boulevard Widening (CMGC)



Activity	Scope of Work
Independent Cost Estimating Services	
1.1 Initial Approach to Cost & Schedule Meeting	ICE will lead the team through a CMGC kick-off meeting. At this meeting, ICE and the Contractor will discuss and agree on estimating and scheduling processes and assumptions.
1.2 Quantity Take-offs and Quantity Reconciliation	ICE will perform a quantity take-off using BlueBeam and AgTek software systems. ICE will lead the team through a quantity reconciliation exercise to ensure both the Contractor and ICE are bidding the same quantities.
1.3 Risk Management	ICE will develop an initial risk register and lead the team through a risk workshop to refine the risk cost and time impacts. ICE and the Contractor will agree on which risk items to carry a contingency for, and which items will be included in the estimates.
1.4 Independent Cost Estimate	Develop an Independent Cost Estimate using production-based cost estimating methods. ICE will use HCSS cost estimating software.
1.5 Cost Reconciliation	ICE will prepare a cost estimate comparison spreadsheet to identify the difference in costs between ICE and Contractor. ICE will lead the team through an OPCC meeting where differences in the estimates will be discussed. Then the Contractor and ICE will have an opportunity to adjust their estimates and resubmit a reconciled cost estimate.
1.6 GMP Bid	Once the Contractor's reconciled estimate is within 10% of the ICE estimate, and their cost is below the project budget, then the team will proceed to the GMP bid. ICE will review the Contractor's GMP bid and make a written award recommendation to Eagle Mountain.
Project Administration	
2.1 Project Management	Manage team, project set up, project accounting, and coordination.



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	Landscape & Maintenance Services - Brightview Landscape Services Inc.		
ITEM TYPE:	Bid Award		
FISCAL IMPACT:	\$610,688.66		
APPLICANT:	Brad Hickman		
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Brad Hickman, Parks and Recreation

PRESENTED BY:

Brad Hickman

RECOMMENDATION:

Staff recommends the City Council approve a bid award to Brightview Landscape Services Inc. to provide landscape and maintenance services, following the attached unit rates for each type of service.

BACKGROUND:

City staff solicited a request for proposal for qualified individuals to provide landscape and maintenance services. The bid proposals defined the unit rate structure for each type of maintenance method to be utilized. It is anticipated the contract will include all the following services: Mowing, Trimming, Edging, Fertilizing, Herbicide, Native Mowing, Native Herbicide. The contract will include all maintenance to xeriscape areas including, herbicides, weeding, pruning, hedging to keep areas clean from weeds and debris.

ITEMS FOR CONSIDERATION:

Approving the bid schedule establishes the unit rate at which each type of maintenance method will be billed. The unit rates can increase or decrease by the unit amounts in the contract. The fiscal impact is an estimate of all properties that the City currently maintains and a projection for acres of open space that will receive maintenance throughout the maintenance season.

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:

[Bid Schedule](#)

[Bid Opening Form](#)

Brightview Landscape Services Inc.

[illegible]

EAGLE MOUNTAIN CITY
BID OPENING FOR
2022 Landscape & Maintenance Services
BIDS OPENED: February 22, 2022

Bidder		Complete Bid		Total Amount
		YES	NO	
1.	Brightview Landscape Services Inc.	x		\$610,688.66
2.	TruCo	x		\$684,772.01
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Witnessed By:

Brad Hickman





**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	White Hills Well Test Pumping - Wittison Turbine Services		
ITEM TYPE:	Bid Award		
FISCAL IMPACT:	\$68,420		
APPLICANT:			
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Chris Trusty, Public Works

PRESENTED BY:

Chris Trusty

RECOMMENDATION:

Staff recommends the City Council award the bid for the White Hills Well test pumping to Wittison Turbine Services in the amount of \$68,420.

BACKGROUND:

City staff solicited proposals from qualified individuals to test pump the White Hills wells in preparation to design an upgraded motor and pump system intended to increase the capacity of the existing wells. This will be a requirement from Division of Drinking Water prior to approving any system upgrades. The only bid received by the City was from Wittison Turbine whom the City has worked with in the past. There are few companies capable of this type of work so it is not completely unexpected to only receive one bid.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:



Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

Wednesday, February 23, 2022

City Recorder's Office
Eagle Mountain City
1650 East Stage Coach Run
Eagle Mountain City, UT 84005

SUBJECT: Antelope Meadows phase "B" plat 1 into warranty Bond Release

City Recorder:

The above referenced subdivision has completed all the required improvements as of this date. With the approval of the installed infrastructure, we are recommending this subdivision begin the required one-year warranty period. A reduced bond letter has been generated, reducing all bond items which have been completed. A warranty bond for the remaining warranty amount must be issued and maintained until released from the warranty period by the city.

Please contact me should you have any comments, questions, or concerns. Thank you.

Sincerely,

Christopher T. Trusty, P.E.
Engineering Director
Eagle Mountain City

Cc: Fionnuala Kofoed, City Recorder



BOND RELEASE REQUEST LETTER
Antelope Meadows ph "B" plat 1 Bond
Reduced

Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

1st Bond Release	
Original Bond Amount:	\$ 166,082.84
Previous Release Amount:	\$ -
Amount to Release this Period:	\$ 94,131.00
Amount Remaining in Bond:	\$ 71,951.84

Bond Releases Summary	
#1	\$ 94,131.00
#2	\$ -
#3	\$ -
#4	\$ -
TOTAL	\$ 94,131.00

2/23/2022

ITEM	DESCRIPTION	ORIGINAL QUANTITY	REDUCED QUANTITY	UNIT	UNIT COST	TOTAL	QUANTITIES COMPLETED			MONIES RELEASED	
							Previous Period	This Period	% to date	This Period	To Date
1	SITE PREP.										
a	SWPPP	1	0	LS	\$5,000.00	\$0.00	0	0	100%	\$0.00	\$0.00
2	ROADWAY IMPROVEMENTS										
a	3 inch Surface Course	81150	0	SF	\$1.30	\$0.00	0	0	100%	\$0.00	\$0.00
b	6 inch Road base(also behind curb)	74324	0	SF	\$0.55	\$0.00	0	0	100%	\$0.00	\$0.00
c	9 inch sub-base(e-fill)9behind curb)	74324	0	SF	\$0.85	\$0.00	0	0	100%	\$0.00	\$0.00
d	4 inch Surface Course	1392	0	SF	\$1.70	\$0.00	0	0	100%	\$0.00	\$0.00
e	8 inch Road base(also behind curb)	3016	0	SF	\$0.70	\$0.00	0	0	100%	\$0.00	\$0.00
f	12 inch sub-base(e-fill)9behind curb)	3016	0	SF	\$0.95	\$0.00	0	0	100%	\$0.00	\$0.00
g	30" curb & gutter	3764	0	LF	\$21.00	\$0.00	0	0	100%	\$0.00	\$0.00
h	30" high back curb & gutter	464	0	LF	\$21.00	\$0.00	0	0	100%	\$0.00	\$0.00
i	Sidewalk	3701	3701	SF	\$21.00	\$77,721.00	0	3701	100%	\$77,721.00	\$77,721.00
j	Trailway	165	165	SF	\$40.00	\$6,600.00	0	165	100%	\$6,600.00	\$6,600.00
k	Street/stop signs	10	10	EA	\$200.00	\$2,000.00	0	10	100%	\$2,000.00	\$2,000.00
l	ADA access ramps for trail	8	8	EA	\$650.00	\$5,200.00	0	8	100%	\$5,200.00	\$5,200.00
3	CULINARY WATER										
a	8" culinary water c-900	2084	0	LF	\$28.00	\$0.00	0	0	100%	\$0.00	\$0.00
b	8" gate valve	12	0.6	EA	\$1,400.00	\$840.00	0	12	100%	\$840.00	\$840.00
c	Sampling station	1	0	EA	\$2,000.00	\$0.00	0	0	100%	\$0.00	\$0.00
d	1" service	1	0	EA	\$1,600.00	\$0.00	0	0	100%	\$0.00	\$0.00
e	Fire Hydrant	5	0	EA	\$4,200.00	\$0.00	0	0	100%	\$0.00	\$0.00
f	3/4" water service	30	0	EA	\$1,100.00	\$0.00	0	0	100%	\$0.00	\$0.00
g	Connect to existing	2	0	EA	\$1,000.00	\$0.00	0	0	100%	\$0.00	\$0.00
h	2" blow off	3	0	EA	\$1,000.00	\$0.00	0	0	100%	\$0.00	\$0.00
4	STORM DRAIN										
a	15" storm drain pipe	851	0	LF	\$25.00	\$0.00	0	0	100%	\$0.00	\$0.00
b	18" storm drain pipe	185	0	LF	\$29.00	\$0.00	0	0	100%	\$0.00	\$0.00
c	24" storm drain pipe	653	0	LF	\$40.00	\$0.00	0	0	100%	\$0.00	\$0.00
d	3x6 combo box	6	0	EA	\$3,100.00	\$0.00	0	0	100%	\$0.00	\$0.00
e	Connect to existing	2	0	EA	\$500.00	\$0.00	0	0	100%	\$0.00	\$0.00
f	Curb inlet 2x3	5	0	EA	\$2,300.00	\$0.00	0	0	100%	\$0.00	\$0.00
g	60" manhole	2	0.1	EA	\$3,000.00	\$300.00	0	2	100%	\$300.00	\$300.00
5	SEWER										
a	12" Sewer pipe	130	0	LF	\$40.00	\$0.00	0	0	100%	\$0.00	\$0.00
b	8" Sewer pipe	2081	0	LF	\$26.00	\$0.00	0	0	100%	\$0.00	\$0.00
c	4" sewer laterals	40	0	EA	\$650.00	\$0.00	0	0	100%	\$0.00	\$0.00
d	48" sewer manholes	7	0.35	EA	\$2,800.00	\$910.00	0	7	100%	\$910.00	\$910.00
e	60" sewer manholes	4	0.2	EA	\$2,800.00	\$560.00	0	4	100%	\$560.00	\$560.00
f	Connect to existing	2	0	EA	\$500.00	\$0.00	0	0	100%	\$0.00	\$0.00
TOTAL CONSTRUCTION COST						\$94,131.00					
Original 10% Bond Coverage						\$71,951.84	Released this Period			\$94,131.00	
TOTAL BOND AMOUNT:						\$166,082.84					

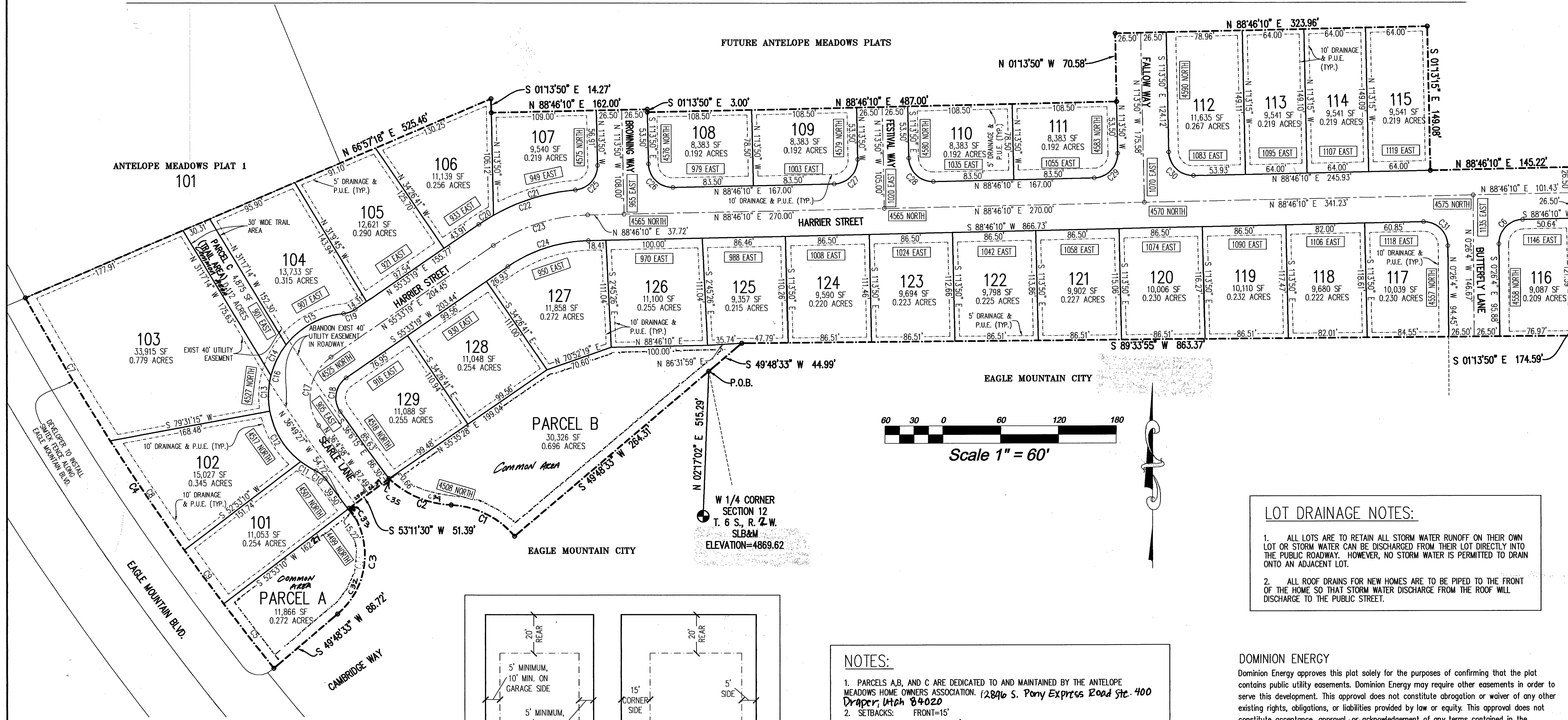
Christopher T. Trusty P.E.
Engineering Director

2/23/22
Date

Robert Ballif
Engineering Tech 1

2/23/22
Date

ANTELOPE MEADOWS PHASE B PLAT 1



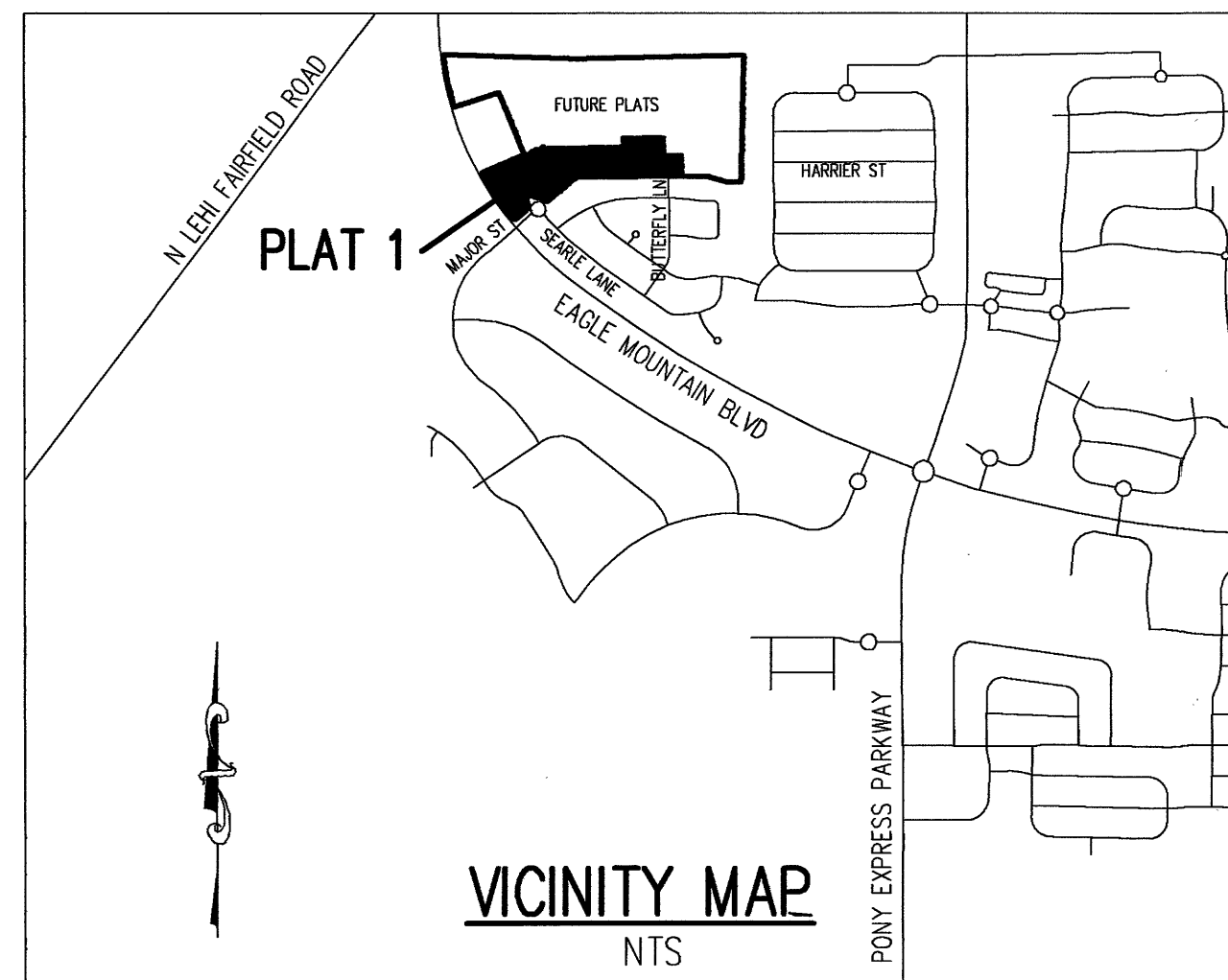
CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	CHORD	BEARING
C1	91.00	75.29	47°24'14"	73.16	N 63°53'35" W
C2	100.00	71.77	41°7'17"	70.24	N 67°2'3" W
C3	80.00	121.36	86°54'55"	110.05	S 6°21'5" W
C4	2630.00	462.44	10°4'28"	461.85	N 33°54'48" W
C5	2630.00	84.57	1°50'33"	84.57	S 38°14'6" E
C6	25.00	38.92	89°12'14"	35.11	N 44°10'3" E
C7	2630.00	172.12	3°44'59"	172.09	S 30°45'4" E
C8	2630.00	136.74	2°58'44"	136.73	S 34°6'55" E
C9	2630.00	69.01	1°30'12"	69.01	S 36°21'24" E
C10	25.00	12.60	28°52'5"	12.46	N 50°37'23" W
C11	85.50	18.75	12°33'43"	18.71	N 58°46'34" W
C12	85.50	62.70	42°0'57"	61.30	N 31°29'13" W
C13	85.50	37.11	24°52'18"	36.82	N 1°57'24" E
C14	85.50	35.77	23°58'5"	35.51	N 26°22'36" E
C15	85.50	69.81	46°47'3"	67.89	N 61°45'10" E
C16	85.50	224.14	150°12'6"	165.25	N 10°2'38" E
C17	50.50	79.86	90°36'40"	71.80	N 10°14'58" E
C18	25.00	39.55	90°38'8"	35.55	N 10°14'15" E
C19	25.00	12.91	29°35'23"	12.77	N 70°21'0" E
C20	206.50	17.84	4°57'1"	17.84	N 58°14'9" E
C21	206.50	89.56	24°51'1"	88.86	N 72°55'50" E
C22	206.50	107.40	29°48'2"	106.20	N 70°27'20" E
C23	180.00	104.35	33°12'52"	102.89	N 72°9'44" E
C24	153.50	88.98	33°12'52"	87.74	N 72°9'44" E
C25	25.00	37.78	86°35'11"	34.29	N 42°3'45" E
C26	25.00	39.27	90°0'0"	35.36	S 46°13'50" E
C27	25.00	39.27	90°0'0"	35.36	N 43°46'10" E
C28	25.00	39.27	90°0'0"	35.36	S 46°13'50" E
C29	25.00	39.27	90°0'0"	35.36	N 43°46'10" E
C30	25.00	39.27	90°0'0"	35.36	S 46°13'50" E
C31	25.00	39.62	90°47'46"	35.60	S 45°49'57" E
C32	90.00	106.07	18°57'58"	104.47	N 11°41'32" E
C33	80.00	15.24	18°54'54"	15.26	N 31°27'54" W
C34	100.00	71.12	40°44'58"	69.43	N 67°13'13" W
C35	100.00	0.65	0°22'20"	0.65	N 46°39'34" W

TYPICAL INTERIOR LOT

TYPICAL CORNER LOT

SETBACK DIAGRAM



NOTES:

- PARCELS A, B, AND C ARE DEDICATED TO AND MAINTAINED BY THE ANTELOPE MEADOWS HOME OWNERS ASSOCIATION. 12896 S. PONY EXPRESS ROAD STE. 400 DRAPER, UTAH 84020
- SETBACKS:
 - FRONT=15'
 - DRIVEWAY=22'
 - REAR=20'
 - CORNER=15'
 - SIDE=15' TOTAL (5' MIN. & 10' ON GARAGE SIDE)
- ALL FRONT-FACING GARAGES MUST BE 22' FROM PROPERTY LINE.

FIRE NOTE:

FOUR (4) FIRE HYDRANTS MEET IFC REQUIREMENTS.
NO COMBUSTIBLE CONSTRUCTION UNTIL FIRE HYDRANTS ARE IN PLACE.

PHASE B PLAT CALCULATIONS

TOTAL ACRES:	10.93 ACRES
BUILDABLE ACRES:	10.93 ACRES
RIGHT-OF-WAY ACRES:	2.43 ACRES
TOTAL ACRES IN LOTS:	7.42 ACRES
TOTAL COMMON AREA:	1.08 ACRES
TOTAL IMPROVED COMMON:	1.08 ACRES
AVERAGE LOT SIZE:	11,144 SF/0.26 ACRES
LARGEST LOT SIZE:	33,915 SF/0.78 ACRES
SMALLEST LOT SIZE:	8,383 SF/0.19 ACRES
OVERALL DENSITY:	2.65 LOTS/ACRE
TOTAL # OF LOTS:	29 LOTS

LOT DRAINAGE NOTES:

- ALL LOTS ARE TO RETAIN ALL STORM WATER RUNOFF ON THEIR OWN LOT OR STORM WATER CAN BE DISCHARGED FROM THEIR LOT DIRECTLY INTO THE PUBLIC ROADWAY. HOWEVER, NO STORM WATER IS PERMITTED TO DRAIN ONTO AN ADJACENT LOT.
- ALL ROOF DRAINS FOR NEW HOMES ARE TO BE PIPED TO THE FRONT OF THE HOME SO THAT STORM WATER DISCHARGE FROM THE ROOF WILL DISCHARGE TO THE PUBLIC STREET.

DOMINION ENERGY

Dominion Energy approves this plat solely for the purposes of confirming that the plat contains public utility easements. Dominion Energy 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 Dominion Energy's Right-of-way department at 1-800-366-8532.

Approved this 11 day of Nov 2021

Dominion Energy

By: [Signature]

Title: Pre Con

ROCKY MOUNTAIN POWER

- Pursuant to Utah Code Ann § 54-3-27 this plat conveys to the owner(s) or operators of utility facilities a public utility easement along with all the rights and duties described therein.
- Pursuant to Utah Code Ann § 17-27a-603(4)(c)(ii) Rocky Mountain Power accepts delivery of the PUE as described in this plat and approves this plat solely for the purpose of confirming that the plat contains public utility easements and approximates the location of the public utility easements, but does not warrant their precise location. Rocky Mountain Power may require other easements in order to serve this development. This approval does not affect any right that Rocky Mountain Power has under:
 - A recorded easement or right-of-way
 - The law applicable to prescriptive rights
 - Title 54, Chapter 8a, Damage to Underground Utility Facilities, or
 - Any other provision of law

ROCKY MOUNTAIN POWER
DATE: 11/16/21

DIRECT COMMUNICATIONS

Direct Communications Cedar Valley, LLC certifies that it will provide telecommunications services to this subdivision utilizing the trenches provided by the developer as per the Direct Communications Cedar Valley P.S.C. Utah No. 174101.

DIRECT COMMUNICATIONS
DATE: 11/16/21

SURVEYOR'S CERTIFICATE

I, ARON D. THOMAS, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 6418780 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 IN 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.

Nov. 11, 2021
DATE

ARON D. THOMAS (SEE SEAL BELOW)

BOUNDARY DESCRIPTION

BEGINNING AT A POINT LOCATED NORTH 02°17'02" EAST 515.29 FEET FROM THE WEST QUARTER CORNER OF SECTION 12, TOWNSHIP 6 SOUTH, RANGE 2 WEST, SALT LAKE BASE AND MERIDIAN;

THENCE ALONG THE NORTHERLY BOUNDARY OF AUTUMN RIDGE SUBDIVISION PHASE 1 THE FOLLOWING SIX COURSES AND DISTANCES: 1) SOUTH 49°48'33" WEST 264.31 FEET, 2) ALONG THE ARC OF A 91.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT 75.29 FEET THROUGH A CENTRAL ANGLE OF 47°24'17" (CHORD BEARS NORTH 63°53'35" WEST 73.16 FEET), 3) ALONG THE ARC OF A 100.00 FOOT RADIUS CURVE TO THE RIGHT 71.77 FEET THROUGH A CENTRAL ANGLE OF 41°07'17" (CHORD BEARS NORTH 67°02'03" WEST 70.24 FEET), 4) SOUTH 53°11'30" WEST 51.39 FEET, 5) ALONG THE ARC OF A 80.00 FOOT RADIUS NON-TANGENT CURVE TO THE RIGHT 121.36 FEET THROUGH A CENTRAL ANGLE OF 86°54'55" (CHORD BEARS SOUTH 6°21'05" WEST 110.05 FEET), AND 6) SOUTH 49°48'33" WEST 86.72 FEET; THENCE ALONG THE EASTERLY RIGHT-OF-WAY LINE OF EAGLE MOUNTAIN BOULEVARD ALONG THE ARC OF A 2630.00 FOOT RADIUS CURVE TO THE RIGHT 462.44 FEET THROUGH A CENTRAL ANGLE OF 10°42'28" (CHORD BEARS NORTH 33°54'48" WEST 461.85 FEET); THENCE NORTH 66°57'18" EAST 525.46 FEET ALONG THE BOUNDARY OF ANTELOPE MEADOWS PLAT 1; THENCE SOUTH 01°13'50" EAST 14.27 FEET; THENCE NORTH 88°46'10" EAST 167.00 FEET; THENCE SOUTH 01°13'50" EAST 3.00 FEET; THENCE NORTH 88°46'10" EAST 487.00 FEET; THENCE SOUTH 01°13'50" WEST 70.58 FEET; THENCE NORTH 88°46'10" EAST 145.22 FEET; THENCE SOUTH 01°13'50" EAST 174.59 FEET; THENCE ALONG THE NORTHERLY BOUNDARY OF AUTUMN RIDGE PHASE 2 THE FOLLOWING TWO COURSES AND DISTANCES: 1) SOUTH 89°33'55" WEST 863.37 FEET, AND 2) SOUTH 49°48'33" WEST 44.99 FEET TO THE POINT OF BEGINNING.

AREA = 10.935 ACRES

BASIS OF BEARING = UTAH STATE PLANE COORDINATE SYSTEM OF 1927, CENTRAL ZONE

EAGLE MOUNTAIN DEVELOPER PLAT DEDICATION

We, the undersigned owners of all the real property depicted on this plat and described in the surveyors certificate on this plat, have caused the land described on this plat to be divided into lots, streets, parks, open spaces, easements and other public uses as designated on the plat and now do hereby dedicate under the provisions of 10-9a-607, Utah Code, without condition, restriction or reservation to Eagle Mountain City, Utah, all streets, water, sewer and other utility easements and improvements, open spaces shown as public open spaces, parks and all other places of public use and enjoyment to Eagle Mountain City, Utah, together with all improvements required by the Development Agreement between the undersigned and Eagle Mountain City for the benefit of the City and the inhabitants thereof. Pursuant to Utah Code 10-9a-604(1)(d), the owner conveys Parcels A, B & C (4499 N, 4508 N, and 901 E) to the Antelope Meadows Home Owners Association (12896 Pony Express Road #400, Draper, UT 84020).

OWNER(S): Fieldstone Antelope Meadows, LLC.
PRINTED NAME OF OWNER By: Brett Woodland, Assistant Secretary

AUTHORIZED SIGNATURE(S): [Signature] 11/16/2021

ENT 208483/2021 Map # 18080
ANDREA ALLEN
UTAH COUNTY RECORDER
2021 Dec 17 9:45 am FEE \$14.00 BY TH
RECORDED FOR EAGLE MOUNTAIN CITY

ACKNOWLEDGMENT

On the 11th day of November, 2021, personally appeared before me the persons signing the foregoing Owners Dedication known to me to be authorized to execute the foregoing Owners Dedication for and on behalf of the owners who duly acknowledged to me that the Owners Dedication was executed by them on behalf of the owners.

MY COMMISSION EXPIRES: 1-19-2025

711224
COMMISSION NUMBER

[Signature]
NOTARY PUBLIC SIGNATURE

Mindy Dansie
PRINTED FULL NAME OF NOTARY

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF EAGLE MOUNTAIN CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION PLAT 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 7 DAY OF November, 2021.

APPROVED BY MAYOR: [Signature]
APPROVED BY ENGINEER (SEE SEAL BELOW): [Signature]
APPROVED BY CITY ATTORNEY: [Signature]
ATTEST BY CITY RECORDER (SEE SEAL BELOW): [Signature]

FINAL PLAT 1

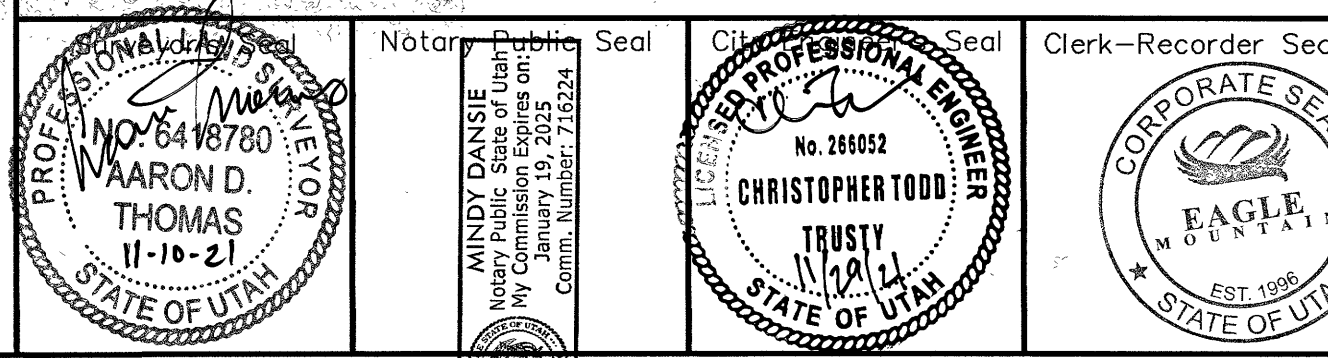
ANTELOPE MEADOWS PHASE B

SUBDIVISION

LOCATED IN THE NE CORNER OF SEC 11 & NW CORNER OF SEC 12, TOWNSHIP 6S, RANGE 2W, S.L.B.&M.

EAGLE MOUNTAIN CITY UTAH COUNTY, UTAH

SCALE: 1" = 60 FEET



18080

SURVEYOR:
AZTEC ENGINEERING
732 NORTH 780 WEST
AMERICAN FORK, UT 84057
(801) 224-7308

Sec. 12, T.6S, R.2W, S.L.B.&M.; Airo Sec. 11, T.6S, R.2W, S.L.B.&M. TO 038.



Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

Tuesday, January 25, 2022

City Recorder's Office
Eagle Mountain City
1650 East Stage Coach Run
Eagle Mountain City, UT 84005

SUBJECT: Skyline Ridge phase 2 plat 5 into warranty Bond Release

City Recorder:

The above referenced subdivision has completed all the required improvements as of this date. With the approval of the installed infrastructure, we are recommending this subdivision begin the required one-year warranty period. A reduced bond letter has been generated, reducing all bond items which have been completed. A warranty bond for the remaining warranty amount must be issued and maintained until released from the warranty period by the city.

Please contact me should you have any comments, questions, or concerns. Thank you.

Sincerely,

Christopher T. Trusty, P.E.
Engineering Director
Eagle Mountain City

Cc: Fionnuala Kofoed, City Recorder



BOND RELEASE REQUEST LETTER
Skyline Ridge phase 2 plat 5 bond

Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

1st Bond Release	
Original Bond Amount:	\$ 1,501,385.05
Previous Release Amount:	\$ -
Amount to Release this Period:	\$ 1,364,895.50
Amount Remaining in Bond:	\$ 136,489.55

Bond Releases Summary	
#1	\$ 1,364,895.50
#2	\$ -
#3	\$ -
#4	\$ -
TOTAL	\$ 1,364,895.50

1/25/2022

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL	QUANTITIES COMPLETED			MONIES RELEASED	
						Previous Period	This Period	% to date	This Period	To Date
1	SITE PREP.									
a	General conditions	1	EA	\$15,000.00	\$15,000.00	0	1	100%	\$15,000.00	\$15,000.00
b	Cut & stockpile trees	1	LS	\$2,000.00	\$2,000.00	0	1	100%	\$2,000.00	\$2,000.00
c	Lot excavation & grading	60555	CY	\$5.35	\$323,969.25	0	60555	100%	\$323,969.25	\$323,969.25
d	Subgrade prep site	35000	SF	\$0.15	\$5,250.00	0	35000	100%	\$5,250.00	\$5,250.00
e	Haul off spoils	56705	CY	\$7.00	\$396,935.00	0	56705	100%	\$396,935.00	\$396,935.00
f	Surveying & monuments	1	LS	\$11,000.00	\$11,000.00	0	1	100%	\$11,000.00	\$11,000.00
g	SWPPP	1	LS	\$12,000.00	\$12,000.00	0	1	100%	\$12,000.00	\$12,000.00
2	ROADWAY IMPROVEMENTS									
a	3" Asphalt	22975	SF	\$1.45	\$33,313.75	0	22975	100%	\$33,313.75	\$33,313.75
b	6" roadbase	28850	SF	\$0.85	\$24,522.50	0	28850	100%	\$24,522.50	\$24,522.50
c	9" e-fill	28850	SF	\$0.85	\$24,522.50	0	28850	100%	\$24,522.50	\$24,522.50
d	Waterway	170	SF	\$20.00	\$3,400.00	0	170	100%	\$3,400.00	\$3,400.00
e	30" curb & gutter w/base	1630	LF	\$23.00	\$37,490.00	0	1630	100%	\$37,490.00	\$37,490.00
f	Catch basin tie in	6	EA	\$450.00	\$2,700.00	0	6	100%	\$2,700.00	\$2,700.00
g	5' sidewalk w/4" of compacted base	8250	SF	\$6.75	\$55,687.50	0	8250	100%	\$55,687.50	\$55,687.50
3	CULINARY WATER									
a	8" C-900 water line	775	LF	\$35.00	\$27,125.00	0	775	100%	\$27,125.00	\$27,125.00
b	Water fittings	1	EA	\$1,000.00	\$1,000.00	0	1	100%	\$1,000.00	\$1,000.00
c	8" gate valve w/collar	1	EA	\$2,500.00	\$2,500.00	0	1	100%	\$2,500.00	\$2,500.00
d	3/4" service lateral w/meter	20	EA	\$1,850.00	\$37,000.00	0	20	100%	\$37,000.00	\$37,000.00
e	Connect to existing water line	1	EA	\$4,500.00	\$4,500.00	0	1	100%	\$4,500.00	\$4,500.00
f	Fire Hydrant	2	EA	\$6,500.00	\$13,000.00	0	2	100%	\$13,000.00	\$13,000.00
g	Testing	1	LS	\$2,000.00	\$2,000.00	0	1	100%	\$2,000.00	\$2,000.00
h	Water backfill	370	CY	\$22.00	\$8,140.00	0	370	100%	\$8,140.00	\$8,140.00
4	SEWER									
a	Connect to existing sewer manhole	1	EA	\$7,000.00	\$7,000.00	0	1	100%	\$7,000.00	\$7,000.00
b	8" Sewer Pipe main	725	LF	\$65.00	\$47,125.00	0	725	100%	\$47,125.00	\$47,125.00
c	48" manhole w/collar	2	EA	\$5,500.00	\$11,000.00	0	2	100%	\$11,000.00	\$11,000.00
d	4" service lateral	20	EA	\$1,850.00	\$37,000.00	0	20	100%	\$37,000.00	\$37,000.00
e	Sewer backfill	3220	CY	\$22.00	\$70,840.00	0	3220	100%	\$70,840.00	\$70,840.00
5	STORM DRAIN									
a	Tie into existing	2	EA	\$2,000.00	\$4,000.00	0	2	100%	\$4,000.00	\$4,000.00
b	15" storm drain pipe	25	LF	\$60.00	\$1,500.00	0	25	100%	\$1,500.00	\$1,500.00
c	18" storm drain pipe	170	LF	\$65.00	\$11,050.00	0	170	100%	\$11,050.00	\$11,050.00
d	18" RCP pipe	320	LF	\$75.00	\$24,000.00	0	320	100%	\$24,000.00	\$24,000.00
e	24" storm drain pipe	210	LF	\$90.00	\$18,900.00	0	210	100%	\$18,900.00	\$18,900.00
f	30" RCP pipe	16	LF	\$200.00	\$3,200.00	0	16	100%	\$3,200.00	\$3,200.00
g	Manholes	1	EA	\$4,500.00	\$4,500.00	0	1	100%	\$4,500.00	\$4,500.00
h	SD combo	2	EA	\$6,700.00	\$13,400.00	0	2	100%	\$13,400.00	\$13,400.00
i	Curb inlet box	2	EA	\$3,000.00	\$6,000.00	0	2	100%	\$6,000.00	\$6,000.00
j	SD box	1	EA	\$3,700.00	\$3,700.00	0	1	100%	\$3,700.00	\$3,700.00
k	Lot swale & berm	4672	LF	\$10.00	\$46,720.00	0	4672	100%	\$46,720.00	\$46,720.00
l	Storm drain backfill	390	CY	\$22.00	\$8,580.00	0	390	100%	\$8,580.00	\$8,580.00
6	MISC.									
a	Street/stop sign	1	EA	\$550.00	\$550.00	0	1	100%	\$550.00	\$550.00
b	No parking sign	3	EA	\$450.00	\$1,350.00	0	3	100%	\$1,350.00	\$1,350.00
c	Rockwall install	100	LS	\$14.25	\$1,425.00	0	100	100%	\$1,425.00	\$1,425.00
TOTAL CONSTRUCTION COST					\$1,364,895.50					
10% Bond Coverage					\$136,489.55					
TOTAL BOND AMOUNT:					\$1,501,385.05				Released this Period	\$1,364,895.50

Christopher T. Trusty P.E.
Engineering Director

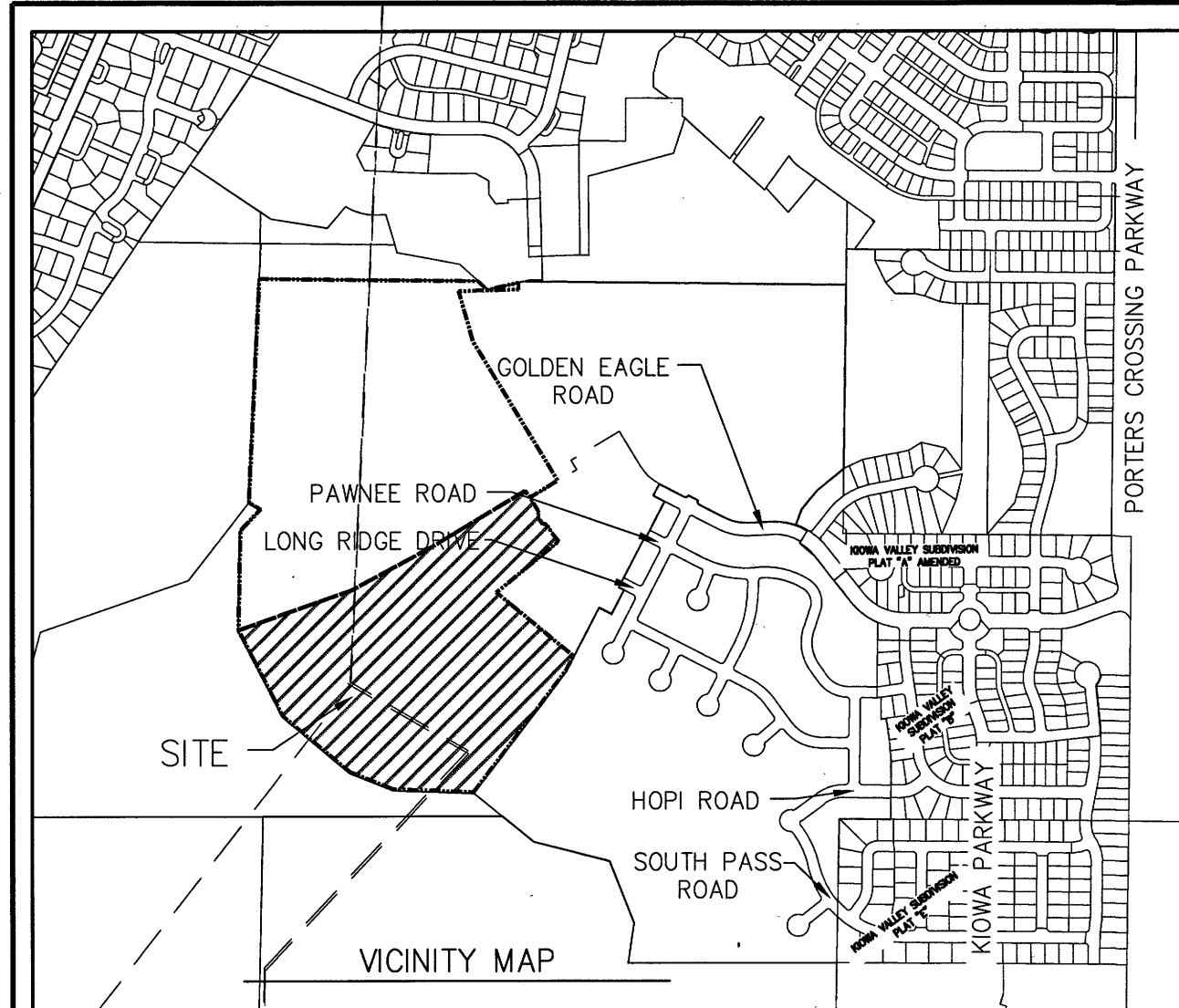
1/25/22

Date

Robert B. Ballif
Engineering Tech. 1

1/25/22

Date



NOTES:

- ALL PUBLIC OPEN SPACE IS HEREBY DEDICATED TO EAGLE MOUNTAIN CITY.
- ALL LOTS ARE SUBJECT TO A 5' UTILITY EASEMENT (P.U.E.) ALONG ALL SIDE LOT LINES AND A 10 FOOT UTILITY EASEMENT ALONG ALL REAR/FRONT LOT LINES IN ADDITION TO ANY EASEMENT SHOWN ON THE PLAT.
- LOT OWNERS ARE REQUIRED TO MAINTAIN DRAINAGE DITCHES LOCATED ON THEIR PROPERTY. POSITIVE DRAINAGE TO THE STREET MUST BE MAINTAINED.

PROJECT DEVELOPER

Bach Land and Development, LLC
11650 S. State Street, Suite 300
Draper, UT 84020

PROJECT ENGINEER & SURVEYOR

REGION ENGINEERING & SURVEYING
1776 NORTH STATE STREET #110
OREM, UTAH 84057
PH - 801.376.2245

AREA BREAKDOWN

TOTAL PLAT ACREAGE 27.83 ACRES
TOTAL LOT ACREAGE 26.20 ACRES
TOTAL ACREAGE IN STREETS 0.86 ACRES
TOTAL ACREAGE IN OPEN SPACE 20.67 ACRES
AVERAGE LOT SIZE 13,206 S.F.
NUMBER OF LOTS 20

LARGEST LOT = 0.79 ac (210)
SMALLEST LOT = 8740 sf (201)

SKYLINE RIDGE - PH 2 Plat 5 RESIDENTIAL SUBDIVISION

LOCATED IN THE SOUTH HALF OF SECTION 29
TOWNSHIP 5 SOUTH, RANGE 1 WEST,
SALT LAKE BASE & MERIDIAN
CITY OF EAGLE MOUNTAIN, UTAH COUNTY, UTAH

DOMINION ENERGY QUESTAR CORPORATION

DOMINION 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 DOMINION'S RIGHT-OF-WAY DEPARTMENT AT 800-366-6532.

APPROVED THIS 5 DAY OF October 2021

BY *Beverly Clardy*
TITLE *Pres. Con.*

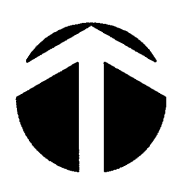
DOMINION ENERGY QUESTAR CORPORATION

ROCKY MTN POWER

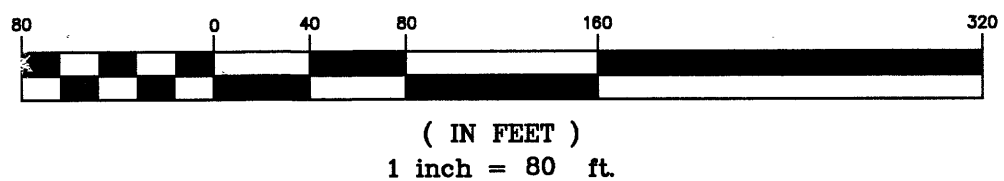
- PURSUANT TO UTAH CODE ANN. 54.327, THIS PLAT CONVEYS TO THE OWNER(S) OR OPERATORS OF UTILITY FACILITIES A PUBLIC UTILITY EASEMENT ALONG WITH ALL THE RIGHTS AND DUTIES DESCRIBED THEREIN.
- PURSUANT TO UTAH CODE ANN. 17.27-603(4)(c)(i) ROCKY MTN POWER ACCEPTS DELIVERY OF THE PUE AS DESCRIBED IN THIS PLAT AND APPROVES THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS AND APPROXIMATES THE LOCATION OF THE PUBLIC UTILITY EASEMENTS, BUT DOES NOT WARRANT THEIR PRECISE LOCATION. ROCKY MTN POWER MAY REQUIRE OTHER EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT AFFECT ANY RIGHT THAT ROCKY MTN POWER HAS UNDER:
(1) A RECORDED EASEMENT OR RIGHT-OF-WAY
(2) THE LAW APPLICABLE TO PRESCRIPTIVE RIGHTS
(3) TITLE 54, CHAPTER 86, DAMAGE TO UNDERGROUND UTILITY FACILITIES OR,
(4) ANY OTHER PROVISION OF LAW.

ROCKY MOUNTAIN POWER

Date 10/5/21



GRAPHIC SCALE



CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD DIST.	CHORD BRG.	DELTA
C1	34.35'	150.00'	34.28'	S37°37'41"E	130°7'21"
C2	23.56'	15.00'	21.21'	S13°56'00"W	90°00'00"
C3	23.26'	15.00'	21.00'	S76°38'37"E	88°50'47"
C4	91.44'	730.00'	91.38'	S35°48'31"E	71°0'36"
C5	243.57'	5000.00'	243.55'	N57°24'36"E	2°47'28"
C6	11.14'	5000.00'	11.14'	N58°52'10"E	0°07'40"
C7	11.09'	4975.00'	11.09'	N58°52'10"E	0°07'40"
C8	25.59'	4975.00'	25.59'	N58°39'29"E	0°17'41"
C9	75.15'	4975.00'	75.15'	N58°04'41"E	0°51'56"
C10	75.15'	4975.00'	75.15'	N57°12'45"E	0°51'56"
C11	66.46'	4975.00'	66.46'	N56°23'50"E	0°45'55"
C12	20.07'	15.00'	18.61'	N17°41'08"E	76°39'27"
C13	56.12'	50.00'	53.22'	N11°30'47"E	64°18'45"
C14	62.50'	50.00'	58.51'	N79°28'45"E	71°37'11"
C15	62.50'	50.00'	58.51'	S28°54'04"E	71°37'11"
C16	38.05'	50.00'	37.14'	S28°42'36"W	43°38'09"
C17	4.80'	50.00'	4.80'	S53°15'46"W	5°30'11"
C18	71.92'	5025.00'	71.92'	S56°25'28"W	0°49'12"
C19	74.26'	5025.00'	74.26'	S57°15'28"W	0°50'48"
C20	74.26'	5025.00'	74.26'	S58°06'16"W	0°50'48"
C21	24.35'	5025.00'	24.35'	S58°40'00"W	0°16'39"
C22	11.20'	5025.00'	11.20'	S58°52'10"W	0°07'40"

LEGEND

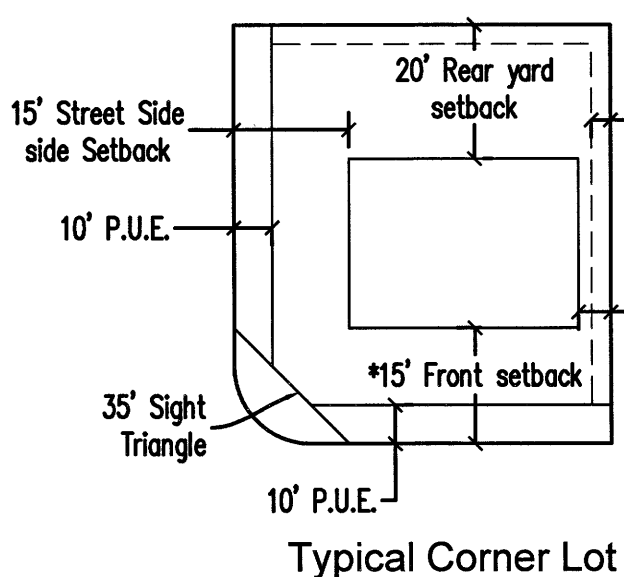
- FOUND SECTION COR. AS NOTED
- SET 5/8" IRON PIN TO BE SET AT ALL LOT CORNERS
- FOUND CLASS I STREET MONUMENT
- CLASS II STREET MONUMENT (SET)
- PROPERTY BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY LINE
- LOT LINE
- SECTION LINE
- PUBLIC UTILITY EASEMENT
- CALCULATED POINT (NOT SET)

PARCEL 'C'

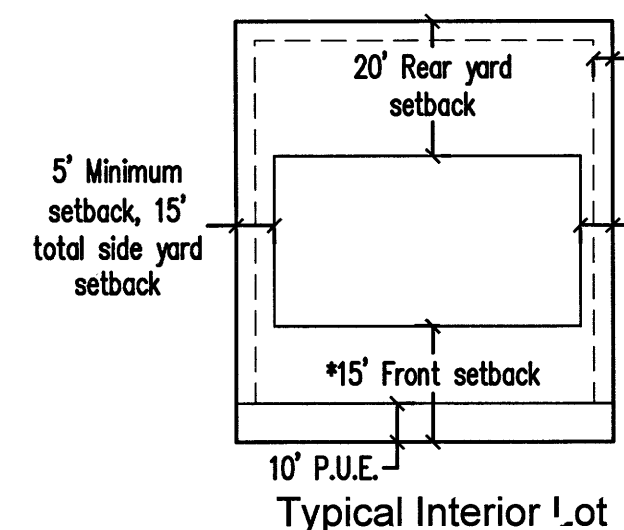
879957 sq. ft.
Open Space Dedicated to City of Eagle Mtn.

DIRECT COMMUNICATIONS
DIRECT COMMUNICATIONS CEDAR VALLEY, LLC CERTIFIES THAT IT WILL PROVIDE TELECOMMUNICATIONS SERVICES TO THIS SUBDIVISION UTILIZING THE TRENCHES PROVIDED BY THE DEVELOPER AS PER THE DIRECT COMMUNICATIONS CEDAR VALLEY P.S.C. UTAH No. 1 TARIFF.

Marquis Wilford
DIRECT COMMUNICATIONS
DATE 10/5/2021



Typical Corner Lot



Typical Interior Lot

Surveyor's Certificate

I, ROBBIN J. MULLEN DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 368356 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF SAID TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS AND THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND STAKED ON THE GROUND AS SHOWN ON THIS PLAT AND THAT THIS IS TRUE AND CORRECT.

Boundary Description

BEGINNING AT A POINT BEING N89°58'00"E, 2304.30' ALONG THE SECTION LINE AND NORTH 107.87' FROM THE SOUTHWEST CORNER OF SECTION 29, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN;

FROM THE POINT OF BEGINNING; Thence, N 87° 55' 48" W for a distance of 372.27 feet to a point on a line.
Thence, N 68° 11' 55" W for a distance of 217.19 feet to a point on a line.
Thence, N 49° 57' 01" W for a distance of 403.93 feet to a point on a line.
Thence, N 27° 19' 57" W for a distance of 448.95 feet to a point on a line.
Thence, N 70° 37' 14" E for a distance of 557.48 feet to a point on a line.
Thence, N 61° 35' 24" E for a distance of 432.71 feet to a point on a line.
Thence, N 58° 56' 00" E for a distance of 492.41 feet to the beginning of a non-tangential curve, **THENCE 34.35 FEET ALONG**
Said curve turning to the right through an angle of 13° 07' 20.6", having a radius of 150.00 feet, and whose long chord bears S 37° 37' 41" E for a distance of 34.28 feet.
Thence, S 31° 04' 00" E for a distance of 3.81 feet to a point on a line.
Thence, S 31° 04' 00" E for a distance of 72.14 feet to the beginning of a curve, **THENCE 23.56 FEET ALONG**
Said curve turning to the right through an angle of 90° 00' 00.0", having a radius of 15.00 feet, and whose long chord bears S 13° 56' 00" W for a distance of 21.21 feet to a point of intersection with a non-tangential line.
Thence, S 31° 14' 23" E for a distance of 50.00 feet to the beginning of a non-tangential curve, **THENCE 23.26 FEET ALONG**
Said curve turning to the right through an angle of 88° 50' 46.7", having a radius of 15.00 feet, and whose long chord bears S 76° 38' 37" E for a distance of 21.00 feet to the beginning of a non-tangential curve, **THENCE 91.44 FEET ALONG**
Said curve turning to the left through an angle of 07° 10' 35.7", having a radius of 730.00 feet, and whose long chord bears S 35° 48' 31" E for a distance of 91.38 feet to a point of intersection with a non-tangential line.
Thence, S 50° 36' 11" W for a distance of 372.33 feet to a point on a line.
Thence, S 50° 18' 07" E for a distance of 462.41 feet to a point on a line.
Thence, S 27° 13' 26" W for a distance of 77.08 feet to a point on a line.
thence S 37° 10' 00" W a distance of 706.63 feet to the POINT OF BEGINNING

CONTAINING 27.83 ACRES OF LAND MORE OR LESS.

PROJECT BASED ON STATE PLANE COORDINATES, NAD83

Oct 14, 2021
Date

[Signature]
Surveyor
(See Seal Below)

Owner's Dedication

We, the undersigned owners of all the real property depicted on this plat and described in the surveyors certificate on this plat, have caused the land described on this plat to be divided into lots, streets, parks, open spaces, easements and other public uses as designated on the plat and now do hereby dedicate under the provisions of 10-9a-607, Utah Code, without condition restriction or reservation to Eagle Mountain City, Utah, all streets, water, sewer and other utility easements and improvements, open spaces shown as public open spaces, parks and all other places of public use and enjoyment to Eagle Mountain City, Utah together with all improvements required by the Development Agreement between the undersigned and Eagle Mountain City for the benefit of the City and the inhabitants thereof.

OWNERS (PRINTED NAME)

Bach Land & Development
by *Shon Lindisbacher*
owner

AUTHORIZED SIGNATURE(S)

[Signature] 9/5/21

Acknowledgement

STATE OF UTAH } S.S.
COUNTY OF UTAH }
On the 5 day of September, 2021, personally appeared before me the persons signing the foregoing Owner's Dedication known to me to be authorized to execute the foregoing Owners Dedication for and on behalf of the owners who duly acknowledge to me that the Owners Dedication was executed by them on behalf of the Owners.

My Commission Expires July 5, 2023
[Signature]
NOTARY PUBLIC
(See Seal Below)

Acceptance by Legislative Body

The City Council of Eagle Mountain City, 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 12 day of November, 2021.

APPROVED BY MAYOR *[Signature]*
APPROVED BY CITY ATTORNEY *[Signature]*
APPROVED BY CITY ENGINEER *[Signature]*
(See Seal Below)

Mayor of Eagle Mountain

Approved this _____ day of _____, A.D. 20____

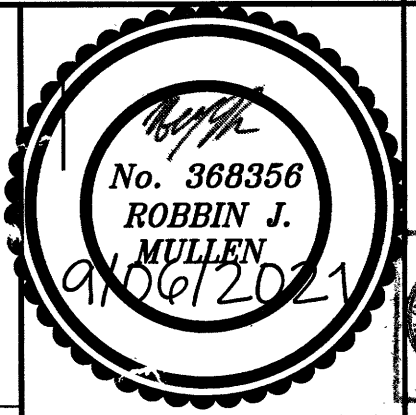
Approved: _____ Attest: _____
Mayor of Eagle Mountain City Recorder

SKYLINE RIDGE - PH 2 Plat 5 RESIDENTIAL SUBDIVISION

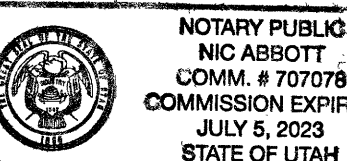
LOCATED IN THE SOUTH HALF OF SECTION 29
TOWNSHIP 5 SOUTH, RANGE 1 WEST,
SALT LAKE BASE & MERIDIAN
CITY OF EAGLE MOUNTAIN, UTAH COUNTY, UTAH

COUNTY RECORDER
SEAL

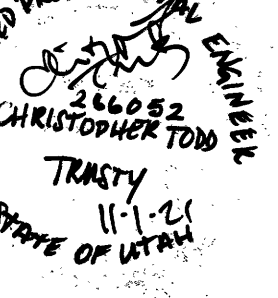
SURVEYORS SEAL



NOTARY PUBLIC
SEAL



CIVIL ENGINEERS
SEAL



CLERK-RECORDER
SEAL



18126

Sec 29, T5S, R1W, SLB&M



Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

Monday, February 14, 2022

City Recorder's Office
Eagle Mountain City
1650 East Stage Coach Run
Eagle Mountain City, UT 84005

SUBJECT: Evans Ranch phase C plat 1 out of warranty Bond Release

City Recorder:

The above referenced subdivision has completed the required one-year maintenance period as required in their development agreement. After performing a walkthrough of this subdivision, I would recommend that the city accepts the subdivision as complete and release all bonds placed by the developer and held by the city for this development.

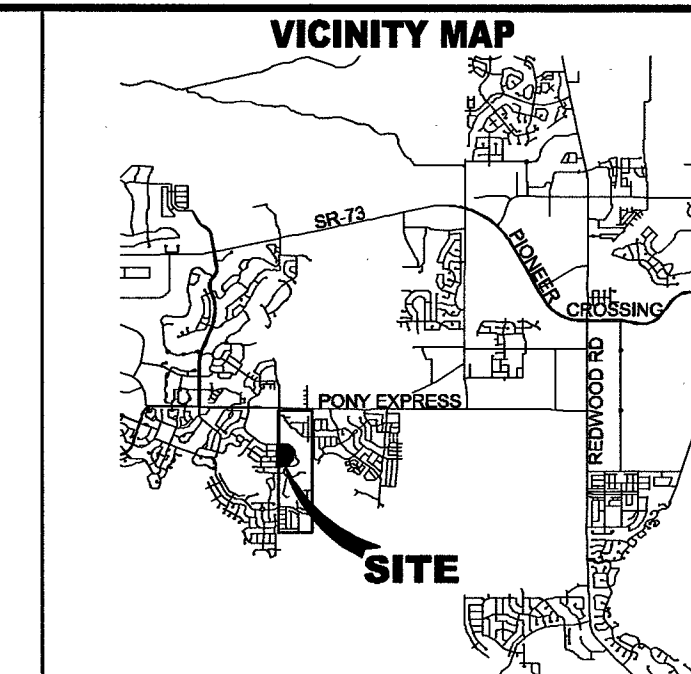
Please contact me should you have any comments, questions, or concerns. Thank you.

Sincerely,

Christopher T. Trusty, P.E.
Engineering Director
Eagle Mountain City

Cc: Fionnuala Kofoed, City Recorder

PLAT "C-1"



I, CHAD A. POULSEN, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 501182 IN ACCORDANCE WITH TITLE 58, CHAPTER 22, OF UTAH STATE CODE. I FURTHER CERTIFY BY AUTHORITY OF THE OWNER(S), THAT I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAN IN ACCORDANCE WITH SECTION 17-23-17, OF SAID CODE, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, BLOCKS, STREETS, AND EASEMENTS, AND THE SAME HAS, OR WILL BE, CORRECTLY SURVEYED, STAKED, AND MONUMENTED ON THE GROUND AS SHOWN ON THIS PLAN, AND THAT THIS PLAN IS TRUE AND CORRECT.

A PORTION OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF PLAT "A", EVANS RANCH SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER, SAID POINT BEING LOCATED 30°33'35"W ALONG SECTION 28-180.21 FEET FROM THE SOUTHWEST CORNER OF SECTION 28, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE ALONG SAID PLAT "A" THE FOLLOWING TWELVE (12) COURSES: S89°22'35" E 400.00 FEET; THENCE S67°12'45" E 26.77 FEET; THENCE ALONG THE ARC OF A 59.00 FOOT RADIUS CURVE TO THE RIGHT 36.93 FEET THROUGH A CENTRAL ANGLE OF 35°52'00" (CHORD: S49°16'45" E 36.33 FEET); THENCE N59°23'08" E 93.36 FEET; THENCE S39°14'58" E 7.16 FEET; THENCE S81°14'25" E 91.75 FEET; THENCE ALONG THE ARC OF A 815.50 FOOT RADIUS NORTH-TANGENT CURVE TO THE RIGHT (RADIUS BEARS "N7°58'16" W 32.07 FEET THROUGH CENTRAL ANGLE C-2 "218°1" (CHORD: S81°12'07" E 120.07 FEET); THENCE S89°16'45" E 53.00 FEET; THENCE S78°37'45" E 100.85 FEET; THENCE N60°31'45" E 25.45 FEET; THENCE S31°27'51" E 180.41 FEET; THENCE S42°47'10" E 328.85 FEET TO THE NORTH LINE OF PLAT "B-2", EVANS RANCH SUBDIVISION ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE UTAH COUNTY RECORDER, THENCE ALONG SAID PLAT "B-2" THE FOLLOWING EIGHT (8) COURSES: S42°20'00" W 112.91 FEET; THENCE N54°58'38" W 28.87 FEET; THENCE S7°18'15" W 49.80 FEET; THENCE S42°20'00" W 111.65 FEET; THENCE S39°33'55" W 53.00 FEET; THENCE N4°27'30" E 127.30 FEET; THENCE S89°16'45" E 53.00 FEET; THENCE S78°37'45" E 100.85 FEET; THENCE N60°31'45" E 25.45 FEET; THENCE S31°27'51" W 180.41 FEET; THENCE S42°47'10" E 328.85 FEET; THENCE S39°37'45" W 175.75 FEET; THENCE N41°02'22" E 15.89 FEET TO THE WEST LINE OF SAID PLAT "B-2", THENCE N67°35'35" E ALONG THE SECTION LINE 77.49 FEET TO THE POINT OF BEGINNING.

CONTAINS: ±7.85 ACRES
25 LOTS
3 PARCELS

JUNE 9, 2020
DATE



SURVEYOR

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

AND TO HEREBY DEDICATE FOR THE PERPETUAL USE OF THE PUBLIC AND CITY ALL PARCELS, LOTS, STREETS, EASEMENTS, RIGHT-OF-WAY, AND PUBLIC AMENITIES SHOWN ON THIS PLAT AS INTENDED FOR PUBLIC OR CITY USE. PURSUANT TO UTAH CODE § 80-2-104(1), THE CITY OF SALT LAKE COUNTY HAS THE HONOR TO ACCEPT THIS DEDICATION TO THE CITY OF SALT LAKE COUNTY HOME OWNERS ASSOCIATION, INC. WITH A REGISTERED ADDRESS OF 1099 WEST SOUTH JORDAN PARKWAY, SOUTH JORDAN, UTAH, 84095, THE OWNER(S) AND ALL AGENTS, SUCCESSORS, AND ASSIGNS VOLUNTARILY DEFEND, INDEMNIFY, AND SAVE HARMLESS THE CITY AGAINST ANY EASEMENTS OR OTHER ENCUMBRANCE ON A DEDICATED STREET, EASEMENT, OR RIGHT-OF-WAY THAT MAY BE ASSERTED AGAINST THE CITY OF SALT LAKE COUNTY OR ITS AGENTS, SUCCESSORS, OR THE OWNER(S) AND ALL AGENTS, SUCCESSORS, AND ASSIGNS ASSUME ALL LIABILITY WITH RESPECT TO THE CREATION OF THIS SUBDIVISION, THE ALTERATION OF THE GROUND SURFACE, VEGETATION, DRAINAGE, OR SURFACE OR SUB-SURFACE WATER WITHIN THIS SUBDIVISION AND THE DEVELOPMENT ACTIVITY WITHIN THIS SUBDIVISION BY THE OWNERS AND ALL AGENTS, SUCCESSORS, AND ASSIGNS.

IN WITNESS WHEREOF, I HAVE SET FORTH MY HAND THIS 25th DAY OF June, A.D. 20 20.

OWNER(S):

BY: EVANS RANCH LLC, A UTAH LIMITED LIABILITY COMPANY, ITS MANAGER
BY: DAI MANAGERS LLC, A UTAH LIMITED LIABILITY COMPANY, ITS MANAGER

BY: NATHAN SHIPP, NS MANAGER

STATE OF UTAH
COUNTY OF UTAH S.S.

ON THIS 25th DAY OF June, A.D. 2020, PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, NATHAN SHIP, THE MANAGER OF DAI MANAGERS, LLC A UTAH LIMITED LIABILITY COMPANY, THE MANAGER OF EVANS RANCH LLC, A UTAH LIMITED LIABILITY COMPANY AND IS AUTHORIZED TO EXECUTE THE FOREGOING OWNERS DEDICATION FOR AND ON ITS BEHALF AND THAT HE EXECUTED IT IN SUCH CAPACITY.

 **DIANE G KUNZ**
NOTARY PUBLIC-STATE OF UTAH
COMMISSION# 709220
COMM. EXP. 11-16-2023

NOTARY PUBLIC FULL NAME: Diane G. Kunz
COMMISSION NUMBER: 709220
MY COMMISSION EXPIRES: 11-16-2023
A NOTARY PUBLIC COMMISSIONED IN UTAH

THE City Council OF Engle Mountain City, NC,
COUNTY OF YAM, 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 7 DAY OF July, A.D. 20 20
[Signature]
APPROVED BY MAYOR

APPROVED BY MAYOR

APPROVED BY CITY ATTORNEY

APPROVED Chin-Tung Tseng
ENGINEER
(See Seal Below)

ATTEST _____
CLERK-RECORDER
(See Seal Below)

LOCATED IN A PORTION OF THE NORTHWEST QUARTER OF
SECTION 28, TOWNSHIP 5 SOUTH, RANGE 1 WEST,
SALT LAKE BASE AND MERIDIAN

EAGLE MOUNTAIN UTAH COUNTY, UTAH

SCALE: 1" = 50'

SCALE: 1" = 50'

SURVEYOR'S SEAL

STATE OF UTAH

CHAD A. POULSEN

No. 501182

6/9/2018

PROFESSIONAL LAND SURVEYOR

NOTARY PUBLIC: _____

A circular professional engineer seal for Christopher Todd, No. 266052, State of Utah. The seal is stamped in blue ink. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "STATE OF UTAH" at the bottom. The center of the seal contains the name "CHRISTOPHER TODD" and the date "7-6-20". The number "No. 266052" is also visible. The seal is stamped over a document that includes the text "CITY-COUNTY ENGINEER SEAL" and "SEAL".

A circular corporate seal for Eagle Mountain, State of Utah. The outer ring contains the text "CORPORATE SEAL" at the top and "STATE OF UTAH" at the bottom, separated by two stars. The center features a stylized eagle with spread wings perched on a mountain peak. Below the eagle, the words "EAGLE MOUNTAIN" are written in a bold, sans-serif font, and "EST. 1996" is written in a smaller font at the bottom center.

This form approved by Utah County and the municipalities therein.

LEI
- An Utah S Corporation -
ENGINEERS
SURVEYORS
PLANNERS
3302 N. Main Street
Spanish Fork, UT 84669
Phone: 801.798.0555
Fax: 801.798.9393
office@lei-eng.com
www.lei-eng.com

1. COVERED HOMES TO BE SET AT FRONT OF BUILDABLE AREA AND ALIGN WITH THE DESIGNATED BUILD-TO LINE.
2. ALL SITE PLANS SUBMITTED WITH BUILDING PERMIT APPLICATION SHALL SHOW THE LOCATION OF UTILITY CONNECTIONS. NO WATER METERS ALLOWED IN DRIVEWAYS.
3. SIDE LOT SETBACKS TO BE IN ACCORDANCE WITH MASTER SETBACK EXHIBIT AND AGREEMENT APPROVED BY THE CITY OF EAGLE MOUNTAIN.
4. ALL COMMON AREA TO BE PUBLIC UTILITY AND ACCESS/PEDESTRIAN EASEMENTS IN THEIR ENTIRETY.
5. COMMON AREA MAINTAINED BY THE EVANS RANCH HOME OWNERS ASSOCIATION, INC. LOCATED AT 1038 W. SOUTH JORDAN PARKWAY, SOUTH JORDAN, UT 84095
6.  STREET LIGHT
7.  FIRE HYDRANT

ZONE:	R, SFD/SFA
TOTAL AREA:	7.85 ACRES
TOTAL AREA IN LOTS:	5.63 ACRES
TOTAL COMMON AREA:	0.88 ACRES
ROW AREA:	1.35 ACRES
AVERAGE LOT SIZE:	11,329 SQ. FT.
LARGEST LOT SIZE:	13,752 SQ. FT.
SMALLEST LOT SIZE:	7,290 SQ. FT.
# OF LOTS:	25
DENSITY:	3.18 LOTS/ACR
# OF PARCELS:	3

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	CHORD
C1	59.00	82°50'04"	95.60	N20°47'43"W 85.45
C2	59.00	56°58'04"	58.66	N2°51'42"E 56.28
C3	59.00	0°04'16"	0.07	N28°37'49"E 0.07
C4	815.50	4°32'11"	64.67	N20°17'49"E 64.54
C5	888.50	2°17'00"	34.81	N1°25'25"E 34.68
C6	815.50	2°17'00"	32.50	S1°25'25"E 32.50
C7	500.00	17°21'02"	151.41	S19°06'38"E 150.10
C8	500.00	2°29'20"	21.72	S11°40'45"E 21.71
C9	500.00	6°11'24"	54.02	S16°01'17"E 53.99
C10	500.00	6°50'02"	59.64	S23°31'50"E 59.65
C11	500.00	1°50'16"	16.04	S28°51'59"E 16.04
C12	140.00	22°50'29"	55.81	N16°21'53"W 55.81
C13	140.00	7°34'19"	18.50	N23°59'58"W 18.50
C14	140.00	15°16'10"	37.31	N12°34'44"W 37.31
C15	273.50	4°39'47"	21.94	N33°12'36"W 21.94
C16	273.50	3°54'04"	18.62	N33°33'27"W 18.62
C17	661.50	58°04'24"	670.48	S6°28'17"E 642.10
C18	661.50	4°59'19"	57.59	S33°00'50"E 57.59
C19	661.50	5°56'56"	68.69	S23°32'42"E 68.68
C20	661.50	5°27'44"	63.06	S21°50'20"E 63.06
C21	661.50	4°07'52"	47.69	S17°02'33"E 47.68
C22	661.50	4°47'57"	55.41	S12°34'38"E 55.34
C23	661.50	3°48'03"	43.88	S8°16'38"E 43.88
C24	661.50	3°58'17"	45.85	S4°23'28"E 45.84
C25	661.50	4°42'33"	54.37	S0°03'53"E 54.38
C26	661.50	3°54'44"	45.17	S4°15'36"E 45.16
C27	661.50	3°34'40"	41.31	S8°00'15"W 41.30
C28	661.50	4°35'18"	52.98	S12°05'17"W 52.98
C29	661.50	5°03'34"	58.41	S16°54'44"W 58.39
C30	661.50	3°07'24"	36.06	S15°00'13"W 36.06
C31	326.50	3°54'04"	22.23	N33°33'27"W 22.23
C32	608.14	16°21'54"	173.70	S27°19'50"E 173.71
C33	608.14	7°16'13"	77.17	S22°40'07"E 77.17

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	CHORD
C34	808.14	9°05'41"	76.63	S18°50'56"E 86.6
C35	55.00	75°40'12"	92.54	S19°45'55"W 67.7
C36	55.00	78°10'03"	75.04	S19°55'51"W 69.
C37	55.00	2°29'51"	2.40	S17°45'05"W 2.4
C38	160.53	19°34'42"	56.27	N49°05'01"E 55.0
C39	160.53	11°35'01"	32.45	N33°29'40"E 32.4
C40	160.53	11°31'14"	32.28	N21°56'32"E 32.2
C41	160.53	12°35'11"	35.26	N9°53'20"W 35.1
C42	160.53	18°23'03"	51.51	N5°35'47"W 51.2
C43	160.53	14°16'48"	45.81	N21°55'43"W 39.
C44	160.53	19°56'57"	50.09	N39°02'35"W 55.
C45	160.53	9°25'22"	26.40	N63°43'45"W 26.
C46	160.53	11°27'18"	329.08	N0°17'13"E 274.
C47	119.53	124°12'36"	258.13	N0°17'13"E 211.
C48	16.00	109°00'40"	30.44	S63°40'35"W 28.
C49	608.50	17°46'04"	188.70	S0°17'13"W 187.
C50	16.00	109°00'40"	30.44	S63°06'09"E 26.
C51	55.00	73°30'00"	70.55	S21°41'26"E 65.
C52	55.00	4°38'52"	4.46	S17°23'00"W 4.4
C53	608.50	2°50'24"	10.31	S21°00'44"W 10.
C54	55.00	78°08'51"	75.02	S19°22'00"E 69.
C55	300.00	3°54'04"	20.43	N33°32'27"W 20.
C56	635.00	58°04'24"	643.62	S6°28'17"E 616.
C57	635.00	23°01'54"	255.26	S23°59'32"E 253.
C58	635.00	25°31'38"	262.91	S0°17'13"W 280.
C59	635.00	9°30'53"	106.45	S17°48'28"W 106.
C60	842.00	2°17'00"	33.55	N21°25'25"E 33.
C61	1404	154°28'32"	377.53	N0°17'13"E 273.
C62	790.50	4°14'26"	58.51	N20°26'42"E 58.
C63	893.50	2°32'39"	39.68	N21°17'35"E 39.
C64	696.50	2°59'01"	35.75	S21°04'24"W 35.
C65	248.50	1°32'48"	6.71	N34°44'05"W 6.7

DOMINION ENERGY APPROVES THE PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS. DOMINION ENERGY 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 ACKNOWLEDGMENT 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 DOMINION ENERGY RIGHT OF WAY DEPARTMENT AT 1-800-368-8532

APPROVED THIS 10 DAY OF June, 20 20

DOMINION ENERGY

BY- Dorothy Eldridge
TITLE- Pre-Con Specialist

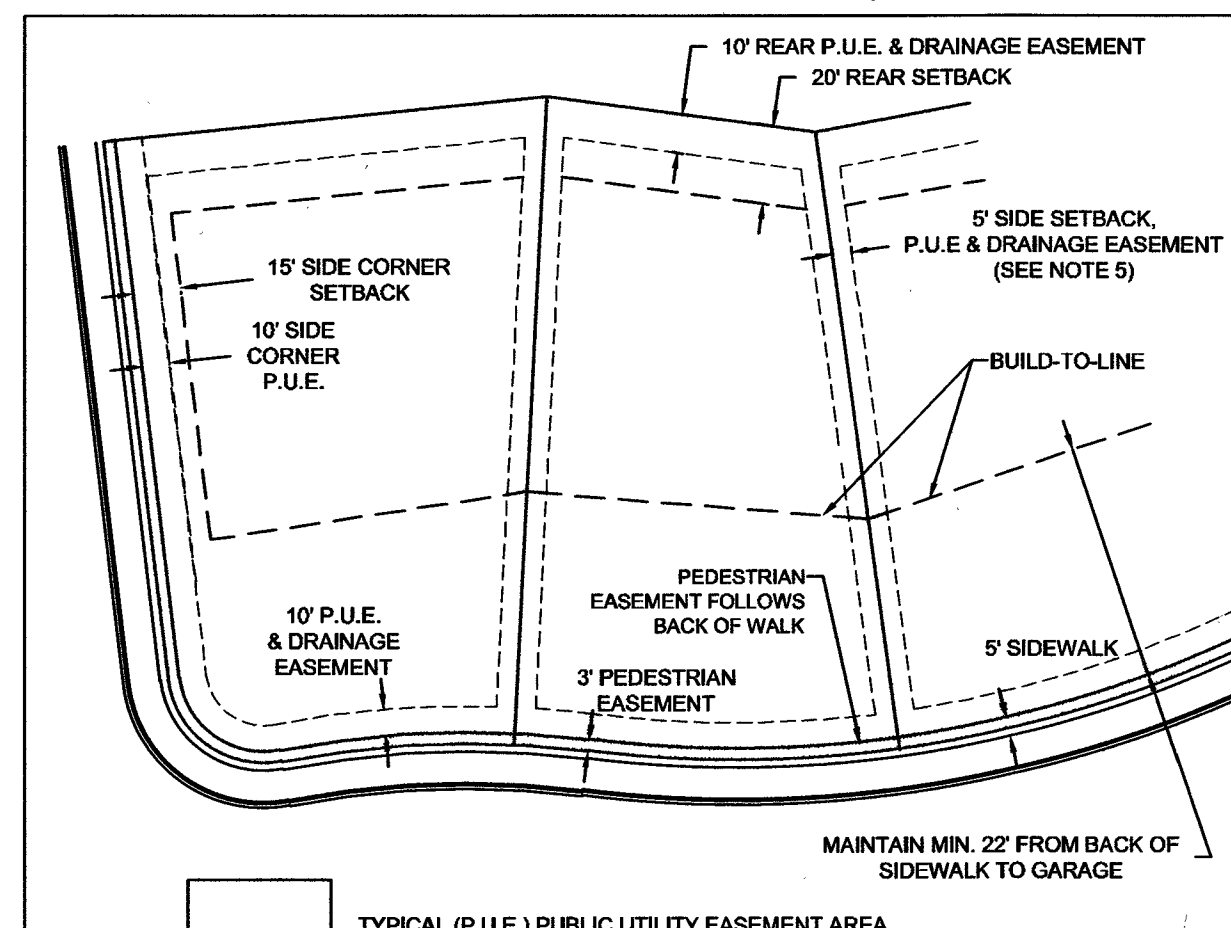
DIRECT COMMUNICATIONS CEDAR VALLEY, LLC CERTIFIES THAT IT WILL PROVIDE TELECOMMUNICATION SERVICES TO THIS SUBDIVISION UTILIZING THE TRENCHES PROVIDED BY THE DEVELOPER AS PER THE DIRECT COMMUNICATIONS CEDAR VALLEY P.S.C. UTAH NO. 1 TARIFF.

1. PURSUANT TO UTAH CODE ANN § 64-2 (7) THIS PLAT CONVEYS TO THE OWNER(S) OR OPERATORS OF UTILITY FACILITIES A PUBLIC UTILITY EASEMENT ALONG WITH ALL THE RIGHTS AND DUTIES DESCRIBED THEREIN.

2. PURSUANT TO UTAH CODE ANN § 17-27-403(4)(C)(II) ROCKY MOUNTAIN POWER ACCEPTS DELIVERY OF THE PUE AS DESCRIBED IN THIS PLAT AND APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS AND APPROXIMATES THE LOCATION OF THE UTILITY EASEMENT, BUT DOES NOT WARRANT THEIR PRECISE LOCATION. ROCKY MOUNTAIN POWER MAY REQUIRE OTHER EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT AFFECT ANY RIGHT THAT ROCKY MOUNTAIN POWER HAS UNDER.

(1) A RECORDED EASEMENT OR RIGHT-OF-WAY
(2) THE LAW APPLICABLE TO PRESCRIPTIVE RIGHTS
(3) TITLE 54, CHAPTER 8A, DAMAGE TO UNDERGROUND UTILITY FA
(4) ANY OTHER PROVISION OF LAW

 Rocky Mountain Power DATE



BUILDING SETBACK & EASEMENT DETAIL



Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

Monday, February 14, 2022

City Recorder's Office
Eagle Mountain City
1650 East Stage Coach Run
Eagle Mountain City, UT 84005

SUBJECT: Scenic Mountain phase "A" plat 3 out of warranty Bond Release

City Recorder:

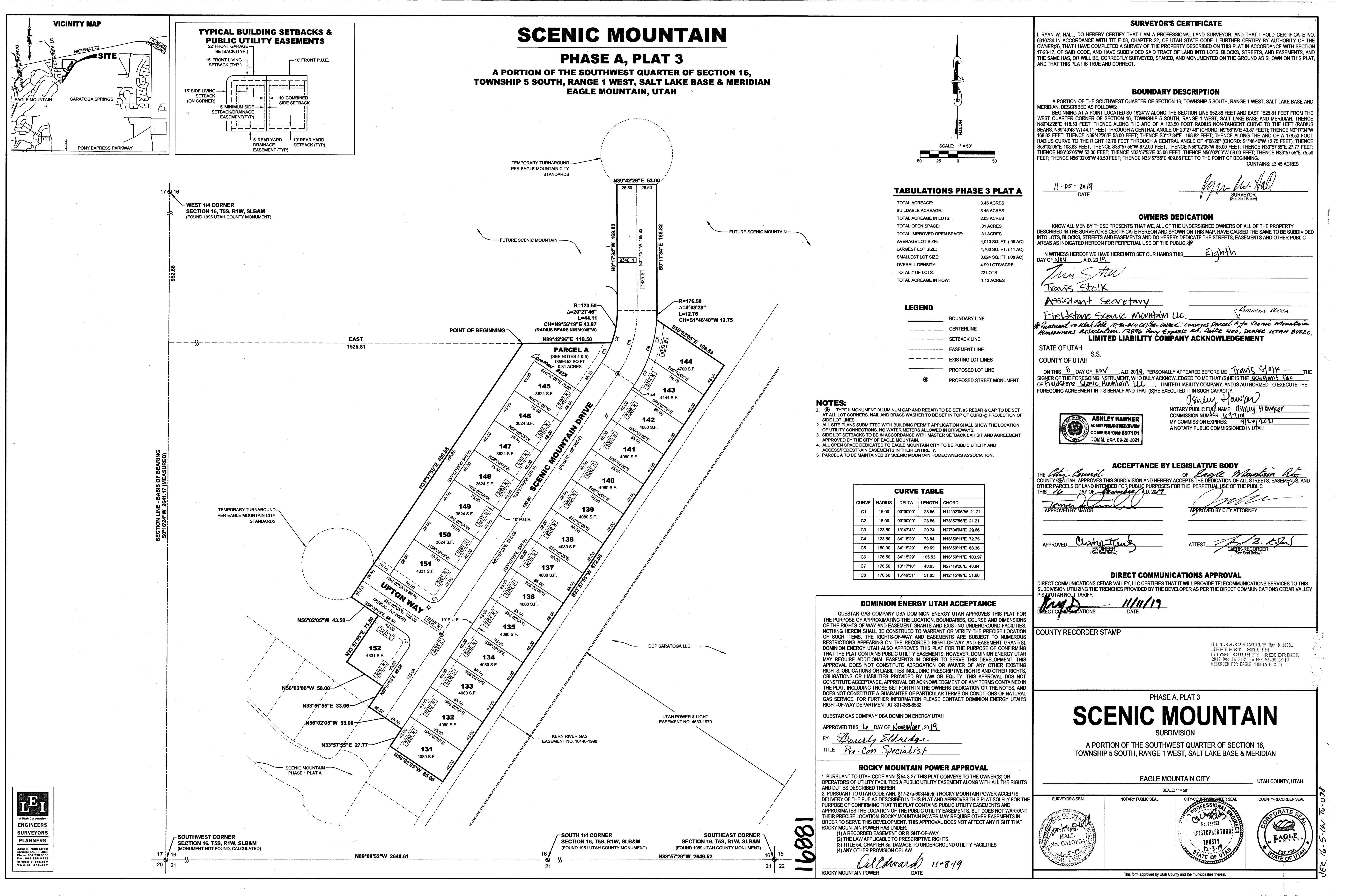
The above referenced subdivision has completed the required one-year maintenance period as required in their development agreement. After performing a walkthrough of this subdivision, I would recommend that the city accepts the subdivision as complete and release all bonds placed by the developer and held by the city for this development.

Please contact me should you have any comments, questions, or concerns. Thank you.

Sincerely,

Christopher T. Trusty, P.E.
Engineering Director
Eagle Mountain City

Cc: Fionnuala Kofoed, City Recorder





Engineering Division
2565 North Pony Express Parkway
Eagle Mountain City, Utah 84005
(801) 789-6671

Thursday, February 10, 2022

City Recorder's Office
Eagle Mountain City
1650 East Stage Coach Run
Eagle Mountain City, UT 84005

SUBJECT: Scenic Mountain phase "B" plat 1 out of warranty Bond Release

City Recorder:

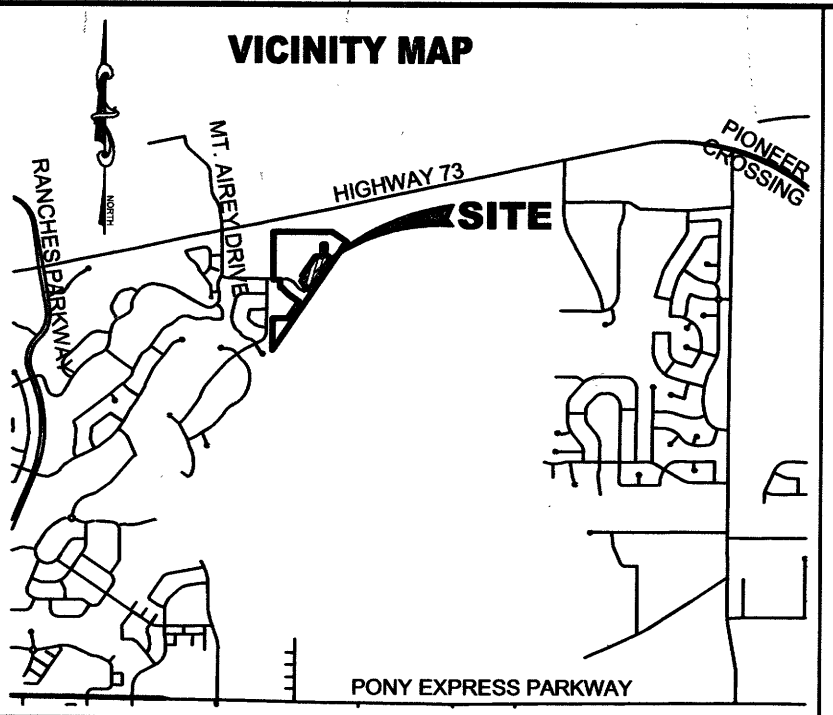
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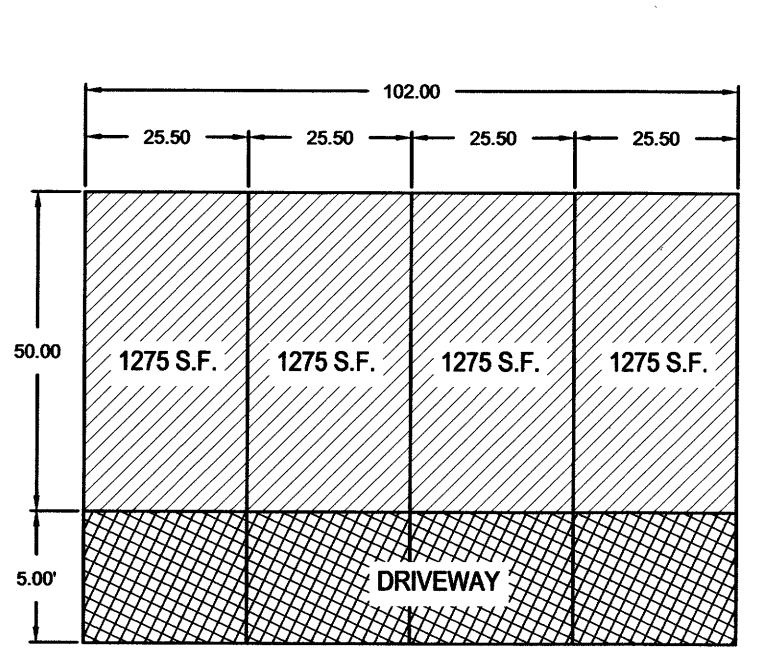
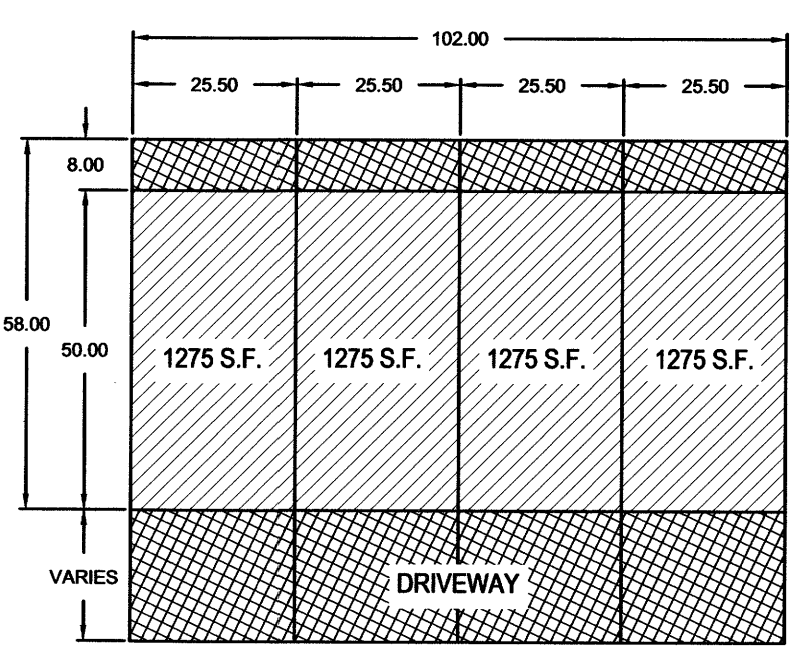
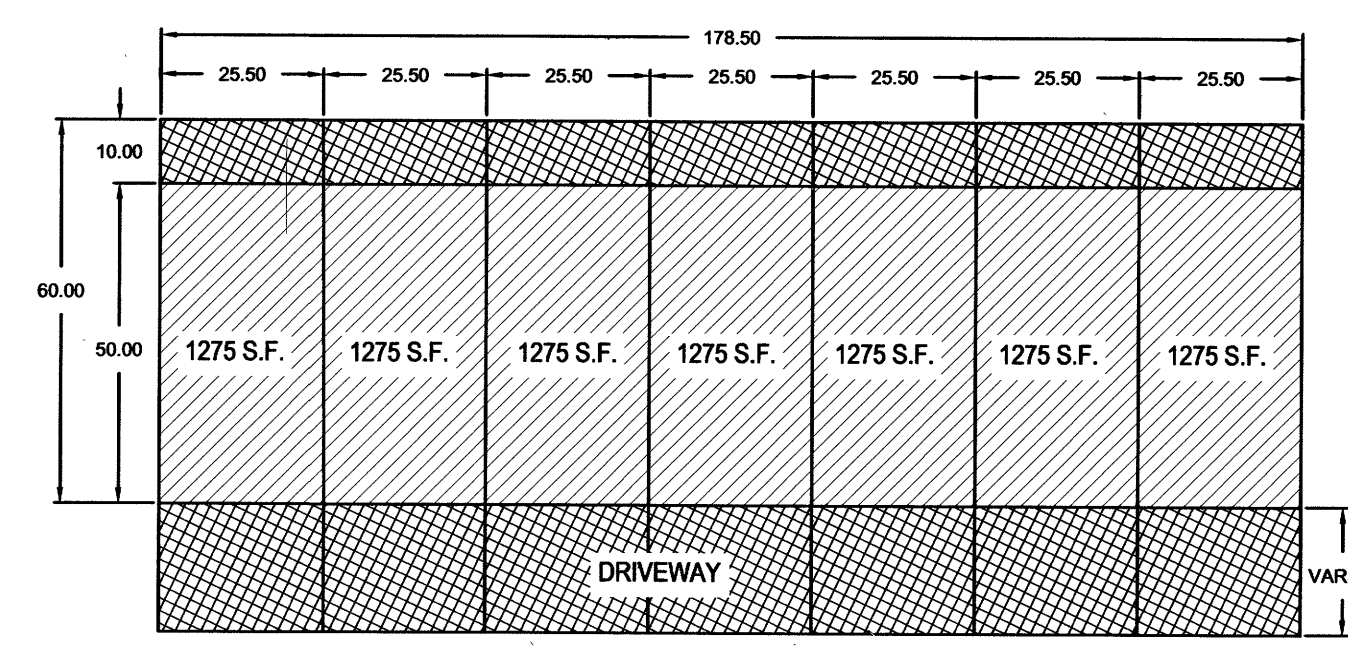
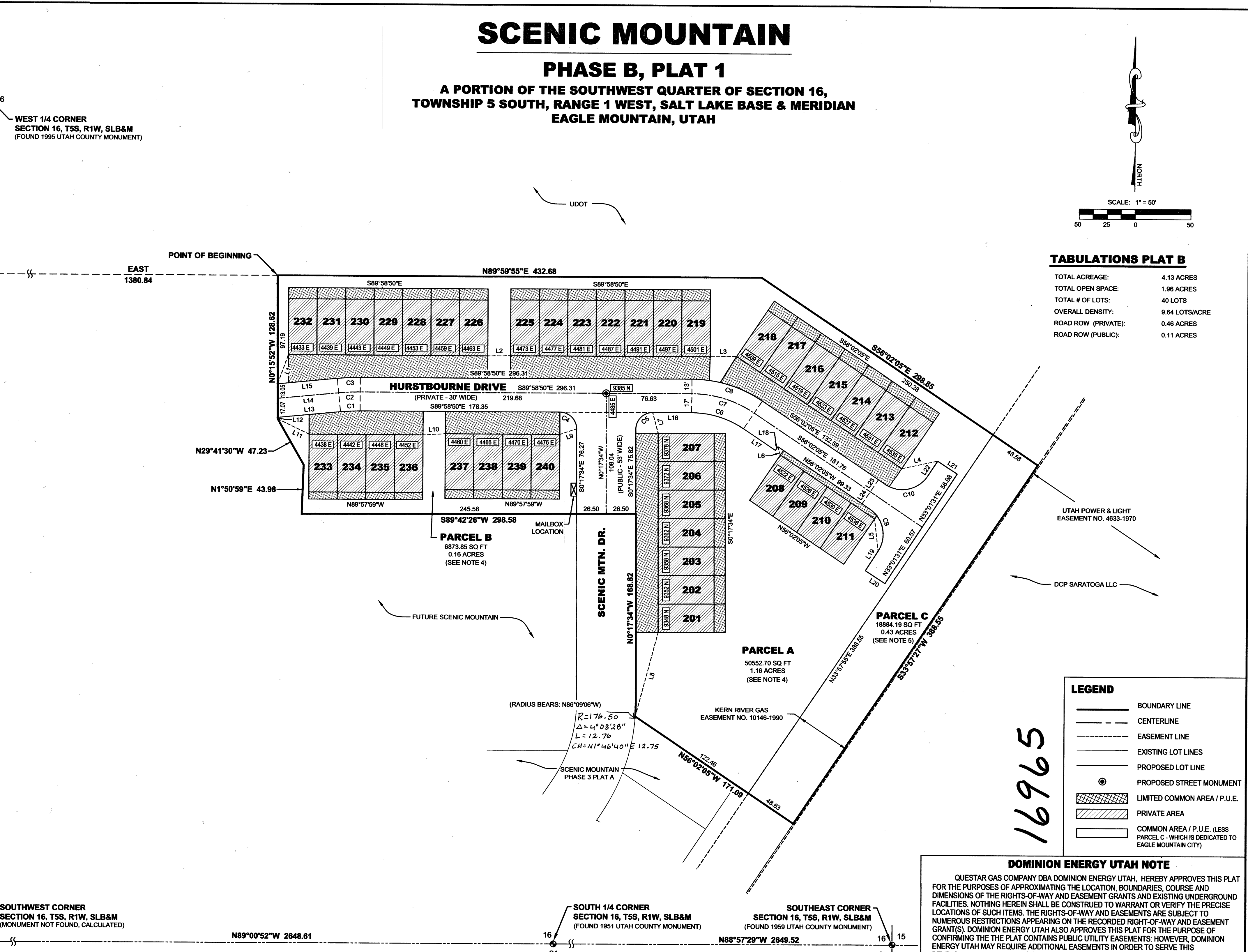
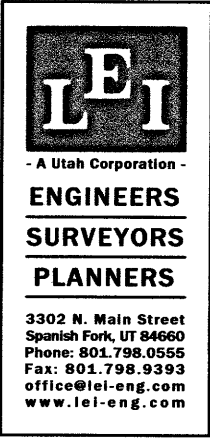
Cc: Fionnuala Kofoed, City Recorder



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N20°02'39"E	27.88
L2	S89°48'44"W	20.00
L3	S89°16'43"W	23.65
L4	S77°52'21"W	32.79
L5	N6°31'59"W	28.99
L6	S16°12'22"E	7.81
L7	S15°03'52"E	19.29
L8	S14°55'17"W	77.97
L9	N7°11'12"E	15.80
L10	N86°34'13"E	20.03
L11	S84°11'28"E	31.33
L12	N0°15'52"W	1.31
L13	N84°32'13"E	56.40
L14	N84°32'13"E	54.85
L15	N84°32'13"E	53.67
L16	N89°58'50"W	34.95
L17	N56°02'05"W	34.59
L18	S33°57'55"W	4.00
L19	N33°01'31"E	20.86
L20	N56°58'29"W	21.00
L21	S56°58'29"E	21.00
L22	N33°01'31"E	15.68
L23	N33°57'55"E	13.00
L24	N33°57'55"E	13.00

CURVE TABLE				
CURVE	RADIUS	DELTA	LENGTH	CHORD
C1	185.00	5°28'58"	17.70	N87°16'41"E 17.70
C2	202.00	5°28'58"	19.33	N87°16'41"E 19.32
C3	215.00	5°28'58"	20.57	N87°16'41"E 20.57
C4	15.00	89°41'16"	23.48	S45°08'12"E 21.16
C5	15.00	90°18'44"	23.64	S44°51'48"W 21.27
C6	83.00	33°56'45"	49.17	N73°00'27"W 48.48
C7	100.00	33°56'45"	59.25	S73°00'27"E 58.38
C8	113.00	33°56'45"	66.95	S73°00'27"E 65.97
C9	27.50	89°03'36"	42.75	N11°30'17"W 38.57
C10	27.50	90°56'26"	43.65	N78°29'43"E 39.21

- NOTES:**
1. TYPE II MONUMENT (ALUMINUM CAP AND REBAR) TO BE SET. #5 REBAR & CAP TO BE SET AT ALL LOT CORNERS. NAIL AND BRASS WASHER TO BE SET IN TOP OF CURB @ PROJECTION OF SIDE LOT LINES.
 2. ALL SITE PLANS SUBMITTED WITH BUILDING PERMIT APPLICATION SHALL SHOW THE LOCATION OF UTILITY CONNECTIONS. NO WATER METERS ALLOWED IN DRIVEWAYS.
 3. SIDE LOT SETBACKS TO BE IN ACCORDANCE WITH MASTER SETBACK EXHIBIT AND AGREEMENT APPROVED BY THE CITY OF EAGLE MOUNTAIN.
 4. PARCELS A, B & PRIVATE ROADWAYS ARE CONVEYED TO & MAINTAINED BY SCENIC MOUNTAIN HOMEOWNERS ASSOCIATION & TO BE PUBLIC UTILITY AND ACCESS/PEDESTRIAN EASEMENTS IN THEIR ENTIRETY.
 5. PARCEL C IS DEDICATED TO EAGLE MOUNTAIN CITY & PUBLIC UTILITY AND ACCESS/PEDESTRIAN EASEMENT IN ITS ENTIRETY.
 6. SEWER LIFT STATION TO BE MAINTAINED BY THE HOA.
 7. GARAGES SHALL HAVE A 22' DRIVEWAY EXCEPT UNITS 208-211 TO BE 5' MINIMUM.
 8. ALL COMMON AREA AND LIMITED COMMON AREA ARE PUBLIC UTILITY AND DRAINAGE EASEMENT. AND PUBLIC UTILITY ACCESS.



TABULATIONS PLAT B	
TOTAL ACREAGE:	4.13 ACRES
TOTAL OPEN SPACE:	1.96 ACRES
TOTAL # OF LOTS:	40 LOTS
OVERALL DENSITY:	9.64 LOTS/ACRE
ROAD ROW (PRIVATE):	0.46 ACRES
ROAD ROW (PUBLIC):	0.11 ACRES

- LEGEND**
- BOUNDARY LINE
 - CENTERLINE
 - EASEMENT LINE
 - EXISTING LOT LINES
 - PROPOSED LOT LINE
 - PROPOSED STREET MONUMENT
 - LIMITED COMMON AREA / P.U.E.
 - PRIVATE AREA
 - COMMON AREA / P.U.E. (LESS PARCEL C - WHICH IS DEDICATED TO EAGLE MOUNTAIN CITY)

DOMINION ENERGY UTAH NOTE

QUESTAR GAS COMPANY DBA DOMINION ENERGY UTAH, HEREBY APPROVES THIS PLAT FOR THE PURPOSES OF APPROXIMATING THE LOCATION, BOUNDARIES, COURSE AND DIMENSIONS OF THE RIGHTS-OF-WAY AND EASEMENT GRANTS AND EXISTING UNDERGROUND FACILITIES. NOTHING HEREIN SHALL BE CONSTRUED TO WARRANT OR VERIFY THE PRECISE LOCATIONS OF SUCH ITEMS. THE RIGHTS-OF-WAY AND EASEMENTS ARE SUBJECT TO NUMEROUS RESTRICTIONS APPEARING ON THE RECORDED RIGHT-OF-WAY AND EASEMENT GRANT(S). DOMINION ENERGY UTAH ALSO APPROVES THIS PLAT FOR THE PURPOSE OF CONFIRMING THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS; HOWEVER, DOMINION ENERGY UTAH MAY REQUIRE ADDITIONAL EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT CONSTITUTE ABROGATION OR WAIVER OF ANY OF ANY OTHER EXISTING RIGHTS, OBLIGATIONS OR LIABILITIES INCLUDING PROSPECTIVE RIGHTS AND OTHER RIGHTS, OBLIGATIONS OR LIABILITIES PROVIDED BY LAW OR EQUITY. THIS APPROVAL DOES NOT CONSTITUTE ACCEPTANCE, APPROVAL OR ACKNOWLEDGMENT OF ANY TERMS CONTAINED IN THE PLAT, INCLUDING THOSE SET FORTH IN THE OWNERS DEDICATION OR THE NOTES, AND DOES NOT CONSTITUTE A GUARANTEE OF PARTICULAR TERMS OR CONDITIONS OF NATURAL GAS SERVICE. FOR FURTHER INFORMATION PLEASE CONTACT DOMINION ENERGY UTAH'S RIGHT-OF-WAY DEPARTMENT AT 801-366-8532.

QUESTAR GAS COMPANY
DBA DOMINION ENERGY OF UTAH

APPROVED THIS 13 DAY OF February 20 20

BY: *Brandy Eldridge*

TITLE: *Pre-Com Specialist*

ROCKY MOUNTAIN POWER APPROVAL

1. PURSUANT TO UTAH CODE ANN. § 54-3-27 THIS PLAT CONVEYS TO THE OWNER(S) OR OPERATORS OF UTILITY FACILITIES A PUBLIC UTILITY EASEMENT ALONG WITH ALL THE RIGHTS AND DUTIES DESCRIBED THEREIN.

2. PURSUANT TO UTAH CODE ANN. § 17-27a-603(4)(c)(ii) ROCKY MOUNTAIN POWER ACCEPTS DELIVERY OF THE PUE AS DESCRIBED IN THIS PLAT AND APPROVES THIS PLAT SOLELY FOR THE PURPOSE OF CONFIRMING THAT THE PLAT CONTAINS PUBLIC UTILITY EASEMENTS AND APPROXIMATES THE LOCATION OF THE PUBLIC UTILITY EASEMENTS, BUT DOES NOT WARRANT THEIR PRECISE LOCATION. ROCKY MOUNTAIN POWER MAY REQUIRE OTHER EASEMENTS IN ORDER TO SERVE THIS DEVELOPMENT. THIS APPROVAL DOES NOT AFFECT ANY RIGHT THAT ROCKY MOUNTAIN POWER HAS UNDER:

(1) A RECORDED EASEMENT OR RIGHT-OF-WAY.
(2) THE LAW APPLICABLE TO PRESCRIPTIVE RIGHTS.
(3) TITLE 54, CHAPTER 8a, DAMAGE TO UNDERGROUND UTILITY FACILITIES
(4) ANY OTHER PROVISION OF LAW.

Deborah A. Hahn
ROCKY MOUNTAIN POWER DATE

SURVEYOR'S CERTIFICATE

I, RYAN W. HALL, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 6310734 IN ACCORDANCE WITH TITLE 58, CHAPTER 22, OF UTAH STATE CODE. I FURTHER CERTIFY BY AUTHORITY OF THE OWNERS, THAT I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, OF SAID CODE, AND HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, BLOCKS, STREETS, AND EASEMENTS, AND THE SAME HAS, OR WILL BE, CORRECTLY SURVEYED, STAKED, AND MONUMENTED ON THE GROUND AS SHOWN ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

BOUNDARY DESCRIPTION

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT LOCATED S0°16'24"W ALONG THE SECTION LINE 527.88 FEET AND EAST 1380.84 FEET FROM THE WEST QUARTER CORNER OF SECTION 16, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN; THENCE N89°58'55"E 432.68 FEET; THENCE S56°02'05"E 298.85 FEET; THENCE S33°57'27"W 388.55 FEET; THENCE N56°02'05"W 171.09 FEET; THENCE ALONG THE ARC OF A 176.50 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT (RADIUS BEARS N86°09'06"W) 12.76 FEET THROUGH A CENTRAL ANGLE OF 4°08'29" (CHORD: N1°46'40"E 12.75 FEET); THENCE N0°17'34"W 168.82 FEET; THENCE S89°42'28"W 298.58 FEET; THENCE N1°50'58"E 43.98 FEET; THENCE N29°41'30"W 47.23 FEET; THENCE N0°15'52"W 128.62 FEET TO THE POINT OF BEGINNING.

CONTAINS: 4.13 ACRES

2-12-2020
DATE

Ryan W. Hall
SURVEYOR
(See Seal Below)

OWNERS 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, EASEMENTS, PUBLIC UTILITY EASEMENTS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC, PURSUANT TO UTAH CODE 10-8A-604(1). THE OWNERS HEREBY CONVEYS THE COMMON AREA & LIMITED COMMON AREA AS INDICATED HEREON, TO THE SCENIC MOUNTAIN HOMEOWNERS ASSOCIATION, WITH A REGISTERED ADDRESS OF 12896 SOUTH PONY EXPRESS ROAD, SUITE 400, DRAPER, UTAH 84020.

IN WITNESS WHEREOF WE HAVE HEREUNTO SET OUR HANDS THIS February DAY OF 13, A.D. 20 20

Jason Harris
FIELDSTONE SCENIC Mtn LLC

LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT

STATE OF UTAH S.S.
COUNTY OF UTAH

ON THIS 13 DAY OF February, A.D. 20 20 PERSONALLY APPEARED BEFORE ME *Jason Harris* THE SIGNER OF THE FOREGOING INSTRUMENT, WHO DULY ACKNOWLEDGED TO ME THAT (S)HE IS THE *Asst. Secretary* of *Fieldstone Scenic Mountain LLC*, LIMITED LIABILITY COMPANY, AND IS AUTHORIZED TO EXECUTE THE FOREGOING AGREEMENT IN ITS BEHALF AND THAT (S)HE EXECUTED IT IN SUCH CAPACITY.

Stephanie Talbot
NOTARY PUBLIC FULL NAME: *Stephanie Talbot*
COMMISSION NUMBER: *703024*
MY COMMISSION EXPIRES: *10/31/23*
A NOTARY PUBLIC COMMISSIONED IN UTAH

ACCEPTANCE BY LEGISLATIVE BODY

THE *Eagle Mountain City* OF *Eagle Mountain City*, 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 20 DAY OF February, A.D. 20 20

APPROVED BY MAYOR *Tommy Anderson* APPROVED BY CITY ATTORNEY *[Signature]*

APPROVED *Christy J. Tandy* ENGINEER (See Seal Below) ATTEST *[Signature]* CLERK-RECORDER (See Seal Below)

DIRECT COMMUNICATIONS APPROVAL

DIRECT COMMUNICATIONS CEDAR VALLEY, LLC CERTIFIES THAT IT WILL PROVIDE TELECOMMUNICATIONS SERVICES TO THIS SUBDIVISION UTILIZING THE TRENCHES PROVIDED BY THE DEVELOPER AS PER THE DIRECT COMMUNICATIONS CEDAR VALLEY P.S. UTAH NO. 1 TARIFF.

[Signature] 2/13/20
DIRECT COMMUNICATIONS DATE

PHASE B, PLAT 1

SCENIC MOUNTAIN

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 5 SOUTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN

ENT 21581:2020 Map # 16975
JEFFERY SMITH
UTAH COUNTY RECORDER
2020 Feb 21 9:58 am FEE 136.00 \$1 SR
RECORDED FOR EAGLE MOUNTAIN CITY

EAGLE MOUNTAIN CITY UTAH COUNTY, UTAH

SCALE: 1" = 50'

SURVEYOR'S SEAL: *Ryan W. Hall*
NOTARY PUBLIC SEAL: *Stephanie Talbot*
CITY COUNTY ENGINEER SEAL: *Christy J. Tandy*
COUNTY-RECORDER SEAL: *Jeffery Smith*

This form approved by Utah County and the municipalities therein.



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	2021 New Well Design Change Order #2 - Jones and DeMille		
ITEM TYPE:	Change Order		
FISCAL IMPACT:	\$23,200		
APPLICANT:			
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Chris Trusty, Public Works

PRESENTED BY:

Chris Trusty

RECOMMENDATION:

Staff recommends the City Council approve Change Order #2 in the amount of \$23,200 for the 2021 New Well Project with Jones and DeMille.

BACKGROUND:

Eagle Mountain City awarded a bid to Jones and DeMille for the design of a new well house and pump station to be located on Pony Express Parkway west of Hidden Hollow Elementary School. This project is needed to help provide CWP water to the City Center as well as provide additional source capacity in the system.

Last year the City Parks Department had to discontinue using industrial wastewater from the Facebook facility as an irrigation source at Cory Wride Memorial Park. The Parks Department was concerned with the algae in the reuse water and the pressures at which the reuse water could be delivered to the site. Typical PI systems operate at 50-60 psi, but in order to efficiently water Cory Wride Memorial Park during the evening hours, the PI system would need to be boosted to 85 psi. The most efficient way to get to this pressure will be to add a pump station at the park which will feed directly into the park's irrigation system.

In the original amendment to design this PI booster station, they had included costs for an underground vault which requires less structural, electrical/SCADA and HVAC. In discussing the design for

this system, City staff have indicated that they would prefer an above-grade facility which would be easier to access the equipment for maintenance and reduce confined enclosure safety precautions which would need to be implemented for a vault set up.

After reaching out to the electrical/SCADA (SKM) and HVAC subs (Royal) and structural teams to pursue the building option, the consultant has developed a breakdown of the additional engineering costs we received back for the building option as shown below.

Boundary Survey (J&DE) = \$2,900

Building and Site Plan (J&DE/structural) = \$3,850

HVAC (Royal) = \$5,150

Electrical/SCADA (SKM) = \$11,300

Total = \$23,200

The original change order include the design of this project in an assumed vault layout was \$33,390. This increases the total cost for the irrigation booster station to \$56,590.00. The original contract with Jones and DeMille was \$196,000. This change order would increase the total cost to \$252,590. It is anticipated that the costs for the design and construction of the pump house will be funded by Facebook in an upcoming amended agreement.

In analyzing the different type of building options;

- A CMU building will likely be a longer lasting/less maintenance type of building. The building size we have initially looked at would be approximately 28'x18', the building would be able to have room for a booster skid mount system and house the Amiad filter and the backflow preventer. This type of building is estimated to be around \$400/Sq Ft (\$200,000). The building would have an overhead door and a man door.
- A wood type building structure is estimated to be about \$300/Sq Ft (\$151,000). A little less expensive but may have

higher on-going costs. It may also cost more to add decorative rock on the outside to dress it up.

- The last vault structure designed by the consultant cost \$175,000

Considering the location of this booster pump at Cory Wride Park, it would be the recommendation of the staff to design this facility as a CMU building to blend in with the other structure already on the site.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:



EAGLE MOUNTAIN CITY COUNCIL MEETING MINUTES

February 15, 2022, 4:00 p.m.
Eagle Mountain City Council Chambers
1650 East Stagecoach Run, Eagle Mountain, Utah 84005

4:00 P.M. WORK SESSION – CITY COUNCIL CHAMBERS

ELECTED OFFICIALS PRESENT: Mayor Tom Westmoreland, Councilmembers Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright.

ELECTED OFFICIALS PRESENT ELECTRONICALLY: Councilmember Colby Curtis.

CITY STAFF PRESENT: Paul Jerome, City Administrator; Steve Mumford, Assistant City Administrator/Community Development Director; Robert Hobbs, Planning Manager; Fionnuala Kofoed, Director of Administrative Services/City Recorder; Elizabeth Fewkes, Recording Secretary; Chris Trusty, City Engineer; Jeremy Cook, City Attorney; Brad Hickman, Parks and Recreation Director; Mack Straw, Public Utilities Manager; Zac Hilton, Streets and Storm Drain Manager; Jeff Weber, Fleet and Facilities/Operations Director; Tyler Maffitt, Communications Manager; Angela Valenzuela, Human Resource Manager; Michele Graves, Library Director; Embret Fossum, UFA Battalion Chief; Eric McDowell, Chief Deputy Sheriff; Chas Glenn, Administrative Assistant; Evan Berrett, Assistant to the City Administrator; and Robert Ballif, Engineering Assistant.

CITY STAFF PRESENT ELECTRONICALLY: Tayler Jensen, Senior Planner; Aaron Sanborn, Economic Development Director; Angela Valenzuela, Human Resource Manager; and Chas Glenn, Administrative Assistant.

Mayor Westmoreland called the meeting to order at 4:07 p.m.

1. CITY ADMINISTRATOR INFORMATION ITEMS

1.A. UPDATE – City Administrator Items

General

- A resident of Cedar Pass Ranch expressed concern about water rights being exacted from residents of the area in order to connect to our water system. This is no different from any other development in our City. In order to draw water out of the ground and provide it to residences, the City is required to have ownership of the water rights. Otherwise, the water rights could be sold or expire and those rights could be passed on to someone else.
- It was also expressed that residents in Cedar Pass Ranch who do not have curb and gutter should not have to pay a storm drain fee. Our Stormwater department has to maintain all of the natural waterways in the City that benefit areas such as Cedar Pass Ranch. In fact, maintenance of natural areas is often more costly to the overall operations of the department than are neighborhoods with curb and gutter.

Water

- The materials for Well #1 are at Widdison Turbine and the City is waiting on an install date.
- Meter reads for the month are underway.
- The City is currently working on the pressure reducing valves that feed the Tyson pressure zone to assist with fire suppression and pressure issues.
- The Water Department is working to get the City's wells ready for spring and summer use including work on Well #5.

Wastewater

- Staff has replaced the #2 clarifier wipers.
- Staff is still working towards a resolution for the issue with the organisms that break down the organic material at the treatment plant.
- The City received a new composite sampler and staff is working on the plumbing to connect it.
- The fan press is anticipated to be delivered the first week in May.
- Both floats have been replaced at the Steeplechase and Lone Tree lift stations.

Parks

- Landscape Maintenance Contract: Council should be aware that the landscape maintenance contract is up for rebid. Staff will post and solicit requests for proposals from landscape firms. The Council can expect an agreement to be on the agenda for the March 1, 2022 City Council meeting.
- Walden Park Observatory: Staff is working on receiving a memorandum of understanding (MOU) from Utah Valley University to donate funding for the building portion of an observatory in Walden Park. Along with the funding for the observatory structure, they will be donating the use of a couple of telescopes. Once the MOU is approved by both parties, staff will move forward with construction documents to build the structure and completion of this amenity in the community.
- Pioneer Park – Disc Golf Course: Staff has received an order for supplies to offer an 18-hole disc golf course in Pioneer Park. Staff will be working with local volunteers to help install the disc course.
- Smith Ranch Community Park: Staff has been working with MHTN Architects on finalizing construction documents for the park. Design efforts for the skatepark will begin next week. Once the construction documents are complete, the City will be able to distribute them for bids and start construction and development of this park.

Engineering

- Bobby Wren traffic signal: The City was informed by the Utah Department of Transportation last week that the materials for the traffic light are delayed and the completion timeline for the project has now been extended until the end of March.
- Well #7: The City will be awarding a bid package for site work at the next City Council meeting. The City will also award a drilling bid at the same meeting. The site will be prepped with drilling to occur in late summer.
- The power cabinets at Trailhead Road and Pony Express Parkway should be relocated within the next week. Paving can occur as soon as temperatures allow.

- Hales Engineering should have a memo prepared to be presented to the City Council by next week concerning the options for the Campus Drive and Stonebridge Drive area on Ranches Parkway.
- The draft concept reports for the funding for Airport Road and the Ranches Corridor Trail were submitted last week. Staff will meet with Mountainland Association of Government next week and the final reports are due March 17th.

Community Development

- Commercial Design Standards: The City is preparing a request for proposals for an architect or architectural firm to assist the City with updating the commercial design standards and provide plan review services for conformity to those standards. This may require a budget amendment in the near future. The Mayor will likely make assignments to Councilmembers to be involved in this process.
- Road Standards: Staff is working on a Municipal Code amendment addressing local road and private road standards. The Mayor will likely make assignments to Councilmembers to be involved with the amendment.
- Tickville Wash Slopes: A major safety hazard (fracture) was identified along the top of the south side of the wash in SilverLake, along the large cliff face. The City was planning to preserve some of that area for bird habitat, but that area will completely collapse if not remediated, further stressing the importance of the slope mitigation project that will resume soon to provide for the safety of the residents. Three owl nesting boxes have been installed along the wash as well.
- Pre-construction meetings were held or are being held recently for The Place at Parkway (a mixed-use building near Village Pizza), O'Reilly Auto Parts, and Tagg n Go Carwash.
- January Building Permits: 142 new residential permits, 4 commercial permits, 30 solar permits, and 21 other permits.

Economic Development

- Staff is working on getting agreements signed for the Economic Development Master Plan update and the Affordable Housing Plan.
- The City is finalizing requests for proposal documents to post for the Farmer's Market for new management and operation of the market.

2. AGENDA REVIEW

9. BID AWARDS

9.A. Eagle Mountain Boulevard Widening Pre-Construction – WW Clyde

City Engineer Chris Trusty explained the bid award will result in expediting the project without awarding the construction bid to a specific contractor. The City may obtain and award bids to any contractor at any stage during the project. The purpose of this method is to be able to identify the necessary materials and to phase the project into smaller portions that can be completed in a timelier manner.

12. PRELIMINARY PLATS & SITE PLANS

12.A. PRELIMINARY PLAT – Parkway Fields Phase A (Previously known as Founders Square and Ault Farms)

Discussion ensued regarding the number and location of lots with frontage widths smaller than Municipal Code requires.

Applicant representative Bronson Tatton explained that the open space parcel at the southwest corner of Freedom Boulevard is for a gateway landscape area and a subdivision sign that will be owned and maintained by the homeowner's association.

12.B. SITE PLAN – Marketplace at Eagle Mountain Town Center (Lot 11 Pad A)

Councilmember Love expressed approval of the proposed crosswalk location and would like the City to provide additional crosswalks in the area to offer safe, walkable trails to and from the adjacent neighborhoods. She agrees with the Planning Commission regarding the need for additional architectural details on the east elevation.

Mr. Trusty said he assumed the master development plans include sidewalks and pedestrian travel routes. The City can work with the developer to install walkways earlier in the project with the first developments to facilitate pedestrian travel.

Mr. Jensen presented updated elevations with increased awnings and other architectural details in response to the Planning Commission recommendations. He verified that the vertical columns protrude from the building 6 to 9 inches.

12.C. SITE PLAN – Wendy's at Marketplace (Lot 7)

Discussion ensued regarding concerns with the coloring of the building including the tan stucco and the red in relation to the Municipal Code requirement for new commercial buildings to be similar to existing significant buildings in the area.

Councilmember Gray requested increased articulation on the rear elevation of the building including roofline height variation or an awning above the rear door of the building.

Applicant Eric Malmberg explained that adding an awning would call attention to the door which is problematic for building security and employee safety; however, other features could be added to the rear elevations and the stucco color can be changed.

Angelina Talamantes, the architect for the project, stated the tan stucco could be changed to a light gray and the red on the top of the rear elevation could also be changed to light gray; however, the red blade on the front of the building is needed for branding and a change to the color or removal of the blade on the front elevation would require Wendy's corporate approval.

Discussion ensued regarding potential color and architectural changes to the building. The Council expressed support of excluding an awning over the rear door due to security concerns but requested

a reduction of the red and roofline height variation on the rear elevation similar to the front elevation and adjusting the signage accordingly.

Mr. Mumford stated that staff will provide the updated elevations with the requested changes to the City Council, once they are submitted by the applicant.

13. RESOLUTION

13.A. RESOLUTION – A Resolution of Eagle Mountain City, Utah Authorizing the Finance Director and Treasurer to Make Changes to the Eagle Mountain City's Public Treasurer's Investment Fund (PTIF) Accounts.

Mr. Jerome explained the funds are governed by the Public Treasurer's Investment Fund and the State Treasurer. The fund is reviewed by multiple individuals and internal and external protocols are in place to prevent fraud.

14. EAGLE MOUNTAIN DATA CAMPUS

14.A. ORDINANCE/PUBLIC HEARING – An Ordinance of Eagle Mountain City, Utah, Rezoning Certain Lands known as Eagle Mountain Data Campus.

14.B. DISCUSSION – Eagle Mountain Data Campus Concept Plan

Items 14.A. and 14.B. were presented and discussed concurrently.

Mr. Hobbs presented the item. The property is currently zoned Agricultural and is located within a Business Park/Light Industry land use per the City's adopted General Plan Future Land Use Map. The applicant proposes that the property be assigned the Regional Technology and Industry (RTI) Overlay Zone to facilitate development of a data center on the property. He explained that the Planning Commission review included discussion regarding the appropriateness of the parking provided and the viability of the project due to its proximity to the Rocky Mountain Power substation.

Councilmember Burnham asked whether the rezone application should be tabled and postponed until the review and potential amendment of the RTI Overlay Zone.

Councilmember Gray agreed with Councilmember Burnham and expressed concern regarding the water and power usage of the data center. Although he is not against the rezone, he does not want to imply that a data center will automatically be approved without addressing concerns.

Economic Development Director Aaron Sanborn explained that some data centers use ambient air rather than water to cool the servers. The City has opportunities to find data center providers that use other methods that will not impact water.

Councilmember Curtis expressed concern with the City Council not being able to evaluate the impact on City services and traffic generation during the RTI Overlay approval process. He suggested including contingencies on the approval based upon the future changes to the terms of the RTI Overlay amendment or other preventative measures to ensure that the rezone approval would not have an adverse impact on City systems.

City Administrator Paul Jerome confirmed that discussions with Rocky Mountain Power resulted in providing sufficient power for the current data centers as well as additional capacity for future industrial partners without detrimental impacts to residents.

Discussion ensued clarifying that the building permit and site plan would be reviewed under the current Municipal Code standards; however, an agreement for the project could likely not be completed prior to the expiration of the current RTI Overlay as development agreement negotiations usually require several months.

Mr. Mumford verified that a site plan application could not be denied due to high water usage; nevertheless, large project negotiations and development agreements would address water usage.

Mr. Cook explained that users requiring a large amount of water would have a separate water usage agreement with the City.

Mr. Jerome stated that there is a possibility that an entity could purchase a large amount of water without the City knowing who they are until after the purchase if the company purchased the water rights through the open market rather than through Central Utah Water. However, due to the possibility of the City not approving the project, most companies would not assume the risk of purchasing large amounts of water prior to discussions with the City. The City and the entity negotiate many aspects such the tax increment financing, the development agreement, and sewer in addition to water.

Mr. Mumford stated that he has been working with Councilmembers Burnham and Wright on language for an amendment to the RTI standards and a draft should be ready in about a week.

Mr. Hobbs noted that the applicant is aware of potential changes to the RTI Overlay and the automatic repeal date in May 2022. They are willing to apply for the overlay in its present form knowing that potential changes are forthcoming.

17. RESOLUTIONS

- 17.B. RESOLUTION – A Resolution of Eagle Mountain City, Utah, Authorizing the Issuance and Sale of Not More Than \$20,000,000 Aggregate Principal Amount of Sales Tax Revenue Bonds, Series 2022; Fixing the Maximum Aggregate Principal Amount of the Bonds; The Maximum Number of Years Over Which the Bonds May Mature, the Maximum Interest Rate Which the Bonds May Bear, and the Maximum Discount From Par at Which the Bonds May be Sold; Providing for the Publication of a Notice of Public Hearing and Bonds to be Issued; Providing for the Running of a Contest Period;

Authorizing the Execution by the City of a General and Supplemental Indenture of Trust, and Other Documents Necessary for the Issuance of the Series 2022 Bonds; Authorizing the Taking of All Other Actions Necessary to the Consummation of the Transaction Contemplated by this Resolution; and Related Matters.

Laura Lewis with Lewis, Young, Robertson, and Burningham presented the item. She explained that sale tax revenue will be used to secure the bond, and per State requirements, a general vote is not required unless pledging the full taxing power of the City. This action adopts the parameters resolution, sets forth the maximums for the par amount of the bond not to exceed \$20,000,000, the interest rate not to exceed 5%, length to maturity not to exceed 31 years, and the discount at which the bonds can be sold not to exceed 3%. Bonds are priced at a premium to attract investors and to get the lowest rates, which lower the principal amount of the bonds. Under the true interest rate for the bond, the amount will result in closer to a 2.5% interest rate rather than the 5%. The resolution will also appoint the designated officers, allowing two of the following four individuals, the Mayor, the Mayor Pro Tempore, the City Administrator, and/or the Finance Director, to approve the agreement as long as the stipulated parameters are retained. The designees will also participate in the bond pricing call. A public hearing is required to be held and a notification of the March 15, 2022 hearing will be posted. She recommends setting the bond amount higher than anticipated to allow for additional funding if necessary. The proceeds could be used for any road project; however, the terms would need to be amended to be used for a different type of project such as a park.

Mr. Jerome explained the funds will be used to widen Eagle Mountain Boulevard from two lanes to four lanes from Pony Express Parkway to just past Aviator Avenue and to install medians and landscaping within the widening project area. A sewer trunk line will be installed beneath Eagle Mountain Boulevard for the length of the widening project. Funds will also be used to remove the roundabout at the intersection of Eagle Mountain Boulevard and Pony Express Parkway and install a traffic signal in its place. Two lanes will be added to Mid Valley Road from the existing end of pavement west of Frontier Middle School to Eagle Mountain Boulevard, and two lanes will be added to Old Airport Road from the existing end of the first phase to Wride Memorial Highway. The projects are impact fee-eligible, and the City is working with Mountainland Association of Government (MAG) to secure additional funding.

Discussion ensued regarding the estimated cost of the projects at approximately \$16,000,000 and the intention to bond for \$20,000,000 to cover unanticipated costs. Should the costs exceed the amount of the bond, funding from other sources would be needed to complete the projects.

Ms. Lewis explained that the maximum amount of the bond could be increased and that the City is not required to utilize the full amount available, but they cannot receive more than the fixed maximum amount. Should the projects exceed the bond amount, the City could either not finish the projects or secure additional bonds; however, the administrative costs and fees make bonds for smaller amounts less cost-effective.

Mr. Trusty verified that the water lines have already been upsized in the areas planned for road expansion and the installation of the trunk line is included in the bond amount to prevent needing to remove and replace portions of the road for future utility expansion.

Ms. Lewis clarified that repayment of the bond is anticipated for 20 years and the 31-year period is to allow additional time should more funds be utilized. The terms prevent the bond from being paid off in fewer than ten years. The bond can be structured to allow for early payment with increased interest rates for a portion of the funding, such as the projects with potential MAG funding.

3. ADJOURN TO A CLOSED EXECUTIVE SESSION

No closed session was held. Mayor Westmoreland adjourned the meeting at 6:13 p.m.

7:00 P.M. POLICY SESSION – CITY COUNCIL CHAMBERS

ELECTED OFFICIALS PRESENT: Mayor Tom Westmoreland, Councilmembers Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. Councilmember Colby Curtis was excused.

CITY STAFF PRESENT: Paul Jerome, City Administrator; Steve Mumford, Assistant City Administrator/Community Development Director; Robert Hobbs, Planning Manager; Fionnuala Kofoed, Director of Administrative Services/City Recorder; Elizabeth Fewkes, Recording Secretary; Chris Trusty, City Engineer; Jeremy Cook, City Attorney; Brad Hickman, Parks and Recreation Director; Mack Straw, Public Utilities Manager; Zac Hilton, Streets and Storm Drain Manager; and Eric McDowell, Chief Deputy Sheriff.

CITY STAFF PRESENT ELECTRONICALLY: Tayler Jensen, Senior Planner; Senior Planner; Chris Trusty, City Engineer; Aaron Sanborn, Economic Development Director; Mack Straw, Public Utilities Manager; Zac Hilton, Streets and Storm Drain Manager; Tyler Maffitt, Communications Manager; and Embret Fossum, UFA Battalion Chief.

4. CALL TO ORDER

Mayor Westmoreland called the meeting to order at 7:08 p.m.

5. PLEDGE OF ALLEGIANCE

Councilmember Burnham led the Pledge of Allegiance.

6. INFORMATION ITEMS/UPCOMING EVENTS

- Eagle Mountain residents interested in learning more about road projects, new businesses, and residential development are encouraged to visit the Resident Portal at eaglemountaincity.com tomorrow morning. The new “What’s Happening?” button will help residents identify what’s coming, and better assess when each project will be completed.

- Eagle Mountain City is now providing information on its City website pertaining to proposed changes to water rates, sewer rates, and stormwater rates. Residents can learn more by visiting eaglemountaincity.com/rate-change-information.
- Residents should be aware of Free Fare February. The Utah Transit Authority (UTA) is offering free service on their Bus, TRAX, FrontRunner, S-Line Streetcar, Ski Bus, and UTA On Demand services.

To receive City notifications, including emergency info, news events, and traffic alerts, sign up at emcity.org/notifyme.

7. PUBLIC COMMENTS

Mayor Westmoreland opened public comment at 7:15 p.m.

The following individuals made comment and/or submitted an email regarding the proposed animal code ordinance changes John Hubbard, Bettina Cameron, David Corneal, Kelli Riem, Curtis Kotter, Patricia Adams, Michelle Jowett, Chris Peterson, Jason House, Danielle Manis, Colton Scott, Jaclyn Weist, Stephen Briles, Jeff Woolums, Cameron Maddox, Kayla Wilkins, Randy Patten, Dennis Fox, and Misty Day.

Paul Kelsch inquired regarding the projects planned to be funded with the bond on the meeting's agenda.

Mayor Westmoreland closed public comment at 7:26 p.m.

8. CITY COUNCIL/MAYOR'S ITEMS

Councilmember Gray

Councilmember Gray stated he appreciates the public participation and ensured residents he reads the emails he receives regarding the items on the agenda.

Councilmember Wright

Councilmember Wright welcomed the public, thanked them for their passion, and asked for their patience as the Council works through evaluations. A Community Emergency Response Team online course will be held on April 23rd and 30th from 8:00 a.m. to 5:00 p.m., more information is available on the Be Ready Eagle Mountain Facebook page. A Parks and Recreation survey regarding sports programs in the City will be forthcoming.

Councilmember Love

Councilmember Love thanked everyone for being at the meeting and their diligence in supporting causes important to them.

Councilmember Burnham

Councilmember Burnham expressed her gratitude to the public for their participation and interest in the City bonds and animal rights. She supports animal rights as a part of the City's identity. She appreciates citizen efforts and attendance to learn the truth about City actions because the things

posted on the internet are often inaccurate. She encourages and appreciates residents reaching out to Councilmembers with questions to verify the accuracy of the things they hear and to share their concerns.

Mayor Westmoreland

Mayor Westmoreland expressed appreciation to Councilmember Love as Mayor Pro Tempore and others for their assistance and patience as he continues to recover from illness catch up on his workload.

CONSENT AGENDA

9. BID AWARDS

9.A. Eagle Mountain Boulevard Widening Pre-Construction – WW Clyde

10. BOND RELEASES

10.A. Brandon Park Phase A, Plat 15 – Into Warranty

10.B. Cedar Farm – Into Warranty

10.C. Harmony Phase A, Plat 3 – Into Warranty

10.D. Brandon Park Phase A, Plat 8 – Out of Warranty

10.E. Brandon Park Phase A, Plat 9 – Out of Warranty

10.F. Scenic Mountain Phase A, Plat 4 – Out of Warranty

11. MINUTES

11.A. February 1, 2022 – Regular City Council Meeting

12. PRELIMINARY PLATS & SITE PLANS

12.A. PRELIMINARY PLAT – Parkway Fields Phase A (Previously known as Founders Square and Ault Farms)

12.B. SITE PLAN – Marketplace at Eagle Mountain Town Center (Lot 11 Pad A)

12.C. SITE PLAN – Wendy's at Marketplace (Lot 7)

13. RESOLUTION

- 13.A. RESOLUTION – A Resolution of Eagle Mountain City, Utah Authorizing the Finance Director and Treasurer to Make Changes to the Eagle Mountain City's Public Treasurer's Investment Fund (PTIF) Accounts.

MOTION: *Councilmember Burnham moved to approve the consent agenda, approving item 12.B. with the new elevations presented to the Council during the meeting and approving item 12.C., removing the requirement for an awning over the back door, changing the tan stucco to a light gray, and changing the red on the back to a red blade taller than the roofline, similar to the blade on the front elevation. Councilmember Gray seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.*

SCHEDULED ITEMS

14. EAGLE MOUNTAIN DATA CAMPUS

- 14.A. ORDINANCE/PUBLIC HEARING – An Ordinance of Eagle Mountain City, Utah, Rezoning Certain Lands known as Eagle Mountain Data Campus.

- 14.B. DISCUSSION – Eagle Mountain Data Campus Concept Plan

Items 14.A. and 14.B. were presented and discussed after item 16.A.

Planning Manager Robert Hobbs reviewed the item as presented during work session.

Discussion ensued regarding the impact of the rezone on the taxable income on the land, clarifying that if the land is currently classified as greenbelt the property taxes would remain the same.

Mayor Westmoreland opened the public hearing at 7:54 p.m. As there were no comments, he closed the hearing.

Discussion ensued regarding concerns with approving the rezone prior to the pending amendments to the Regional Technology and Industry (RTI) Overlay Zone.

Applicant representative Corey Berg explained that two groups are actively pursuing projects. One group desires to close on 1 ½ acres of land and begin developing soon; should the rezone not be approved tonight, they would potentially lose the interested buyer. He believes that the group intends to build a data center and they are aware of the water use concerns. The remainder of the property will remain as greenbelt and be utilized as a sod farm until developed.

Councilmember Gray stated after consideration, he would be in favor of retaining an amended RTI Overlay rather than repealing the zone.

Councilmember Love inquired if traffic, water, and buffering concerns could be addressed as conditions of this approval.

Assistant City Administrator/Community Development Director Steve Mumford explained that specific concerns and the offsetting of the impact to the City infrastructure and resources would be addressed in a development agreement or with site plan approvals. The provision of any incentives would require a development agreement.

Councilmember Wright stated he would prefer to table the application until the RTI Overlay amendment is finalized.

Mr. Mumford clarified that the approval of the rezone would place the RTI Overlay zone on the property, allowing applicants to submit a site plan or request an agreement to allow the standards permitted in the RTI Zone.

Mr. Berg stated the site plan application is not anticipated until the end of April. The buyer is considering properties outside of Eagle Mountain. Should the rezone not be approved, the buyer might choose a different city.

Councilmember Wright said that due to the time constraints with the project, he would be willing to consider approval of the rezone.

MOTION: *Councilmember Gray moved to approve an ordinance of Eagle Mountain, City, Utah rezoning certain lands known as Eagle Mountain Data Campus as presented. Councilmember Love seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.*

15. RUSH CREEK

15.A. ORDINANCE/PUBLIC HEARING – An Ordinance of Eagle Mountain City, Utah, Rezoning Certain Lands known as Rush Creek.

Items 15.A. and 15.B. were presented and discussed concurrently.

Mr. Hobbs presented the item. In July of 2021, a General Plan amendment changed the designation of the 38.80-acre property from Employment Center/Campus to Business Park/Light Industry. The applicant has now applied for a rezone from Agriculture/Rural Density to Light Manufacturing/Distribution (LMD) and preliminary plat approval for a 15-lot industrial subdivision.

The Planning Commission recommended approval of the rezone and preliminary plat during the January 25, 2022 meeting with following conditions:

1. The project shall provide a 20-foot-wide buffer at its eastern end in lieu of the 15-foot buffer shown on the plat;
2. The 20-foot wide north-south trail buffer on the eastern side of the property shall be zoned OS-N; and

3. The project shall comply with any requirements from the City Engineer, including submittal of a traffic analysis prior to applying for a final plat approval.

Mr. Hobbs verified that Parcel A is a retention pond area and the cul-de-sac would accommodate industrial vehicle traffic.

Discussion ensued regarding the following items:

- Transition standards for industrial and residential properties;
- Providing only the OS-N Zone as compatible buffering between the zones;
- Whether to consider the collector road as a buffer; and
- The benefits, potential issues, and usability of a 20-foot OS-N buffer.

Mr. Hobbs noted that Municipal Code does not include width requirements for buffer zones.

Applicant representative Dan Ford said they felt the masonry wall and a 15-foot open space area would be a sufficient buffer.

Councilmember Gray stated that he is in favor of the project as he feels that there are insufficient spaces available for this type of product in the State. He expressed concern with the proposed trail and wall due to safety and maintenance problems. He would rather have the burden of buffering fall on the residentially zoned property that will be building after this project.

Mayor Westmoreland opened the public hearing at 8:25 p.m. As there were no comments, he closed the hearing.

Mr. Ford explained that their intention is to connect the open space buffer to the School and Institutional Trust Lands Administration regional trail system.

Discussion ensued regarding the possible plans for the trail system in the area and concerns regarding trails adjacent to industrial uses.

MOTION: *Councilmember Gray moved to approve an ordinance of Eagle Mountain City, Utah, rezoning certain lands known as Rush Creek to the LMD Zone. Councilmember Wright seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.*

15.B. MOTION – Rush Creek Preliminary Plat

MOTION: *Councilmember Gray moved to approve the Rush Creek preliminary plat with the condition that the project shall comply with any requirements from the City Engineer, including submittal of a traffic analysis prior to applying for final plat approval. Councilmember Wright seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.*

16. ORDINANCE

16.A. ORDINANCE – An Ordinance of Eagle Mountain City, Utah, Amending Eagle Mountain Municipal Code Chapter 6.10 Animal Zoning Regulations.

This item was presented and discussed prior to item 14.A.

Senior Planner Tayler Jensen summarized the changes made to the language since the last review of the item on February 1, 2022, and explained the reasonable person standard.

- Changes to Table 6.10.090:
 - Removal of the setback from residence or periodically inhabited buildings column
 - Clarification of the language to say “3 or more acres”
 - Reduction of the fenced area required for horse/mule and buffalo from 22,000 square feet for 1 to 4 animals to 2,500 square feet
 - Restoration of minimums for pigs and buffalo
- The addition of a reasonable person standard on what constitutes half an animal for either miniature breeds or offspring
- Clarification that pigs do not count towards the maximum animal points until they are weaned

Mr. Jensen noted that other changes include the removal of references to the Airpark Zone resulting in the renumbering of sections, and clarification that chickens, ducks, and similar fowl are exempted from these regulations and are allowed per the EMMC 17.25.030 Residential Lane Use Table.

Councilmember Love verified that the two pigs are allowed on ½ to .99 acres, four on 1 to 1.99 acres, six on 2 to 2.99 acres, and eight on more than 3 acres; the minimum lot size pigs are allowed on is a ½ acre, and the minimum lot size buffalo are allowed on is 1 acre.

Councilmember Burnham said that residents have expressed concern regarding offspring counts and recommended not counting any offspring until they are weaned.

The Council determined to exclude counting offspring until they are weaned and to retain counting offspring as a half unit until they reach a size of greater than half the size of an average adult for that animal type.

MOTION: *Councilmember Burnham moved to approve an ordinance of Eagle Mountain City, Utah, amending Eagle Mountain Municipal Code Chapter 6.10 Animal Zoning Regulations with the following changes:*

1. *EMMC Table 6.10.090 shall be amended to allow two pigs on ½ to 0.99 acres, four on 1 to 1.99 acres, six on 2 to 2.99 acres, and eight on more than three acres; pigs shall be allowed on is a minimum of a ½ acre; and buffalo shall be allowed on a minimum of 1 acre; and*
2. *Any animal that a reasonable person would define as ½ size (or smaller) of an average adult animal shall count as a ½ unit including*

offspring and miniature animals. Offspring shall not count towards maximum numbers until weaned offspring do not count until weaned. Councilmember Wright seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.

17. RESOLUTIONS

17.A. RESOLUTION – A Resolution of Eagle Mountain City, Utah, Approving the Second Amended and Restated Oquirrh Mountain Master Development Agreement.

Mr. Mumford presented the item. The second amendment to the Oquirrh Mountain Master Development Plan and rezone were approved by the City Council on October 19, 2021. Paragraph 7.2 of the master development agreement (MDA) details the park improvement timing and park escrow. The petroglyph park and hillside park are required to be completed prior to the recording of a plat containing the 130th residential lot. Language was added to allow for partial release of park escrow upon completion of park areas. The project is divided into two phases. The hillsides are part of the wildlife corridor overlay zone and must comply with the standards in EMMC 17.49. The zoning map has been updated to reflect the correct frontage and setback zoning standards.

Mr. Mumford stated that the Pony Express Regional Trailhead has an existing parking lot in the area. Previous plans intended for a park south of the existing church in the completed subdivision east of the project. The petroglyph park will have parking and sidewalks connecting the parking to the trail system. Signage for the other parking area can direct residents to the petroglyph park. Plans for the future park can be amended to serve as trailhead parking if additional parking is needed for buses and larger vehicles.

Councilmember Gray said that as the neighborhood is close to regional parks, he would prefer additional parking for the unique natural and historical aspects of the area rather than playground equipment.

Councilmember Love said although she agrees with Councilmember Gray's sentiments, playgrounds are needed for toddlers in closer proximity to their homes.

Mr. Mumford clarified that the MDA sets the timing for the park amenities; the design and amenities will be determined during plat approvals. Park escrows have been allowed in the past. However, developers were requesting partial releases of funds as portions of the parks were completed, and the inspecting and processing burden to staff became onerous and unsustainable. The City now requires full completion or substantial progress for escrow releases and retains 10% of the project cost in escrow for the warranty period.

Discussion ensued regarding previous and current City practices regarding the release of park escrow funds and options for developers.

Applicant representative Nick Mason explained that they build their parks and amenities prior to selling homes.

Mr. Mumford clarified that the developer has expressed concern with completing the parks for Phase 1 with the City holding the escrow for those improvements until the completion of the full project. He recommended retaining at least a warranty or partial amount of the escrow until all park improvements are completed.

Discussion ensued regarding the partial park escrow fund releases and potential compromises.

Mr. Mason stated they would be amenable to one partial park escrow release and requested that any amendment excludes the requirement for an additional approval by City Council.

Mr. Cook stated that the language requires 100% completion of the park prior to any release of escrow funds and the MDA has the additional protection that all park projects must be completed prior to the recording of the plat with the 130th lot.

MOTION: *Councilmember Burnham moved to approve a resolution of Eagle Mountain City, Utah, approving the second amended and restated Oquirrh Mountain Master Development Agreement with the following changes:*

- 1. Language shall be added to allow for one pro-rata park escrow reduction; and*
- 2. The zoning map exhibit that is attached to the master development agreement shall be amended to match the approved development standards for the RC units including the five-foot side and ten-foot garage side setbacks and any other necessary clarifications.*

Councilmember Love seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.

17.B. RESOLUTION – A Resolution of Eagle Mountain City, Utah, Authorizing the Issuance and Sale of Not More Than \$20,000,000 Aggregate Principal Amount of Sales Tax Revenue Bonds, Series 2022; Fixing the Maximum Aggregate Principal Amount of the Bonds; The Maximum Number of Years Over Which the Bonds May Mature, the Maximum Interest Rate Which the Bonds May Bear, and the Maximum Discount From Par at Which the Bonds May be Sold; Providing for the Publication of a Notice of Public Hearing and Bonds to be Issued; Providing for the Running of a Contest Period; Authorizing the Execution by the City of a General and Supplemental Indenture of Trust, and Other Documents Necessary for the Issuance of the Series 2022 Bonds; Authorizing the Taking of All Other Actions Necessary to the Consummation of the Transaction Contemplated by this Resolution; and Related Matters.

Mr. Jerome reviewed the projects to be funded by the bond discussed during work session and reminded the body that the bond will not result in a tax increase. The parameters could be extended to repair a waterline in Cedar Pass Ranch; however, the waterline is not impact fee-eligible.

Although issues have caused road damage, repairs would not require the removal of the road. Another option would be to space out the repairs over several years resulting in less of an impact on the City budget. The estimated cost of the repairs would be \$1,000,000 to \$2,000,000. The interest rate on the bond is estimated at 2.5% which historically is lower than inflation.

Director of Administrative Services/City Recorder Fionnuala Kofoed explained the history of the waterline. The installation was completed in the early days of the City during a period when inspectors were changed, and the waterline was completed and buried prior to inspection. The line has been problematic and a plan needs to be put in place for the City to be insurable.

Councilmember Gray stated his support to add the waterline due to the impact of utilities on the health, safety, and welfare of residents, and providing sound infrastructure is one of the primary responsibilities of the City.

Mayor Westmoreland noted that construction costs are likely to increase and bonding, especially at low-interest rates, might not be an option in the future.

The Council discussed options and the scope of the planned projects resulting in the decision to set the maximum aggregate principal amount of the sale tax revenue bond at \$22,000,000 with the intention to use a lesser amount of the bond once the cost of the included projects is determined.

Councilmember Gray disclosed that he has worked with WW Clyde in the past and there is a possibility he could be hired for a project associated with the bond funds.

MOTION: *Councilmember Burnham moved to approve a resolution of Eagle Mountain City, Utah, authorizing the issuance and sale of not more than \$22,000,000 aggregate principal amount of sales tax revenue bonds, series 2022; fixing the maximum aggregate principal amount of the bonds; the maximum number of years over which the bonds may mature, the maximum interest rate which the bonds may bear, and the maximum discount from par at which the bonds may be sold; providing for the publication of a notice of public hearing and bonds to be issued; providing for the running of a contest period; authorizing the execution by the City of a general and supplemental indenture of trust, and other documents necessary for the issuance of the series 2022 bonds; authorizing the taking of all other actions necessary to the consummation of the transaction contemplated by this resolution; and related matters setting a public hearing for March 15, 2022; and changing paragraph 2 on page 2 to “finance road, water, and sewer system, improvements.” Councilmember Gray seconded the motion.*

Discussion ensued regarding increasing the aggregate principal amount of sales tax revenue bonds to \$25,000,000 and the impact on the length of the term of the bond and the interest cost should the full amount be borrowed.

AMENDED MOTION: *Councilmember Burnham moved to approve a resolution of Eagle Mountain City, Utah, authorizing the issuance and sale of not more than*

\$25,000,000 aggregate principal amount of sales tax revenue bonds, series 2022; fixing the maximum aggregate principal amount of the bonds; the maximum number of years over which the bonds may mature, the maximum interest rate which the bonds may bear, and the maximum discount from par at which the bonds may be sold; providing for the publication of a notice of public hearing and bonds to be issued; providing for the running of a contest period; authorizing the execution by the City of a general and supplemental indenture of trust, and other documents necessary for the issuance of the series 2022 bonds; authorizing the taking of all other actions necessary to the consummation of the transaction contemplated by this resolution; and related matters setting a public hearing for March 15, 2022; and changing paragraph 2 on page 2 to “finance road, water, and sewer system improvements.” Councilmember Gray seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.

18. CITY COUNCIL/MAYOR'S BUSINESS

None.

19. CITY COUNCIL BOARD LIAISON REPORTS

Councilmember Wright

Councilmember Wright asked if a resident will soon be appointed to the Parks and Recreation Advisory Board.

Councilmember Love

None.

Councilmember Burnham

Councilmember Burnham stated that the Senior Citizen Advisory Council has a vacancy.

Councilmember Gray

None.

20. COMMUNICATION ITEMS

20.A. Upcoming Planning Items

21. ADJOURNMENT

MOTION: *Councilmember Gray moved to adjourn the meeting at 9:38 p.m. Councilmember Wright seconded the motion. Those voting aye: Donna Burnham, Jared Gray, Carolyn Love, and Brett Wright. The motion passed with a unanimous vote.*

The meeting was adjourned at 9:38 p.m.

Approved by the City Council on March 1, 2022.

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

DRAFT



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	ORDINANCE/PUBLIC HEARING - An Ordinance of Eagle Mountain City, Utah, Approving a Rezone to the Public Facilities Zone for Fire Station 253.		
ITEM TYPE:	Ordinance		
FISCAL IMPACT:			
APPLICANT:	Steve Simmons - UFA		
GENERAL PLAN DESIGNATION Neighborhood Residential One	CURRENT ZONE Agriculture	ACREAGE 1.75	COMMUNITY

PUBLIC HEARING:

Yes

PREPARED BY:

Tayler Jensen, Planning

PRESENTED BY:

Tayler Jensen

RECOMMENDATION:

BACKGROUND:

The Future Land Use Plan (FLUP) designates this property as Neighborhood Residential One. The Public Facilities (PF) Zone is appropriate within this designation and does not require any zone transitioning.

The proposed site plan is for Fire Station 253, which will be located north of Cory Wride Park, south of Mid Valley Road, and east of Overland Village 6, on parcel 59:033:0029 a 13.34 acre parcel owned by Eagle Mountain City. The proposed site plan covers approximately 1.75 acres all of which is also proposed to be rezoned to the Public Facilities Zone as a part of this request.

Fire Station 253 is/will be a new Fire Station within Eagle Mountain increasing the total number of Fire Stations to three (3) up from the current two (2). Fire Station 252 is located within the Ranches at 3785 Pony Express Parkway, and Fire Station 251 recently received approval to be moved approximately 1 mile south of it's current location to Parcel 59:045:0504. The proposed location of Fire Station 253 places it between the two existing stations (approximately 3.5 miles south of Fire Station 252, and 2.5 miles north of Fire Station 251.

ITEMS FOR CONSIDERATION:

The rezone criteria (found in 17.90.060) shall be considered when making a motion for rezone applications:

- Compliance with the General Plan (17.90.060 A). The request to add the PF zone is compliant with the General Plan which designates the area for Neighborhood Residential 1. The adjacent parcels are designated: Neighborhood Residential 1 (to the West, East, and North) and Open Space (South) in the FLUP, thus the applicant complies with this provision.
- Compatibility Determination (17.90.060 B). The proposed rezone allows for public facilities which are appropriate adjacent to both Residential Developments and Parks (Cory Wride Park), therefore it is the opinion of staff that the proposal is compatible with neighboring properties and complies with this provision.
- City Services (17.90.060 C). The proposed use is not anticipated to overburden City Services.
- Traffic Generation (17.90.060 D). The use is not anticipated to generate significant traffic, thus it complies with this provision.
- Property Values (17.90.060 E). The proposed use is not expected to have a significant negative impact on surrounding property values therefore it complies with this provision.

The site plan development standards (found in EMMC 17.100.050) shall be considered when making a recommendation for Site Plan applications:

A. Use of Property: The proposal does utilize the entire parcel with building, paving, and landscaping in *compliance* with 17.100.050 A

B. Screening Requirements: As a Fire Station is commercial building it is required to provide a 6' masonry wall along the East property line (adjacent to Overland Village 6)

C. Access Requirements: Fire Stations have unique access needs, the site does have two accesses onto Mid Valley Road, the westernmost entrance is a full access for employees and visitors, as well as the in driveway for Fire Vehicles, the access to the East is dedicated to Fire/EMT vehicles leaving the station. There are no neighboring commercial parking lots, and the nature of fire stations would prohibit the interconnecting of parking lots. The applicant has worked extensively with City Staff on the location of the access navigating potential conflicts with the residential road located North of Mid

Valley Road, and on the required changes (reduction) of the raised median, the proposed site plan conforms with these discussions, and it is the opinion of staff that the applicant *complies* with access requirements.

Commercial Design Standards

In addition to meeting Site Plan requirements, the Fire Station shall comply with Commercial Design Standards found in 17.72 of EMMC, which are described below.

17.72.030 A requires that building be located near the minimum front setbacks. While the minimum front setback for the Public Facilities Zone is 10' the applicant is proposing the building to be setback approximately 30', this is required due to the needs of the fire station and to accommodate the large trucks, as well as to provide for additional safety when trucks are called from the station. The Primary entrance of the building is toward Mid Valley Road, and the pedestrian access is provided in a location that doesn't require pedestrians to cross any driveways, accesses, or roadways in *compliance* with this provision.

17.72.030 B requires all commercial parking to be located to the side or rear of the building. The proposal *complies* with this requirement as visitor parking is located on the side of the building, and all staff parking is located to the rear.

17.72.040 A requires commercial buildings to be similar in style to significant adjacent buildings, there are no other commercial buildings within 1.5 miles of the site, with the only significant buildings within 1/2 mile being Public Schools. The proposed elevations are similar to the recently approved Fire Station 251 elevations.

17.72.040 B requires the main entrance to orient to pedestrian ways or sidewalks, the main entrance orients to Mid Valley Road, and the existing 8' pedestrian trail in *compliance* with this provision.

17.72.040 C requires the primary roof form of the structure help reduce the perceived scale of the building. The proposal accomplishes this by using multiple roof planes and heights, and through the use of overhanging eaves thus they *Comply* with this provision.

17.72.040 D describes required vertical and horizontal articulation, the proposed elevations use a variety of colors, materials, planes and popouts in *compliance* with this provision.

17.72040 E Describes the design elements required for commercial buildings, the applicants plans show they are utilizing Reveals, canopies, awnings, popouts, columns, decorative trim, decorative masonry pattern, decorative doors and windows, and the chosen items are used on all sides, in *compliance* with this section of code

Public Facility Development Standards

The following development standards are required in the PF zone Setbacks:

- 10' Front (Applicant is pushing the building backwards to accommodate fire apparatus)
- Sides: (none/ equal to height of building when adjacent to residential) (Applicant complies)
- 20' Rear (Applicant Complies)

Maximum building height is 35' and the applicant is under this height in *compliance* with this code.

REQUIRED FINDINGS:

Rezoning is a legislative decision and is considered valid if reasonably debatable and not illegal. Criteria for approval are found in EMMC 17.90.060.

PLANNING COMMISSION ACTION/RECOMMENDATION:

The Planning Commission recommended approval of the Rezone **By a vote of (5-0)** with no conditions, and recommended approval of the Site Plan **By a vote of (5-0)** with the following condition: A 6' masonry wall shall be constructed along the east property line.

ATTACHMENTS:

[ORD--Fire Station 253 Rezone](#)
[Elevations](#)
[Renderings](#)

ORDINANCE NO. O- -2022

**AN ORDINANCE OF EAGLE MOUNTAIN CITY, UTAH,
APPROVING A REZONE TO THE PUBLIC FACILITIES ZONE
FOR FIRE STATION 253**

PREAMBLE

WHEREAS, the City Council of Eagle Mountain City finds that it is in the public interest to rezone certain lands for Fire Station 253, as set forth more specifically in Exhibit A.

BE IT ORDAINED by the City Council of Eagle Mountain City, Utah:

1. The City Council finds that all required notices, public hearings, and other requirements have been completed for the City Council to consider and approve the rezone of certain lands for Fire Station 253, as set forth in Exhibit A.
2. The lands depicted and described in Exhibit A are hereby rezoned to the density and uses as set forth more specifically in Exhibit A.
3. This Ordinance shall take effect upon its first posting or publication.

ADOPTED by the City Council of Eagle Mountain City this 1st day of March, 2022.

EAGLE MOUNTAIN CITY, UTAH

Tom Westmoreland, Mayor

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

CERTIFICATION

The above Ordinance was adopted by the City Council of Eagle Mountain City, Utah on this 1st day of March, 2022.

Those voting aye:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those voting nay:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those excused:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those abstaining:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

Posted on _____ by _____ .

Exhibit A



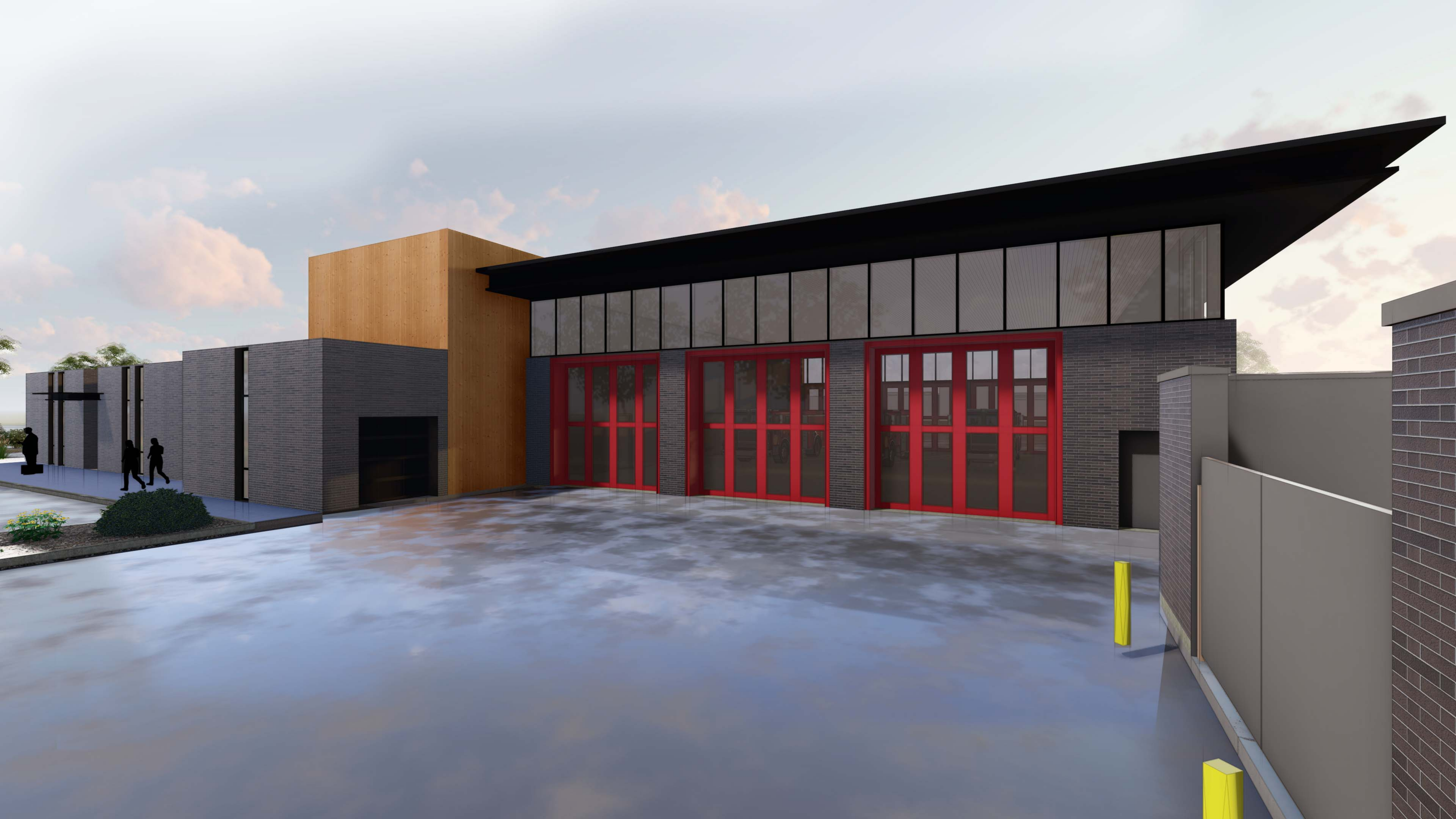




253

EAGLE
MOUNTAIN







**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	MOTION - Fire Station 253 Site Plan		
ITEM TYPE:	Motion		
FISCAL IMPACT:			
APPLICANT:	Steve Simmons - UFA		
GENERAL PLAN DESIGNATION Neighborhood Residential One	CURRENT ZONE Agriculture	ACREAGE 1.75	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Tayler Jensen, Planning

PRESENTED BY:

Tayler Jensen

RECOMMENDATION:

BACKGROUND:

Please see the rezone staff report for information regarding the site plan.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	ORDINANCE - An Ordinance of Eagle Mountain City, Utah, Amending Eagle Mountain Municipal Code Chapter 7.05 Parks, Trails and Special Events.		
ITEM TYPE:	Ordinance		
FISCAL IMPACT:			
APPLICANT:	Eagle Mountain City		
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Brad Hickman, Parks and Recreation

PRESENTED BY:

Brad Hickman

RECOMMENDATION:

Staff recommends that the City Council adopt an ordinance of Eagle Mountain City, Utah, amending the Eagle Mountain Municipal Code Chapter 7.05 Parks, Trails and Special Events.

BACKGROUND:

The ordinance defines and clarifies rules and regulations specific for dog park use within the City.

ITEMS FOR CONSIDERATION:

These rules were brought forward by the Parks and Recreation Advisory Board.

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:

[ORD--EMMC 7.05 Parks, Trails and Special Events](#)

[EMMC 7.05 Parks, Trails, and Special Events - Redlines](#)

ORDINANCE NO. O- -2022

**AN ORDINANCE OF EAGLE MOUNTAIN CITY, UTAH,
AMENDING THE EAGLE MOUNTAIN MUNICIPAL CODE,
CHAPTER 7.05 PARKS, TRAILS AND SPECIAL EVENTS**

PREAMBLE

WHEREAS, the City Council of Eagle Mountain City finds that it is in the public interest to amend the Eagle Mountain Municipal Code, Chapter 7.05 Parks, Trails and Special Events, as described in Exhibit A.

BE IT ORDAINED by the City Council of Eagle Mountain City, Utah:

1. The City Council finds that all required notices, public hearings, and other requirements have been completed for the City Council to consider an amendment to the Eagle Mountain Municipal Code Chapter 7.05 Parks, Trails and Special Events.
2. The amendment described in Exhibit A is hereby approved.
3. This Ordinance shall take effect upon its first posting or publication.

ADOPTED by the City Council of Eagle Mountain City this 1st day of March, 2022.

EAGLE MOUNTAIN CITY, UTAH

Tom Westmoreland, Mayor

ATTEST:

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

CERTIFICATION

The above Ordinance was adopted by the City Council of Eagle Mountain City, Utah on this 1st day of March, 2022.

Those voting aye:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those voting nay:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those excused:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those abstaining:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Fionnuala B. Kofoed, MMC

Director of Administrative Services/City Recorder

Posted on _____ by _____ .

Exhibit A

Chapter 7.05
PARKS, TRAILS AND SPECIAL EVENTS

7.05.040 Permits, Regulations, and Use Requirements.

H. Animals Prohibited – Exceptions.

1. Except as provided in this provision, no person shall lead or allow any of the bovine species, or any horse, mule, goat, sheep, swine, dog or cat, at any time within a park, **unless it is regulated as in section 4**. This subsection shall not prohibit horses that may be led, driven or ridden on specifically designated equestrian trails or equestrian parks.

2. This subsection shall not prohibit the walking of dogs, licensed in accordance with state and city laws, in public parks if the dog is leashed or under the control of the owner, and the owner takes responsibility for cleanup of any waste or damage caused by the dog.

3. The city may designate on a case-by-case basis those times where the provisions of this subsection shall be suspended for a special event.

4. The following regulations and limitations shall apply in all dog park areas:

- a. Dog park areas are open from dawn until dusk.**
- b. Use of any dog park area by a responsible person and their dog(s) shall constitute implied consent of the responsible person to all of the conditions set forth in this section, a waiver of liability benefiting the City, and an agreement and undertaking to protect, indemnify, defend and hold the City harmless for any and all injury or damage caused by a responsible person's dog during any time that the dog is in the dog park area.**
- c. All responsible persons shall, at all times, take all reasonable precautions to prevent their dog(s) from biting, attacking, or attempting to bite or attack any person or dog. A responsible person shall immediately remove their dog from the dog park area if it bites, attacks, or attempts to bite or attack any person or dog. A responsible person whose dog is bitten or attacked shall immediately remove their dog from the dog park area.**
- d. It shall be unlawful for any responsible person in a dog park area to not immediately pick up and properly dispose of the feces of the dog(s) for which they are responsible. Proper disposal shall include the placement of such feces in a bag or other container and its disposal in a waste container.**
- e. All responsible persons using a dog park area shall have a leash in their possession or reasonably accessible at all times for each of their dog(s) in the dog park area. Leashes shall be worn by the dog(s) at all times the dog(s) is(are) not in the dog park area. All responsible persons shall maintain control over their dog(s) at all times whether leashed or unleashed.**
- f. Dog handlers shall be at least sixteen (16) years of age or older.**
- g. No person shall place an aggressive dog, of any breed, in a dog park area even if such dog is on a leash.**

- h. Dogs shall be under voice control while in dog park areas.
- i. No person shall place or allow to be placed a dog that is sick or in heat in a dog park area. Dogs under the age of four (4) months are prohibited in all dog park areas.
- j. All dogs shall be vaccinated for rabies, parvovirus, distemper, and bordetella and be legally licensed prior to use of any dog park area.
- k. Glass containers are prohibited in all dog park areas.
- l. A responsible person shall stop their dog(s) from digging in a dog park area and shall repair all damage that occurs.
- m. One gate shall be securely closed before the second gate is opened.
- n. Dogs over twenty-five (25) pounds are prohibited in the small dog area.
- o. Agility components within dog park areas are for dog use only.
- p. Children under sixteen (16) years of age shall be accompanied and supervised by an adult at least eighteen (18) years of age while in a dog park area.
- q. Any violation of this section shall be subject to an administrative citation in accordance with EMMC 4.10 Administrative Code Enforcement Procedures.



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	ORDINANCE - An Ordinance of Eagle Mountain City, Utah, Amending Eagle Mountain Municipal Code Chapter 2.27 Board Appointment Process.		
ITEM TYPE:	Ordinance		
FISCAL IMPACT:			
APPLICANT:			
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Lianne Pengra, Recorder's Office

PRESENTED BY:

Councilmember Colby Curtis

RECOMMENDATION:

Staff recommends the City Council consider an amendment to Eagle Mountain Municipal Code Chapter 2.27 Board Appointment Process.

BACKGROUND:

This item was placed on the agenda at the request of Councilmembers Curtis and Love as a follow up to an earlier discussion regarding the appointment process.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:

[ORD--EMMC 2.27 Board Appointment Process](#)

[EMMC 2.27 Board Appointment Process - Clean Version](#)

[EMMC 2.27 Board Appointment Process - Redlines](#)

ORDINANCE NO. O- -2022

**AN ORDINANCE OF EAGLE MOUNTAIN CITY, UTAH,
AMENDING THE EAGLE MOUNTAIN MUNICIPAL CODE,
CHAPTER 2.27 BOARD APPOINTMENT PROCESS**

PREAMBLE

WHEREAS, the City Council of Eagle Mountain City finds that it is in the public interest to amend the Eagle Mountain Municipal Code, Chapter 2.27 Board Appointment Process, as described in Exhibit A.

BE IT ORDAINED by the City Council of Eagle Mountain City, Utah:

1. The City Council finds that all required notices, public hearings, and other requirements have been completed for the City Council to consider an amendment to the Eagle Mountain Municipal Code Chapter 2.27 Board Appointment Process.
2. The amendment described in Exhibit A is hereby approved.
3. This Ordinance shall take effect upon its first posting or publication.

ADOPTED by the City Council of Eagle Mountain City this 1st day of March, 2022.

EAGLE MOUNTAIN CITY, UTAH

Tom Westmoreland, Mayor

ATTEST:

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

CERTIFICATION

The above Ordinance was adopted by the City Council of Eagle Mountain City, Utah on this 1st day of March, 2022.

Those voting aye:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those voting nay:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those excused:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those abstaining:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Fionnuala B. Kofoed, MMC

Director of Administrative Services/City Recorder

Posted on _____ by _____ .

Exhibit A

Chapter 2.27

APPOINTMENT PROCESS

Sections:

2.27.010 Definitions.

2.27.020 Appointment.

2.27.030 Posting of positions.

2.27.040 Notice to council.

2.27.050 Removal.

2.27.010 Definitions.

“Board” shall mean any advisory board, commission, committee, etc. in Eagle Mountain to which appointments are made by the mayor, with the advice and consent of the city council.

2.27.020 Appointment.

Unless otherwise designated, the mayor shall appoint all board members with the advice and consent of the city council.

2.27.030 Posting of positions.

Notice of all empty board positions, and positions to be reappointed, shall be posted on the city webpage, or other method suitable to provide notice to the public, for a minimum of 10 days. The notice shall include a description of the position and provide details for the submission of an application or resume for the position. The mayor shall compile and evaluate all applications or resumes for the position.

2.27.040 Notice to council.

Not less than five days prior to publicly noticing the possible appointment of any person to an advisory board or staff-level office requiring council consent, whether a new appointment or reappointment the mayor shall provide to each member of the city council the name, and application or resume of each person the mayor is considering appointing to the board or staff-level position. An application or resume is optional for reappointments. Members of the city council may individually provide the mayor with feedback or recommendations regarding each potential appointment.

2.27.050 Removal.

An advisory board member may be removed with or without cause by the mayor with the advice and consent of the city council.

Chapter 2.27

~~BOARD~~ APPOINTMENT PROCESS

Sections:

~~2.27.010~~ Definitions.

~~2.27.0120~~ Appointment.

~~2.27.0230~~ Posting of positions.

~~2.27.0340~~ Notice to council.

~~2.27.0450~~ Removal.

~~2.27.010~~ Definitions.

"Board" shall mean any advisory board, commission, committee, etc. in Eagle Mountain to which appointments are made by the mayor, with the advice and consent of the city council.

~~2.27.01~~20 Appointment.

Unless otherwise designated, the mayor shall appoint all ~~advisory~~ board members with the advice and consent of the city council. [Ord. O-05-2021 § 2 (Exh. A)].

~~2.27.02~~30 Posting of positions.

Notice of all empty board positions, and positions to be reappointed, shall be posted on the city webpage, or other method suitable to provide notice to the public, for a minimum of 10 days. The notice shall include a description of the position and provide details for the submission of an application or resume for the position. The mayor shall compile and evaluate all applications or resumes for the position. [Ord. O-05-2021 § 2 (Exh. A)].

2.27.0340 Notice to council.

Not less than five days prior to publicly noticing the possible appointment of any person to ~~an advisory_~~board or staff-level office requiring council consent, whether a new appointment or reappointment, the mayor shall provide to each member of the city council the name, and application or resume ~~if available~~, of each person the mayor is considering appointing to ~~an advisory~~ the board or staff-level position. An application or resume is optional for reappointments. Members of the city council may individually provide the mayor with feedback or recommendations regarding each potential appointment. [Ord. O-05-2021 § 2 (Exh. A)].

2.27.0450 Removal.

An advisory board member may be removed with or without cause by the mayor with the advice and consent of the city council. [Ord. O-05-2021 § 2 (Exh. A)].



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	RESOLUTION - A Resolution of Eagle Mountain City, Utah, Amending the Consolidated Fee Schedule for Water, Sewer, and Storm Water Rates.		
ITEM TYPE:	Resolution		
FISCAL IMPACT:			
APPLICANT:			
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Lianne Pengra, Admin

PRESENTED BY:

Evan Berrett, Assistant to the
City Administrator

RECOMMENDATION:

Staff recommends the City Council consider modifications to the water, sewer, and storm water utility rates within the next 30-60 days. It is also recommended that City Council consider the recommended change in water tier structures to enhance the effectiveness of the rates to encourage conservation. Encouraging conservation with rates would match other efforts the City is evaluating to reduce water usage in the City and preserve the City's ability to provide water for the anticipated growth in years to come. Additionally, City Council is recommended to modify the overall approach to rate setting, to consider annual graduate rate increases rather than infrequent large increases. Finally, it is recommended that the City do away with the separate sewer rates for the different service areas but instead treat sewer as a network that all contribute to in a similar way that all pay for water, storm water, roads, parks, street lights, etc.

Possible motions include tabling the resolution, approving the resolution, or approving the resolution with an effective date up to May 1, 2022.

Table:

I move that the City Council table a resolution of Eagle Mountain City, Utah, amending the consolidated fee schedule for water, sewer, and storm water rates.

Approve:

I move that the City Council approve a resolution of Eagle Mountain City, Utah, amending the consolidated fee schedule for water, sewer, and storm water rates with Water Proposal (1, 2, or 3).

Approve with a Future Effective Date:

I move that the City Council approve a resolution of Eagle Mountain City, Utah, amending the consolidated fee schedule for water, sewer, and storm water rates with Water Proposal (1, 2, or 3) with an effective date of May 1, 2022.

BACKGROUND:

City Council was provided a follow up analysis at the February 1st, City Council meeting. Following the February 1st presentation, staff reworked the Option 2 tiers to reduce the conservation pressure and created a third option that uses Option 2's tiers but introduces a certain volume of water granted to residents through their base rate. Sewer rates were also further analyzed in consultation with third party advisors to ensure that the rates were properly reflective of the actual demand on the budget by customer type.

Water Rates

Having heard concerns about the appropriate amount of conservation pressure to apply through the rates, new rate tiers were tested that would result in 81% of all water billed at properties under 0.5 acres into the first tier and 83% of all water billed at properties 0.5 acres and over into the first tier. These new tiers would result in rate tiers that are more effective than our current tiers without being too financially burdensome. Properties under 0.5 acres would likely only see about a \$1.50/month difference between the current rate tiers and the new proposed tiers. Properties over 0.5 acres would see about a \$2.50/month difference in their monthly bill due to their higher-on-average use. Additionally, a third option was created that provides a certain amount of water within the base rate, known as a lifeline rate.

Residential Under 0.5 Acres (FY 2023 Rates)

Option 1

Option 2

Option

0 – 65	\$1.08	0 – 30	\$1.11	0 – 3
65 – 115	\$1.14	30 – 60	\$1.17	3- 30
115 – 165	\$1.19	60 – 90	\$1.22	30 – 60
165+	\$1.24	90+	\$1.28	60 – 90
				90+
Base rate \$25.50, reducing to \$23.50 FY 2026				Base Ra
Annual rate increase of 4%				increase

*numbers are in thousands of gallons.

Residential 0.5 Acres and Above (FY 2023 Rates)

Option 1		Option 2		Option
0 – 120	\$1.08	0 – 80	\$1.11	0 – 6
120 – 170	\$1.14	80 – 120	\$1.17	6 - 80
170 – 230	\$1.19	120 – 160	\$1.22	80 – 120
230+	\$1.24	160+	\$1.28	120 – 160
				160+
Base rate \$25.50, reducing to \$23.50 FY 2026				Base Ra
Annual rate increase of 4%				increase

*numbers are in thousands of gallons.

The lifeline rate was determined based on calculations of average indoor water usage and reducing that number by half with the understanding that the rate is not intended to offset all indoor water use, but rather provide a certain amount of water to live on until financial conditions improve for the customer.

Commercial, Institutional, Industrial, and Other customer rates did not change. All rates are priced the same as residential except for industrial customers which are billed at a uniform rate equal to the tier 4 rate of residential users.

Sewer Industrial Rates Review

Additional analysis was required following the receipt of updated usage and impact information from our large industrial customers. Furthermore, more detailed analysis into rate subsidization identified other factors that needed to be considered that were unique to sewer rates. Sewer rates were evaluated with three major approaches: the status quo, billing by ERU with a separate industrial rate, and billing by ERU for residential with a separate industrial rate that bills by volume.

Although all methods have the capability of achieving our revenue goals, billing by ERU with separate industrial rate was found to be the most equitable and simplest to implement. Under this method, residential customers will no longer be segmented by service area, and their monthly bill would be increased to \$45.75/month. Industrial customers would be billed by ERU at a monthly rate of \$32.03/month. Rates would increase annually for all customers by 2.5%.

The reduced industrial rate is due to more than 30% of expenditures in the sewer fund going to the administrative costs of managing the rapid growth of residential customers. Expenditures were broken out by type including administrative, collection, and treatment costs. Administrative costs amounted to about 37% of the total costs with 86% of those administrative costs coming from interfund transactions to the general fund (for administrative overhead), fleet fund, utility billing internal service fund, and GIS internal service fund.

Interfund transactions compensate other funds for the time and resources required to support the sewer utility. Nearly all the time and resources from the other funds go to supporting residential accounts and supporting the residential growth of the city. Only 5% of those administrative costs can reasonably be attributed to our large industrial customers. The much lower burden upon staff time and resources consequently results in a reduced rate.

Eagle Mountain City staff will, as part of the rate adjustments, establish a standard of what is a large industrial user. This standard will be based on standards already in place within Utah state code and will help to make clear which customers qualify for the reduced industrial rate.

The proposed rates would allow the wastewater fund to recover over time and make observable advances towards the 6-month fund balance reserve goal, as seen in the cart below represented by the 100% line.

ITEMS FOR CONSIDERATION:

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

ATTACHMENTS:

[RES--Consolidated Fee Schedule - Utility Rates](#)

[Utah State University WaterMAPS Analysis](#)

[Water Rates - Proposal 1](#)

[Water Rates - Proposal 2](#)

[Water Rates - Proposal 3](#)

[Sewer and Storm Water Rates - Proposal](#)

RESOLUTION NO. R- -2022

**A RESOLUTION OF EAGLE MOUNTAIN CITY, UTAH, AMENDING THE
EAGLE MOUNTAIN CITY CONSOLIDATED FEE SCHEDULE
(UTILITY RATES)**

WHEREAS, the City Council of Eagle Mountain City is empowered by law to adopt resolutions establishing fees for municipal services and has established an equitable system of fees for providing municipal services; and

WHEREAS, the City Council has determined that it is necessary and appropriate to amend the utility rates within the City; and

WHEREAS, the City Council finds that it is in the public interest to reaffirm all fees and charges previously enacted in the Eagle Mountain City Consolidated Fee Schedule except for those fees and charges which are specifically amended or changed in this Resolution.

NOW, THEREFORE, be it resolved by the City Council of Eagle Mountain City as follows:

1. The Consolidated Fee Schedule attached hereto as Exhibit A and the fees and charges set forth therein are hereby enacted and adopted for services received from Eagle Mountain City.
2. This Resolution is not intended to repeal, abrogate, annul, or in any way impair or interfere with existing provisions of other resolutions, ordinances, or laws except to effect modification of the fees reflected in the Consolidated Fee Schedule. The fees listed in the Consolidated Fee Schedule supersede present fees for services specified, but all fees not listed remain in effect. Where this Resolution imposes a higher fee than is imposed or required by existing provisions, resolution, ordinance, or law, the provisions of this resolution shall control.

This Resolution shall take effect at 12:01 a.m. on the _____ of _____, 2022.

EAGLE MOUNTAIN CITY, UTAH

Tom Westmoreland, Mayor

ATTEST:

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

CERTIFICATION

The above resolution was adopted by the City Council of Eagle Mountain City on the _____ day of _____, 2022.

Those voting aye:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those voting nay:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those excused:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those abstaining:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

Exhibit A

**EAGLE MOUNTAIN CITY
WATERMAPS™ ANALYSIS**

FINAL REPORT



JANUARY 2022

EAGLE MOUNTAIN CITY WATERMAPS™ ANALYSIS

FINAL REPORT

Submitted to:

Eagle Mountain City
Evan Berrett, Assistant to the City Administrator

Prepared by:

WaterMAPS™ Team

Dr. Joanna Endter-Wada, PhD, Professor and Project Principal Investigator
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INTRODUCTION

Eagle Mountain City is located in Utah County, south of the Salt Lake Valley, northwest of Provo, and west of Utah Lake. The municipality was founded on December 3, 1996, as a master-planned community. The current city boundary encompasses 50.67 square miles (131.23 square kilometers). While Eagle Mountain City is the fifth largest city by area in the state of Utah, a large portion of the incorporated area remains undeveloped. Since its establishment, the city has been built through a series of planned development phases and consists of residential parcels of varying sizes, small parks, open and natural spaces, institutional buildings, and a number of moderate to large sized commercial and industrial properties. The Eagle Mountain City Public Utilities Department has more than 12,000 utility connections in its system and services more than 40,000 people. The city relies on a series of groundwater sources for municipal water use as well as water purchased through the Central Utah Water Conservancy District (CUWCD). Eagle Mountain City does not presently maintain any local surface water capture or storage infrastructure. More than 75 percent of this municipal water is consumed by residential users, and 90 percent of this residential water use is applied to urban landscapes (E. Berrett, Personal Communication, 2021).

Landscape irrigation is the largest use of residential culinary water in the State of Utah during annual irrigation periods. Utah is working to inform and encourage residents in communities throughout the state regarding the importance and need for water conservation. These efforts, while successful, only begin to address the long-term water-use reductions necessary to accommodate growth, protect water sources, and live sustainably within Utah's arid environment. In order to further understand the capacity to conserve in their jurisdiction, Eagle Mountain City has partnered with the Utah State University (USU) Center for Water Efficient Landscaping (CWEL) to identify and realize landscape water conservation potential through the application of the Water Management Analysis and Planning Software, known as WaterMAPS™.

WaterMAPS™ is a custom software application that has been developed by an interdisciplinary team of USU researchers for the purpose of promoting urban landscape water conservation. The WaterMAPS™ program integrates water meter data, property records, weather data, and land cover data to produce a Landscape Irrigation Ratio (LIR) which compares landscape water use to landscape water need. The LIRs represent an efficiency standard, with values at or under 1 suggesting efficient water use, and increasing ratio values suggesting areas where water conservation may be realized. Used through time, WaterMAPS™ results can reveal patterns of LIRs and how they change, signaling improvements in conservation or identifying areas where conservation and programming may need to be enhanced.

This project focused on key tasks aimed at supporting Eagle Mountain City's water conservation efforts. In order to apply the WaterMAPS™ program, teams from Eagle Mountain City and USU were tasked with collecting, compiling, and developing the data required to apply the WaterMAPS™ process. These tasks required development of a high-resolution land cover classification for 2014, 2016, and 2018 for the city's water service area, evaluation and correction of the residential parcel boundary data, evaluation of change in landscaping of residential parcels over time, collection and organization of water use (meter) data, and determination and application of the best source of localized weather data (ET_0 or reference evapotranspiration). The USU project team worked with the Utah Climate Center to acquire

funding and install two weather stations in Eagle Mountain City to more accurately measure weather and its variability within city boundaries. These various data were integrated into the WaterMAPS™ software and visualization of the spatial and temporal LIR patterns were produced. The WaterMAPS™ team worked with Evan Berrett, Assistant to the City Administrator, and staff in the water billing and GIS departments to evaluate the results and assess the capacity to conserve water applied to residential landscapes based on the intersection of LIRs (an efficiency standard) and pricing tiers (a volumetric use standard based on metered billing data). The efficiency standard assures that all water users are held accountable for putting water to beneficial use without waste, while volume of use identifies locations with a larger potential contribution to conservation. This project successfully integrated all data components and produced results that will aid Eagle Mountain City in furthering ongoing water conservation programming and practices.

Summary of Key Findings

Analysis was conducted for more than 13,000 single family detached residential parcels in Eagle Mountain City. Mapping and land cover characterization is presented for all of these parcels. WaterMAPS™ analysis was conducted by each irrigation season month (i.e., April through October) for the eight years from 2014-2021. The final number of residential parcels included in these findings varied between those years, as many parcels were excluded for a variety of factors, including newly constructed residences without landscapes, changes in meter account numbers (signaling change in ownership or occupants), and data anomalies (including extended periods of non-use of water and LIRs far outside normal ranges). Analyses of LIRs for the remaining parcels reveal patterns of annual and seasonal, as well as spatial variability in water (in)efficiency that can guide water conservation planning, programming, and delivery.

The average size of the analyzed residential parcels that were developed and landscaped in 2018 is 0.29 acres with notable differences between parcel size in different subdivisions. An illustration of 10 subdivisions shows that the average lot size for those subdivisions varies between 0.11 acre and 5.40 acres. On average, the majority of land cover within developed residential parcels is characterized by developed/impervious features and irrigated land cover types, including grass/turf, trees/shrub and sparse vegetation. Irrigation season (i.e., April through October) ET_0 averages between 2014 and 2021 ranged between approximately 38.5-43.9 depth inches for the southern portion of the city and 31.6-38.7 depth inches for the northern portion of the city.

After ET_0 is adjusted for the water needs of the various plant types identified in the land cover classification of residential landscapes, the WaterMAPS™ analysis results show that average city-wide annual landscape water need for 2014-2021 ranged between 25.1 and 30.2 inches. Average annual landscape water use for those years ranged between 47.3 and 64.3 depth inches. The average annual landscape irrigation ratios (LIRs) ranged between 1.61 and 2.29, which reflects potential average over-application of water ranging from about 38% to 56%. At the parcel scale, however, the full LIR range includes values up to 10 (parcels with LIRs over 10 were set aside for further analysis and not included here). Details on these distributions are provided in the body of this report. These results illustrate the need for and value of better analyses to pinpoint where and when the most capacity to conserve exists in order to design focused conservation programming to realize these additional potential water savings.

The key challenge for promoting urban landscape water use efficiency and conservation is to help people irrigate to meet the water needs of their landscapes in relation to weather that changes from year-to-year and during the course of the irrigation season. Results show that average landscape water use in inches is below ET_0 at the beginning of the irrigation season (April) and generally above ET_0 for the rest of the irrigation season (i.e., May through October). Disaggregating the WaterMAPS™ results across the LIR scale of efficiency and conducting spatial analyses reveal which customer locations are using water inefficiently or excessively. LIRs calculated on a monthly basis reveal that average landscape water use is inefficient from July to October. These results imply that conservation potential exists in improving people's ability to better track seasonal ET_0 changes in their irrigation practices, especially late in the irrigation season.

Improved measurement of localized ET_0 data and inclusion of real-time soil moisture and precipitation data will help refine future analysis results and conservation programming. In support of the need for better weather data, USU and Eagle Mountain City cooperated to fund the installation or upgrade of two weather stations in Eagle Mountain City by the Utah Climate Center. These highly calibrated and identical weather stations will enhance future WaterMAPS™ analyses in support of Eagle Mountain conservation programs.

WaterMAPS™ results are visualized through the software's mapping features for further use and analysis by the utility. In addition to the function that shows locations with capacity to conserve on maps, residential properties were categorized by their LIR and their volume of use. This process created four categories of properties for prioritization of conservation efforts based on both the capacity to save larger volumes of water and the capacity to increase landscape irrigation efficiency. Those four categories are: High Volume/High LIR; High Volume/Low LIR; Low Volume/High LIR; and Low Volume/Low LIR. Using this scheme, an analysis was conducted for each year from 2014-2021 to categorize the number of properties, the total gallons potentially saved if all LIRs were reduced to 1, and the potential savings per household if LIRs were reduced to 1. A key finding is that the majority of residents irrigate either efficiently (LIR less than 1) or within an acceptable range (LIR between 1 and 2) for their existing landscapes. However, the percentages of residents who overwater (LIR great than 2) and/or use higher volumes of water (in Tier 3 and 4 by pricing tier of metered water) can produce significant water conservation savings for Eagle Mountain City. Suggested conservation strategies for securing water savings from these various categorizations of users are provided.

List of Abbreviations and Acronyms

CWEL	Center for Water Efficient Landscaping
DSM	Digital surface model
DTM	Digital terrain model
ET_0	Reference evapotranspiration
LiDAR	Light detection and ranging
LIR	Landscape Irrigation Ratio
NAIP	National Agriculture Imagery Program

nDSM	Normalized digital surface model
UGRC	Utah Geospatial Resource Center
USU	Utah State University
WaterMAPS™	Water Management Analysis and Planning Software

Glossary

Digital aerial imagery: The acquisition of digital images from an aircraft or other airborne platform.

Evaporation: The process that occurs when water changes from a liquid to a gaseous state.

Evapotranspiration (ET): The process by which water is transferred from the land to the atmosphere by evaporation from the soil and other surfaces and by transpiration from plants.

Land cover: The observed physical cover on the surface of the Earth.

Land cover mapping: The process of classifying digital aerial imagery into thematic classes for the purpose of characterizing landscapes and quantifying land resources.

Landscape Irrigation Ratio (LIR): The ratio of the amount of water actually used on a particular urban landscape divided by the estimated amount of water that a landscape needs to be healthy, as calculated by WaterMAPS™.

Normalized digital surface model (nDSM): A LiDAR-based data product that depicts the height of features relative to the ground.

Reference evapotranspiration (ET_o): The evapotranspiration rate from a reference surface, not short of water, generally a hypothetical grass reference crop with specific characteristics.

Spatial resolution: The length of one side of a single pixel in digital aerial or satellite image, or the size of the smallest feature that can be detected by a digital airborne sensor.

Spectral resolution: The number of spectral bands that a digital airborne sensor records.

Transpiration: The process by which moisture is carried through plants from roots to microscopic pores in the plant's leaves (stomata), where it changes to vapor and is released into the atmosphere.

STUDY AREA

Eagle Mountain City is located in Utah County, south of the Salt Lake Valley, northwest of Provo, and west of Utah Lake (Figure 1). The municipality was founded on December 3, 1996, as a master-planned community. The current city boundary encompasses 50.67 square miles (131.23 square kilometers). While Eagle Mountain City is the fifth largest city by area in the state of Utah, a large portion of the incorporated area remains undeveloped. Since its establishment, the city has been built through a series of planned development phases and consists of residential parcels of varying sizes, small parks, open and natural spaces, institutional buildings, and a number of moderate to large sized commercial and industrial properties.

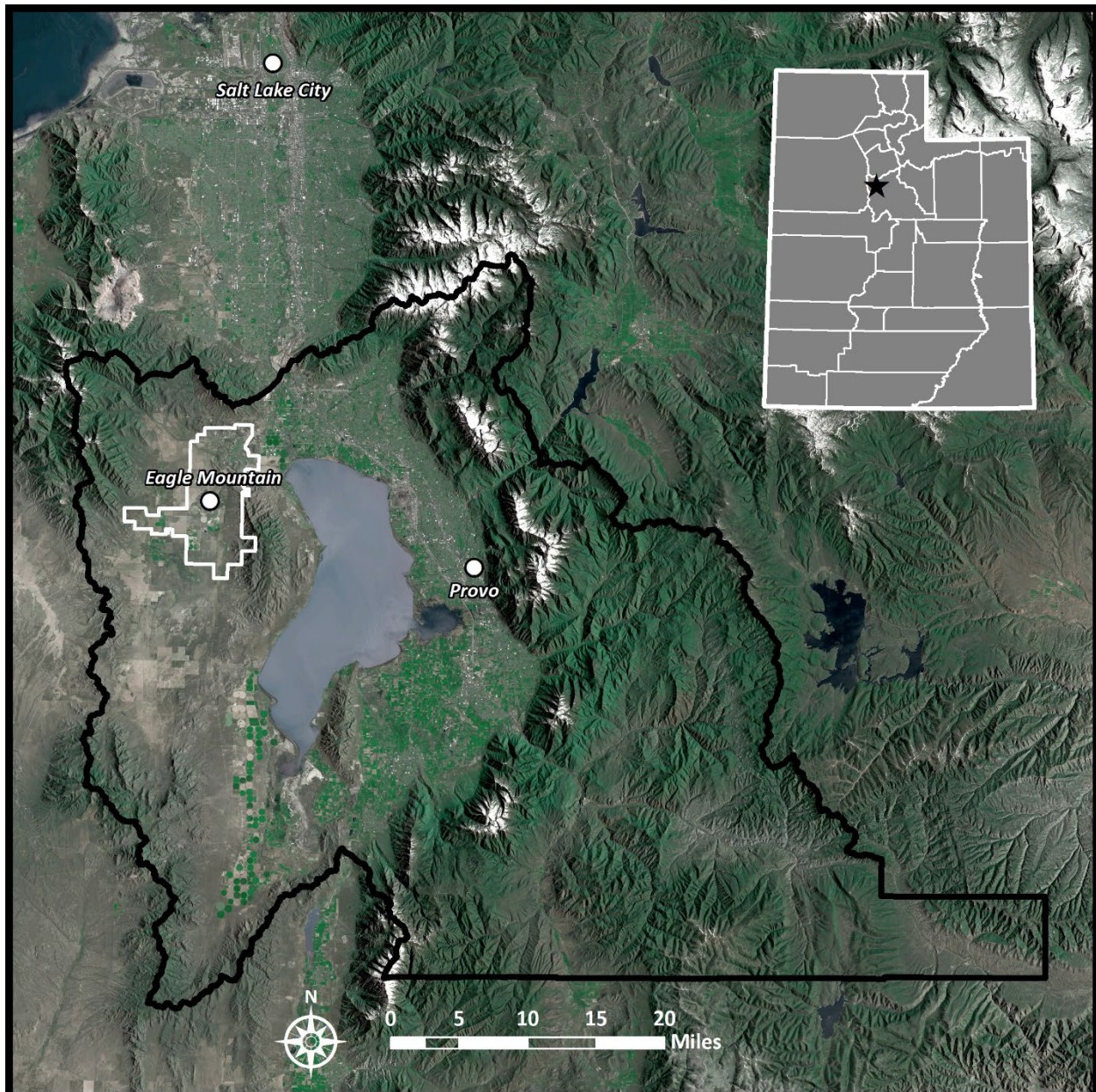


Figure 1. The location of Eagle Mountain City in relation to Utah and Utah County.

Even though Eagle Mountain was established in 1996, it has continually been recognized as a rapidly growing community in Utah. Shortly after the town was incorporated, the 2000 Decennial Census indicated that both Eagle Mountain City and the adjacent city of Saratoga Springs were among the fastest-growing communities in Utah. By 2020, the Decennial Census revealed that the population of Eagle Mountain City had grown to over 43,000 residents (Figure 2). Between 2010 and 2020, there was a 103.7 percent increase in population, which made Eagle Mountain City the fifth most rapidly growing municipality in Utah ([Utah Department of Workforce Services, 2021](#)).

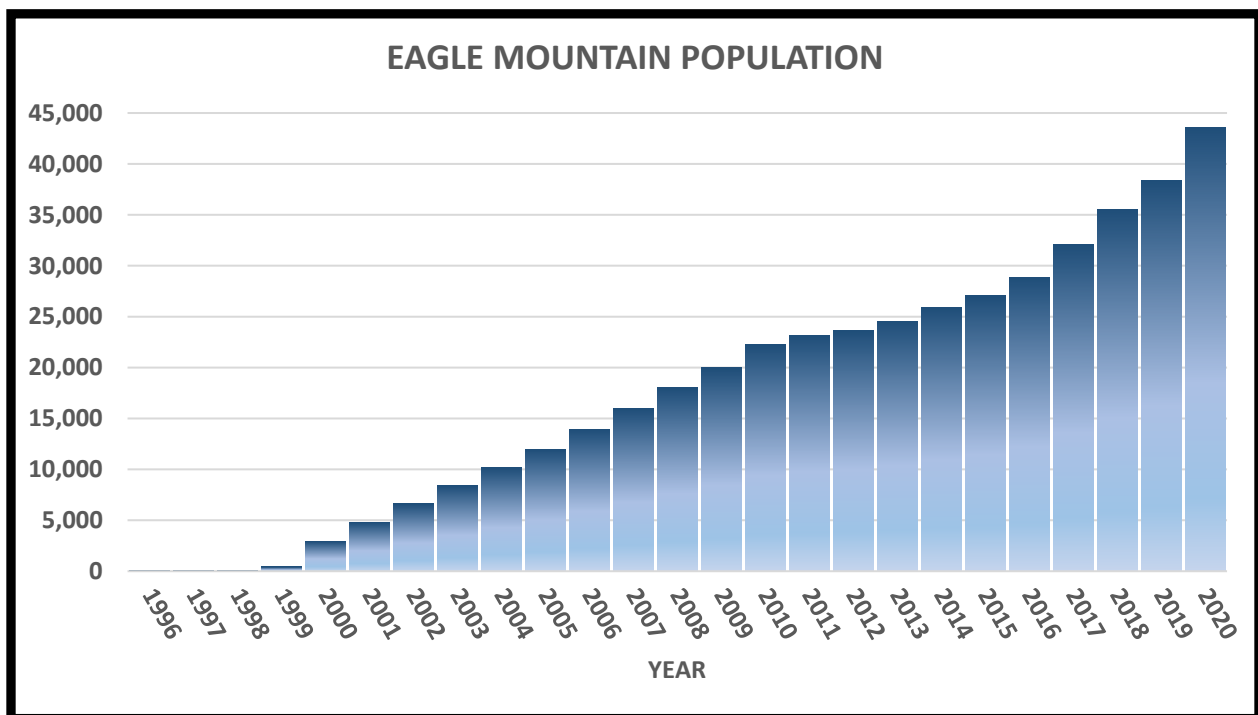


Figure 2. Population of Eagle Mountain City from 1996 to 2000. Data sources: United States Census Bureau [City and Town Population Totals: 2010-2019](#); [City and Town Intercensal Datasets: 2000-2010](#); and [City and Town Postcensal Tables: 1990-2000](#).

The Eagle Mountain City Public Utilities Department has more than 12,000 utility connections in its system and services more than 40,000 people (Figure 3). The city relies on a series of groundwater sources for municipal water use, including four deep wells (Well #1 Walden Well, Well #2, Well #3 Pony Express, and Well #5), and water purchased through the Central Utah Water Conservancy District (CUWCD). The wells have the potential to produce 10,867 acre-feet of water per year, but this annual value is likely unsustainable. The CUWCD estimates a total delivery of 14,300 acre-feet per year by 2044. Eagle Mountain City does not have any local surface water capture or storage infrastructure. More than 75 percent of this municipal water is consumed by residential users, and 90 percent of this residential water use is applied to urban landscapes (E. Berrett, Personal Communication, 2021).

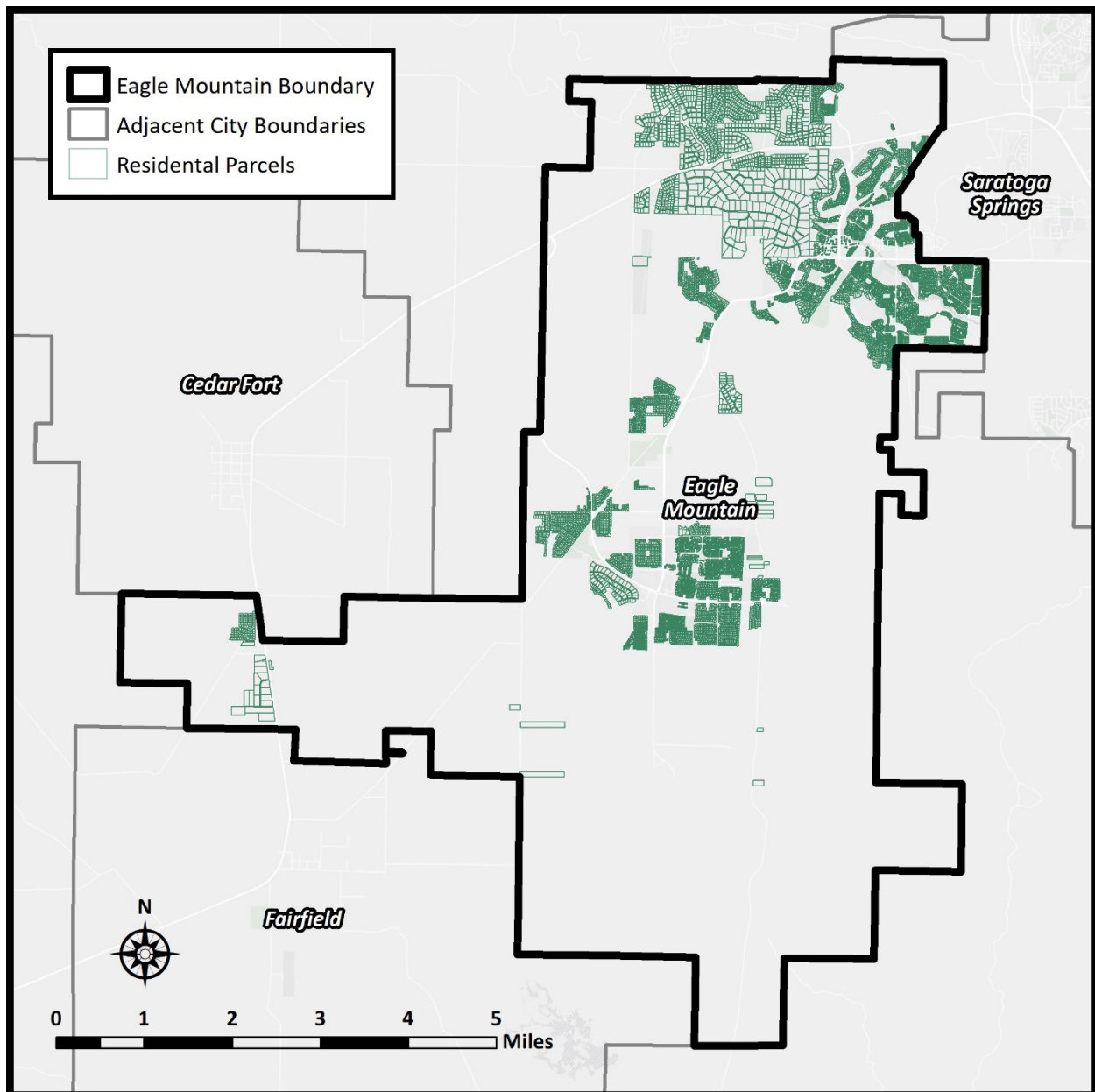


Figure 3. Cities adjacent to and residential parcels within Eagle Mountain City.

WATERMAPS™ METHODOLOGIES

This section describes the methodologies of WaterMAPS™, land cover mapping, and data preparation.

Overview of WaterMAPS™

WaterMAPS™ is a custom water demand management software tool developed by an inter-disciplinary team of researchers at Utah State University (USU) for the purpose of promoting urban landscape water conservation (<https://watermaps.usu.edu/>). Project-based and legislative funding through the USU Extension Water Initiative have supported its development and application. The tool identifies urban properties with irrigated landscapes that have the greatest “capacity to conserve” water so that conservation programs and information can be directed and tailored to water users at those locations. It also helps water suppliers assess the effectiveness of conservation program delivery by monitoring parcel-specific and service-area-wide changes in landscape water use efficiency over time.

Background. The WaterMAPS™ team has provided technical assistance to water suppliers in support of urban water demand management, conservation programming, and water planning and policy decisions. WaterMAPS™ was developed as an analytic and public information tool to help property managers, municipalities, water districts, and managers of pressurized secondary irrigation systems better understand patterns of landscape water use (Endter-Wada *et al.*, 2008; Kilgren *et al.*, 2010; Farag *et al.*, 2011; Endter-Wada *et al.*, 2013; Glenn *et al.*, 2015). Water applied to landscapes constitutes approximately 65 to 75 percent of urban water demand in the western United States. Urban landscapes contribute to the health of urban environments and their residents, yet they are often watered in excess of the actual water needs of the vegetation. Increasing landscape water use efficiency offers one of the greatest opportunities for reducing urban water demand in order to manage scarce water supplies in the context of aridity, drought, and climate variability. WaterMAPS™ is a tool to help manage this demand without compromising the various health, aesthetic, and functional contributions that landscapes make to the quality of life in urban areas.

Approach. WaterMAPS™ promotes water use efficiency on existing urban landscapes. The approach accounts for the high degree of variability in urban parcels and the landscaping choices of residents. Landscape water need is calculated for each residential parcel using high-resolution land cover data and local weather data. Landscape water need is compared to the amount of metered water used for landscape irrigation in order to assess appropriateness of watering practices (Farag *et al.*, 2011). WaterMAPS™ enables these assessments to be conducted for an entire city or water service area, produces landscape water use information for delivery to water users (Endter-Wada *et al.*, 2013), and directs conservation programs to locations where most needed (Glenn *et al.*, 2015).

WaterMAPS™ is an assessment, informational, and monitoring approach that recognizes people are generally willing to conserve water and are motivated to do so for a variety of reasons. “Innocent overwatering” most often occurs when people do not know how much water their landscape actually needs in the context of weather variability or when they face site-specific constraints to efficiency that are hard to overcome. Conserving water applied to landscapes is more difficult than conserving water used indoors because it involves the interaction of soils, plants, irrigation systems and human behavior in a natural environment. Landscape water conservation is a process involving actions of change,

monitoring, adjustment, and reinforcement over time. WaterMAPS™ was designed to provide actionable information to water managers and users to motivate and support people in their urban water conservation efforts. It is part of the research and Extension efforts of USU's Center for Water Efficient Landscaping (CWEL) and can be used in connection with the Water Check Program which provides residents and businesses with site-specific irrigation evaluations and landscape water conservation advice.

WaterMAPS™ Processes and Methods

WaterMAPS™ integrates water meter data with property records, weather data, and land cover into one database, then calculates and geographically displays Landscape Irrigation Ratios (LIRs) (Figure 4). Options embedded in its analytic framework allow the software user to make various assumptions and set different parameters to calculate LIRs, such as: including parking strips outside property boundaries as part of that property's irrigated landscaped area; designating the factors used to adjust reference evapotranspiration (ET_0) by the water needs of different areas of plant material (ANCI/ASABE, 2015; Kjelgren *et al.*, 2016); and, using different time frames (e.g., a billing period or an irrigation season) for the analysis.



Figure 4. Data integration for calculating Landscape Irrigation Ratios (LIRs).

LIRs are the ratio of the estimated amount of water used on a particular landscape to the estimated amount of water the landscape needs to be healthy. These values indicate which landscapes are being overwatered and therefore identify where the greatest “capacity to conserve” water applied to urban landscapes exists. LIRs enable parcels to be compared to one another on a standardized measure of efficiency (Figure 5). LIRs for a parcel can be categorized and labeled (e.g., efficient, acceptable, inefficient, or excessive) to provide an indication of the appropriateness of landscape water use to meet landscape water need. Finer scale categories can be created depending on analytic and management needs. These categories are color coded for easier mapping visualization.

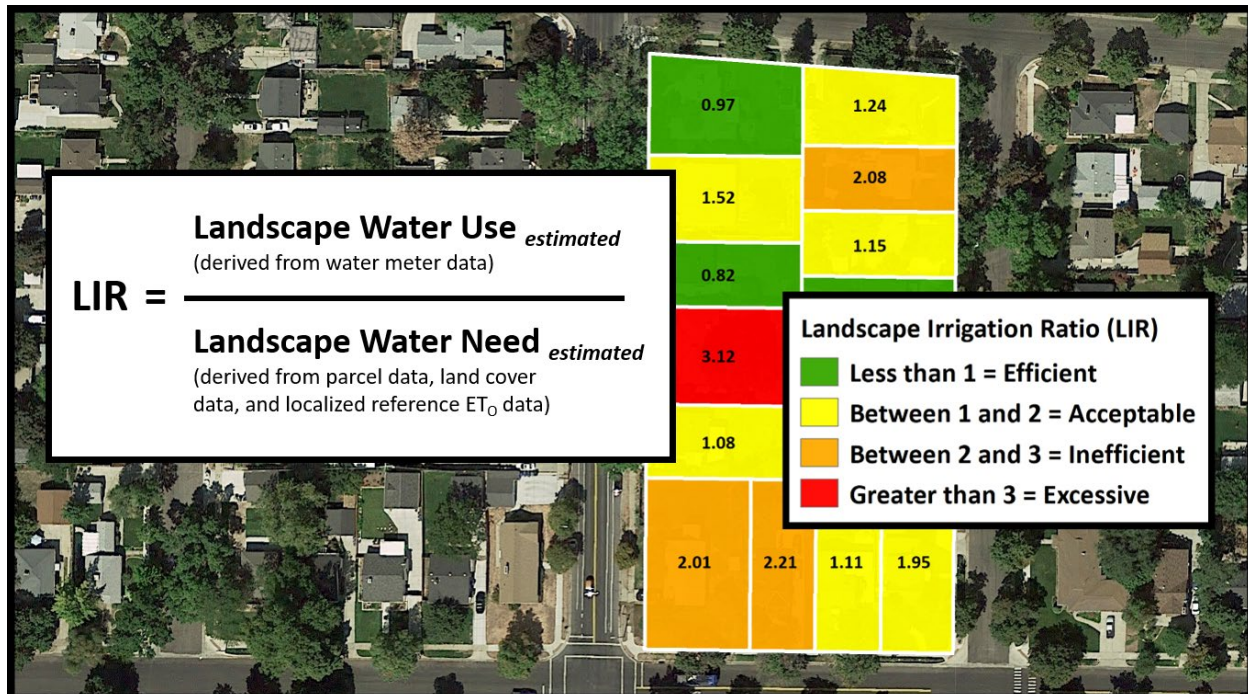


Figure 5. Using Landscape Irrigation Ratios (LIRs) to identify the capacity to conserve.

Landscape water use is estimated by subtracting estimated indoor water use from meter or billing data. Daily indoor water use is estimated by dividing the total water used during parts of the year when it is assumed outdoor water use does not occur (e.g., December through February in places where it snows) by the number of days in the corresponding time period. Indoor water use for an analysis time period when irrigation occurs (e.g., month of June) is then estimated by multiplying this daily indoor use estimate by the number of days in the analysis time period.

Of the classified land cover types, the LIR analyses use the turfgrass, trees/shrubs, and irrigated sparse vegetation classes. Each of these land cover types are assigned a plant factor value that indicates the proportion of localized ET₀ that is actually needed by that land cover type (Table 1). The water need for each land cover type is estimated by multiplying the measured ET₀ for the time period of interest by the plant factor (Kjalgren *et al.*, 2016), and then further multiplying by the square footage area of the land cover type. These calculations provide the inches of water required, which is then converted to gallons by multiplying by 0.62338 (Equation 1). The water need for all irrigated land cover types is then summed in order to obtain the total landscape water need for each parcel.

Table 1. Plant factor values associated with the irrigated land cover types within residential parcels.

LAND COVER TYPE	PLANT FACTOR
Turfgrass	0.8
Trees/Shrubs	0.6
Irrigated Sparse Vegetation	0.5

$$\text{Water Need} = ET_o \times \text{Plant Factor} \times \text{Area} \times 0.62338$$

Equation 1. Equation used to calculate the total water required per land cover type, where Water Need is in gallons per land cover type, ET_o = reference evapotranspiration, Plant Factor = plant factor value for land cover type, Area = area of land cover in square feet, and 0.62338 = multiplying factor to convert to gallons.

WaterMAPS™ Data Sources

The data used to perform WaterMAPS™ analyses come from various sources.

Landscape Water Use. Water meter data are used to calculate estimates of landscape water use. The source and detail of those data vary. Most urban properties use metered water supplied by municipal water utility systems. When WaterMAPS™ is applied to a utility service area, the meter data are supplied by the utility. Data cleaning focuses on looking for common errors (e.g., duplicate records), situations that complicate analyses (e.g., meters that service multiple parcels or multiple meters with different billing periods on the same parcel), and on geographically linking to urban parcels. Some urban properties use water supplied by pressurized secondary irrigation systems and oftentimes this water is not metered. The accuracy of the LIRs depends upon determining the sources and amounts of water applied to the landscape. It should be noted that water utilities may not have access to water use data provided by secondary water providers.

Landscape Water Need. Three data sources are required to calculate an estimate of landscape water need: parcel data, land cover data, and weather data.

Parcel Data. Parcel data are used to determine the location and amount of land contained within the boundaries of a particular property. Parcel data can be obtained from publicly available county databases or from a municipal GIS department or utility that has often cleaned and corrected it. Property boundaries exclude nearby parking strips and other rights-of-way that the property resident nevertheless maintains. A non-overlapping buffering routine was developed and incorporated into WaterMAPS™ analyses to expand the parcels by up to 10 meters in areas not included in a parcel. These buffers allow for the addition of tree canopies overlying streets or turf parking strips in the total irrigation area calculation.

Land Cover Data. Land cover data are used to determine residential land cover types so water needs can be accounted for when calculating the LIR. The WaterMAPS™ team generates the land cover data from publicly available digital aerial imagery. The process of land cover mapping is described in detail below.

Weather Data. Weather data are used to determine the estimated amount of water that different types of landscape plants need (for instance, grass/turf versus trees/shrubs). The standard application of WaterMAPS™ uses reference evapotranspiration for the local area with correction factors for the types of landscape material identified in classification. Evapotranspiration is the evaporative process by which moisture is transferred from the land to the atmosphere. Evapotranspiration can be measured as reference, potential, or actual evapotranspiration. Reference evapotranspiration, denoted as ET_0 , is the quantified estimate of environmental evaporative demand. The reference evapotranspiration is calculated from a reference surface, which is an assumed hypothetical grass crop with a uniform height, surface resistance, and albedo.

The basic WaterMAPS™ application assumes that the water needs of plants are supplied from irrigation. Rainfall and soil moisture retention are not subtracted from the amount of water urban landscape plants need, making the LIR calculations more generous from the water user point of view (so, for example, the behavior of turning sprinklers off during rain will lower the LIR). However, the WaterMAPS™ software is designed to incorporate these weather-related factors when appropriate and consistent weather data are available. Obtaining reliable weather data from well maintained and calibrated weather stations located near a particular property location increases accuracy of its LIR.

Eagle Mountain City experiences distinct weather variation between the north service area (NSA), the south service area (SSA), and west service area (WSA) (Figure 10 below). At the time Phase I of this project was initiated, the closest weather station to the southern part of Eagle Mountain City was the Fairfield Station and the closest weather station to the northern part of Eagle Mountain City was the Utah Lake Lehi station (Table 2 and Figure 6). Weather data from these stations were used in WaterMAPS™ analyses for 2014-2017.

The USU CWEL and the Utah Climate Center collaborated to install two new weather stations in Eagle Mountain City during the spring of 2018. The sites were chosen in order to provide reliable weather data for different parts of the city. The station at Nolen Park (EMCNolan; it should be noted that the official name of the station is spelled differently than the park) provides data for north service area and the one at Pony Express Memorial Park (EMCPonyEx) provides data for south and west service areas (Table 2 and Figure 6). ET_0 data calculated using the Penman-Monteith equation were downloaded from the [Utah Climate Center](#) for each station.

Table 2. Weather stations that provided ET_0 for analysis. GHCN is the Global Historical Climatology Network. AGWX is Utah AgWeather. It should be noted that the spelling of the EMCNolan Station is slightly different than the spelling of Nolen Park.

STATION	NETWORK	LATITUDE	LONGITUDE	ELEVATION (FT)	AREA SERVED	YEARS
FAIRFIELD	GHCN	40.2622°	-112.0897°	4880	SSA, WSA	2014-2017
UTAH LAKE LEHI	GHCN	40.3603°	-111.8972°	4505	NSA	2014-2017
EMCPonyEx	AGWX	40.312977°	-112.031265°	4886	SSA, WSA	2018-2021
EMCNolan	AGWX	40.359806°	-111.97774°	4857	NSA	2018-2021

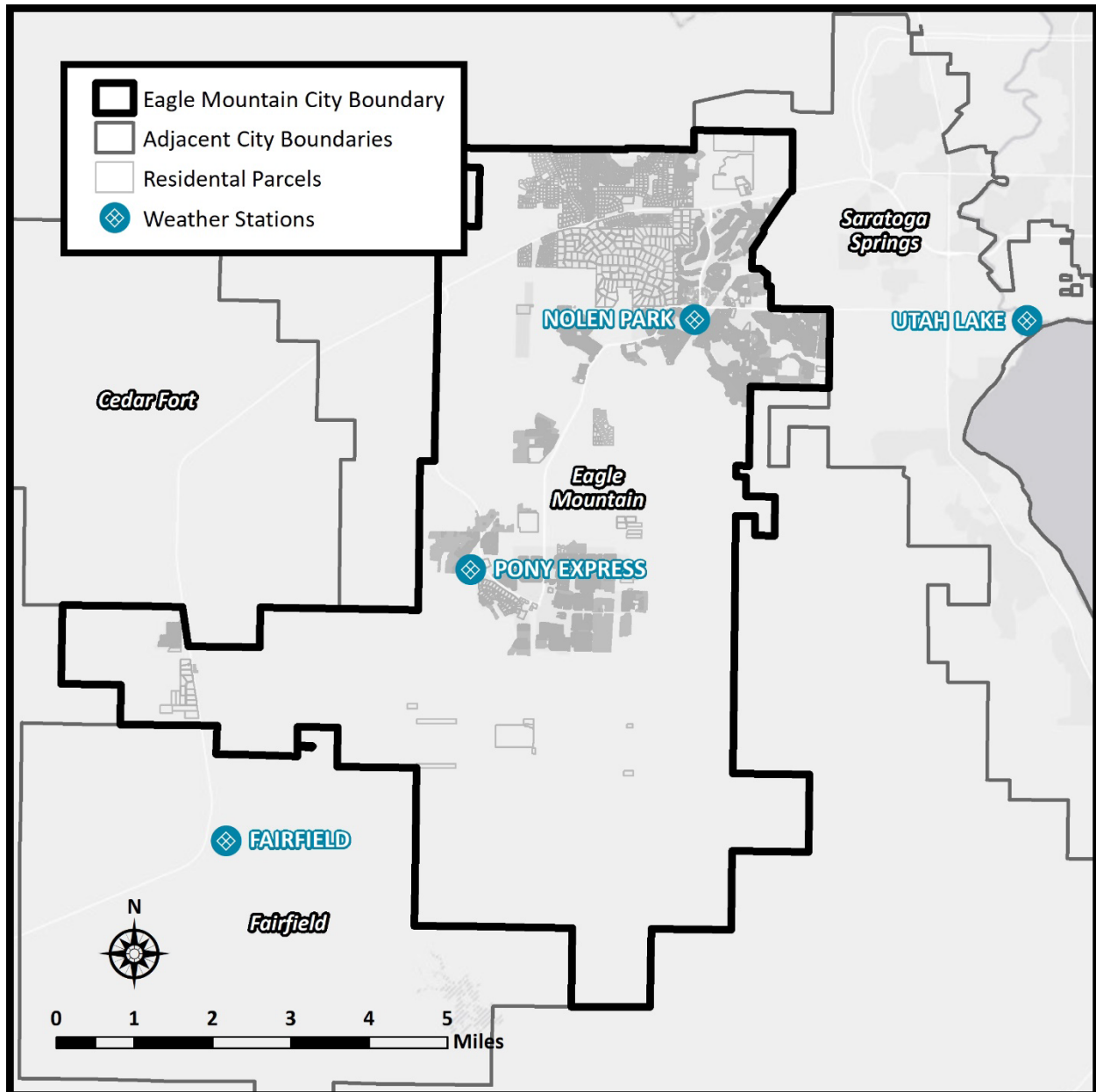


Figure 6. Weather stations used in the WaterMAPS™ analyses. The Fairfield (Fairfield GHCN) and Utah Lake (Utah Lake Lehi) weather stations were used to analyze data from 2014 through 2017. The new weather stations at Nolen Park (EMCNolan) and Pony Express Memorial Park (EMCPonyEx) were used to analyze data from 2018 through 2021. Refer to Figures 16 and 18 for more information. It should be noted that the spelling of the EMCNolan Station is slightly different than the spelling of Nolen Park.

Land Cover Mapping

Land cover data are a foundational element of understanding the role that outdoor water use plays in urban water demand. The water needs of residential landscape plants largely drive urban outdoor water demand, especially in arid regions of the country and in metropolitan areas. Managed urban landscapes throughout the nation are generally composed of non-native plants. A prominent feature of residential landscapes in the United States is turfgrass lawn.

Land cover classifications have become immensely important in characterizing the form and composition of urban landscapes. Advances in digital remote sensing science and technology, as well as increasing spatial resolutions of digital aerial imagery, have enabled urban landscape structure and composition to be determined at the parcel level.

Digital Aerial Imagery. Four-band [National Agriculture Imagery Program \(NAIP\)](#) aerial imagery that was acquired in 2018 was used to derive the land cover data for the Eagle Mountain City WaterMAPS™ analysis (Figure 7). The aerial imagery tiles were downloaded from the [Utah Geospatial Resource Center \(UGRC\)](#) and processed in ESRI ArcMap 10.8. NAIP aerial imagery is acquired during the agricultural growing season under the direction of the United States Department of Agriculture (USDA) Farm Service Agency. The 2018 NAIP imagery has a spatial resolution of 60 centimeters (≈24 inches). The spectral resolution of NAIP aerial imagery is natural color, meaning there are red (R), green (G), and blue (B) bands. Also, a near infrared (NIR) band was acquired. The addition of a NIR band makes NAIP aerial imagery a four-band multispectral product that provides for greater visual interpretation and digital analysis.

Ancillary Data. Additional datasets were utilized to improve the accuracy of the land cover classification, including light detection and ranging (LiDAR) data and Water Related Land Use (WRLU) data.

LiDAR is an optical remote sensing technique that uses laser light to densely sample the surface of the Earth, producing highly accurate longitude (X), latitude (Y), and height/depth (Z) measurements (Esri, 2019). LiDAR produces point cloud datasets that can then be visualized and analyzed. Bare-earth digital elevation/terrain models (DTM) and first-return digital surface models (DSM) are derived from LiDAR point cloud collections. Bare-earth models filter out the above ground features and depict the bare surface of the earth. First-return models depict the above ground features, such as buildings, manmade structures, and vegetation (UGRC, 2021).

DTM and DSM data, derived from the [2013-2014 Wasatch Front LiDAR data](#) and [2018 Central Utah LiDAR data](#), were downloaded from the UGRC. These data were processed in Esri ArcMap 10.8. After processing these data, the DTM was subtracted from the DSM to generate a relative height model, or normalized digital surface model (nDSM). An nDSM depicts the height of features relative to the ground and ranges from no difference, or zero, to the highest difference between the two models (Figure 8). An nDSM is an invaluable data product that supports the differentiation of ground features, such as grass, sidewalks, and roads, from above-ground features, such as buildings and tree canopies.

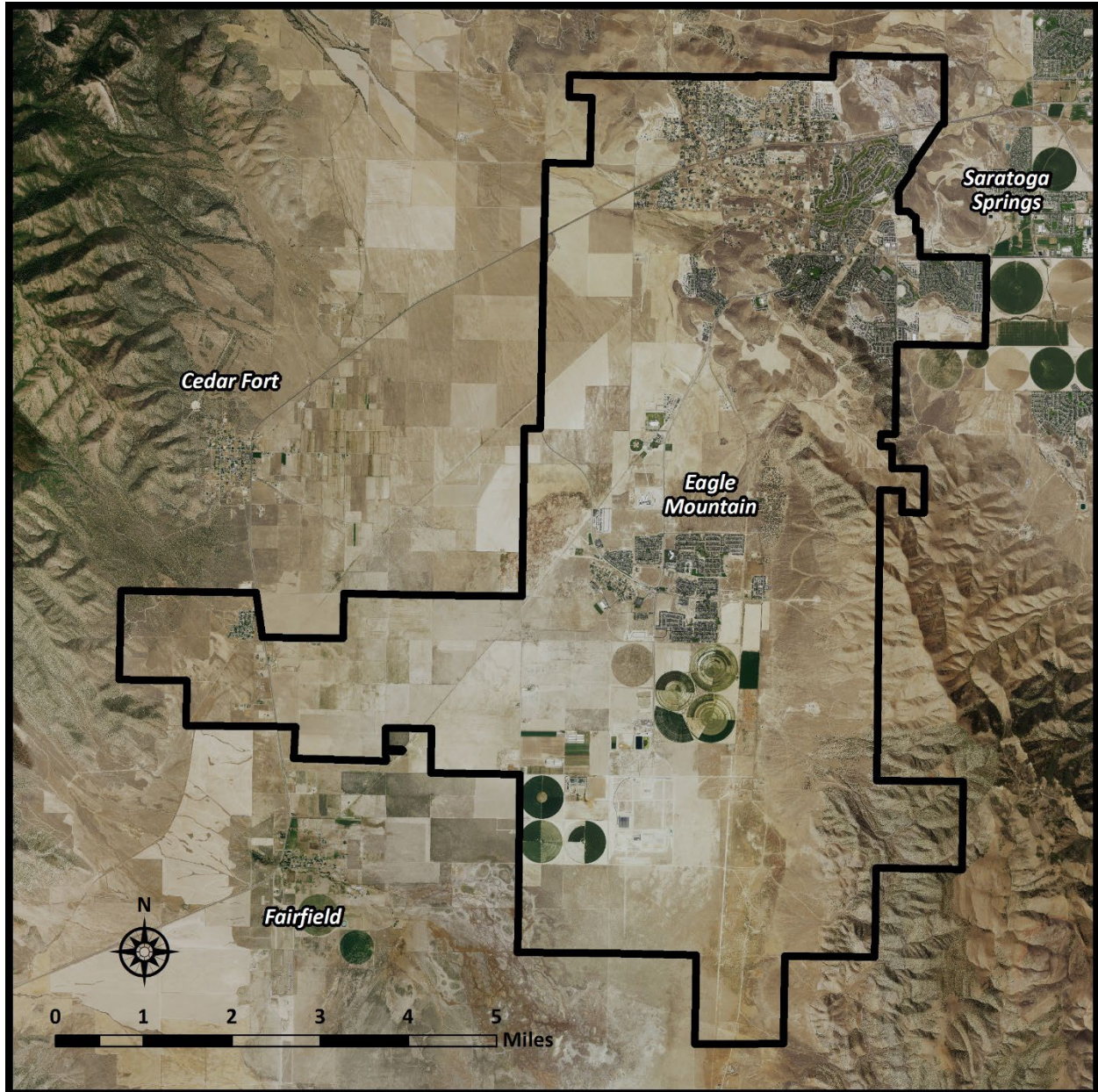


Figure 7. 2018 NAIP aerial imagery for Eagle Mountain City.

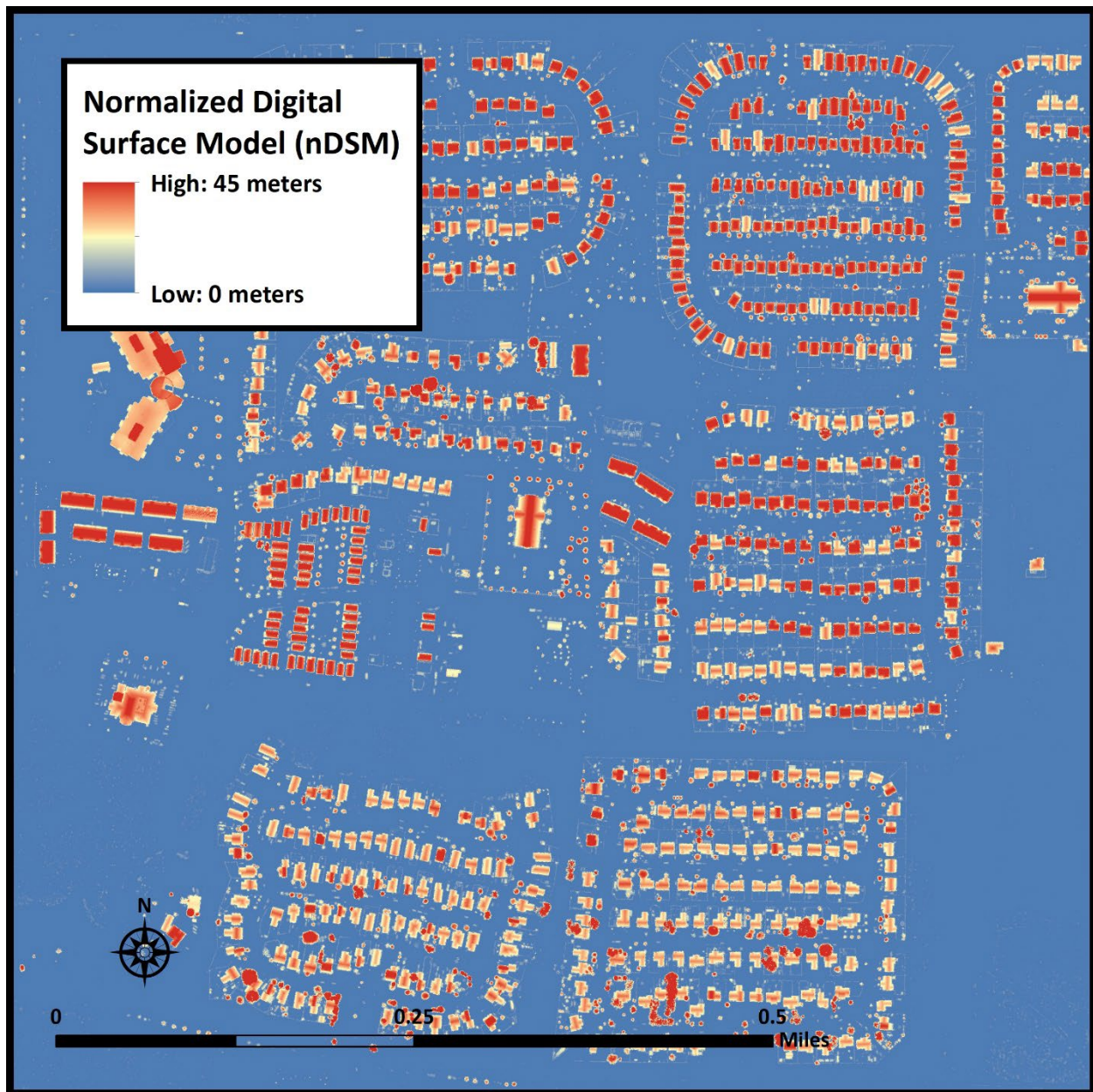


Figure 8. Normalized digital surface model (nDSM) for an area within Eagle Mountain City.

[WRLU data](#) are published annually by the [Utah Division of Water Resources](#) to assist in the development and maintenance of the [State Water Plan](#). This dataset includes the types and extents of irrigated crops, dry land agriculture, wet and open areas, and urban areas (Figure 9). The WRLU data was selected as an ancillary dataset because it can assist in differentiating general areas of land use types and it can assist in reducing classification error. The general areas or polygons within the dataset can be used to create a series of nested classification areas. For instance, the urban polygons are most likely encompassing areas of urban development. Therefore, classification rules for those areas can strictly focus on urban land cover types.

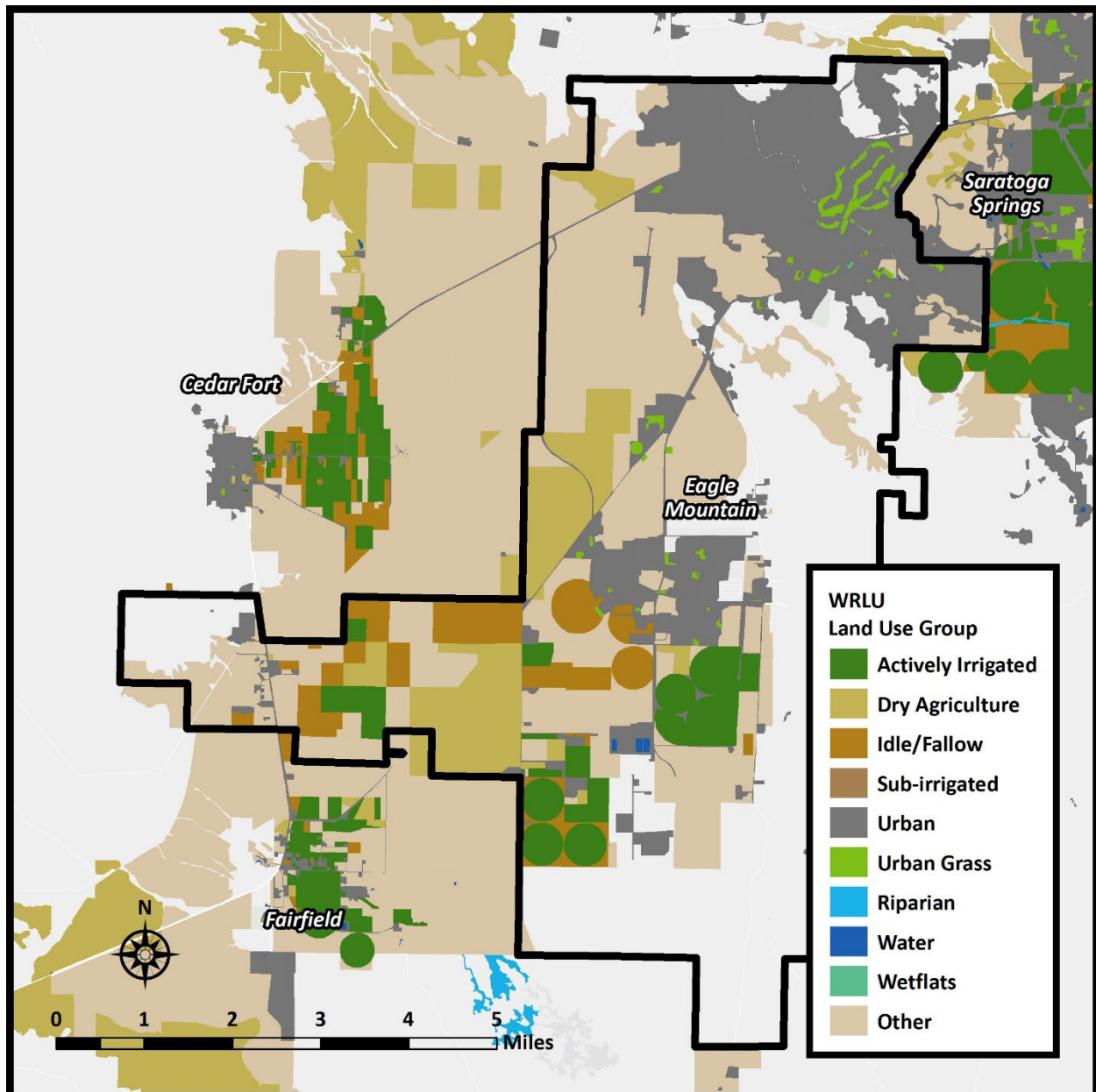


Figure 9. Water Related Land Use (WRLU) data for Eagle Mountain City and adjacent areas.

Areas of Analysis. Since there are large tracts of land in Eagle Mountain City that are not developed, three urban areas were identified and delineated for the purpose of generating the land cover data. These three urban areas encompass the residential parcels within the city boundary that have corresponding water meter data for the year of 2018. These areas include the north service area (NSA), the south service area (SSA), and the west service area (WSA) (Figure 10). It should be noted that the north service area was extended beyond the municipal boundary to ensure that residential parcels near the edges had complete coverage of land cover data.

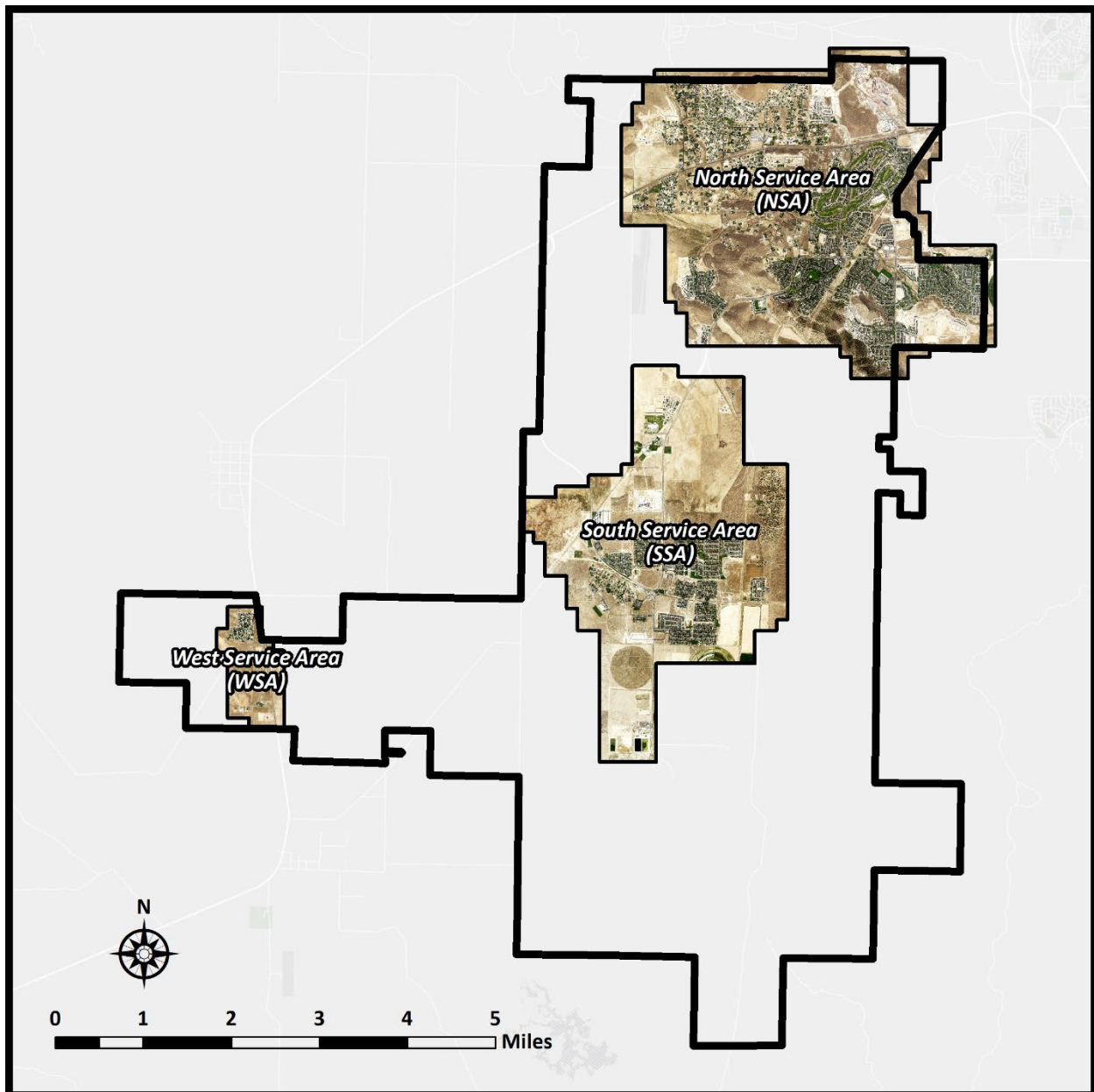


Figure 10. Areas of analysis for land cover data development in Eagle Mountain City.

Image Classification. For each of the three urban areas within Eagle Mountain City, the 2018 digital NAIP aerial imagery was classified into discrete land cover classes using a software package called [Trimble eCognition](#). Trimble eCognition is an object-based image analysis program that enables high-resolution digital aerial imagery to be interpreted and classified. In object-based image analysis programs, such as eCognition, a process called segmentation is used to group spectrally similar pixels of an image into image objects (Figure 11). Segmentation is an efficient means of partitioning digital aerial imagery into meaningful objects and it is very useful for aggregating the high levels of detail contained with high-resolution imagery, such as NAIP aerial imagery (Lang, 2008).



Figure 11. An example of segmentation in Trimble eCognition for a neighborhood within the south service area, showing image objects derived from the 2018 NAIP aerial imagery.

Once the digital images were segmented into meaningful image objects, a set of knowledge-based classification rules were developed in order to assign each segment to a discrete land cover class. Specifically, rules about object properties, such as segment geometry, tone, texture, and contextual associations, are applied to classify the segments of the image (Addink *et al.*, 2012). Segment geometry is a combination of shape and size; tone indicates the spectral properties of an individual band; texture refers to the frequencies of change in tones and their resulting spatial arrangements; and contextual associations refer to relationships with neighboring image objects (Blaschke *et al.*, 2014; Weng, 2012).

Land Cover Classes. The image objects, or segments, were assigned to one of 12 classes using a variety of spectral-, spatial-, and context-based rules (Figure 12). The 12 classes include Agriculture - Dry Land/Fallow, Agriculture - Irrigated, Barren/Bedrock, Developed/Impervious, Grass/Turf, Riparian/Wetland, Semidesert Shrub/Grassland, Semidesert Woodland/Forest, Sparse Vegetation - Irrigated, Sparse Vegetation - Not Irrigated, Trees/Shrubs, and Water (Table 3).

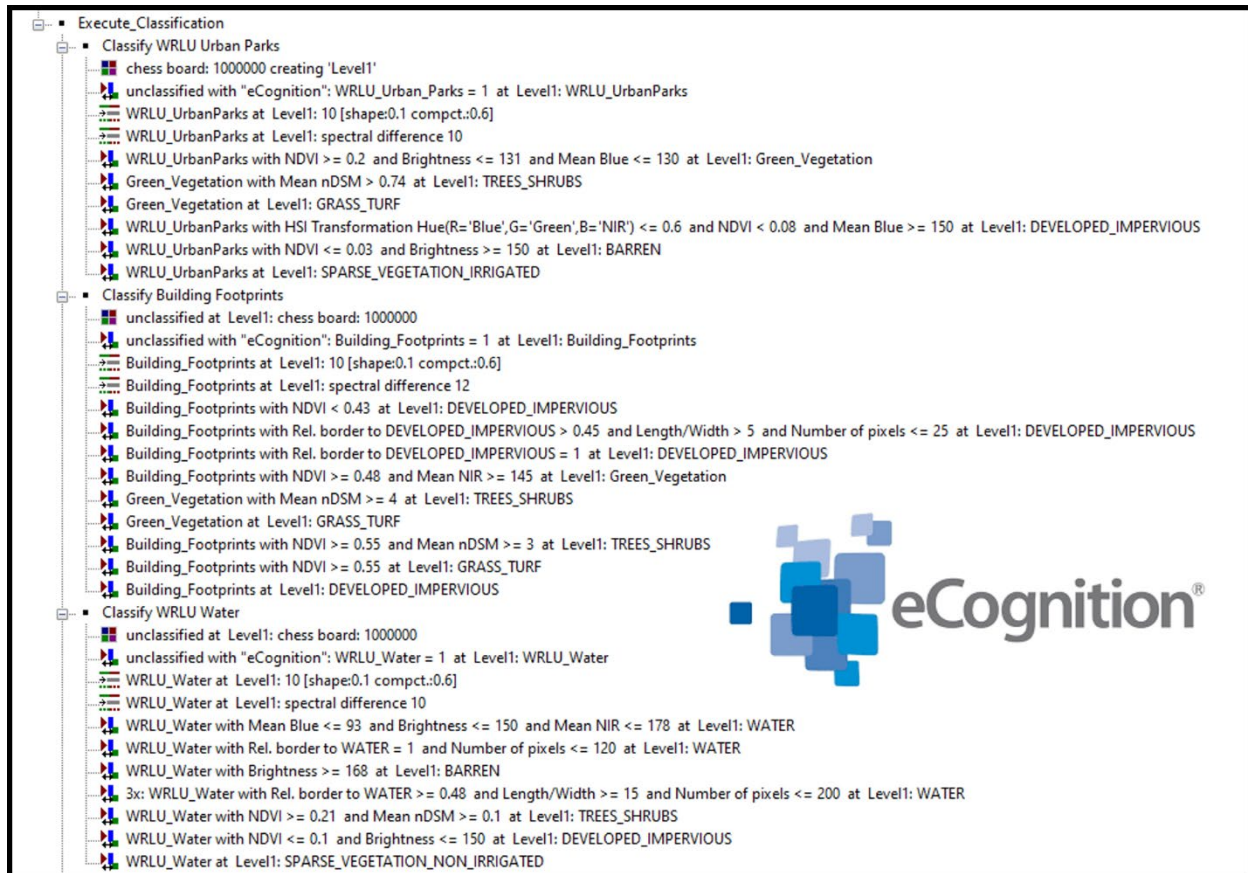


Figure 12. An excerpt of a rule set in Trimble eCognition that was developed to classify the south service area within Eagle Mountain City.

Table 3. Land cover classes and class definitions for Eagle Mountain City.

CLASS	DEFINITION
Agriculture – Dry Land/ Fallow	Areas of land that are characterized by non-irrigated agriculture or areas of lands that are presently not being irrigated for agriculture (i.e., fallow fields).
Agriculture – Irrigated	Areas of land that are characterized by irrigated agriculture (i.e., crops).
Barren/Bedrock	Areas that are devoid of vegetation, such as dirt roads, gravel areas, and parcels that have been slated for development. This class also includes small residential features and hardscapes, such as stone/gravel walkways and retaining walls, as well as recreational features, such as baseball diamonds and sand traps.
Developed/Impervious	Areas characterized by constructed materials, such as buildings/houses, roads, driveways, and sidewalks.
Grass/Turf	Areas that have been planted with grass and turf, such as residential/commercial/institutional lawns, parks/fields, cemeteries, and golf courses.
Riparian/Wetland	Areas where the predominant land cover is characterized by woody and/or herbaceous riparian and wetland vegetation.
Semidesert Shrub/Grassland	Areas where the predominant land cover is characterized by low stature native shrubs, such as sagebrush and rabbitbrush, and herbaceous vegetation, such as native grasses, cheatgrass, and forbs.
Semidesert Woodland/Forest	Areas that are characterized by taller woody plant and tree species, such as juniper and scrub oak, as well as other deciduous and coniferous species.
Sparse Vegetation – Irrigated	Areas adjacent to or within developed/urban areas where there is minimal and/or senesced vegetation, but it is evident that there has been some irrigation. This class includes senesced turf/grass, vegetable gardens, flower gardens, and xeriscaped yards.
Sparse Vegetation – Not Irrigated	Areas adjacent to or within developed/urban areas where there is minimal and/or senesced vegetation where it is evident that there has not been any irrigation. This class can include areas where the natural or native vegetation adjacent to residential/commercial structures has been plowed, disturbed, or altered, or it may include areas within developed areas where there has been little maintenance.
Trees/Shrubs	Areas characterized by planted trees and/or shrubs.
Water	Areas of water, such as lakes, ponds, or swimming pools.

Manual Editing. While the NAIP aerial imagery, ancillary data, and comprehensive classification rules in Trimble eCognition provide for detailed high-resolution land cover classifications, there are certain limitations that are encountered when classifying an image from four-band imagery, especially when analyzing land cover at a parcel level. First, the spectral resolution (i.e., the four-bands) limits the number and specificity of the classes. Second, the high-resolution imagery, while providing for greater detail, produces land cover classifications of very large file sizes. Also, with an increase in spatial resolution, there is a potential for greater error at finer scales due to spatial autocorrelation (i.e., the degree to which one object or feature is similar to nearby objects). Adjacent objects with a low degree of spatial autocorrelation tend to introduce error, especially when these objects are significantly smaller in size. For example, a narrow sidewalk that is surrounded by a large lush green lawn is less likely to be classified as developed/impervious due to the influence of adjacent pixels or objects with high greenness values. Lastly, atmospheric conditions, the time of day in which the imagery was acquired, and other inherent errors in the data can lead to misclassification issues. In the instance of the 2018 NAIP aerial imagery, the imagery for Eagle Mountain City was acquired during morning and late

afternoon hours, so fairly significant shadows are present. Additionally, there were some calibration issues associated with the near infrared band which affected the correct classification of different land cover types.

As a result of these limitations and errors, the land cover classification either needed to be edited to improve accuracy or an acceptable level of error was permitted. An acceptable level of error is generally balanced with the desired output and the scale of use. Since the scale of use or unit of analysis for WaterMAPS™ is the individual residential parcel, the land cover classification required manual editing to improve the accuracy. Therefore, after each of the three areas were classified into the 12 discrete land cover classes, the results were manually edited using the editing tools within eCognition. In instances where features or objects could not be properly identified and/or edited by evaluating the 2018 NAIP aerial imagery, higher-resolution imagery was referenced in [Nearmap](#). Nearmap access and accounts were provided by Eagle Mountain City for this specific reason. The ultra-high-resolution imagery within the Nearmap MapBrowser became an invaluable resource during the editing process.

Editing efforts were exclusively focused on residential parcels within Eagle Mountain City. However, parking strips and adjacent areas were also edited to account for some of the buffering routines that are conducted during the WaterMAPS™ analysis. While the manual editing process required a significant effort, a higher level of accuracy was achieved in order to produce higher quality WaterMAPS™ results (Figure 13).



Figure 13. Example of how manual editing improves the accuracy of the land cover classification. These edits show a neighborhood in the south service area of Eagle Mountain City.

Final Land Cover Dataset. After the land cover data for each of the three urban areas were classified and edited in Trimble eCognition, the data were then exported and processed in ArcMap 10.8. The data were further reviewed for errors or inconsistencies, and then finalized for use in the WaterMAPS™ database (Figures 14 and 15).

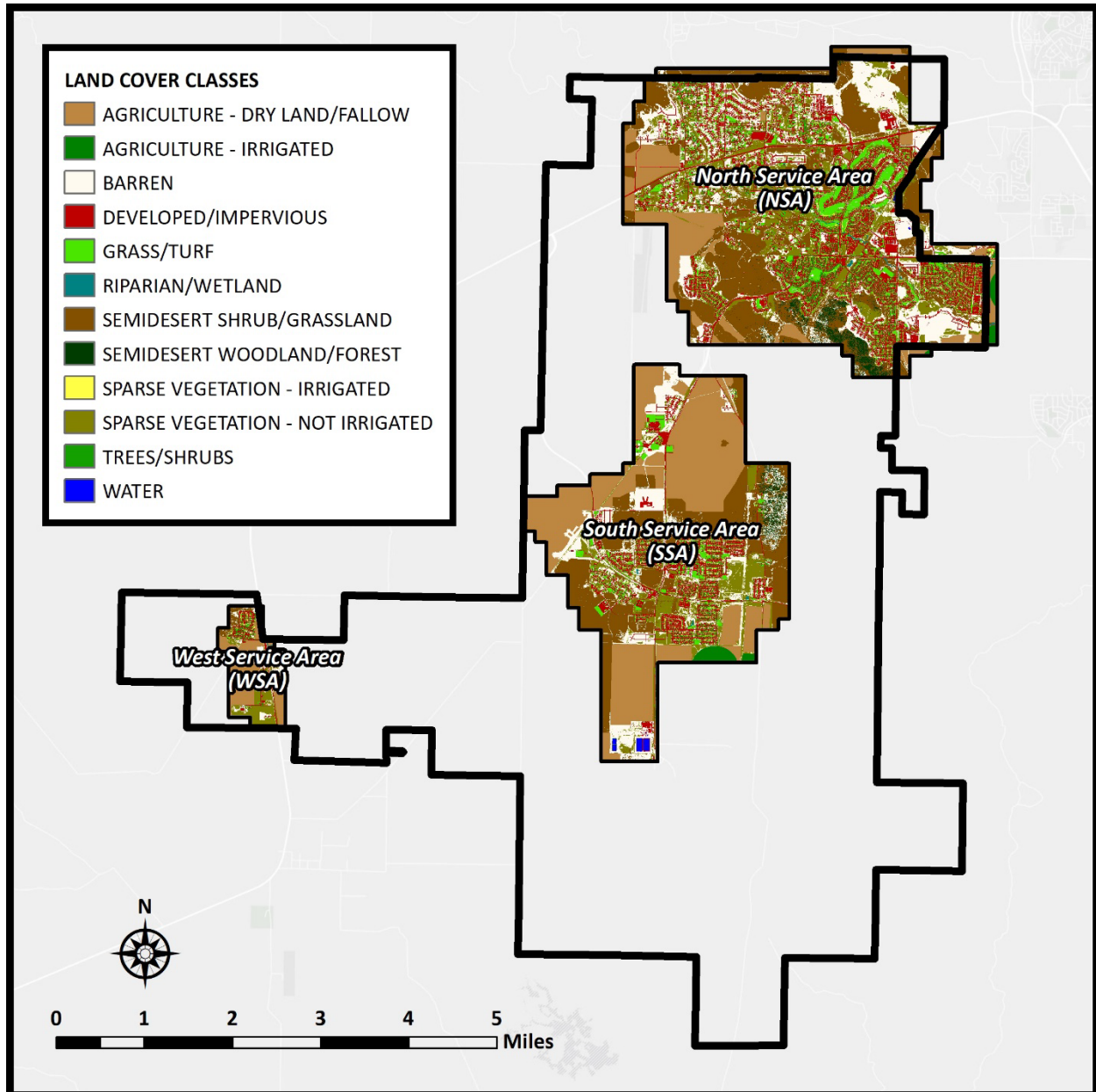


Figure 14. Land cover classification for the three urban areas within Eagle Mountain City.

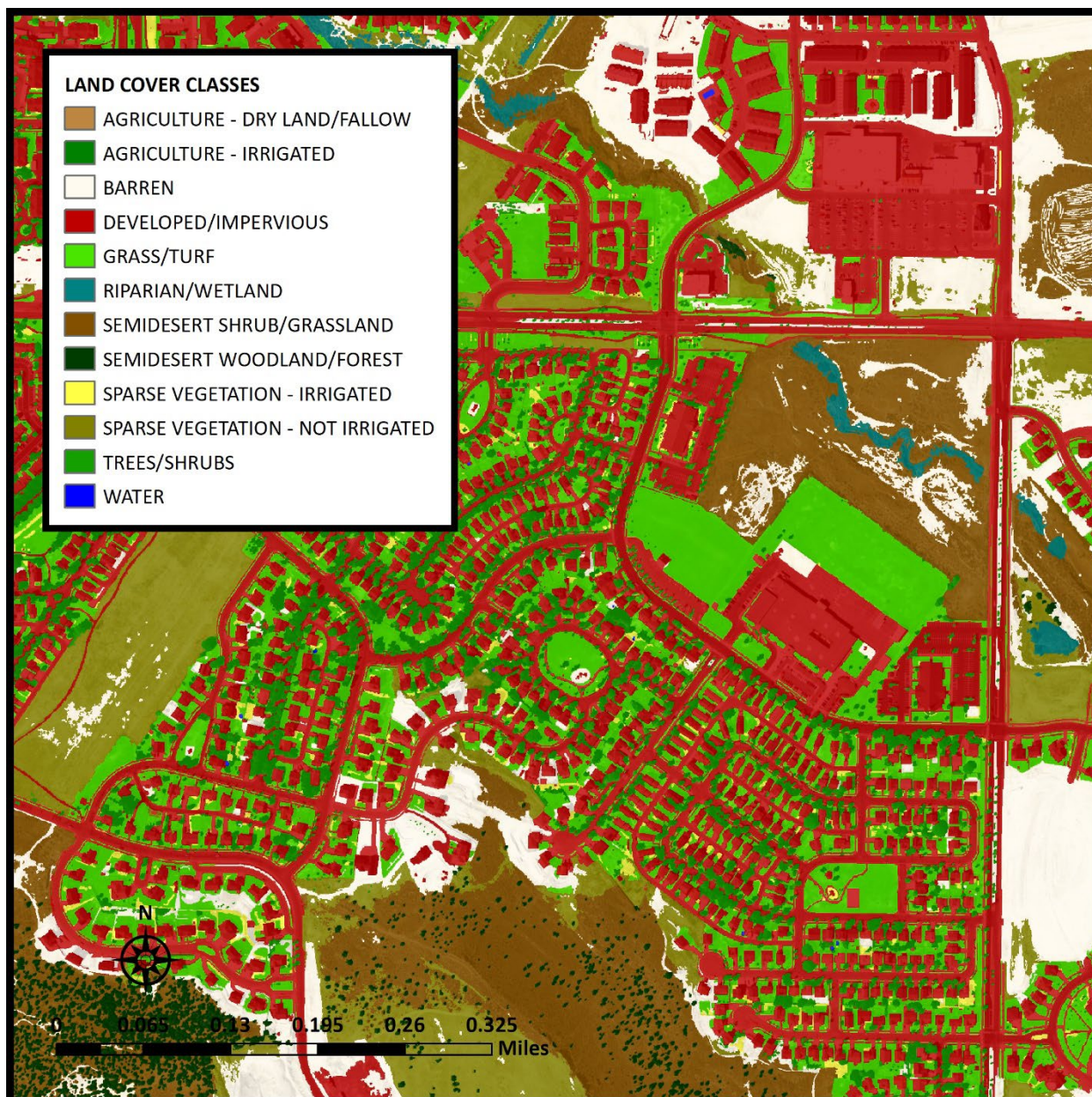


Figure 15. Detailed view of the land cover classification for an area within Eagle Mountain City.

Data Preparation

Parcel Data. A parcel data shapefile was provided by Eagle Mountain City. The parcel data included information such as the parcel/tax identification code, property location, and address. A total of 11,209 residential parcels were matched to water meter data by using the tax identification code and/or address. These parcels are the focus of this WaterMAPS™ analysis.

Since parcel boundaries exclude parking strips, a non-overlapping buffering routine was developed to expand the parcels by up to 10 meters along boundaries that are not bordered by another parcel. These buffers are an integral element of the irrigation calculations since the majority of residents maintain and manage the vegetation on parking strips even though they are predominantly owned by Eagle Mountain City.

Water Meter Data. Eagle Mountain City provided raw residential water meter data for the years of 2013 through mid-2021. The water meter data included the account number, address, parcel/tax identification code, meter identifiers (e.g., serial number), meter reading date, meter reading, billing year and month, and the consumption amount. The water meter data needed to be cleaned in order to be used for a proper WaterMAPS™ analysis. Some of the data cleaning steps and conditions are outlined below:

1. Occasionally, there were negative consumption values in the water meter data because of a malfunctioning meter. Since there is not a definitive way of knowing how much water was actually being used in each billing period up until correction, all meter data that was recorded prior to a negative consumption value were discarded.
2. Some accounts did not have summer month usage data. Other accounts had insufficient winter data to estimate indoor use. These data were also discarded.
3. In some cases, usage data were duplicated, but there were different read dates. Specifically, two records might have the same billing year and month, meter reading, and consumption amount, but the read date was different. If the read dates were in different months, the record where the read date matched the billing month was used. In cases where both read dates were in the same month, the later date was used.
4. In other instances, there were records with zero consumption in the middle of a billing period. This complicated the effort to calculate the number of days within the period. These records were removed after differentiating them from records for an entire billing period that also showed no consumption.
5. A few parcels have multiple meters that are recorded on different dates. This situation makes it difficult to determine just how much water was used on a landscape in a given time period. Because the WaterMAPS™ analysis requires the amount of water used and the total ET_o between two dates, these parcels were not included in the analysis.

After the meter data were cleaned, the average daily use for each account was calculated for the winter months of December through February. This value provides an estimate of average daily indoor water use. During the irrigation season (i.e., April through October), this value was multiplied by the number of days in the billing period and then subtracted from the total consumption. This final value represents the best estimate of outdoor water use for billing periods during the irrigation season.

Weather Data. Daily evapotranspiration data for 2018 through 2021 were downloaded from the Utah Climate Center website. These data are from the newly installed weather stations in Pony Express Memorial Park (EMCPonyEx) and Nolen Park (EMCNolan). These stations did not start recording data until April 25, 2018, but the month of April is included in the WaterMAPS™ analyses. These missing data points were filled in with the mean ET_0 for that station from the same data in 2019 through 2021.

The Fairfield and Utah Lake Lehi weather stations were used for 2014 through 2017 analyses, but the publicly available data for these stations contained errors. Researchers at the Utah Climate Center manually cleaned and filled holes in these datasets (Figure 16). Because these weather data are daily values, it is possible to sum up the total ET_0 for a specific billing period. Rather than using a single monthly ET_0 value to estimate all parcel water needs, this allows for estimates to be matched to exact billing for each parcel.

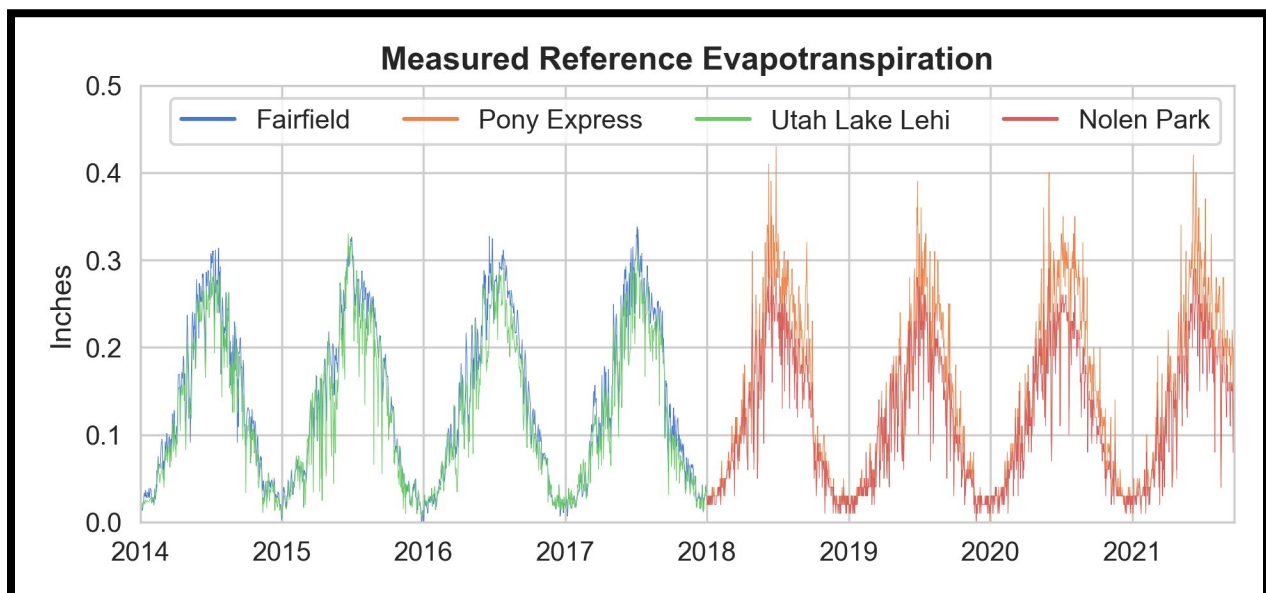


Figure 16. Measured daily ET_0 from the four weather stations used for the analysis. The stations at Nolen Park and Utah Lake Lehi were used for the north service area, and the stations at Pony Express Memorial Park and Fairfield were used for the south and west service areas.

WATERMAPS™ RESULTS

Land Cover Classification

Land cover classifications are an integral element of the WaterMAPS™ analysis. Land cover data provide information regarding the composition, distribution, and area of different residential land cover types at the parcel level. The standard irrigated land cover types for WaterMAPS™ analyses are trees/shrubs, grass/turf, and irrigated sparse vegetation. These land cover types have corresponding plant factor values that can be used to calculate the overall outdoor residential water need for each parcel.

Land cover data were developed and edited for more than 13,000 residential parcels within Eagle Mountain City. For residential parcels within the three urban areas, the average residential parcel size is 0.29 acres. However, within and between the three urban areas, there are some notable differences. For example, the Cedar Pass Ranch subdivision has an average lot size of 5.40 acres, whereas the Silver Lake subdivision has an average lot size of 0.12 acres. These differences suggest that there could be significant variations in land cover composition and outdoor water consumption among different subdivisions. Table 4 shows the average land cover composition of a select number of subdivisions in Eagle Mountain City. The calculations indicate that certain subdivisions, such as Showdown and Silver Lake, have a greater percentage of grass/turf. Other subdivisions, such as White Hills and Rush Valley, have a higher percentage of trees/shrubs when compared to other areas.

In general, residential parcels in Eagle Mountain City are composed of six principal land cover types, including developed/impervious, trees/shrubs, grass/turf, irrigated and non-irrigated sparse vegetation, and barren/bedrock. While less frequent, some residential parcels have water features. Also, in many of the larger lots in Eagle Mountains City, such as those in the Cedar Pass Ranch subdivision, there are some remnant areas of native vegetation, including semidesert shrub/grassland and semidesert woodland/forest. While there are a number of land cover types that characterize residential parcels in Eagle Mountain City, it should be reiterated that the WaterMAPS™ analyses account for the three primary irrigated land cover types, which are trees/shrubs, grass/turf, and irrigated sparse vegetation.

Table 4. Average land cover composition for a select number of subdivisions in Eagle Mountain City. Calculations are based on parcels that were developed and landscaped in 2018. Land cover classes are numerically coded.

SUBDIVISION NAME	AVERAGE LOT SIZE (ACRES)	AVERAGE LAND COVER COMPOSITION (%)											
		1	2	3	4	5	6	7	8	9	10	11	12
Cedar Pass Ranch	5.40	0.0	0.0	20.6	8.7	5.1	0.0	23.7	0.0	0.4	36.6	4.9	0.0
Eagle Park	0.21	0.0	0.0	5.6	45.7	27.5	0.0	0.1	0.0	8.0	3.2	9.8	0.1
Meadow Ranch	1.14	0.0	0.0	24.6	27.8	19.6	0.0	0.0	0.0	2.4	14.4	11.2	0.0
North Ranch	1.31	0.0	0.0	24.4	22.7	16.4	0.0	0.9	0.0	0.8	19.9	14.8	0.1
Pioneer Addition	0.14	0.0	0.0	6.0	46.4	34.0	0.0	0.0	0.0	5.3	2.7	5.6	0.0
Rush Valley	0.13	0.0	0.0	0.4	43.3	33.9	0.0	0.0	0.0	2.1	0.1	20.2	0.0
Showdown	0.17	0.0	0.0	1.4	51.2	39.6	0.0	0.0	0.0	2.4	0.6	4.7	0.1
Silver Lake	0.13	0.0	0.0	2.3	56.3	36.1	0.0	0.0	0.0	2.2	0.2	2.9	0.0
Sweetwater	0.11	0.0	0.0	3.7	58.1	30.9	0.0	0.0	0.0	5.0	1.7	0.6	0.0
White Hills	0.29	0.1	0.0	3.6	39.8	19.1	0.0	0.0	0.0	12.0	1.1	24.3	0.0

- ① = Agriculture – Dry Land/Fallow ② = Agriculture – Irrigated ③ = Barren/Bedrock
 ④ = Developed/Impervious ⑤ = Grass/Turf ⑥ = Riparian/Wetland
 ⑦ = Semidesert Shrub/Grassland ⑧ = Semidesert Woodland/Forest ⑨ = Sparse Vegetation – Irrigated
 ⑩ = Sparse Vegetation – Not Irrigated ⑪ = Trees/Shrubs ⑫ = Water

In Eagle Mountain City, many subdivisions are still undergoing significant changes and new subdivisions are being established on an annual basis. In these new and growing areas, it is quite common for residential parcels to not be fully landscaped. The lack of landscaping can adversely affect the reliability of WaterMAPS™ calculations because there is no land cover on the ground to estimate outdoor water use and outdoor water need. Therefore, after the preliminary WaterMAPS™ calculations were generated, a further landscape assessment was conducted. The landscape assessment entailed a visual examination of the residential parcels in Eagle Mountain City to determine the status of landscaping in 2018 (i.e., a time that corresponds to the 2018 NAIP aerial imagery and the corresponding land cover classification). The assessment yielded five categories: Landscaped; Partially Landscaped – Stable; Partially Landscaped – Newer Build; Not Landscaped; and Not Developed (Table 5 and Figure 17).

Table 5. Landscape assessment categories for residential parcels within Eagle Mountain City.

CATEGORY	DESCRIPTION	NUMBER OF PARCELS
Landscaped	The majority or all of the parcel is landscaped or developed. Landscaping is establishing, established, or mature and very few changes appear in recent aerial images.	6,880
Partially Landscaped – Stable	A portion of the parcel is landscaped and developed. The remaining area of the parcel has not been landscaped or developed. Structures on these lots were generally built prior to 2015 and no changes have occurred in recent aerial images. This category is common in the large lots associated with the north service area.	1,009
Partially Landscaped – Newer Build	A portion of the parcel is landscaped and developed. The remaining area of the parcel has not been developed or landscaped. Structures on these lots were generally built during or after 2015 and subsequent aerial images (i.e., 2019-2021) frequently show a progression of landscape installation.	531
Not Landscaped	A portion of the parcel is developed (i.e., a new structure has been constructed), but landscaping is completely absent.	761
Not Developed	Areas where residential parcels have been delineated and where future construction is likely to occur.	4,170

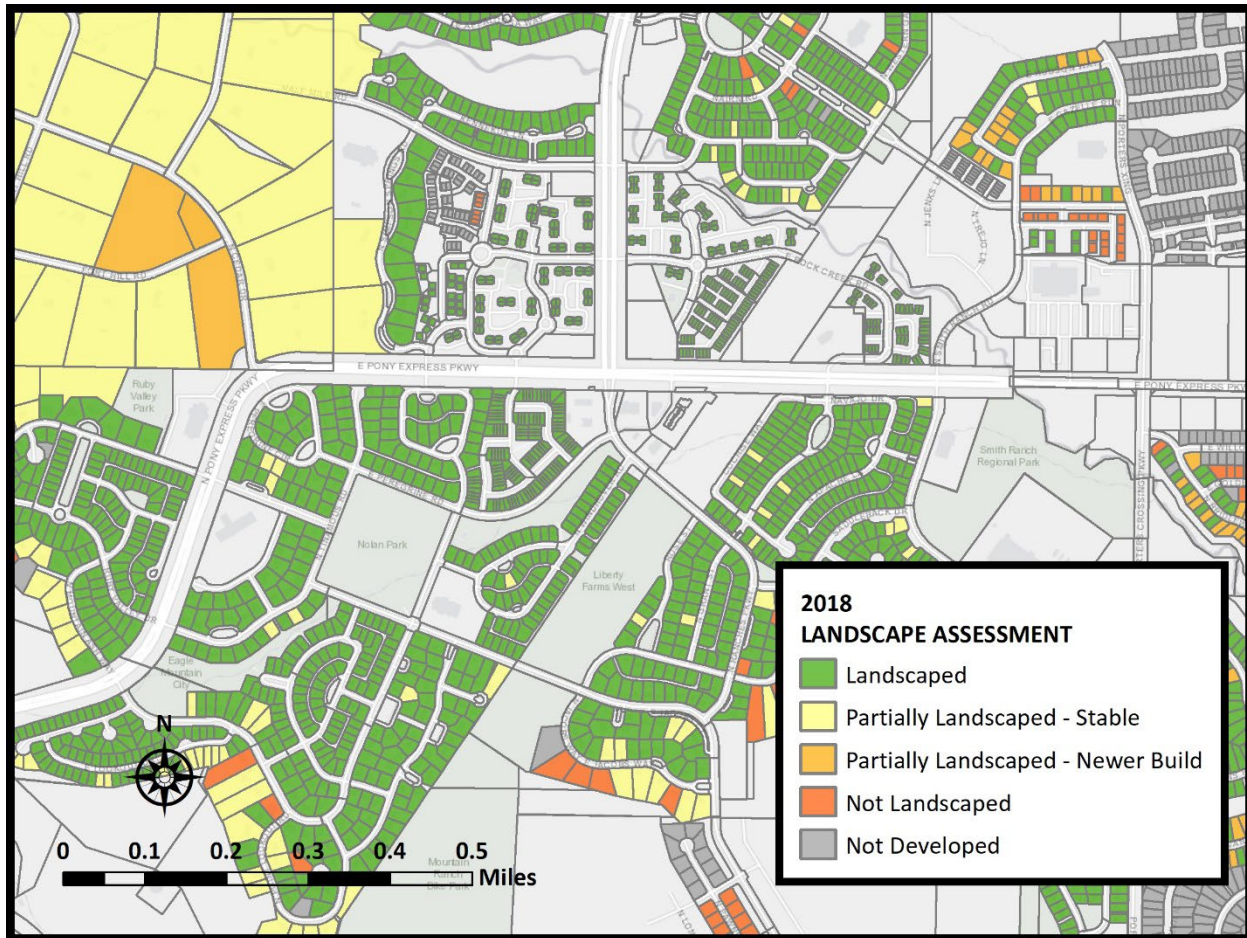


Figure 17. Landscape assessment for Eagle Mountain City based on the 2018 NAIP aerial imagery.

For the WaterMAPS™ calculations, it was determined that better results would be provided by analyzing parcels that are Landscaped and Partially Landscaped – Stable. While WaterMAPS™ results can be generated for the other parcels, accurate results may not be obtained because landscaping is either absent, limited, or changing. Additionally, newly constructed homes may not have adequate water meter data records to estimate outdoor water use.

Reference Evapotranspiration and Landscape Water Need

In combination with the land cover data, weather data are critical for determining urban landscape water need, for calculating LIRs, and for assessing and managing urban water demand. Landscape vegetation depends on water to survive, but water needs vary spatially and temporally in relation to localized weather patterns. Additionally, different types of vegetation have different water needs due to basic plant physiology. Reference evapotranspiration (ET_0) is used to determine the general amount of water vegetation needs, and plant factor adjustments to ET_0 estimate how much water different types of landscape plants need (e.g., grass/turf versus trees/shrubs versus irrigated sparse vegetation). WaterMAPS™ is designed to account for these forms of variability in order to assign reliable site-specific LIRs to urban properties depending on their geographic location and irrigated land cover types.

Since this WaterMAPS™ project analyzed LIRS for residential properties for the years 2014 through 2021, corresponding ET_0 data for those years was obtained from local weather stations (refer back to Figure 6). Figure 18 displays the total annual irrigation season (i.e., April through October) ET_0 in inches for the southern (S) and northern (N) parts of the city for 2014-2021. Behind these annual ET_0 averages is monthly variability shown in Figure 19 for the city as a whole.

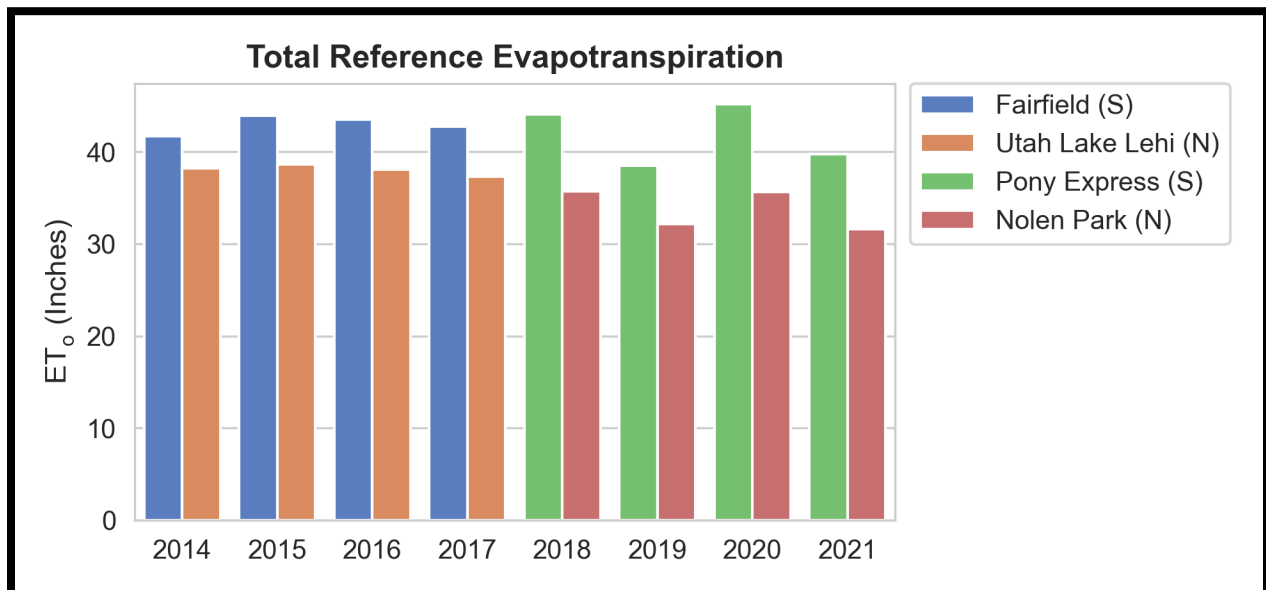


Figure 18. Annual irrigation season (April-October) total ET_0 for the southern (blue and green) and northern (orange and red) parts of Eagle Mountain City.

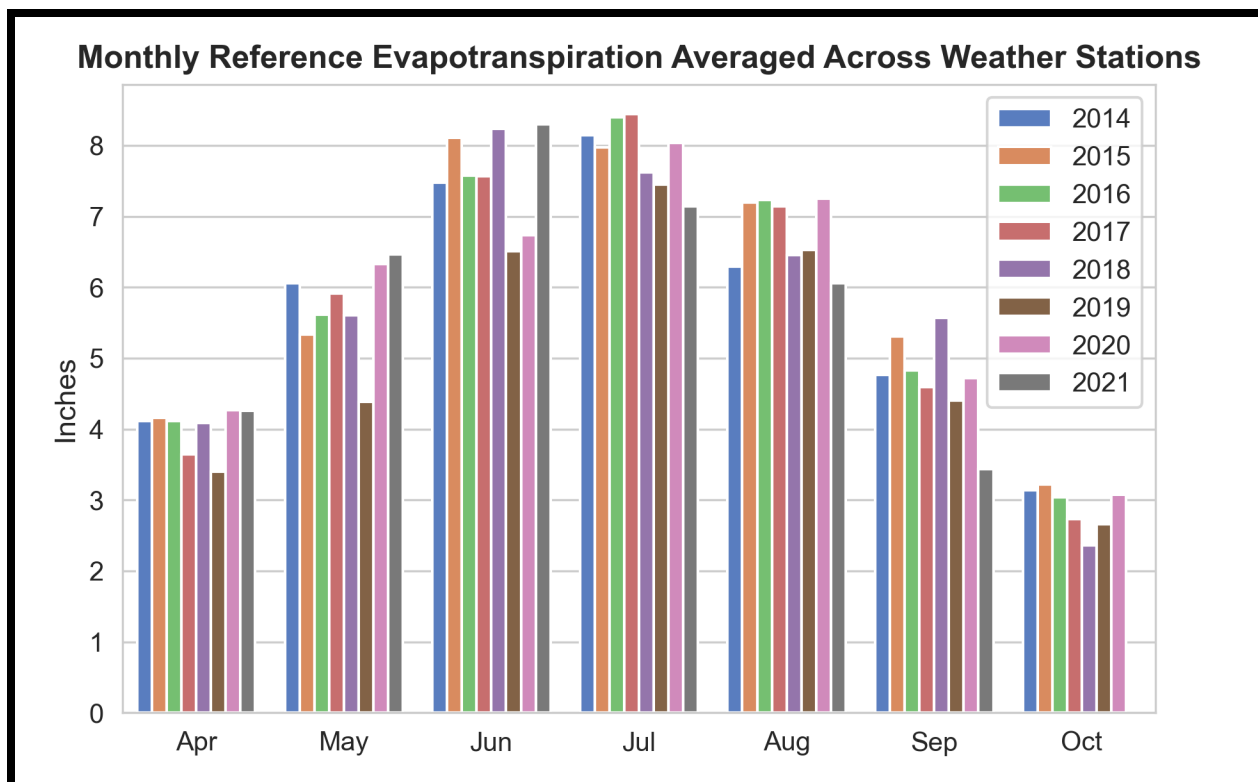


Figure 19. Annual monthly (April-October) total ET_0 for Eagle Mountain City averaged across weather stations.

In order to determine the water needs of the types of irrigated vegetation that people have in their yards, ET_0 is adjusted by the plant factor relevant to a type or class of land cover. A plant factor of 0.8 is used for cool-season turfgrass, which means that grass loses 80% of ET_0 through evapotranspiration and needs that water replaced with irrigation. This factor, though accepted within the industry and academia (ANSI/ASABE, 2015; Kjølsgren *et al.*, 2016), may be altered in future analyses as a greater understanding of turfgrass water needs is gained, or as different turfgrass types on parcels are identified. The plant factor for trees and shrubs is 0.6, regardless of the type of trees or shrubs. A plant factor of 0.5 is used for areas that are classified as irrigated sparse vegetation. No other plant factor values or land cover types were included in this WaterMAPS™ analysis.

Figure 20 displays the amount of water needed in inches by various types of land cover (green bars) in relation to total ET_0 (blue bars) for each year from 2014 to 2020. The variation in water need by land cover type illustrates the potential water savings people can achieve through choosing to landscape with plants that need less water. For example, turf can be replaced with low-water (sparse) vegetation types in appropriate locations or trees can be maintained to provide shade to the grass underneath.

This bar graph also shows the average water use in inches across the residential properties included in this analysis (orange hatched bars). These bars represent the estimated total landscape water use; however, there is uncertainty in knowing how many inches were applied to different land cover types. This average annual use was what would be required for landscapes made up entirely of turfgrass (dark green bars), which implies that residents are probably overwatering turfgrass and/or not sufficiently adjusting watering on non-turfgrass areas.

The average need (hatched baby blue bars) represent the ET_o needs of the actual landscape plant material that people have in their yards, as determined from the land cover data across Eagle Mountain City, which consists of a mix of vegetation types. WaterMAPS™ bases the parcel-level LIR calculation on the land cover that people have in their yards, and it assesses the efficiency with which they irrigate it to meet its water needs. Average water use (orange hatched bars) exceeds average landscape water need (baby blue hatched bars) every year from 2014-2020, illustrating significant capacity to conserve water in the residential sector.

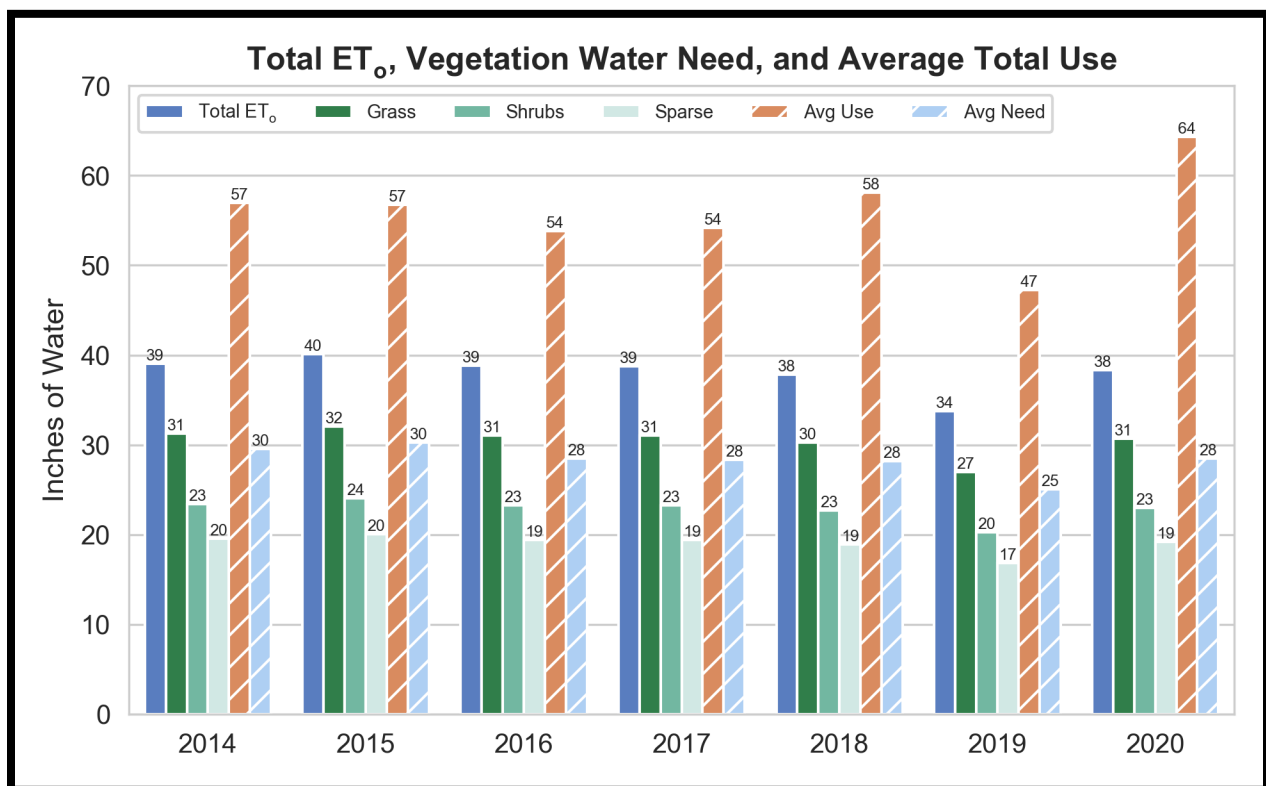


Figure 20. Total reference evapotranspiration, water needs, and average use and landscape water need for April through October by year. The solid blue bars show measured ET_o and the green bars show the amount of evapotranspiration for each land cover type (calculated using plant factor values). The hatched orange and blue bars show the average property use and need, respectively.

Figure 21 shows the difference between landscape water use averaged across residential properties included in the analysis (orange lines) and ET_o (blue lines) in inches. Both sets of data are graphed on a monthly basis over the course of the irrigation season for 2014 through the portion of 2021 for which there is water meter data. The most striking observation is the divergence between the two lines in every year. Outdoor water use is consistently above ET_o except very early in the irrigation season. In the climate of northern Utah, landscapes can primarily use soil moisture from winter snowmelt and spring rainfall during the first half of the irrigation season (i.e., April through June) and often do not exhibit any need for supplemental irrigation. This pattern is likely attributed to the effectiveness of conservation programming over the last 20 years through which people have learned to delay use of their irrigation systems until later in the spring when temperatures, ET_o , and plant water needs increase enough to

require supplemental irrigation. However, there is still room for improvement because, in many years, overwatering begins in May, when irrigation requirements may still be minimal.

Outdoor water use is significantly above ET_0 for the rest of the season (i.e., July through October). This pattern indicates that people do not sufficiently decrease their irrigation in response to cooler daily temperatures after July. During warm and hot weather in the late summer, people appear to overestimate plant water need and underestimate soil moisture retention. They miscalculate the drop in water needs in early fall (i.e., September through October) when nighttime temperatures decrease, consequently resulting in over irrigation. Table 6 presents data on the average landscape water use volume in gallons that correspond to the orange lines in Figure 21, while Figure 22 graphs these data.

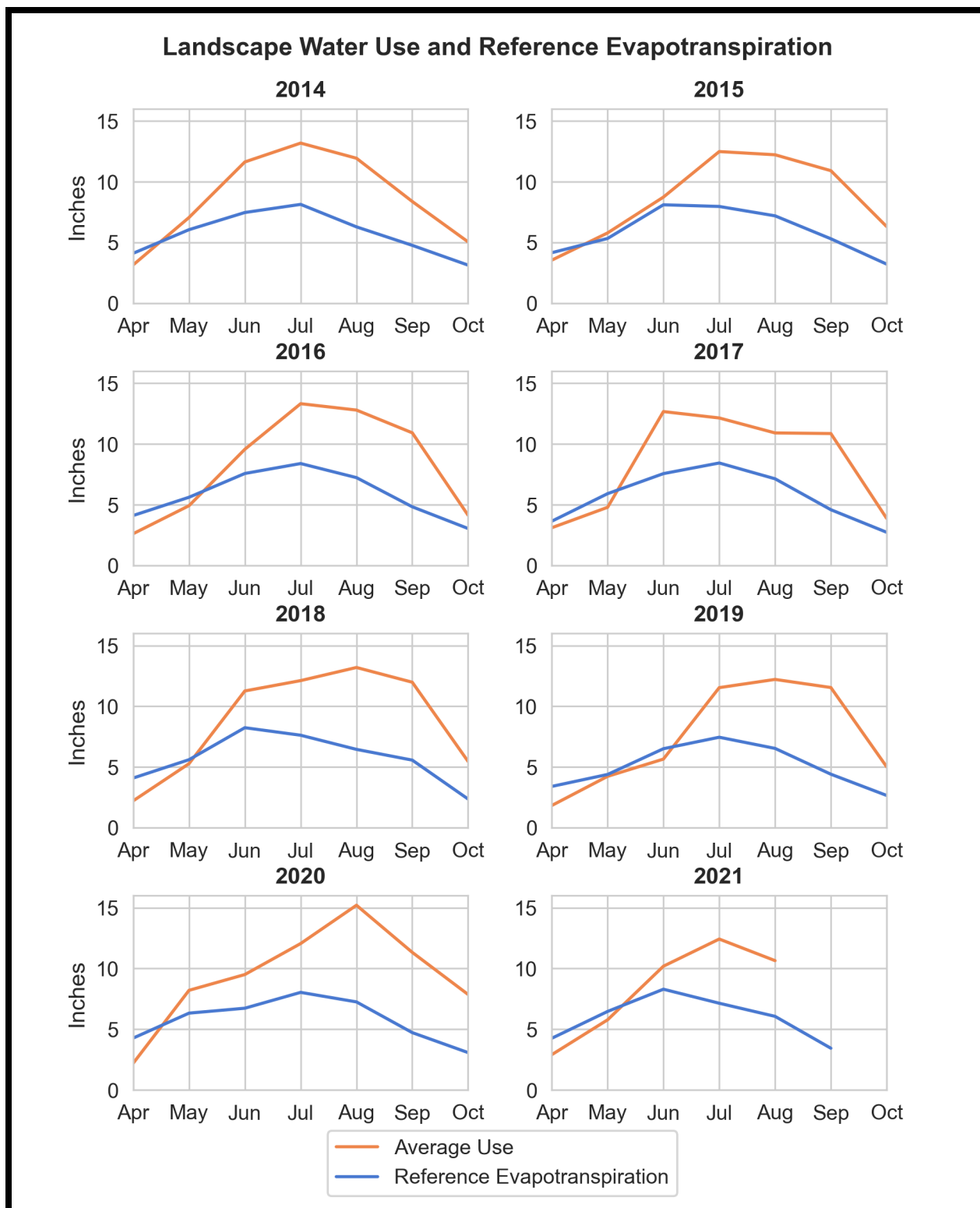


Figure 21. Average landscape water use and total reference evapotranspiration.

Table 6. Average monthly landscape water use in gallons.

YEAR	April	May	June	July	August	September	October
2014	7,606	18,059	30,238	33,972	30,951	21,497	13,141
2015	8,532	14,294	20,897	31,325	31,258	27,981	16,414
2016	6,249	13,188	27,187	37,474	36,213	32,193	12,141
2017	7,335	12,954	34,920	34,907	31,728	30,963	11,392
2018	5,490	14,840	31,873	34,737	37,853	34,562	15,641
2019	4,636	11,239	15,825	33,318	35,630	33,635	14,383
2020	5,663	23,383	26,934	34,805	43,386	33,224	23,489
2021	7,863	16,792	29,219	36,685	36,966	---	---
Average	6,836	16,351	27,439	34,769	35,983	31,300	16,030

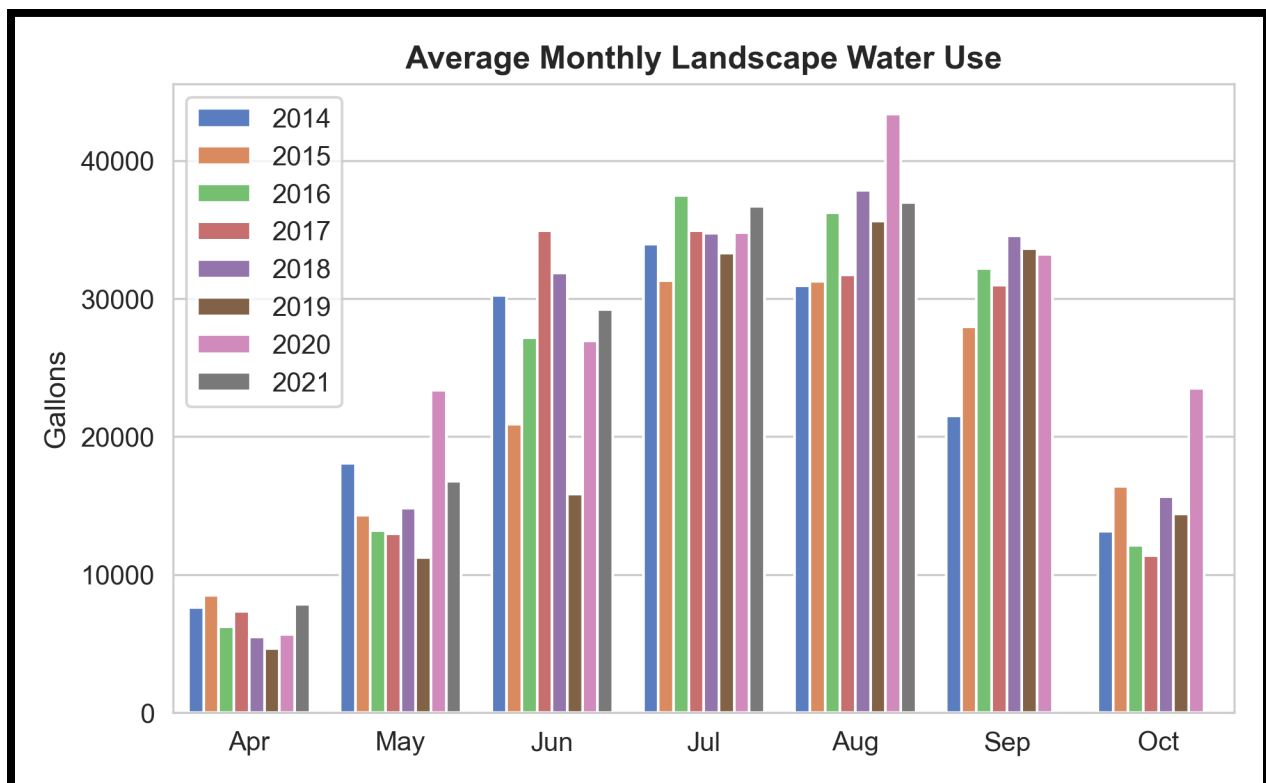


Figure 22. Average monthly landscape water use in gallons for 2014-2021. Corresponding numbers are shown in Table 6.

Assessing Landscape Water Use Efficiency

The key challenge for promoting urban landscape water conservation is to help people irrigate to meet the water needs of their landscapes in relation to weather that changes from year-to-year and during the course of the irrigation season. This is the underlying logic of WaterMAPS™. It embeds the relationship between the amount of water used on a landscape and the amount of water the landscape needs into the LIRs, which represent a scale of landscape water (in)efficiency.

Annual Landscape Water Use. LIRs calculated on an annual basis across Eagle Mountain City provide a broad-scale look at general landscape water use efficiency (Figure 23). These results reveal that there is generally capacity to conserve in residential landscape watering in Eagle Mountain City as a whole and that most people water in excess of plant water need. These results should be interpreted in light of the approach to calculating LIRs used in this report; these LIR calculations are generous to water users in terms of not incorporating rain or soil moisture data. As a note, LIRs less than 0.25 and greater than 10 were discarded for this analysis because many of them are caused by errors in the data and they skew the results and mask the overall trends. By taking a more detailed look at average LIRs in Eagle Mountain City (Figure 24), it can be noted that the greatest capacity to conserve exists in the north service area followed by the south service area, with the west service area exhibiting less overuse than other areas.

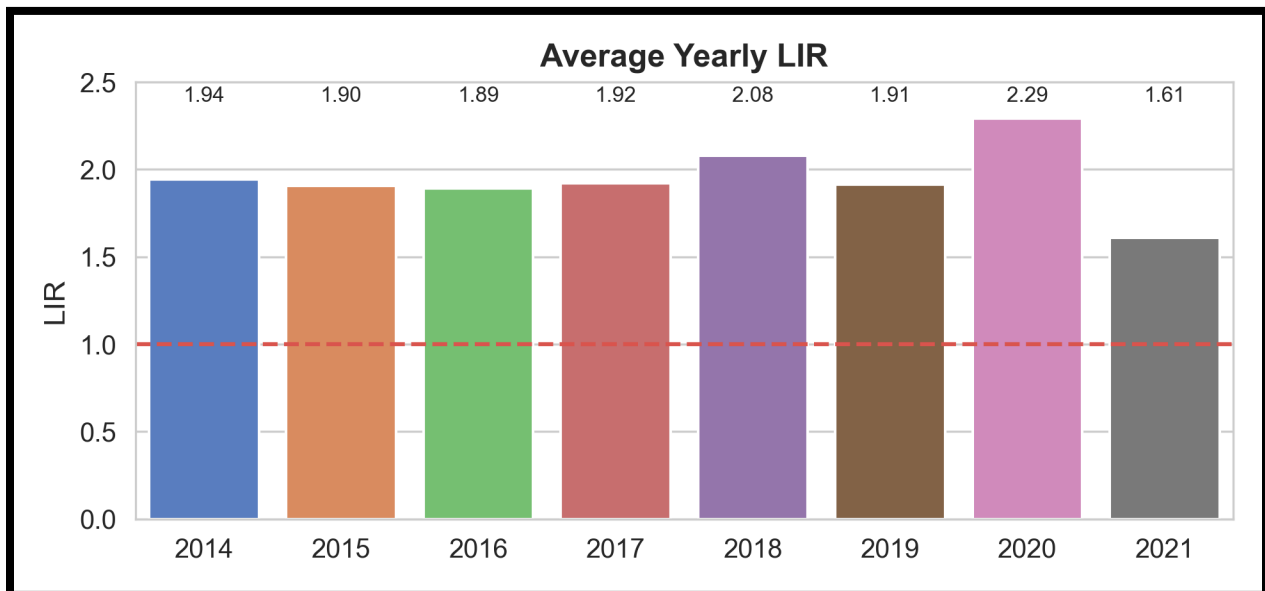


Figure 23. Average yearly LIR for Eagle Mountain City. The red line at 1.0 shows the target LIR of watering to meet landscape need.

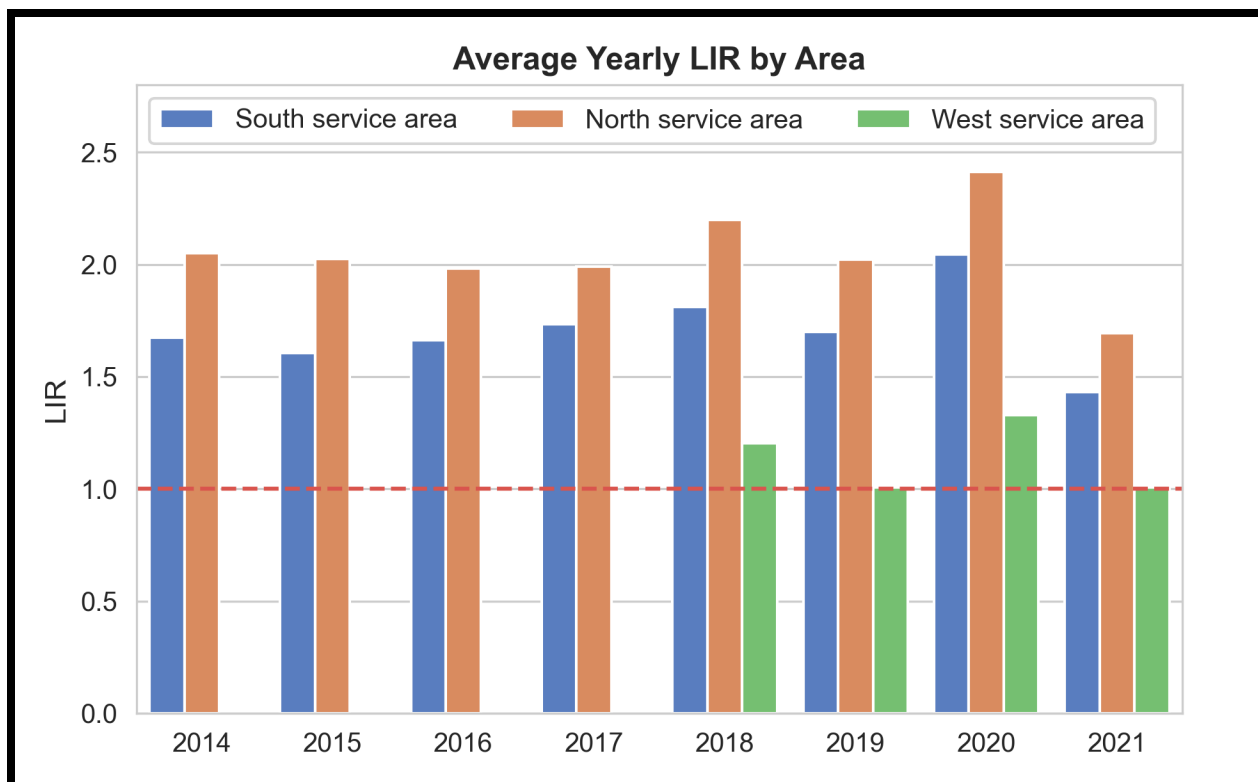


Figure 24. Average yearly LIR for three distinct and non-contiguous areas within Eagle Mountain City. The red line at 1.0 shows the target LIR of watering to meet landscape need.

Disaggregating these annual results across the LIR scale of efficiency (Figure 25 and Table 7) allows WaterMAPS™ users to see the percentages of users who fall into various categories. On average, across these years, only 18% of residential occupants use water efficiently (LIR less than 1) with 82% of users having some capacity to conserve water applied to their landscapes. Approximately 45% of residential occupants use landscape water within an acceptable range but can still conserve (LIR between 1 and 2), while 23% use water inefficiently (LIR between 2 and 3) and 14% use water excessively (LIR greater than 3). The numbers of households in the various categories of overuse can help water managers plan for and more efficiently direct conservation programs and assistance to locations likely to yield the greatest return on investment in terms of water savings.

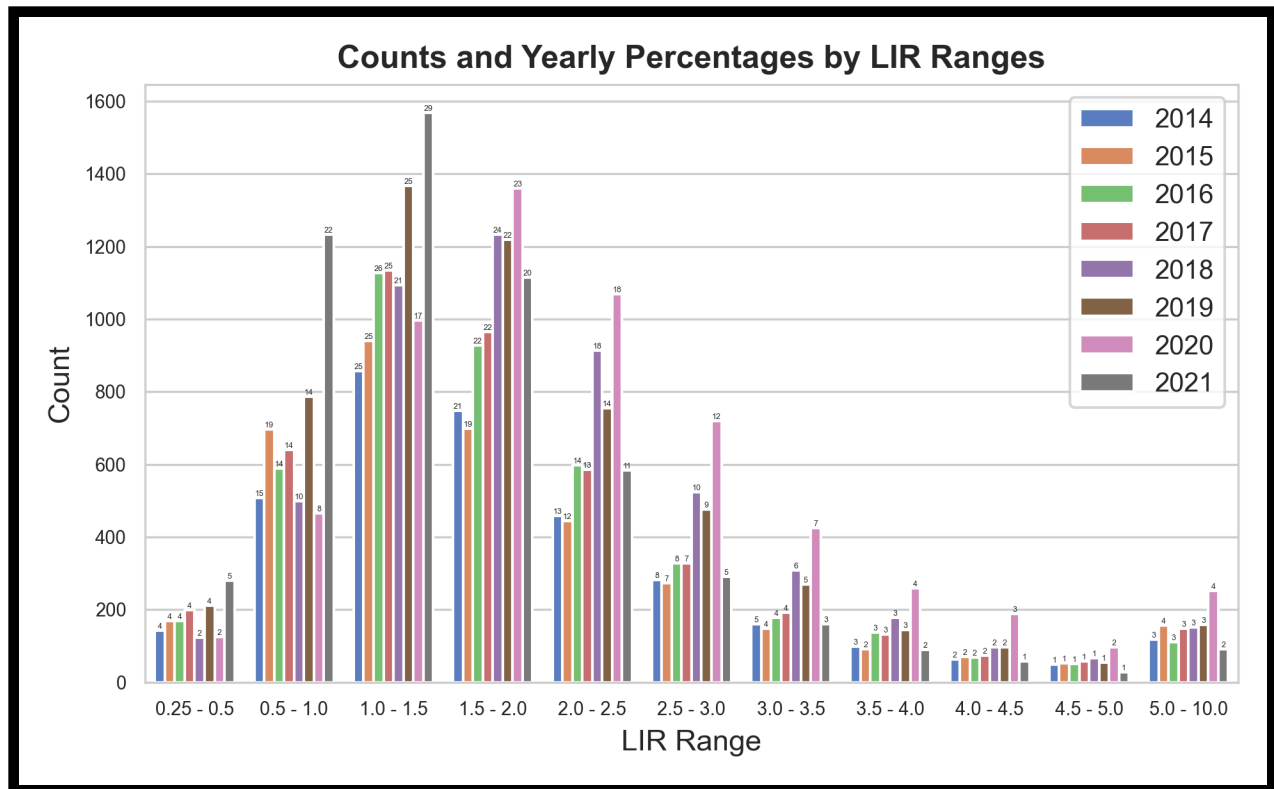


Figure 25. Counts and yearly percentages by LIR ranges. Bar height shows the number of properties in a given LIR range. Corresponding numbers and percentages are shown in Table 7.

Table 7. Detail on counts and yearly percentages by LIR range to accompany Figure 24. The top number in each box is the number of properties that fell in the given LIR range for that year. The bottom number is the percentage that fell in that category for the year.

	LIR RANGE										
	Efficient		Acceptable		Inefficient		Excessive				
	0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0+
2014	143	507	857	747	459	281	160	98	63	49	118
	4.11%	14.56%	24.61%	21.45%	13.18%	8.07%	4.60%	2.81%	1.81%	1.41%	3.39%
2015	168	697	940	698	444	272	148	91	70	53	157
	4.49%	18.65%	25.15%	18.67%	11.88%	7.28%	3.96%	2.43%	1.87%	1.42%	4.20%
2016	169	589	1,127	928	598	327	178	137	69	50	110
	3.95%	13.76%	26.32%	21.67%	13.97%	7.64%	4.16%	3.20%	1.61%	1.17%	2.57%
2017	199	639	1,133	964	586	328	192	131	73	57	148
	4.47%	14.36%	25.46%	21.66%	13.17%	7.37%	4.31%	2.94%	1.64%	1.28%	3.33%
2018	123	499	1,094	1,233	914	523	308	177	96	67	151
	2.37%	9.62%	21.10%	23.78%	17.63%	10.09%	5.94%	3.41%	1.85%	1.29%	2.91%
2019	211	786	1,366	1,219	754	475	270	144	96	54	159
	3.81%	14.20%	24.68%	22.03%	13.62%	8.58%	4.88%	2.60%	1.73%	0.98%	2.87%
2020	124	465	996	1,359	1,069	720	424	259	189	97	251
	2.08%	7.81%	16.73%	22.83%	17.96%	12.09%	7.12%	4.35%	3.17%	1.63%	4.22%
2021 April-Aug	280	1,232	1,568	1,114	584	291	160	89	57	28	91
	5.10%	22.42%	28.54%	20.28%	10.63%	5.30%	2.91%	1.62%	1.04%	0.51%	1.66%
Average	3.72%	14.20%	23.82%	21.67%	14.19%	8.44%	4.83%	2.95%	1.87%	1.19%	3.11%

Monthly Landscape Water Use. LIRs calculated on a monthly basis across Eagle Mountain City provide valuable information about landscape water use efficiency over the course of annual irrigation seasons. This analysis provides more useful data about how and when water is being over used than the annual numbers and it can help to refine the timing and messages of conservation programming. Monthly LIRs were calculated using the billing month included in the meter data provided by Eagle Mountain City. Because billing periods do not correspond exactly to calendar months, the monthly data contain some imprecisions, but can be used to show trends through the irrigation season. Average LIRs by month and year are shown in Figure 26 and Table 8.

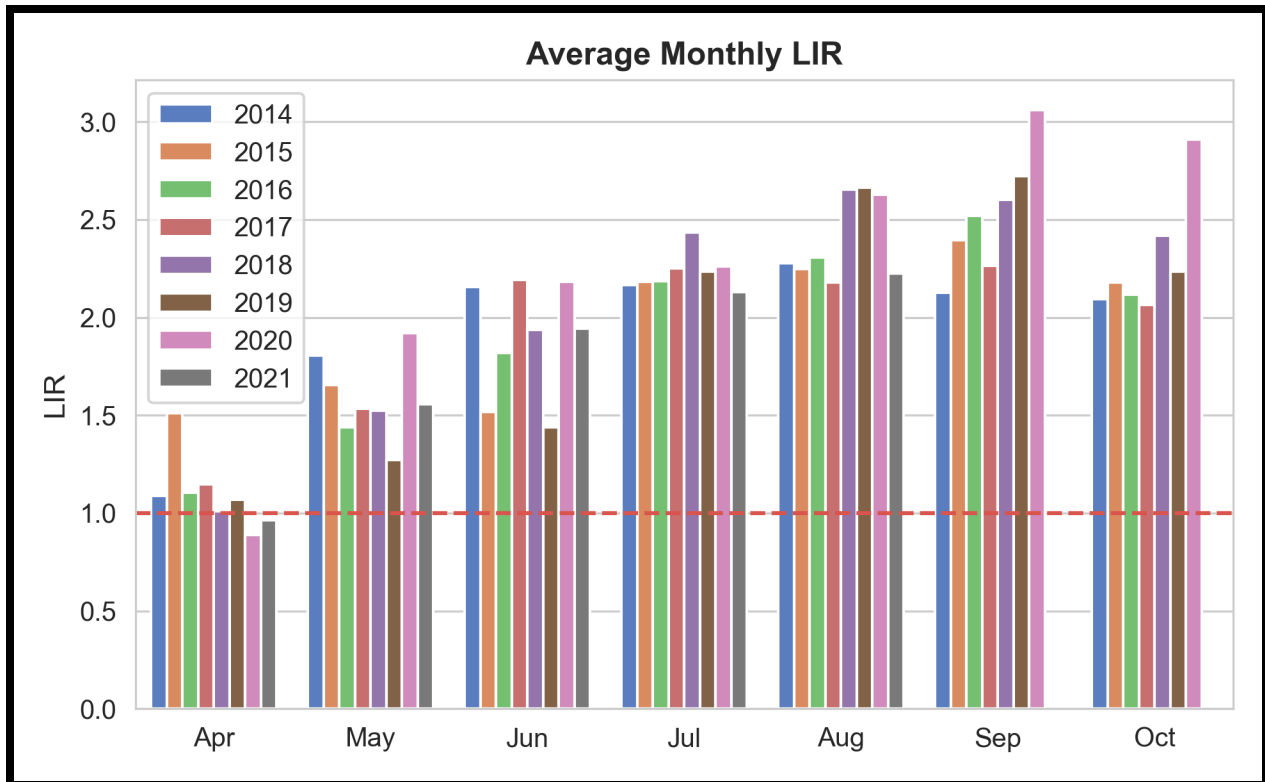


Figure 26. Average monthly LIR for the irrigation season. The red line at 1.0 show the target LIR of watering to meet landscape water need. Corresponding numbers are shown in Table 8.

Table 8. Detail on average monthly LIR values for the irrigation season by year to accompany Figure 25 along with averages for each month across years.

	April	May	June	July	August	September	October
2014	1.09	1.80	2.16	2.17	2.28	2.13	2.09
2015	1.51	1.66	1.52	2.18	2.25	2.40	2.18
2016	1.10	1.44	1.82	2.18	2.31	2.52	2.12
2017	1.15	1.54	2.19	2.25	2.18	2.26	2.06
2018	1.01	1.52	1.94	2.44	2.65	2.60	2.42
2019	1.07	1.27	1.44	2.24	2.66	2.72	2.23
2020	0.89	1.92	2.18	2.26	2.63	3.06	2.91
2021	0.97	1.56	1.94	2.13	2.22	Not available	Not available
Average	1.10	1.61	1.92	2.24	2.45	2.58	2.35

All years showed a trend where average LIRs begin by meeting plant water need at the start of the irrigation season in April but then generally increase through September until declining slightly in October. This trend reinforces the observations from Figure 20, implying that residents let vegetation rely on soil moisture and rain early in the season. However, they overcompensate as the temperature increases, and do not track the water needs of their landscape during summer and fall as much as evapotranspiration indicates they should.

Capacity to Conserve Water used for Landscape Irrigation

The purpose of applying the WaterMAPS™ process to residential properties within Eagle Mountain City is twofold:

1. To quantify the overall capacity to conserve water applied to existing residential landscapes; and,
2. To identify individual residential locations with the greatest capacity to conserve so that relevant and appropriate conservation programming can be directed to those locations.

There are two, interrelated ways to prioritize and realize potential landscape water savings:

1. To increase the efficiency of landscape water use at locations with capacity to conserve; and,
2. To reduce the amount of water used on landscapes at locations using high volumes.

This section presents analyses that address these project purposes and conservation strategies. It does so by categorizing landscape water use patterns based upon the intersection of two dimensions (Table 9): the WaterMAPS™ landscape irrigation ratio, or LIR, which is an efficiency standard; and, the Eagle Mountain City pricing tiers which constitute a volume standard based on metered billing data. The efficiency standard assumes that all water users are held accountable for putting water to beneficial use without waste, a provision of Utah's water law. The volume standard recognizes that locations using higher amounts of water should be encouraged to conserve not only through the economic incentives built into price structures, but through recognition that they have greater potential to contribute to statewide water conservation efforts. The volume standard is also important for transparency in promoting more equitable use of water as a shared public resource. The intersection of these dimensions creates categories that can be used in prioritizing the delivery of conservation programs.

Table 9 illustrates this basic approach to categorizing residential landscape water use for conservation prioritization. On the efficiency dimension, two categories are created by dividing locations that have low LIRs (defined as less than or equal to 2 and meaning they have low relative inefficiency) from locations that have high LIRs (defined as greater than 2 and meaning they have high relative inefficiency). On the volume dimension, two categories are created by dividing locations by the main pricing tier that their water use falls into during a year, with Tiers 1 and 2 being defined as low volume and Tiers 3 and 4 being defined as high volume. Assigning residential parcels into one of the four categories at the intersection of the two dimensions sorts them for conservation prioritization and implies certain general conservation strategies to consider using with them.

In all cases, this initial prioritization should be considered diagnostic and further interaction with households can determine which conservation approaches or trouble shooting to employ. As an example, for locations in Category 1, alternative explanations for high volume/high LIRs should be explored and addressed, such as leaks. As another example, for locations in Category 3, the utility should ensure that meters are working properly and recording use, and that landscapes have not been neglected and left to die as an unintended outcome of water conservation programs.

Table 9. Approach to categorizing residential landscape water use for conservation prioritization.

Categorizing Landscape Water Use for Conservation Prioritization			
		Efficiency Standard (WaterMAPS™ Landscape Irrigation Ratio)	
		Low: $LIR \leq 2$	High: $2 < LIR$
Volume (by pricing tier of metered water)	High: Tier 4 Tier 3	CATEGORY 2A <u>Medium Conservation Priority</u> <i>High Volume Low LIR</i> Conservation Strategies <i>Since these locations are relatively efficient, focus on using approaches that reduce volume of water used, such as landscape transitions.</i>	CATEGORY 1 <u>High Conservation Priority</u> <i>High Volume High LIR</i> Conservation Strategies <i>Any approach that would incentivize them to conserve, with emphasis on ones that can save more water and do more to increase efficiency.</i>
	Low: Tier 2 Tier 1	CATEGORY 3 <u>Low Conservation Priority</u> <i>Low Volume Low LIR</i> Conservation Strategies <i>Recognize or reward them for being relatively efficient and using lower volumes of water use. Employ reinforcement and encouragement to maintain efficiency and seek additional conservation savings.</i>	CATEGORY 2B <u>Medium Conservation Priority</u> <i>Low Volume High LIR</i> Conservation Strategies <i>Even though their volumes of water use are low, opportunities exist to increase their efficiency, such as through changes to their irrigation systems (e.g., replacement or repair of spray heads or controllers).</i>

Table 12 illustrates use of this scheme through application to the Eagle Mountain City residential properties analyzed for this project. This table shows the numbers and percentages of residential parcels that fall into each category for each of the eight years. The volume categories are determined using billing tiers, but the city is in the process of considering a new tier structure (Table 10). Therefore, the table shows the results using both the current and the proposed billing tier volumes. Billing tiers are applied to each month, so the average monthly water use for a parcel was used to determine which tier it fell into for this analysis. Residential parcels of all sizes are included in Table 12, and the appropriate volume cut point between tiers 2 and 3 is used depending on the size of the parcel. For properties less than 0.5 acres, the cut point between tiers 2 and 3 is currently at 115,000 gallons and the proposed cut point is at 40,000 gallons. For properties of 0.5 acres or larger, the cut point between tiers 2 and 3 is currently at 170,000 gallons and the proposed cut point is at 60,000 gallons. The numbers of properties in each tier are shown in Table 11.

Table 10. Current and proposed billing tier structure for residential parcels, in gallons.

	Less than 0.5 acres		0.5 acres or greater	
Tier	Current	Proposed	Current	Proposed
1	0 – 65,000	0 – 20,000	0 – 120,000	0 – 30,000
2	65,001 – 115,000	20,001 – 40,000	120,001 – 170,000	30,001 – 60,000
3	115,001 – 165,000	40,001 – 60,000	170,001 – 230,000	60,001 – 90,000
4	165,001 +	60,000 +	230,001 +	90,000 +

Table 11. The number of properties in each of the current and proposed billing tiers for each year, based on their average monthly usage. Properties are shown in all tiers that they are billed at. For example, if a property falls in Tier 3, then it is also counted in Tier 1 and Tier 2.

		Less than 0.5 acres				0.5 acres or greater				Total
	Tier	1	2	3	4	1	2	3	4	
2014	Current	3185	37	0	0	297	11	3	0	3482
	Proposed	3185	1750	329	61	297	208	106	32	
2015	Current	3421	32	0	1	317	13	1	0	3738
	Proposed	3421	1822	325	48	317	236	114	42	
2016	Current	3871	55	0	0	411	17	4	1	4282
	Proposed	3871	2238	416	74	411	300	143	48	
2017	Current	4011	54	2	1	438	18	3	0	4449
	Proposed	4011	2281	407	80	438	338	166	63	
2018	Current	4627	73	3	0	556	33	7	4	5183
	Proposed	4627	2792	622	117	556	458	223	97	
2019	Current	4947	38	2	0	587	15	4	1	5534
	Proposed	4947	2306	365	67	587	450	177	59	
2020	Current	5324	130	6	0	629	69	14	2	5953
	Proposed	5324	3569	913	211	629	558	335	152	
2021	Current	4893	62	6	2	601	31	4	2	5494
	Proposed	4893	2480	455	87	601	482	226	97	

The largest percentages of parcels shown in Table 12 are in Category 3 and are using lower volumes of water relatively efficiently. The second highest percentages are in Category 2B, where they use lower volumes of water but are relatively inefficient with that use. Significantly smaller percentages of residences are in Categories 1 and 2A, but offer opportunities to save large volumes of water.

Table 12. Categorization of residential parcels by conservation priorities for 2014-2021.

Numbers and percentages of <i>residential parcels</i> in each category*							
	Efficiency Standard (Landscape Irrigation Ratio)						
Volume (by pricing tier of metered water)		Low: $LIR \leq 2$			High: $2 < LIR$		
	High: Tier 4 Tier 3	(2A) <u>Medium Conservation Priority</u> <i>High Volume/Low LIR</i>			(1) <u>High Conservation Priority</u> <i>High Volume/High LIR</i>		
		Year	Current	Proposed	Year	Current	Proposed
		2014	2 (0%)	145 (4%)	2014	1 (0%)	290 (8%)
		2015	2 (0%)	156 (4%)	2015	0 (0%)	283 (8%)
		2016	0 (0%)	221 (5%)	2016	4 (0%)	338 (8%)
		2017	3 (0%)	235 (5%)	2017	2 (0%)	338 (8%)
		2018	0 (0%)	246 (5%)	2018	10 (0%)	599 (12%)
		2019	1 (0%)	172 (3%)	2019	5 (0%)	370 (7%)
		2020	5 (0%)	300 (5%)	2020	15 (0%)	948 (16%)
		2021	3 (0%)	319 (6%)	2021	7 (0%)	362 (7%)
	Low: Tier 2 Tier 1	(3) <u>Low Conservation Priority</u> <i>Low Volume/Low LIR</i>			(2B) <u>Medium Conservation Priority</u> <i>Low Volume/High LIR</i>		
		Year	Current	Proposed	Year	Current	Proposed
		2014	2,252 (65%)	2,109 (61%)	2014	1,227 (35%)	938 (27%)
		2015	2,501 (67%)	2,347 (63%)	2015	1,235 (33%)	952 (25%)
		2016	2,813 (66%)	2,592 (61%)	2016	1,465 (34%)	1,131 (26%)
		2017	2,932 (66%)	2,700 (61%)	2017	1,513 (34%)	1,177 (26%)
		2018	2,949 (57%)	2,703 (52%)	2018	2,226 (43%)	1,637 (32%)
		2019	3,581 (65%)	3,410 (62%)	2019	1,947 (35%)	1,582 (29%)
		2020	2,939 (49%)	2,644 (44%)	2020	2,994 (50%)	2,061 (35%)
		2021	4,191 (76%)	3,875 (71%)	2021	1,293 (24%)	938 (17%)

*The total numbers of parcels for each year are: 2014=3,482; 2015=3,738; 2016=4,282; 2017=4,450; 2018=5,185; 2019=5,534; 2020=5,953; 2021=5,494. These counts represent the elimination of some parcels after running the full WaterMAPS™ analysis due to changes in occupants, unusual water use patterns, and LIRs that fell outside normal ranges.

Table 13 shows the total gallons of water that could potentially be saved in each category if all of the LIRs that are over 1 were reduced to 1 (the point where landscape use equals landscape need) and water waste was eliminated. The category with the highest possible water savings depends on which billing tier structure is used. With the current structure, Category 2B shows the most potential water savings by far. But that category is made up of the two least expensive billing tiers, so may not be a very good motivator for saving money. However, when the proposed billing tiers are used to create the categories, Category 2B still shows the greatest capacity to conserve, but Category 1 also shows much potential for savings. The increased cost of water with the new billing structure might be a significant motivator for these residents to conserve water. Both Categories 1 and 2B are residential locations where people water relatively inefficiently, so there is much potential for water saving simply by watering more appropriately. Interestingly, greater total volumes of water could be saved through

reducing LIRs to 1 at residences in Category 3 than Category 2A. Households in both of these categories water relatively efficiently, but there is still room for improvement because they include residences with LIRs between 1 and 2 that can become more efficient. Residential locations in Category 2A use higher average volumes of water than those in Category 3, but there are far fewer of them.

While this result reflects the larger number of locations in Category 3, it nevertheless illustrates the volumes of water than can be saved through many people each taking effort to become more efficient. This result suggests Eagle Mountain City might want to consider a program with a title like “Savings through Shavings” that would focus on motivating people with information about the large cumulative effects their smaller individual efforts could have in terms of conserving volumes of water.

Table 13. Total potential annual savings in gallons through reducing LIRs to 1.

Total annual gallons potentially saved if LIRs were reduced to 1 in each Category							
	Efficiency Standard (Landscape Irrigation Ratio)						
		Low: $LIR \leq 2$			High: $2 < LIR$		
Volume (by pricing tier of metered water)	High: Tier 4 Tier 3	(2A) <u>Medium Conservation Priority</u> High Volume/Low LIR			(1) <u>High Conservation Priority</u> High Volume/High LIR		
		Year	Current	Proposed	Year	Current	Proposed
		2014	880,132	13,612,378	2014	595,744	63,566,291
		2015	114,913	14,259,810	2015	0	55,257,175
		2016	0	20,066,630	2016	2,818,995	71,102,328
		2017	108,285	21,870,506	2017	1,966,120	73,895,902
		2018	0	34,568,364	2018	7,861,209	137,849,602
		2019	0	21,009,603	2019	6,417,433	84,688,577
		2020	1,803,784	46,213,640	2020	9,910,087	228,302,544
		2021	943,442	21,846,426	2021	2,557,127	50,061,833
	Low: Tier 2 Tier 1	(3) <u>Low Conservation Priority</u> Low Volume/Low LIR			(2B) <u>Medium Conservation Priority</u> Low Volume/High LIR		
		Year	Current	Proposed	Year	Current	Proposed
		2014	61,731,453	48,999,207	2014	142,598,660	79,628,113
		2015	61,716,786	47,571,890	2015	136,368,168	81,110,993
		2016	83,047,926	62,981,295	2016	167,007,803	98,724,469
		2017	86,496,887	64,734,667	2017	174,247,550	102,317,768
		2018	113,425,782	78,857,417	2018	273,101,604	143,113,211
2019		100,666,011	79,656,408	2019	206,750,031	128,478,886	
2020		126,430,210	82,020,354	2020	406,356,387	187,963,930	
2021		68,468,944	47,565,961	2021	95,611,720	48,107,014	

Table 14 shows the average gallons potentially saved per household in each category if LIRs were reduced to 1. In essence, this table illustrates the potential savings to be gained from direct interactions with individual households. This analysis shows why directing conservation efforts to residential locations in Category 1 should be prioritized. It also shows why directing conservation efforts to

residential locations in all other categories would be worthwhile. The possible conservation savings per residential location may be high in terms of return on investment.

Table 14. Potential annual savings in gallons per household through reducing LIRs to 1.

Average annual gallons per household saved if LIRs were reduced to 1 in each Category							
	Efficiency Standard (Landscape Irrigation Ratio)						
		Low: LIR ≤ 2			High: 2 < LIR		
Volume (by pricing tier of metered water)	High: Tier 4 Tier 3	(2A) Medium Conservation Priority High Volume/Low LIR			(1) High Conservation Priority High Volume/High LIR		
		Year	Current	Proposed	Year	Current	Proposed
		2014	440,066	119,407	2014	595,744	219,194
		2015	114,913	117,850	2015	0	195,255
		2016	0	115,325	2016	704,749	210,362
		2017	108,285	123,562	2017	983,060	218,627
		2018	0	150,954	2018	786,121	230,133
		2019	0	141,004	2019	1,283,487	228,888
		2020	360,757	161,586	2020	660,672	240,825
		2021	314,481	78,023	2021	365,304	138,292
	Low: Tier 2 Tier 1	(3) Low Conservation Priority Low Volume/Low LIR			(2B) Medium Conservation Priority Low Volume/High LIR		
		Year	Current	Proposed	Year	Current	Proposed
		2014	38,534	32,885	2014	116,217	84,891
		2015	37,701	31,359	2015	110,420	85,201
		2016	40,413	33,483	2016	113,999	87,290
		2017	41,268	33,716	2017	115,167	86,931
		2018	48,743	37,587	2018	122,687	87,424
		2019	38,942	32,700	2019	106,189	81,213
		2020	53,800	39,643	2020	135,724	91,200
		2021	25,558	19,803	2021	73,946	51,287

Use of WaterMAPS™ and the categorization approach illustrated in this section will help Eagle Mountain City assess conservation potential within the water service area. This assessment can be used to inform conservation program budgeting and to direct and allocate resources accordingly. It can also help in other conservation-related decisions, such as upgrading or installing metering infrastructure, implementing ordinances and other incentive programs to incentivize conservation, funding dedicated water conservation staff, and funding conservation programming more generally. The mapping feature of WaterMAPS™ will also enable conservation staff to conveniently see where residences in the different categories are located to aid in directing conservation programs to the locations with the greatest capacity to conserve for efficiencies in program delivery.

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ACKNOWLEDGEMENTS

The WaterMAPS™ Program is affiliated with the Center for Water Efficient Landscaping (CWEL) and includes team members from the Remote Sensing/GIS (RS/GIS) Laboratory at Utah State University. We appreciate the support of all of our colleagues in these units, and would especially like to thank Dr. Kelly Kopp, Dr. Larry Rupp, and Diana Wuenschell for their collaboration on this project. We acknowledge the valuable support received from Utah State University Extension and the legislatively-funded Extension Water Initiative, which made this project possible.

The WaterMAPS™ team gratefully acknowledges the many staff of Eagle Mountain City for their assistance with the data necessary to conduct the analyses on which this report is based. A special thanks of appreciation to Evan Berrett, Isaac Wilson, and others at Eagle Mountain City for their close collaboration and work on this project. We also appreciate the administrative and financial support from the Eagle Mountain City Council, who committed cost-share funding for this project.

The WaterMAPS™ team would also like to acknowledge and thank the several undergraduate technicians in the RS/GIS Laboratory, specifically Aidan Buie, who assisted with the land cover mapping aspect of this project.

15.2. | WATER BASE RATES AND FEES

Last Revision: 04/19/2017

Monthly Base Rate ~~\$20~~\$25.50/ERU~~Open Space Usage Rate~~..... ~~\$0.80/kgal~~**15.3. | RESIDENTIAL TIERED WATER RATES***

Last Revision: 05/04/2010

<u>Small Lots Usage</u>	<u>Large Lots Usage</u>	<u>Rate</u>
Up to 65 kgal	Up to 120 kgal	\$0.80/1,000 Gallons
65 to 115 kgal	120 to 170 kgal	\$0.85/1,000 Gallons
115 to 165 kgal	170 to 230 kgal	\$0.90/1,000 Gallons
Over 165 kgal	Over 230 kgal	\$0.95/1,000 Gallons

<u>Residential (<0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 65</u>	<u>\$1.08</u>
<u>Tier 2</u>	<u>65 – 115</u>	<u>\$1.14</u>
<u>Tier 3</u>	<u>115 – 165</u>	<u>\$1.19</u>
<u>Tier 4</u>	<u>Over 165</u>	<u>\$1.24</u>

<u>Large Residential (>0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 120</u>	<u>\$1.08</u>
<u>Tier 2</u>	<u>120 – 170</u>	<u>\$1.14</u>
<u>Tier 3</u>	<u>170 – 230</u>	<u>\$1.19</u>
<u>Tier 4</u>	<u>Over 230</u>	<u>\$1.24</u>

Water rates will increase by 4% annually on July 1.*15.4. | ~~COMMERCIAL & INDUSTRIAL~~ NONRESIDENTIAL TIERED WATER RATES***

Last Revision: 06/22/2010

<u>Base Rate:</u>		<u>Commercial</u>	<u>Industrial</u>
		<u>\$20.00</u>	<u>\$20.00</u>
<u>Tier-1</u>	<u>Low</u>	<u>0</u>	<u>0</u>
	<u>High</u>	<u>170</u>	<u>500</u>
	<u>Cost</u>	<u>\$0.80</u>	<u>\$0.80</u>
<u>Tier-2</u>	<u>Low</u>	<u>170</u>	<u>500</u>
	<u>High</u>	<u>220</u>	<u>750</u>
	<u>Cost</u>	<u>\$0.85</u>	<u>\$0.85</u>
<u>Tier-3</u>	<u>Low</u>	<u>220</u>	<u>750</u>
	<u>High</u>	<u>-</u>	<u>-</u>
	<u>Cost</u>	<u>\$0.90</u>	<u>\$0.90</u>

<u>Commercial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 170</u>	<u>\$1.08</u>
<u>Tier 2</u>	<u>170 – 220</u>	<u>\$1.14</u>
<u>Tier 3</u>	<u>Over 220</u>	<u>\$1.19</u>

<u>Institutional</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 500</u>	<u>\$1.08</u>
<u>Tier 2</u>	<u>500 – 750</u>	<u>\$1.14</u>
<u>Tier 3</u>	<u>Over 750</u>	<u>\$1.19</u>

<u>Industrial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.24</u>
<u>Other</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.08</u>
<u>*Water rates will increase by 4% annually on July 1.</u>		

15.5. | REUSE WATER RATES

Last Revision: --/--/----

Reuse Water Rate	\$0.70/kgal
Schools, Businesses, and Churches	80% of Water Used for Culinary Purposes

15.2. | WATER BASE RATES AND FEES

Last Revision: 04/19/2017

Monthly Base Rate	\$20 <u>\$25.50</u> /ERU
Open Space Usage Rate.....	\$0.80 <u>\$0.80</u> /kgal

15.3. | RESIDENTIAL TIERED WATER RATES*

Last Revision: 05/04/2010

<u>Small Lots Usage</u>	<u>Large Lots Usage</u>	<u>Rate</u>
Up to 65 kgal	Up to 120 kgal	\$0.80/1,000 Gallons
65 to 115 kgal	120 to 170 kgal	\$0.85/1,000 Gallons
115 to 165 kgal	170 to 230 kgal	\$0.90/1,000 Gallons
Over 165 kgal	Over 230 kgal	\$0.95/1,000 Gallons
<u>Residential (<0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 30</u>	<u>\$1.11</u>
<u>Tier 2</u>	<u>30 – 60</u>	<u>\$1.17</u>
<u>Tier 3</u>	<u>60 – 90</u>	<u>\$1.22</u>
<u>Tier 4</u>	<u>Over 90</u>	<u>\$1.28</u>
<u>Large Residential (>0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 80</u>	<u>\$1.11</u>
<u>Tier 2</u>	<u>80 – 120</u>	<u>\$1.17</u>
<u>Tier 3</u>	<u>120 – 160</u>	<u>\$1.22</u>
<u>Tier 4</u>	<u>Over 160</u>	<u>\$1.28</u>

Water rates will increase by 4% annually on July 1.*15.4. | COMMERCIAL & INDUSTRIAL NONRESIDENTIAL TIERED WATER RATES***

Last Revision: 06/22/2010

<u>Base Rate:</u>		<u>Commercial</u>	<u>Industrial</u>
		<u>\$20.00</u>	<u>\$20.00</u>
<u>Tier 1</u>	<u>Low</u>	<u>0</u>	<u>0</u>
	<u>High</u>	<u>170</u>	<u>500</u>
	<u>Cost</u>	<u>\$0.80</u>	<u>\$0.80</u>
<u>Tier 2</u>	<u>Low</u>	<u>170</u>	<u>500</u>
	<u>High</u>	<u>220</u>	<u>750</u>
	<u>Cost</u>	<u>\$0.85</u>	<u>\$0.85</u>
<u>Tier 3</u>	<u>Low</u>	<u>220</u>	<u>750</u>
	<u>High</u>	<u>-</u>	<u>-</u>
	<u>Cost</u>	<u>\$0.90</u>	<u>\$0.90</u>

<u>Commercial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 50</u>	<u>\$1.11</u>
<u>Tier 2</u>	<u>50 – 100</u>	<u>\$1.17</u>
<u>Tier 3</u>	<u>100 – 200</u>	<u>\$1.22</u>
<u>Tier 4</u>	<u>Over 200</u>	<u>\$1.28</u>

<u>Institutional</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 250</u>	<u>\$1.11</u>
<u>Tier 2</u>	<u>250 – 500</u>	<u>\$1.17</u>
<u>Tier 3</u>	<u>500 – 750</u>	<u>\$1.22</u>
<u>Tier 4</u>	<u>Over 750</u>	<u>\$1.28</u>

<u>Industrial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.28</u>
<u>Other</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.11</u>
<u><i>*Water rates will increase by 4% annually on July 1.</i></u>		

15.5. | REUSE WATER RATES

Last Revision: --/--/----

Reuse Water Rate	\$0.70/kgal
Schools, Businesses, and Churches	80% of Water Used for Culinary Purposes

15.2. | WATER BASE RATES AND FEES

Last Revision: 04/19/2017

Monthly Base Rate	\$20 <u>\$27.00</u> /ERU
Open Space Usage Rate	\$0.80 <u>\$0.80</u> /kgal

15.3. | RESIDENTIAL TIERED WATER RATES*

Last Revision: 05/04/2010

<u>Small Lots Usage</u>	<u>Large Lots Usage</u>	<u>Rate</u>
Up to 65 kgal	Up to 120 kgal	\$0.80/1,000 Gallons
65 to 115 kgal	120 to 170 kgal	\$0.85/1,000 Gallons
115 to 165 kgal	170 to 230 kgal	\$0.90/1,000 Gallons
Over 165 kgal	Over 230 kgal	\$0.95/1,000 Gallons
<u>Residential (<0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>3 – 30</u>	<u>\$1.14</u>
<u>Tier 2</u>	<u>30 – 60</u>	<u>\$1.19</u>
<u>Tier 3</u>	<u>60 – 90</u>	<u>\$1.24</u>
<u>Tier 4</u>	<u>Over 90</u>	<u>\$1.30</u>
<u>Large Residential (>0.5 Acres)</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>6 – 80</u>	<u>\$1.14</u>
<u>Tier 2</u>	<u>80 – 120</u>	<u>\$1.19</u>
<u>Tier 3</u>	<u>120 – 160</u>	<u>\$1.24</u>
<u>Tier 4</u>	<u>Over 160</u>	<u>\$1.30</u>

Water rates will increase by 4% annually on July 1.*15.4. | COMMERCIAL & INDUSTRIAL NONRESIDENTIAL TIERED WATER RATES***

Last Revision: 06/22/2010

		<u>Commercial</u>	<u>Industrial</u>
<u>Base Rate:</u>		<u>\$20.00</u>	<u>\$20.00</u>
<u>Tier 1</u>	<u>Low</u>	<u>0</u>	<u>0</u>
	<u>High</u>	<u>170</u>	<u>500</u>
	<u>Cost</u>	<u>\$0.80</u>	<u>\$0.80</u>
<u>Tier 2</u>	<u>Low</u>	<u>170</u>	<u>500</u>
	<u>High</u>	<u>220</u>	<u>750</u>
	<u>Cost</u>	<u>\$0.85</u>	<u>\$0.85</u>
<u>Tier 3</u>	<u>Low</u>	<u>220</u>	<u>750</u>
	<u>High</u>	<u>-</u>	<u>-</u>
	<u>Cost</u>	<u>\$0.90</u>	<u>\$0.90</u>

<u>Commercial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 50</u>	<u>\$1.14</u>
<u>Tier 2</u>	<u>50 – 100</u>	<u>\$1.19</u>
<u>Tier 3</u>	<u>100 – 200</u>	<u>\$1.24</u>
<u>Tier 4</u>	<u>Over 200</u>	<u>\$1.30</u>

<u>Institutional</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Tier 1</u>	<u>0 – 250</u>	<u>\$1.14</u>
<u>Tier 2</u>	<u>250 – 500</u>	<u>\$1.19</u>
<u>Tier 3</u>	<u>500 – 750</u>	<u>\$1.24</u>
<u>Tier 4</u>	<u>Over 750</u>	<u>\$1.30</u>

<u>Industrial</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.30</u>
<u>Other</u>	<u>Quantity (in thousands)</u>	<u>Rate (per 1,000 gallons)</u>
<u>Uniform Rate</u>	<u>N/A</u>	<u>\$1.14</u>
<i><u>*Water rates will increase by 4% annually on July 1.</u></i>		

15.5. | REUSE WATER RATES

Last Revision: --/--/----

Reuse Water Rate	\$0.70/kgal
Schools, Businesses, and Churches	80% of Water Used for Culinary Purposes

16. SEWER RATES

16.1. | SEWER RATES ~~AND FEE~~ NORTH SERVICE AREA

Last Revision: 08/19/2015

Single-family Residential Usage Rate, per ERU	\$15.25 /Month
Treatment Fee (TSSD), per ERU	\$25.89 /Month
Sewer Rate, per ERU*	\$45.75 /Month
Industrial Sewer Rate, per ERU*	\$32.03 /Month

**Sewer rates will increase by 2.5% annually on July 1..*

16.2. | SEWER RATE ~~AND FEE~~ SOUTH SERVICE AREA

Last Revision: 08/19/2015

Single-family Residential Usage Rate, per ERU	\$15.25 /Month
Treatment/Capital Bond Payment, per ERU	\$27.75 /Month

16.3. | SEWER RATE ~~AND FEE~~ WEST SERVICE AREA

Last Revision: 05/18/2021

Single-family Residential Usage Rate, per ERU	\$15.25 /Month
Treatment/Capital Bond Payment/Loan Payment, per ERU	\$29.80 /Month

17. STORM WATER

17.1. | STORM WATER RATE

Last Revision: 07/19/2017

Storm Water Rate, per ERU	\$5.00 <u>\$8.25</u> /Month
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**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	RESOLUTION - A Resolution of Eagle Mountain City, Utah, Approving the First Amendment to the Eagle Heights Village Master Development Agreement and Conditional Approval of Partial Assignment.		
ITEM TYPE:	Amended Master Development Agreement		
FISCAL IMPACT:			
APPLICANT:	Kirt Peterson		
GENERAL PLAN DESIGNATION Foothill Residential	CURRENT ZONE Residential Tier III (closest applicable zoning is MF1)	ACREAGE	COMMUNITY East Benches

PUBLIC HEARING:

No

PREPARED BY:

Tayler Jensen, Planning

PRESENTED BY:

Tayler Jensen

RECOMMENDATION:

BACKGROUND:

The Applicant is Seeking guidance from the council on how to proceed with the development of Phases 3-5 of Eagle Heights Village as the economics of building prevents the construction of the originally planned affordable housing development.

- The applicant's preferred proposal would split the vested duplex lots into single family lots, which would increase the total lot count, **BUT WOULD NOT INCREASE (OR CHANGE) THE NUMBER OF DWELLINGS UNITS OR DENSITY OF THE PROJECT.** which would allow the remainder portion of the project (phase 3-5) to be sold to a home builder to be developed as market rate housing.
 - This would require an Amendment to the Eagle Heights Village Master Development Agreement, which was originally approved by the City Council on July 17th, 2019.
- Another option would be to sell phases (3-5) to a home builder to be developed as market rate duplex units.
 - This would not require an MDA Amendment
- A third option would be to sell phases (3-5) to a home builder

and to develop and sell the units as semi-detached units (Twin homes) with zero lot lines (a different owner of each half of the twin home)

- This may require an MDA Amendment
- The applicant would also consider any other approach the Council might recommend.
- The applicant is not proposing any changes to the improved open space, or amenities, meaning the applicant will still construct a pool and a second clubhouse.

ITEMS FOR CONSIDERATION:

The following items should be considered when reviewing this applicants preferred proposal which would amend the MDA.

Development Standards

Eagle Heights Village was approved as a Tier III residential development, under the Tier III residential development standards single family homes were to have the same setbacks/development requirements as Tier II residential. The Tier II Residential Standards are presented below:

Tier III Single Family Residential Development Standards, (AKA Tier II Residential Development Standards)
Front Setback: 15'
Driveway Setback: 22'
Side Setbacks: 5' & 10' on garage side
Rear Setback: 20'
Lot Frontage: 55' with 20% of the lots at 60'
Minimum Lot Size : n/a
Average Lot Size: n/a

It should be noted the approved driveway lengths for the Duplexes is 20'.

The duplex lots frontages vary from 102' to 120' + meaning that, if split lots would have frontages from 51' to 60', the project could likely be re-platted slightly so that all lots are a minimum of 55' wide.

REQUIRED FINDINGS:

The criteria for approval of an MDA are found in EMMC 16.10.080.

The existing [Eagle Heights Village MDA](#) should also be considered when making a recommendation.

PLANNING COMMISSION ACTION/RECOMMENDATION:

The Planning Commission was presented with the applicants preferred option to amend the MDA on February 8th 2022 and ultimately voted **(4-0, 1 Commissioner Absent)** to recommend denial of the MDA Amendment.

ATTACHMENTS:

[RES--Eagle Heights Village Master Development Agreement - 1st Amendment](#)

[First Amendment to the Eagle Heights Village Master Development Agreement](#)

[Exhibits to the First Amendment to the Eagle Heights Village Master Development Agreement](#)

RESOLUTION NO. R- -2022

**A RESOLUTION OF EAGLE MOUNTAIN CITY, UTAH,
APPROVING THE FIRST AMENDMENT TO THE EAGLE HEIGHTS VILLAGE
MASTER DEVELOPMENT AGREEMENT**

PREAMBLE

The City Council of Eagle Mountain City, Utah, finds that it is in the public interest to approve the First Amendment to the Eagle Heights Village Master Development Agreement, as set forth more specifically in Exhibit A.

BE IT RESOLVED by the City Council of Eagle Mountain City, Utah:

1. The City Council finds that all required notices and hearings have been completed as required by law to consider and approve the First Amendment to the Eagle Heights Village Master Development Agreement, as set forth in Exhibit A.
2. The First Amendment to the Eagle Heights Village Master Development Agreement is hereby approved, as set forth more specifically in Exhibit A.
3. This Resolution shall take effect upon its first publication or posting.

ADOPTED by the City Council of Eagle Mountain City, Utah, this 1st day of March, 2022.

EAGLE MOUNTAIN CITY, UTAH

Tom Westmoreland, Mayor

ATTEST:

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

CERTIFICATION

The above resolution was adopted by the City Council of Eagle Mountain City on the 1st day of March, 2022.

Those voting aye:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those voting nay:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those excused:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Those abstaining:

☐ Donna Burnham

☐ Colby Curtis

☐ Jared Gray

☐ Carolyn Love

☐ Brett Wright

Fionnuala B. Kofoed, MMC
Director of Administrative Services/City Recorder

Exhibit A

**FIRST AMENDMENT TO
MASTER DEVELOPMENT AGREEMENT
AND CONDITIONAL APPROVAL OF PARTIAL ASSIGNMENT**

THIS FIRST AMENDMENT TO MASTER DEVELOPMENT AGREEMENT AND CONDITIONAL APPROVAL OF PARTIAL ASSIGNMENT (this “First Amendment”) is made and entered into effective as of the ____ day of February 2022, by and between **EAGLE MOUNTAIN CITY**, a municipal corporation (“Eagle Mountain”), and **EAGLE HEIGHTS VILLAGE VI, LLC**, a Utah limited liability company, formerly known as Eagle Heights Village IV, LLC (“Developer”).

W I T N E S S E T H :

A. Eagle Mountain and Developer entered into that certain Master Development Agreement, dated June 18, 2019 (the “Development Agreement”), to regulate and control the use of certain real property located in Eagle Mountain, Utah County, State of Utah consisting of approximately 51.38 acres as described on Exhibit A attached hereto (the “Original Site”).

B. The Development Agreement authorized the development and construction of Residential Dwelling Units which consisted of two (2) attached structures upon each of the lots identified in a Final Plat located within the Original Site. The Development Agreement also required the improvement of certain amenities to be located within the Project.

C. Developer has completed or is approaching final completion of two (2) phases of the Project consisting of one hundred thirty-six (136) Dwelling Units located upon sixty-eight (68) Lots, located in Eagle Heights Village, Plat 1 and Eagle Heights Village, Plat 2 (herein “Phases 1 and 2”).

D. Developer has determined that it is in the best interests of the Project that each future Residential Dwelling Unit to be constructed within the Project, other than those being constructed within Phases 1 and 2, be located and constructed upon a single Lot.

E. Developer has been advised that a reduction in the number of Dwelling Units to be located upon each Lot requires an amendment to the Development Agreement and a modification to the previously approved Site Plan (Exhibit “B” attached to the Development Agreement), which prior approval constituted a preliminary plat approval.

F. Developer therefore has requested an amendment to the Development Agreement to provide (i) that all future Dwelling Units to be constructed within the Project, other than those being constructed within Phases 1 and 2, be located and constructed upon a single Lot, and (ii) a modification of the Site Plan showing single family Lots for the balance of the Project, excluding Phases 1 and 2.

G. Eagle Mountain has agreed to an amendment to the Development Agreement as more particularly set forth herein below. Capitalized terms used herein but not defined shall have the meanings set forth in the Development Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto, intending to be legally bound, hereby agree to the following amendments:

A. AMENDMENTS

1. **Section 1.2.13.** Section 1.2.13 of the Development Agreement is hereby deleted in its entirety and the following is substituted in its place:

1.2.13 **Maximum Residential Units** means the development on the Property of no more than Two Hundred and Eighty-Four (284) attached and detached Dwelling Units as shown on the Site Plan, provided that the attached Dwelling Units shall be located in Phases 1 and 2.

2. **Section 1.2.17.** Section 1.2.17 of the Development Agreement is hereby deleted in its entirety and the following is substituted in its place:

1.2.17. **Park and Open Space Plan** which is applicable to the entire Property, means the improved park and open space plan and worksheet approved by the Council, a copy of which is attached hereto as Exhibit D attached to this First Amendment.

3. **Section 1.2.22.** Section 1.2.22 of the Development Agreement is hereby deleted in its entirety and the following is substituted in its place:

1.2.22 **Residential Dwelling Unit** means a structure or a portion thereof designed and intended for use as a residence, which may consist of attached and detached structures.

4. **Section 1.2.23.** Section 1.2.23 of the Development Agreement is hereby deleted in its entirety and the following is substituted in its place:

1.2.23 **Site Plan** means the Amended Eagle Heights Village Site Plan and Amended Preliminary Plat applicable to the Property approved by the Council, a copy of which is attached hereto as Exhibit B.

5. **Section 2.2.** Section 2.2 of the Development Agreement is hereby deleted in its entirety and the following is substituted in its place:

2.2. **Development Requirements.** Eagle Mountain has approved the Site Plan for the Project which shall serve as the preliminary plat. Developer shall construct the Project in accordance with the Site Plan (as amended by this First Amendment), the Notice of Decision, and any conditions and restrictions imposed by the Council on the Project.

Such conditions include, but are not limited to, amenities in the clubhouse such as granite or quartz countertops, an asphalt walking trail around the retention area (which was completed prior to the First Amendment), and widening of the entry way road to create better alignment with the entry on the opposite side of Eagle Mountain Boulevard (which was completed prior to the First Amendment). The elevation and design of buildings or detached Residential Dwelling Units must be consistent with the previously approved building elevations and newly proposed building elevations and designs which have been submitted by the Developer or its delegate and approved by the City as Exhibit E of this First Amendment.

6. Section 2.4. Section 2.4 of the Development Agreement is hereby deleted in its entirety and left intentionally blank.

7. Exhibits. As a result of the revision of Exhibits B and D to the Development Agreement as provided herein, the Developer and Eagle Mountain have elected to attach a full set of Exhibits A through F, which shall replace in their entirety the original Exhibits attached to the Development Agreement.

B. PARTIAL ASSIGNMENT APPROVAL

1. Eagle Mountain gives its approval to assign a portion of the rights, responsibilities and obligations of the Development Agreement, as amended by this First Amendment, to Utah Residential Partners, LLC (an affiliate of Fieldstone Construction and Management Services, Inc., a Utah corporation) and/or its affiliates (“Fieldstone”) who intends to purchase the balance of the Project, excluding Phases 1 and 2. Those rights, responsibilities and obligations to be assigned are limited to the obligation to (i) construction all Residential Dwelling Units in compliance with the Development Agreement and this First Amendment on the Lots owned by Fieldstone; and (ii) the construction of the clubhouse and swimming pool, as shown on Exhibit F attached hereto, which will be constructed simultaneously with construction of the Residential Dwelling Units in Phase 3 (collectively, the “Private Amenities”) on Lot _____, as shown on the Eagle Heights Village Site Plan, a copy of which is attached hereto as Exhibit B. Developer retains all other obligations contemplated by the Development Agreement including but not limited to the construction of all public infrastructure required for the development of the balance of the Project, including all parks and open space, but excluding the Private Amenities.

C. MISCELLANEOUS

1. This First Amendment contains the entire understanding between and among the parties and supersedes any prior understandings and agreements between and among them respecting the subject matter of this First Amendment.

2. It is the intention of the parties that all questions with respect to the construction, enforcement and interpretations of this First Amendment and the rights and liabilities of the parties hereto shall be determined in accordance with the laws of the State of Utah, without regard to principles of conflicts of laws.

3. When entered into by the parties hereto, this First Amendment is binding upon, and inures to the benefit of, the parties hereto and their respective spouses, heirs, executors and administrators, personal and legal representatives, successors and assigns.

4. This First Amendment shall be recorded in the offices of the Utah County Recorder.

5. The terms and conditions of the Development Agreement as amended by this First Amendment are incorporated by reference and made a part hereof, as if fully set forth herein, and each of the parties hereto affirm their adoption of the same.

6. Notwithstanding the foregoing, all other terms and conditions of the Development Agreement shall remain in full force and effect and are ratified and confirmed in all respects by the parties hereto.

IN WITNESS WHEREOF, the parties have executed this First Amendment on the date and year first above written.

EAGLE MOUNTAIN:

EAGLE MOUNTAIN CITY, a Utah limited liability company

By: _____

Name: _____

Title: Mayor

DEVELOPER:

EAGLE HEIGHTS VILLAGE VI, LLC, a Utah limited liability company

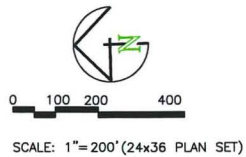
By its Manager, Eagle Heights Village VI Management, LLC, a Utah limited liability company, formerly known as Eagle Heights Village IV Management, LLC

By: _____

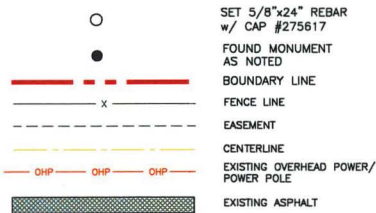
Name: Joseph Kirton Peterson

Title: Manager

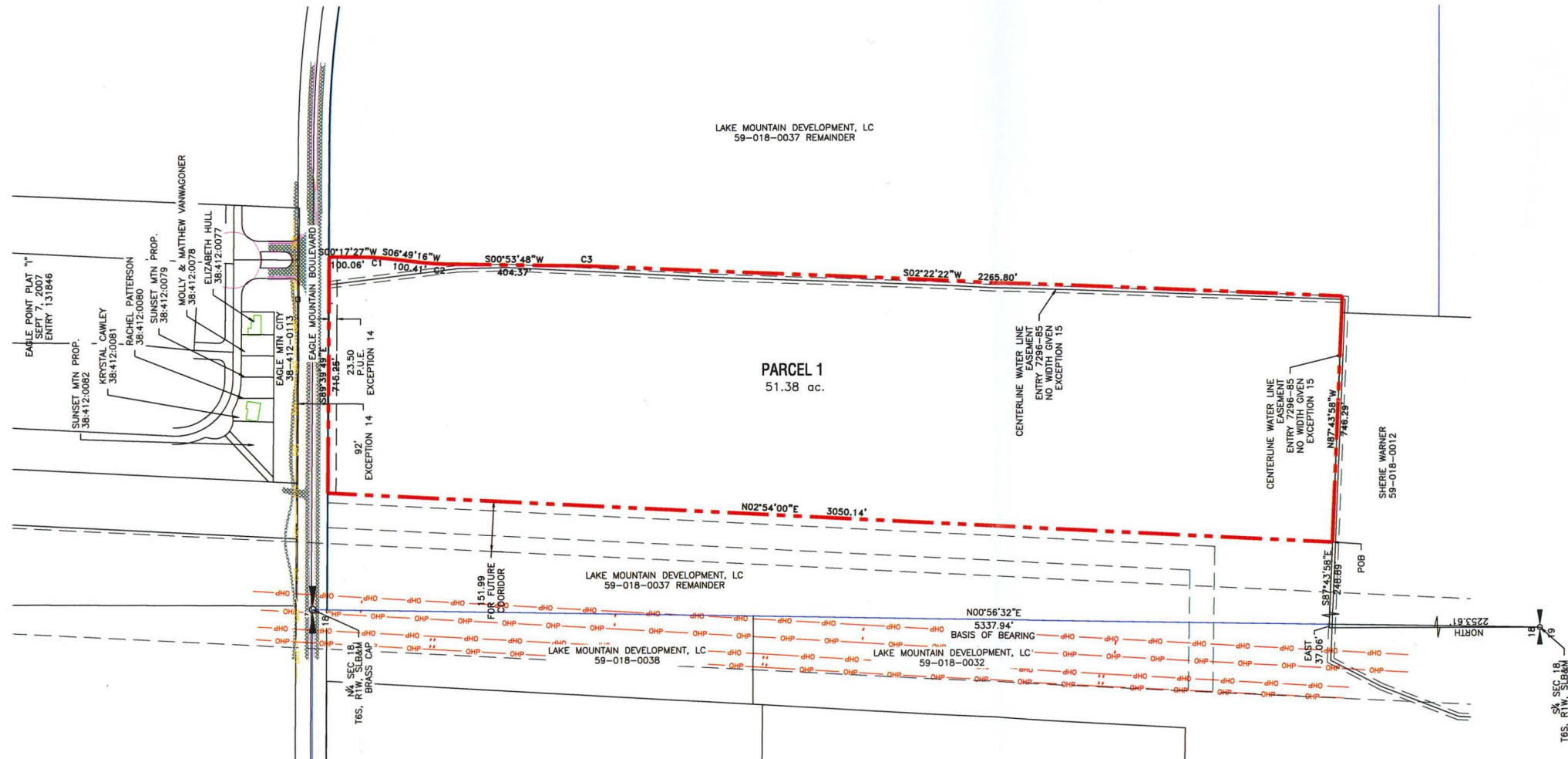
Exhibit "A"
Legal Description of Property



LEGEND



ALTA/NSPS Land Title Survey
for
Eagle Heights Village IV, LLC
PART OF SECTION 18
TOWNSHIP 6 SOUTH RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
EAGLE MOUNTAIN, UTAH



CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	80.92	710.00	6°31'49"	N03°33'21"E	80.88
C2	71.35	690.00	5°55'28"	S03°51'32"W	71.32
C3	51.78	2010.00	1°28'34"	N01°38'05"E	51.78

TITLE REPORT SCHEDULE B-SECTION 2

- Title documents for this property were prepared by: First American Title Insurance Company
Commitment No. NCS-922413-SLC1
Commitment No.: March 18, 2019
Exception: none
- Easements, liens or encumbrances or claims thereof, not shown by the Public Record.
NOTE: NONE KNOWN
- Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title including discrepancies, conflicts in boundary lines, shortage in area, or any other facts that would be disclosed by an accurate and complete land survey of the Land, and not shown in the Public Records.
NOTE: NONE KNOWN

(The following affects Northerly portion of the subject property, together with other property not included herein)
14. Eagle Mountain Boulevard Plat, with owner dedication for a 125 foot wide corridor including a 93 foot wide roadway, easements set forth thereon for sewer and water line easements, and public utility easements being 23.5 feet wide on each side of the said roadway, and incidental purposes, and the matters and details shown thereon, recorded October 23, 1997 as Entry No. 83435 as Map # 7292 of Official Records.
NOTE: AS SHOWN ON PLAT

(The following affects the subject property, together with other property not included herein)
15. Well Site / Easement Plat, with owner dedication for a 10 foot wide water tank supply line easement, and incidental purposes, and the matters and details shown thereon, recorded October 23, 1997 as Entry No. 83439 as Map # 7296 of Official Records.
NOTE: AS SHOWN ON PLAT

(The following affects all the subject property, together with other property not included herein)
25. Communications Easement Agreement, by and between Monte Vista Ranch, L.C., a Utah limited liability company; Eagle Mountain Properties Communities Master Association, Inc., Utah non-profit corporation; Cedar Valley-White Ranch, L.C., a Utah limited liability company; MVR Management, LLC, a Utah limited liability company; ZJT Management LLC, a Utah limited liability company; T1 Mortgage Company, a Utah corporation; Lake Mountain Development LLC, a Utah limited liability company, as Grantors, and FirstDigital Telecom, LLC, a Utah limited liability company, as Grantee, and the easements, terms, covenants, conditions, restrictions, and matters stated therein, recorded August 15, 2018 as Entry No. 77533-2018 of Official Records.
NOTE: BLANKET EASEMENT AGREEMENT

LEGAL DESCRIPTION

Part of the East Half of Section 18, Township 6 South, Range 1 West of the Salt Lake Base & Meridian described as follows:
Commencing at the South Quarter Corner of Section 18, Township 6 South, Range 1 West of the Salt Lake Base and Meridian thence North 2253.61 feet; thence East 37.06 feet; thence S87°43'58"E 249.24 feet to the POINT OF BEGINNING and running
thence N 02°54'00" E 3,050.14 feet to the south right of way line Eagle Mountain Blvd;
thence S 89°39'49" E 715.25 feet along said south right of way line;
thence S 00°17'27" W 100.06 feet;
thence Southerly, 80.92 feet along a curve to the right having a radius of 710.00 feet, a central angle of 06°31'49" and a chord that bears S 03°33'21" W 80.88 feet;
thence Southerly, 71.35 feet along a curve to the left having a radius of 690.00 feet, a central angle of 05°55'28" and a chord that bears S 03°51'32" W 71.32 feet;
thence S 00°53'48" W 404.37 feet;
thence Southerly, 51.78 feet along a curve to the right having a radius of 2,010.00 feet, a central angle of 01°28'34" and a chord that bears S 01°38'05" W 51.78 feet;
thence S 02°22'22" W 2,265.80 feet;
thence N 87°43'58" W 746.29 feet to the point of beginning.

ALTA/NSPS TABLE A SURVEY NOTES

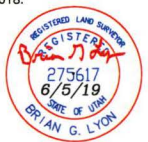
- The property is known by the street address of:
No assigned address
- Gross Land Area:
Parcel 1: 51.38 acres
- No existing buildings on the surveyed property.
- There were no substantial features observed in the process of conducting the survey such as parking lots, billboards and signs.
- There are no parking spaces on the subject property.
- There is no evidence of recent earth moving work.
- There is no known changes in street right of way lines. There is no evidence of recent street or sidewalk construction or repairs.

SURVEYOR'S CERTIFICATE

To:
Eagle Heights Village IV, LLC
Lake Mountain Development, LLC
First American Title Insurance Company
Rocky Mountain Community Reinvestment Company
Enterprise Community Loan Fund, Inc. its successors and assigns

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 2, 4, 8, 9, 16, and 17 of Table A thereof. The field work was completed on October 5, 2018.

Date of Plat: June 5, 2019
Registration No. 275617
Brian G. Lyon



ALLIANCE CONSULTING
ENGINEERS
150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
allianceengr@qwestoffice.net

No.	REVISIONS / SUBMISSIONS	DATE	BY
1	comments	6/5/19	

PROJECT TITLE: ALTA/NSPS Land Title Survey
for
Eagle Heights Village IV, LLC
PART OF SECTION 18
TOWNSHIP 6 SOUTH RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
EAGLE MOUNTAIN, UTAH

DRAWING TITLE: SURVEY PLAT

DATE: MAY3,2019
DRAWING No. 1

Exhibit "B"
Site Plan

Takeoff Tab

eagle heights new site plan 5-11

Bid No. 13

No.	Name	Height	Area	Quantity1 UOM1	Quantity2UOM2	Quantity3 UOM3
(unassigned)						
Open Space						
 2	Park 1	0"	(unassigned)	70,369 SF	0	0
 3	Park 2	0"	(unassigned)	8,498 SF	0	0
 4	Park 3	0"	(unassigned)	11,125 SF	0	0
 5	Park 4	0"	(unassigned)	15,921 SF	0	0
 6	Park 5	0"	(unassigned)	74,252 SF	0	0
 7	Park 6	0"	(unassigned)	32,472 SF	0	0
 8	Park 6 Detention Area	0"	(unassigned)	7,071 SF	0	0
 9	Park 5 Detention Area	0"	(unassigned)	52,602 SF	0	0

Parks & Open Space Worksheet

Directions: Submit a completed worksheet with your preliminary plat or site plan application. Proposed amenities and park designs are subject to approval by the Planning Commission and City Council

Required Improved Open Space

Residential Lots/Units		Required Open Space (Square Feet)		Required Open Space (Acres)
284	X 1,000 =	284,000.00	/ 43,560 =	6.52 Acres

Park Fee-In-Lieu (if applicable)

Required Open Space (Square Feet)		Total Fee-in-Lieu
284,000.00	X \$3.75	\$1,065,000.00

Required Amenity Points

Required Open Space (Acres)		Required Amenity Points
6.52	X 100	651.97

Parks & Improved Open Space Elements/Amenities

Park Feature / Improvement	Points Available	Proposed Quantities	Proposed Points
Bench/Picnic Table (w/ shade structure or trees)	2	11	22
Bicycle Rack (4+ bikes)	2	4	8
Trees (5) (a majority must be shade trees)	2	12	5
Shade Structure	4	0	0
Drinking Fountain	5	2	10
Asphalt or Concrete Trails - 8ft wide, excluding sidewalks along streets (per 100 linear feet)	6	1100	66
Parking* (5 Stalls)	6	6	36
Swings (4+ Swings)	7	1	7
Concrete Basketball Court (1/2 Court)	20	0	0
Pavilion w/tables, garbage receptacles, barbeques (per 100 square feet)	4	2200	88
Playground Equipment* Per \$1,000	2	150,000	300
Splash Pad* Per \$1,000	2		0
Tennis court (6,600 sq ft or 55' x 120')	100		0
Sports court (6,600 sq ft or 55'x120')	100	1	100
Restroom (600+ sq ft)	100	0	0
Restroom (1,200+ sq ft)	200		0
Public Art	Varies		
Other: Garden Boxes	Varies		62
Other: Lighting at Sports Court	Varies		50
Other: Masonry Fencing	Varies		0
Other: Community Center 1 - 3,500 SF	Varies		0
Other: Community Center 2 - 1,440 SF	Varies		0
Other:	Varies		0
Other:	Varies		

Total			754
--------------	--	--	------------

* Public art should reflect the neighborhood or community identity or culture. Creativity is encouraged in playground equipment and splash pads, and may be awarded more points than Standard Equipment. Costs for playground equipment and splash pads reflect equipment costs only. Parking must be adjacent to improved open space, and must be in addition to any required parking for the development.

Excess points available for buydown	102
Required open space after buydown	5.84
Provided Open Space	5.91
additional open space needed	0.61
buydown @ 150 points/acre	0.68

Park	SF area	Acres
Park 1 area	70,369	1.62
Park 2 area	8,498	0.20
Park 3 area	11,125	0.26
Park 4 area	15,921	0.37
Park 5 area	74,375	1.71
Park 5 detention area (75%)	5,303	0.12
Park 6 area	32,472	0.75
Park 6 detention area (75%)	39,452	0.91
Total	257,515	5.91

SITE REFERENCE NOTES

- 1 CLUBHOUSE
- 2 PARKING LOT
- 3 POCKET PARK
- 4 PLAYGROUND
- 5 MAINTENANCE BUILDING
- 6 RETENTION POND
- 7 GARDEN BOXES
- 8 GAZEBO
- 9 CLUBHOUSE, POOL, & PLAYGROUND

PHASE 1 AND 2

BUILDING TYPES	COLOR	QUANTITY
CWG III ADA	GREEN	7
EAGLE (4BDRM)	PURPLE	5
OAKS	BLACK	5
FRONTIER	BLUE	21
CWG 3	MAGENTA	18
CWG 4 ADA	RED	3
CEDAR	TAN	10

PHASE 3

56 LOTS

PHASE 4

45 LOTS

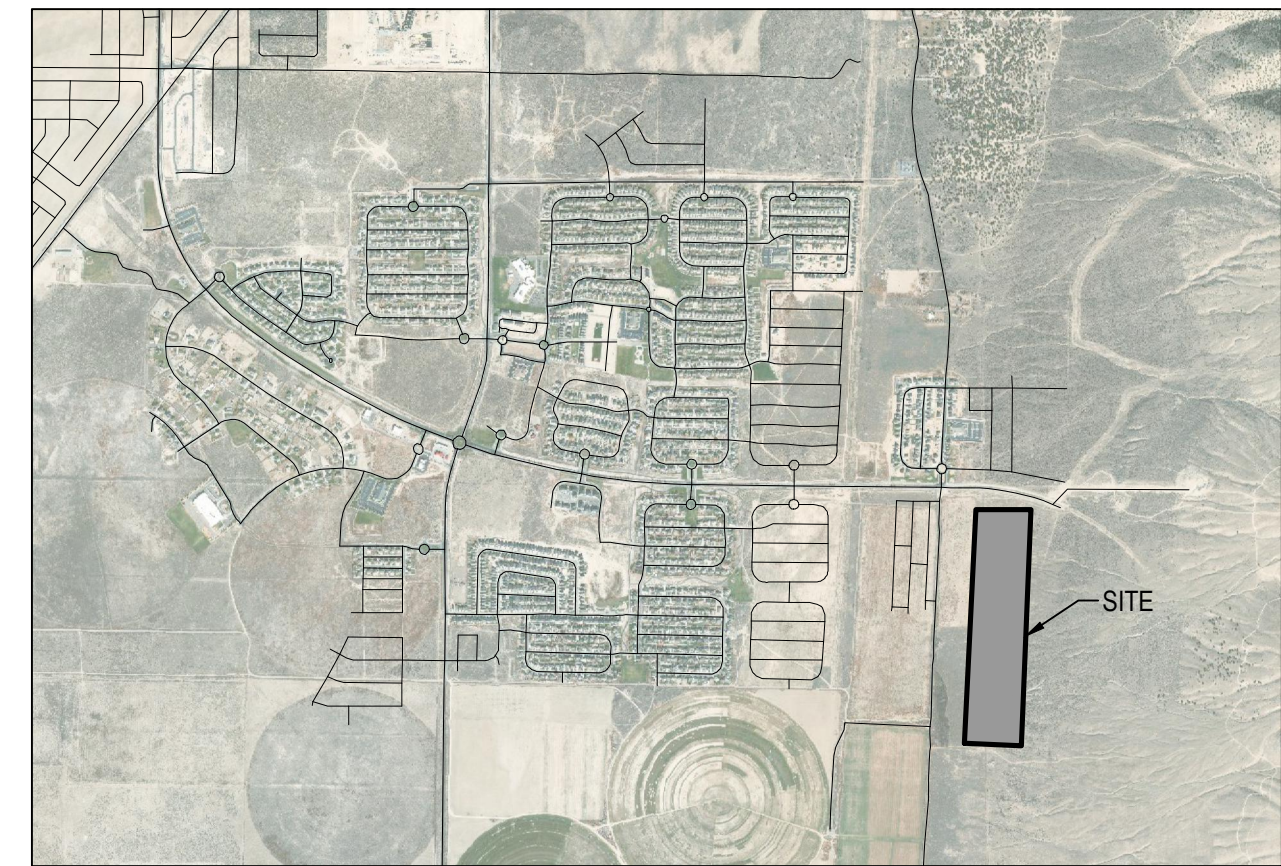
PHASE 5

46 LOTS

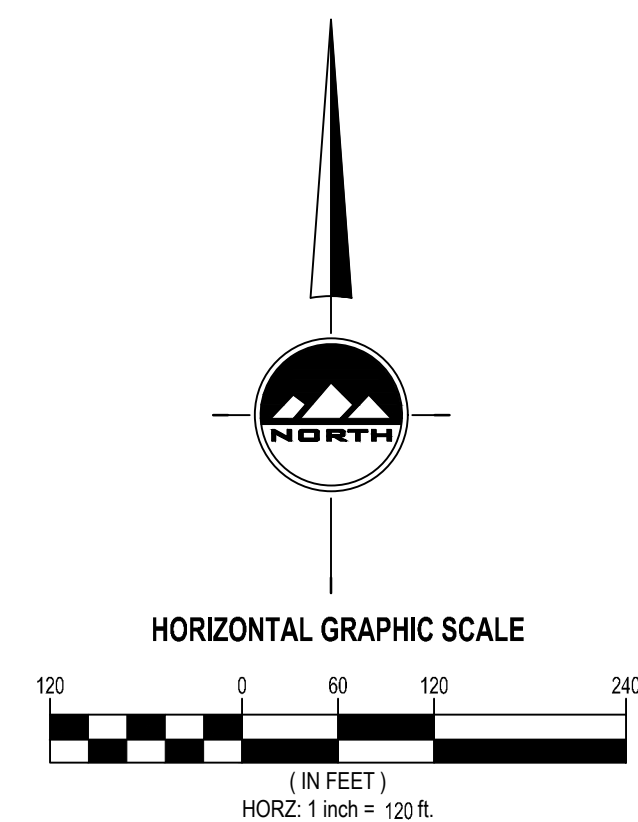
EAGLE HEIGHTS VILLAGE

PART OF SECTION 18
TOWNSHIP 6 SOUTH, RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
EAGLE MOUNTAIN, UTAH

SITE PLAN



VICINITY MAP



SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
EAGLE HEIGHTS VILLAGE IV, LLC
1466 NORTH HWY 89, STE 220
FARMINGTON, UTAH 84025

CONTACT:
PHONE:

EAGLE HEIGHTS VILLAGE
PART OF SECTION 18
TOWNSHIP 6 SOUTH, RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
EAGLE MOUNTAIN, UTAH

SITE PLAN

PROJECT NUMBER
11315

PRINT DATE
2/3/22

DRAWN BY
CHECKED BY

PROJECT MANAGER

C-100

- ① CLUBHOUSE
- ② PARKING LOT
- ③ POCKET PARK
- ④ PLAYGROUND
- ⑤ MAINTENANCE BUILDING
- ⑥ RETENTION POND
- ⑦ GARDEN BOXES
- ⑧ GAZEBO

Mouth of the road to be widened to accommodate City Engineer's comments.

PART OF SECTION 18
 TOWNSHIP 6 SOUTH RANGE 1 WEST
 SALT LAKE BASE AND MERIDIAN
 EAGLE MOUNTAIN, UTAH

SITE PLAN



0 100 200ft
SCALE 1" = 100'-0"

Note - this page is taken from the original MDA. This page is used to show open space. The exhibit shows duplex buildings on all phases of the project, this is not correct. This page is only included to show the original open space that was agreed upon by the City and Developer. Page 3 (Site Plan) should be used to show the building types being constructed and not this page.

A sidewalk stub will be put at this location allowing for a trail/sidewalk to connect to a future walkway to the west of the property.

The parks shown in the retention area will be above the grade of the retention pond and will not "technically" be in the retention pond.

Park 5 will be moved to this location. It was previously directly to the west, on the westerly boundary of the property.

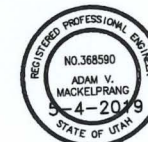
[illegible]

Exhibit "C"

Vested Laws

Vested laws are found at <https://www.codepublishing.com/UT/EagleMountain/>.

The Laws Vested as of June 18, 2019.

Exhibit "D"
Park and Open Space Plan

PARK AMENITIES

PARK #1

COMMUNITY CENTER
GAZEBO
PLAYGROUND
SPORT COURT
PARKING
BIKE RACKS - 8 BIKES
SHADE TREES
GRASS PLAY AREA
SITE SECURITY CAMERAS

PARK #2

GARDEN BOXES
BENCH

PARK #3

GARDEN BOXES
BENCH

PARK #4

GARDEN BOXES
BENCH

PARK #5

PLAYGROUND
BENCH
SHADE TREES
LAWN PLAY AREA

PARK #6

PLAYGROUND
BENCH
SHADE TREES
LAWN PLAY AREA

PARK #7

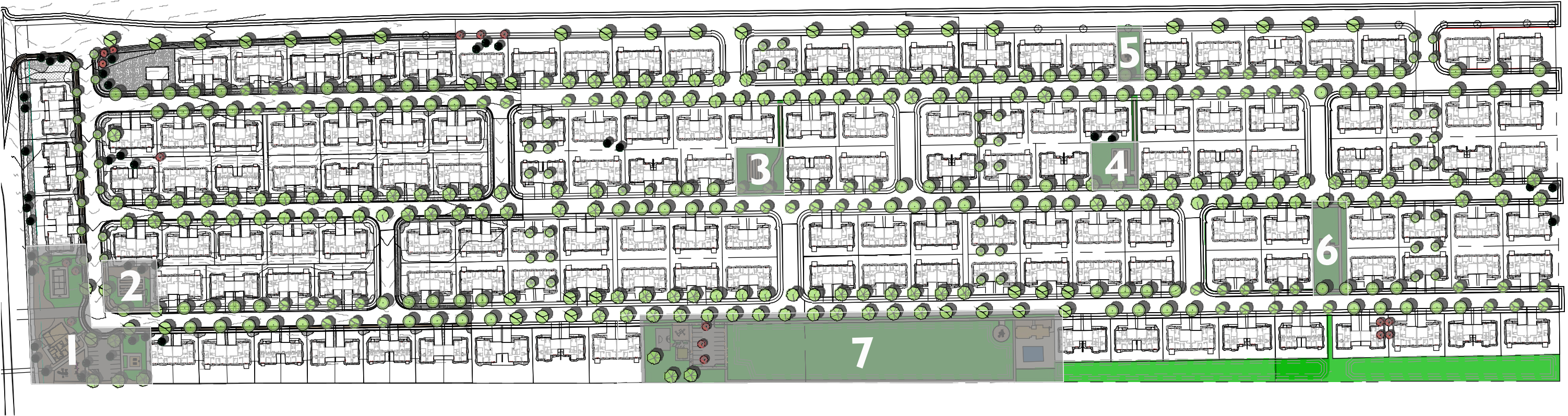
SWIMMING POOL
RESTROOMS
CHANGING ROOMS
GAZEBO
PLAYGROUND
BASKETBALL COURT
ASPHALT TRAIL
BIKE RACKS - 8 BIKES
PARKING
SHADE TREES
LARGE GRASS PLAY AREAS
SITE SECURITY CAMERAS



LANDSCAPE ARCHITECTURE
& LAND PLANNING
1375 E PERRYS HOLLOW RD
SALT LAKE CITY, UTAH 84103
PH/MO/TXT 801.554.6146
SCOTT@STBDESIGNLLC.COM

EAGLE
HEIGHTS
VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH



OVERALL PARKS
MASTER PLAN

EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH

 NORTH
SCALE: 1"=30'-0"
DATE: 02.02.2022

LI01

PARK I AMENITIES

COMMUNITY CENTER - 3,500 S.F.

Exercise Room, Full Kitchen, 2 Bathrooms,
Multi-Use Room

GAZEBO - 1,100 S.F. Area

2 Picnic Tables, Built-In BBQ, Drinking Fountain,
Trash Receptacles, Concrete Surface

PLAYGROUND

Playground - Playworld #350-1716 or equal

Swings - 4

Engineered wood fiber chips

SPORT COURT

Full-Size Basketball Court, Conc. Surface

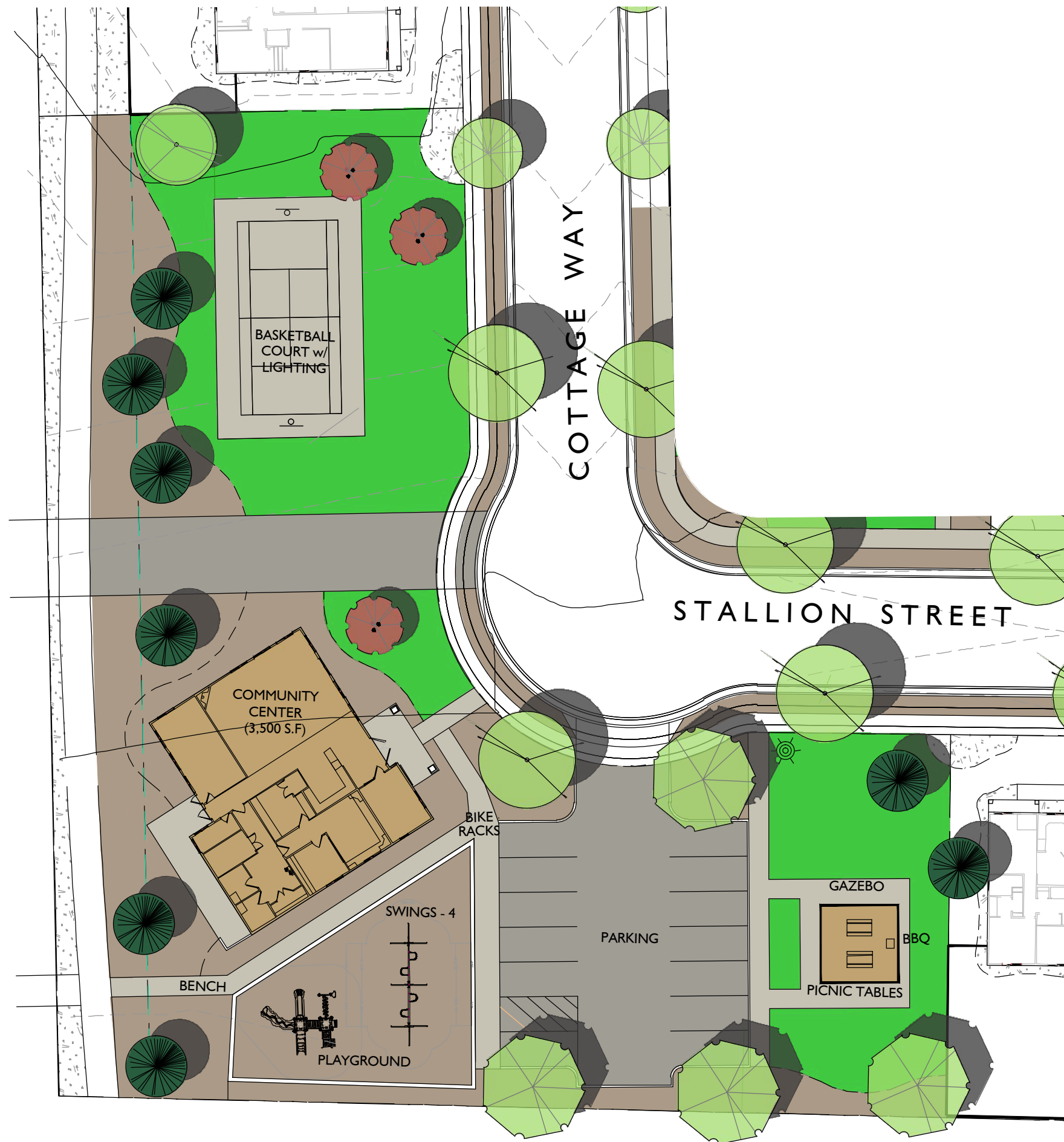
BIKE RACKS - 8 Bikes

PARKING - 15 Stalls

SHADE TREES

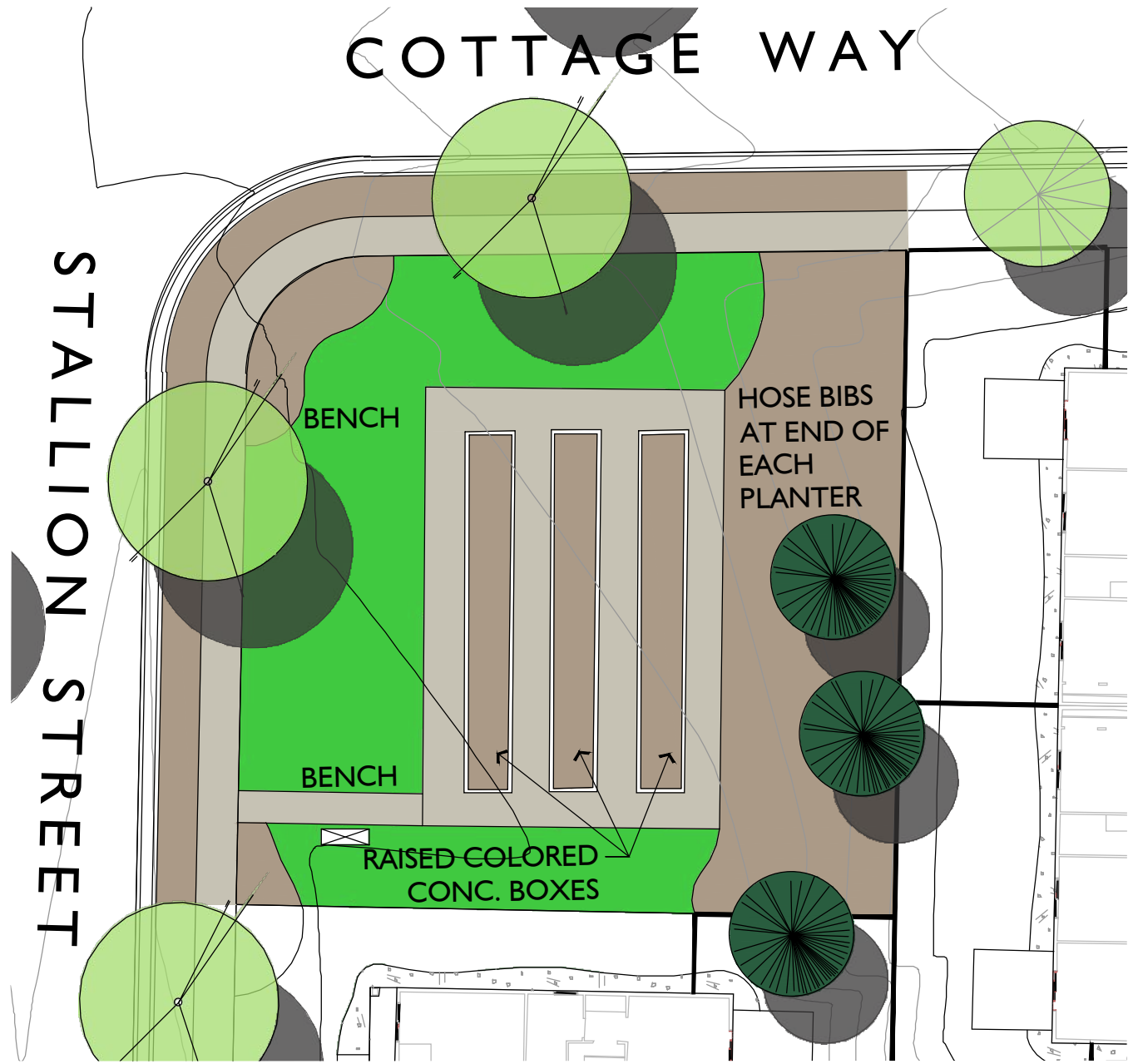
GRASS PLAY AREA

EXTERIOR SECURITY CAMERAS

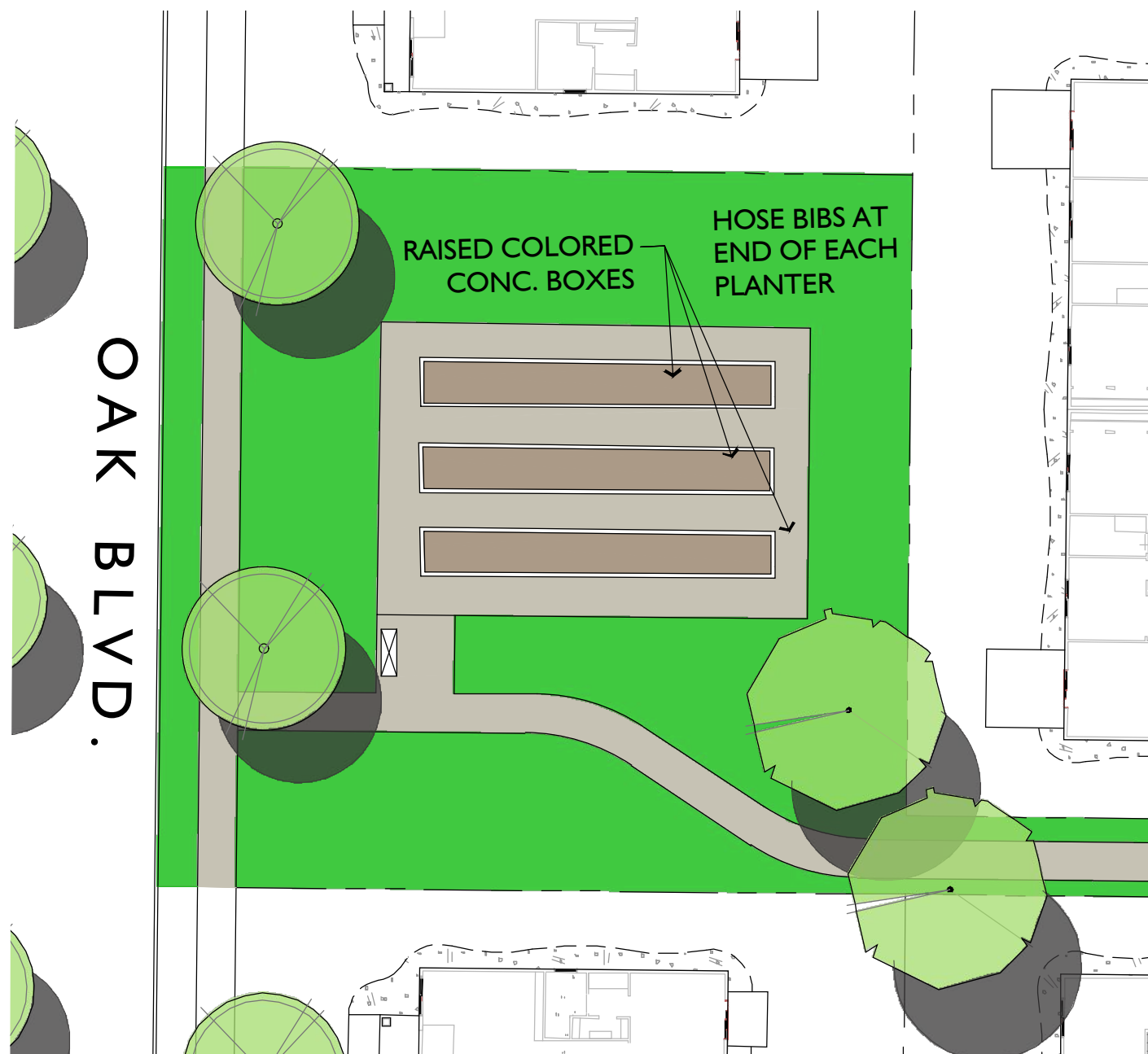


EAGLE
HEIGHTS
VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH



- PARK 2 AMENITIES
- GARDEN BOXES
 - Raised Colored Concrete Boxes
 - SITTING AREA
 - SHADE TREES
 - GRASS AREA



PARK 3 AMENITIES

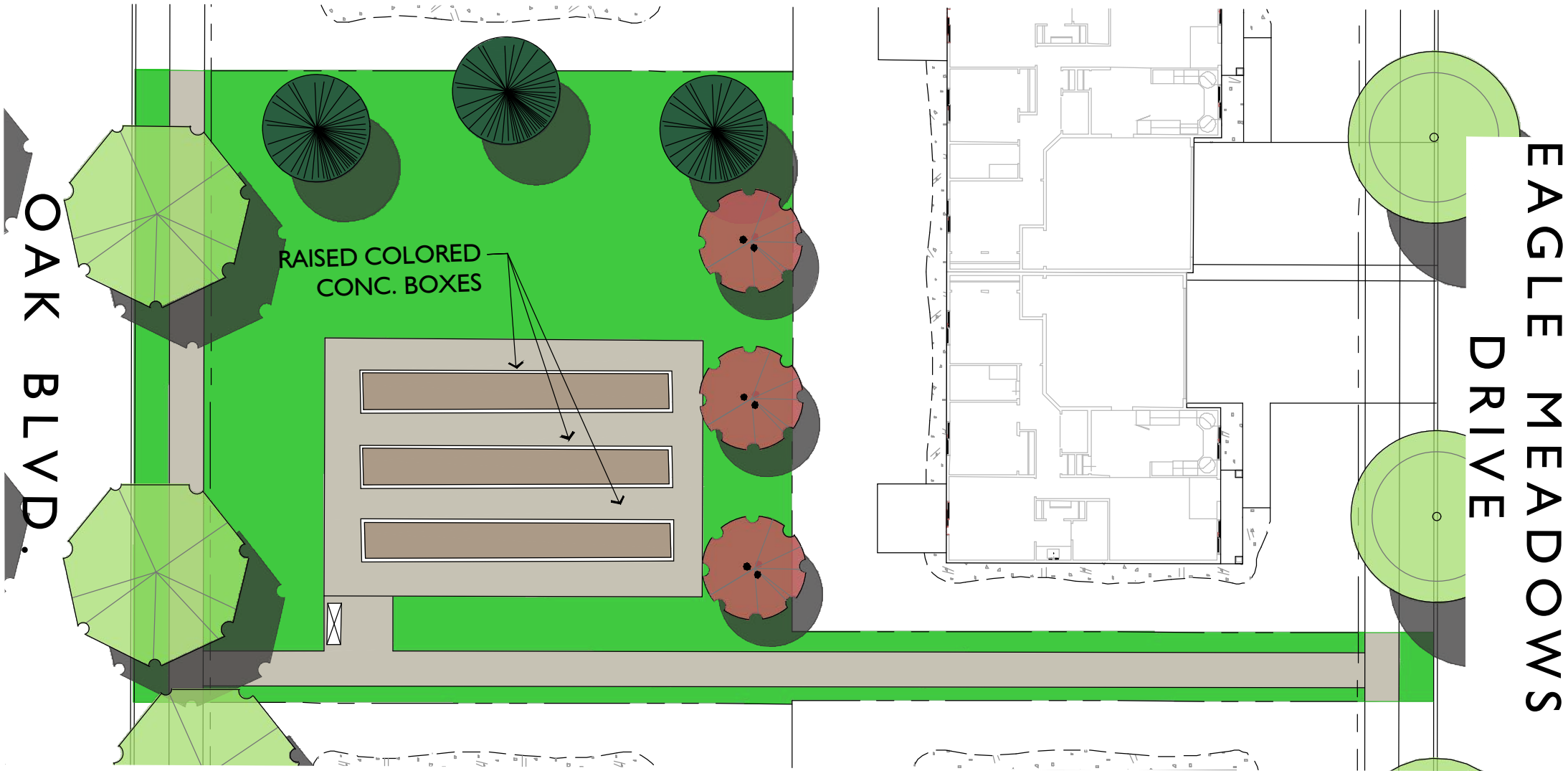
GARDEN BOXES
 Raised Colored Concrete Boxes
 SITTING AREA
 SHADE TREES
 GRASS AREA

EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.
 EAGLE MOUNTAIN, UTAH

EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH



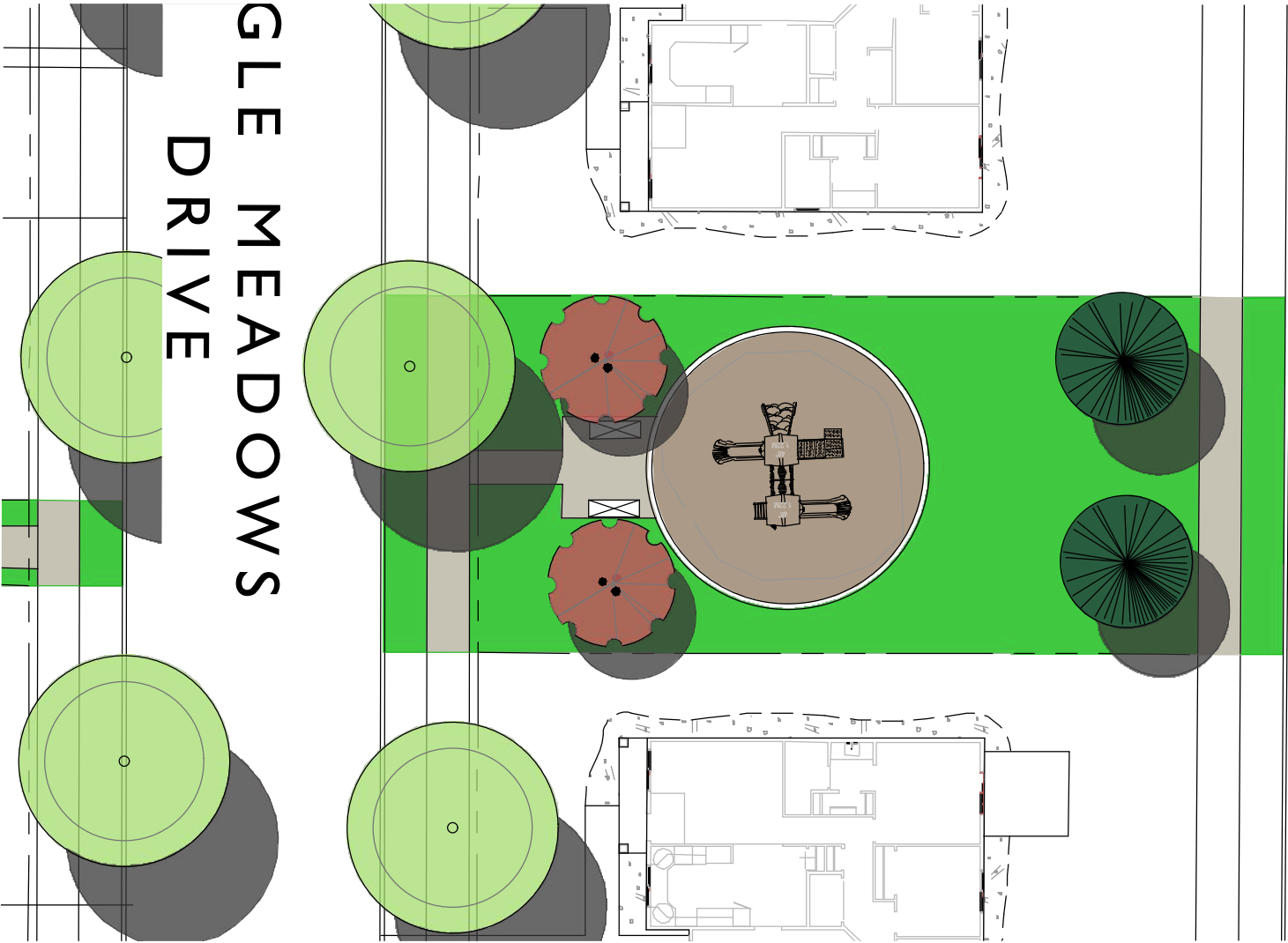
- PARK 4 AMENITIES
- GARDEN BOXES

Raised Colored Concrete Boxes
- SITTING AREA
- SHADE TREES
- GRASS AREA

EAGLE
HEIGHTS
VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH

NORTH LAKE
MOUNTAIN ROAD



GLE MEADOWS
DRIVE

PARK 5 AMENITIES

PLAYGROUND

Play Equipment, Playworld,
#PSD-1104 or equal
Engineered wood fiber chips

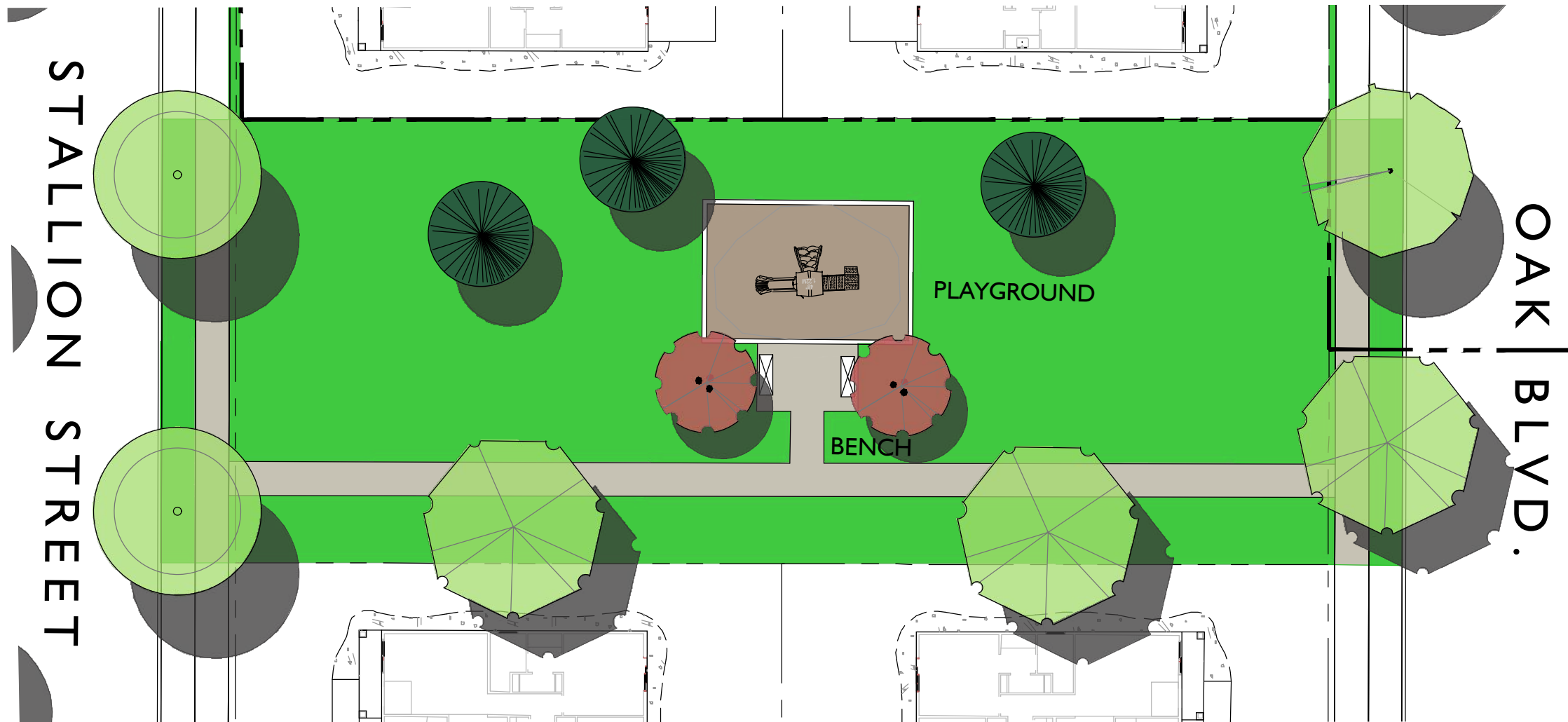
BENCH

SITTING AREA

SHADE TREES

GRASS PLAY AREA





PARK 6 AMENITIES

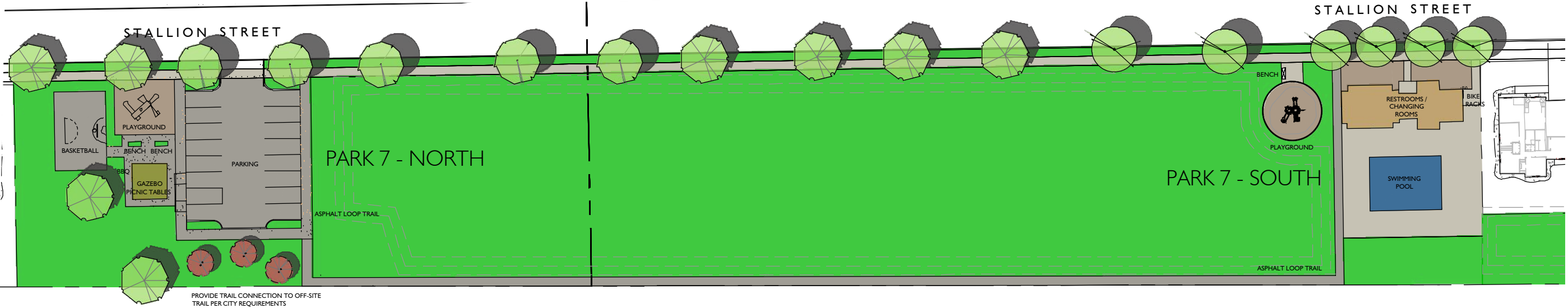
PLAYGROUND
Play Equipment, Playworld, Mighty Fun Mountain,
#PSD-1101 or equal
Engineered wood fiber chips

BENCH
SITTING AREA
SHADE TREES
GRASS PLAY AREA



PARK 7 - NORTH AMENITIES

- PARKING AREA
- PLAYGROUND
 - Play Equipment, Playworld, #350-1814 or equal
 - Engineered wood fiber chips
- BASKETBALL COURT (HALF)
- GAZEBO - 1,100 S.F. Area
 - 2 Picnic Tables, Built-In BBQ, Drinking Fountain,
 - Trash Receptacles, Concrete Surface
- SITTING AREA
- SHADE TREES
- GRASS AND PLAY AREA

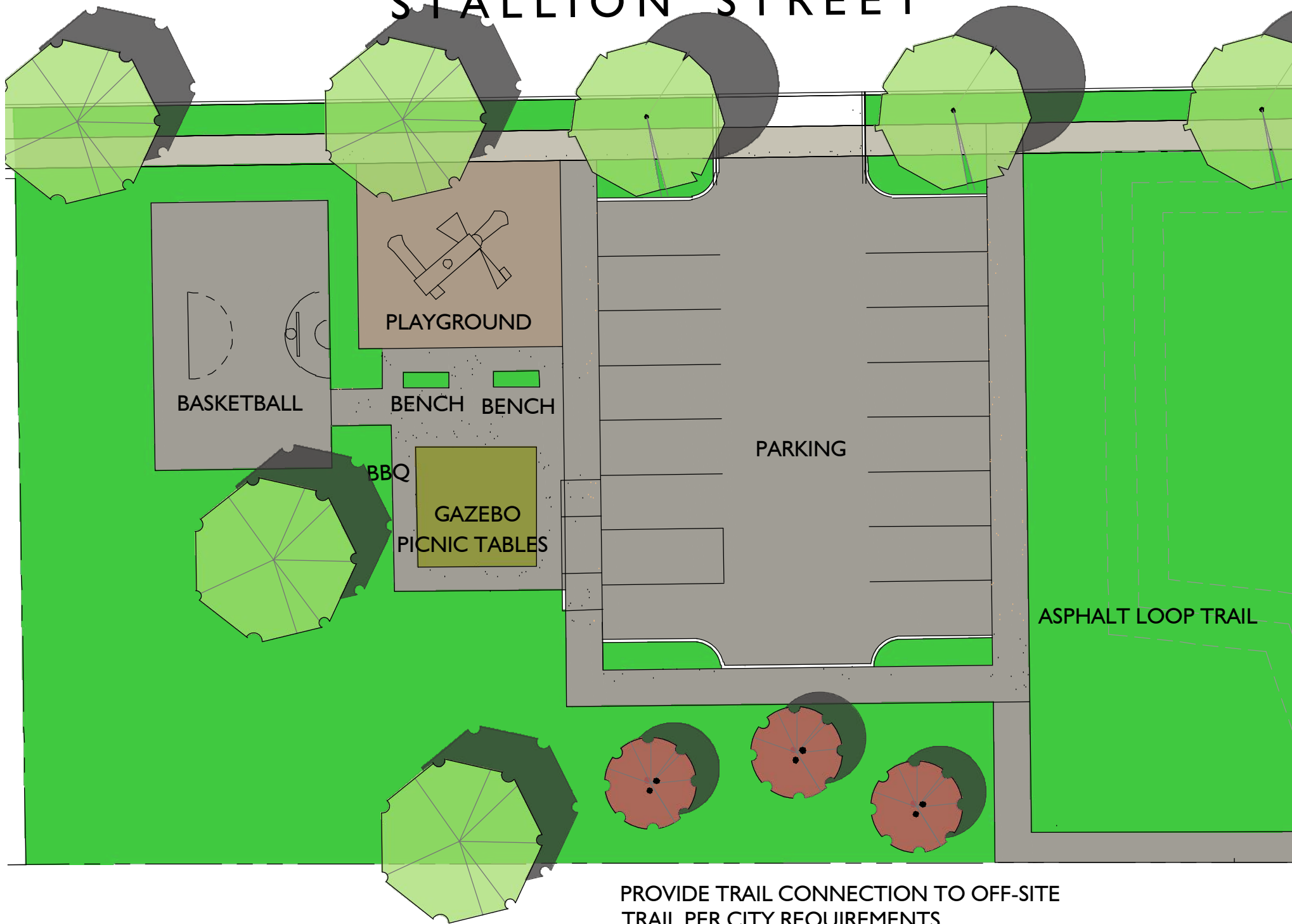


PARK 7 - SOUTH AMENITIES

- SWIMMING POOL
- RESTROOM / CHANGING ROOMS
- PLAYGROUND
 - Play Equipment, Playworld, #350-1738 or equal
 - Engineered wood fiber chips
- BIKE RACKS - 8 Bikes
- SITTING AREA
- SHADE TREES
- GRASS AND PLAY AREA
- ASPHALT TRAIL



STALLION STREET



PARK 7 - NORTH AMENITIES

PARKING AREA PLAYGROUND

Play Equipment, Playworld, #350-1814 or equal
Engineered wood fiber chips
BASKETBALL COURT (HALF)

GAZEBO - 1,100 S.F. Area

2 Picnic Tables, Built-In BBQ, Drinking Fountain,
Trash Receptacles, Concrete Surface

SITTING AREA
SHADE TREES
GRASS AND PLAY AREA



LANDSCAPE ARCHITECTURE
& LAND PLANNING
1375 E PERRYS HOLLOW RD
SALT LAKE CITY, UTAH 84103
PH/MO/TXT 801.554.6146
SCOTT@STBDESIGNLLC.COM

EAGLE HEIGHTS VILLAGE

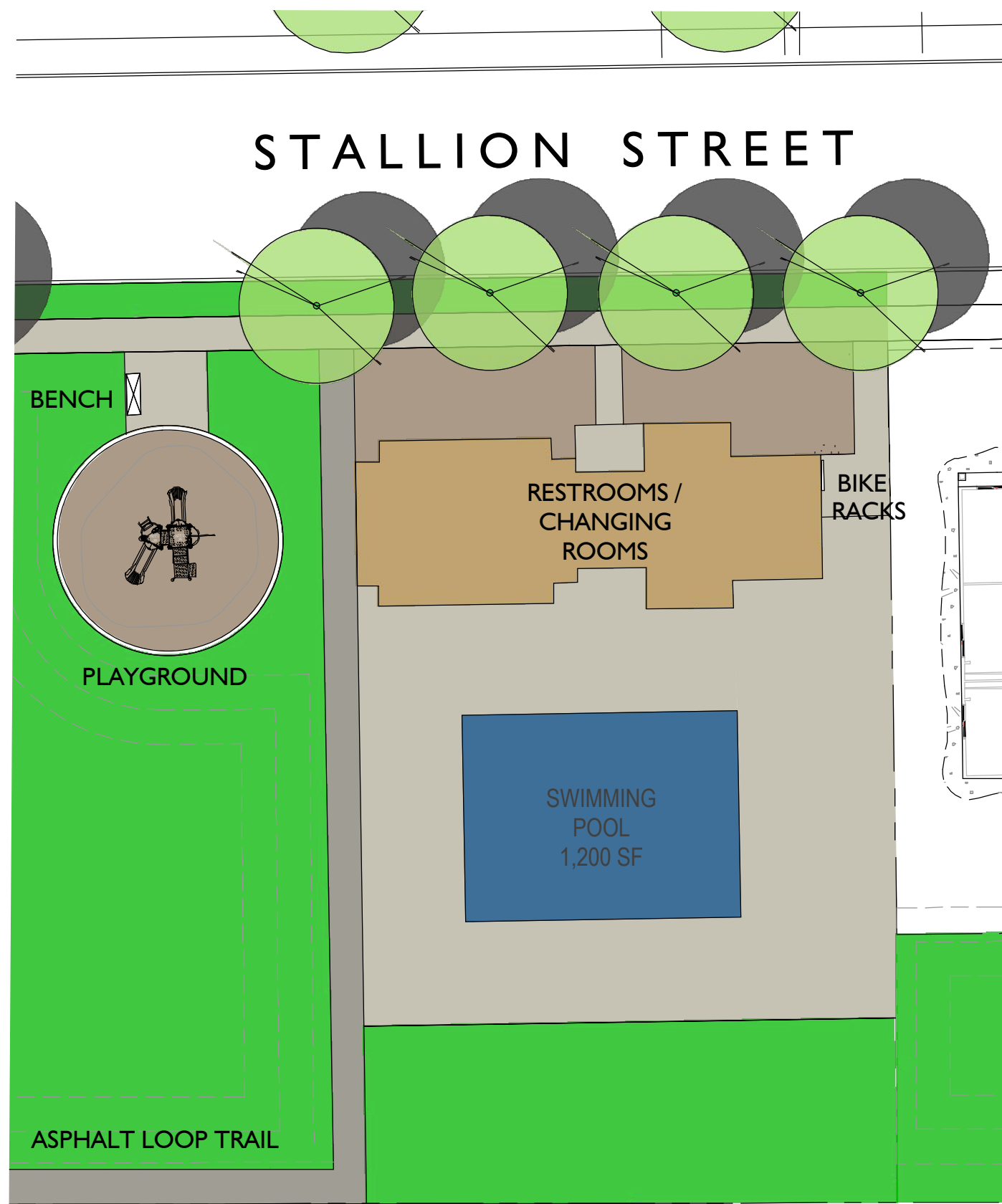
EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH



NORTH
SCALE: 1"=20'-0"
DATE: 02.02.2022

PARK 7 NORTH

LI08



PARK 7 - SOUTH AMENITIES

SWIMMING POOL - 1,200 SF

RESTROOM / CHANGING ROOMS

PLAYGROUND

Play Equipment, Playworld, #350-1738 or equal

Engineered wood fiber chips

BIKE RACKS - 8 Bikes

SITTING AREA

SHADE TREES

GRASS AND PLAY AREA

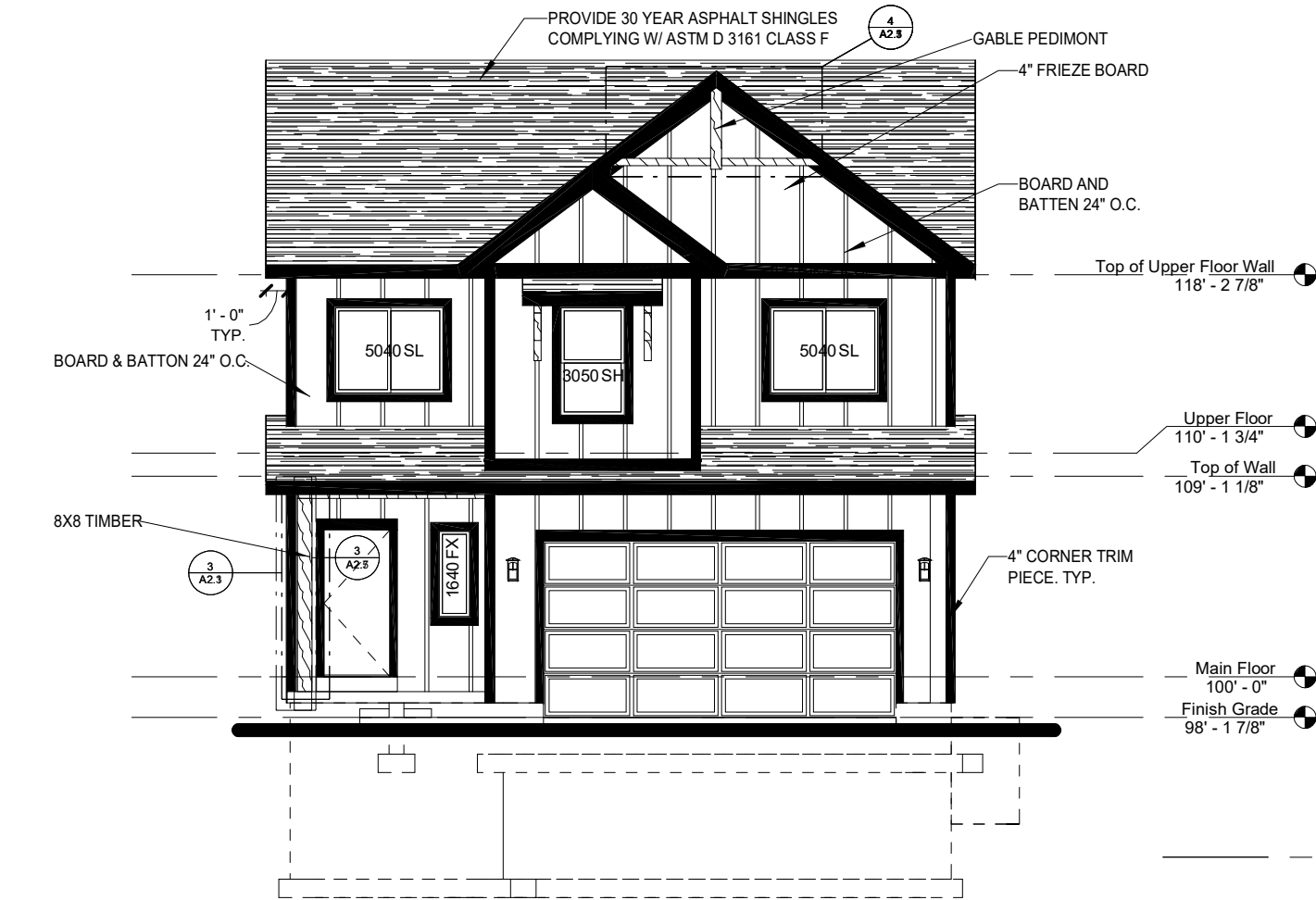
ASPHALT TRAIL



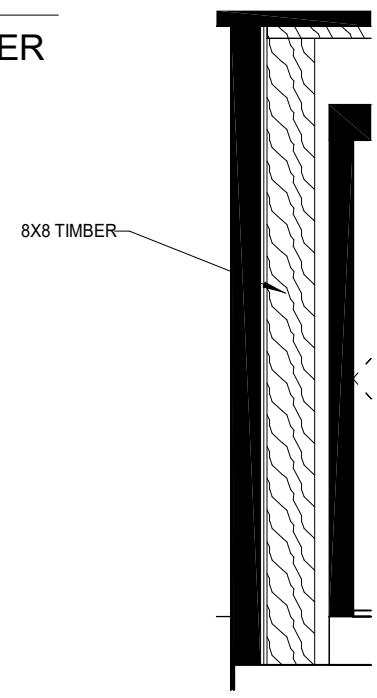
EAGLE HEIGHTS VILLAGE

EAGLE MOUNTAIN BLVD.
EAGLE MOUNTAIN, UTAH

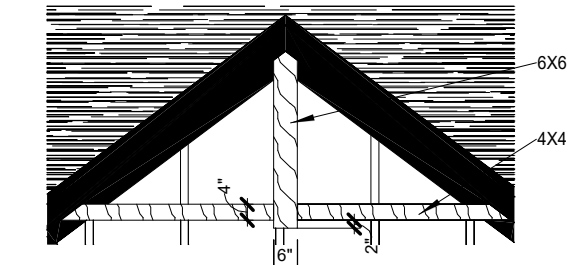
EXHIBIT “E”
SINGLE FAMILY HOME PLANS



1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

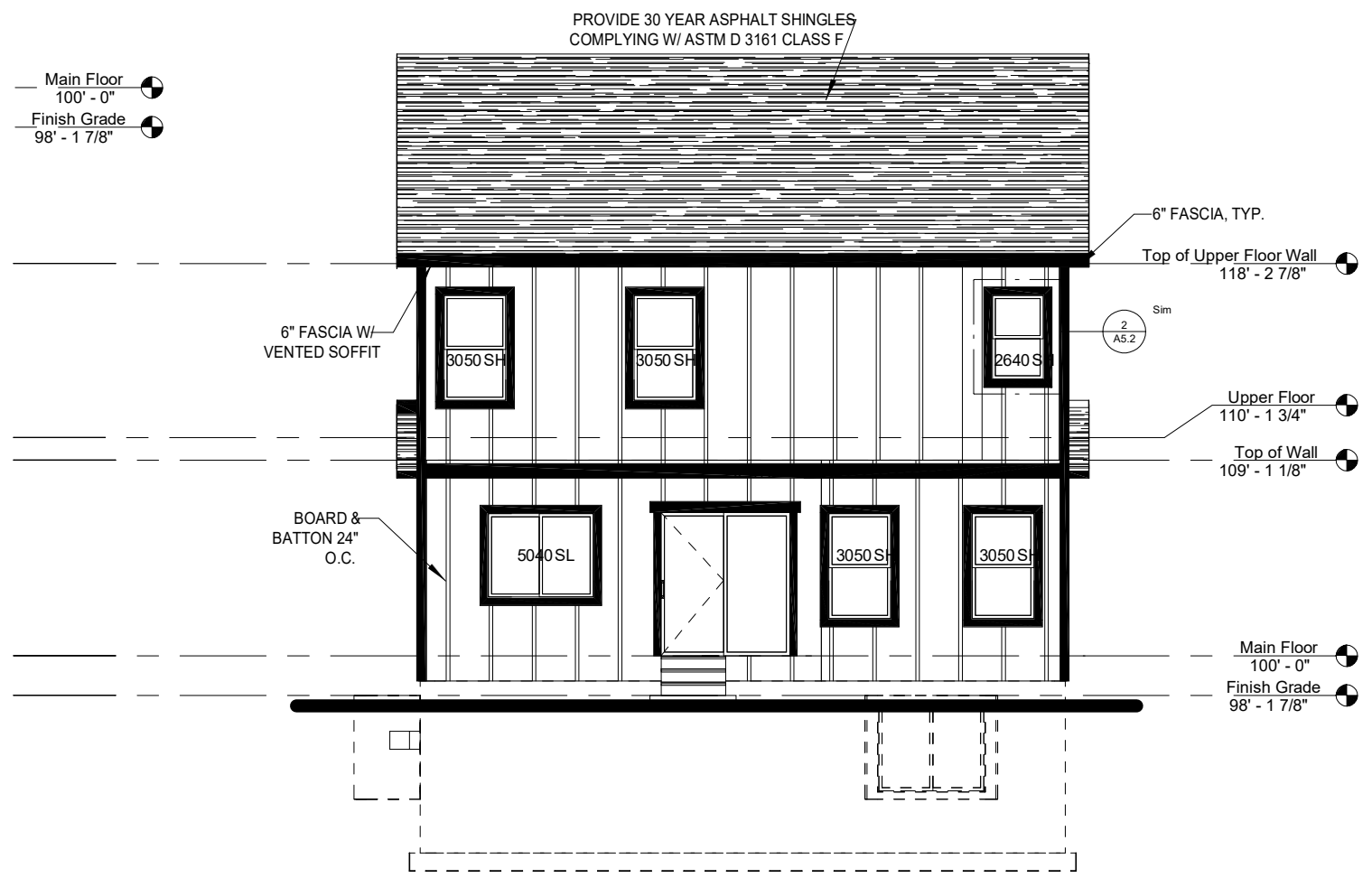


3 Craftsman Column Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



4 Gable Pediment (Portland Style) Detail
1/4" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		1
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2640 SH	6' - 8"		2
3050 SH	6' - 8"		8
5040 SL	6' - 6"		2
5040 SL	6' - 8"		3



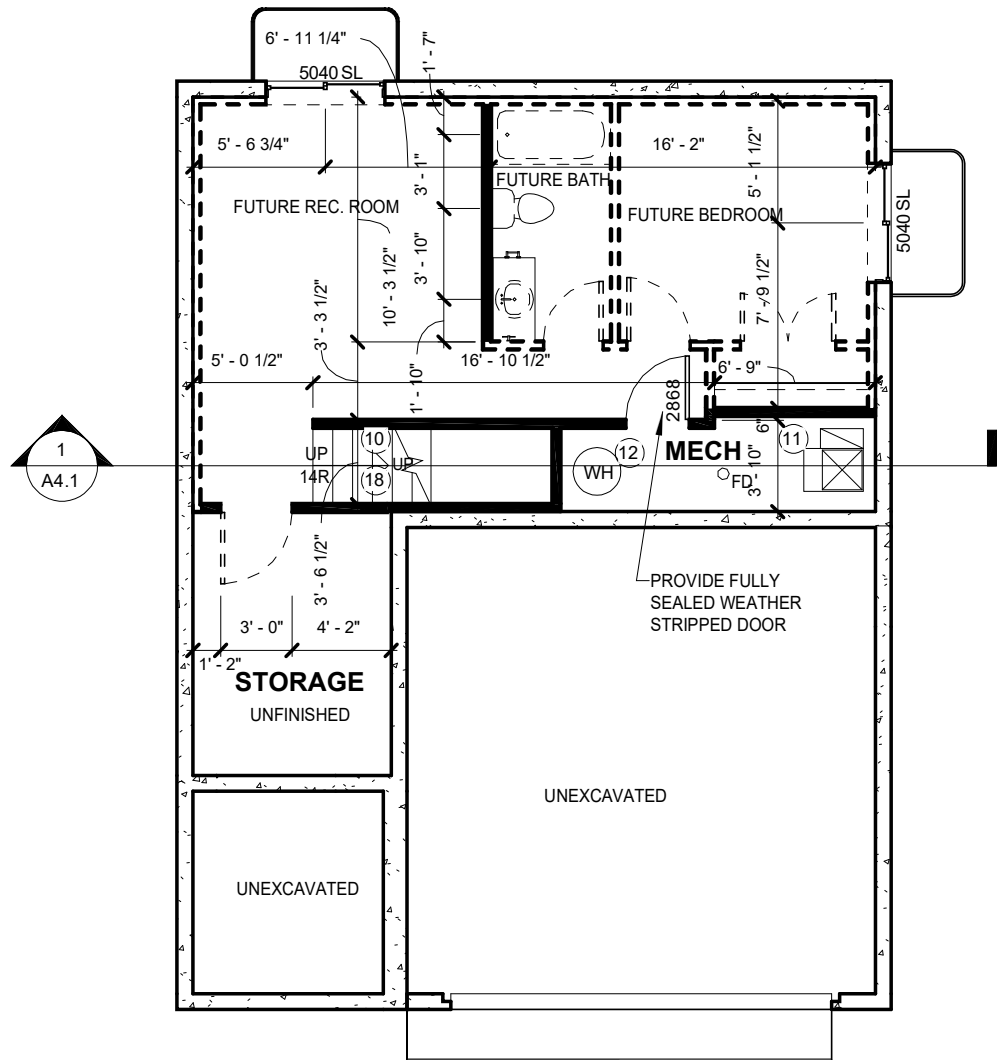
2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

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BRIDGER - FARMHOUSE
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BRIDGER
FRONT/REAR ELEVATIONS

A2.1



1 Unfinished Basement
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
11	FURNACE - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
12	WATER HEATER - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.

BASEMENT WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
5040 SL	6' - 6"		2

UNFINISHED BASEMENT DOOR SCHEDULE

TYPE	COMMENTS	COUNT
2868	Mechanical	1

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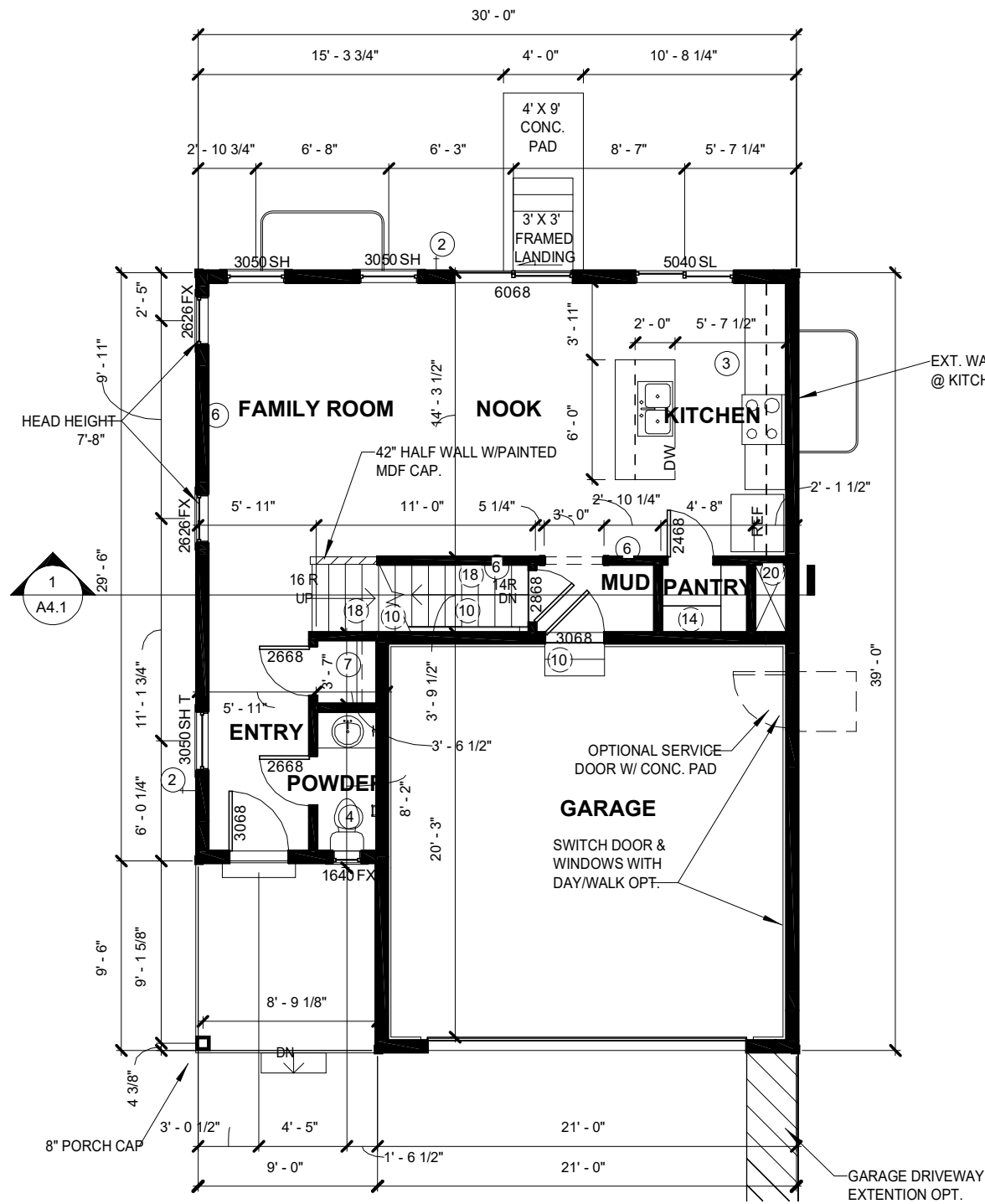
CRAFTSMAN

BRIDGER

UNFINISHED
BASEMENT PLAN

A1.1

NOTE: ALL EXTERIOR WALL STUDS FRAMED @
24" O.C. U.N.O



1 Main Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

2	PROVIDE FREEZELESS HOSE BIB WITH BACKFLOW PREVENTION DEVICE AT INDICATED LOCATION. DO NOT INSTALL HOSE BIBS OVER WINDOW WELLS.
3	KITCHEN NOTES: 30" OPENING FOR RANGE, 24" OPENING FOR D/W. REFRIGERATOR SPACE: (1) 42" MIN. FROM CABINET TO WALL (2) 39" MIN. WITHOUT WALL RESTRICTION.
4	BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH. PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
6	ALL FRAMING METHODS TO BE AS PER CURRENT I.R.C.
7	1R1S CLOSET SHELVES @ 72" A.F.F.
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
14	PROVIDE (4) SHELVES @ PANTRY
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
20	MECHANICAL CHASE

MAIN FLOOR WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
1640 FX	6' - 8"		1
2626 FX	7' - 8"		2
3050 SH	6' - 8"		2
3050 SH	6' - 8"	Tempered	1
5040 SL	6' - 8"		1

MAIN FLOOR DOOR SCHEDULE

VV	COMMENTS	COUNT
2468		1
2668		2
2868		1
3068	20 MIN	2
6068		1
16080		1

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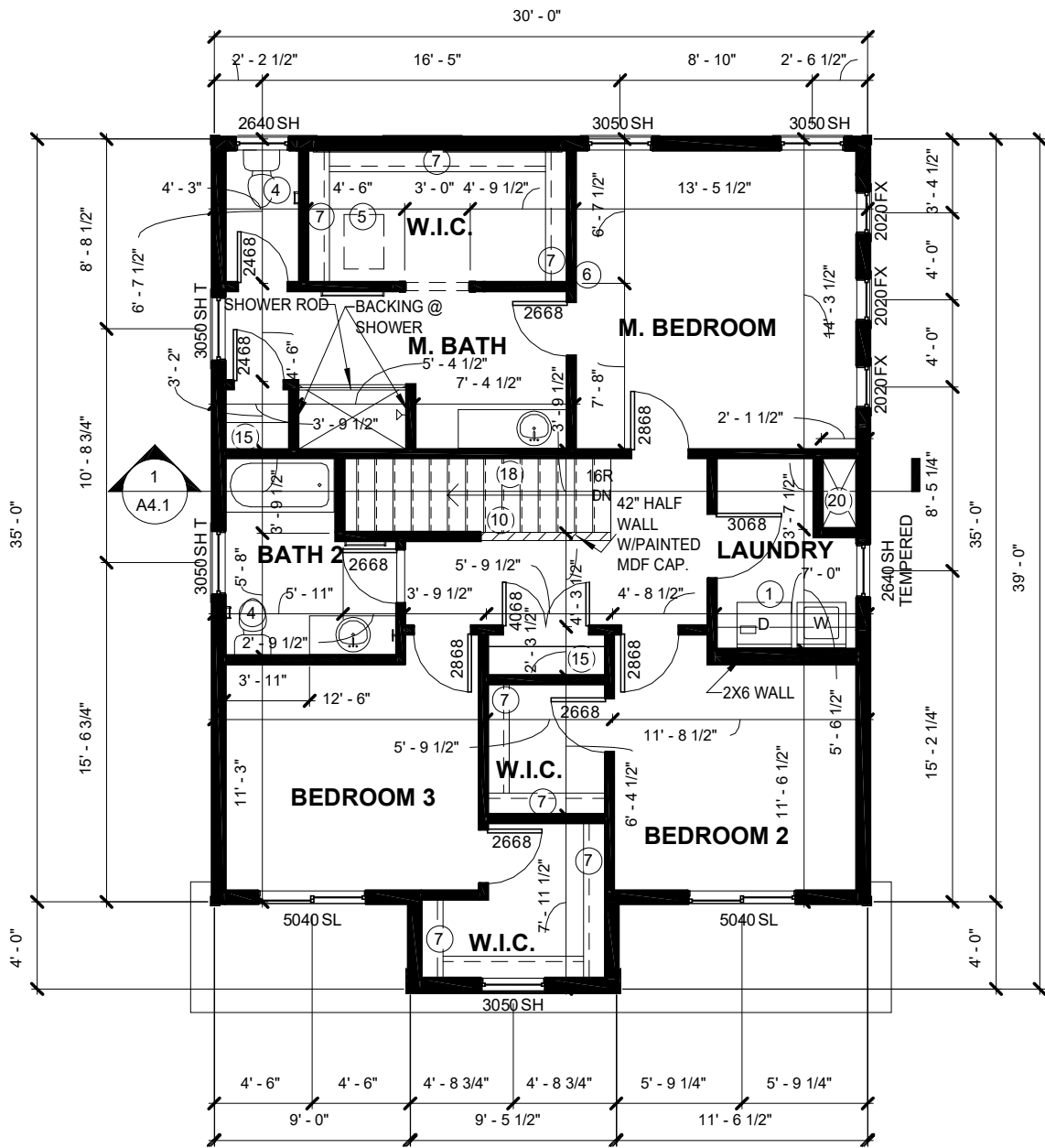
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MAIN FLOOR PLAN

A1.4

NOTE: ALL EXTERIOR WALL STUDS FRAMED @
24" O.C. U.N.O



1 Upper Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

1	WASHER/DRYER NOTES (SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS), WASHER ALWAYS ON LEFT OF DRYER. MAINTAIN 2'-10" X 5'-4" FOR OPTIONAL DRAIN PAN. VENT DRYER TO EXTERIOR OF HOME. PROVIDE 5' WIDE SHELF ABOVE WASHER/DRYER. DRAIN WALL SHOULD BE 2 X 6.
4	BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH. PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
5	ATTIC ACCESS (SEE GENERAL NOTE 16 FOR CODE REQUIREMENTS)
6	ALL FRAMING METHODS TO BE AS PER CURRENT I.R.C.
7	1R1S CLOSET SHELVES @ 72" A.F.F.
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
15	@ LINEN CLOSET PROVIDE (4) SHELVES. FIRST SHELF @ 3'-0" AND 16" BETWEEN SHELVES.
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
20	MECHANICAL CHASE

UPPER FLOOR DOOR SCHEDULE

TYPE	COMMENTS	COUNT
2468		2
2668		4
2868		3
3068		1
4068		1

UPPER FLOOR WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
2020 FX	6' - 8"		3
2640 SH	6' - 8"		2
3050 SH	6' - 8"		3
3050 SH	6' - 8"	Tempered	2
5040 SL	6' - 8"		2

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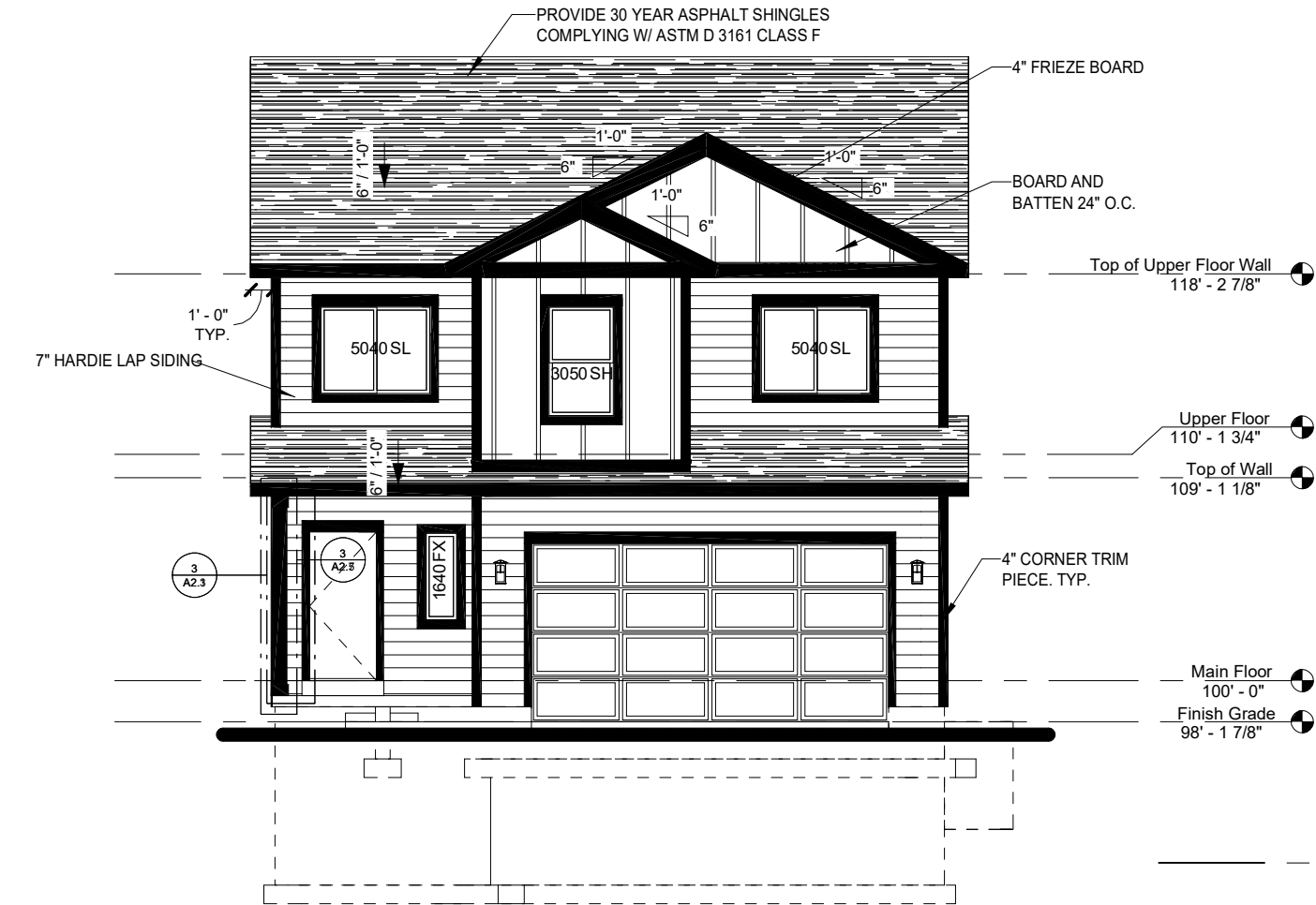
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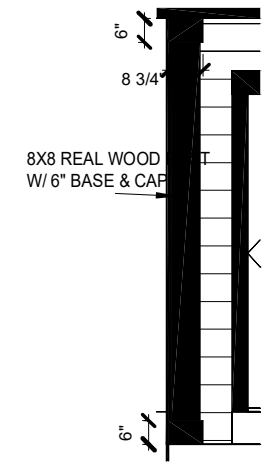
BRIDGER

UPPER FLOOR PLAN

A1.8

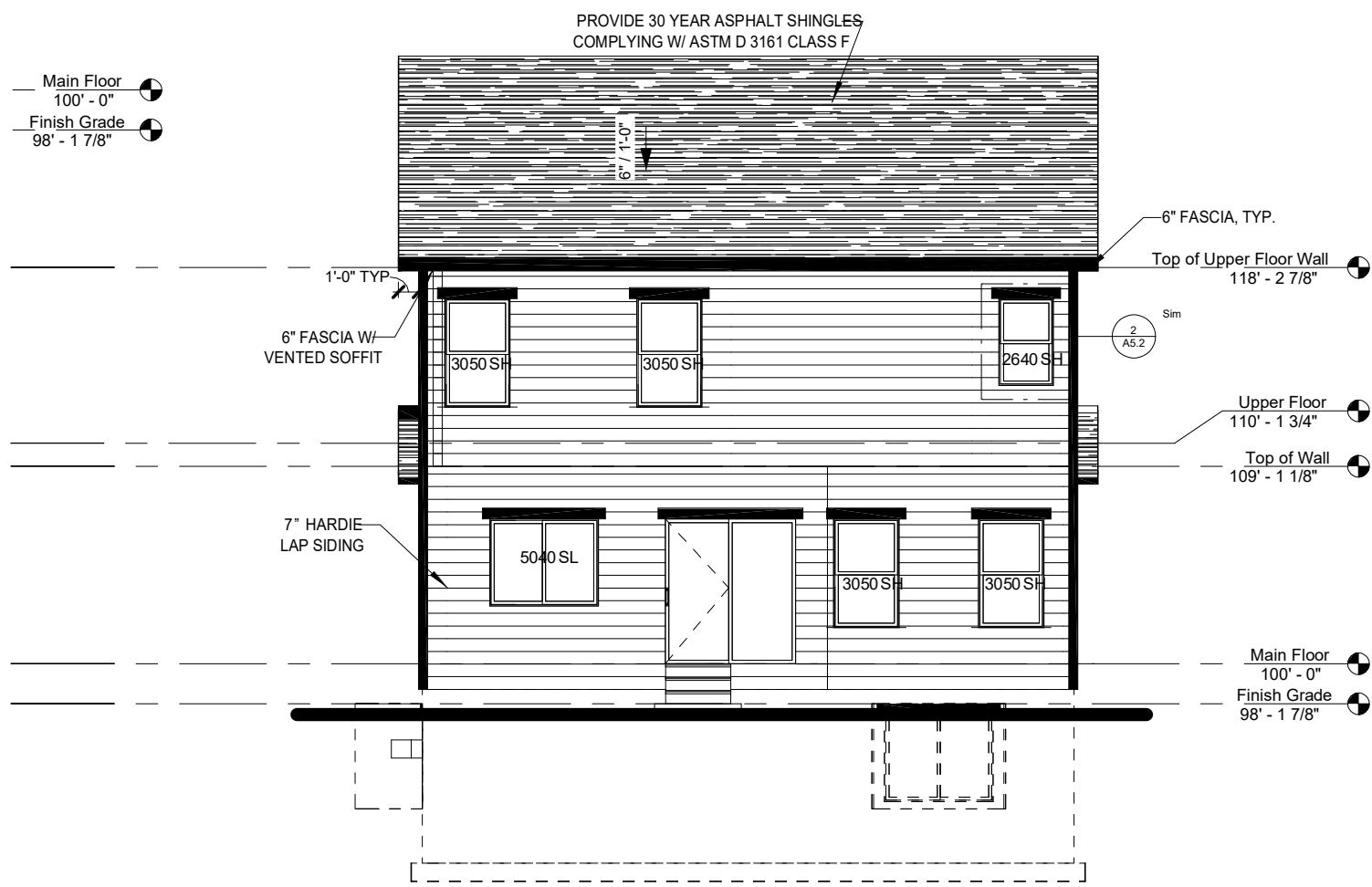


1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



3 Craftsman Column Detail
1/4" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		1
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2640 SH	6' - 8"		2
3050 SH	6' - 8"		8
5040 SL	6' - 6"		2
5040 SL	6' - 8"		3



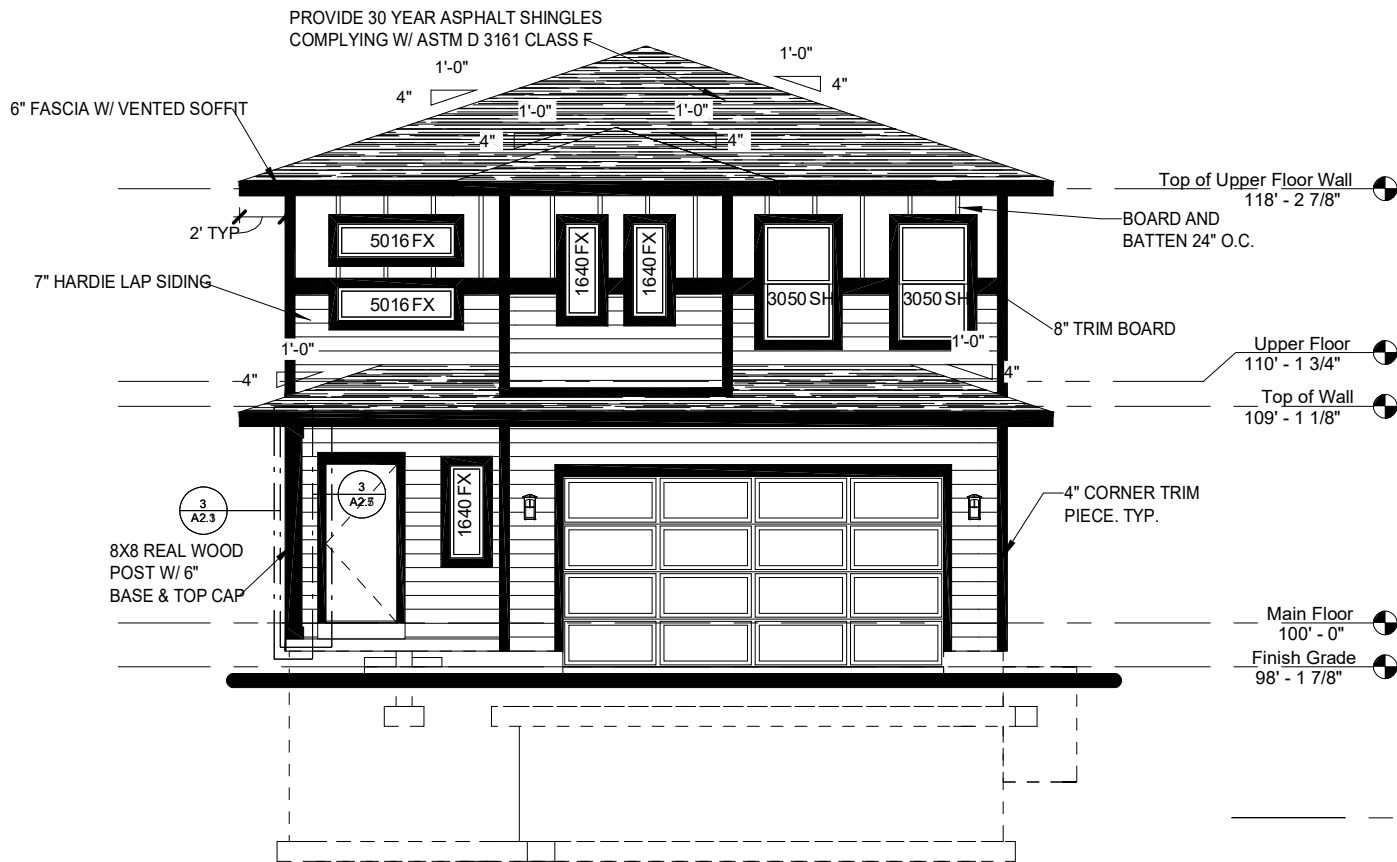
2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

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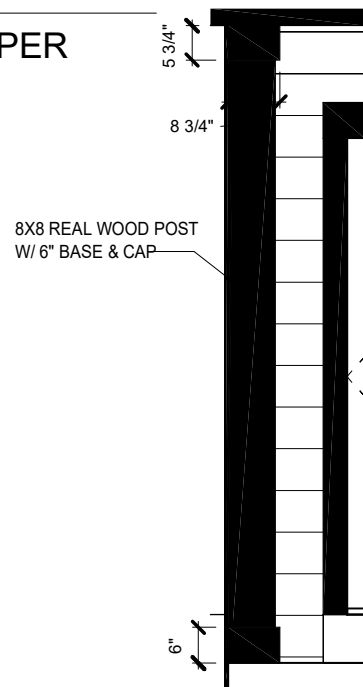
BRIDGER - CRAFTSMAN
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BRIDGER
FRONT/REAR ELEVATIONS

A2.1

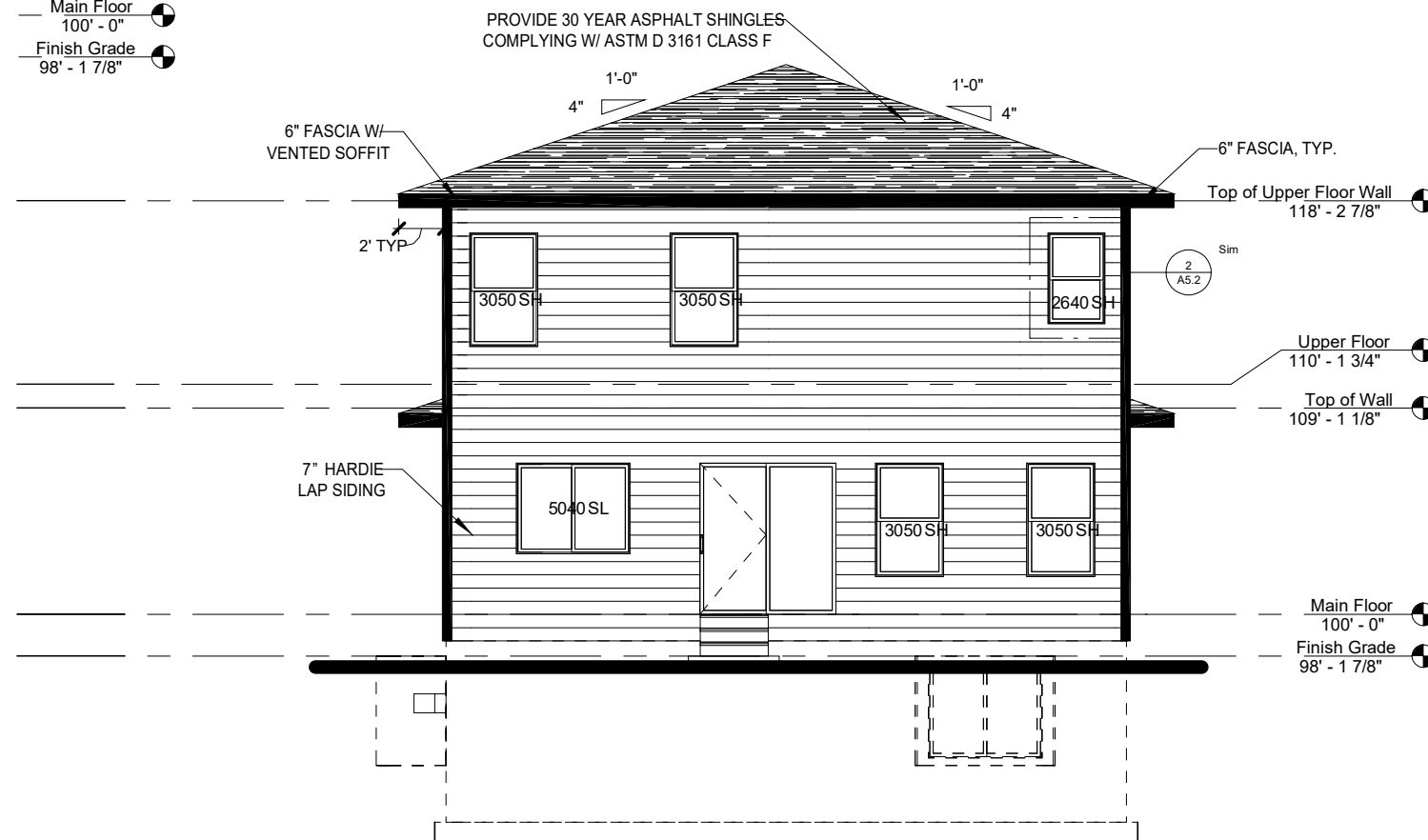


1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



3 Craftsman Column Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		3
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2640 SH	6' - 8"		2
3050 SH	6' - 8"		9
5016 FX	4' - 0"		1
5016 FX	6' - 8"		1
5040 SL	6' - 6"		2
5040 SL	6' - 8"		1



2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

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BRIDGER - PRAIRIE

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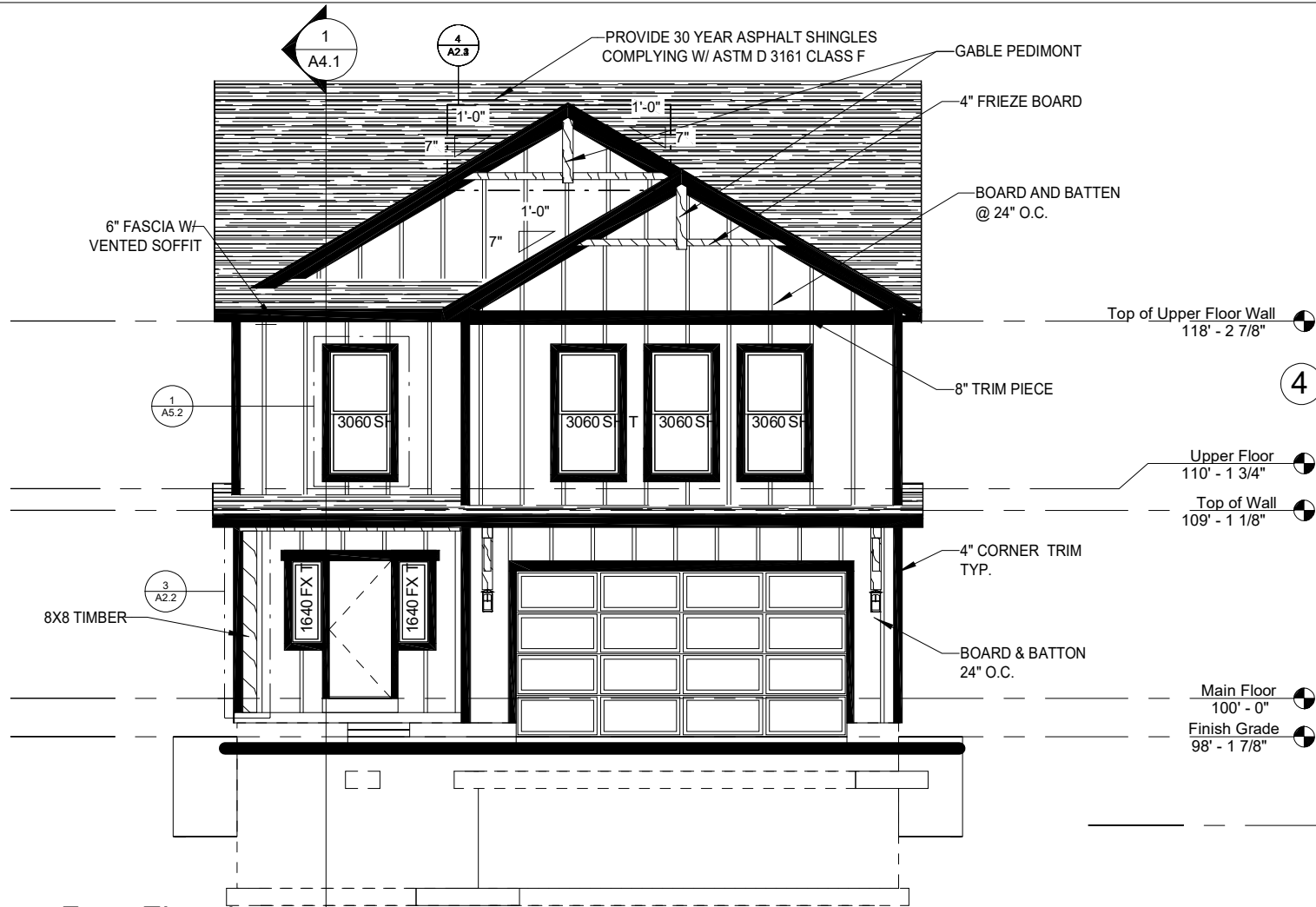
02/04/2020

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BRIDGER

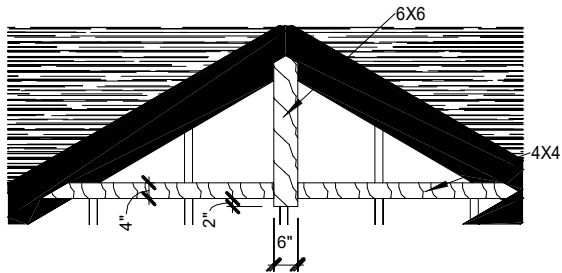
FRONT/REAR
ELEVATIONS

A2.1



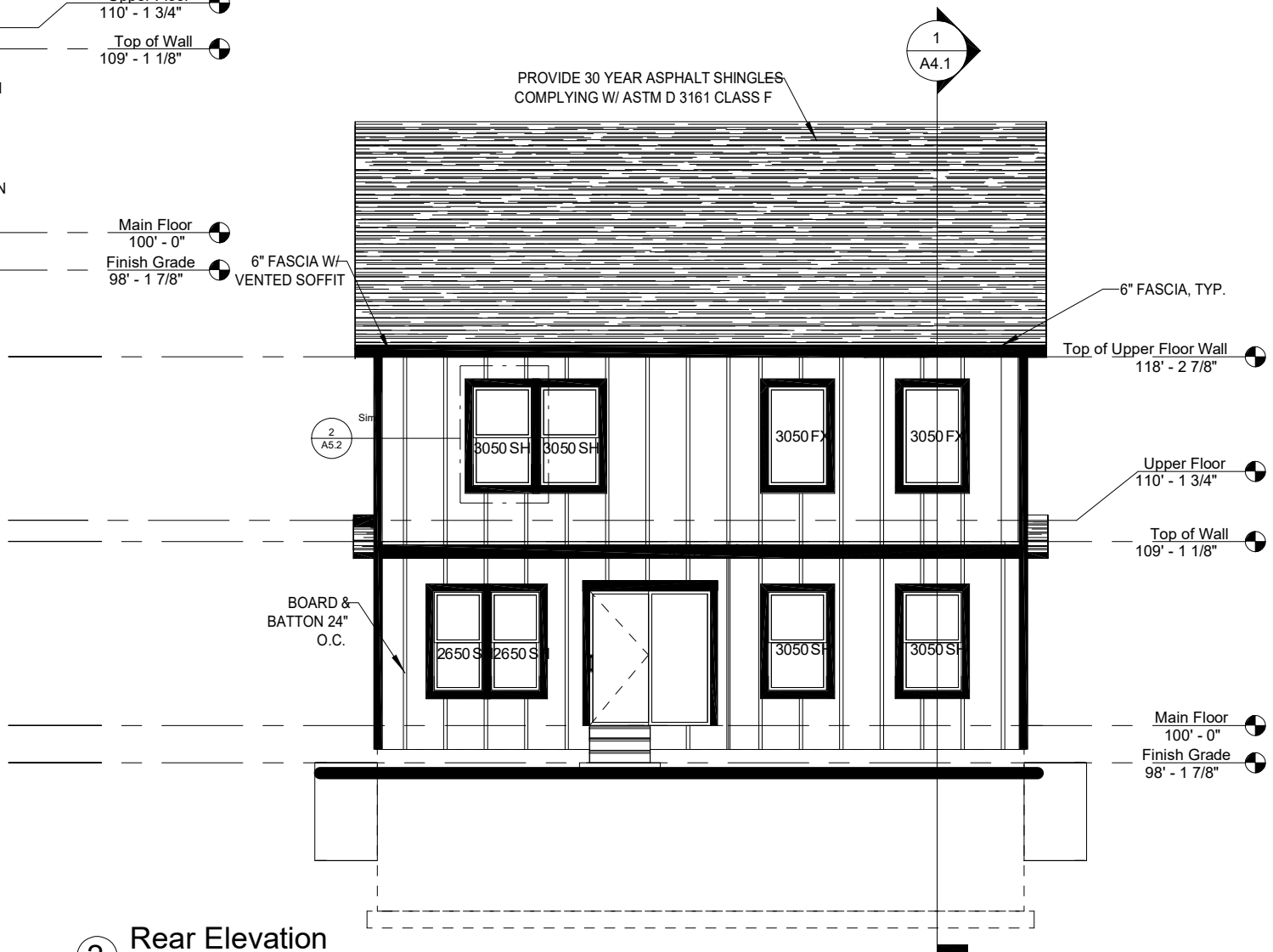
1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

3 Porch Post Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1" = 1'-0" ON 24" X 36" PAPER



4 Gable Pediment (Portland Style) Detail
1/4" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		2
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2650 SH	6' - 8"		2
3030 SL	6' - 8"		1
3050 FX	6' - 8"		2
3050 SH	6' - 8"	TEMPERED	1
3050 SH	6' - 8"		5
3060 SH	6' - 8"		4
5040 SL	6' - 6"		2



2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

FieldStone
HOMES

SWEETWATER - FARMHOUSE

LOT #

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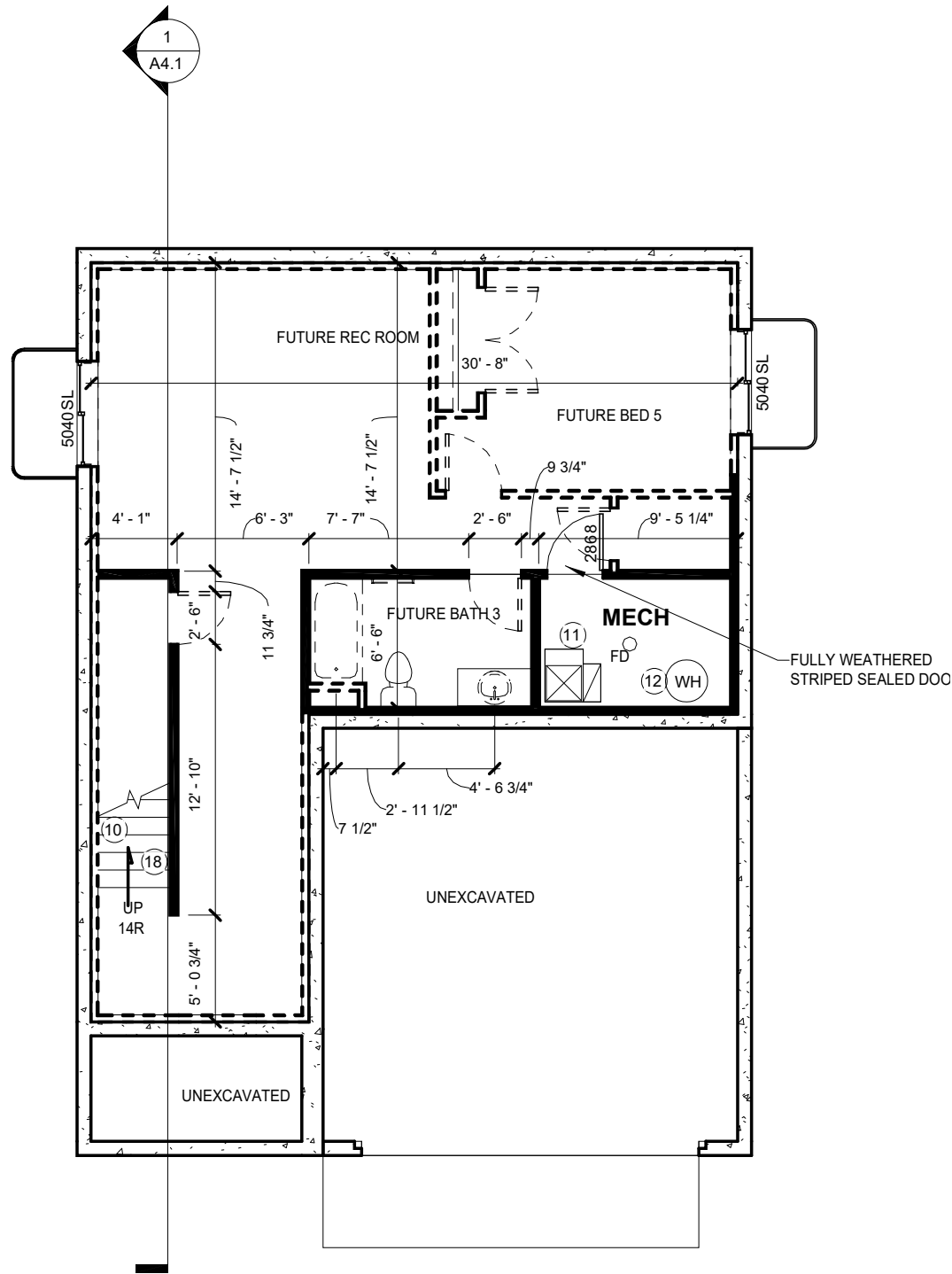
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CRAFTSMAN

SWEETWATER

FRONT/REAR
ELEVATIONS

A2.1



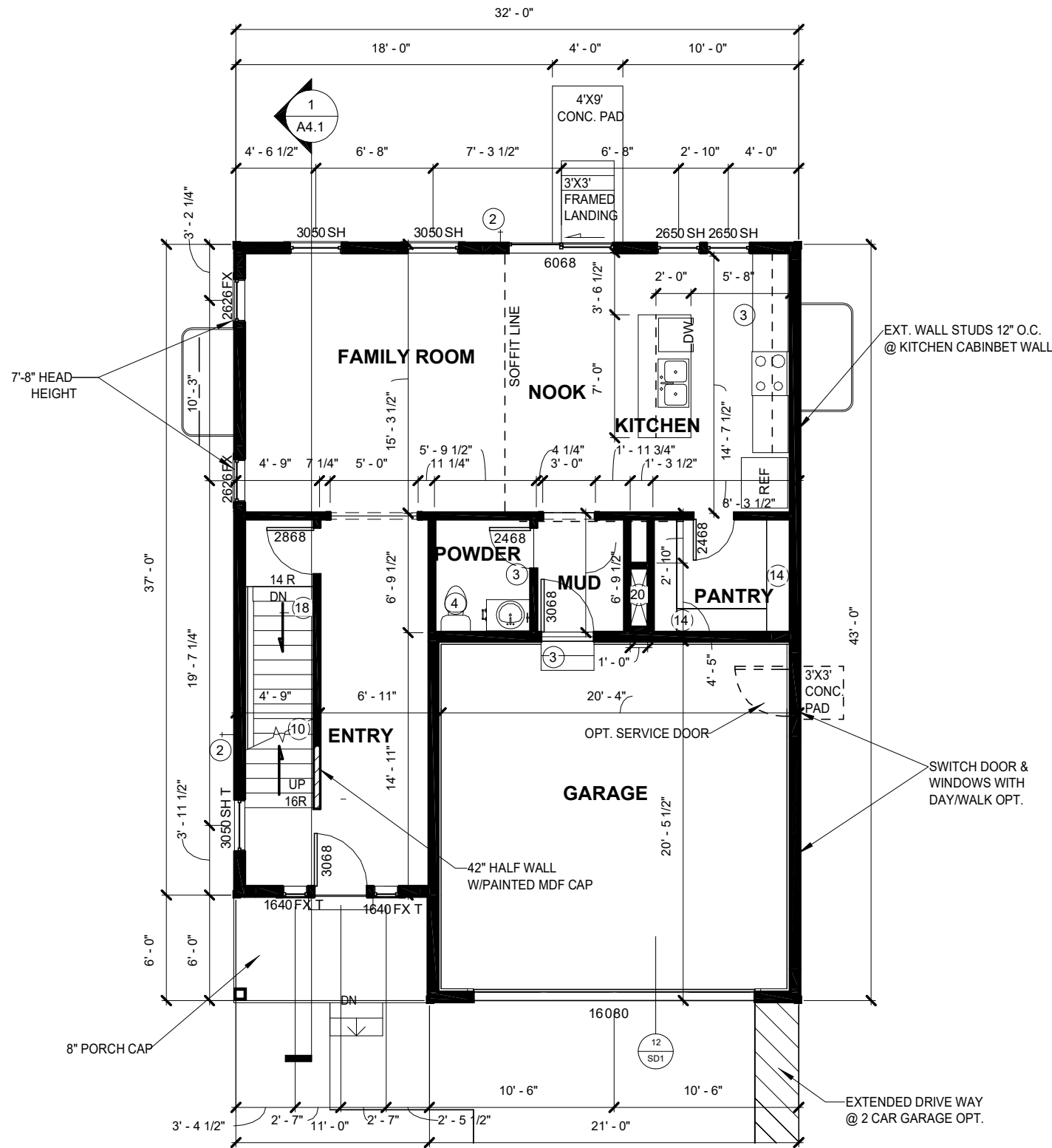
1 Unfinished Basement
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
11	FURNACE - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
12	WATER HEATER - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.

BASEMENT WINDOW SCHEDULE			
SIZE	HEAD HEIGHT	COMMENTS	COUNT
5040 SL	6' - 6"		2

**NOTE: ALL EXTERIOR WALLS STUDS FRAMED
@ 24" O.C. U.N.O**



1
Main Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

2	PROVIDE FREEZELESS HOSE BIB WITH BACKFLOW PREVENTION DEVICE AT INDICATED LOCATION. DO NOT INSTALL HOSE BIBS OVER WINDOW WELLS.
3	KITCHEN NOTES: 30" OPENING FOR RANGE, 24" OPENING FOR D/W. REFRIGERATOR SPACE: (1) 42" MIN. FROM CABINET TO WALL (2) 39" MIN. WITHOUT WALL RESTRICTION.
4	BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH. PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
14	PROVIDE (4) SHELVES @ PANTRY
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
20	MECHANICAL CHASE

MAIN FLOOR WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
1640 FX	6' - 8"		2
2626 FX	7' - 8"		2
2650 SH	6' - 8"		2
3050 SH	6' - 8"		2
3050 SH	6' - 8"	TEMPERED	1

MAIN FLOOR DOOR SCHEDULE

VV	COMMENTS	COUNT
2468		2
2868		1
3068		2
6068		1
16080	GARAGE DOOR	1

GENERAL FRAMING NOTES

- The contractor shall use the grades of lumber specified in the beam schedules listed on drawing. Deeper, wider, or better grades of lumber may be substituted. Any other changes must be approved by the engineer.
- (2) 2x10 DFR2 or BTR with filler shall be used for all load/bearing window and door headers unless noted otherwise on drawing.
- (2) 1-3/4"x9-1/2" LVLs shall be used for all headers supporting a girder truss unless noted otherwise on drawing.
- All multiple beams and headers shall be nailed using 2 rows of 16d nails @ 12" O.C.
- All point loads shall be solid blocked to the foundation.
- For headers less than 5'-0" long nail to king stud using (6) 16d nails.
- For headers 5'-0" to 8'-6" long install two ACE straps @ each end or 12" CS16 strap. Two trimmers required.
- For headers 8'-7" to 18'-0" long install two ST18 straps @ each end. Minimum (2) trimmers required.
- Use Simpson A35 or equivalent on each cantilevered joist to bearing wall plate. Install joist hangers as per manufacturer's specifications. Double joist under window and door trimmers. Install joist web stiffeners as per manufacturer's specifications.
- The contractor shall follow the minimum fastening schedule listed in IBC table 2304.9.1.
- All fasteners which are to be installed in preservative treated wood shall meet the requirements of IBC 2304.9.5.
- Use Simpson CS16 or equivalent straps 36" long spaced @ 32" o.c. between floors centered on rim joist or drop sheathing down over rim joist 3/4" onto top plate between floors or drop sheathing joint centered on solid rim board and nail as per shear wall schedule. Block all edges.
- All construction shall be in accordance to the 2015 International Building Code.
- The following lumber grades shall be used U.N.O.
 - Joists: Doug Fir #2 or better
 - Parallams: Per manufacturer specifications
 - Beams/Headers: Doug Fir #2 or better
 - Pre-Fab Trusses/Joists: Per manufacturer specifications
 - Bearing wall studs: Doug Fir #2 or better
 - Sill plates: Pressure treated Doug Fir #2 or better
 - Posts: Doug Fir #1 or better
 - Ext deck joists and beams: Pressure treated Doug Fir #2 or better

SWEETWATER - CRAFTSMAN

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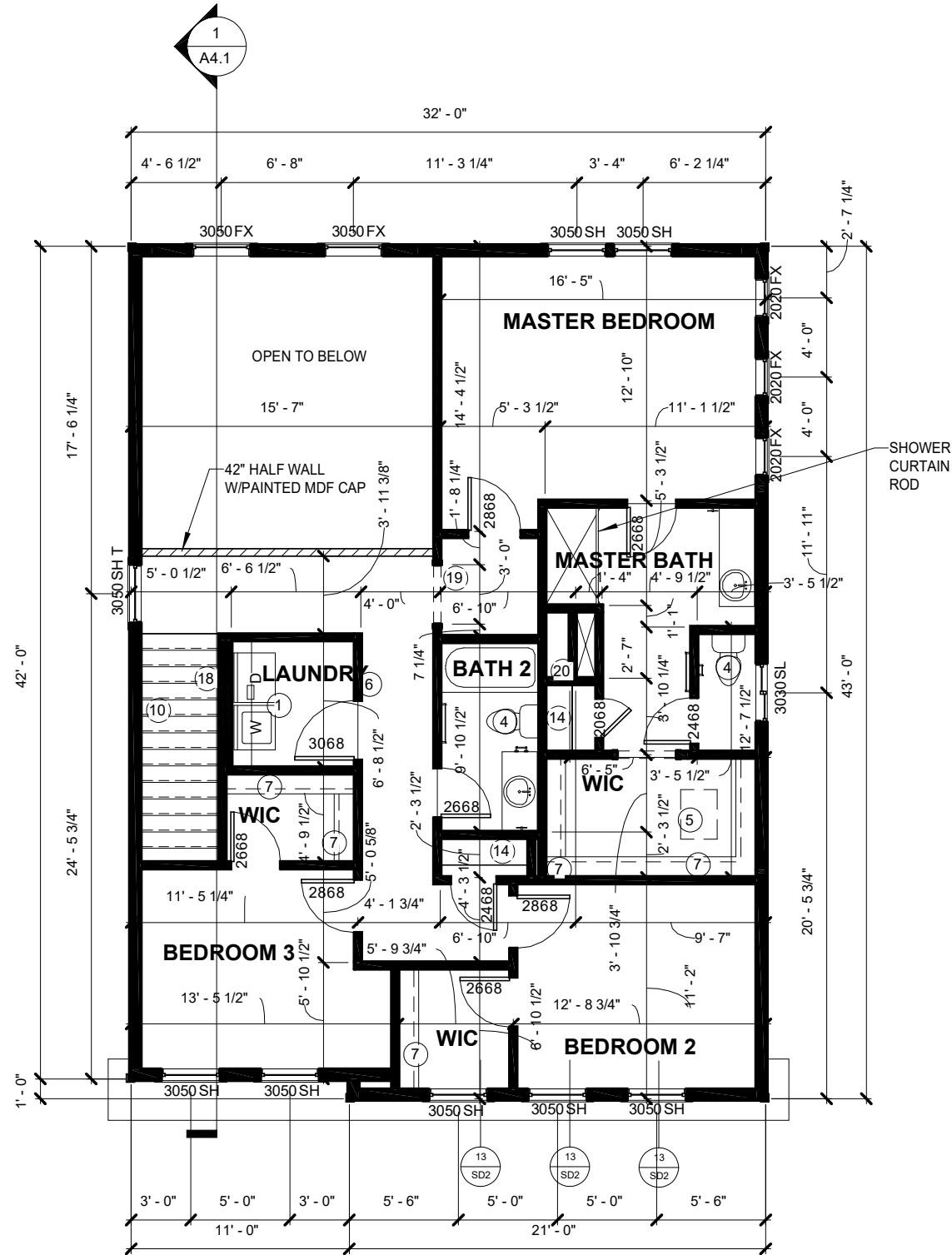
MAIN FLOOR PLAN

A1.4

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HOMES

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NOTE: ALL EXTERIOR WALLS STUDS FRAMED
@ 24" O.C. U.N.O



1 Upper Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES	
1	WASHER/DRYER NOTES (SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS). WASHER ALWAYS ON LEFT OF DRYER. MAINTAIN 2'-10" X 5'-4" FOR OPTIONAL DRAIN PAN. VENT DRYER TO EXTERIOR OF HOME. PROVIDE 5' WIDE SHELF ABOVE WASHER/DRYER. DRAIN WALL SHOULD BE 2 X 6.
4	BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH. PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
5	ATTIC ACCESS (SEE GENERAL NOTE 16 FOR CODE REQUIREMENTS)
6	ALL FRAMING METHODS TO BE AS PER CURRENT I.R.C.
7	1R1S CLOSET SHELVES @ 72" A.F.F.
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
14	PROVIDE (4) SHELVES @ PANTRY
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
19	CASED OPENING. FOR 9' CEILING TOP OF OPENING IS TO BE 7'-6" A.F.F. FOR 8' CEILINGS AND BASEMENTS TOP OF OPENING IS TO BE 6'-8" A.F.F.
20	MECHANICAL CHASE

UPPER FLOOR DOOR SCHEDULE		
TYPE	COMMENTS	COUNT
2068		1
2468		2
2668		4
2868		3
3068		1

UPPER FLOOR WINDOW SCHEDULE			
SIZE	HEAD HEIGHT	COMMENTS	COUNT
2020 FX	6' - 8"		3
3030 SL	6' - 8"		1
3050 FX	6' - 8"		2
3050 SH	6' - 8"		7
3050 SH	6' - 8"	TEMPERED	1

GENERAL FRAMING NOTES	
1. The contractor shall use the grades of lumber specified in the beam schedules listed on drawing. Deeper, wider, or better grades of lumber may be substituted. Any other changes must be approved by the engineer.	
2. (2) 2x10 DFR2 or BTR with filler shall be used for all loadbearing window and door headers unless noted otherwise on drawing.	
3. (2) 1-3/4"x8-1/2" LVLs shall be used for all headers supporting a girder truss unless noted otherwise on drawing.	
4. All multiple beams and headers shall be nailed using 2 rows of 16d nails @ 12" O.C.	
5. All point loads shall be solid blocked to the foundation.	
6. For headers less than 5'-0" long nail to king stud using (6) 16d nails.	
7. For headers 5'-0" to 8'-6" long install two ACE straps @ each end or 12" CS16 strap. Two trimmers required.	
8. For headers 8'-7" to 18'-0" long install two ST18 straps @ each end. Minimum (2) trimmers required.	
9. Use Simpson A35 or equivalent on each cantilevered joist to bearing wall plate. Install joist hangers as per manufacturer's specifications. Double joist under window and door trimmers. Install joist web stiffeners as per manufacturer's specifications.	
10. The contractor shall follow the minimum fastening schedule listed in IBC table 2304.9.1.	
11. All fasteners which are to be installed in preservative treated wood shall meet the requirements of IBC 2304.9.5.	
12. Use Simpson CS16 or equivalent straps 36" long spaced @ 32" o.c. between floors centered on rim joist or drop sheathing down over rim joist 3/4" onto top plate between floors or drop sheathing joint centered on solid rim board and nail as per shear wall schedule. Block all edges.	
13. All construction shall be in accordance to the 2015 International Building Code.	
14. The following lumber grades shall be used u.n.o.	
Joists	Doug Fir #2 or better
Parallels	Per manufacturer specifications
Beams/Headers	Doug Fir #2 or better
Pre-Fab Trusses/Joists	Per manufacturer specifications
Bearing wall studs	Doug Fir #2 or better
Sill plates	Pressure treated Doug Fir #2 or better
Posts	Doug Fir #1 or better
Ext deck joists and beams	Pressure treated Doug Fir #2 or better

FieldStone
HOMES

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SWEETWATER - CRAFTSMAN

LOT #

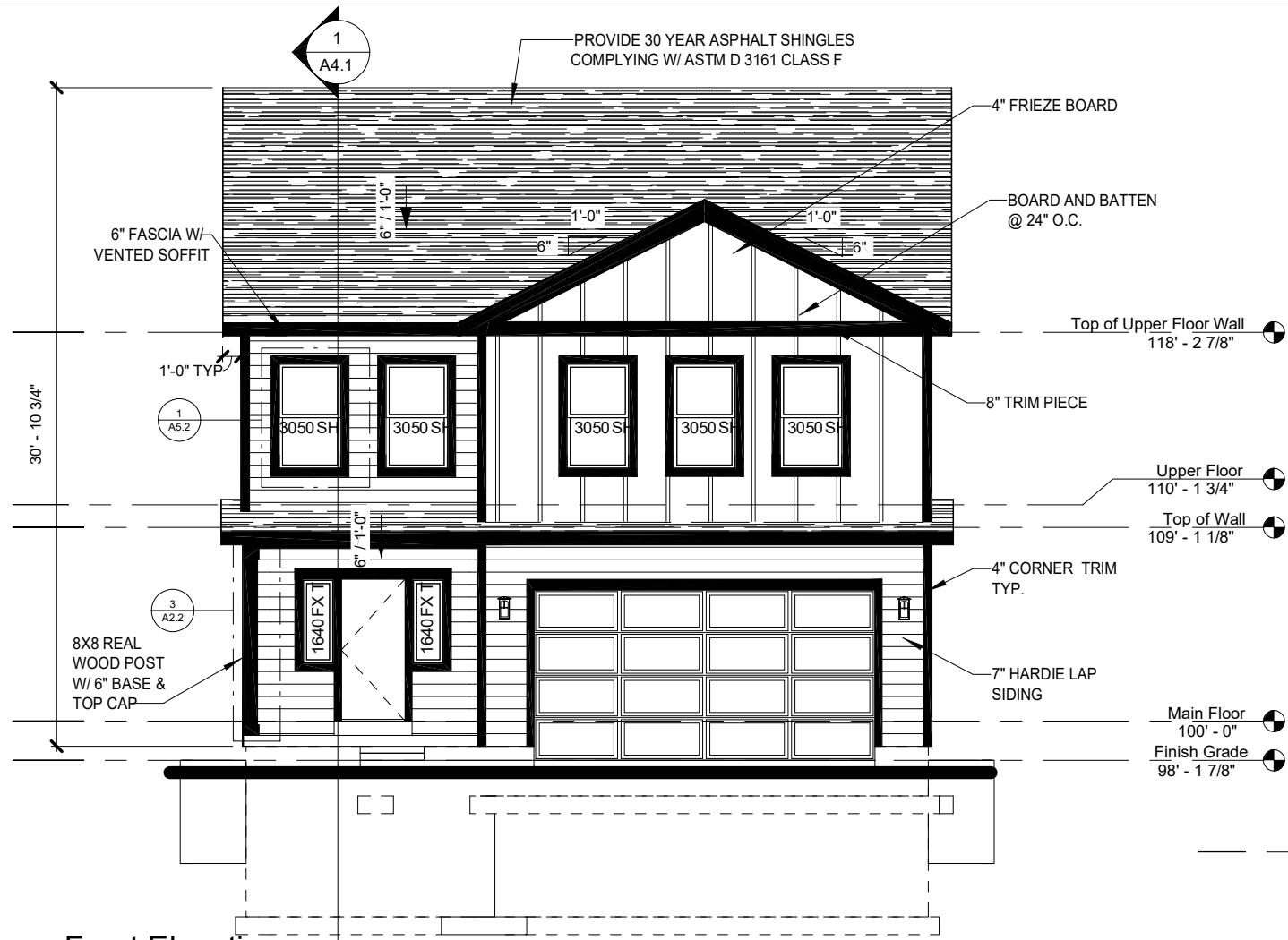
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08/10/2021

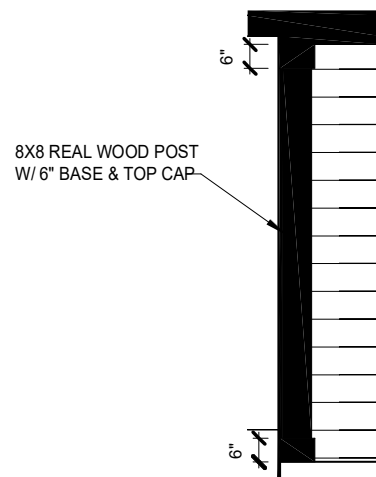
CRAFTSMAN

SWEETWATER

UPPER FLOOR PLAN

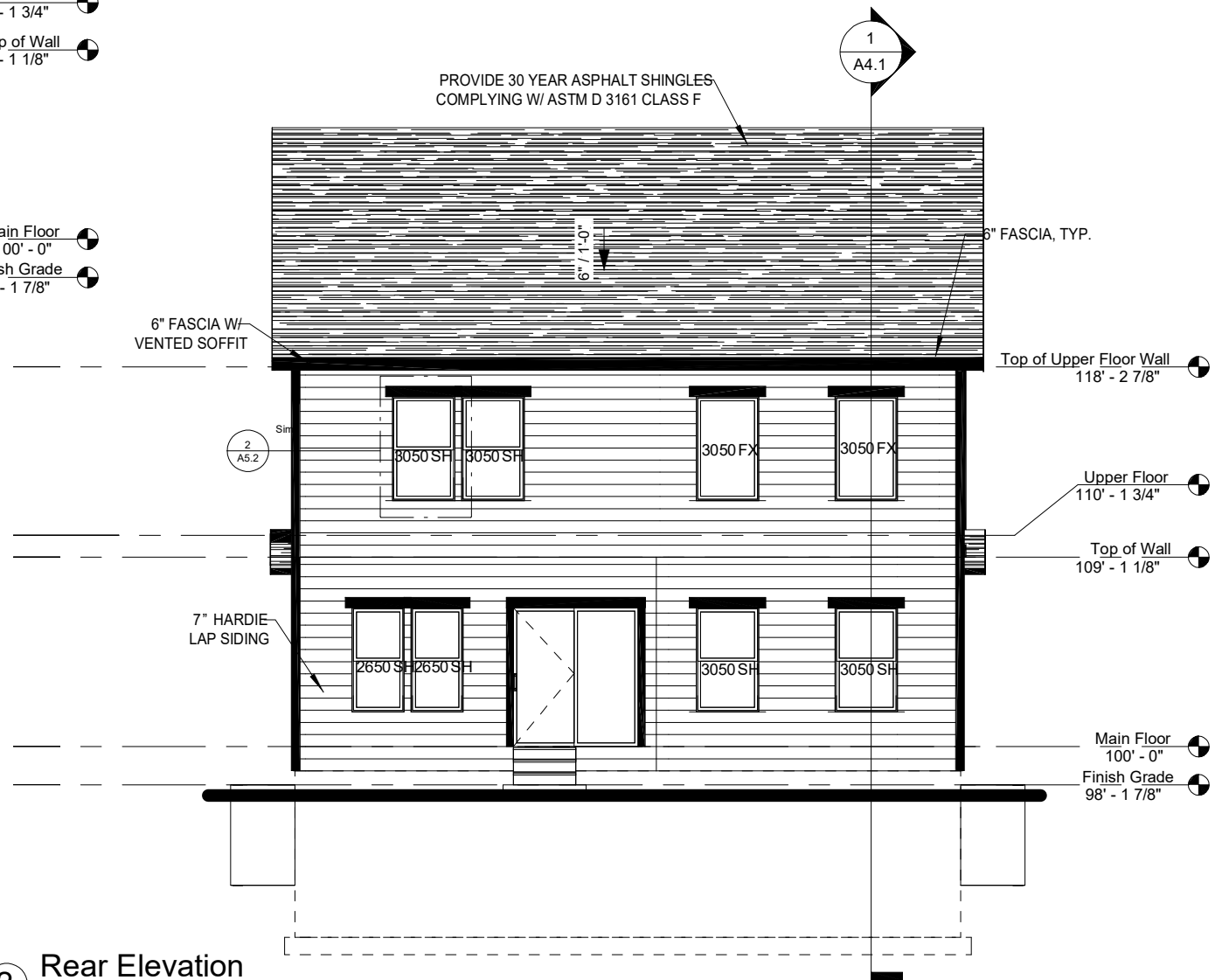


1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



3 Porch Post Detail
1/4" = 1'-0" ON 11" X 17" PAPER
1" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		2
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2650 SH	6' - 8"		2
3030 SL	6' - 8"		1
3050 FX	6' - 8"		2
3050 SH	6' - 8"	TEMPERED	1
3050 SH	6' - 8"		10
5040 SL	6' - 6"		2



2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

FieldStone
HOMES

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SWEETWATER - CRAFTSMAN

LOT #

Enter address here

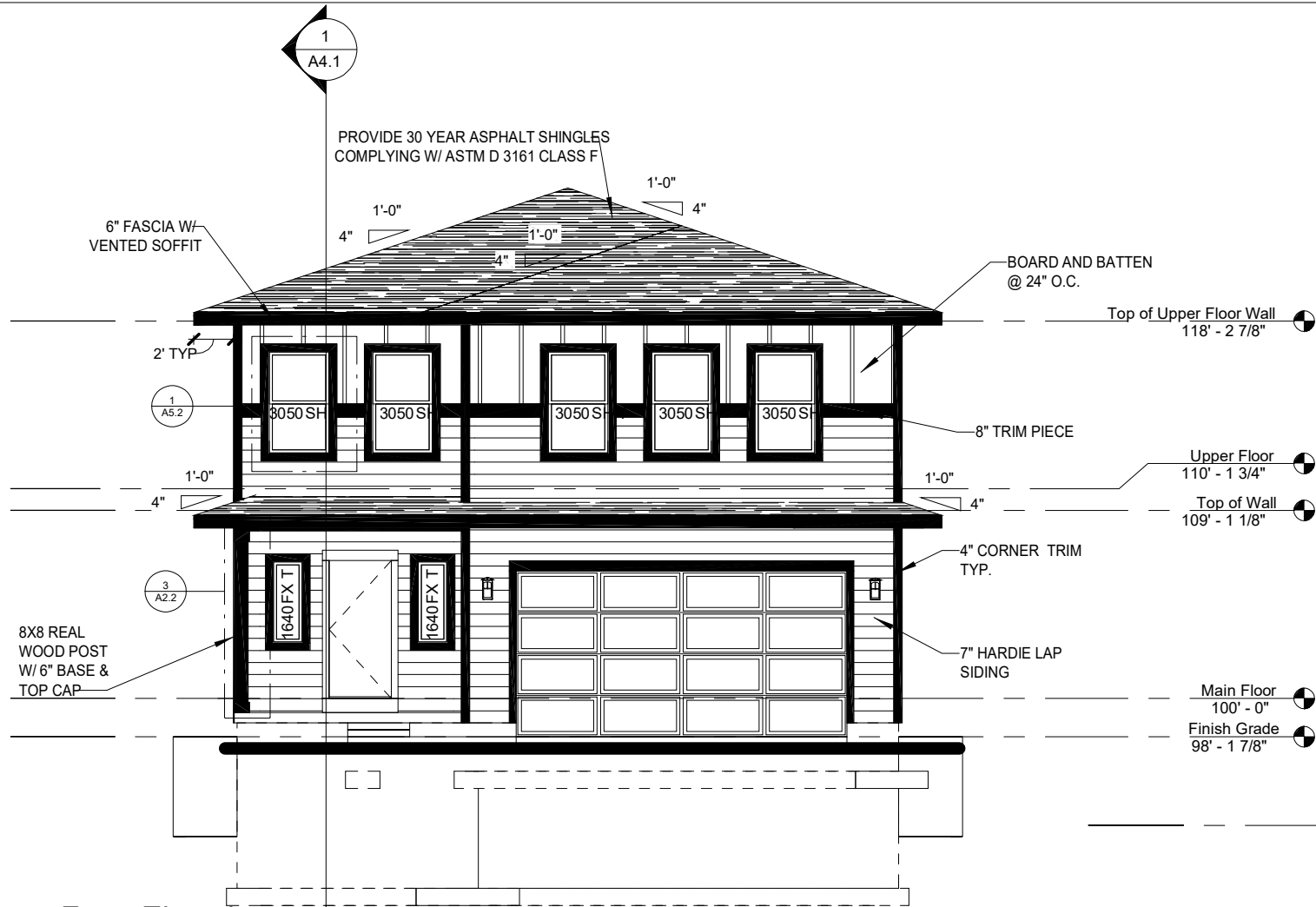
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CRAFTSMAN

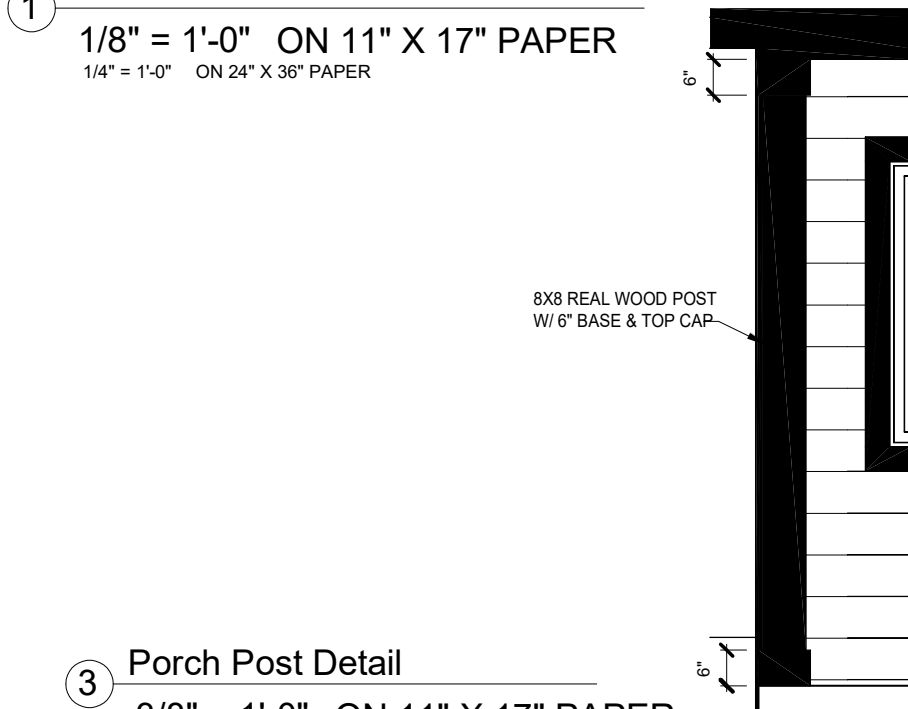
SWEETWATER

FRONT/REAR
ELEVATIONS FULL
HARDIE

A2.1

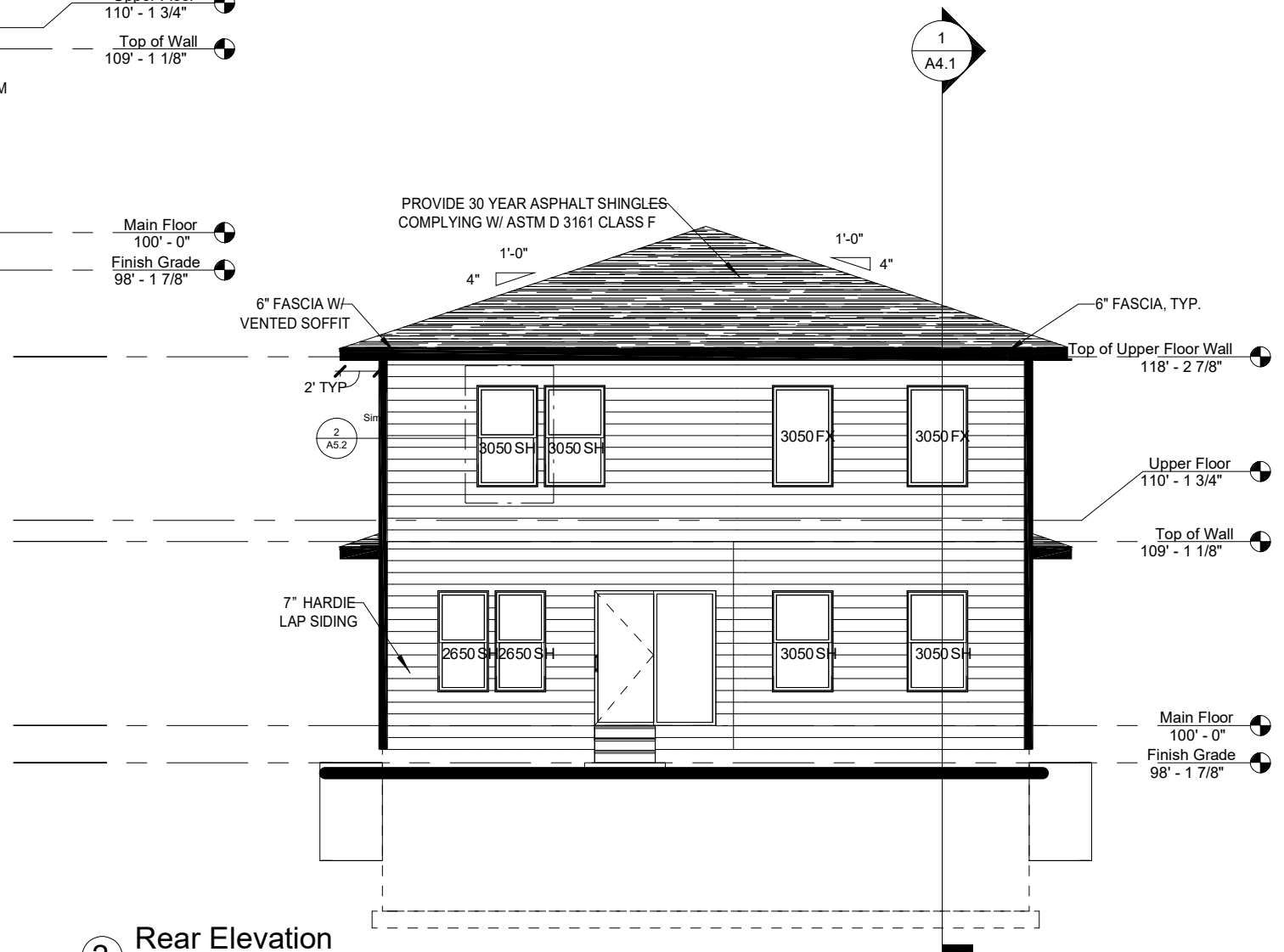


1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



3 Porch Post Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1640 FX	6' - 8"		2
2020 FX	6' - 8"		3
2626 FX	7' - 8"		2
2650 SH	6' - 8"		2
3030 SL	6' - 8"		1
3050 FX	6' - 8"		2
3050 SH	6' - 8"	TEMPERED	1
3050 SH	6' - 8"		10
5040 SL	6' - 6"		2



2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

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HOMES

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SWEETWATER - PRAIRIE
LOT #
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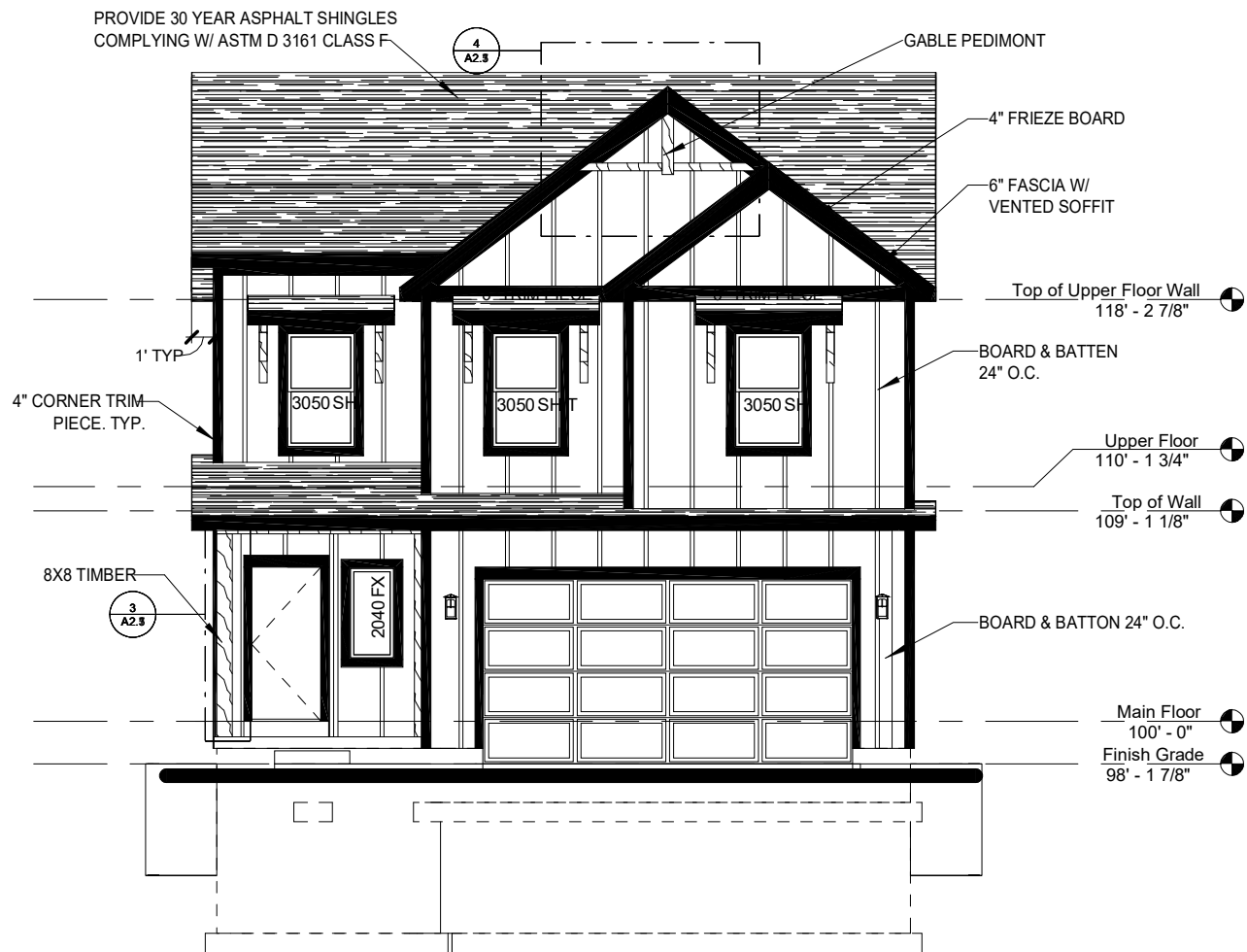
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CRAFTSMAN

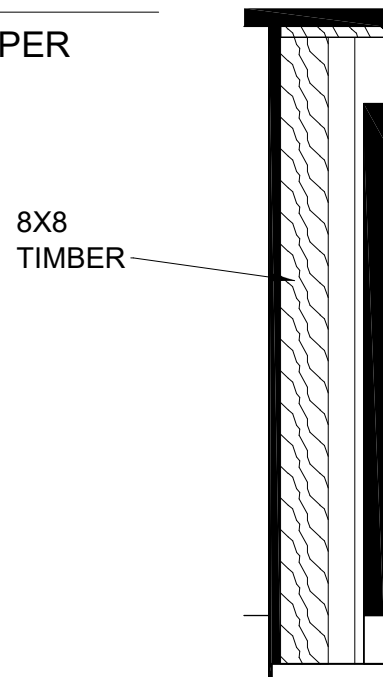
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FRONT/REAR
ELEVATIONS
FULL HARDIE

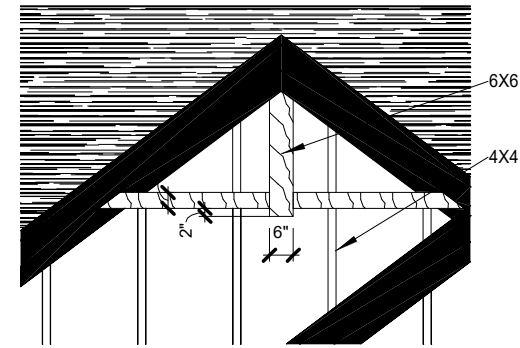
A2.1



1 Front Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

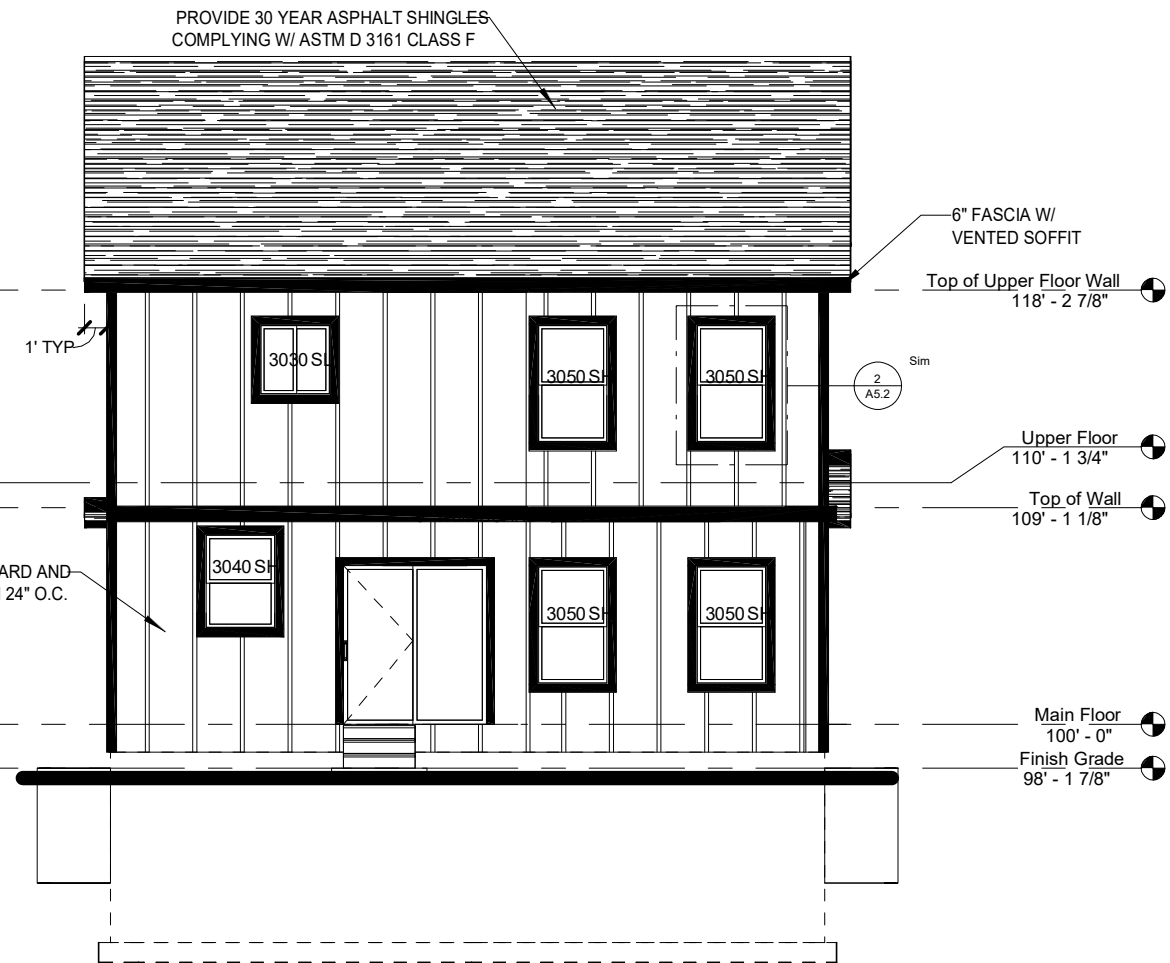


3 Column Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER



4 Gable Pediment (Portland Style) Detail
1/4" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
2020 FX	6' - 8"		3
2040 FX	6' - 8"	TEMPERED	1
2626 FX	7' - 8"		2
2630 SH	6' - 8"	TEMPERED	1
3030 SL	6' - 8"		1
3040 SH	8' - 0"		1
3050 SH	6' - 8"	TEMPERED	3
3050 SH	6' - 8"		6
5040 SL	6' - 8"		3
6020 FX	6' - 8"		1



2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

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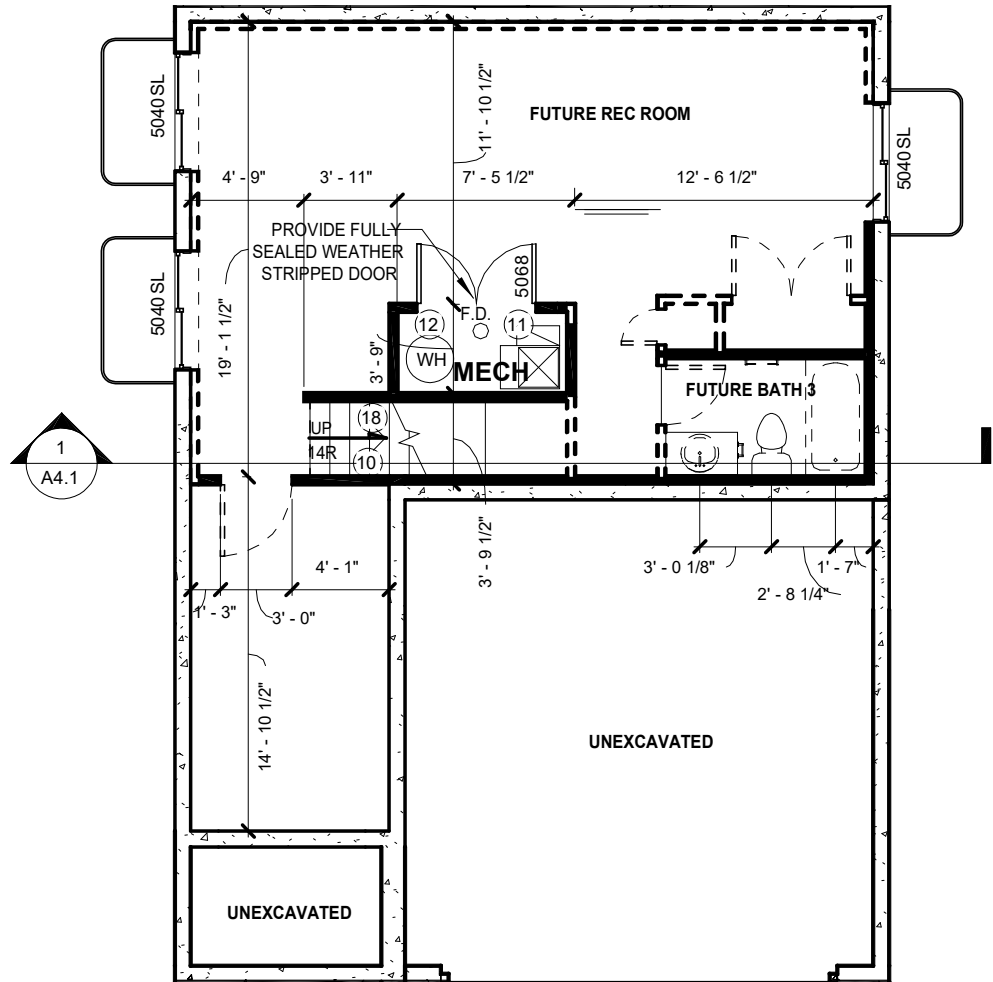
03/11/2021

CRAFTSMAN

BORDEAUX

FRONT/REAR
ELEVATIONS

A2.1



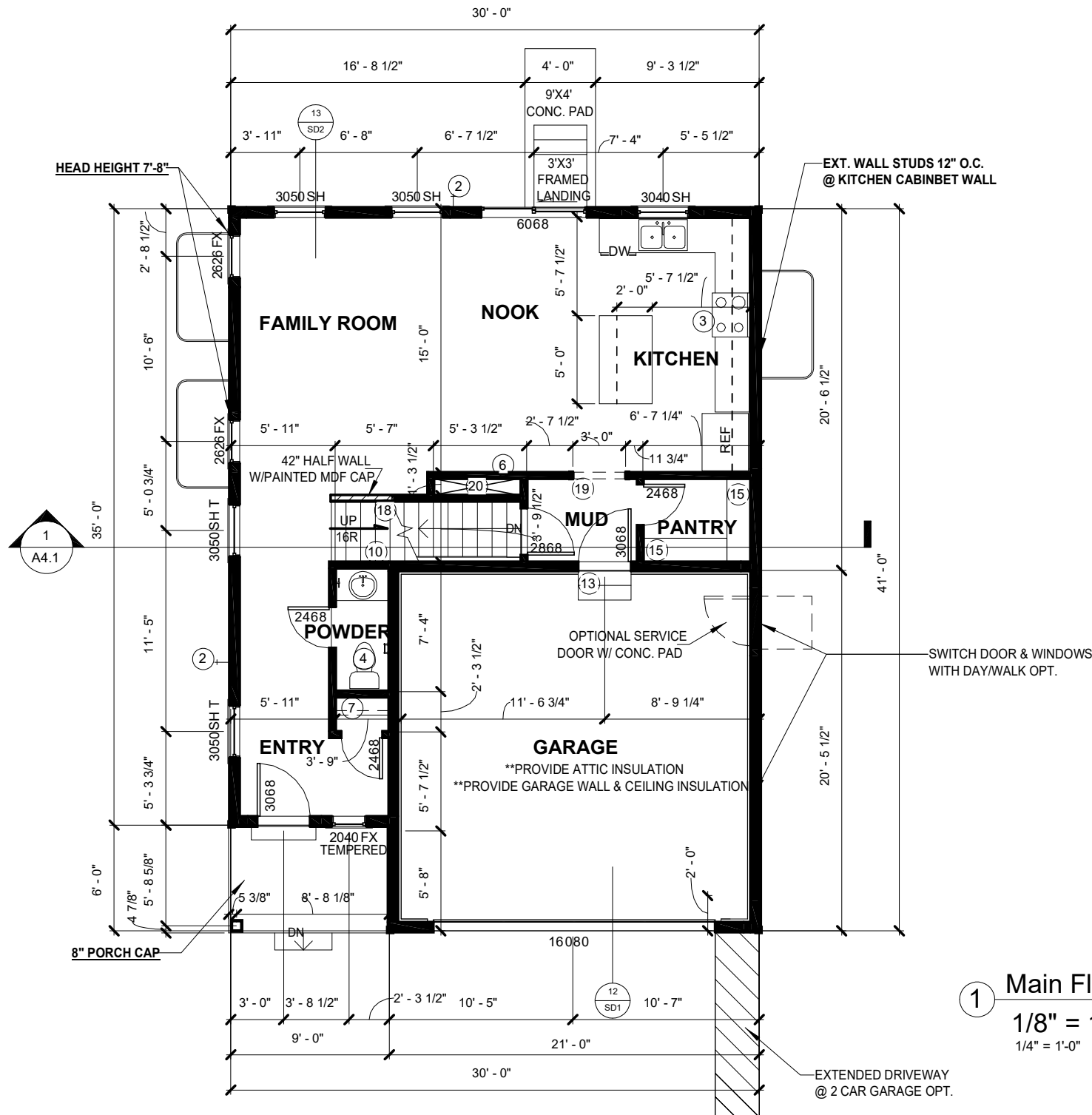
1 Unfinished Basement
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES	
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
11	FURNACE - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
12	WATER HEATER - SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS.
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.

BASEMENT DOOR SCHEDULE		
TYPE	COMMENTS	COUNT
1668		1
2668		1
3068		1
5068		2

BASEMENT WINDOW SCHEDULE			
SIZE	HEAD HEIGHT	COMMENTS	COUNT
5040 SL	6" - 6"		3

NOTE: ALL EXTERIOR WALL STUDS TO BE FRAMED @ 24" O.C. U.N.O



1 Main Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

- 2 PROVIDE FREEZELESS HOSE BIB WITH BACKFLOW PREVENTION DEVICE AT INDICATED LOCATION. DO NOT INSTALL HOSE BIBS OVER WINDOW WELLS.
- 3 KITCHEN NOTES: 30" OPENING FOR RANGE, 24" OPENING FOR D/W. REFRIGERATOR SPACE: (1) 42" MIN. FROM CABINET TO WALL (2) 39" MIN. WITHOUT WALL RESTRICTION.
- 4 BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH, PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
- 6 ALL FRAMING METHODS TO BE AS PER CURRENT I.R.C.
- 7 1R1S CLOSET SHELVES @ 72" A.F.F.
- 10 PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
- 13 PROVIDE FIRE DOOR - SEE GENERAL NOTE 16 FOR CODE REQUIREMENTS.
- 15 @ LINEN CLOSET PROVIDE (4) SHELVES. FIRST SHELF @ 3'-0" AND 16" BETWEEN SHELVES.
- 18 STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
- 19 CASED OPENING. FOR 9' CEILING TOP OF OPENING IS TO BE 7'-6" A.F.F. FOR 8' CEILINGS AND BASEMENTS TOP OF OPENING IS TO BE 6'-8" A.F.F.
- 20 MECHANICAL CHASE

MAIN FLOOR WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
2040 FX	6' - 8"	TEMPERED	1
2626 FX	7' - 8"		2
3040 SH	8' - 0"		1
3050 SH	6' - 8"		2
3050 SH	6' - 8"	TEMPERED	2

MAIN FLOOR DOOR SCHEDULE

WV	COMMENTS	COUNT
2468		3
2868		1
3068		2
6068		1
16080		1

GENERAL FRAMING NOTES

1. The contractor shall use the grades of lumber specified in the beam schedules listed on drawing. Deeper, wider, or better grades of lumber may be substituted. Any other changes must be approved by the engineer.
2. (2) 2x10 DF#2 or BTR with filler shall be used for all load/bearing window and door headers unless noted otherwise on drawing.
3. (2) 1-3/4"x9-1/2" LVLs shall be used for all headers supporting a girder truss unless noted otherwise on drawing.
4. All multiple beams and headers shall be nailed using 2 rows of 16d nails @ 12" O.C.
5. All point loads shall be solid blocked to the foundation.
6. For headers less than 5'-0" long nail to king stud using (6) 16d nails.
7. For headers 5'-0" to 8'-6" long install two ACE straps @ each end or 12" CS16 strap. Two trimmers required.
8. For headers 8'-7" to 18'-0" long install two ST18 straps @ each end. Minimum (2) trimmers required.
9. Use Simpson A35 or equivalent on each cantilevered joist to bearing wall plate. Install joist hangers as per manufacturer's specifications. Double joist under window and door trimmers. Install joist web stiffeners as per manufacturer's specifications.
10. The contractor shall follow the minimum fastening schedule listed in IBC table 2304.9.1.
11. All fasteners which are to be installed in preservative treated wood shall meet the requirements of IBC 2304.9.5
12. Use Simpson CS16 or equivalent straps 36" long spaced @ 32" o.c. between floors centered on rim joist or drop sheathing down over rim joist 3/4" onto top plate between floors or drop sheathing joint centered on solid rim board and nail as per shear wall schedule. Block all edges.
13. All construction shall be in accordance to the 2015 International Building Code.
14. The following lumber grades shall be used u.n.o.

Joists	Doug Fir #2 or better
Parallels	Per manufacturer specifications
Beams/Headers	Doug Fir #2 or better
Pre-Fab Trusses/Joists	Per manufacturer specifications
Bearing wall studs	Doug Fir #2 or better
Sill plates	Pressure treated Doug Fir #2 or better
Posts	Doug Fir #1 or better
Ext deck joists and beams	Pressure treated Doug Fir #2 or better

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HOMES

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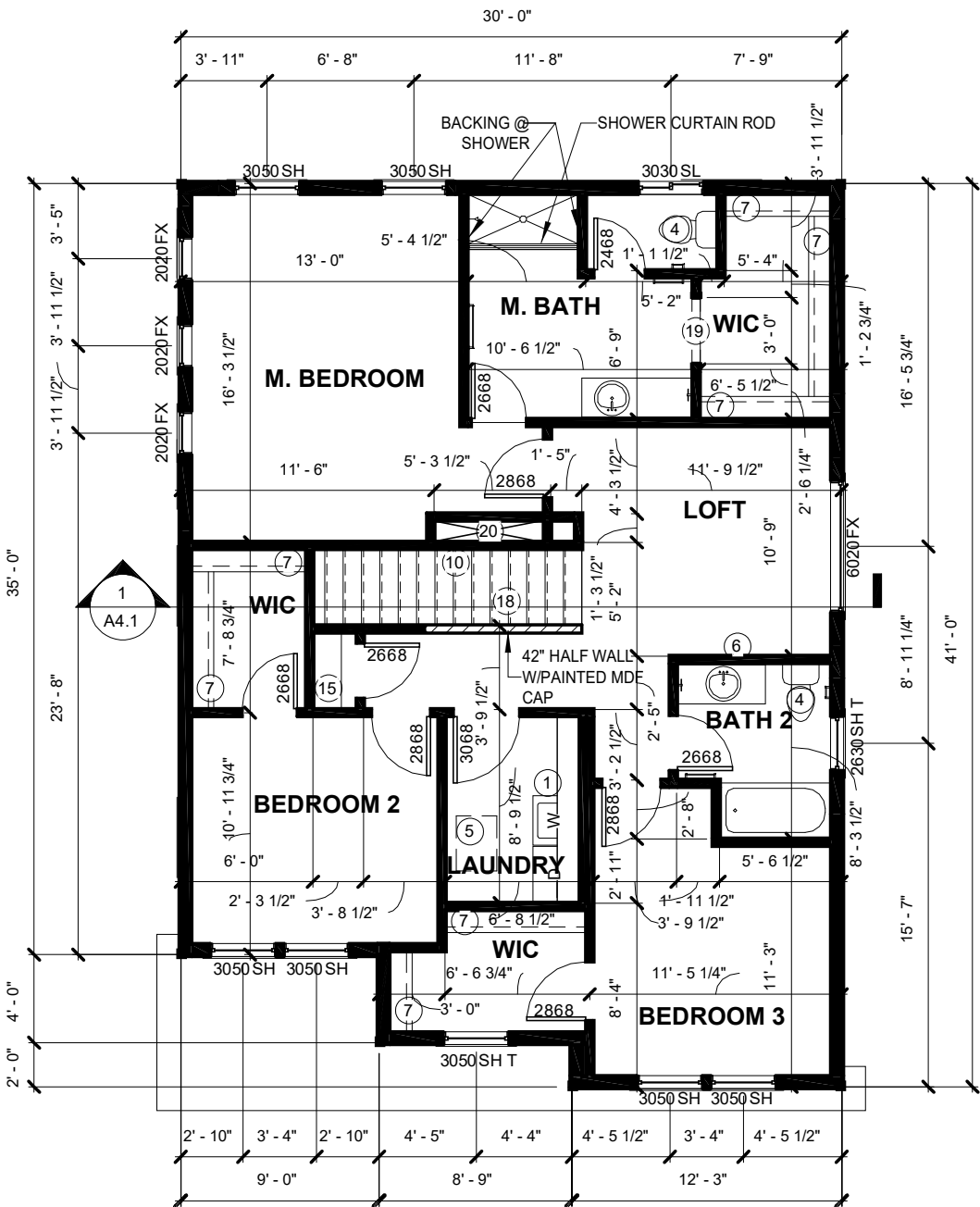
BORDEAUX CRAFTSMAN

BRYLEE FARMS

MAIN FLOOR PLAN

A1.4

NOTE: ALL EXTERIOR WALL STUDS TO BE FRAMED @ 24" O.C. U.N.O



1 Upper Floor
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

KEYED NOTES

1	WASHER/DRYER NOTES (SEE GENERAL NOTE 9 FOR CODE REQUIREMENTS), WASHER ALWAYS ON LEFT OF DRYER. MAINTAIN 2'-10" X 5'-4" FOR OPTIONAL DRAIN PAN. VENT DRYER TO EXTERIOR OF HOME. PROVIDE 5' WIDE SHELF ABOVE WASHER/DRYER. DRAIN WALL SHOULD BE 2 X 6.
4	BATH NOTES (SEE GENERAL NOTE 5 FOR CODE REQUIREMENTS): PROVIDE 2'-6" MIN. FOR WIDTH OF ROOM FOR WATER CLOSET. PROVIDE MIN. OF 5'-0" DEPTH. PROVIDE 5'-0" FOR BATHTUB. PROVIDE 3'-0" FOR OPTIONAL SHOWER IN MASTER BATH. IN MASTER BATH, PROVIDE 60" TOP W/ 30" VANITY CAB W/ ONE SINK (STANDARD). 2ND SINK, WITH 2 30" CABS, IS OPTIONAL. CENTER LIGHT OVER CAB.
5	ATTIC ACCESS (SEE GENERAL NOTE 16 FOR CODE REQUIREMENTS)
6	ALL FRAMING METHODS TO BE AS PER CURRENT I.R.C.
7	1R1S CLOSET SHELVES @ 72" A.F.F.
10	PROVIDE STAIR RAIL. SEE GENERAL NOTE 15 FOR CODE REQUIREMENTS. ALL STAIR WELL WALLS TO BE 16" O.C. TYP.
15	@ LINEN CLOSET PROVIDE (4) SHELVES. FIRST SHELF @ 3'-0" AND 16" BETWEEN SHELVES.
18	STAIR TREADS TO BE A MINIMUM OF 10" DEEP AND MAX OF 8" HIGH.
19	CASED OPENING. FOR 9' CEILING TOP OF OPENING IS TO BE 7'-6" A.F.F. FOR 8' CEILINGS AND BASEMENTS TOP OF OPENING IS TO BE 6'-8" A.F.F.
20	MECHANICAL CHASE

UPPER FLOOR WINDOW SCHEDULE

SIZE	HEAD HEIGHT	COMMENTS	COUNT
2020 FX	6' - 8"		3
2630 SH	6' - 8"	TEMPERED	1
3030 SL	6' - 8"		1
3050 SH	6' - 8"		6
3050 SH	6' - 8"	TEMPERED	1
6020 FX	6' - 8"		1

UPPER FLOOR DOOR SCHEDULE

TYPE	COMMENTS	COUNT
2468		1
2668		4
2868		4
3068		1

GENERAL FRAMING NOTES

- The contractor shall use the grades of lumber specified in the beam schedules listed on drawing. Deeper, wider, or better grades of lumber may be substituted. Any other changes must be approved by the engineer.
- (2) 2x10 DF#2 or BTR with filler shall be used for all load/bearing window and door headers unless noted otherwise on drawing.
- (2) 1-3/4"x9-1/2"LVLs shall be used for all headers supporting a girder truss unless noted otherwise on drawing.
- All multiple beams and headers shall be nailed using 2 rows of 16d nails @ 12 O.C.
- All point loads shall be solid blocked to the foundation.
- For headers less than 5'-0" long nail to king stud using (6) 16d nails.
- For headers 5'-0" to 8'-6" long install two ACE straps @ each end or 12" CS16 strap. Two trimmers required.
- For headers 8'-7" to 18'-0" long install two ST18 straps @ each end. Minimum (2) trimmers required.
- Use Simpson A35 or equivalent on each cantilevered joist to bearing wall plate. Install joist hangers as per manufacturer's specifications. Double joist under window and door trimmers. Install joist web stiffeners as per manufacturer's specifications.
- The contractor shall follow the minimum fastening schedule listed in IBC table 2304.9.1.
- All fasteners which are to be installed in preservative treated wood shall meet the requirements of IBC 2304.9.5
- Use Simpson CS16 or equivalent straps 36" long spaced @ 32" o.c. between floors centered on rim joist or drop sheathing down over rim joist 3/4" onto top plate between floors or drop sheathing joint centered on solid rim board and nail as per shear wall schedule. Block all edges.
- All construction shall be in accordance to the 2015 International Building Code.
- The following lumber grades shall be used u.n.o.

Joists	Doug Fir #2 or better
Parallams	Per manufacturer specifications
Beams/Headers	Doug Fir #2 or better
Pre-Fab Trusses/Joists	Per manufacturer specifications
Bearing wall studs	Doug Fir #2 or better
Sill plates	Pressure treated Doug Fir #2 or better
Posts	Doug Fir #1 or better
Ext deck joists and beams	Pressure treated Doug Fir #2 or better

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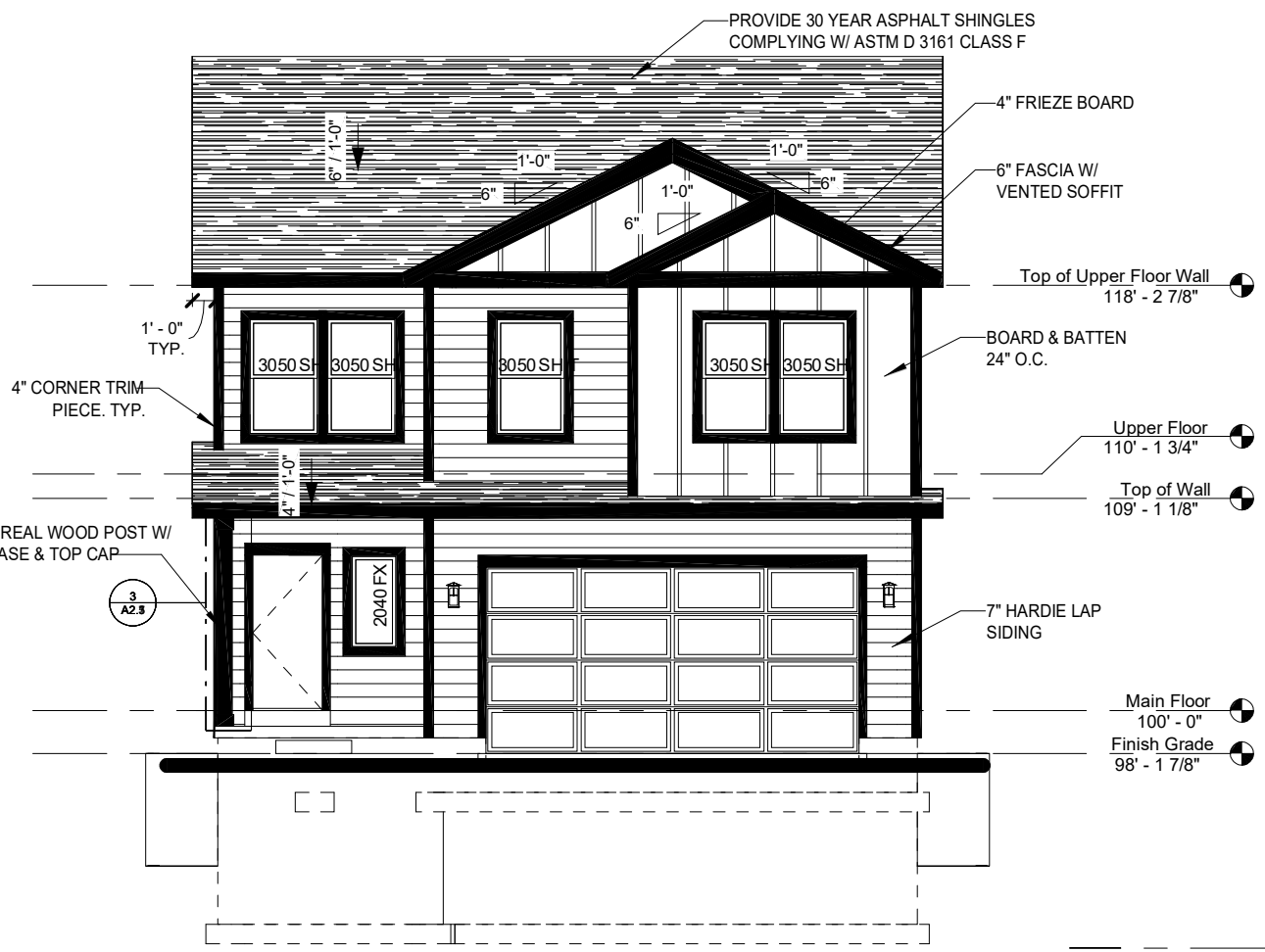
03/11/2021

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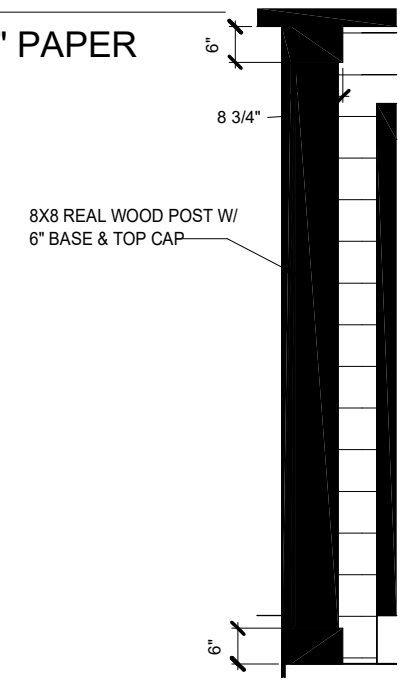
BYRLEE FARMS

UPPER FLOOR PLAN

A1.8

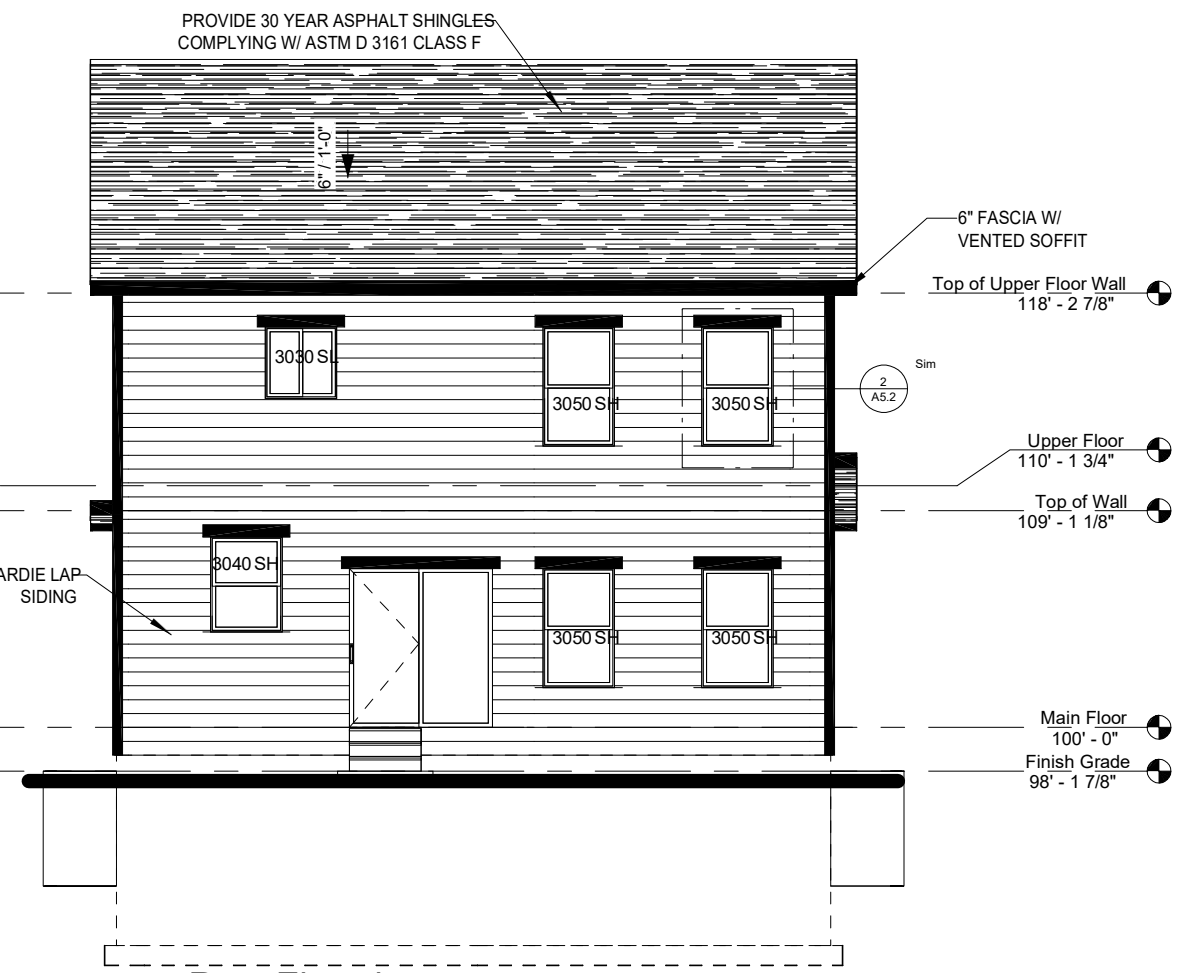


1 Front Elevation
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1/4" = 1'-0" ON 24" X 36" PAPER



3 Column Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
2020 FX	6' - 8"		3
2040 FX	6' - 8"	TEMPERED	1
2626 FX	7' - 8"		2
2630 SH	6' - 8"	TEMPERED	1
3030 SL	6' - 8"		1
3040 SH	8' - 0"		1
3050 SH	6' - 8"	TEMPERED	3
3050 SH	6' - 8"		8
5040 SL	6' - 6"		3
6020 FX	6' - 8"		1



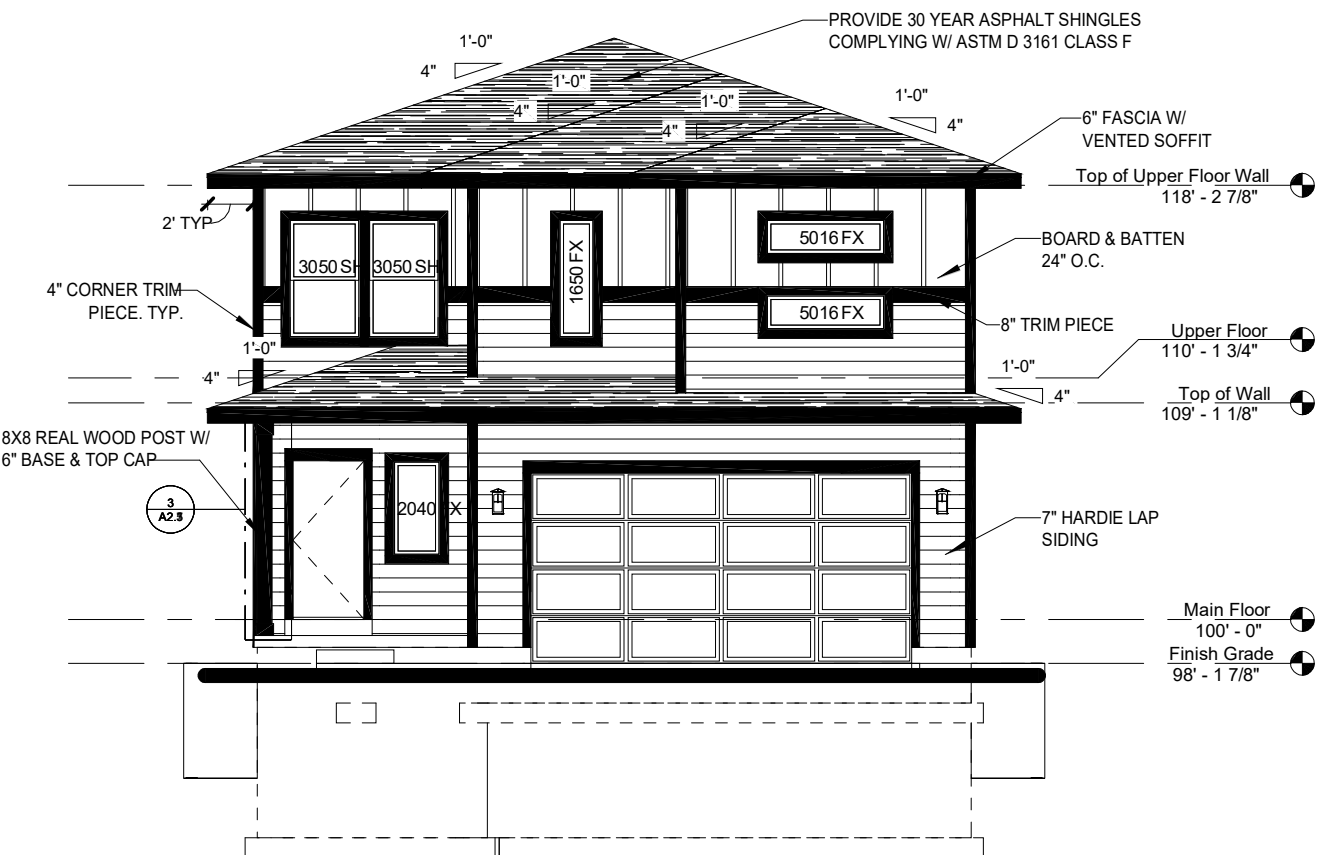
2 Rear Elevation
1/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

FieldStone HOMES
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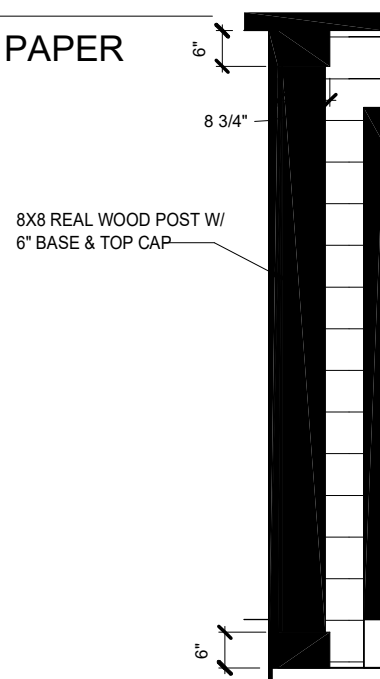
BORDEAUX - CRAFTSMAN
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03/11/2021
BORDEAUX CRAFTSMAN
BRYLEE FARMS
FRONT/REAR ELEVATIONS

A2.1

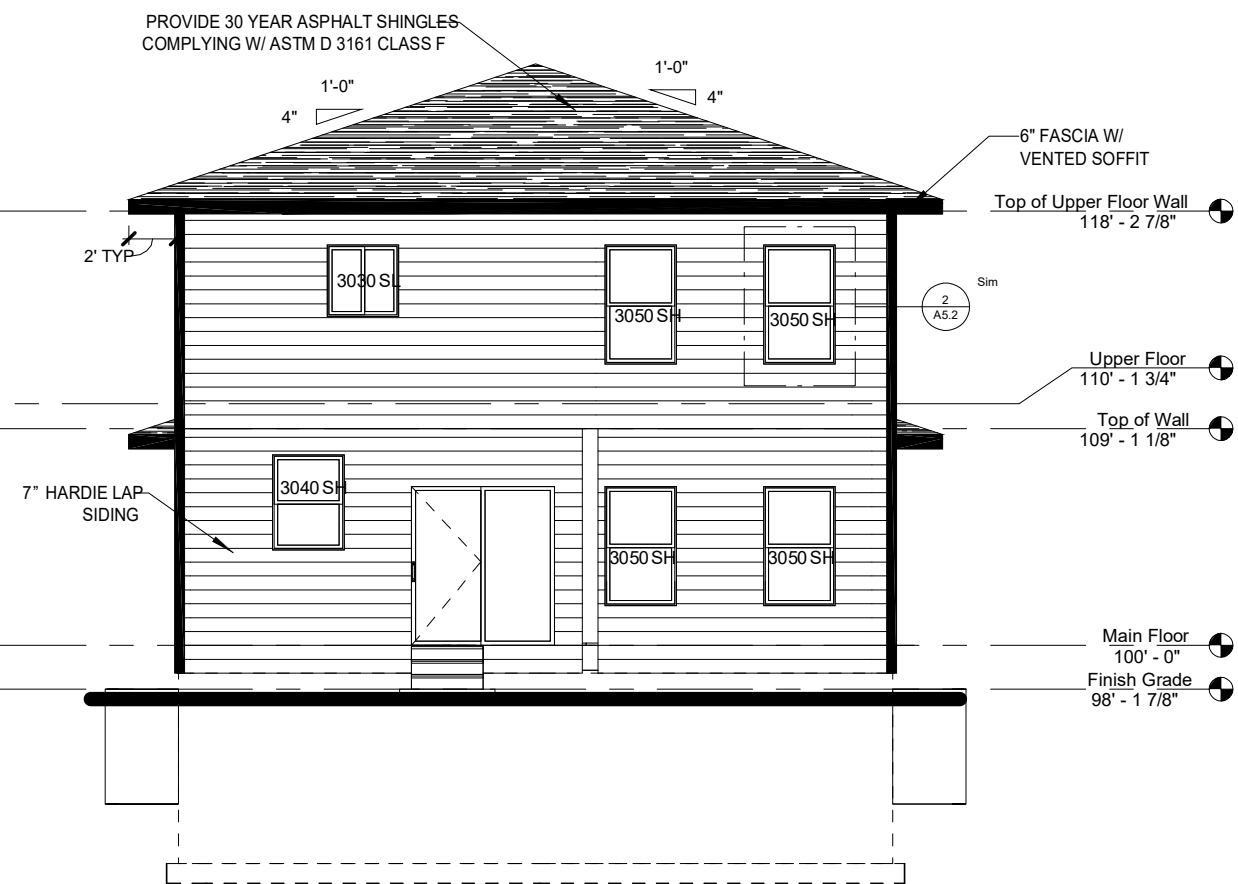


1 Front Elevation
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1/4" = 1'-0" ON 24" X 36" PAPER



3 Column Detail
3/8" = 1'-0" ON 11" X 17" PAPER
1/4" = 1'-0" ON 24" X 36" PAPER

WINDOW SCHEDULE			
Type	Head Height	Comments	Count
1650 FX	6' - 8"	TEMPERED	1
2020 FX	6' - 8"		3
2040 FX	6' - 8"	TEMPERED	1
2626 FX	7' - 8"		2
2630 SH	6' - 8"	TEMPERED	1
3030 SL	6' - 8"		1
3040 SH	8' - 0"		1
3050 SH	6' - 8"		3
3050 SH	6' - 8"		6
5016 FX	3' - 6"		1
5016 FX	6' - 8"		1
5040 SL	6' - 6"		3
6020 FX	6' - 8"		1



2 Rear Elevation
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1/4" = 1'-0" ON 24" X 36" PAPER

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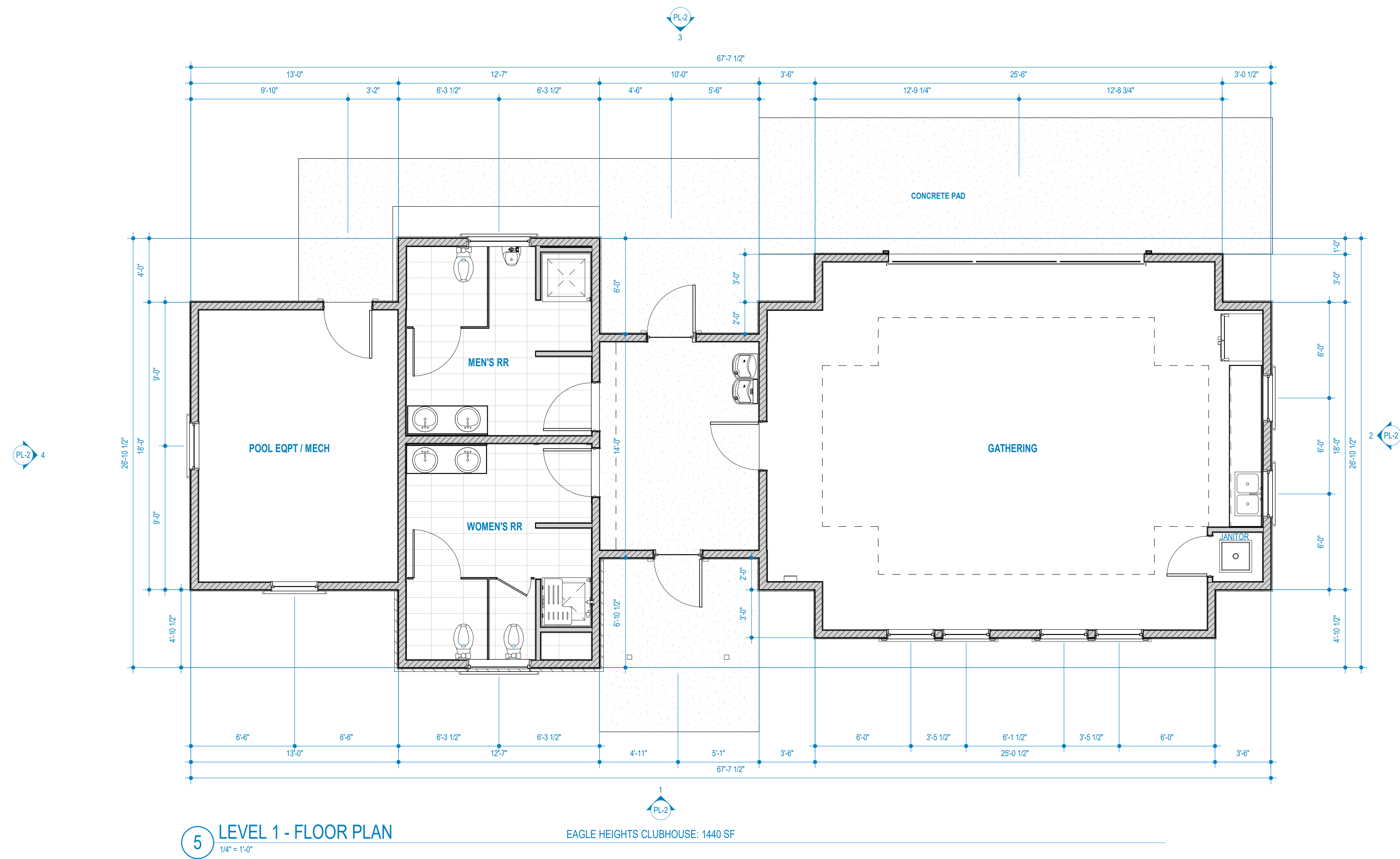
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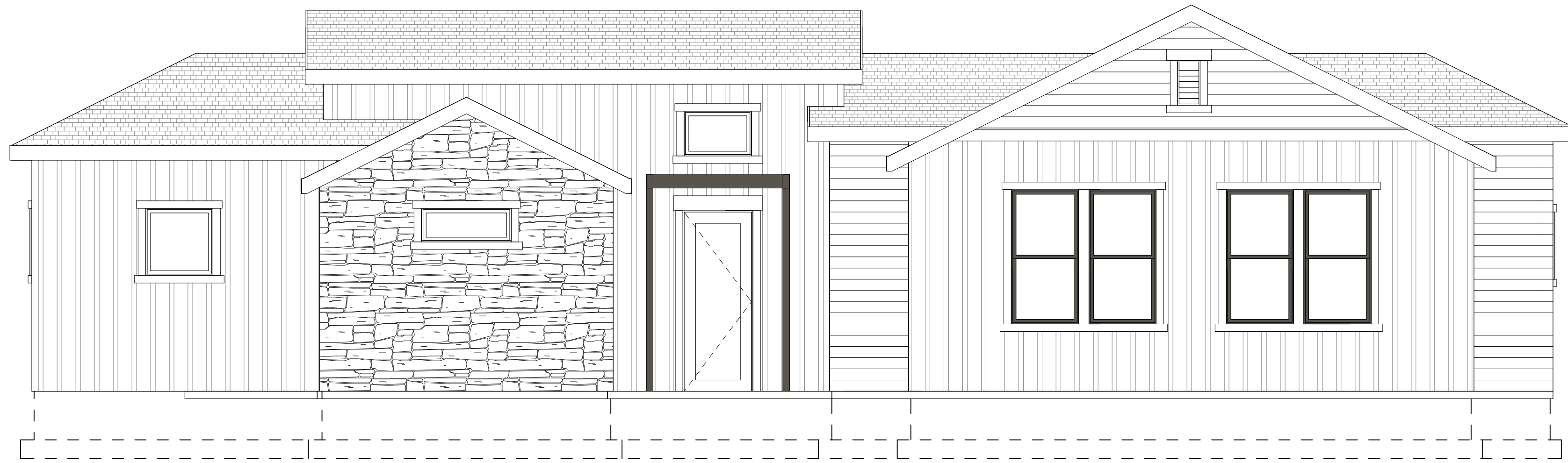
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FRONT/REAR
ELEVATIONS

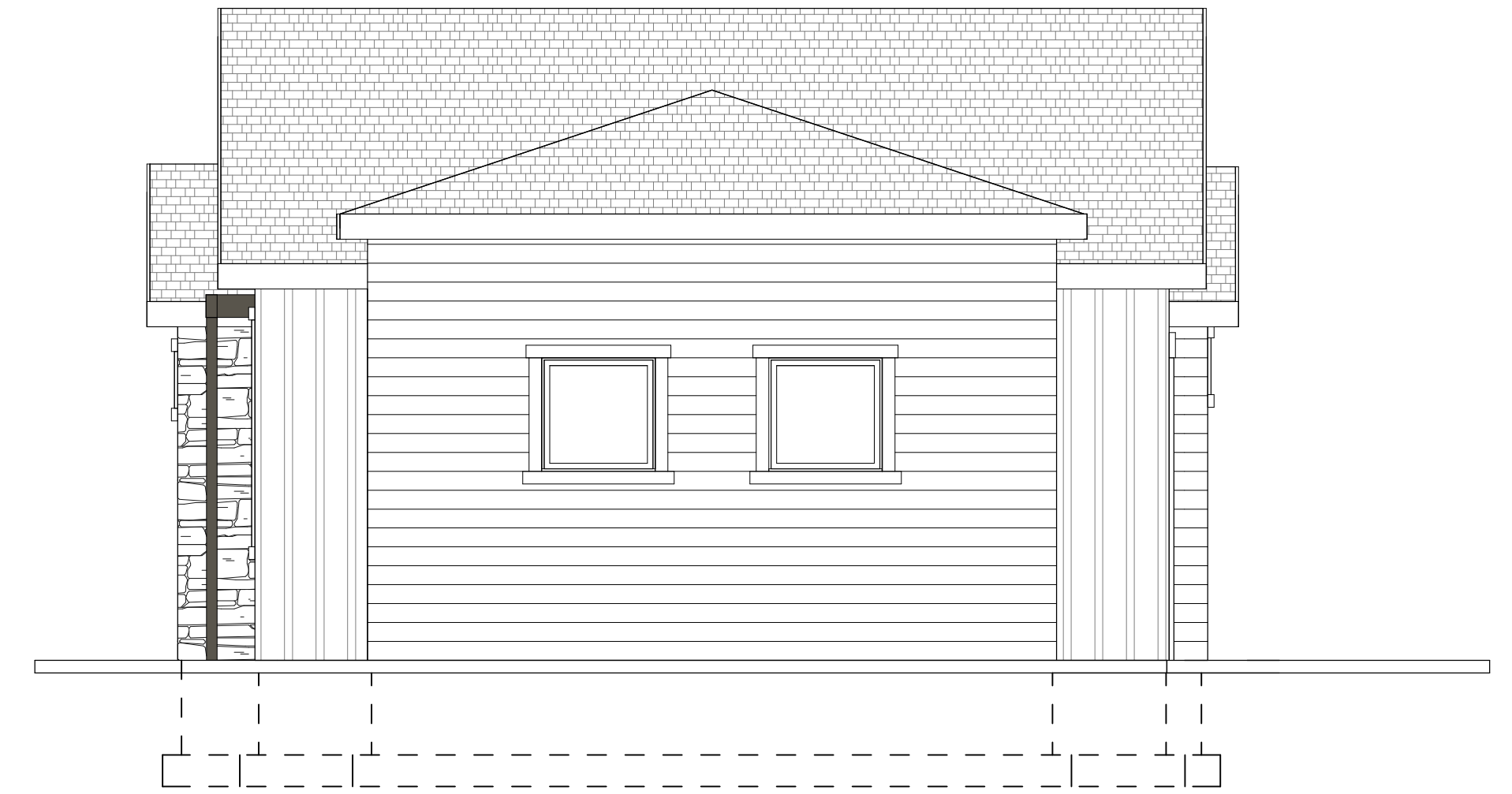
A2.1

EXHIBIT "F"
POOL AND CLUBHOUSE DESIGN

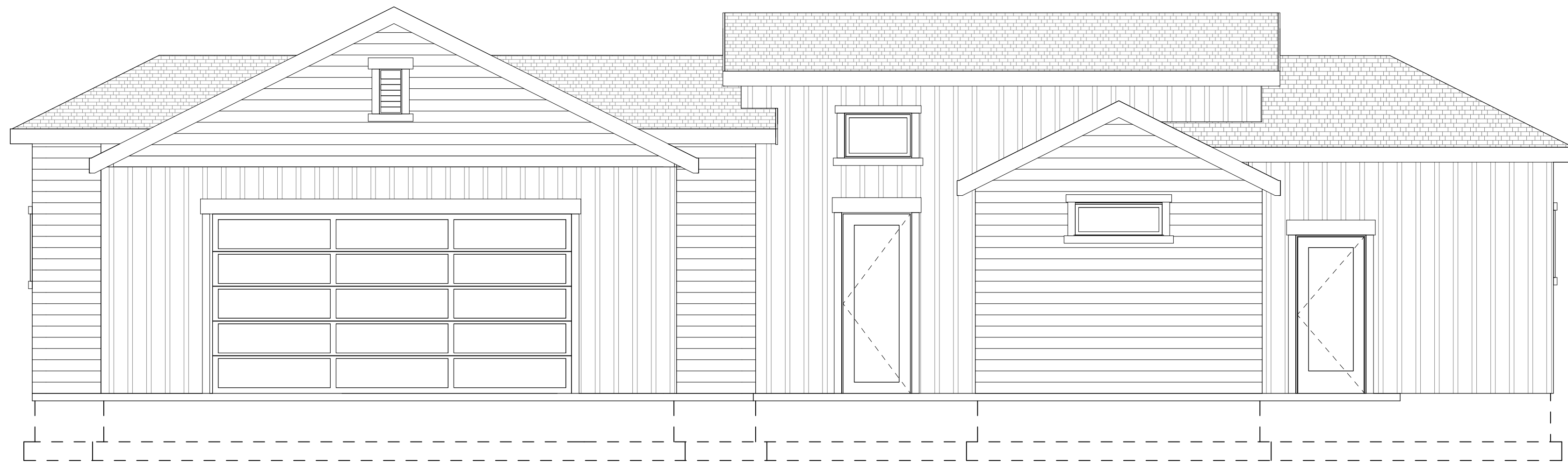




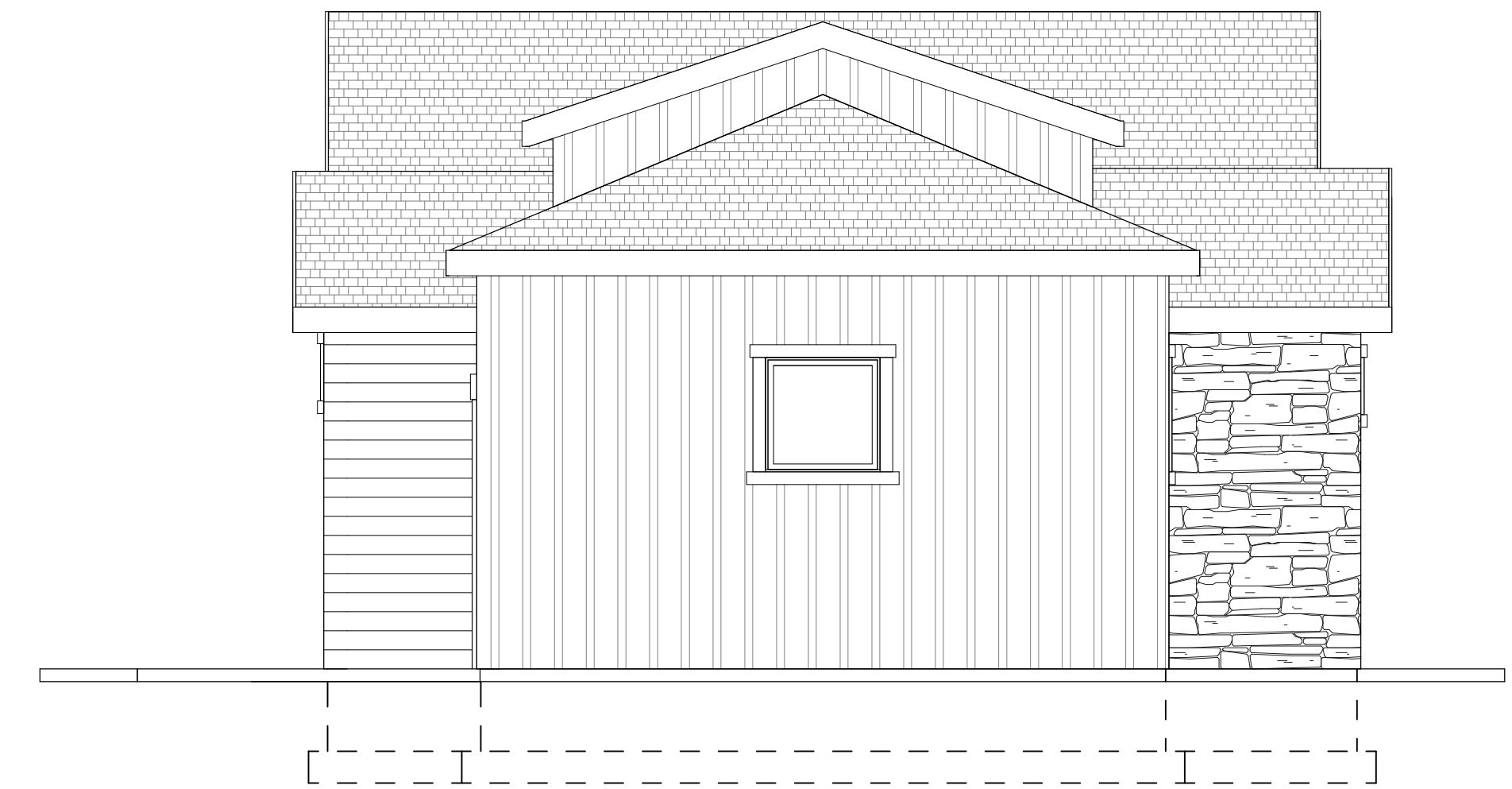
1 FRONT ELEVATION
1/4" = 1'-0"



2 RIGHT ELEVATION
1/4" = 1'-0"



3 REAR ELEVATION
1/4" = 1'-0"



4 LEFT ELEVATION
1/4" = 1'-0"



① LEFT - FRONT



② FRONT - RIGHT



② REAR LEFT



① RIGHT - REAR

LANDSCAPE PLAN SPECIFICATIONS

- PART I - GENERAL
- 1.1 SUMMARY
- A. This section includes landscape procedures for the Project including all labor, materials, and installation necessary, but not limited to, the following:
- Site Conditions
 - Guarantees
 - Maintenance
 - Soil Amendments
 - Fine Grading
 - Landscape Edging
 - Furnish and Installing Plant
 - Turf Planting
 - Weed Barrier
- 1.2 SITE CONDITIONS
- A. Examination: Before submitting a Bid, each Contractor shall carefully examine the Contract Documents; shall visit the site of the Work; shall fully inform themselves as to all existing conditions and limitations; and shall include in the Bid the cost of all items required by the Contract Documents as at a variance with the applicable laws, building codes, rules, regulations, or contain otherwise erroneous or uncoordinated information, the Contractor shall promptly notify the Project Representative and the necessary changes shall be accomplished by Addendum.
- B. Protection: Contractor to conduct the Work in such a manner to protect all existing underground utilities or structures. Contractor to repair or replace any damaged utility or structure using identical materials to match existing at no expense to the Owner.
- C. Irrigation System: Do not begin planting until the irrigation system is completely installed, is adjusted for full coverage and is completely operational.
- 1.3 PERMITS
- A. Blue Stake/ Dig Line: When digging is required, "Blue Stake" or "Dig Line" the work site and identify the approximate location of all known underground utilities or structures.
- 1.4 PLANT DELIVERY, QUALITY, AND AVAILABILITY
- A. Unauthorized substitutions will not be accepted. If proof is submitted that specific plants or plant sizes are unobtainable, written substitution requests will be considered for the nearest equivalent plant or size. All substitution requests must be made in writing and preferably before the bid due date.
- 1.5 FINAL INSPECTION
- A. All plants will be inspected at the time of Final Inspection prior to receiving a Landscape Substantial Completion for conformance to specified planting procedures, and for general appearance and vitality. Any plant not approved by the Project Representative will be rejected and replaced immediately.
- 1.6 LANDSCAPE SUBSTANTIAL COMPLETION
- A. A Substantial Completion Certificate will only be issued by the Project Representative for "landscape and irrigation" in their entirety. Substantial Completion will not be proportioned to be designated areas of a project.
- 1.7 MAINTENANCE
- A. Plant Material: The Contractor is responsible to maintain all planted materials in a healthy and growing condition for 30 days after receiving a Landscape Substantial Completion at which time the Guarantee period commences. This maintenance is to include mowing, weeding, cultivating, fertilizing, monitoring water schedules, controlling insects and diseases, re-guying and staking, and all other operations of care necessary for the promotion of root growth and plant life so that all plants are in a condition satisfactory at the end of the guarantee period. The Contractor shall be held responsible for failure to monitor watering operations and shall replace any and all plant material that is lost due to improper application of water.
- 1.8 GUARANTEE
- A. Guarantee: A guarantee period of one year shall begin from end of maintenance period and final acceptance for trees, shrubs, and ground covers. All plants shall grow and be healthy for the guarantee period and trees shall live and grow in acceptable upright position. Any plant not alive, in poor health, or in poor condition at the end of the guarantee period will be replaced immediately. Any plant will only need to be replaced once during the guarantee period. Contractor to provide documentation showing where each plant to be replaced is located. Any outside factors, such as vandalism or lack of maintenance on the part of the Owner, shall not be part of the guarantee

PART II - PRODUCTS

- 2.1 LANDSCAPE MATERIALS
- A. Tree Staking: All trees shall be staked for one year warranty period. All trees not plumb shall be replaced. Staked trees shall use vinyl tree ties and tree stakes two (2) inch by two (2) by eight (8) foot common pine stakes used as shown on the details.
- B. Tree Wrap: Tree wrap is not to be used.
- C. Mulch/Rock: See Plans. All planter beds to receive a minimum 3" layer for trees, shrubs, and perennials and 1" for groundcovers.
- D. Weed Barrier: DeWitt 5 oz. weed barrier fabric. Manufactured by DeWitt Company, dewittcompany.com or approved equal.
- E. Tree, Shrub, and Grass Backfill Mixture: Backfill mixture to be 75% native soil and 25% topsoil, thoroughly mixed together prior to placement.
- F. Topsoil: Required for turf areas, planter beds and Backfill Mixture. Acceptable topsoil shall meet the following standards:
- PH: 5.5-7.5
 - EC (electrical conductivity): < 2.0 mmhos per centimeter
 - SAR (sodium absorption ratio): < 3.0
 - % OM (percent organic matter): >1%
 - Texture (particle size per USDA soil classification): Sand <70%; Clay < 30%; Silt < 70%; Stone fragments (gravel or any soil particle greater than two (2) mm in size) < 5% by volume.
- G. Turf Sod: All sod shall be 18 month old as specified on plans (or approved equal) that has been cut fresh the morning of installation. Only sod that has been grown on a commercial soil farm shall be used. Only use sod from a single source.
- H. Landscape Curb Edging: ss (6) inches by four (4) inches extruded concrete curb made up of the following materials:
- Washed mortar sand free of organic material.
 - Portland Cement (see concrete spec. below for type)
 - Reinforced fiber - Specifically produced for compatibility with aggressive alkaline environment of Portland cement-based composites.
 - Only potable water for mixing.
- I. Landscape Metal Edging: 5.8" steel edging with 18" dowels into the ground for stabilization.

PART III - EXECUTION

- 3.1 GRADING
- A. Topsoil Preparation: Grade planting areas according to the grading plan. Eliminate uneven areas and low spots. Provide for proper grading and drainage.
- B. Topsoil Placement: Slope surfaced away from building at two (2) percent slope with no pockets of standing water. Establish finish grades of one (1) inches for planters below grade of adjacent paved surfaced. Provide neat, smooth, and uniform finish grades. Remove surplus sub-soil and topsoil from the site.
- C. Compaction: compaction under hard surface areas (asphalt paths and concrete surfaces) shall be ninety-five (95) percent. Compaction under planting areas shall be between eighty-five (85) and ninety (90) percent.
- 3.2 TURF GRADING
- A. The surface on which the sod is to be laid shall be firm and free from footprints, depressions, or undulations of any kind. The surface shall be free of all materials larger than 1/2" in diameter.
- B. The finish grade of the topsoil adjacent to all sidewalks, move-strips, etc. prior to the laying of sod, shall be set such that the crown of the grass shall be at the same level as the adjacent concrete or hard surface. No exceptions.
- 3.3 PLANTING OPERATIONS
- A. Review the exact locations of all trees and shrubs with the Project Representative for approval prior to the digging of any holes. Prepare all holes according to the details on the drawings.
- B. Water plants immediately upon arrival at the site. Maintain in moist condition until planted.
- C. Before planting, locate all underground utilities prior to digging. Do not place plants on or near utility lines.
- D. The tree planting hole should be the same depth as the root ball, and two times the diameter of the root ball.
- E. Trees must be placed on undisturbed soil at the bottom of the planting hole.
- F. The tree hole depth shall be determined so that the tree may be set slightly high of finish grade, 1" to 2" above the base of the trunk flare, using the top of the root ball as a guide.
- G. Plant immediately after removal of container for container plants.

- H. Set tree on soil and remove all burlap, wire baskets, twine, wrappings, etc. before beginning and backfilling operations. Do not use planting stock if the ball is cracked or broken before or during planting operation.
- I. Apply vitamin B-1 root stimulator at the rate of one (1) tablespoon per gallon.
- J. Upon completion of backfilling operation, thoroughly water tree to completely settle the soil and fill any voids that may have occurred. Use a watering hose, not the area irrigation system. If additional prepared topsoil mixture needs to be added. It should be a coarser mix as required to establish finish grade as indicated on the drawings.
- K. The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches. All cuts, scars, and bruises shall be properly treated according to the direction of the Project Representative. Proper pruning techniques shall be used. Do not leave stubs and do not cut the leader branch. Improper pruning shall be cause for rejection of the plant material.
- L. Prepare a watering circle of 2' diameter around the trunk. For conifers, extend the watering well to the drip line of the tree canopy. Place mulch around the planted trees.
4. TURF - SOD LAYING
- A. Top Soil Amendments: Prior to laying sod, commercial fertilizer shall be applied and incorporated into the upper four (4) inches of the topsoil at a rate of four pounds of nitrogen per one thousand (1,000) square feet. Adjust fertilization mixture and rate of application as needed to meet recommendations given by topsoil analysis. Include other amendments as required.
- B. Fertilization: Three weeks after sod placement fertilize the turf at a rate of 1/2 pound of nitrogen per 1000 square feet. Use fertilizer specified above. Adjust fertilization mixture and rates to meet recommendations given by topsoil analysis.
- C. Sod Availability and Condition: Sod is to be delivered to the site in good condition. It is to be inspected upon arrival and installed within 24 hours. Sod is to be moist and cool to ensure that decomposition has not begun and is to be free of pests, diseases, or blemishes. The Contractor shall satisfy himself as to the existing conditions prior to any construction. The Contractor shall be fully responsible for furnishing and laying all sod required on the plans. He shall furnish new sod as specified above and lay it so as to too completely satisfy the intent and meaning of the plans and specification at no extra cost to the owner. In the case of any discrepancy in the amount of sod to be removed or amount to be used, it shall be the Contractor's responsibility to report such to the Project Representative prior to commencing the work.
- D. Sod Laying: The surface upon which the new sod to be laid will be prepared as specified in the detail and be lightly watered before laying. Areas where sod is to be laid shall be cut trimmed, or shaped to receive full width sod (minimum twelve (12) inches). No partial strip or pieces will be accepted.
- E. Sod shall be tamped lightly as each piece is set to ensure that good contact is made between edges and also the ground. If voids or holes are discovered, the sod piece(s) is (are) to be raised and topsoil is to be used to fill in the areas until level. Sod laid on any sloped areas shall be anchored with wooden dowels or other materials which are accepted by the grass sod industry.
- F. Sod shall be rolled with a roller that is at least 50% full immediately after installation to ensure the full contact with soil is made.
- G. Apply water directly after laying sod. Rainfall is not acceptable.
- H. Watering of the sod shall be the complete responsibility of the Contractor by whatever means necessary to establish the sod in an acceptable manner to the end of the Maintenance period. If an irrigator system is in place on the site, but for whatever reason, water is not available in the system. It is the responsibility of the Contractor to water the sod by whatever means, until the sod is accepted by the Project Representative.
- I. Protection of the newly laid sod shall be the complete responsibility of the Contractor. The Contractor shall provide acceptable visual barriers, to include barricades set appropriate distances with string or tapes between barriers, as an indication of new work. The Contractor is to restore any damaged areas caused by others (including vehicular traffic), erosion, etc, until such time as the lawn is accepted by the Owner.
- J. All sod that has not been laid within 24 hours shall be deemed unacceptable and will be removed from the site.
- 3.5 WEED BARRIER
- A. For the health of the soil and the microorganisms, weed barrier is not recommended. If use is required or requested, do not place in annual or grass areas.
- B. Cut weed barrier back to the edge of the plant rootball.
- C. Overlap rows of fabric min. 6"
- D. Stable fabric edges and overlaps to ground.
- END OF SECTION

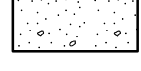
LANDSCAPE NOTES

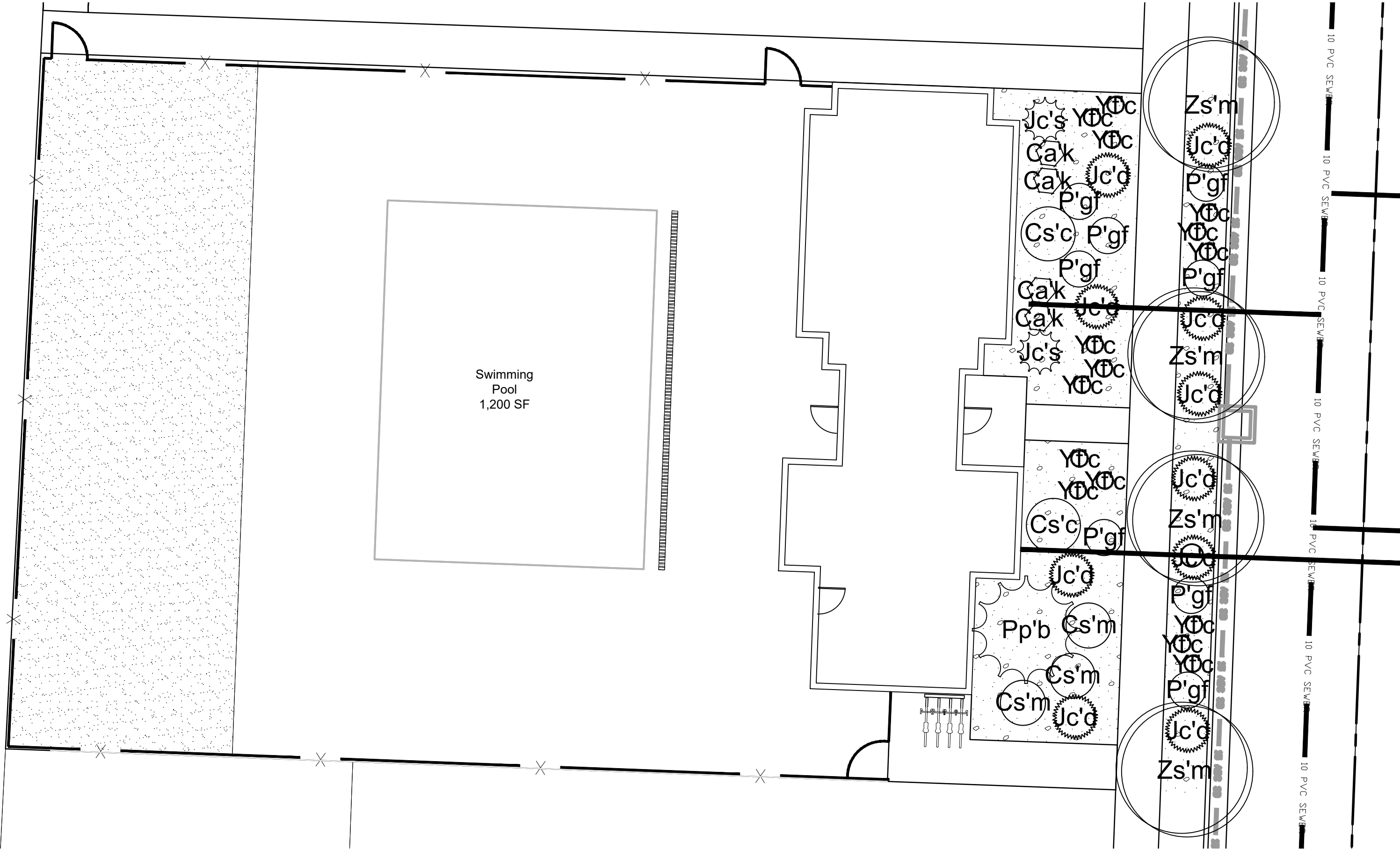
- INSTALLATION
- LANDSCAPE CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO THE OWNER.
 - DURING THE BIDDING AND INSTALLATION PROCESS, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE QUANTITIES TO BE USED.
 - ALL PLANT MATERIAL SHALL BE PLANTED ACCORDING TO INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) STANDARDS WITH CONSIDERATION TO INDIVIDUAL SOIL AND SITE CONDITIONS, AND NURSERY CARE AND INSTALLATION INSTRUCTIONS.
 - SELECTED PLANTS WILL BE ACCORDING TO THE PLANT LEGEND. IF SUBSTITUTIONS ARE NECESSARY, PROPOSED LANDSCAPE CHANGES MUST BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO LAYING SOD.
 - SHOULD THE SITE REQUIRE ADDITIONAL TOPSOIL, REFER TO SOIL TEST WHEN MATCHING EXISTING SOIL. IF A MATCHING SOIL IS NOT LOCATABLE, A 6" DEPTH OF SANDY LOAM TOPSOIL (MIXED PRIOR TO SPREADING WITH 2-3" OF QUALITY COMPOST) CAN BE INCORPORATED INTO THE EXISTING SOIL USING THE FOLLOWING DIRECTIONS: SCARIFY TOP 6" OF EXISTING SUBSOIL AND INCORPORATE 3" OF NEW COMPOST-ENRICHED TOPSOIL. SPREAD REMAINING TOPSOIL TO REACH FINISHED GRADE.
 - SOD FOR NEW LAWN AREAS SHALL BE A DROUGHT TOLERANT VARIETY. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD.
 - EDGING, AS INDICATED ON PLAN, IS TO BE INSTALLED BETWEEN ALL LAWN AND PLANTER AREAS. ANY TREES LOCATED IN LAWN MUST HAVE A 4-6" TREE RING OF THE SAME EDGING.
 - IF REQUIRED BY CITY OR OWNER SPECIFIED, DeWitt 5 OZ WEED BARRIER FABRIC TO BE INSTALLED IN ALL PLANTER AREAS EXCEPT UNDER ANNUAL PLANTING AREAS AS SHOWN ON PLAN. WEED BARRIER SHALL BE CUT BACK FROM EACH PLANT TO THE DIAMETER OF THE ROOTBALL.
 - ROCK MULCH (INORGANIC MULCH) TO BE APPLIED AT THE FOLLOWING DEPTHS: 3" IN ALL TREE, SHRUB, AND PERENNIAL PLANTER AREAS; ANNUAL PLANTING AREAS AS SHOWN ON PLAN TO RECEIVE 4" OF SOIL AID MATERIAL (ORGANIC MULCH); NO MULCH SHALL BE PLACED WITHIN 12" OF BASE OF TREE AND 6" WITHIN BASE OF SHRUBS AND PERENNIALS.
 - A NEW UNDERGROUND, AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED BY CONTRACTOR IN ALL LANDSCAPED AREAS. LAWN AREAS TO RECEIVE AT LEAST 100% HEAD TO HEAD COVERAGE AND PLANTER AREAS FULL DRIP SYSTEM TO EACH TREE AND SHRUB. POINT SOURCE DRIP OR IN-LINE DRIP TUBING TO BE SECURED AT EDGE OF ROOTBALL, NOT AGAINST TRUNK. SEE IRRIGATION PLAN.
 - UPON REQUEST, A PLANT GUIDE IS AVAILABLE WITH OUR RECOMMENDATIONS REGARDING WEED BARRIER, PLANT CARE AND MAINTENANCE.
- INSTALLER RESPONSIBILITIES AND LIABILITIES
- THESE PLANS ARE FOR BASIC DESIGN LAYOUT AND INFORMATION. LANDSCAPE CONTRACTOR IS REQUIRED TO USE TRADE KNOWLEDGE FOR IMPLEMENTATION. OWNER ASSUMES NO LIABILITIES FOR INADEQUATE ENGINEERING CALCULATIONS, MANUFACTURER PRODUCT DEFECTS, INSTALLATION OF ANY LANDSCAPING AND COMPONENTS, OR TIME EXECUTION.
 - LANDSCAPE CONTRACTOR IS RESPONSIBLE AND LIABLE FOR INSTALLATION OF ALL LANDSCAPING AND IRRIGATION SYSTEMS INCLUDING CODE REQUIREMENTS, TIME EXECUTIONS, INSTALLED PRODUCTS AND MATERIALS.
- GRADING AND DRAINAGE REQUIREMENTS
- AS PER CODE, ALL GRADING IS TO SLOPE AWAY FROM ANY STRUCTURE. SURFACE OF THE GROUND WITHIN 10' FEET OF THE FOUNDATION SHOULD DRAIN AWAY FROM THE STRUCTURE WITH A MINIMUM FALL OF 6"
 - AS PER CODE, FINISHED GRADE WILL NOT DRAIN ON NEIGHBORING PROPERTIES
 - A MINIMUM OF 6" OF FOUNDATION WILL BE LEFT EXPOSED AT ALL CONDITIONS
 - LANDSCAPE CONTRACTOR TO MAINTAIN OR IMPROVE FINAL GRADE AND PROPER DRAINAGE ESTABLISHED BY EXCAVATOR, INCLUDING BUT NOT LIMITED TO ANY MAINTENANCE, PRESERVATION, OR EXAGGERATION OF SLOPES, BERMS, AND SWALES.
 - LANDSCAPE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY DAMAGED OR IMPROPER WATERFLOW OF ALL SWALES, BERMS, OR GRADE
 - DEVICES FOR CHANNELING ROOF RUN-OFF SHOULD BE INSTALLED FOR COLLECTION AND DISCHARGE OF RAINWATER AT A MINIMUM OF 10' FROM THE FOUNDATION, OR BEYOND THE LIMITS OF FOUNDATION WALL BACKFILL, WHICHEVER DISTANCE IS GREATER

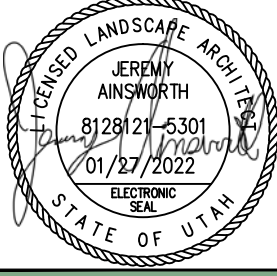
PLANT LEGEND

DECIDUOUS TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
	Zs'm	4	Zelkova serrata 'Musashino' Musashino Zelkova	B & B		2" Cal
EVERGREEN TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
	Jc's	2	Juniperus chinensis 'Spartan' Spartan Juniper	B & B		5'-6'
	Pp'b	1	Picea pungens 'Bakeri' Baker's Colorado Blue Spruce	B & B		5'-6'
DECIDUOUS SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT		
	Cs'c	2	Cornus sericea 'Cardinal' Cardinal Red-twig Dogwood		5 gal	
	Cs'm	3	Cytisus scoparius 'Moonlight' Moonlight Broom		5 gal	
	Pg'l	8	Potentilla fruticosa 'Goldfinger' Goldfinger Potentilla		5 gal	
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT		
	Jc'd	10	Juniperus chinensis 'Daub's Frosted' Daub's Frosted Juniper		5 gal	
	Yf'c	15	Yucca filamentosa 'Color Guard' Color Guard Adam's Needle		5 gal	
GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	CONT		
	Ca'k	4	Calamagrostis x acutiflora 'Karl Foerster' Feather Reed Grass		1 gal	

SITE MATERIALS LEGEND

SYMBOL	LANDSCAPE DESCRIPTION	QTY
	L-01 SODDED LAWN AREA LAWN AREAS SHALL BE SOD. NEW TURF AREAS TO BE SODDED WITH 18% "BLUESTAR KENTUCKY BLUEGRASS, 19% "MARQUIS" KENTUCKY BLUEGRASS, 17% "NEWPORT" KENTUCKY BLUEGRASS, 15% "TOUCHDOWN" KENTUCKY BLUEGRASS, 16% "APM PERENNIAL RYEGRASS, 13% "ACCENT PERENNIAL RYEGRASS OR APPROVED EQUAL AT A RATE OF 220 LBS. PER ACRE. FINE LEVEL ALL AREAS PRIOR TO LAYING SOD. ALL LAWN AREAS SHALL BE IRRIGATED WITH 100% COVERAGE BY POP-UP SPRAY HEADS AND GEAR-DRIVEN ROTORS. ALL DECIDUOUS AND CONIFER TREES PLANTED WITHIN SOD AREAS SHALL HAVE A FOUR FOOT (4') DIAMETER TREE RING COVERED WITH CHOCOLATE BROWN BARK MULCH, NO SHREDDED FINES. SUBMIT SAMPLES TO BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE INSTALLATION.	1,472 sf
	L-03 2" GRAY STONE MULCH TO MATCH ROCK ON SITE. PLANTING AREAS TO RECEIVE MIN. 6" DEPTH OF QUALITY TOPSOIL. IF TOPSOIL IS PRESENT ON SITE, PROVIDE SOIL TEST TO DETERMINE SOIL QUALITY FOR PROPOSED PLANTINGS. PROVIDE 3" DEPTH OF STONE MULCH TOP DRESSING.	1,355 sf



ISSUE DATE	PROJECT NUMBER	PLAN INFORMATION	PROJECT INFORMATION	DEVELOPER / PROPERTY OWNER / CLIENT	LANDSCAPE ARCHITECT / PLANNER	LICENSE STAMP	DRAWING INFO
1/27/2022	UT22003			FIELDSTONE HOMES C/O RANDY SMITH	PKJ DESIGN GROUP Landscape Architecture • Planning & Visualization 3450 N. TRIUMPH BLVD. SUITE 102 LEHI, UTAH 84043 (801) 753-5644 www.pkjdesigngroup.com		PM: JTA DRAWN: ACP CHECKED: JMA PLOT DATE: 1/27/2022

NO. REVISION DATE

1	XXXX	XX-XX-XX
2		
3		
4		
5		
6		
7		

811 BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
1-800-662-4111
www.bluestakes.org



EAGLE HEIGHTS
EAGLE MOUNTAIN, UTAH

0' 5' 10' 20' 40'
GRAPHIC SCALE: 1" = 10'



**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	MOTION - Acceptance of the Gardner Farms Annexation Petition for Further Review.		
ITEM TYPE:	Motion		
FISCAL IMPACT:			
APPLICANT:	Chase Bryan		
GENERAL PLAN DESIGNATION Employment Center/Campus	CURRENT ZONE Agriculture	ACREAGE 161	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Fionnuala Kofoed, Recorder's Office

PRESENTED BY:

Director of Administrative Services/City Recorder
Fionnuala Kofoed

RECOMMENDATION:

Staff recommends that the City Council accept the Gardner Farms Annexation for further review.

BACKGROUND:

The following outlines the annexation timeline:

- March 1 - Deadline for City Council to accept or deny the petition.
- March 2 - If the City Council fails to act, the petition is deemed accepted for further review.
- March 6 - If the petition was denied, deadline for Recorder to send notices.
- March 31 - If the petition was accepted, deadline for Recorder to certify the annexation and send notice.
- April 10 - Deadline for the City to publish notice of proposed annexation.
- April 20 - Deadline for the City to send notice to affected entities.
- April 30 - Deadline for affected entities to file a protest.
- May 3 - If the protest is pending, the City may deny the petition at the next meeting OR no further action may be taken on the annexation petition until after the receipt of the boundary commission's notice of decision on the protest. The boundary commission has 30 days to hold the hearing and an additional 30 days to send copies of the written decision. The City may deny or grant the petition subject to the commission's decision.

- May 8 - If no protest is filed, the City may grant annexation after a public hearing (7-day notice).

ITEMS FOR CONSIDERATION:

The Council may accept or deny the annexation petition.

REQUIRED FINDINGS:

All noticing requirements have been met. The proposed annexation is included in the City's 2009 Annexation Policy, and the 2018 General Plan Annexation Areas with Future Land Use Map designates this property as Employment Center/Campus.

PLANNING COMMISSION ACTION/RECOMMENDATION:

N/A

ATTACHMENTS:

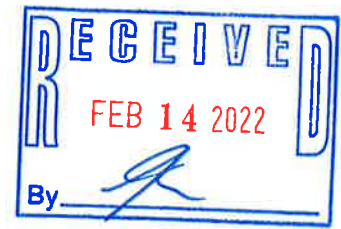
[Annexation Petition](#)

[Annexation Policy Plan Boundary Map](#)

[2018 General Plan](#)



Eagle Mountain City
Petition for Annexation



Annexation Name: Gardner Farms Eagle Mountain

Annexation Location: 6000 North Eagle Mountain Boulevard

Utah County Parcel Number(s): 58:049:0016

Total Acreage: 161

Is any property within the proposed annexation area:

Defined as rural real property: ☐ No ☒ Yes – List Parcel Number(s): 58:049:0016

Within an Agriculture Protection Area: ☒ No ☐ Yes – List Parcel Number(s): _____

Located in the Eagle Mountain City Annexation Policy Plan: ☐ No ☒ Yes

Requested Zone: Agriculture

Percentage of private real property within the proposed annexation area represented by the signatures of the owners: 100%

Percentage of the value of private real property within the proposed annexation area represented by the signatures of the owners: 100%

Name of Annexation Contact Sponsor: Chase Bryan

Mailing Address: 3768 N University Ave. Suite 204, Provo, UT 84604

Telephone: 801-425-3655 Email: chase@andersoncrg.com

Name of Engineer or Licensed Land Surveyor: Dennis Carlisle

Company Name: Civil Solutions Group

Telephone: 801-633-6982 Email: dcarlisle@civilsolutionsgroup.net

We, the undersigned owners of certain real property lying contiguous to the present municipal limits of Eagle Mountain City, hereby submit this Petition for Annexation and respectfully represent the following:

1. That this petition is made pursuant to the requirements of Section 10-2-403, Utah Code Annotated, as amended;

2. That the property subject to this petition is a contiguous, unincorporated area contiguous to the boundaries of Eagle Mountain City, and the annexation thereof will not leave or create an unincorporated island or peninsula; and
3. That the signatures affixed hereto are those of the owners of private real property that:
 - a. Is located within the area proposed for annexation;
 - b. Covers a majority of the private land area within the area proposed for annexation;
 - c. Is equal in value to at least 1/3 of the value of all private real property within the area proposed for annexation, as shown by the latest tax assessment rolls of Utah County; and
 - d. Is described as follows (describe approximate location):
6000 N Eagle Mountain Boulevard

and is more specifically described in the included legal description.

4. That up to five of the signers of this petition have been designated as sponsors, one of whom is designated as the Contact Sponsor, with the mailing address of each sponsor being indicated;
5. That the petition does not propose annexation of all or part of an area proposed for annexation in a previously filed petition that has not been denied, rejected, or granted; and
6. That this petition does not propose annexation of an area that includes all or part of an area proposed to be incorporated in a request for a feasibility study under Section 10-2-103, Utah Code Annotated, or a petition under Section 10-2-125, Utah Code Annotated.

The petitioners further file herewith the following items:

1. An ownership plat map showing all property owners in Eagle Mountain City within five hundred (500) feet of the proposed annexation and one quarter (1/4) mile of the annexation in the unincorporated area of Utah County;
2. One 24" x 36" and one 11" x 17" of the accurate annexation plat map prepared by a licensed surveyor of the area proposed for annexation identifying each parcel and labeling each parcel with the owner's name, tax identification number, and acreage. NOTE: A mylar is required to be submitted following approval by the City Council; and
3. Legal description of the area proposed for annexation;

Sponsors of Petition

Chase Bryan


Signature

Name

3768 N University Ave. Suite 204, Provo, UT 84604

Sponsor Address

Name

Signature

Sponsor Address

Name

Signature

Sponsor Address

Name

Signature

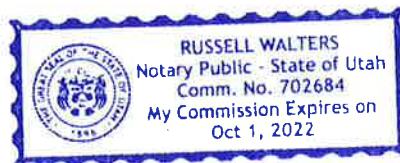
Sponsor Address

Name

Signature

Sponsor Address

STATE OF UTAH)
)ss:
COUNTY OF UTAH)



On the 7 day of February, 20 22, personally appeared before me
Chase Bryan,
_____, the signers of the foregoing
document, and acknowledged to me that they executed the same.


Notary Public
My commission expires: 10/1/2022

58:048:0009
SMITH, STEVEN G and KAY...
Value: \$1,312,100 -- 262.44 acres

58:048:0025
SMITH, STEVEN GEORGE and STEVEN ...
Value: \$12,057,500 -- 321.53 acres

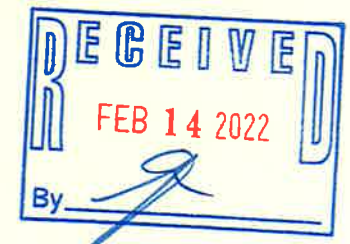
58:049:0018
PETERSON, JAY R and JUDY ANN C...
Value: \$820,900 -- 164.18 acres

58:049:0016
GARDNER FARMS LLC...
Value: \$805,100 -- 161.03 acres

58:049:0039
SMITH, STEVEN GEORGE and STEVEN ...
Value: \$17,643,000 -- 470.48 acres

58:049:0015
CORP OF PRES BISHOP CHURCH OF ...
- CEDAR VALLEY
Value: \$831,500 -- 166.3 acres

58:049:0017
HOLBROOK LONG RIDGE LC...
Value: \$795,100 -- 159.02 acres



N EAGLE MOUNTAIN BLVD





GARDNER FARMS EAGLE MOUNTAIN ADDITION

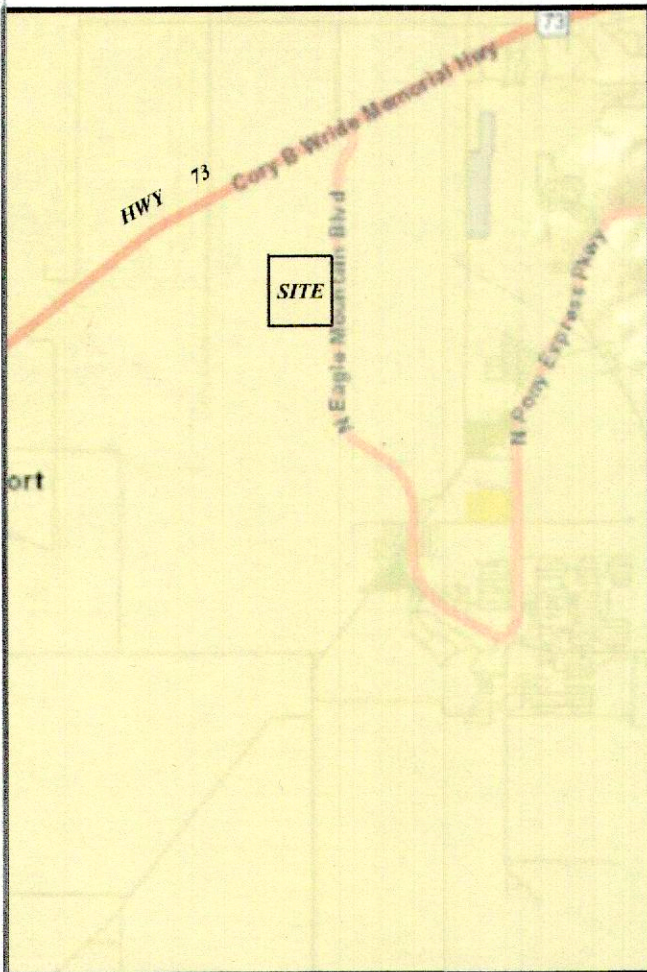
BOUNDARY DESCRIPTION

All of the NE1/4 of Section 34, Township 5 South, Range 2 West, Salt Lake Base and Meridian, more particularly described by Survey as:

Beginning at a point on the westerly line of the current Corporate Limits of Eagle Mountain City being the Northeast Corner of Section 34, T5S, R2W, S.L.B. & M.; thence $S0^{\circ}48'33''W$ (NAD83) along the Section line and said Corporate Limits 2,653.40 feet to the East 1/4 Corner of said Section; thence $N88^{\circ}38'56''W$ along the 1/4 Section line to a pipe (found) at the Center 1/4 Corner of said Section; thence $N0^{\circ}50'39''E$ along the 1/4 Section line 2,631.58 feet to the North 1/4 Corner of said Section; thence $S89^{\circ}07'11''E$ along the Section line 2,653.53 feet to the point of beginning.

Contains: 161.02+/- acres



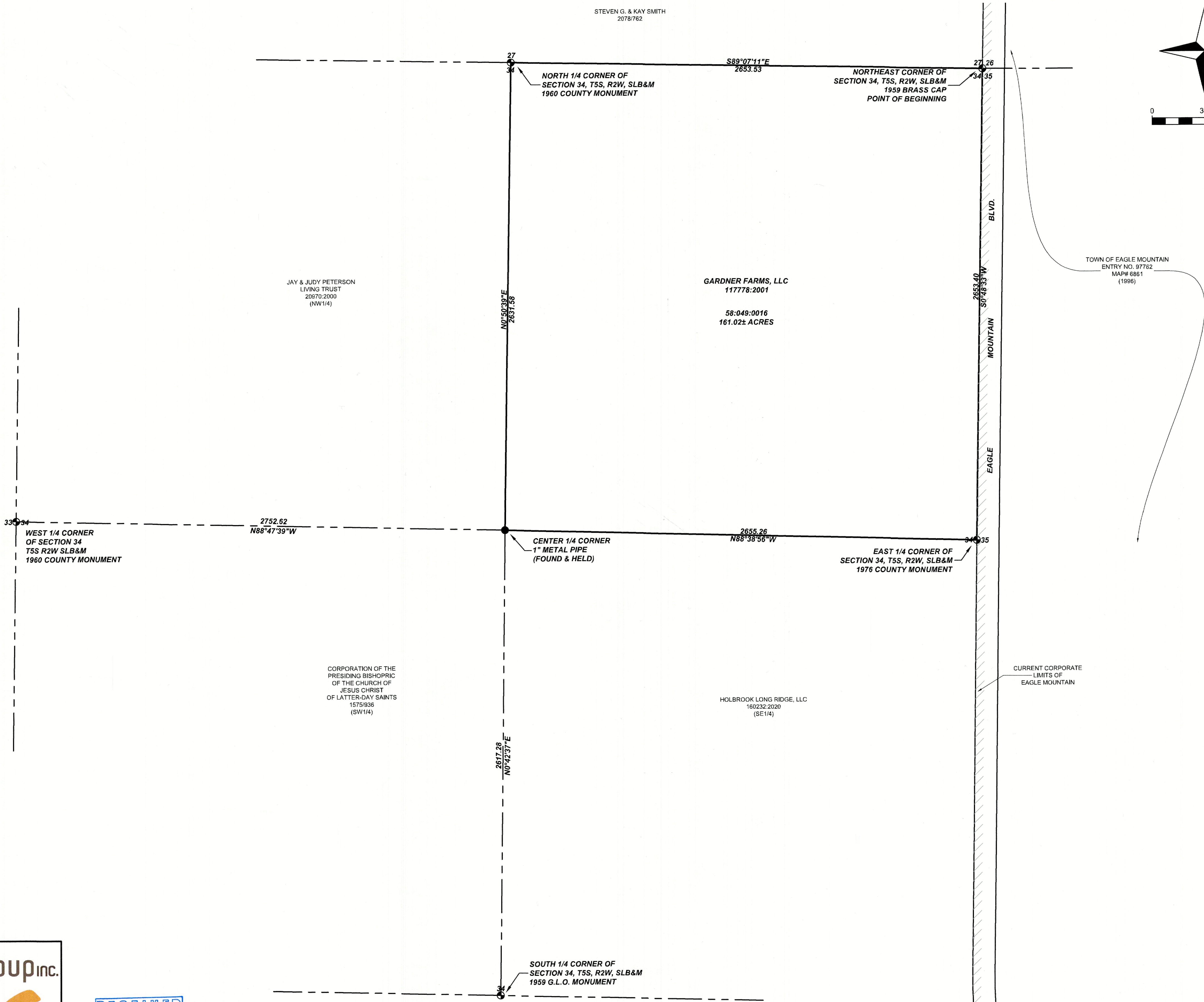
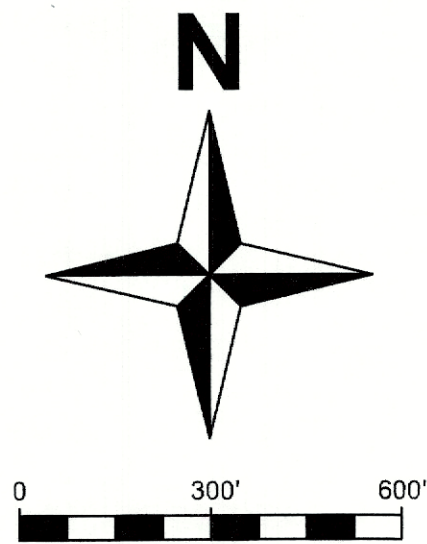


VICINITY MAP
NTS

ANNEXATION PLAT
**GARDNER FARMS EAGLE MOUNTAIN
ADDITION**

EAGLE MOUNTAIN CITY, UTAH COUNTY, UTAH

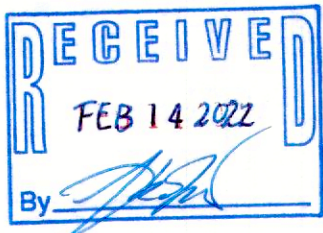
STEVEN G. & KAY SMITH
2078/762



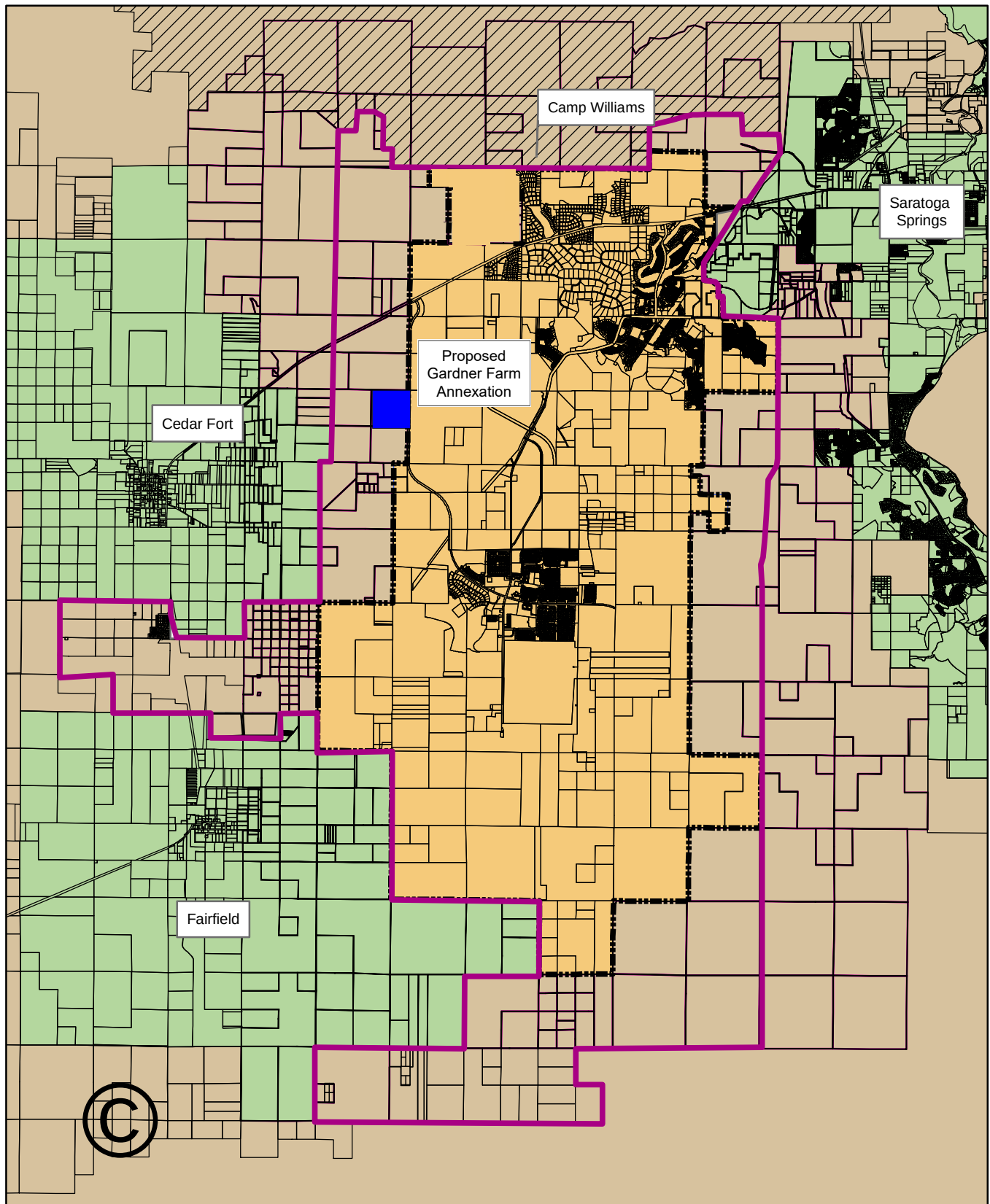
SURVEYOR'S CERTIFICATE I, DENNIS P. CARLISLE, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 172675 IN ACCORDANCE WITH TITLE 58, CHAPTER 22 OF UTAH STATE CODE. I FURTHER CERTIFY THAT THIS PLAT IS A TRUE AND ACCURATE MAP OF THE TRACT OF LAND TO BE ANNEXED INTO EAGLE MOUNTAIN CITY, UTAH.	
BOUNDARY DESCRIPTION All of the NE1/4 of Section 34, Township 5 South, Range 2 West, Salt Lake Base and Meridian, more particularly described by Survey as: Beginning at a point on the westerly line of the current Corporate Limits of Eagle Mountain City being the Northeast Corner of Section 34, T5S, R2W, S.L.B. & M.; thence S0°48'33"W (NAD83) along the Section line and said Corporate Limits 2,653.40 feet to the East 1/4 Corner of said Section; thence N88°38'56"W along the 1/4 Section line to a pipe (found) at the Center 1/4 Corner of said Section; thence N0°50'39"E along the 1/4 Section line 2,631.58 feet to the North 1/4 Corner of said Section; thence S89°07'11"E along the Section line 2,653.53 feet to the point of beginning. Contains: 161.02±/- acres	
 DENNIS P. CARLISLE PROFESSIONAL LAND SURVEYOR CERTIFICATE NO. 172675 DATE: February 14, 2022	SURVEYOR'S SEAL
ACCEPTANCE BY COUNTY SURVEYOR THIS PLAT HAS BEEN REVIEWED BY THE COUNTY SURVEYOR AND IS HEREBY CERTIFIED AS A FINAL LOCAL ENTITY PLAT, PURSUANT TO UTAH CODE ANNOTATED 17-23-20 AMENDED.	
COUNTY SURVEYOR DATE	SURVEYOR'S SEAL
ACCEPTANCE OF LEGISLATIVE BODY THIS IS TO CERTIFY THAT WE, THE EAGLE MOUNTAIN CITY COUNCIL HAVE RECEIVED A PETITION SIGNED BY THE MAJORITY OF THE OWNERS OF THE TRACT OF LAND SHOWN HEREON REQUESTING THAT SAID TRACT BE ANNEXED TO EAGLE MOUNTAIN CITY AND THAT A COPY OF THE ORDINANCE HAS BEEN PREPARED FOR THE FILING HERewith ALL IN ACCORDANCE WITH THE UTAH CODE ANNOTATED (1979) 10-1-04 AND 10-02-401 THROUGH 423, (AS REVISED) AND THAT WE HAVE EXAMINED AND DO HEREBY APPROVE AND ACCEPT THE ANNEXATION OF THE TRACT AS SHOWN AS PART OF SAID CITY AND THAT SAID CITY AND THAT SAID TRACT OF LAND TO BE KNOWN HEREafter AS THE GARDNER FARMS EAGLE MOUNTAIN ADDITION. DATED THIS _____ DAY OF _____ A.D. 20____.	
MAYOR CITY COUNCIL MEMBER CITY COUNCIL MEMBER CITY COUNCIL MEMBER	CITY COUNCIL MEMBER CITY COUNCIL MEMBER CITY COUNCIL MEMBER
RECORDER'S SEAL ATTEST: _____ RECORDER	
UTAH COUNTY RECORDER	
FINAL LOCAL ENTITY PLAT	
GARDNER FARMS EAGLE MOUNTAIN ADDITION EAGLE MOUNTAIN CITY, UTAH COUNTY, UTAH	

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Annexation Policy Plan Boundary Map



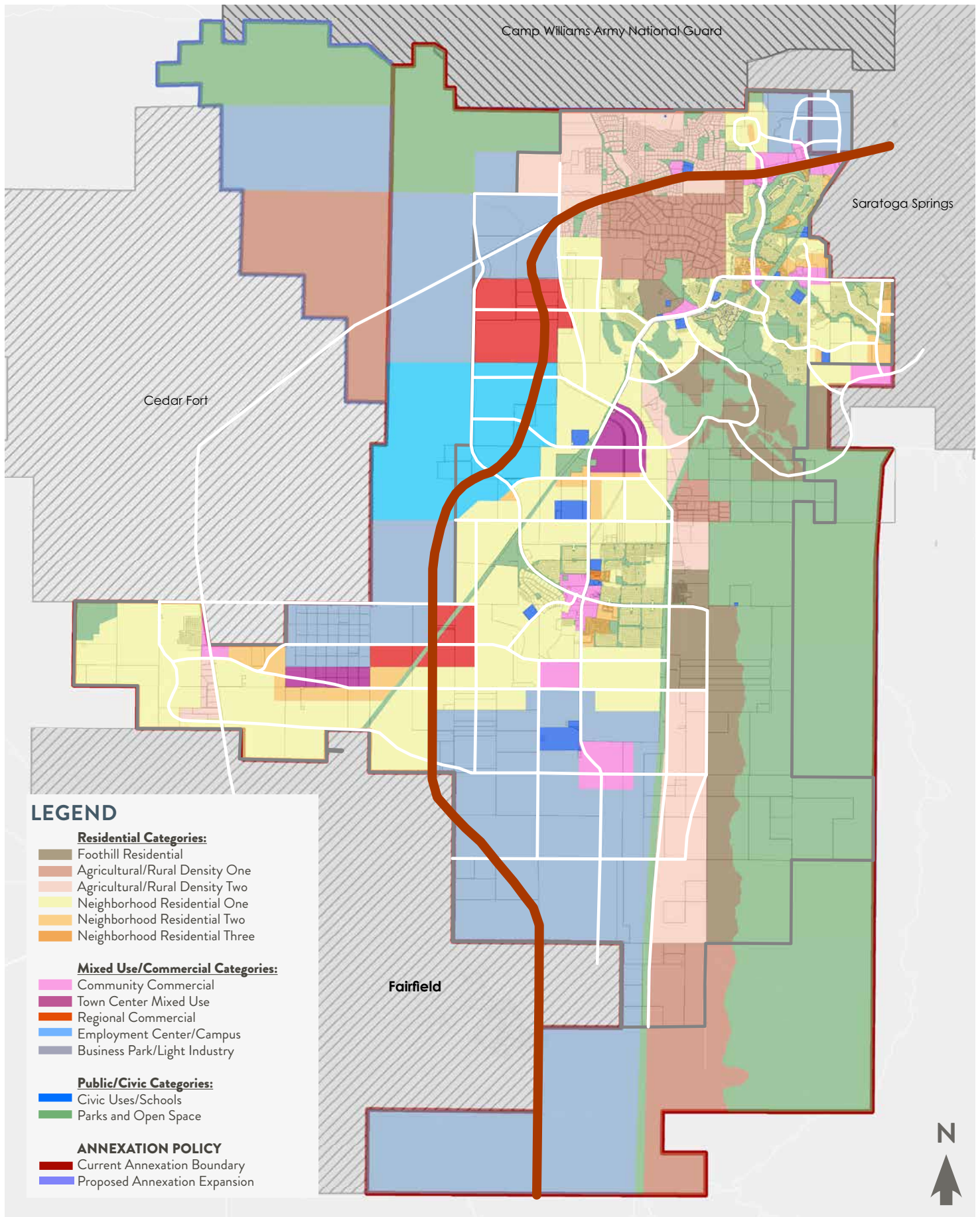
-  City Limit Boundary
-  Camp Williams
-  City Limits
-  Surrounding City Boundaries
-  Annexation Line



It is the intent of this map to include only potential annexation areas, not any property that is located within another jurisdiction.

Disclaimer: Eagle Mountain City assumes no liability for direct, indirect, special, or consequential damages resulting from the use or misuse of these maps or any of the information contained herein. Portions may be copied for incidental fair use, but should not be resold.

Annexation Areas with Future Land Use Designations





**EAGLE MOUNTAIN CITY
CITY COUNCIL MEETING
MARCH 1, 2022**

TITLE:	MOTION - Consideration of a Request to Extend the Hours of a Baseball Tournament to an Overnight Event.		
ITEM TYPE:	Motion		
FISCAL IMPACT:			
APPLICANT:	Bob Ostler - Eagle Mountain Baseball		
GENERAL PLAN DESIGNATION	CURRENT ZONE	ACREAGE	COMMUNITY

PUBLIC HEARING:

No

PREPARED BY:

Brad Hickman, Parks and Recreation

PRESENTED BY:

Brad Hickman

RECOMMENDATION:

Staff recommends the City Council consider the request to extend the hours of a baseball tournament to an overnight event.

BACKGROUND:

Bob Osler, President of Eagle Mountain Baseball has requested the City Council allow the Heat Stroker Tournament to run overnight. This is the first tournament put on by Wasatch Baseball League (WBL) and is co-sponsored by the five leagues within WBL: Eagle Mountain Baseball, Bingham Baseball, South East Valley Baseball, Herriman Baseball, and Riverton Baseball. The goal of the tournament is to grow baseball in the area and give teams opportunities to improve through competitive play.

The tournament is scheduled from July 7 through July 10. If all team spaces are filled, the games would run from 7:00 PM to 7:00 AM Thursday and Friday evenings with the championship game scheduled for Saturday. The championship game would end by 2:00 AM on Sunday, July 10.

Eight baseball teams would play at any given time during the tournament. With two spectators per player, the estimated number of attendees is 288 during each game.

All proceeds from the tournament would go towards the costs of the City Championship Tournament and the Rec All-Star Tournament. Eagle Mountain Baseball sends the top two teams from each age group to the City Championship Tournament and up to two teams from each of the age groups made up of the best players in the groups to the Rec All-Star Tournament. The players' fees would be covered for these tournaments, allowing the League to send teams to play without charging additional funds to participate.

This would be a great opportunity for our players to enjoy competitive baseball without incurring additional financial burdens on their families.

ITEMS FOR CONSIDERATION:

The public assembly curfew is the item for consideration in this motion. EMMC 12.30.020 Conditions for Issuing a License states, "In the application for a license, each applicant shall disclose the maximum number of people which will be assembled or admitted to the location of the assembly. The maximum number shall not exceed the maximum number that can reasonably assemble at the location of the assembly in consideration of the nature of the assembly. All outdoor public assemblies under this chapter shall be discontinued no later than 2:00 AM on the day following the licensed assembly and the security deposit furnished by the applicant shall guarantee the timely closure of the property licensed for the assembly in compliance with the terms of this chapter."

The applicant's request is to allow an exemption to the Code for specific days to allow for the play of a baseball tournament past 2:00 AM.

If approved the City would require a special event permit be completed and reviewed by all staff members.

REQUIRED FINDINGS:

PLANNING COMMISSION ACTION/RECOMMENDATION:

N/A

ATTACHMENTS:

UPCOMING PLANNING-RELATED AGENDA ITEMS

Active Projects

Brown's Meadows Rezone and Preliminary Plat
Mae Land and Development Rezone and Concept Plan
Parkway Fields Phase B Preliminary Plat
Stonebridge Corner GP Amendment, Rezone, Concept Plan, and Code Amendment
Wildlife Corridor Rezone

Code Amendments

Electronic Reader Board Code Amendment – Applicant Proposed
Commercial District Node Overlay
Industrial Zone
Landlord Licensing
Landscaping Timing Requirements
Multifamily Commercial Design Standards
Private Road Standards/Intersections
Water-wise Landscaping