



HURRICANE CITY UTAH

Mayor

City Manager

Nanette Billings Kaden DeMille

Planning Commission

*Mark Sampson, Chair
Shelley Goodfellow, Alternate Chair
Ralph Ballard
Paul Farthing
Rebecca Broneman
Michelle Cloud
Brad Winder
Kelby Iverson*

Hurricane Planning Commission Meeting Agenda

January 25, 2024
6:00 PM

Hurricane City Offices 147 N 870 W, Hurricane

Notice is hereby given that the Hurricane City Planning Commission will hold a Regular Meeting commencing at 6:00 p.m. at the Hurricane City Offices 147 N 870 W, Hurricane, UT.

Meeting link:

<https://cityofhurricane.webex.com/cityofhurricane/j.php?MTID=me42b4eb65609e35eb0e0664c925c9dbc>

Meeting number: 2632 882 4836

Password: HCplanning

Host key: 730111

Join by phone +1-415-655-0001 US Toll

Access code: 2632 882 4836

Host PIN: 9461

Details on these applications are available in the Planning Department at the City Office, 147 N. 870 West.

6:00 p.m. - Call to Order

Roll Call

Pledge of Allegiance

Prayer and/or thought by invitation

Declaration of any conflicts of interest

OLD BUSINESS

1. CUP23-23: Discussion and consideration of a possible approval of a conditional use permit for a metal building located at 840 N Main St. Kyden Hansen, Applicant.

NEW BUSINESS

1. 2022-PP-20: Discussion and consideration of a possible approval of a preliminary plat extension for Southern Dunes Townhomes, a 345 unit townhome recreation resort development located at 2600 W 4200 S. Bush & Gudgell, Applicant.
2. PP24-01 PSP24-01: Discussion and consideration of a possible approval of a preliminary site plan and recommendation to the City Council on a preliminary plat

for Trails at Sand Hollow, a 673 unit multifamily development located at 4000 W Sand Hollow Road. Brad Mabey, Applicant. Karl Rasmussen, Agent.

3. FSP24-01: Discussion and consideration of a possible approval of a final site plan for Goulding home, an additional multifamily unit located at 220 W 200 N. Outdoor Kitchens & More (Ben Sorenson), Applicant.
4. CUP24-01: Discussion and consideration of a possible approval of a conditional use permit for greater size located at 198 S 1230 W. Rebecca and Darin Grondel, Applicant. Mike Jensen, Agent.
5. Discussion on the proposed R1-4 zoning classification

Approval of Minutes:

1. December 14, 2023
2. January 3, 2024
3. January 11, 2024

Adjournment



Hurricane City Application

Application Accepted Date: 12/14/2023		Valuation		\$	0.00
Type of Improvement: Conditional Use Permit		PERMIT FEES			
Description:		Planning Fee		\$	150.00
Tenant / Project Name: 840 n Main Street shop		Planning Fee		\$	150.00
Bldg. Address: 840 N Main St hurricane utah		Sub Total:		\$	150.00
City: Hurricane City State: UT Zip: 84737		Permit Total:		\$	150.00
Subdivision: 840 N Main street Phase:		Amount Paid:		\$	0.00
Block: Lot #: Parcel #: NA		Remaining Due:		\$	150.00
Property Owner: Kyden Hansen					
Permit Contact: Kyden Hansen P:(435) 709-1190					
Email: kytay1212@gmail.com					
CONTACT INFORMATION					
General Contractor: Kyden Ross Hansen					
License #: P: (435) 709-1190					
City: State: Zip:					
Email: kytay1212@gmail.com					
APPLICATION DETAILS					
# of Units: 0		custom text:			
APPROVALS					
DATE					
INFO					
Setbacks					
Front:					
Rear:					
Left:					
Right:					
Min.					
Actual:					
APPLICATION NUMBER: PLANCUP23-23					
This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I here-by certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty of perjury. Maintenance Deposit is refundable after final inspection if: 1) site is kept clean 2) building is NOT occupied prior to final inspection and issuance of Certificate of Occupancy.					
Applicant Name: Kyden Hansen					
Signature of Applicant/Authorized Agent or Owner: Date:					
Application Approved By: Date:					
Application Issued By: Date:					
Receipt #: 8.174976-12/14/23					

ASSAULT
PROPERTY DAMAGE

DATE OF YEAR

COUNTY OF Albany

I, John H. Houghton, being duly sworn, depose and say that I own and own the interest of the property described in the attached application and that the statements herein contained and the information provided described in the attached process and other exhibits are in all respects true and correct to the best of my own knowledge. I also acknowledge that I have received written instructions regarding the process for which I am appearing and the Sheriff's City Marshal staff have indicated they are available to assist me in making this application.

[Signature]
(Property Owner)

[Signature]
(Property Owner)

Subscribed and sworn to me this 13 day of December 2013

[Signature]
(Notary Public)

Reading in Albany at

My Commission Expires 04/11/2016



Agent Authorization

I, John H. Houghton, the owner of the real property described in the attached application, do authorize my agent [Signature] to represent me and regarding the attached application and/or appear on my own behalf before any administrative or legislative body in the City concerning this application and assist in all respects to the agent in matters pertaining to the attached application.

[Signature]
(Property Owner)

[Signature]
(Property Owner)

Subscribed and sworn to me this _____ day of _____, 20____

[Signature]
(Notary Public)

Reading in _____ at

My Commission Expires _____

From: Brienna Spencer
Sent: Friday, January 12, 2024 10:26 AM
To: Fred Resch; Gary Cupp
Subject: FW: Color of building and request to be back into meeting

This is for the conditional use permit that was tabled last night



Brienna Spencer
Planning Technician/Licensing Clerk
Planning Department
Phone : 435.635.2811 ext. 112
Email : brienna@cityofhurricane.com
147 N. 870 W. Hurricane UT, 84737
www.cityofhurricane.com

From: Kyden and Taylor Hansen <kytay1212@gmail.com>
Sent: Friday, January 12, 2024 10:22 AM
To: Brienna Spencer <brienna@cityofhurricane.com>
Subject: Color of building and request to be back into meeting



The building will be white, and black. It will look alot like this building.

This is also my formal request to be put back on the docket for the next meeting on the 25th my apologies for missing the last one.



STAFF COMMENTS

Agenda Date:	1/25/2024
Application Number:	CUP23-23
Type of Application:	Conditional Use Permit
Action Type:	Administrative
Applicant:	Kyden Hansen
Agent:	
Request:	A conditional use permit for a metal building
Location:	840 N Main St
Zoning:	R1-10
General Plan Map:	N/A

Update 1/25/2024: This item was tabled on January 11th, 2024 due to the applicant not being present, as well as missing details on the colors and materials of the building. These items have been received and the applicant has requested to be placed back on the agenda.

Staff recommends approval.

Discussion: The applicant proposes constructing a metal accessory building 1200 sq. ft. and 16' tall. Hurricane City Code (HCC) 10-13-4 allows the maximum height of an accessory building to be 16' tall and the size of an accessory building to be 1200 sq ft. A property owner may apply for a conditional use permit to be able to build a metal building. The standards to obtain a conditional use permit are as follows:

10-7-9: CONDITIONAL USE PERMIT E. Approval Standards: The following standards shall apply to the issuance of a conditional use permit:

1. A conditional use permit may be issued only when the proposed use is shown as conditional in the zone where the conditional use will be located, or by another provision of this title.

2. Standards for each use must be reviewed. Specific standards are set forth for each use in subsections E2a through E2l of this section (section h applies):

h. Standards for metal buildings:

(1) In residential (R-1) zones the height and size may not be greater than permitted in the zone.

(2) The building must meet the following design standards:

(A) Exterior building materials shall be durable, require low maintenance, and be of the same or higher quality as surrounding developments.

(D) *In a commercial zone the faces of the building visible from nearby streets must include architectural relief items of non-metal materials including wood, stone, or stucco.*
(Ord. 2017-14, 8-17-2017; amd. Ord. 2018-04, 4-5-2018)



1. The proposed building is 16' tall, a metal building is not allowed to exceed 16', and therefore this building complies.
2. No information on what colors and materials are proposed.
3. Setbacks are being met.

2023-CUP-06



844

92

865

842

840

845

N Main St

N Main St

N Main St

0

50.00 ft

106.47 ft

3.5'

53'

3.5'

KYDEN HANSEN
840 N MAIN STREET, HURRICANE, UT 84737
(WASHINGTON COUNTY, UT)
25' X 48' X 16' / 9'-9" STAND-ALONE LEAN-TO

SCOPE OF PLANS:

- 1. TO PROVIDE STRUCTURAL DESIGN FOR THE PRE-FAB METAL BUILDING PER THE SPECIFIED DESIGN LOADS, AND APPLICABLE BUILDING CODES. ANY DISCREPANCIES IN DESIGN LOADS SHALL BE BROUGHT TO THE ATTN. OF THE ENGINEER OF RECORD.
- 2. DOES NOT PROVIDE ANY ARCHITECTURAL, SITE, ZONING, HVAC, ELEC, MECH DESIGN OR REQUIREMENTS. THESE ITEMS MUST BE ADDRESSED BY THEIR RESPECTIVE PROFESSIONALS IN CHARGE.

GENERAL STRUCTURAL DESIGN NOTES

- 1. ALL CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH , IBC 2021, ASCE 7-16, OSHA, AISC 360, AISI S100, AWS D1.3 CODES AND ALL OTHER APPLICABLE LOCAL CITY OR COUNTY REQUIREMENTS.
- 2. ALL WELDS ARE TO BE SHOP WELDS. FIELD WELDING IS NOT PERMITTED NOR REQUIRED. WELDING ELECTRODES PER AWS CODE, E70XX UNLESS NOTED OTHERWISE ON PLANS.
- 3. ALL STRUCTURAL FIELD CONNECTIONS SHALL BE #12-14 x 3/4" SDS (ESR-2196) U.N.O.
- 4. ALL STRUCTURAL LIGHT GAUGE TUBING SHALL BE ASTM A500 GRADE C (Fy = 50 KSI, Fu = 62 KSI) OR EQUAL. ALL CHANNELS SHALL BE A653 (HSLA) GRADE 50 STEEL (Fy = 50 KSI, Fu = 65 KSI) OR EQUAL.
- 5. STRUCTURAL TUBE TS 2 1/2" x 2 1/2" x 14GA (0.083") IS EQUIVALENT TO TS 2 1/4" x 2 1/4" x 12GA (0.109") AND EITHER ONE MAY BE USED IN LIEU OF THE OTHER.
- 6. GYPSUM BOARD OR DRYWALL FINISH OR ANY BRITTLE BASE MATERIAL IS NOT CONSIDERED OR ACCOUNTED FOR ON THE DESIGN CRITERIA OF THIS STRUCTURE, U.N.O.

STRUCTURAL DESIGN CRITERIA

PREVAILING CODE:	IBC 2021
OCCUPANCY / USE GROUP:	U (BARN / AGRICULTURAL)
CONSTRUCTION TYPE:	V B (ANY MAT'L - IBC 602.5)
RISK CATEGORY:	I
BUILDING FOOTAGE:	1200 SQ.FT
1. DEAD LOAD (D) COLLATERAL LOAD	2.0 PSF
2. ROOF LIVE LOAD (Lr)	Lr = 20 PSF
3. SNOW LOAD (S) GROUND SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR EXPOSURE FACTOR ROOF SLOPE FACTOR FLAT ROOF SNOW LOAD SLOPED ROOF SNOW LOAD	Pg = 29 PSF Is = 0.80 Ct = 1.2 Ce = 1.0 Cs = 1.0 Pf = 20 PSF Ps = 20 PSF
4. WIND LOAD (W) DESIGN WIND SPEED EXPOSURE	V = 105 MPH C
5. SEISMIC LOAD (E) Ss / S1 SDs / SD1 DESIGN CATEGORY SITE CLASS IMPORTANCE FACTOR	0.621/0.204 0.539/0.298 D D (DEFAULT) Ie = 1.00

ASD LOAD COMBINATIONS:

- 1. D + (Lr OR S)
- 2. D + (0.6W OR ±0.7E)
- 3. D + 0.75 (0.6W OR ±0.7E) + 0.75 (Lr OR S)
- 4. 0.6D + (0.6W OR ±0.7E)

STRUCTURAL DRAWING INDEX

- 1 COVER SHEET
- 2 ELEVATIONS
- 3A FOUNDATION PLAN & NOTES
- 3B FOUNDATION DETAILS & NOTES
- 4 COLUMN LAYOUT PLAN & DETAILS
- 5A FRAME SECTION & DETAILS
- 5B FRAME SECTION DETAILS
- 6A SIDE WALL FRAMING
- 6B SIDE WALL DETAILS
- 6C SIDE WALL DETAILS
- 7A END WALL FRAMING
- 7B..... END WALL DETAILS

2.23-325.0

THE INFORMATION CONTAINED IN THESE DRAWINGS IS THE SOLE PROPERTY OF QUALITY CARPORTS, INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF QUALITY CARPORTS, INC. IS PROHIBITED.

FOR QUESTIONS, MODIFICATIONS, REVISIONS OR CORRECTIONS NEEDED TO PLANS, PLEASE CONTACT THE METAL BUILDINGS MANUFACTURER LISTED ON PLANS. ENGINEER OF RECORD REQUIRES AUTHORIZATION FROM THE METAL BUILDINGS MANUFACTURER TO MAKE ANY CHANGES TO PLANS.

SHEET NO:

1 OF 7

PROJECT NO:

228-23-3197

DRAWN BY:

S.O.

DATE:

12/8/2023

COVER SHEET

LOCATION:

840 N MAIN STREET
HURRICANE, UT 84737

PROJECT TITLE:

KYDEN HANSEN

METAL BUILDING MANUFACTURER

QUALITY CARPORTS INC.

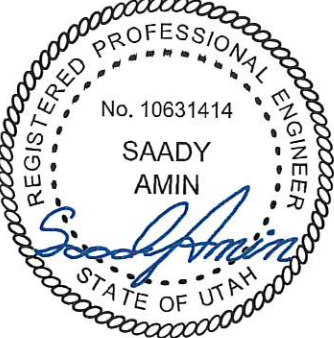
Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167

REVISIONS LIST		
MARK	COMMENTS	DATE
-	ISSUED FOR PERMIT & CONST.	DEC 08 2023

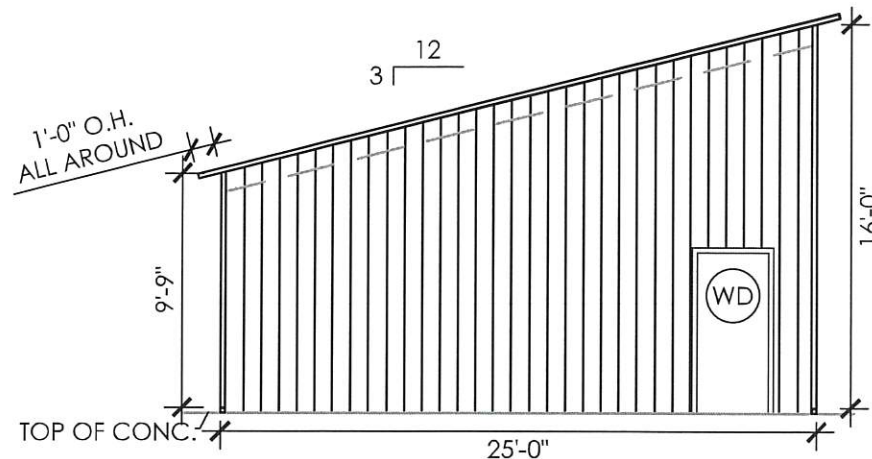
SPECIAL INSPECTION SCHEDULE	PERIODIC	CONTINUOUS
	P	C
ANCHORAGE		
POST-INSTALLED CONCRETE ANCHOR BOLTS (PER ICC-ESR REQUIREMENTS - REF SHEET 3B)	X	-

THE OWNER SHALL HIRE LICENSED SPECIAL INSPECTOR AT THEIR OWN COST. THE OWNER MAY BRING TO THE ATTENTION OF THE ENGINEER, ANY ISSUES OF CONCERN NOTED BY THE INSPECTOR.

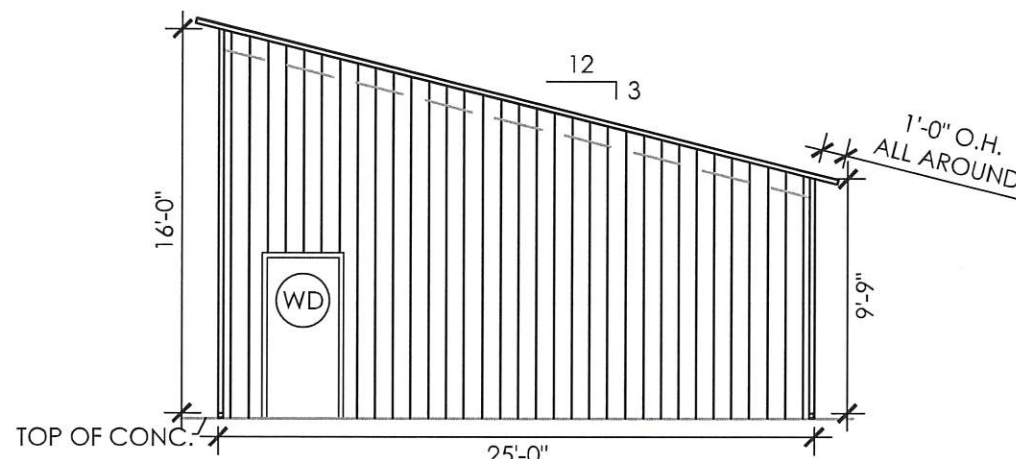
SAADY AMINReason: I have reviewed this document
Location: Toledo, OH
Date: 2023.12.11 15:04:16-05'00'



EXPIRES: 3/31/2025
SIGNED: DEC 08 2023



FRONT END WALL ELEVATION
SCALE: 1/8" : 1'



BACK END WALL ELEVATION
SCALE: 1/8" : 1'

DESIGN NOTES

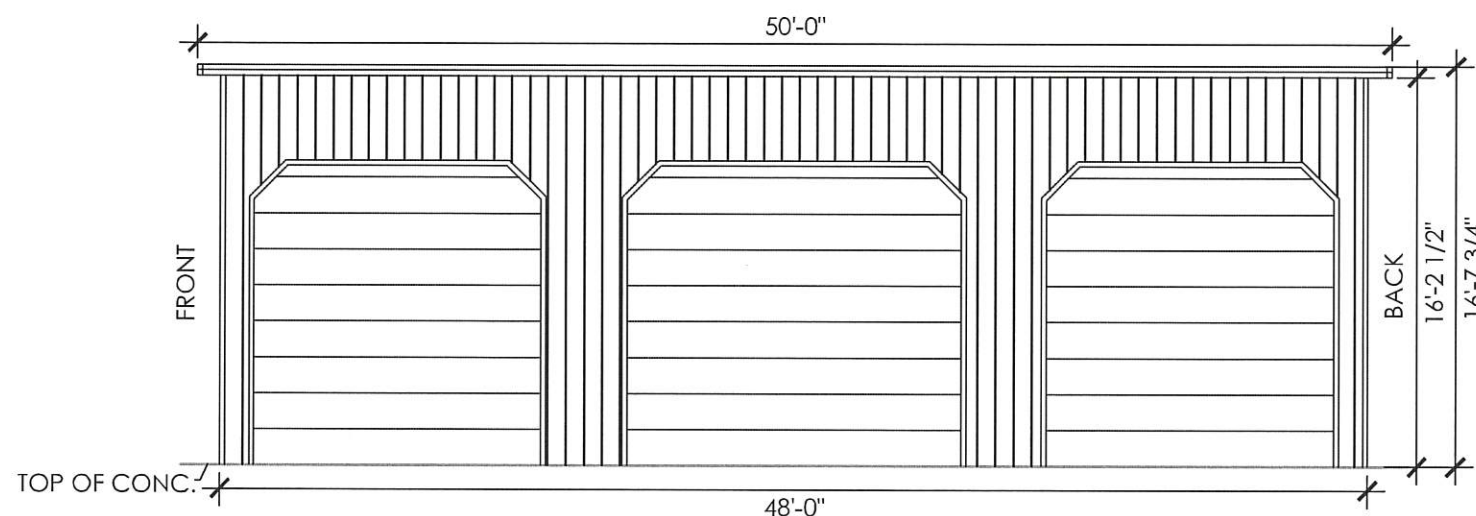
1. THE INTENTION OF ELEVATIONS PROVIDED ON THIS SHEET IS TO INDICATE STRUCTURAL COMPONENTS, DIMENSIONS, AND BUILDING ORIENTATION ONLY.
2. ARCHITECTURAL DESIGN REQUIREMENTS ARE NOT COVERED IN THIS PLAN SET. THESE DESIGN REQUIREMENTS SHALL BE ADDRESSED IN A SEPARATE ARCHITECTURAL SET BY RESPONSIBLE LICENSED PROFESSIONALS IN CHARGE, AS NEEDED.
3. ALL EXT **ROOF** SHEATHING SHALL BE: CLASS A RATED 29GA. **3/4" RIB HT** - GALV OR PAINTED STEEL (FY=80 KSI) OR EQ.
4. ALL EXT **WALL** SHEATHING SHALL BE: CLASS A RATED 29GA. **3/4" RIB HT** - GALV OR PAINTED STEEL (FY=80 KSI) OR EQ.
5. SHEATHING CONNECTIONS SHALL BE #12-14 X 3/4" SDS. NEOPRENE WASHERS ARE REQUIRED.

LEGEND

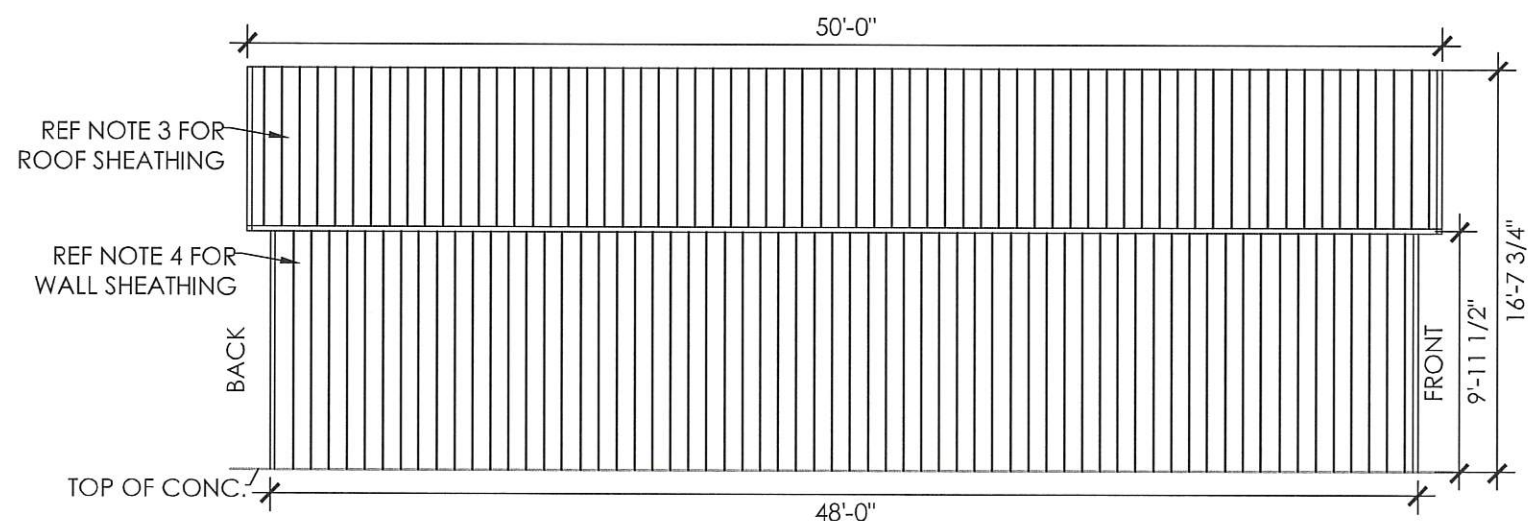
(WD) WALK-IN DOORS (REF DOOR MFG)

NOTE 1: ANY DOOR DESIGN INFORMATION IS NOT COVERED IN THIS PLAN SET AND SHALL BE ADDRESSED BY OTHERS.

NOTE 2: LOC OF WALK-IN DOORS CAN BE DETERMINED ON SITE AS LONG AS THEY FALL BETWEEN BAYS (BETWEEN FULL FRAMES).



RIGHT SIDE WALL ELEVATION
SCALE: 1/8" : 1'



LEFT SIDE WALL ELEVATION
SCALE: 1/8" : 1'

ELEVATIONS

SHEET TITLE:

LOCATION:

840 N MAIN STREET
HURRICANE, UT 84737

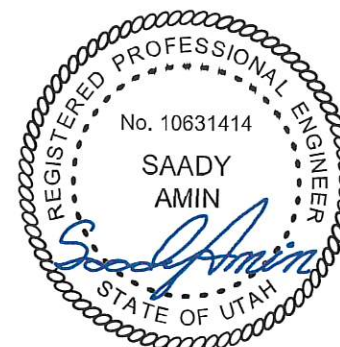
PROJECT TITLE:

KYDEN HANSEN

METAL BUILDING
MANUFACTURER

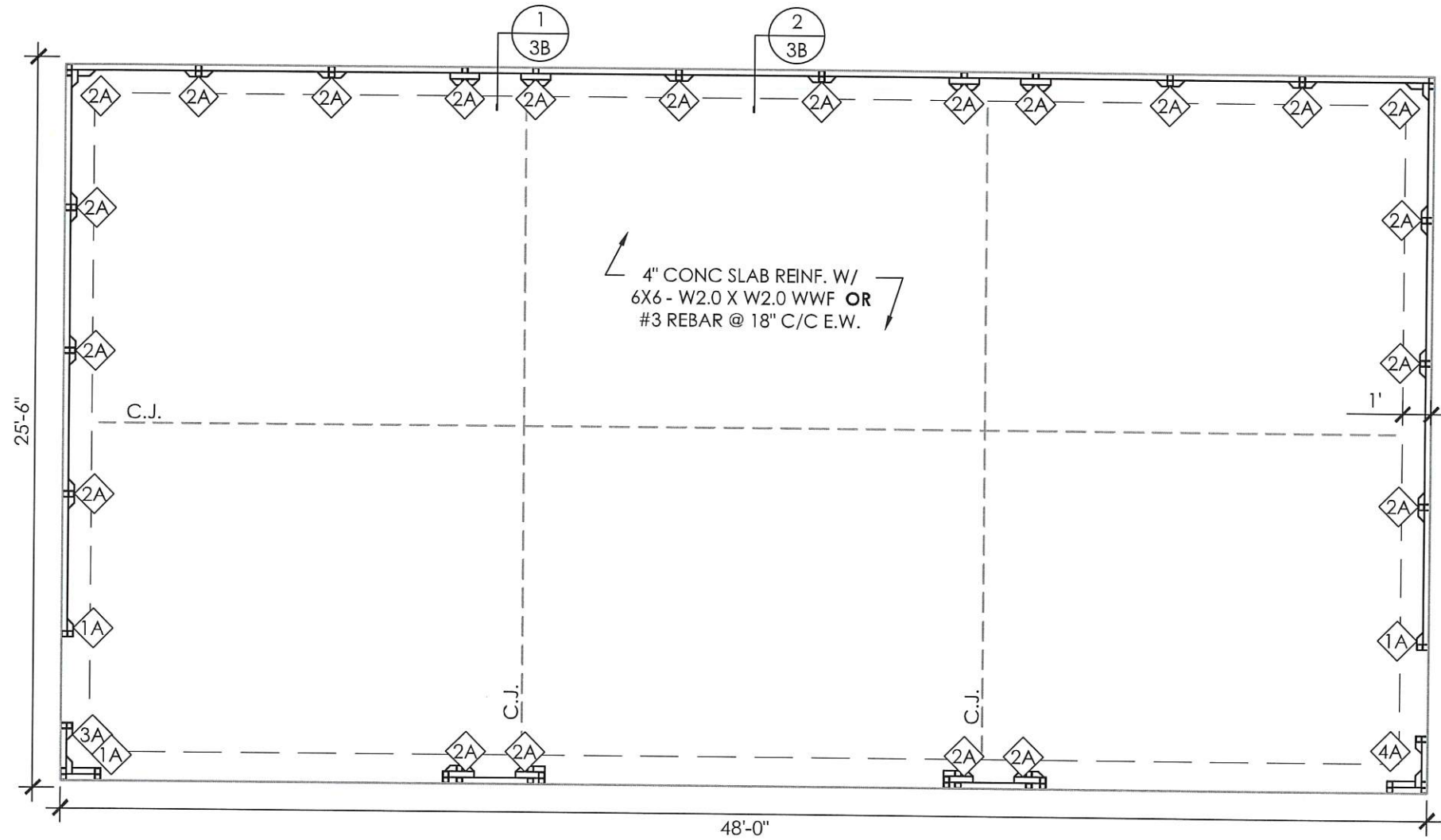
**QUALITY
CARPORTS INC.**

Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167



EXPIRES: 3/31/2025

SIGNED: DEC 08 2023

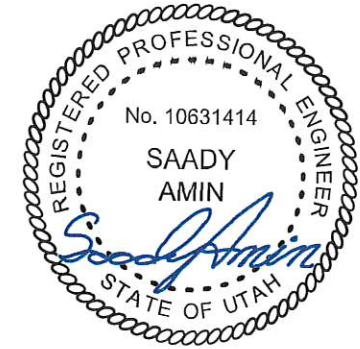


FOUNDATION PLAN
SCALE: 3/16" = 1'

CONCRETE ANCHORAGE	
1A	(1) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
2A	(2) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
3A	(3) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
4A	(4) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)

FOUNDATION NOTES:

- CONTROL JOINTS SHALL BE PLACED SO AS TO LIMIT MAX. SLAB SPANS TO 20' IN EACH DIRECTION.
- CONC ANCHORS SHALL BE LOCATED AS SHOWN ON THE FOUNDATION PLAN WITH A MINIMUM OF (2) ANCHOR PER POST.
- MIN. FOOTING DEPTH NEEDED TO RESIST BUILDING LOADS IS INDICATED ON FOUNDATION DETAILS. HOWEVER, A GREATER FOOTER DEPTH MAYBE REQUIRED TO MEET THE LOCAL FROST LINE DEPTH PER CODE.
- DEPTH OF FOOTINGS SHALL EXTEND INTO UNDISTURBED SOIL OR COMPACTED ENGINEERING FILL.
- ASSUMED SOIL BEARING CAPACITY IS TO BE A MIN. OF 1500 PSF.
- CONC STRENGTH TO BE A MIN OF 3000 PSI @ 28 DAYS FOR MODERATE WEATHERING POTENTIAL. SPECIAL INSPECTION OF CONCRETE IS NOT REQUIRED AS STRUCTURAL DESIGN OF FOUNDATIONS IS BASED ON A MIN STRENGTH OF 2500 PSI @ 28 DAYS.



CONCRETE ANCHORAGE	
1A	(1) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
2A	(2) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
3A	(3) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)
4A	(4) 1/2"Ø x 7" LG. STRONG-BOLT 2EXPANSION ANCHOR (PER ESR 3037)

ANCHORAGE NOTES:

1. ANCHOR INSTALLATION REQUIREMENTS (REF ANCHORAGE DETAIL):

- A.L. - ANCHOR LENGTH: 7.00"
E.D. - ANCHOR EDGE DISTANCE: MIN. 4.00" OR U.N.O.
H. - ANCHOR HOLE DEPTH: MIN. 3.00"
D. - CONCRETE EMBEDMENT DEPTH: MIN. 2.75"
SPACING BETWEEN (2) ANCHORS: MIN. 2.75" OR U.N.O.

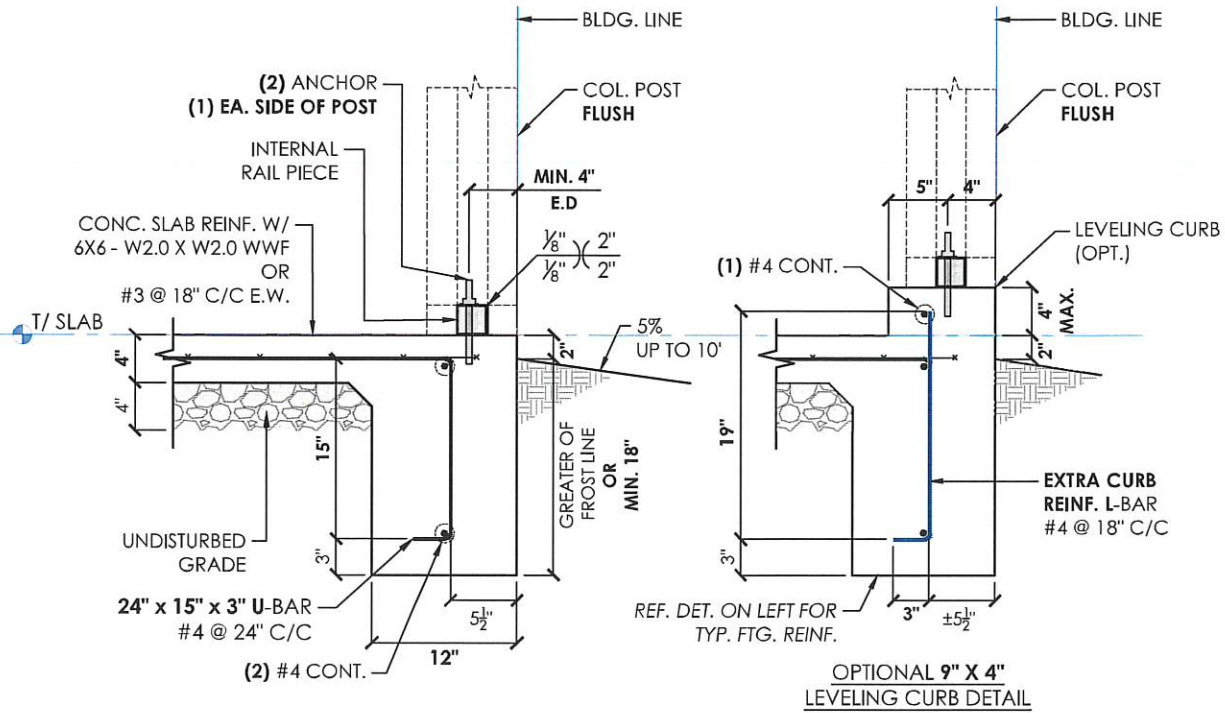
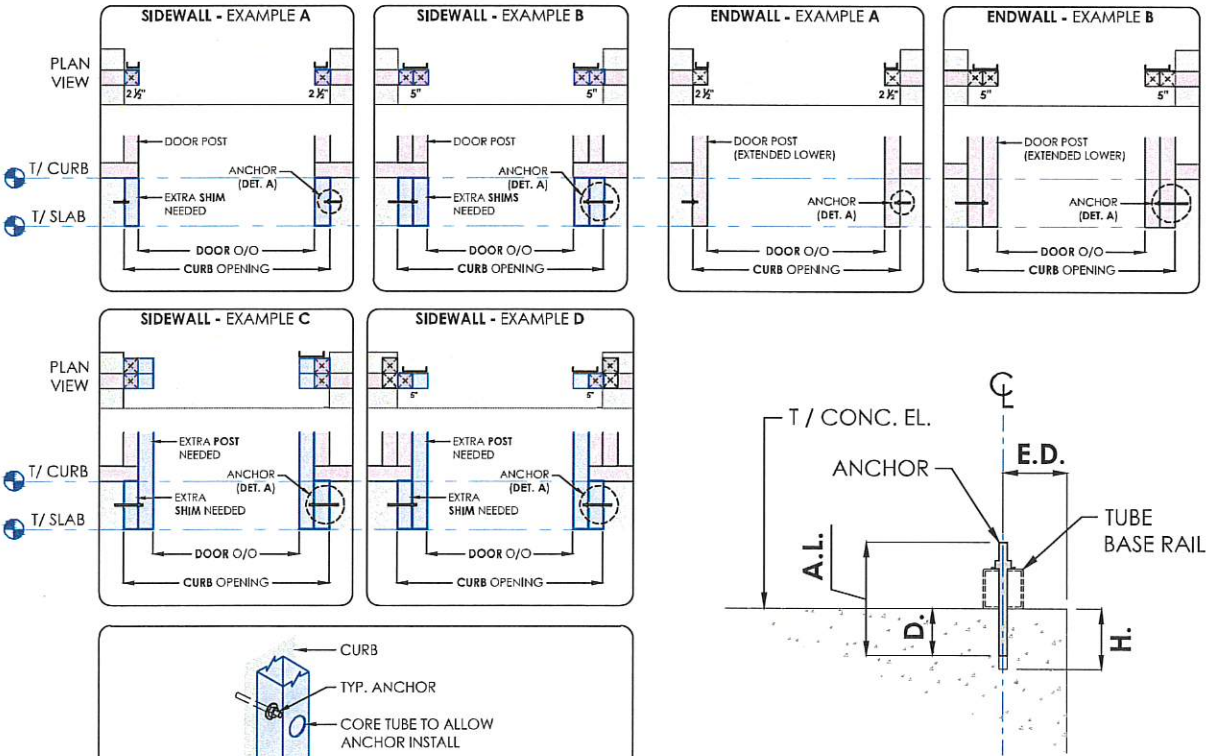
2. ANCHORS TO BE SPACED NO MORE THAN 6" FROM POSTS OR U.N.O.
3. ANCHORS TO BE INSTALLED PER MANUFACTURER'S REQ. PER SPECIFIED ESR.

REINFORCEMENT NOTES:

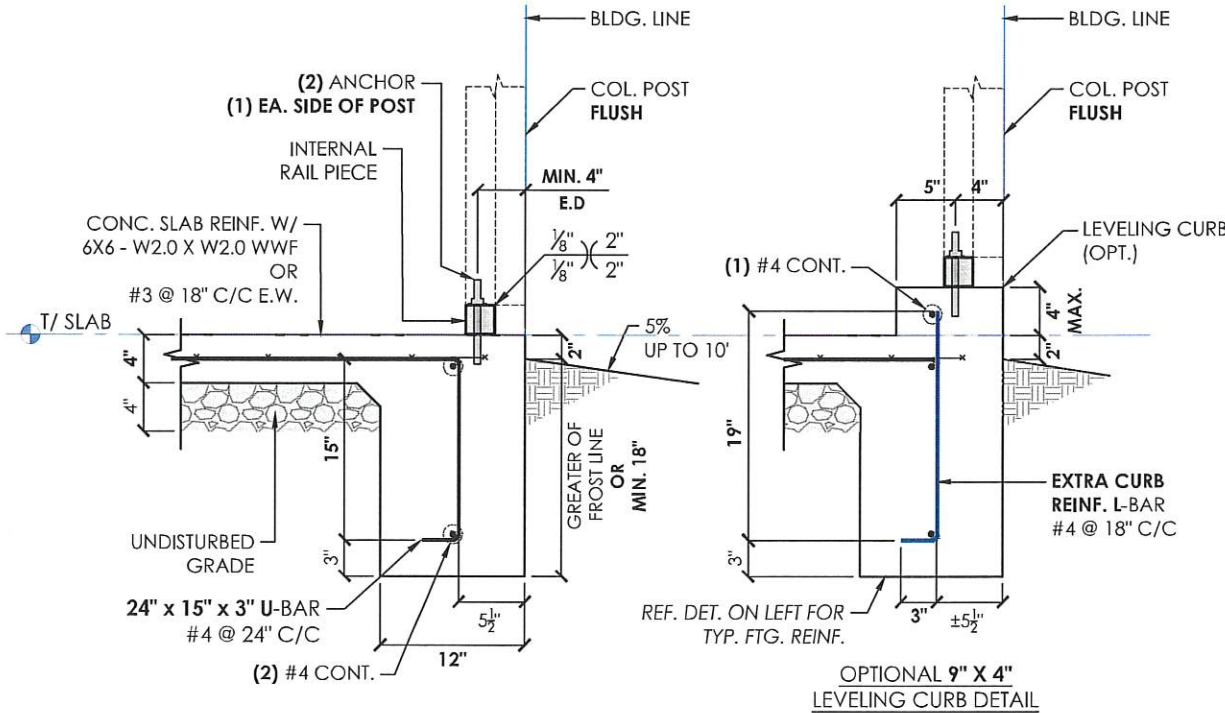
1. REINFORCING STEEL: DEFORMED BARS CONFORMING TO ASTM A615, GRADE 40, WITH A MINIMUM YIELD OF 40 KSI FOR ALL BARS UNLESS OTHERWISE INDICATED ON DRAWINGS.
2. WELDED WIRE FABRIC: ASTM A185 USING BRIGHT STEEL WIRE MEETING THE REQUIREMENTS OF ASTM A82. GAUGES AND DIMENSIONS AS NOTED ON THE DRAWINGS. PROVIDE IN FLAT SHEETS OR ROLLS.

"OPTIONAL CURB" NOTES:

1. THE USE OF CURB IS OPTIONAL. HOWEVER, WHEN SELECTED, A CURB SHALL BE PROVIDED BENEATH ALL WALLS (PERIMETER AND INTERIOR / INTERNAL) OF STRUCTURE.
2. CURBS OPENINGS MUST BE LARGER THAN DOOR OPENINGS TO ALLOW DOOR TRACKS TO REACH THE SLAB. REFER EXAMPLES BELOW. **NOTE: IT IS THE RESPONSIBILITY OF CONC. CONTRACTOR TO CO-ORDINATE AND VERIFY CLEAR DIM. NEEDED FOR DOOR TRACKS (FROM DOOR MFG. / BUILDING MFG.) PRIOR TO POUR.**



1 FOUNDATION DETAIL
SCALE: 3/4" : 1"



2 FOUNDATION DETAIL
SCALE: 3/4" : 1"

SHEET NO: 3B OF 7

PROJECT NO: 228-23-3197

DRAWN BY: S.O. DATE: 12/8/2023

FOUNDATION DETAILS & NOTES

LOCATION: 840 N MAIN STREET HURRICANE, UT 84737

PROJECT TITLE: KYDEN HANSEN

METAL BUILDING MANUFACTURER

QUALITY CARPORTS INC.

Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167

REGISTERED PROFESSIONAL ENGINEER

No. 10631414

SAADY AMIN

STATE OF UTAH

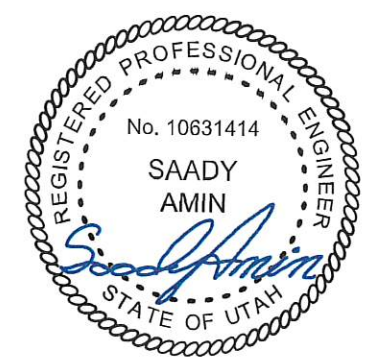
EXPIRES: 3/31/2025

SIGNED: DEC 08 2023

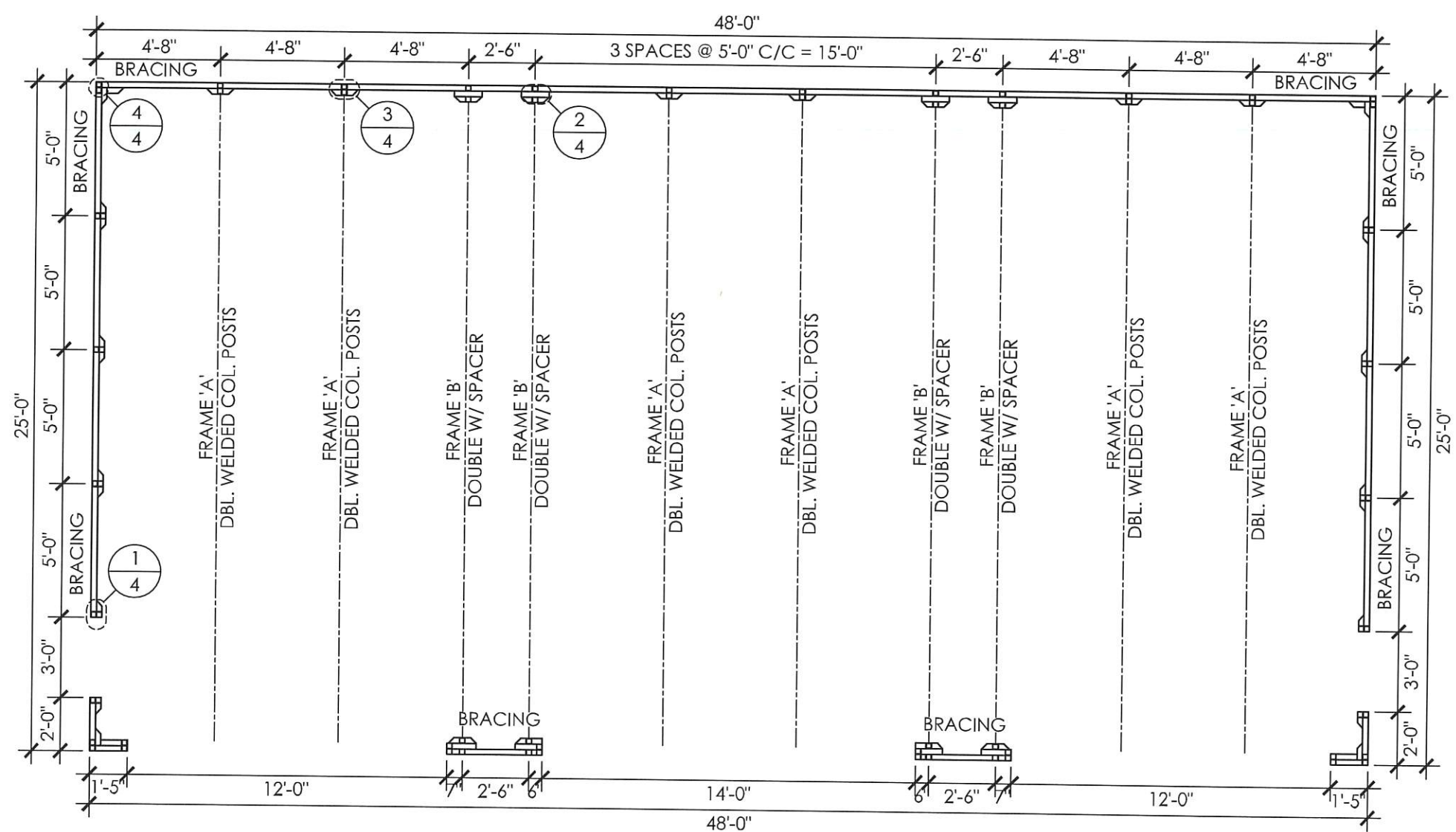
COLUMN LAYOUT PLAN

LOCATION: 840 N MAIN STREET
HURRICANE, UT 84737
PROJECT TITLE: KYDEN HANSEN

METAL BUILDING MANUFACTURER
QUALITY CARPORTS INC.
Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167



EXPIRES: 3/31/2025
SIGNED: DEC 08 2023



COLUMN LAYOUT PLAN
SCALE: 3/16" : 1'

NOTE:
SEE SHEET 3A / 3B FOR ANCHOR TYPE
SEE SHEET 5 FOR FRAME SECTION AND DETAILS

1 ANCHOR DETAIL
SCALE: 1/2" : 1'

2 ANCHOR DETAIL
SCALE: 1/2" : 1'

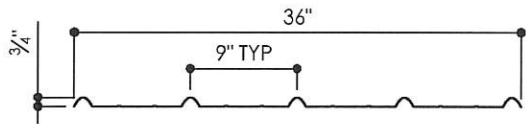
3 ANCHOR DETAIL
SCALE: 1/2" : 1'

4 ANCHOR DETAIL
SCALE: 1/2" : 1'

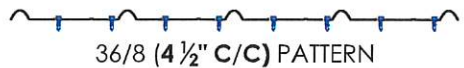
MEMBER PROPERTIES	
FRAME 'A' COLUMN POST	(2) 2 1/2" SQ. X 14GA TUBE - STITCH WELDED
FRAME 'B' COLUMN POST	(2) 2 1/2" SQ. X 14GA TUBE - W/ 6" VERT. SPACER @ 18" C/C
ROOF MEMBER	(2) 2 1/2" SQ. X 14GA TUBE W/ 12" TRUSS
BASE RAIL	2 1/2" SQ. X 14GA TUBE
KNEE BRACE	(2) 4" X 1" X 14GA HAT CHANNEL
CONNECTOR SLEEVE	2 1/4" SQ. X 12GA TUBE
GIRTS	4" X 1" X 14GA HAT CHANNEL
PURLINS	4" X 1" X 14GA HAT CHANNEL

SHEATHING FASTENER SCHEDULE				
LOCATION	CORNER PANEL	SIDE LAPS	EDGE LAPS	ELSEWHERE
SPACING	9" CC	MIN. 1	4 1/2" CC	9" CC

FASTENER TYPE: # 12x1" SELF-DRILL SCREWS (ESR-2196) W/ NEOPRENE/STEEL WASHER

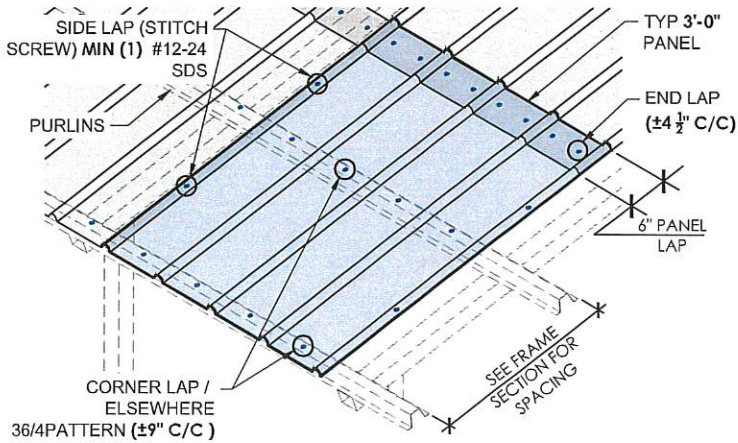


36/4 (9" C/C) PATTERN



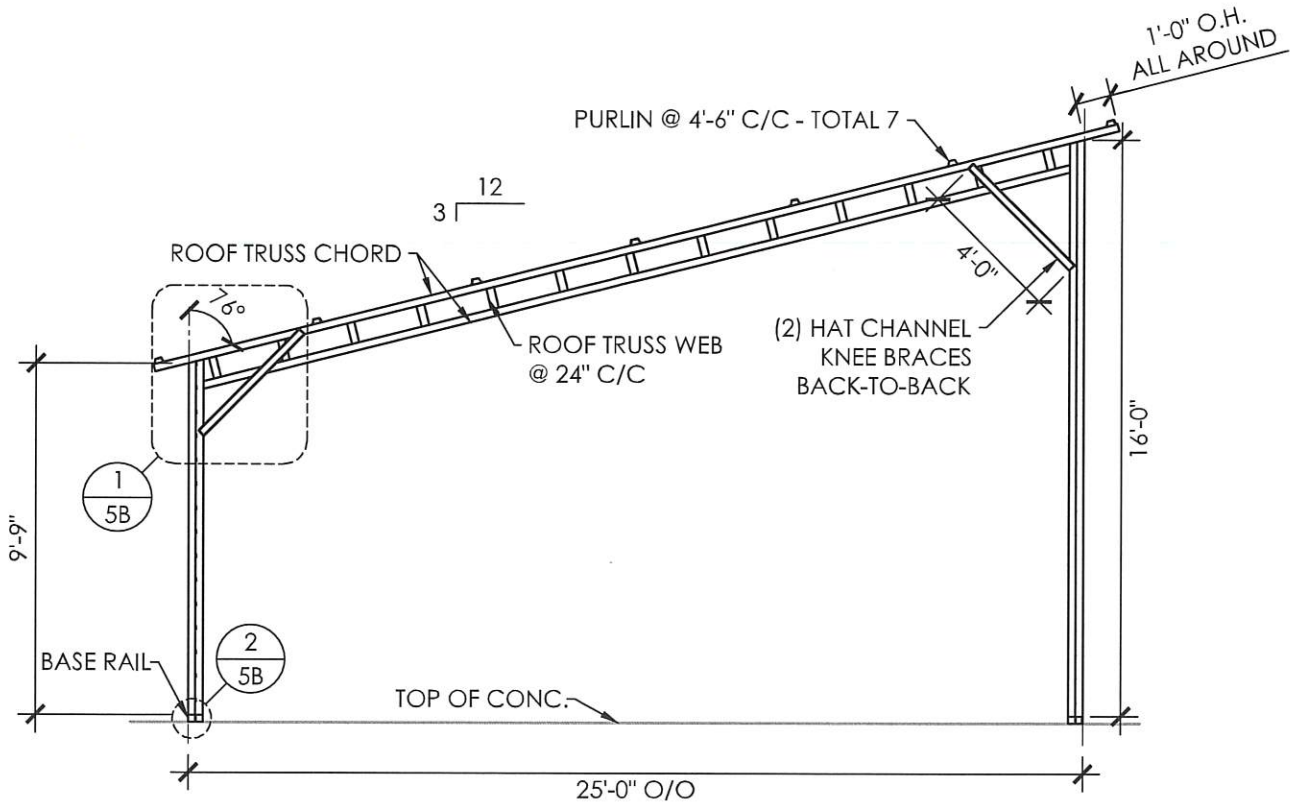
29GA. - 3/4" RIB - CORRUGATED SHEET

SCALE: 3/4" : 1'



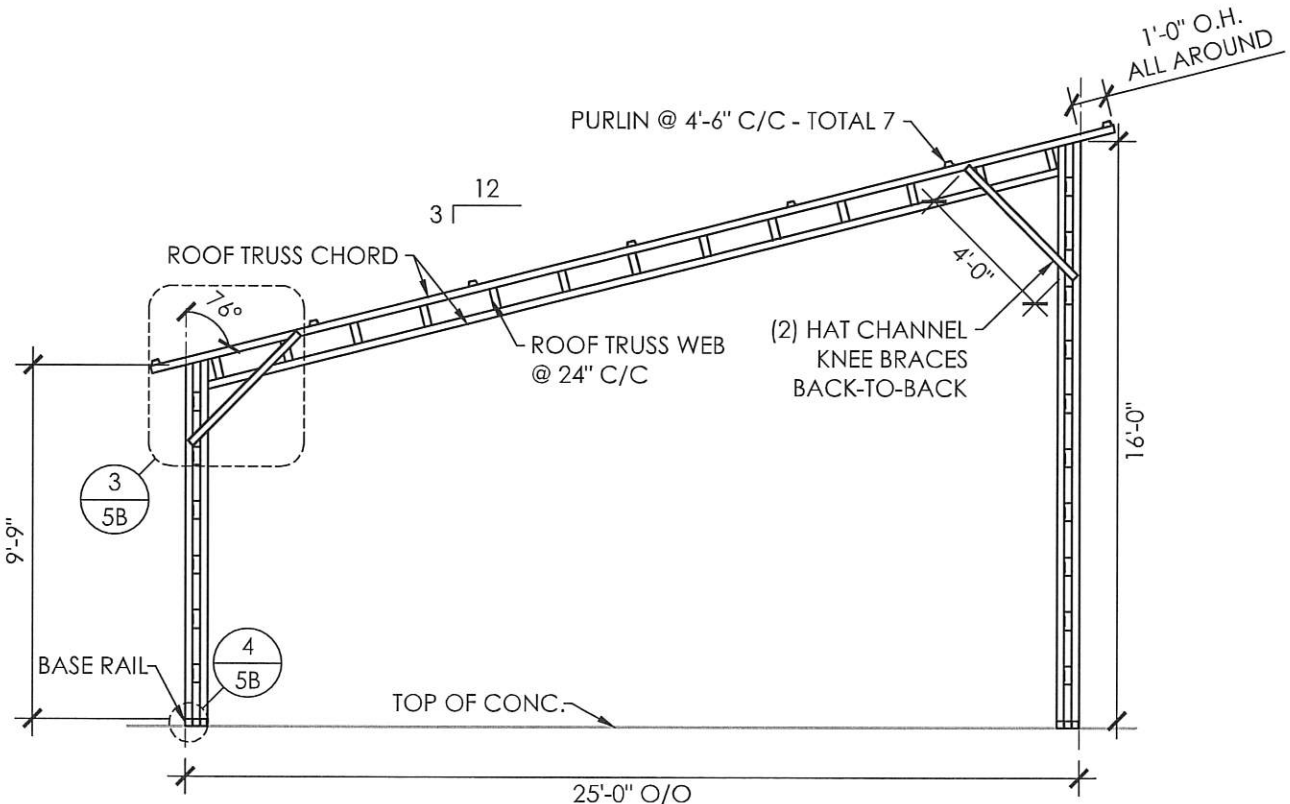
SHEATHING FASTENER PATTERN

SCALE: 3/16" : 1'



FRAME 'A' SECTION

SCALE: 3/16" : 1'



FRAME 'B' SECTION

SCALE: 3/16" : 1'

SHEET NO:	5A OF 7
PROJECT NO:	228-23-3197
DRAWN BY:	S.O.
DATE:	12/8/2023

FRAME SECTION & DETAILS

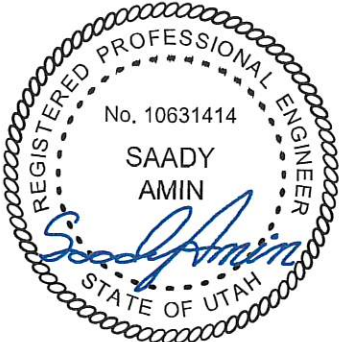
LOCATION:
840 N MAIN STREET
HURRICANE, UT 84737

PROJECT TITLE:
KYDEN HANSEN

METAL BUILDING MANUFACTURER

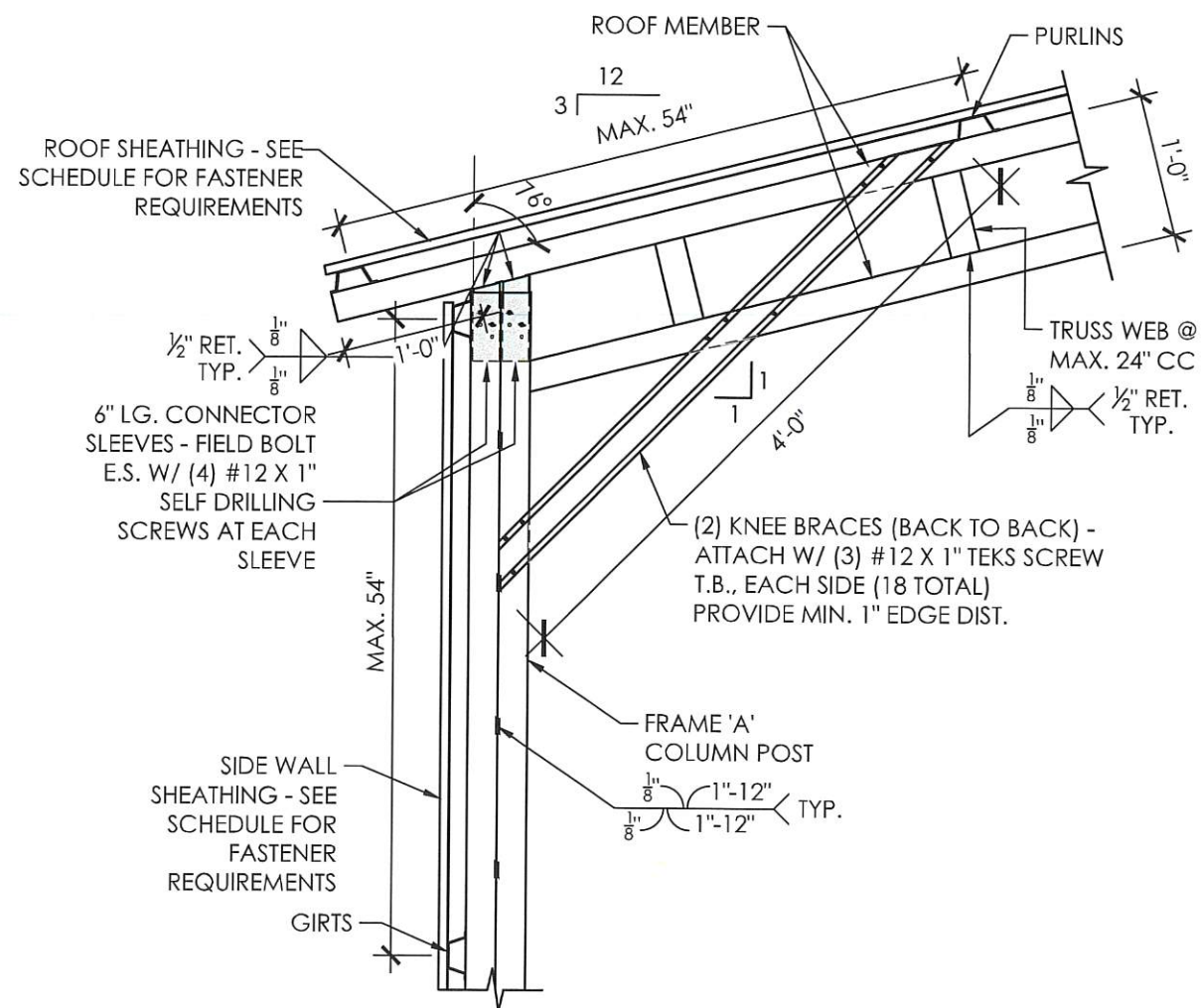
QUALITY CARPORTS INC.

Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167

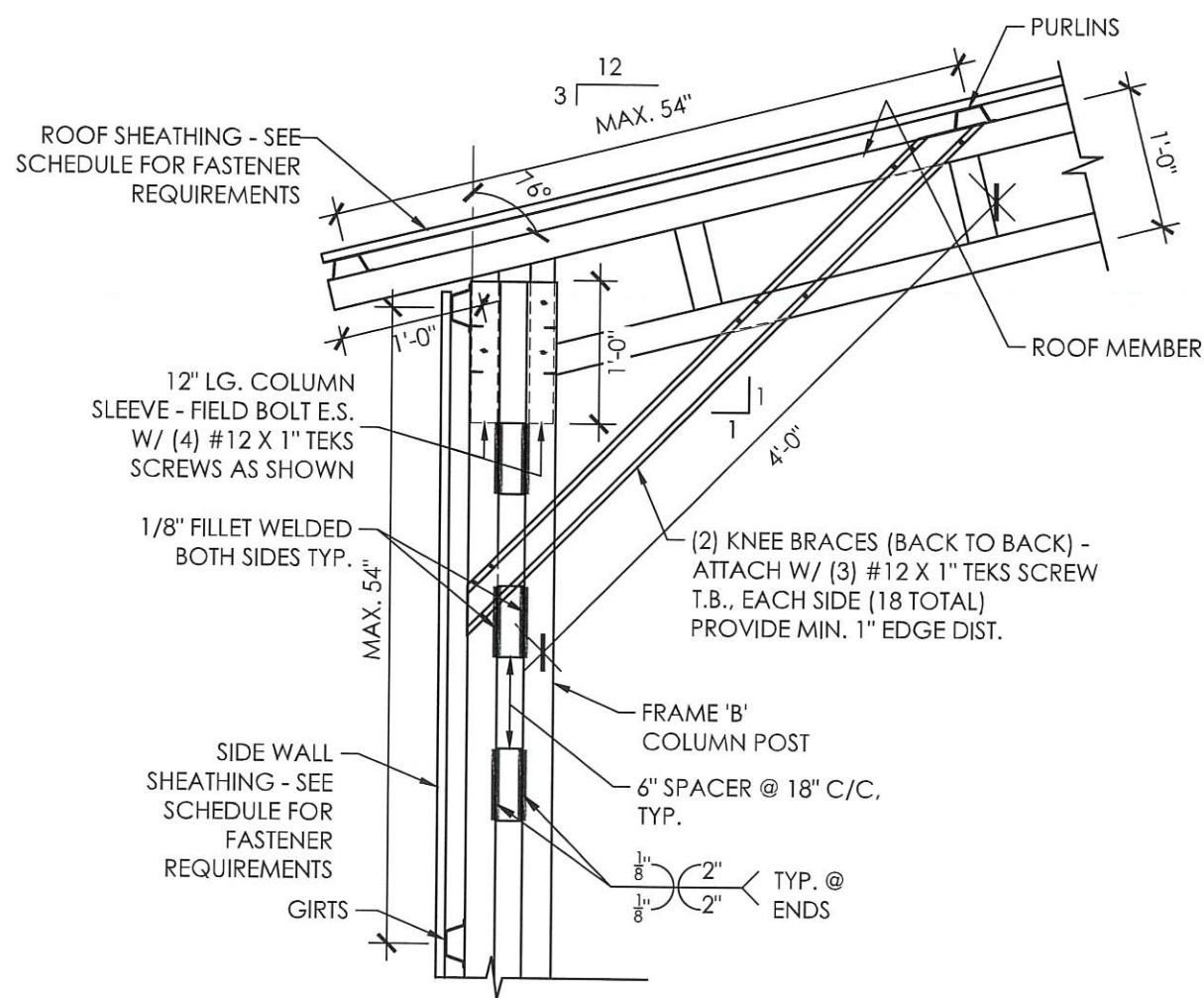


EXPIRES: 3/31/2025

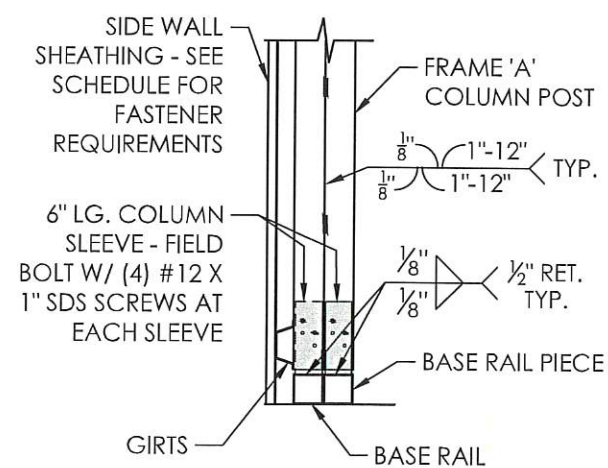
SIGNED: DEC 08 2023



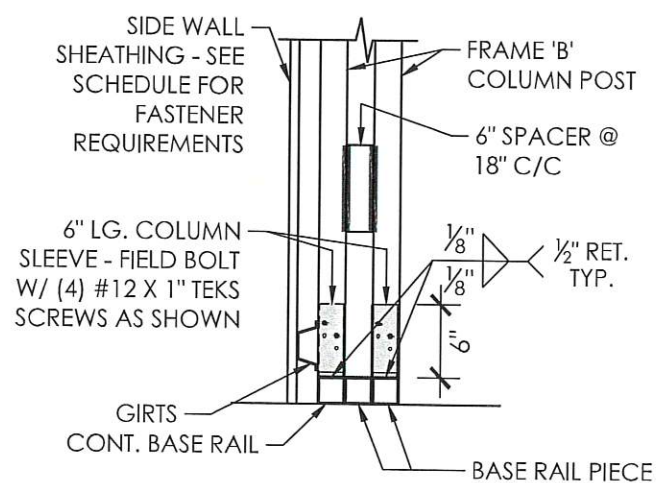
1 FRAME DETAIL
SCALE: 3/4" : 1'



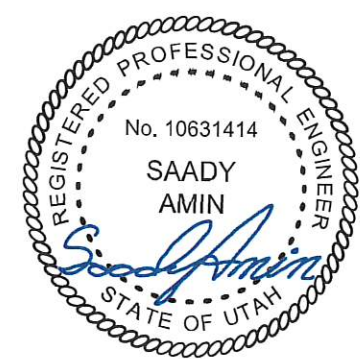
3 FRAME DETAIL
SCALE: 3/4" : 1'



2 BASE DETAIL
SCALE: 3/4" : 1'



4 BASE DETAIL
SCALE: 3/4" : 1'



SIDE WALL FRAMING

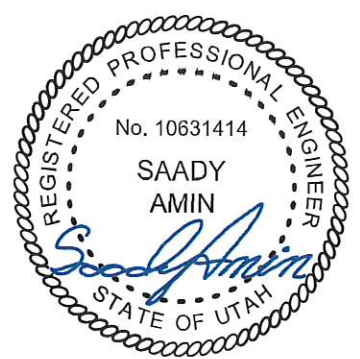
LOCATION:
840 N MAIN STREET
HURRICANE, UT 84737

PROJECT TITLE:
KYDEN HANSEN

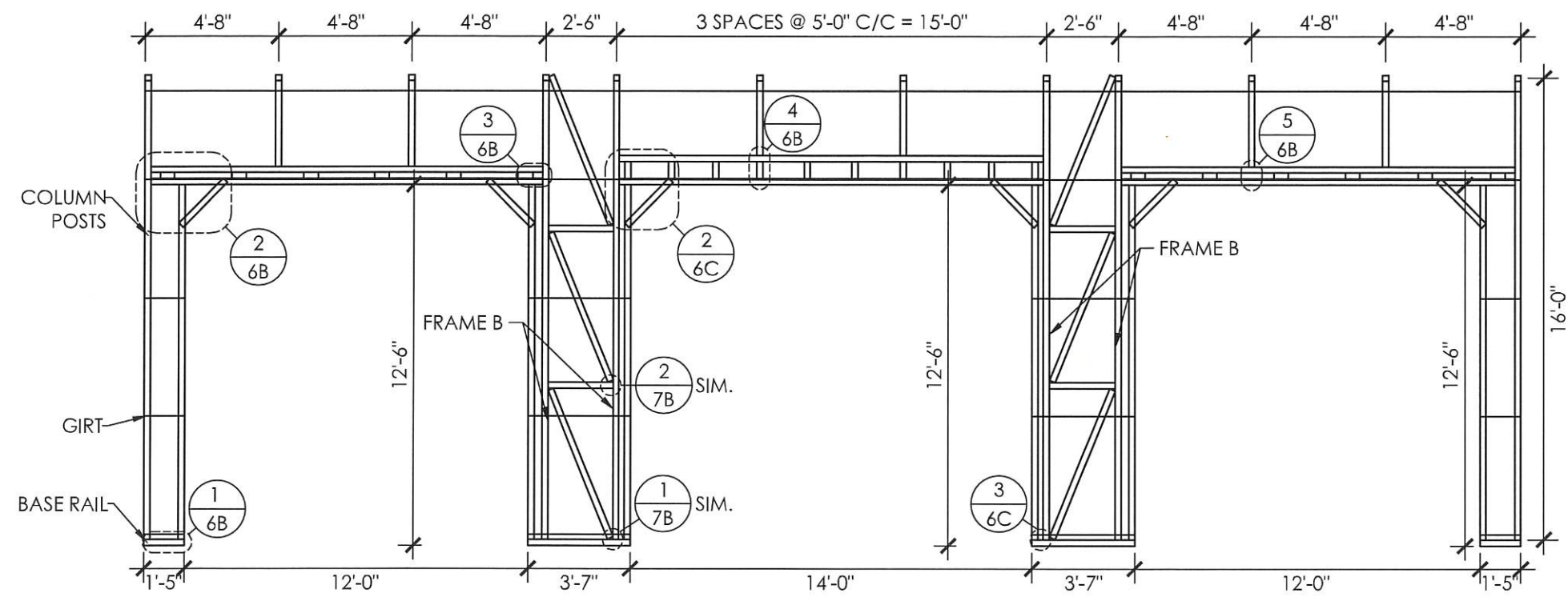
SHEET TITLE:

METAL BUILDING
MANUFACTURER

QUALITY CARPORTS INC.
Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167

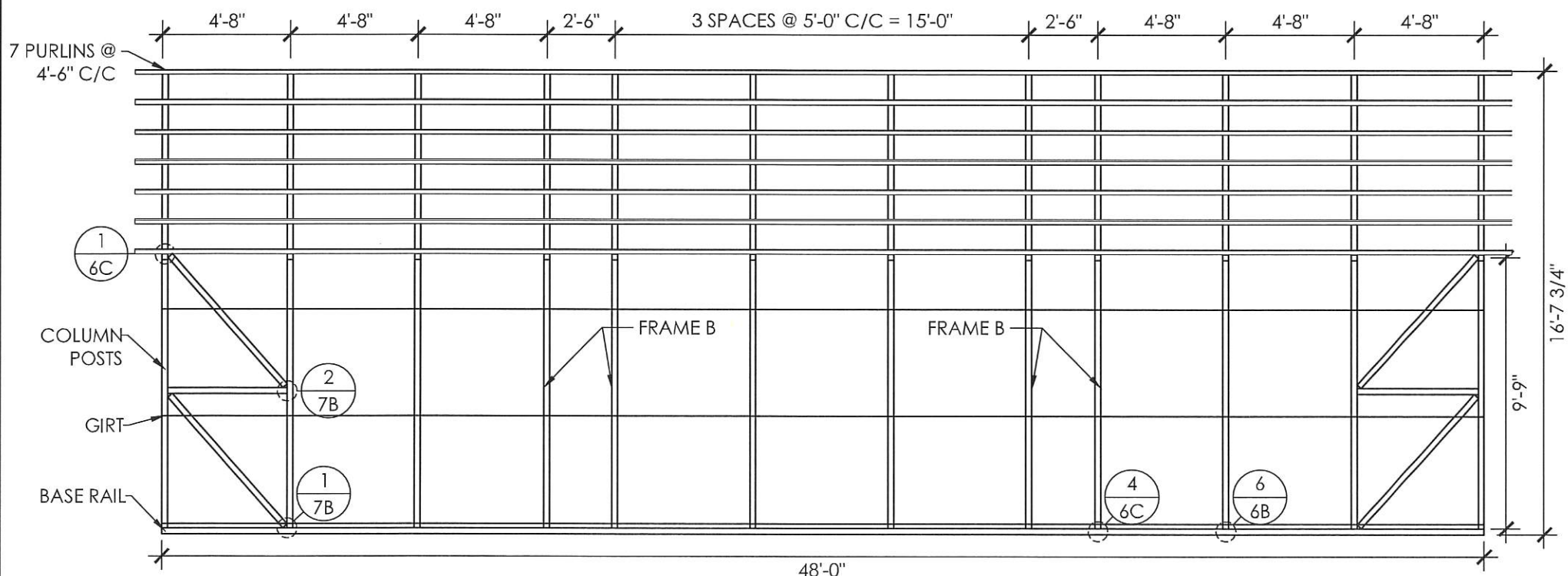


EXPIRES: 3/31/2025
SIGNED: DEC 08 2023

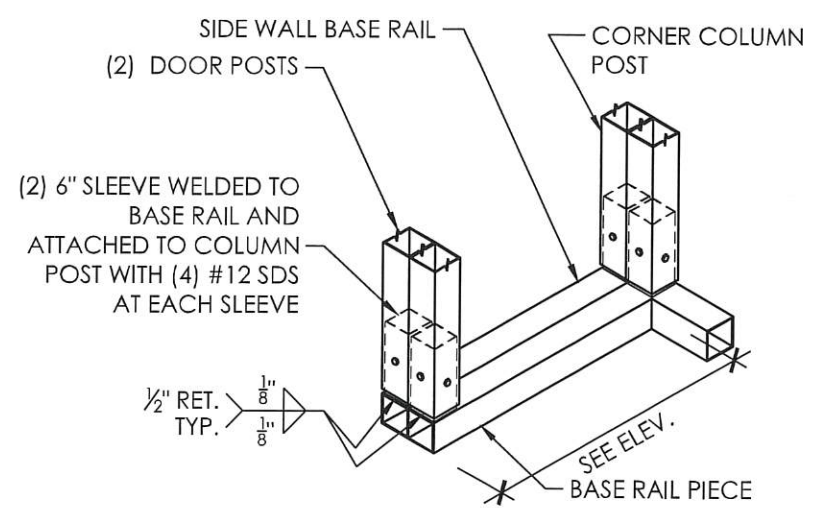


RIGHT SIDE WALL FRAMING
SCALE: 3/16" : 1'

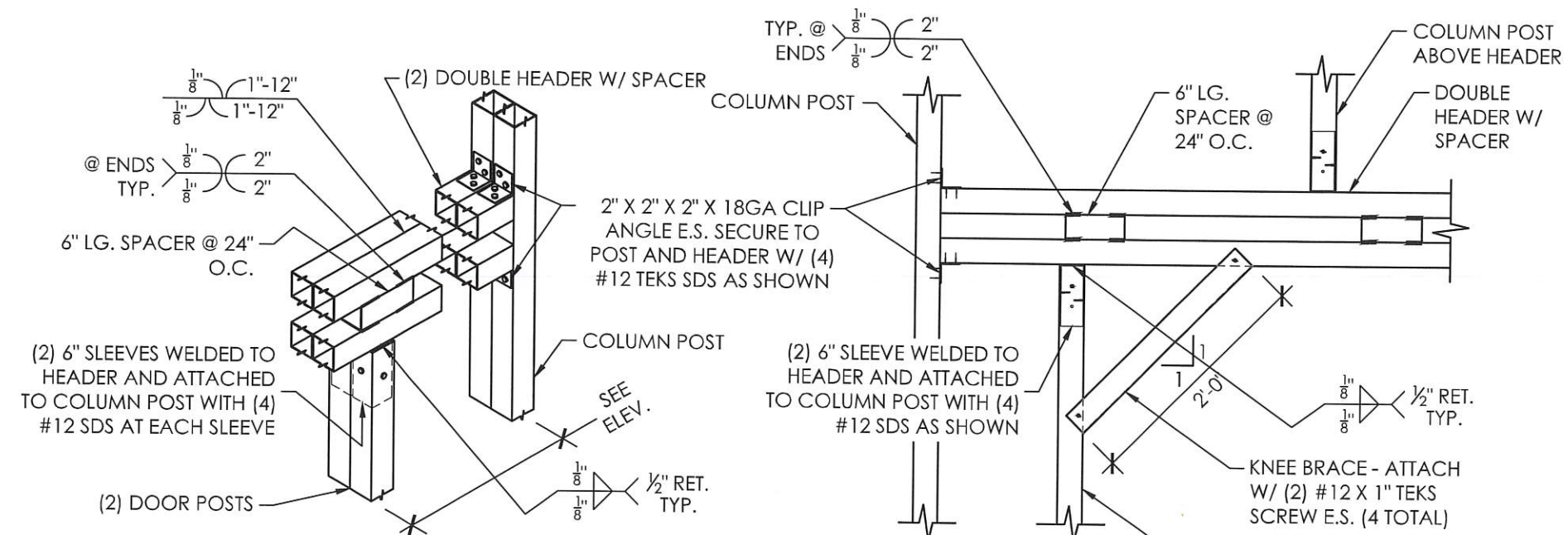
MEMBER PROPERTIES	
CORNER POST	(2) 2 1/2" SQ. X 14GA TUBE - STITCH WELDED
FRAME 'B' POST	(2) 2 1/2" SQ. X 14GA TUBE W/ 6" SPACER
FRAME 'A' POST	(2) 2 1/2" SQ. X 14GA TUBE - STITCH WELDED
BASE RAIL	2 1/2" SQ. X 14GA TUBE
CONNECTOR SLEEVE	2 1/4" SQ. X 12GA TUBE
PURLINS	4" X 1" X 14GA HAT CHANNEL
GIRTS	4" X 1" X 14GA HAT CHANNEL
TRUSS HEADER	(2) 2 1/2" SQ. X 14GA TUBE W/ 12" TRUSS
DOUBLE HEADER W/ SPACER	(2) 2 1/2" SQ. X 14GA TUBE W/ 6" SPACER
HORZ. BRACE	2 1/4" SQ X 14GA TUBE
DIAGONAL BRACES	2" SQ. X 12GA TUBE



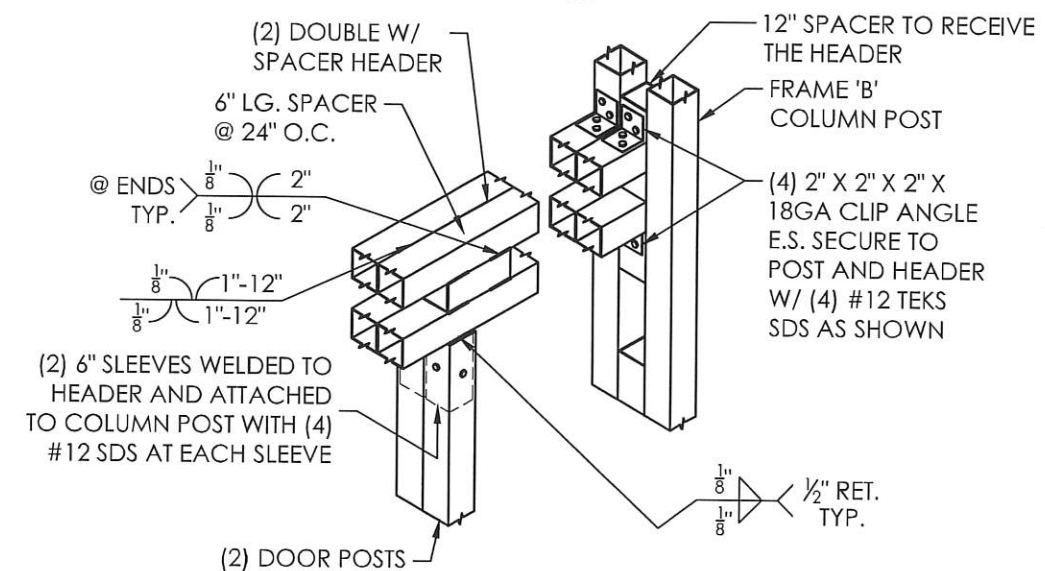
LEFT SIDE WALL FRAMING
SCALE: 3/16" : 1'



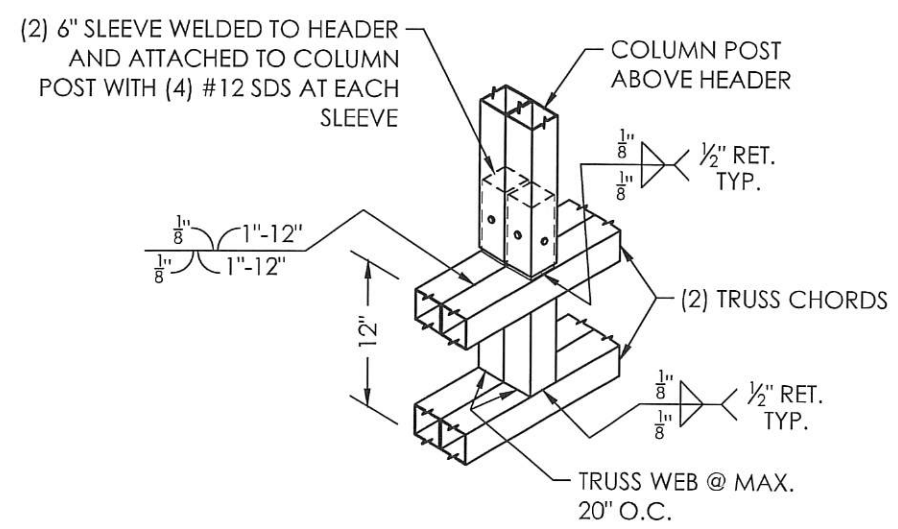
1 DOOR BASE DETAIL
 SCALE: 3/4" : 1'



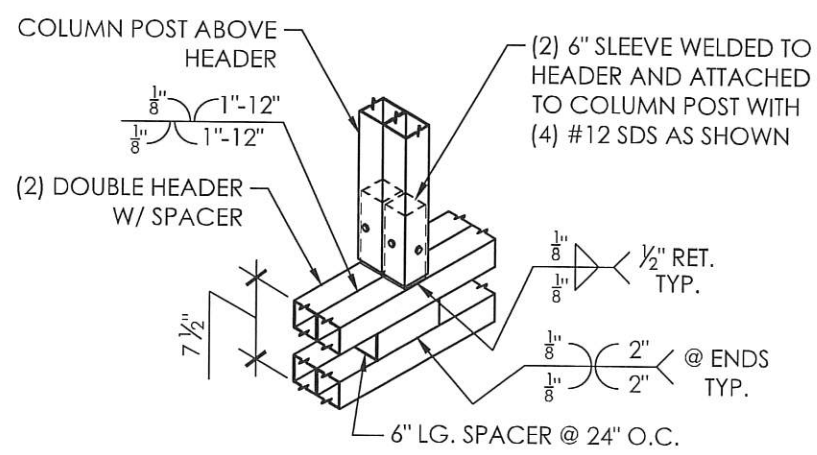
2 DOOR HEADER DETAIL
 SCALE: 3/4" : 1'



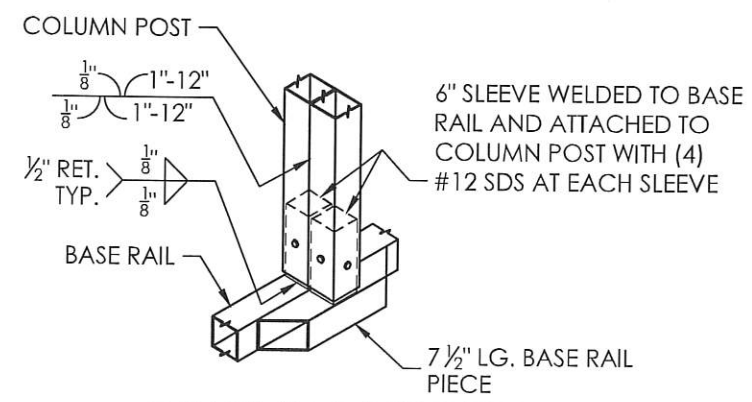
3 DOOR HEADER DETAIL
 SCALE: 3/4" : 1'



4 ABOVE HEADER DETAIL
 SCALE: 3/4" : 1'



5 ABOVE HEADER DETAIL
 SCALE: 3/4" : 1'



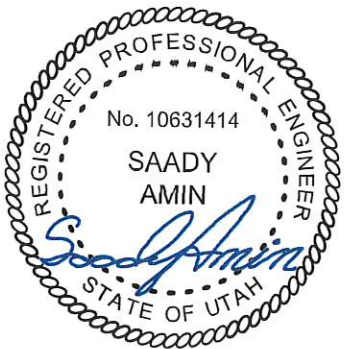
6 COLUMN-BASE DETAIL
 SCALE: 3/4" : 1'

SHEET TITLE: END WALL FRAMING & DETAILS

LOCATION: 840 N MAIN STREET
HURRICANE, UT 84737
PROJECT TITLE: KYDEN HANSEN

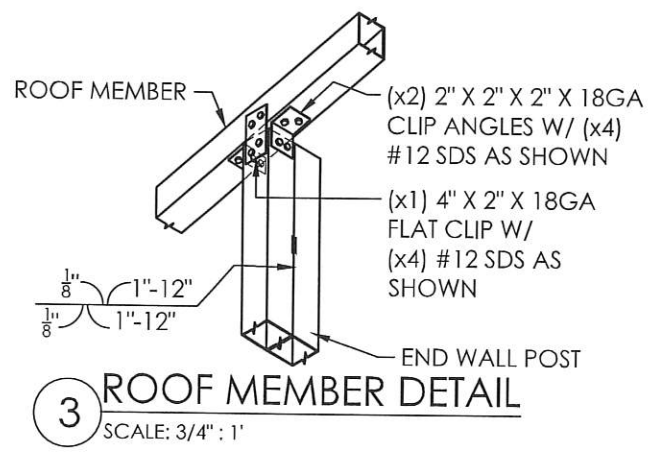
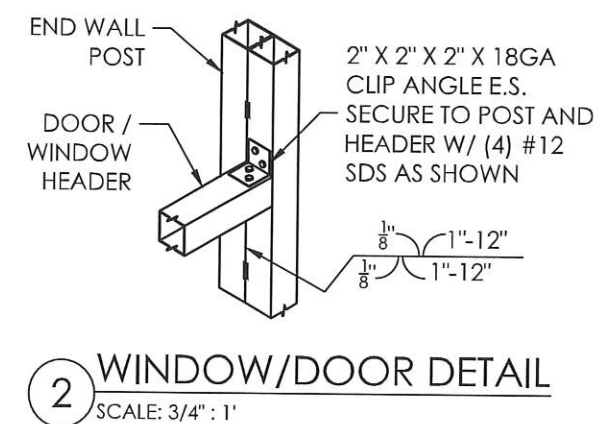
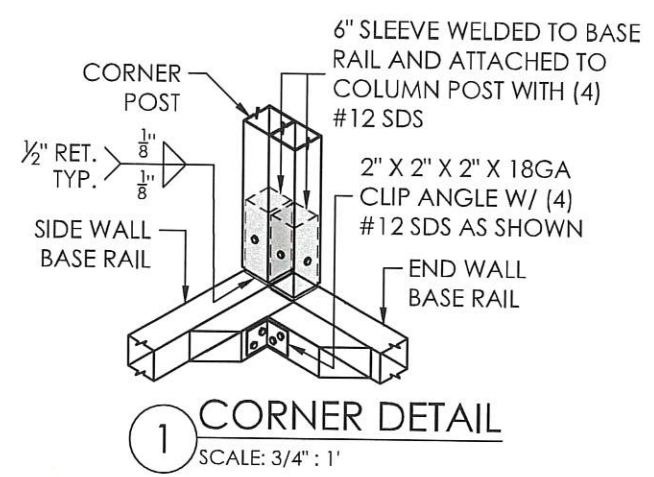
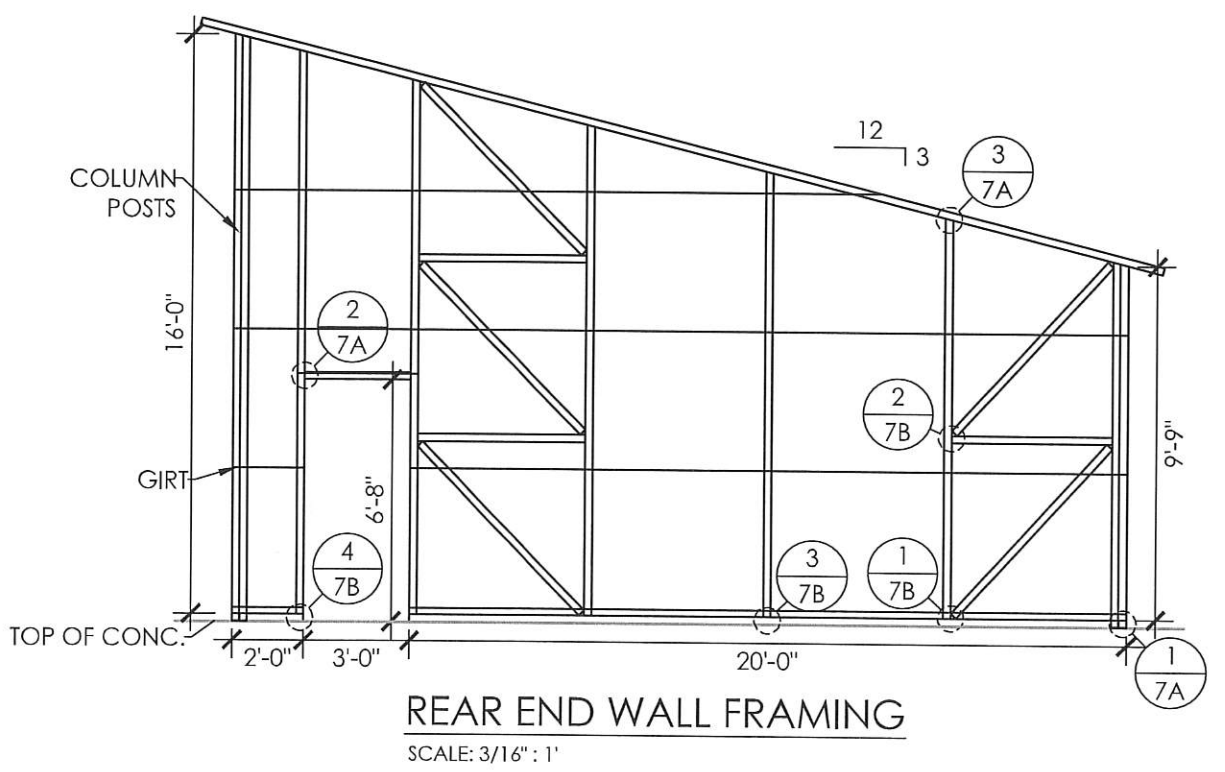
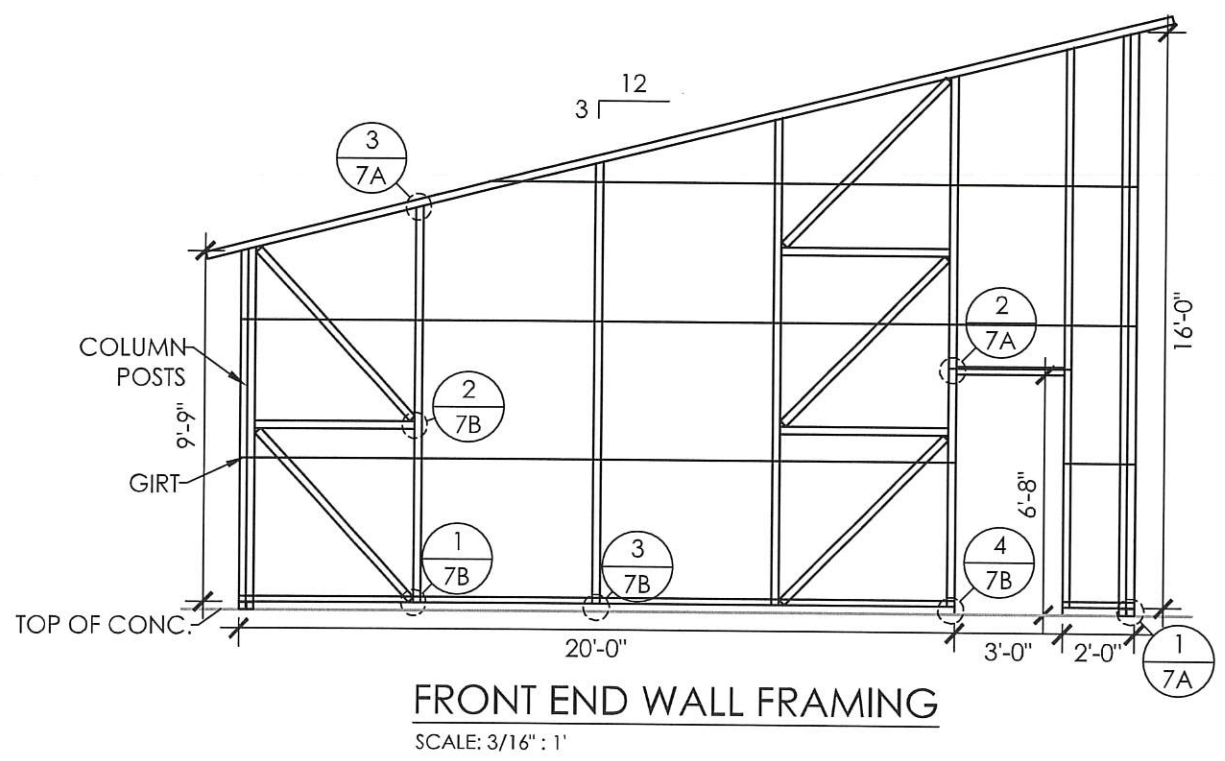
METAL BUILDING MANUFACTURER

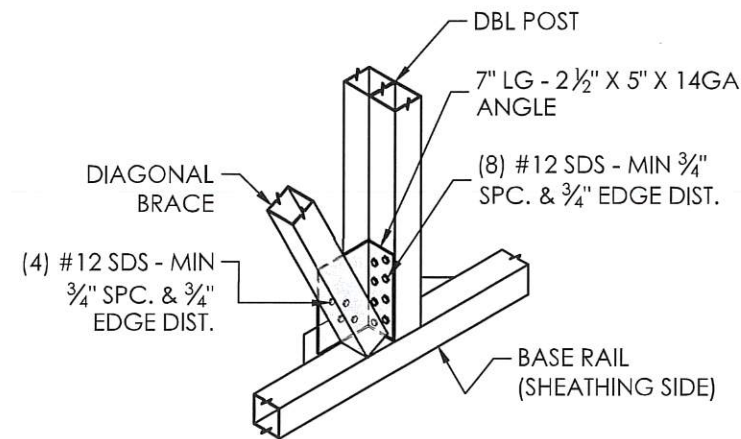
QUALITY CARPORTS INC.
Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167



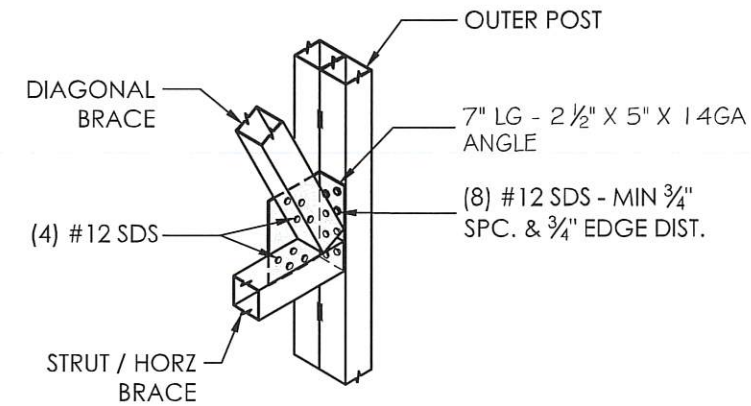
EXPIRES: 3/31/2025
SIGNED: DEC 08 2023

MEMBER PROPERTIES	
CORNER POST	(2) 2 1/2" SQ. X 14GA TUBE - STITCH WELDED
ROOF MEMBER	2 1/2" SQ. X 14GA TUBE
BASE RAIL	2 1/2" SQ. X 14GA TUBE
GIRTS	4" X 1" X 14GA HAT CHANNEL
DOOR POST	2 1/2" SQ. X 14GA TUBE
END WALL POSTS	(2) 2 1/2" SQ. X 14GA TUBE - STITCH WELDED
DIAGONAL BRACES	2" SQ. X 12GA TUBE
HORZ. BRACE	2 1/4" SQ x 14GA TUBE

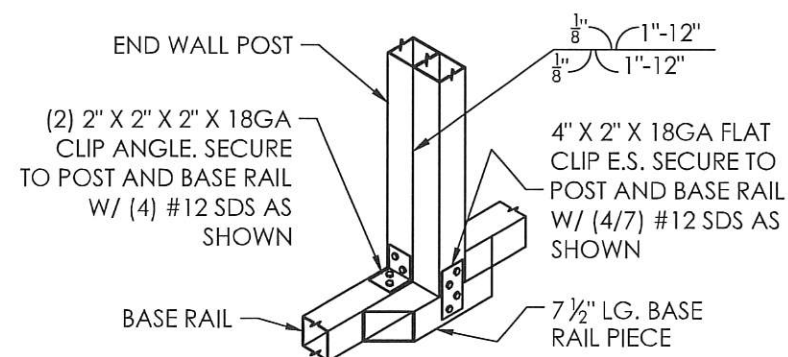




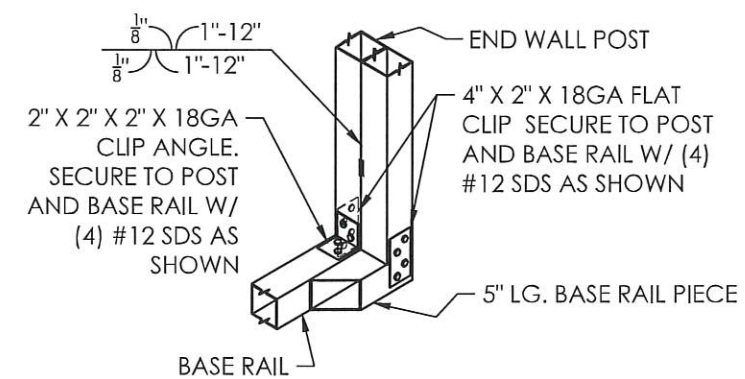
1 LATTICE BRACE DETAIL
SCALE: 3/4" : 1'



2 LATTICE BRACE DETAIL
SCALE: 3/4" : 1'



3 COLUMN-BASE DETAIL
SCALE: 3/4" : 1'

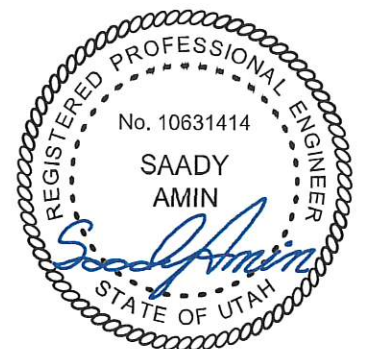


4 DOOR BASE DETAIL
SCALE: 3/4" : 1'

SHEET NO: 7B OF 7	
PROJECT NO: 228-23-3197	
DRAWN BY: S.O.	DATE: 12/8/2023
SHEET TITLE: END WALL FRAMING DETAILS	LOCATION: 840 N MAIN STREET HURRICANE, UT 84737
	PROJECT TITLE: KYDEN HANSEN

METAL BUILDING MANUFACTURER

QUALITY CARPORTS INC.
Quality Carports, Inc.
441 E 1750 N, Suite A
Vineyard, UT 84042
Tel: 1-801-406-9508
Fax: 1-877-271-1167



EXPIRES: 3/31/2025

SIGNED: DEC 08 2023

From: Ryan Lay <rlay@bushandgudgell.com>
Sent: Thursday, January 11, 2024 4:55 PM
To: Fred Resch
Cc: Bob Hermandson; Rick Meyer
Subject: Southern Dunes Townhomes
Attachments: [Southern Dunes Townhomes Pre Plat.pdf](#)

Fred,

As per our phone conversation, we hereby request an extension of the preliminary plat approval for the Southern Dunes Townhomes (see attached). Please let me know if there is anything else you need from us to make this happen. Also, please let me know which planning commission agenda this will be on.

Thank you!

Ryan

Ryan Lay
Project Manager

Bush & Gudgell, Inc.

Engineers :: Planners :: Surveyors



205 East Tabernacle Suite #4

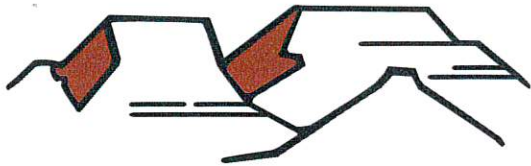
St. George, Utah 84770

435-673-2337 Office

435-773-2403 Mobile

435-673-3161 Fax

www.bushandgudgell.com



PLANNING & ZONING
HURRICANE CITY
UTAH

147 N 870 W Hurricane UT
PHONE: 435.635.2811 FAX: 435.635.2184

PRELIMINARY PLAT APPLICATION

For office use only: \$150.00 Fee

File No. 2022-PP-20

Receipt No. 8-160765

Name: Southern Dunes Townhomes Telephone: _____

Address: 4061 South 2420 East, St. George, UT 84790 Fax No. _____

Email: anthonyboc1@gmail.com Agent _____ Email: _____
bobh@bushandgudgell.com

Agent (If Applicable): Bush & Gudgell, Inc. Telephone: 435-673-2337

Address/Location of Subject Property: SE ¼ Section 29, T42S, R13W

Tax ID of Subject Property: H-3400-O and H-3400-N Zone District: R1-10

Proposed Use: (Describe, use extra sheet if necessary. Include total number of lots) _____

Submittal Requirements: The preliminary plat application shall provide the following:

- ____ 1. Description: In a title block located in the lower right-hand corner of the sheet the following is required:
- ____ a. The proposed name of the subdivision.
 - ____ b. The location of the subdivision, including the address and section, township and range.
 - ____ c. The names and addresses of the owner or subdivider, if other than the owner.
 - ____ d. Date of preparation, and north point.
 - ____ e. Scale shall be of sufficient size to adequately describe in legible form, all required conditions of Chapter 39, City Subdivision regulations.
- ____ 2. Existing Conditions: The preliminary plat shall show:
- ____ a. The location of the nearest monument.
 - ____ b. The boundary of the proposed subdivision and the acreage included.
 - ____ c. All property under the control of the subdivider, even though only a portion is being subdivided. (Where the plat submitted covers only a part of the subdivider's tract, a sketch of the prospective street system of the unplatted parts of the subdivider's land shall be submitted, and the street system of the part submitted shall be considered in light of existing Master Street Plan or other Commission studies.)
 - ____ d. The location, width, and names/numbers of all existing streets within two hundred (200) feet of the subdivision and of all prior streets or other public ways, utility rights of way, parks and other public open spaces, within and adjacent to the tract.
 - ____ e. The location of all wells and springs or seeps, proposed, active and abandoned, and of all reservoirs or ponds within the tract and at a distance of at least one hundred feet (100') beyond the tract boundaries.
 - ____ f. Existing sewers, water mains, culverts, or other underground facilities within the tract, indicating the pipe sizes, grades, manholes and the exact locations.
 - ____ g. Existing Hurricane Canal Company facilities; other ditches, canals, natural drainage channels and open waterways and any proposed realignments.

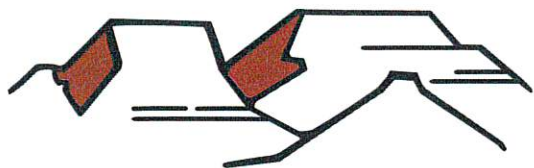
- ___ h. Contours at vertical intervals not greater than five (5) feet.
 - ___ i. Identification of potential geotechnical constraints on the project site (such as expansive rock and soil, collapsible soil, shallow bedrock, and caliche, gypsiferous rock and soil, potentially unstable rock or soil units including fault lines, shallow groundwater, and windblown sand) and recommendations for their mitigation.
 - ___ j. Information on whether property is located in desert tortoise take area
- ___ 3. Proposed Plan: The subdivision plans shall show:
- ___ a. The layout of streets, showing location, widths, and other dimensions of proposed streets, crosswalks, alleys, and easements.
 - ___ b. The layout, numbers, and typical dimensions of lots.
 - ___ c. Parcels of land intended to be dedicated or temporarily reserved for public use or set aside for use of property owners in the subdivision.
 - ___ d. Easements for water, sewers, drainage, utilities, lines and other purposes.
 - ___ e. Typical street cross sections and street grades where required by the Planning Commission. (All street grades over 5% should be noted on the preliminary plat)
 - ___ f. A tentative plan or method by which the subdivider proposes to handle the storm water drainage for the subdivision.
 - ___ g. Approximate radius of all center line curves on highways or streets.
 - ___ h. Each lot shall abut a street shown on the subdivision plat or on an existing publicly dedicated street. (Double frontage or flag lots shall be prohibited except where conditions make other design undesirable)
 - ___ i. In general, all remnants of lots below minimum size left over after subdividing of a larger tract must be added to adjacent lots, rather than allow to remain as unusable parcels.
 - ___ j. Where necessary, copies of any agreements with adjacent property owners relevant to the proposed subdivision shall be presented to the Planning Commission.
 - ___ k. A letter from both the local sanitary sewer provider and culinary water provider indicating availability of service.
 - ___ l. Will this subdivision be phased? If yes show possible phasing lines.
 - ___ m. A tentative plan or method for providing non-discriminatory access to the subdivision for purposes of placement of communications infrastructure, and for purposes of placement of utility infrastructure.
- ___ 4. Required copies of plans:
- ___ a. Three copies of all full-scale drawings
 - ___ b. One copy of each drawing on a 11 x 17-inch sheets. (8 1/2 x 11 is acceptable if the project is small and the plans are readable at that size).
- ___ 5. Warranty deed or preliminary title report or another document (see attached Affidavit) showing evidence that the applicant has control of the property
- ___ 6. Signed and notarized Acknowledgement Water Supply (see attached)

NOTE: It is important that all applicable information noted above is submitted with the application. An incomplete application will not be scheduled for Planning Commission consideration. A deadline missed due to an incomplete application, could result in a month's delay. Planning Commission meetings are held on the second Thursday and fourth Wednesday of each month at 6:00 p.m. The deadline to submit an application to be placed on an agenda is no later than 12:00 (noon) 20 full calendar days before the Planning Commission meeting at which you plan for your application to be heard.

.....
(Office Use Only)

Date Received: _____ Application Complete: YES _____ NO _____

Date application deemed to be complete: _____ Completion determination made by: _____



PLANNING & ZONING
HURRICANE CITY
UTAH

147 N 870 W Hurricane UT
PHONE: 435.635.2811 FAX: 435.635.2184

PRELIMINARY SITE PLAN APPLICATION

For office use only. \$200.00 Fee

File No. 2022-PSP-30

Receipt No. 8-160764

Name: Southern Dunes Townhomes Telephone: _____

Address: 4061 South 2420 East, St. George, UT 84790 Fax No. _____

Email: anthonyboc1@gmail.com Agent Email: bobh@bushandgudgell.com

Agent (If Applicable): _____ Telephone: 435-673-2337

Address/Location of Subject Property: SE 1/4 Section 29, T42S, R13W

Tax ID of Subject Property: H-3400-O and H-3400-N Zone District: R1-10

Proposed Use: (Describe, use extra sheet if necessary. Include total number of lots) _____

This application shall be accompanied by the following:

- ____ 1. A vicinity map showing the general location of the project.
- ____ 2. Three (3) copies of a site plan showing:
 - ____ Topography showing 2' contours, identification of 30% or greater slopes;
 - ____ The layout of proposed uses.
 - ____ Location of open space when applicable.
 - ____ Proposed access to the property and traffic circulation patterns.
 - ____ Adjoining properties and uses;
 - ____ Proposed reservations for parks, playgrounds, school, and any other public facility sites, if any.
- ____ 3. Preliminary utility plan, including water, sewer, and storm drainage plans, and including access points to utilities.
- ____ 4. Tables showing the number of acres in the proposed development and a land use summary; and
- ____ 5. A phased development plan if applicable.
- ____ 6. Warranty deed or preliminary title report or other document (see attached Affidavit) showing evidence that the applicant has control of the property
- ____ 7. Signed and notarized Acknowledgment Water Supply (see attached)

NOTE: It is important that all applicable information noted above is submitted with the application. An incomplete application will not be scheduled for Planning Commission consideration. Planning Commission meetings are held on the second Thursday and the fourth Wednesday of each month at 6:00 p.m. Contact the Planning Department for the deadline date for submissions. Once your application is deemed complete, it will be put on the agenda for the next Planning Commission meeting. A deadline missed due to an incomplete application could result in a month's delay.

(Office Use Only)

Date Received: _____ Received by: _____

Date application deemed to be complete: _____ Completion determination made by: _____

Warranty Deed Page 1 of 1

Gary Christensen Washington County Recorder
 05/20/2022 02:05:09 PM Fee \$40.00 By AMERICAN
 SECURE TITLE TREMONTON

ORDER NO. 176531A/T

WHEN RECORDED MAIL DOCUMENT
 AND TAX NOTICE TO:
 RANLIFE HOMES CORDERO, LLC
 9272 South 700 East
 Sandy, UT 84070

WARRANTY DEED**RIVER VALLEY DEVELOPMENT, LLC, A UTAH LIMITED LIABILITY COMPANY**

Grantor, organized and existing under the laws of the State of Utah with its principal office at 470 NORTH
 2450 WEST, TREMONTON, County of BOX ELDER, State of UTAH
 hereby CONVEYS and WARRANTS to

Grantor

RANLIFE HOMES CORDERO, LLC

Grantee,

of Sandy, County of Box Elder, State of Utah, for the sum of TEN DOLLARS and other good and valuable
 consideration, the following tract of land in WASHINGTON county, State of UT, to-wit

All of the North 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 29, Township 42 South, Range 13
 West, of the Salt Lake Base and Meridian.
 LESS THAT PORTION LYING WITHIN 2600 WEST

H-3400-N

Subject to easements, restrictions and rights of way appearing of record and enforceable in law and subject
 to 2022 taxes and thereafter.

The officers who sign this deed hereby certify that this deed and the transfer represented thereby was duly
 authorized under Resolution adopted by the Manager/Member(s) of the Grantor at a lawful meeting held and
 attended by a quorum.

In witness whereof, the Grantor has caused its Limited Liability Company name and seal to be hereunto
 affixed by its duly authorized Members, this 19 day of May, 2022.

RIVER VALLEY DEVELOPMENT, LLC, a Utah
 Limited Liability Company

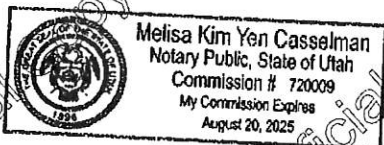
BY: 

BOYD COOK, AUTHORIZED SIGNATORY

STATE OF UTAH)

COUNTY OF BOX ELDER)

On the 19 day of May, 2022, personally appeared before me BOYD COOK, who being duly sworn, did say
 that he/she is the AUTHORIZED SIGNATORY of RIVER VALLEY DEVELOPMENT, LLC, a Utah Limited
 Liability Company, by authority of its Articles of Organization and duly acknowledged to me that the said
 Limited Liability Company executed the same.



Notary Public
 My Commission Expires: 08/20/2025
 Residing at: Premont, Utah

Special Warranty Deed Page 1 of 3
Gary Christensen Washington County Recorder
07/12/2022 04:38:48 PM Fee \$40.00 By US TITLE
INSURANCE AGENCY

When Recorded, Mail To:

Kirton McConkie
Attn: R. Gary Winger
50 E. South Temple, Suite 400
Salt Lake City, Utah 84111

Tax Parcel No. 4-3400-0

[Space Above for Recorder's Use]

SPECIAL WARRANTY DEED

KOBALT DEVELOPMENT GROUP, L.L.C., a Utah limited liability company ("Grantor"), does hereby convey to CAPITOL PROPERTIES ONE, LLC, a Utah limited liability company, whose address is 2880 S. Main St. Ste. 100, Salt Lake City, UT 84115 ("Grantee"), for the sum of Ten Dollars (\$10.00) and other good and valuable consideration, a two-ninths (2/9) tenancy-in-common interest in the real property located in Washington County, State of Utah, and more particularly described on Exhibit A, which is attached hereto and incorporated herein by reference (the "Property") and Grantor warrants against all claiming by, through, or under it. Grantor hereby retains the remaining seven-ninths (7/9) interest in the Property as a tenant-in-common with Grantee.

The foregoing conveyance includes a two-ninths (2/9) tenancy-in-common ownership in all tenements, hereditaments and appurtenances thereto belonging or in any wise appertaining, including but not limited to easements and rights-of-way over adjoining property, which easements and rights-of-way are appurtenant to the real property described on Exhibit A, and all of Grantor's interest in and to any land lying in the bed of any body of water, waterway or public street, public road or public avenue in front of or adjoining the land, and all of Grantor's interest in and to oil, gas, geothermal, water and mineral rights, wells, and all water rights appurtenant to the Property described on Exhibit A, which is attached hereto and incorporated herein by reference.

WITNESS the hand of said Grantor this 30th day of June, 2022.

KOBALT DEVELOPMENT GROUP, L.L.C.
a Utah limited liability company

By: K. OBL

Name: Kay C. Barton

Its: Manager

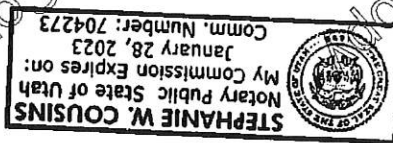
CERTIFICATE OF ACKNOWLEDGEMENT OF NOTARY PUBLIC

STATE OF Utah

: ss

COUNTY OF Salt Lake

On this 30th day of June, 2022, personally appeared before me
Kay C. Barton, the manager of KOBALT DEVELOPMENT GROUP, L.C., a
Utah limited liability company, known or satisfactorily proved to me to be the person who signed
the foregoing instrument.



NOTARY PUBLIC
My Commission Expires: 1/28/23

LAES

**EXHIBIT A
DESCRIPTION OF REAL PROPERTY**

KOBALT DEVELOPMENT GROUP, LLC

of SALT LAKE CITY, County of SALT LAKE CITY, State of UTAH, for the sum of TEN DOLLARS and other good and valuable consideration, the following tract of land in WASHINGTON county, State of UT, to-wit.

All of the South 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 29, Township 42 South, Range 13 West, of the Salt Lake Base and Meridian.

LESS THAT PORTION LYING WITHIN 2600 WEST

AGEC

Applied GeoTech

July 29, 2022

RANlife Homes
9272 South 700 East
Sandy, Utah 84070

Attention: Anthony Bochino
Email: anthonyboc1@gmail.com

Subject: Geotechnical Consultation
Codero Subdivision
Hurricane, Utah
AGEC Project No. 2220977

Applied Geotechnical Engineering Consultants, Inc., (AGEC) was requested to conduct a geotechnical investigation for the proposed Codero Subdivision located in Hurricane, Utah. The study is currently in progress. We have scheduled to excavate 8 exploratory test pits across the 40-acre development. A final report will be provided upon completion of the study. The report summarizes the work to date and the conditions of the site along with conclusions to the suitability of the property for the proposed development.

Site Conditions

The property is located west of the Southern Shores Ski Lake Community project in south Hurricane. The property consists of undeveloped property. There is vacant property to the west, north and south.

The property slopes down to the north with approximately 30 feet of elevation change. The property is moderately covered with small brush and grasses infilled with wind blown sand and silt.

Geology

AGEC has reviewed the available literature for the property including the following:

- | | |
|-----------------------------------|---|
| <i>Literature Document No. 1:</i> | Geologic Map of the Hurricane 7.5' Quadrangle, Washington County, Utah, Map M-187, 2003, Robert F. Biek. |
| <i>Literature Document No. 2:</i> | Geologic Hazards and adverse Construction Conditions, St. George-hurricane Metropolitan Area, Washington County, Utah, SS-127, 2008, Lund etal. |

Based on the literature review the following conclusions are made:

1. There is minor amounts of wind blown or aeolian type deposits overlying the basalt with greater amounts along the south end of the site.
2. There are not faults on or near the property. The nearest fault, the Hurricane Fault is on the order of 1.9 miles to the east.
3. There is also shallow hard rock anticipated below the surface sands.

Anticipated Subsurface Conditions

AGEC is in the process of completing 8 test pits (explorations) as shown below. AGECE has also reviewed previous geotechnical studies in the area including:

1. Romney Study – Larger parcel that included this parcel.
2. 100 Acre Study to the south

Based on our experience and review of the property, the subsurface conditions are anticipated to consist of silty sand (wind blown) overlying caliche and/or sandstone bedrock.

Groundwater was not encountered during previous investigations, nor anticipated throughout the property.

Proposed Construction

The property consists of approximately 40 acres and is to be developed with single family residences. There will be public improvements throughout the property.

Conclusions

Based on the review of the various items noted above, the following conclusions are noted:

1. The site is suitable for the proposed development. No geologic hazards other than hard rock for excavation purposes are noted on the property.
2. The site will require cuts and fills. The on-soils and bedrock may be used as fill materials.

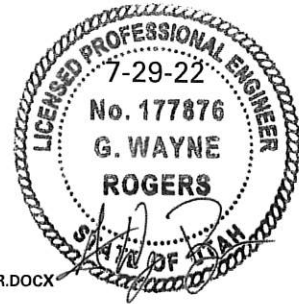
Limitations

AGEC will be providing a final report upon completion of the field exploration and the necessary laboratory testing. The information within this report may be used for review and preliminary design details.

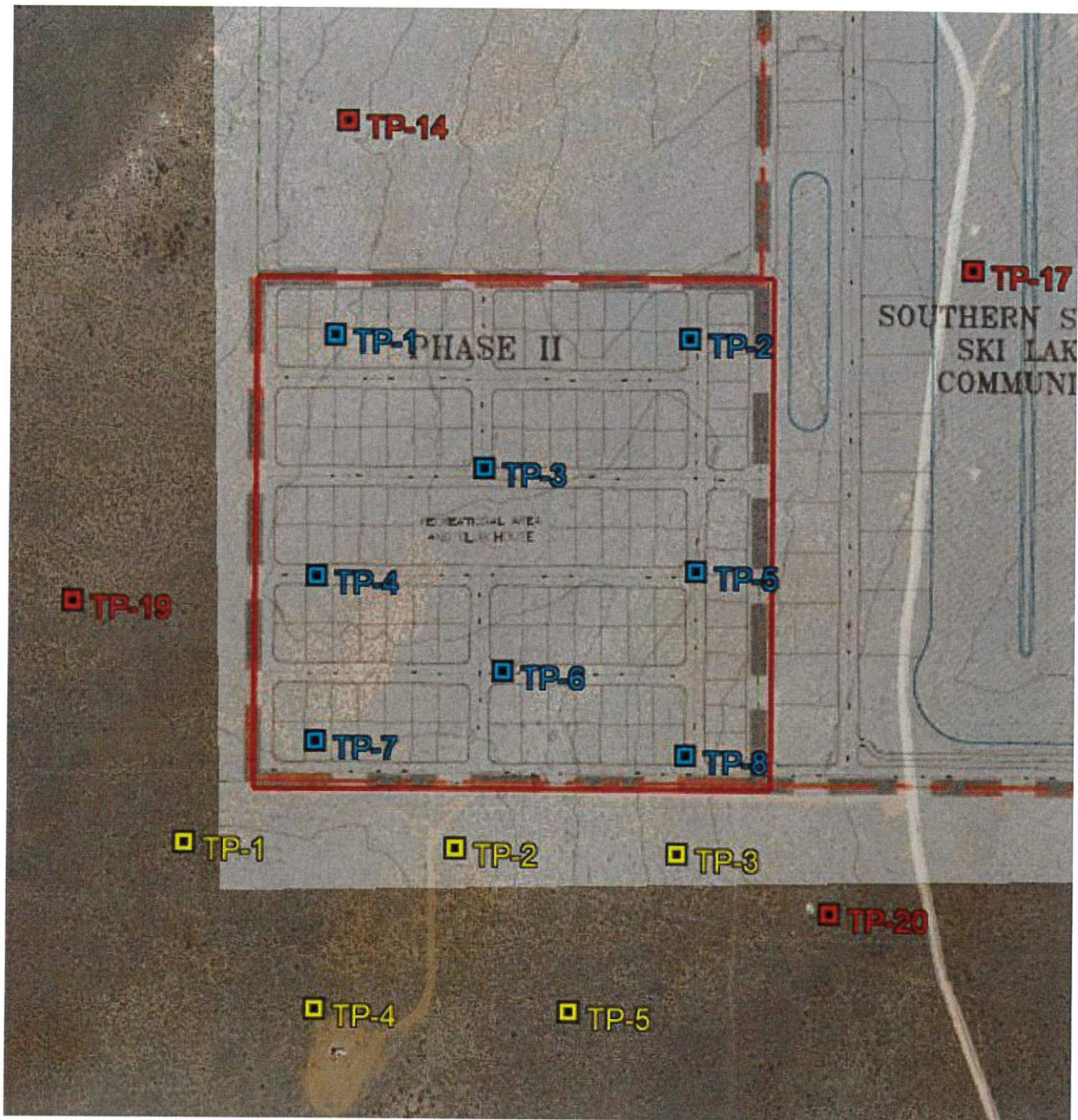
Sincerely,

APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC.

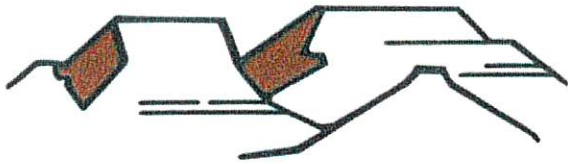
G. Wayne Rogers, P.E.



P:\2022 PROJECT FILES\2220900\2220977 - GT CORDERO SUBDIVISION (40 ACRES)\GEOTECHNICAL CONSULTATION LETTER.DOCX



Yellow TP- indicates test pits from 100 Acre Study
Red TP- indicates test pits from Romney Study
Blue = test pits this study



HURRICANE CITY UTAH

Water Department
Ken Richins, Superintendent

July 29, 2022

To Whom It May Concern:

Rainlife Homes Cordero LLC (the "Developer") has requested a culinary water will serve letter for the subdivision known as Southern Dunes Vacation Townhomes, located at approximately 2600 W Cliff View Drive in Hurricane, Utah (the "Project").

Infrastructure

The City currently has infrastructure to supply culinary water in the general area of the Project. However, Developer will be responsible to connect the Project to the existing water infrastructure, including the installation of infrastructure in dedicated public streets and as otherwise required to meet City standards. In addition, Developer may be required to obtain and supply a hydraulic water study to ensure the waterline will deliver required fire flows. A looped water system may be required.

Water Supply

As of the date of this letter, the city has adequate water to supply water to 345 residential connections within the Project. However, water within the City is a finite resource with limited supply. The ability of the City to supply water to previously approved projects, as well as continue to serve additional water customers, is contingent on water supplies being available from the Washington County Water Conservancy District (the "Conservancy District"). Therefore, the City's statements in this letter regarding the adequacy of water supply is (1) contingent on water being available from the Conservancy District and (2) shall expire one year from the date of this letter, after which a renewed will serve letter will be required for any property or lot that has not obtained a metered connection to the City's culinary water system. Developer is encouraged to obtain a guarantee of water from the Conservancy District.

General Requirements

In addition to the requirements and limitations described above, Developer shall be required to comply with all applicable laws, ordinances, policies, and construction and design standards. These requirements include, but are not limited to, secondary water system requirements and any obligations described in an applicable development agreement.

Sincerely,

Ken Richins

Water Department Superintendent



Ash Creek Special Service District

1350 S. Sand Hollow Road

Hurricane, UT 84737

Office: (435) 635-2348 Fax: (435) 635-8550

ashcreek@infowest.com

July 29, 2022

Bush & Gudgell, Inc
Ryan Lay
and
Hurricane City
Stephen Nelson
127 N. 870 W.
Hurricane, UT 84737

RE: Southern Dunes Vacation Townhomes

Stephen,

There is sewer capacity for this project. Connectivity will need to be in 2600 West to Copper Rock Parkway. The developers understand and agree that they will need to get plan approval for the sewer system.

After approval, they agree to pay all costs associated with construction and impact fees. Please let us know if you have any questions.

Sincerely,

Gary Wilcox
Inspections Department
Ash Creek Special Service District



STAFF COMMENTS

Agenda Date:	1/25//2024
Application Number:	2022-PP-20 2022-PSP-38
Type of Application:	Preliminary Plat Application
Action Type:	Administrative
Applicant:	Southern Dunes Townhomes
Agent:	Bush & Gudgell, Inc
Request:	Approval of a Preliminary Plat and Site Plan
Location:	2600 W 4200 S
Zoning:	Recreation Resort
General Plan Map:	Planned Community

Update for 01/25/2024: The applicant is requesting an extension of the final plat deadline for this project. Pursuant to city ordinance, a final plat must be submitted within one year of approval of a preliminary plat; however, the applicant can request a 1-year extension from the Planning Commission.

This application was approved by the City Council after recommendations of denial from staff and the Planning Commission with the condition of a development agreement being signed by the developer allowing the developer to begin the process of construction drawings but agreeing that those construction drawings will not be signed until there is sufficient power capacity in the area. As of this date, construction drawings have not been submitted for this development.

The Hurricane City Power Department has come up with a plan to allow for developers in this region to pay to reroute power capacity to this area of the City. The developer has paid their share into this plan and now has future power capacity reserved for the project, thus resolving staff concerns about power capacity for this development.

Staff recommends approval of the extension of this preliminary plat approval.

Update 01/26/2023: The City Council voted on Jan 19, 2023 to allow this application to reapply for preliminary plat approval. This preliminary plat was denied due to insufficient water and power in the area as well as problems with layouts and amenities. The City Council's rationale was that by the time construction drawings were completed then power will be sufficient in the area. Staff and the applicant were able to work out all the concerns with regards to layouts, water, and amenities. Staff recommends that the Planning Commission read the report below and consider the standards of the city ordinances.

Staff still has outstanding concerns with utilities, namely power, throughout the region and still recommend denial of this preliminary plat.

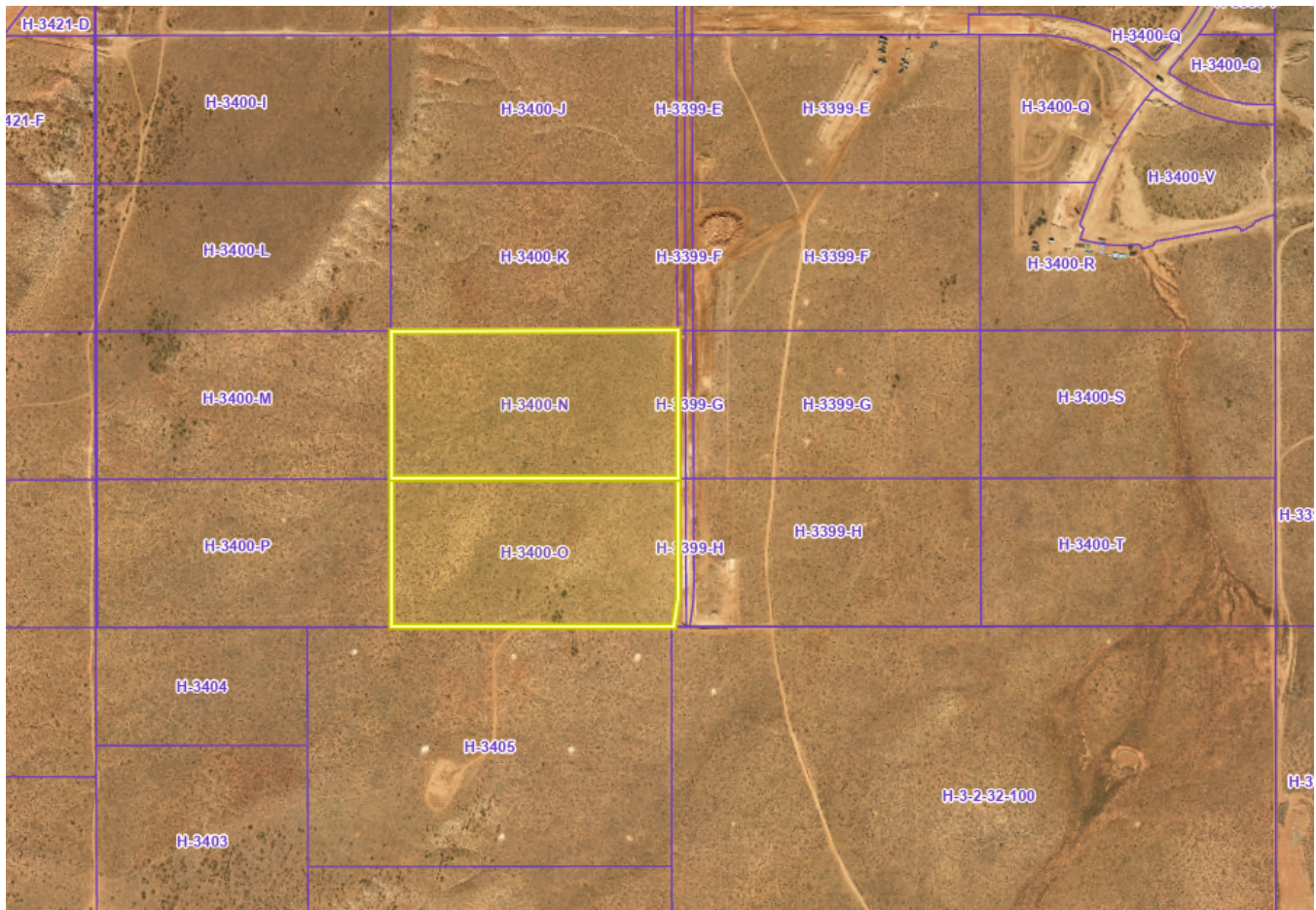
Previous Planning Commission Recommendation

The Planning Commission recommended denial of the application based on the limited amenities, block lengths, and limited availability of power and other utilities (see note from Power and Note 10 in the staff report). All voted in favor of the motion.

The Planning Commission's main concern about power was that they believed that there were too many factors to determine if and when power would become available. Though there is a plan the City is working on increasing power services to the area, there are unknowns about the date of when the service will be available. The applicant has turned in a water model and believes there will be adequate water services.

Several of the Planning Commissioners stated they believed that resorts should be held to the highest standards, and if there is any question about services or compliance, that they should be tabled or denied until all concerns could be resolved.

The applicant stated at the meeting they believed they could address all the comments, with the exception of power, but wished to move forward.



Discussion:

The applicant has filed a preliminary plat for Southern Dunes Townhomes within the Cordero development. The applicant is proposing 345 resort townhome units for a density of about 8.63 units per acre. The Cordero development, as approved in 2020 is split into three sections with different zonings: the west side is zoned Recreation Resort (Southern Dunes), the middle section is zoned R1-10 (Southern Shores) and the east side is zoned R1-6 (Cordero). A development agreement governs this development that limits the overall unit count to 700 units across all three sections. This preliminary plat will complete the preliminary plat process for the entire development. Utilities are still scarce throughout the region so any approval should be contingent on the developer being able to supply adequate services to the property.

JUC Comments

The following items will need to be addressed:

1. **Public Works:** Must dedicate and improve 2600 W. Must obtain full ROW for 2600 W and utilities.
2. **Power:** “At this time, the City’s power grid is inadequate to support all of the development planned in the area south of 2700 South Street. Although the Power Department has plans to expand and enhance its system to supply adequate power to this area, those plans are subject to funding limitations, the City’s acquisition of easements and rights-of-way, the availability of

materials, and other limitations. Therefore, the Power Department cannot presently guarantee that it can provide power to all of the development planned in this area, which includes this proposed development.”

3. **Sewer:** No comments
4. **Street:** Do these units have garages? Driveways for parking? On street parking?
5. **Water:** Water model needed. Public or private streets? Private streets require ductile iron piping
6. **Engineering:** It appears this development is located in the FH110 subbasin of the Hurricane Storm Drain Master Plan and stormwater from this development will eventually drain to the open channel along 2100 W. The drainage study for this development should elaborate on how. Avoid block lengths greater than 800’ stub roadways accordingly. Verify corner lot driveways are out of sight distance triangles. 4300 S is a master-planned 84’ ROW with trails on the north and south sides. 2600 W is a master-planned 77’ ROW with a trail on the west side that will need to be dedicated at this time. For some reason the current ROW dedication for 2600 W shows a curve in the southeast corner of this development; the road needs to be straight through here.
7. **Fire:** Need second access and buildings to be sprinkled
8. **Cable:** Add Centurylink fiber optic notes for construction drawings
9. **Gas:** No comments.
10. **Water Conservancy:** No comments

Staff Comments: Preliminary Site Plan and Plat

1. Zoning is a Recreation Resort and meets the density requirements of that zone.
 - a. A “concept plan” that showed this area was submitted as part of the zone change that happened in 2020, before the requirements of the Recreation Resort zone were changed. Due to the fact that this previous plan was both substantially different than what is being proposed here and was not part of an official application this will be reviewed under HCC 10-26 as amended under Ordinance No. 2021-09
2. The development is partly governed by a development agreement which capped the total number of lots at 700 for the whole area. The development agreement required preliminary plats to list the number of lots that have been approved for the full Cordero development. This table is not provided. However, this plat plus the other approved preliminary plats add up to 691 units.
3. Staff would assume that all streets and alleyways not specifically marked “public” are private. This should be made more clear on the plat.
4. **Parking:** Per HCC 10-26-6: *“Within recreational resorts, an application shall provide two parking spaces per unit or one space per bedroom, whichever is higher. Tandem parking spaces are permitted only if approved as part of the preliminary site plan by the Planning Commission.”*
 - a. It appears from the site plan that the townhome units will have garages and driveways such to meet this code but this should be called out
 - b. RV/trailer spaces are also required at a rate of one space per five units. 69 spaces are required and approximately 130 are provided
 - c. On-street parking is shown on Road F and Road G. On-street parking is allowed in Recreation Resort zoning, however the code states, *“Parking areas shall be located 50 feet away from any intersection of public roadways.”* These parking spaces do not meet this standard
 - d. **Street Parking:** The applicant has proposed a few street parking spaces. These spaces are permitted with the following conditions.
 - i. They need to be spaced at least 50’ from the intersection.

- ii. They are limited to 10 spaces for each section.
 - iii. Will need to be signed off by the City Engineer.
- 5. Amenities:** Per HCC 10-26-4: two clubhouses with at least 2,000 sq ft of total non office space and four pools of at least 2,000 sq ft are required. The proposed site plan shows two “amenity areas” and one pool. More details are required on the proposed amenities. The Planning Commission may approve consolidated amenities if it leads to a better amenity area. A Pool, club house and on-site management will need to be in place within the first phase of development. The development amenities requirements are listed below.

10-26-4 Development Standards

Number of units	Clubhouses required	Clubhouse size	Pools required	Pool size
300—499	2	At least 2,000 sq ft of total non office space	4	At least 2,000 sq ft

- a. The applicant has requested that the Planning Commission consider approving the pool areas. The applicant is providing a total of 8,810 sq. ft. of pool area of the needed 8,000 sq. ft. They are requesting instead of providing four large pool areas, to provide one large pool area, a large hot tub area, and providing 197 units with individual hottubs instead.
 - b. The applicant has also included four pickleball courts in addition to the minimum requirements.
 - c. The applicant has provided two location for two club house locations, each 1,400 sq. ft. This is short of the minimum requirement for two at 2,000 sq. ft. total of non office space.
 - d. The applicant has requested alternative compliance. The Planning Commission may approve “(a)alternative compliance, such as splash pads, sports courts, and open space amenities may be considered by the Planning Commission to offset other amenities requirements.” (10-26-4 Note 4)
- 6. Block lengths and connectivity:**
Update: The applicant has provided extra connections to the adjacent properties as requested. There are still a couple of roadways internally that do not meet 800’ length with full four way intersection. This map has been sent to engineering for their review.

Previous Notes on Block Lengths: Per Hurricane City Design Standards: *“When designing local road networks, block lengths without an intervening connector street shall not exceed eight hundred feet (800') in length unless previous approval has been obtained from the City Engineer. Cul-de-sacs are not considered an intervening connecting street.”* Several blocks do not meet this standard on one side or another.

Update: The applicant has provided extra connections to the adjacent properties as requested. There are still a couple of roadways internally that do not meet 800' length with full four way intersection.

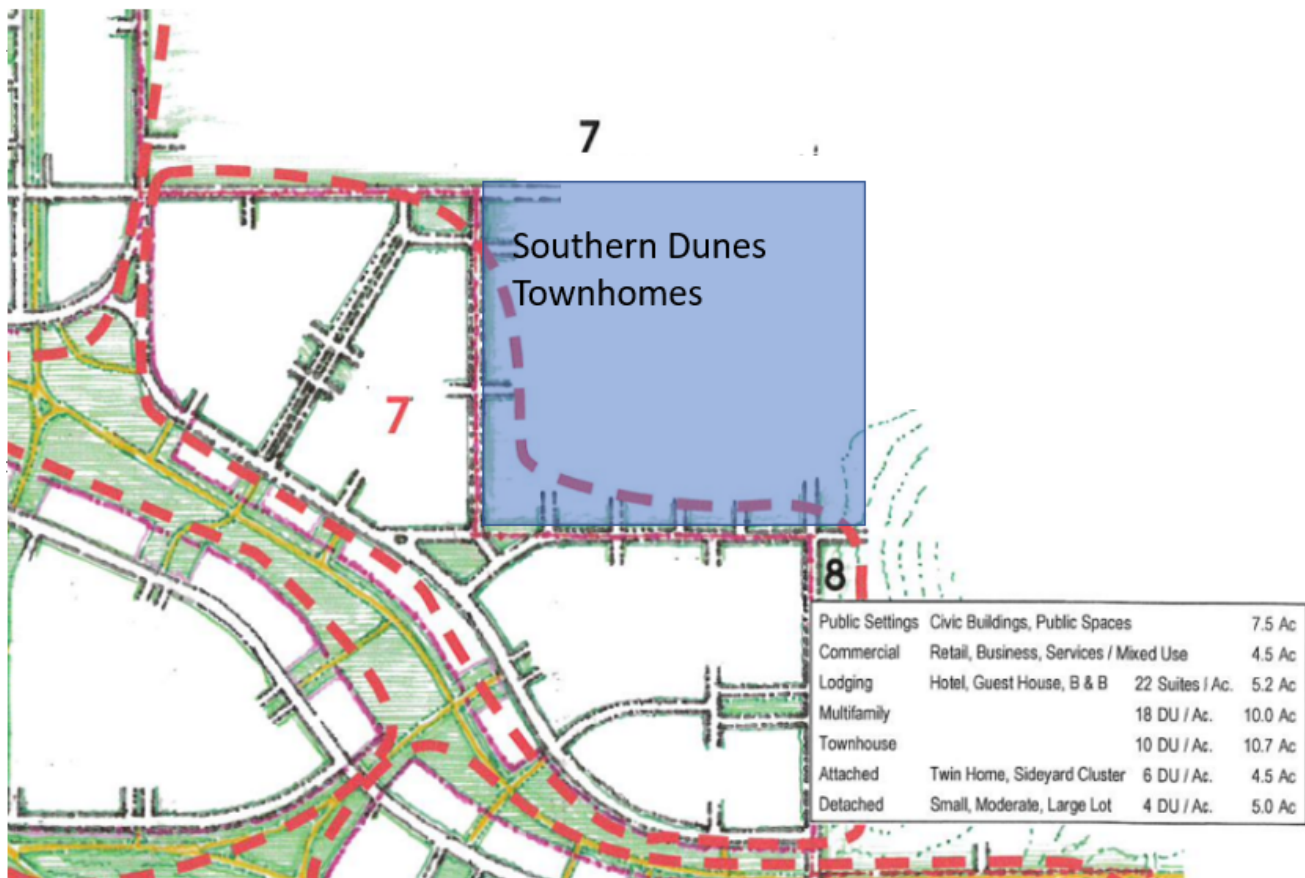
- a. This site plan appears to only show alleyway access to the property to the north and limited street access to the property to the west. The Preliminary Site Plan for Sand Hollow Mesa Neighborhoods 7 and 8 shows full street access to this property at approximately the points these alleyways are shown.
- b. The applicant should provide better connection to the surrounding property to
 - i. Cut down on block lengths
 - ii. Provide better transportation and utility connections with adjacent properties.
- c. Connecting Streets: Hurricane City Code states the following for connectivity within subdivisions:

Sec. 10-39-11. - Subdivision streets and fencing.

- A. *Relation to adjoining street systems.*
 1. *The arrangements of streets in new subdivisions shall make provision for the continuation of the existing streets to adjoining areas insofar as such may be deemed necessary by the Planning Commission for public requirements. New streets within subdivisions shall not preclude future access to adjoining properties.*
 2. *Standard residential streets shall approach the arterial or collector streets at an angle of not less than 80 degrees.*
 3. *Except as otherwise provided elsewhere in this Code, all subdivision streets and roadways shall be constructed and installed in accordance with the City roadway construction standards.*

A couple of recommendations would be to have Road B connect all the way through the project. Have Road F make a connection to the North. Have Road D connect to the west.

- d. All alleyways are shown to be 20' wide which may not meet fire code.



Southern Dunes Townhomes location superimposed on the approved Sand Hollow Mesa site plan

7. All park strips will need to be landscaped and have the proper improvements.
8. A will serve letter from the culinary and sanitary water providers has been provided
9. A note indicating whether or not the property is in a tortoise take area has not been provided
10. Hurricane City Code states: "Land shall be developed only where existing infrastructure is in place or will be timely provided to service proposed development" (Hurricane City Code 10-37-4). The adequacy of public facilities to support the proposed development is in question. The Power Department has stated that the City's power grid is inadequate to support all of the development planned in this area. *See JUC comments regarding the limited capacity to supply power to this area.* Also, developments adjacent to this proposed development have been unable to meet the water pressure requirements of the Fire Code, so the development nearby has been required to put sprinklers in all units to satisfy the Fire Code. Whether this proposed additional development will be able to meet the Fire Code is uncertain at this point. "A proposed development **shall not be approved** if demand for public facility will exceed adopted level of service standards unless public facility improvements, reasonably calculated to raise service levels to adopted level of service standards, will be available to serve the development." HCC 9-6-3(B) (emphasis added). "The City may require an analysis to be completed to determine whether adequate public facilities are available to service a development and whether such development will change existing levels of service or will create a demand which exceeds acceptable levels of service for roadways, intersections, bridges, storm drainage facilities, water

lines, water pressure, sewer lines, fire and emergency response times, and other similar public services.” HCC 10-37-4. “The City may disapprove a proposed development if demand for public services exceeds accepted levels of service.” HCC 10-37-4. The Planning Commission and City Council should carefully consider whether the infrastructure and public facilities necessary to support this proposed development satisfy the requirements of the Code as explained in this section. If not enough information is available for the Commission or Council to make a finding regarding the adequacy of public facilities, then more information or analysis should be requested from the applicant or City staff, as applicable, before acting on the application.

LEGAL COMMENTS ON APPLICATION

Applying the Ordinances:

The approval or denial of a preliminary plat application is an administrative decision in which the City's ordinances are applied to the application, so the City's ordinances should dictate whether a preliminary plat application is approved or denied. There are two City ordinances that are relevant to this application: Hurricane City Code ("HCC") sections 9-6-3 and 10-37-4.

HCC section 10-37-4 states that: "Land shall be developed only where existing infrastructure is in place or will be timely provided to service proposed development. ... The City may disapprove a proposed development if demand for public services exceeds accepted levels of service. No subsequent approval of such development shall be given until either the developer or the City installs improvements calculated to raise service levels to the standard adopted by the City."

HCC section 9-6-3 states that: "Land shall be developed only where public facilities are in place or will be timely provided to serve proposed development at a level of service which meets the City's adopted level of service standards. ... A proposed development shall not be approved if demand for a public facility will exceed adopted level of service standards unless public facility improvements, reasonably calculated to raise service levels to adopted level of service standards, will be available to serve the development."

When considering an application for development in an area where City staff have found that public facilities are inadequate to serve the development at the established level of service, the question for the Planning Commission and City Council is whether the necessary public facilities "will be timely provided" to serve the development at adopted levels of service. If the City Council cannot find (determine) that the necessary public facilities "will be timely provided" to provide for the new development, then the City's ordinances require that the development be denied.

Basis and Support for Decision:

An approval or denial of a preliminary plat application needs to be supported by evidence in the record. City staff's recommendation of denial is based on the following evidence: (1) a report prepared by Intermountain Consumer Professional Engineers, Inc., together with the Power Department's analysis, concluding that "addition of load without improvements is not recommended as voltage will be further reduced and existing customers will experience substandard voltage levels"; (2) a Limited Distribution Capacity analysis for water service levels in the area prepared by Alpha Engineering; and (3) the uncertainty and unknown timeline as to when power and water infrastructure will be installed to raise service levels to acceptable standards. If the Planning Commission or City Council finds (determines) that the necessary public facilities "will be timely provided" to address the inadequate facilities, that finding needs to be supported by evidence in the record.

Understanding the Process:

After a preliminary plat is approved by the City Council, the development typically never returns to the Council for further approval. After preliminary plat approval, the next phase is the preparation of detailed construction drawings, which are reviewed and approved by members of the city's Joint Utility Committee. After construction drawings are approved and a final plat application is filed with staff, the developer is permitted to move forward with actual construction of the development. The recording of a final plat is the final step and is approved by the City Engineer, the Mayor, and the City Attorney. If a development that lacks adequate public facilities is approved at the preliminary plat stage, then it leaves members of staff to determine whether construction drawings should be approved to allow the development to begin construction. When reviewing construction drawings, members of staff are also constrained by the requirements of HCC sections 9-6-3 and 10-37-4. Therefore, it would be ideal if the City Council and staff were aligned on when development with inadequate public facilities should be permitted to proceed. If a proposed development cannot be approved pursuant to City ordinances, the City Council would be the preferred body to make that determination—instead of letting it fall to individual utility departments and staff members.

Policy Behind the Ordinances:

The adequacy of public facilities is a factor at every phase of development, beginning with zone change applications. A key policy driving this approach is to avoid a situation where a developer believes that a development is entitled to proceed, but the City is unable to provide the necessary services to the development without jeopardizing service to existing residents. Also, developers invest additional funds into a project at each phase of development. Therefore, the further along that the City allows development to occur without adequate public facilities, the larger the potential legal claim against the City if the developer ultimately cannot connect to the City's utility systems for lack of capacity. If the City Council determines that the necessary public facilities are not currently available but "will be timely provided" to serve the development, the City Council should only approve the preliminary plat on the condition that the owner execute a development agreement limiting the developer's rights and outlining the procedure for handling the project, all in a form approved by the City Attorney.

Recommendation: Staff recommends the City Council review this application based on standards with Hurricane City Code. Staff would recommend the City Council take into consideration the recommendation by the Planning Commission and items within this report. Though the applicant can likely address most comments within this report, adequate power is outside the control of the applicant. Staff would recommend the City Council discuss if they believe if “existing infrastructure is in place or will be timely provided to service proposed development”. In addition, staff would not recommend the Council consider approval until they address the other issues within this report.

Recording Requested By, and
Return Recorded Document to:
Hurricane City
147 N. 870 W.
Hurricane, UT 84737

APN: H-3400-N; H-3400-O

**FIRST AMENDMENT TO THE DEVELOPMENT AGREEMENT
FOR CORDERO ZONE CHANGE**

This First Amendment To The Development Agreement For Cordero Zone Change ("Amendment") is made and entered as of the 2nd day of February, 2023 (the "Effective Date"), by and between HURRICANE CITY, a Utah municipal corporation (hereinafter referred to as the "City") and Ranlife Homes Cordero, LLC, a Utah limited liability company ("Ranlife") and Capitol Properties One, LLC, a Utah limited liability company ("Capitol Properties"). Ranlife and Capitol Properties are referred to collectively herein as the "Developer". The City and Developer are referred to collectively as the "Parties."

RECITALS

- A. Developer is the owner of land located within Hurricane City as is more particularly described on EXHIBIT A, attached hereto and incorporated by reference (the "Property").
- B. On November 18, 2021, the City Council approved a zone change for approximately 200 acres of land, with the zone change being subject to and conditioned upon the terms and conditions of that certain Development Agreement for Cordero Zone Change, which was duly executed and recorded with the Washington County Recorder's Office on February 5, 2021, as Document No. 20210008637 (the "Development Agreement").
- C. The Property, which consists of approximately 40 acres of the 200 acres subject to the Development Agreement, has been conveyed to the Developer since the Development Agreement was implemented.
- D. Adequate public facilities are not presently available to service the Property, as required by Hurricane City Code. The Parties recognize the scarcity of resources available for further development, including the unavailability of water and power resources, which scarcity may or may not be remedied.
- E. On February 2, 2023, as an accommodation to the Developer, the Hurricane City Council conditionally approved the proposed preliminary plat, attached hereto as EXHIBIT B, on the condition and with the limitation that construction drawings for the Property could be reviewed, commented on, and redlined, but that no construction drawings could be approved or signed by the City until adequate public facilities were available, as well as other conditions, limitations, and requirements as stated in this Amendment.
- F. As permitted by the terms of the Development Agreement, this Amendment revises the Development Agreement as it relates to the Property.

- G. The terms of this Amendment set forth the conditions and limitations of the City Council's approval of the preliminary plat for the Property.

AMENDMENT

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and the Developer agree as follows:

1. Incorporation. The above recitals are incorporated by reference herein.
2. Approval of Preliminary Plat. The City conditionally approves the preliminary plat attached hereto as EXHIBIT B for the Property, subject to the conditions, limitations, and terms of this Amendment and those of the Development Agreement, as amended hereby.
3. Recognition of Lack of Public Facilities; No Entitlements; No Obligation by Hurricane City to Extend Services or Facilities. Developer understands, acknowledges, and specifically agrees that adequate public facilities are not available to serve the Property. Public facilities that shall be available before any form of approval of further development include, but are not limited to: (1) power capacity as calculated and determined by the City's Power Department; (2) power lines extended to the Property; (3) availability of water supply from the City's water wholesaler, the Washington County Water Conservancy District; (4) adequacy of the City's water system to supply water flows and pressures as required by City standards and the Fire Code; (5) adequate floodway and stormwater facilities as required by City standards; (6) adequate police, emergency, and fire services for the Property; and (7) any other government-provided services generally necessary to support the construction and occupancy of residential or commercial structures. The Parties agree that no entitlements are granted by the approval of the preliminary plat. The Parties acknowledge that making public facilities available to the Property is multi-faceted, involves public financing requirements, requires acquisition of private property rights, involves the potential exercise of governmental eminent domain powers, involves public policy considerations, involves factors that may be outside the immediate control of the City, and is subject to factors that cannot be known at this time. Therefore, the Developer specifically acknowledges and agrees that the City has no obligation to make public facilities or services available to the Property or to approve any further development of the Property.
4. No Further Applications or Approvals Until Adequate Public Facilities Exist. The City Public Works Director, in consultation with and after receiving recommendations from other relevant utility departments and staff members, shall determine when adequate public facilities have become available for the Property. Until the Public Works Director determines that adequate public facilities are available for the Property, City staff is not permitted to review or approve any form of development or construction on the Property (except that City staff can review, comment on, and redline Developer's construction drawings so long as no approvals or sign-offs are given by the City). The City Public Works Director's determination of the adequacy of public facilities as described in this Amendment shall constitute an administrative decision that may be appealed to the City's Appeals Board as described in Hurricane City Code Section 10-6-5 and the Utah Municipal Land Use, Development, and Management Act as set forth in Utah Code Annotated Title 10, Part 9a.

5. Complete Assumption of Risk by Developer; Indemnification. Developer understands and agrees that the conditional approval of the preliminary plat was only to accommodate Developer and allow the Developer to proceed with the review of construction drawings and for no other purpose. Developer acknowledges and agrees that any steps Developer takes in furtherance of the preliminary plat are a carefully calculated business decision laden with risk and liability because public facilities may never become available for development of the Property, and Developer knowingly and willingly assumes said risk and liability after having the opportunity to confer with Developer's own legal counsel regarding the same. The risks and liabilities assumed by the Developer include, but are not limited to, engineering costs, feasibility study costs, financing costs, legal costs, liabilities associated with contractual relationships, and losses in property value. Developer agrees to indemnify and defend the City against any and all claims, liabilities, lawsuits, costs, or judgments against the City resulting from or relating to this Amendment and the actions or inactions of the Parties related thereto.
6. Compliance with City Code; City Standards, Manuals, and Specifications; and Staff Comments. The City's approval of the preliminary plat is subject to compliance with all Staff and JUC comments as set forth in the Staff Report attached hereto as EXHIBIT C, including resolving concerns regarding storm water management. Regardless of the preliminary plat approval, Developer shall comply with all requirements of the City Code and the City's standards, manuals, and specifications as they exist at the time of final, unconditional approval.
7. Agreement to Run with the Land; Approval Expiration. This Amendment shall be recorded in the Office of the Washington County Recorder against the Property and is intended to and shall be deemed to run with the land and shall be binding on all successors in the ownership of any portion of the Property. As required by Hurricane City Code, a complete application for final plat approval must be submitted to the City on or before February 2, 2024. The City Planning Commission may authorize a onetime extension of the preliminary plat not to exceed one year, provided that a written request for extension is received by the City before the one year time period has expired. The City has no obligation to grant any extension of the preliminary plat, and Developer has no entitlement to such, or any entitlement to approval of a new preliminary plat.
8. Offsite Improvements. Developer understands and agrees that the location of the Property requires system improvements outside the Property and, except as required by law, Developer is not entitled to any credit or reimbursement for offsite or system improvements that the Developer chooses to install, construct, or purchase. Developer also understands and agrees that any offsite or system improvements shall be constructed, at a minimum, according to the City's specifications, and that Developer's decision whether to install offsite or system improvements is voluntary and said improvements, together with any improvements and dedications required by the City, are roughly proportional to the impact that the development of the remote Property will have on City infrastructure, facilities, and services.
9. Development Agreement Shall Remain in Effect Except as Amended. The provisions of this Amendment supersede and amend any contrary or contradictory provisions within the Development Agreement. Except as amended by this Amendment, all provisions within the Development Agreement remain valid and binding on the Parties.

10. Scope and Limitations of Commitment. Developer acknowledges and agrees that the terms of this Amendment regarding the lack of public facilities and the City's lack of obligation to provide those facilities and services in the future represent the actual agreement between the Parties. Statements or representations made by City staff or City officials outside this Amendment regarding public facilities, the City's positions regarding such, projected timelines to complete public facility projects, and other circumstances surrounding the terms of this Amendment are not binding on the City and cannot be relied on by Developer. This Amendment does not entitle Developer to any priority or special treatment related to the development of adequate public facilities. The City makes no warranty or representation as to when or if public facilities will become available to support development of the Property.
11. Authority. Each Party warrants and represents that they have the authority to execute this Amendment in the capacities indicated.
12. Representation by Counsel. Developer has had a full and fair opportunity to consult with its counsel regarding the terms and conditions of this Amendment, including the risks to Developer if Developer undertakes any development-related actions pertaining to the Property.

CITY:

Hurricane City

By: Nanette Billings
Mayor Nanette Billings

DEVELOPER:

Ranlife Homes Cordero, LLC, a Utah Limited Liability Company

By: GARR SMITH
Name: GARR SMITH
Title: Manager

Capitol Properties One, LLC, a Utah Limited Liability Company

By: C. Samuel Gostagan
Name: C. SAMUEL GOSTAGAN
Title: Manager

Kobalt Development Group, LLC, a Utah Limited Liability Company

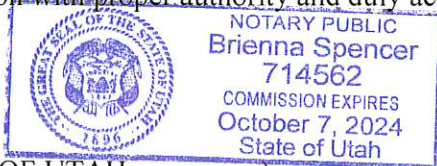
By: 

Name: STEVEN BARTON

Title: Manager

STATE OF UTAH)
)
) :SS
COUNTY OF WASHINGTON)

On the 15 day of March, 2023, personally appeared before me **Nanette Billings**, who being by me duly sworn, did say that she is the Mayor of Hurricane City, a Utah municipal corporation, and that the within and foregoing instrument was signed on behalf of said corporation with proper authority and duly acknowledged to me that she executed the same.



Brienna Spencer
Notary Public

STATE OF UTAH)
)
) :SS
COUNTY OF UTAH)

On the 24th day of February, 2023, personally appeared before me Garr Smith, who being by me duly sworn, did say that s/he is the Manager of **Ranlife Homes Cordero, LLC**, a Utah Limited Liability Company, that the within and foregoing instrument was signed on behalf of said limited liability company with proper authority, and did duly acknowledge to me that s/he executed the same.



Marci McLean Flake
Notary Public

STATE OF UTAH)
)
) :SS
COUNTY OF Salt Lake UTAH)

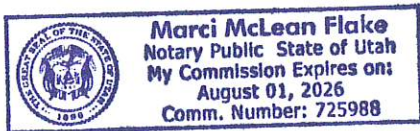
On the 23rd day of February, 2023, personally appeared before me C Samuel Gustafson, who being by me duly sworn, did say that s/he is the Manager of **Capitol Properties One, LLC**, a Utah Limited Liability Company, that the within and foregoing instrument was signed on behalf of said limited liability company with proper authority, and did duly acknowledge to me that s/he executed the same.



StC Cousins
Notary Public

STATE OF UTAH)
 :SS
COUNTY OF UTAH)

On the 2nd day of March, 2023, personally appeared
before me Steve Barton, who being by me duly sworn, did say
that s/he is the Manager of **Kobalt Development Group, LLC, a Utah Limited
Liability Company**, that the within and foregoing instrument was signed on behalf
of said limited liability company with proper authority, and did duly acknowledge
to me that s/he executed the same.



Marci McLean Flake
Notary Public

EXHIBIT A
Legal Description of Property:

The following tracts of land in Washington County, State of Utah:

Parcel H-3400-N:

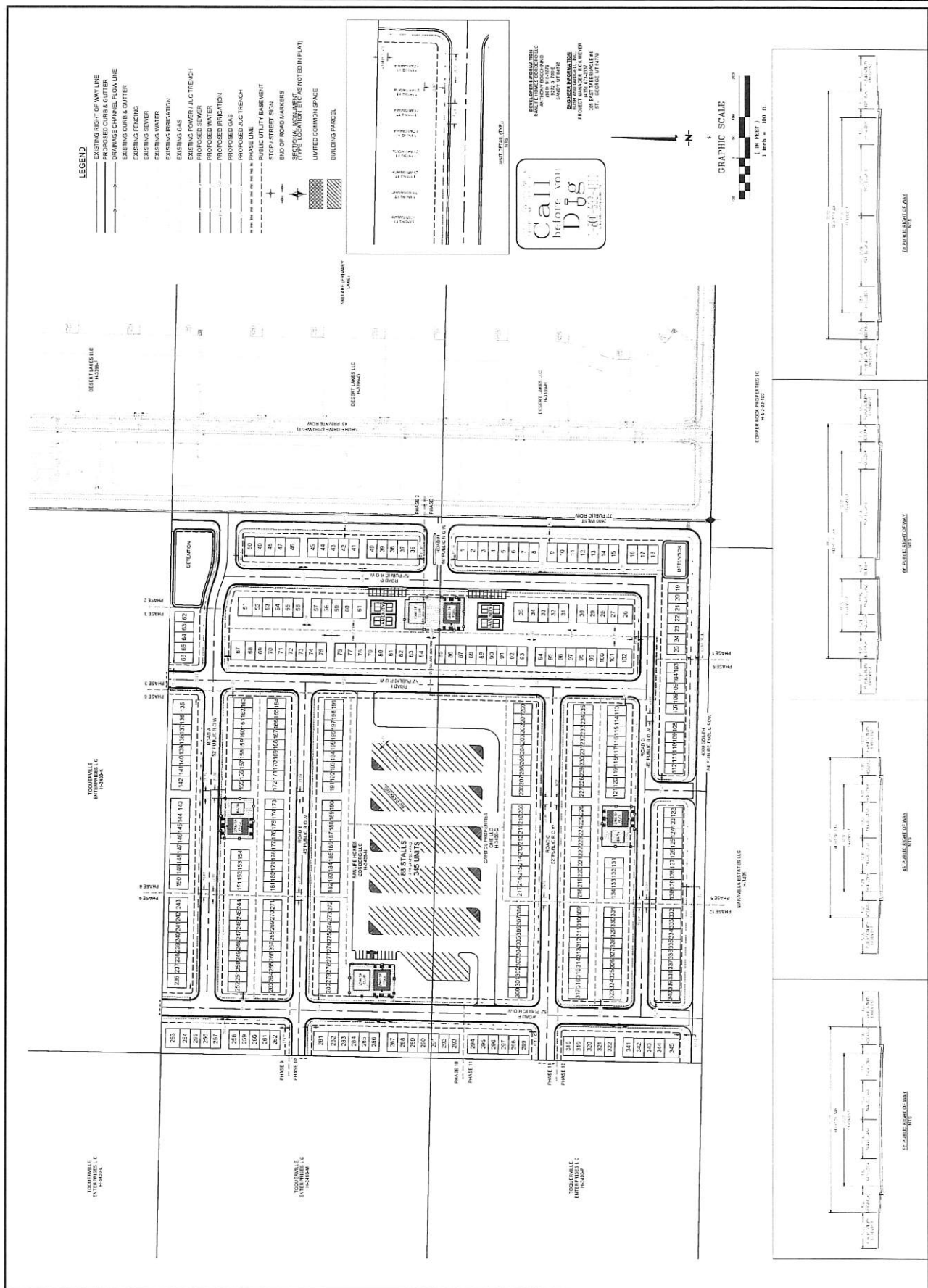
All of the North $\frac{1}{2}$ of the Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 29, Township 42 South, Range 13 West, of the Salt Lake Base and Meridian.

Parcel H-3400-O:

All of the South $\frac{1}{2}$ of the Southeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 29, Township 42 South, Range 13 West, of the Salt Lake Base and Meridian.

EXHIBIT B
Preliminary Plat:

BUSH & GUDGELL, INC.
Engineers - Planners - Surveyors
205 East Tabernacle Suite #4
St. George, Utah 84770
Phone (435) 673-2337 / Fax (435) 673-3161
www.bushandgudgell.com

[illegible]

PHASING EXHIBIT
SOUTHERN DUNES TOWNHOMES
 LOCATED IN HURRICANE, UTAH

BUSH & GUDGELL, INC.
 Engineers - Planners - Surveyors
 205 East Tabernacle Suite #4
 St. George, Utah 84770
 Phone (435) 673-2337 / Fax (435) 673-3161
 www.bushandgudgell.com



DESIGNER/PLANNER/ENGINEER
 PROFESSIONAL SEAL
 JAMES E. GUDGELL
 LICENSE NO. 171017
 EXPIRATION DATE 12/31/2018
 PROJECT NO. 171017
 DATE: OCT 2017
 ST. GEORGE, UTAH 84770

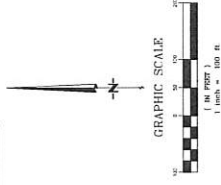


EXHIBIT C
Staff Report:



STAFF COMMENTS

Agenda Date:	2/2/2023
Application Number:	2022-PP-20 2022-PSP-38
Type of Application:	Preliminary Plat Application
Action Type:	Administrative
Applicant:	Southern Dunes Townhomes
Agent:	Bush & Gudgell, Inc
Request:	Approval of a Preliminary Plat and Site Plan
Location:	2600 W 4200 S
Zoning:	Recreation Resort
General Plan Map:	Planned Community

Planning Commission Recommendation

The Planning Commission recommended denial of the preliminary plat finding that there are inadequate facilities to serve the property.

Update 01/26/2023: The City Council voted on Jan 19, 2023 to allow this application to reapply for preliminary plat approval. This preliminary plat was denied due to insufficient water and power in the area as well as problems with layouts and amenities. The City Council's rationale was that by the time construction drawings were completed then power will be sufficient in the area. Staff and the applicant were able to work out all the concerns with regards to layouts, water, and amenities. Staff recommends that the Planning Commission read the report below and consider the standards of the city ordinances. Staff still has outstanding concerns with utilities, namely power, throughout the region and still recommend denial of this preliminary plat.

Previous Planning Commission Recommendation

2/2/2023

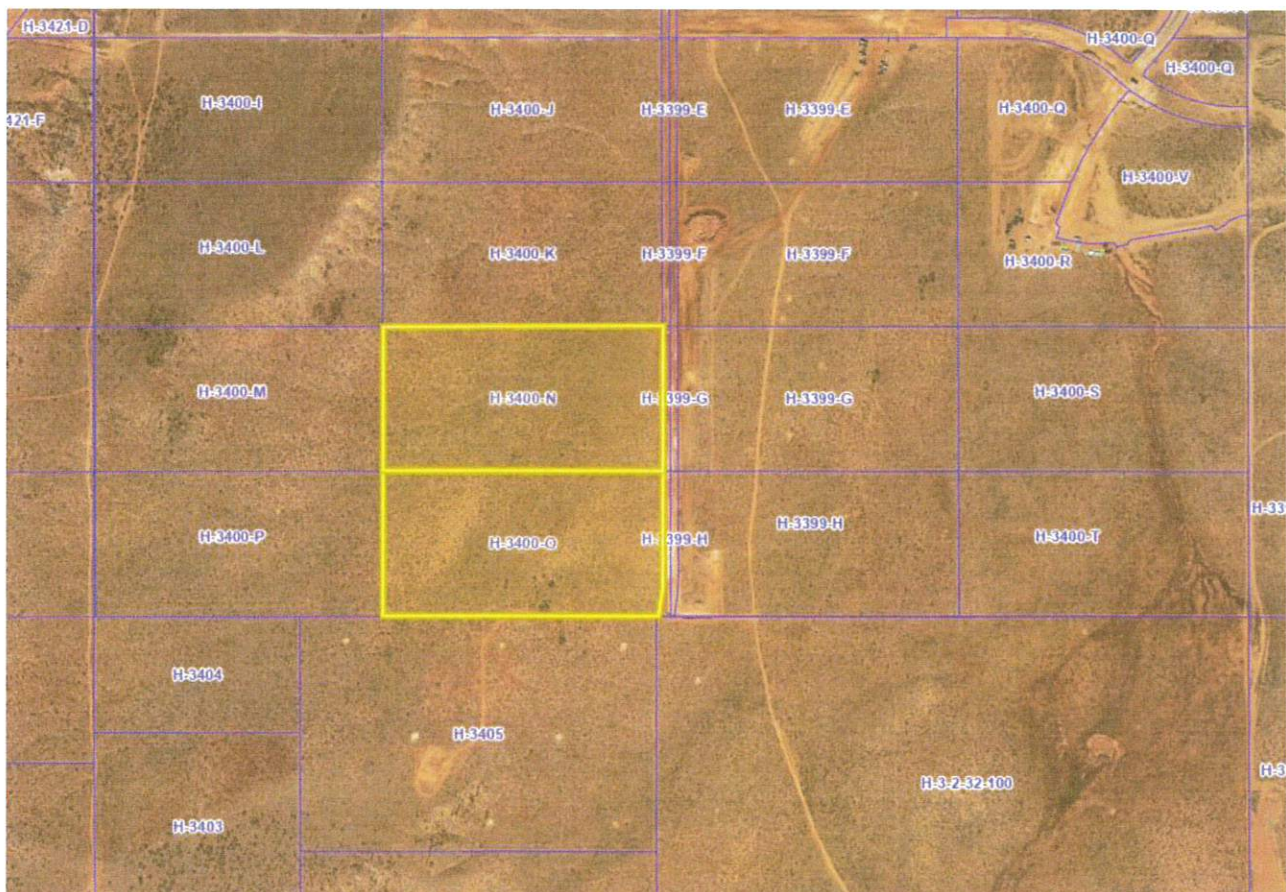
2022-PP-20
2022-PSP-38

The Planning Commission recommended denial of the application based on the limited amenities, block lengths, and limited availability of power and other utilities (see note from Power and Note 10 in the staff report). All voted in favor of the motion.

The Planning Commission's main concern about power was that they believed that there were too many factors to determine if and when power would become available. Though there is a plan the City is working on increasing power services to the area, there are unknowns about the date of when the service will be available. The applicant has turned in a water model and believes there will be adequate water services.

Several of the Planning Commissioners stated they believed that resorts should be held to the highest standards, and if there is any question about services or compliance, that they should be tabled or denied until all concerns could be resolved.

The applicant stated at the meeting they believed they could address all the comments, with the exception of power, but wished to move forward.



The applicant has filed a preliminary plat for Southern Dunes Townhomes within the Cordero development. The applicant is proposing 345 resort townhome units for a density of about 8.63 units per acre. The Cordero development, as approved in 2020 is split into three sections with different zonings: the west side is zoned Recreation Resort (Southern Dunes), the middle section is zoned R1-10 (Southern Shores) and the east side is zoned R1-6 (Cordero). A development agreement governs this development that limits the overall unit count to 700 units across all three sections. This preliminary plat will complete the preliminary plat process for the entire development. Utilities are still scarce throughout the region so any approval should be contingent on the developer being able to supply adequate services to the property.

JUC Comments

The following items will need to be addressed:

1. **Public Works:** Must dedicate and improve 2600 W. Must obtain full ROW for 2600 W and utilities.
2. **Power:** “At this time, the City’s power grid is inadequate to support all of the development planned in the area south of 2700 South Street. Although the Power Department has plans to expand and enhance its system to supply adequate power to this area, those plans are subject to funding limitations, the City’s acquisition of easements and rights-of-way, the availability of materials, and other limitations. Therefore, the Power Department cannot presently guarantee that it can provide power to all of the development planned in this area, which includes this proposed development.”
3. **Sewer:** No comments
4. **Street:** Do these units have garages? Driveways for parking? On street parking?
5. **Water:** Water model needed. Public or private streets? Private streets require ductile iron piping
6. **Engineering:** It appears this development is located in the FH110 subbasin of the Hurricane Storm Drain Master Plan and stormwater from this development will eventually drain to the open channel along 2100 W. The drainage study for this development should elaborate on how. Avoid block lengths greater than 800’ stub roadways accordingly. Verify corner lot driveways are out of sight distance triangles. 4300 S is a master-planned 84’ ROW with trails on the north and south sides. 2600 W is a master-planned 77’ ROW with a trail on the west side that will need to be dedicated at this time. For some reason the current ROW dedication for 2600 W shows a curve in the southeast corner of this development; the road needs to be straight through here.
7. **Fire:** Need second access and buildings to be sprinkled
8. **Cable:** Add Centurylink fiber optic notes for construction drawings
9. **Gas:** No comments.
10. **Water Conservancy:** No comments

Staff Comments: Preliminary Site Plan and Plat

1. Zoning is a Recreation Resort and meets the density requirements of that zone.
 - a. A “concept plan” that showed this area was submitted as part of the zone change that happened in 2020, before the requirements of the Recreation Resort zone were changed. Due to the fact that this previous plan was both substantially different than what is being proposed here and was not part of an official application this will be reviewed under HCC 10-26 as amended under Ordinance No. 2021-09

2. The development is partly governed by a development agreement which capped the total number of lots at 700 for the whole area. The development agreement required preliminary plats to list the number of lots that have been approved for the full Cordero development. This table is not provided. However, this plat plus the other approved preliminary plats add up to 691 units.
3. Staff would assume that all streets and alleyways not specifically marked “public” are private. This should be made more clear on the plat.
4. **Parking:** Per HCC 10-26-6: *“Within recreational resorts, an application shall provide two parking spaces per unit or one space per bedroom, whichever is higher. Tandem parking spaces are permitted only if approved as part of the preliminary site plan by the Planning Commission.”*
 - a. It appears from the site plan that the townhome units will have garages and driveways such to meet this code but this should be called out
 - b. RV/trailer spaces are also required at a rate of one space per five units. 69 spaces are required and approximately 130 are provided
 - c. On-street parking is shown on Road F and Road G. On-street parking is allowed in Recreation Resort zoning, however the code states, *“Parking areas shall be located 50 feet away from any intersection of public roadways.”* These parking spaces do not meet this standard
 - d. **Street Parking:** The applicant has proposed a few street parking spaces. These spaces are permitted with the following conditions.
 - i. They need to be spaced at least 50’ from the intersection.
 - ii. They are limited to 10 spaces for each section.
 - iii. Will need to be signed off by the City Engineer.
5. **Amenities:** Per HCC 10-26-4: two clubhouses with at least 2,000 sq ft of total nonoffice space and four pools of at least 2,000 sq ft are required. The proposed site plan shows two “amenity areas” and one pool. More details are required on the proposed amenities. The Planning Commission may approve consolidated amenities if it leads to a better amenity area. A Pool, club house and on-site management will need to be in place within the first phase of development. The development amenities requirements are listed below.

10-26-4 Development Standards

Number of units	Clubhouses required	Clubhouse size	Pools required	Pool size
300—499	2	At least 2,000 sq ft of total non office space	4	At least 2,000 sq ft

- a. The applicant has requested that the Planning Commission consider approving the pool areas. The applicant is providing a total of 8,810 sq. ft. of pool area of the needed 8,000 sq. ft. They are requesting instead of providing four large pool areas, to provide one large pool area, a large hot tub area, and providing 197 units with individual hottubs instead.
- b. The applicant has also included four pickleball courts in addition to the minimum requirements.
- c. The applicant has provided two location for two club house locations, each 1,400 sq. ft. This is short of the minimum requirement for two at 2,000 sq. ft. total of non office space.
- d. The applicant has requested alternative compliance. The Planning Commission may approve "(a)lternative compliance, such as splash pads, sports courts, and open space amenities may be considered by the Planning Commission to offset other amenities requirements." (10-26-4 Note 4)

6. Block lengths and connectivity:

Update: The applicant has provided extra connections to the adjacent properties as requested. There are still a couple of roadways internally that do not meet 800' length with full four way intersection. This map has been sent to engineering for their review.

Previous Notes on Block Lengths: Per Hurricane City Design Standards: "*When designing local road networks, block lengths without an intervening connector street shall not exceed eight hundred feet (800') in length unless previous approval has been obtained from the City Engineer. Cul-de-sacs are not considered an intervening connecting street.*" Several blocks do not meet this standard on one side or another.

Update: The applicant has provided extra connections to the adjacent properties as requested. There are still a couple of roadways internally that do not meet 800' length with full four way intersection.

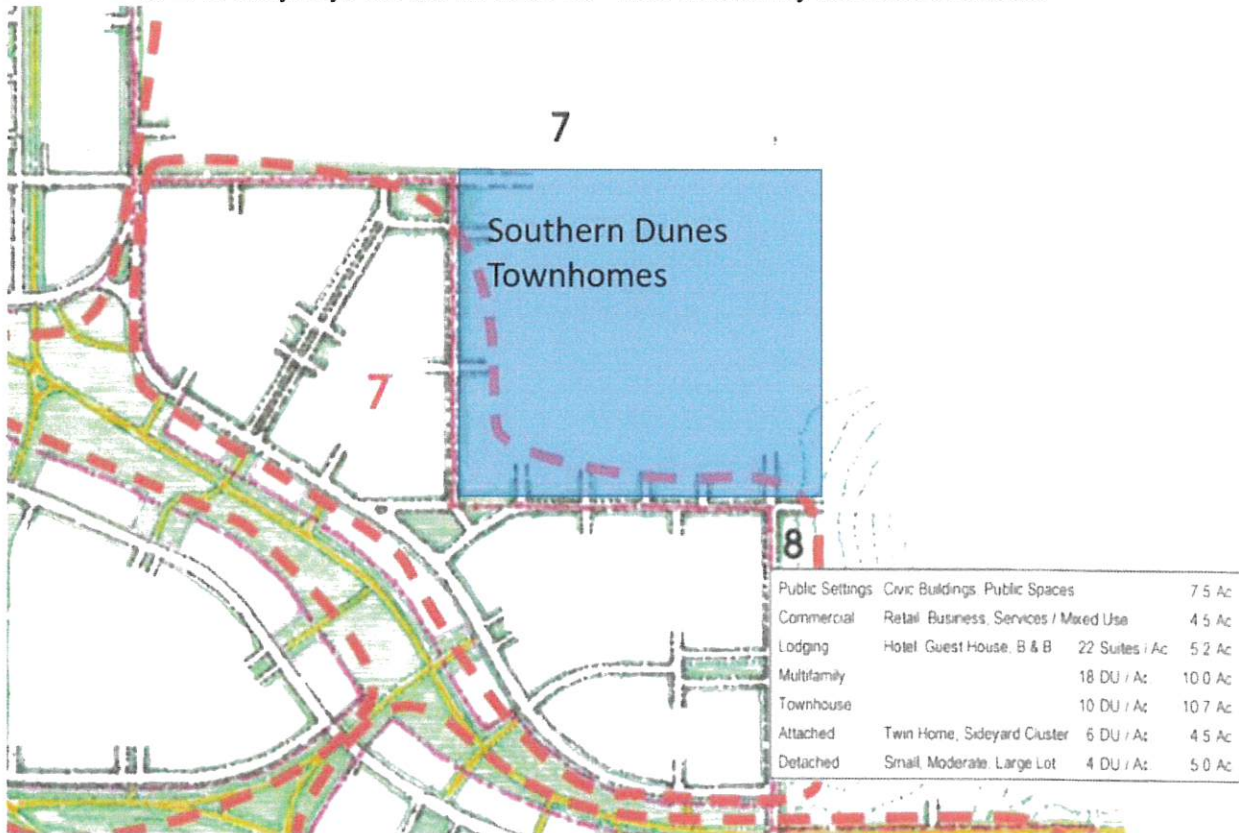
- a. This site plan appears to only show alleyway access to the property to the north and limited street access to the property to the west. The Preliminary Site Plan for Sand Hollow Mesa Neighborhoods 7 and 8 shows full street access to this property at approximately the points these alleyways are shown.
- b. The applicant should provide better connection to the surrounding property to
 - i. Cut down on block lengths
 - ii. Provide better transportation and utility connections with adjacent properties.
- c. Connecting Streets: Hurricane City Code states the following for connectivity within subdivisions:

Sec. 10-39-11. - Subdivision streets and fencing.

- A. *Relation to adjoining street systems.*
 - 1. *The arrangements of streets in new subdivisions shall make provision for the continuation of the existing streets to adjoining areas insofar as such may be deemed necessary by the Planning Commission for public requirements. New streets within subdivisions shall not preclude future access to adjoining properties.*
 - 2. *Standard residential streets shall approach the arterial or collector streets at an angle of not less than 80 degrees.*
 - 3. *Except as otherwise provided elsewhere in this Code, all subdivision streets and roadways shall be constructed and installed in accordance with the City roadway construction standards.*

A couple of recommendations would be to have Road B connect all the way through the project. Have Road F make a connection to the North. Have Road D connect to the west.

- d. All alleyways are shown to be 20' wide which may not meet fire code.



Southern Dunes Townhomes location superimposed on the approved Sand Hollow Mesa site plan

7. All park strips will need to be landscaped and have the proper improvements.
8. A will serve letter from the culinary and sanitary water providers has been provided
9. A note indicating whether or not the property is in a tortoise take area has not been provided
10. Hurricane City Code states: "Land shall be developed only where existing infrastructure is in place or will be timely provided to service proposed development" (Hurricane City Code 10-37-4). The adequacy of public facilities to support the proposed development is in question. The Power Department has stated that the City's power grid is inadequate to support all of the development planned in this area. See JUC comments regarding the limited capacity to supply power to this area. Also, developments adjacent to this proposed development have been unable to meet the water pressure requirements of the Fire Code, so the development nearby has been required to put sprinklers in all units to satisfy the Fire Code. Whether this proposed additional development will be able to meet the Fire Code is uncertain at this point. "A proposed development **shall not be approved** if demand for public facility will exceed adopted level of service standards unless public facility improvements, reasonably calculated to raise service

levels to adopted level of service standards, will be available to serve the development.” HCC 9-6-3(B) (emphasis added). “The City may require an analysis to be completed to determine whether adequate public facilities are available to service a development and whether such development will change existing levels of service or will create a demand which exceeds acceptable levels of service for roadways, intersections, bridges, storm drainage facilities, water lines, water pressure, sewer lines, fire and emergency response times, and other similar public services.” HCC 10-37-4. “The City may disapprove a proposed development if demand for public services exceeds accepted levels of service.” HCC 10-37-4. The Planning Commission and City Council should carefully consider whether the infrastructure and public facilities necessary to support this proposed development satisfy the requirements of the Code as explained in this section. If not enough information is available for the Commission or Council to make a finding regarding the adequacy of public facilities, then more information or analysis should be requested from the applicant or City staff, as applicable, before acting on the application.

LEGAL COMMENTS ON APPLICATION

Applying the Ordinances:

The approval or denial of a preliminary plat application is an administrative decision in which the City's ordinances are applied to the application, so the City's ordinances should dictate whether a preliminary plat application is approved or denied. There are two City ordinances that are relevant to this application: Hurricane City Code ("HCC") sections 9-6-3 and 10-37-4.

HCC section 10-37-4 states that: "Land shall be developed only where existing infrastructure is in place or will be timely provided to service proposed development. ... The City may disapprove a proposed development if demand for public services exceeds accepted levels of service. No subsequent approval of such development shall be given until either the developer or the City installs improvements calculated to raise service levels to the standard adopted by the City."

HCC section 9-6-3 states that: "Land shall be developed only where public facilities are in place or will be timely provided to serve proposed development at a level of service which meets the City's adopted level of service standards. ... A proposed development shall not be approved if demand for a public facility will exceed adopted level of service standards unless public facility improvements, reasonably calculated to raise service levels to adopted level of service standards, will be available to serve the development.

When considering an application for development in an area where City staff have found that public facilities are inadequate to serve the development at the established level of service, the question for the Planning Commission and City Council is whether the necessary public facilities "will be timely provided" to serve the development at adopted levels of service. If the City Council cannot find (determine) that the necessary public facilities "will be timely provided" to provide for the new development, then the City's ordinances require that the development be denied.

Basis and Support for Decision:

An approval or denial of a preliminary plat application needs to be supported by evidence in the record. City staff's recommendation of denial is based on the following evidence: (1) a report prepared by Intermountain Consumer Professional Engineers, Inc., together with the Power Department's analysis, concluding that "addition of load without improvements is not recommended as voltage will be further reduced and existing customers will experience substandard voltage levels"; (2) a Limited Distribution Capacity analysis for water service levels in the area prepared by Alpha Engineering; and (3) the uncertainty and unknown timeline as to when power and water infrastructure will be installed to raise service levels to acceptable standards. If the Planning Commission or City Council finds (determines) that the necessary public facilities "will be timely provided" to address the inadequate facilities, that finding needs to be supported by evidence in the record.

Understanding the Process:

After a preliminary plat is approved by the City Council, the development typically never returns to the Council for further approval. After preliminary plat approval, the next phase is the preparation of detailed construction drawings, which are reviewed and approved by members of the city's Joint Utility Committee. After construction drawings are approved and a final plat application is filed with staff, the developer is permitted to move forward with actual construction of the development. The recording of a final plat is the final step and is approved by the City Engineer, the Mayor, and the City Attorney. If a development that lacks adequate public facilities is approved at the preliminary plat stage, then it leaves members of staff to determine whether construction drawings should be approved to allow the development to begin construction. When reviewing construction drawings, members of staff are also constrained by the requirements of HCC sections 9-6-3 and 10-37-4. Therefore, it would be ideal if the City Council and staff were aligned on when development with inadequate public facilities should be permitted to proceed. If a proposed development cannot be approved pursuant to City ordinances, the City Council would be the preferred body to make that determination—instead of letting it fall to individual utility departments and staff members.

Policy Behind the Ordinances:

The adequacy of public facilities is a factor at every phase of development, beginning with zone change applications. A key policy driving this approach is to avoid a situation where a developer believes that a development is entitled to proceed, but the City is unable to provide the necessary services to the development without jeopardizing service to existing residents. Also, developers invest additional funds into a project at each phase of development. Therefore, the further along that the City allows development to occur without adequate public facilities, the larger the potential legal claim against the City if the developer ultimately cannot connect to the City's utility systems for lack of capacity. If the City Council determines that the necessary public facilities are not currently available but "will be timely provided" to serve the development, the City Council should only approve the preliminary plat on

the condition that the owner execute a development agreement limiting the developer's rights and outlining the procedure for handling the project, all in a form approved by the City Attorney.

Recommendation: Staff recommends the City Council review this application based on standards with Hurricane City Code. Staff would recommend the City Council take into consideration the recommendation by the Planning Commission and items within this report. Though the applicant can likely address most comments within this report, adequate power is outside the control of the applicant. Staff would recommend the City Council discuss if they believe if "existing infrastructure is in place or will be timely provided to service proposed development".

Staff recommends denial of the proposed development finding that there is inadequate facilities.

ACKNOWLEDGEMENT OF WATER SUPPLY

I/We, RANLIFE HOMES CONDENS LLC am/are the applicant(s) of the application known as _____ located on parcel(s) _____ within the City of Hurricane, Washington County, Utah.

By my/our signature(s) below I/we do hereby acknowledge and agree to the following:

1. Neither acceptance nor approval of a development application by Hurricane City shall constitute a guarantee that sufficient water will be available to serve the zone designation, project, or permit for which this application is being submitted; and
2. Prior to receiving final approval for the application, the applicant may be required by Hurricane City to provide a guarantee of water availability which verifies that there is a sufficient water supply; and
3. For any application which may be approved without a guarantee of water availability, the applicant knowingly assumes the entire risk of water availability for the project and/or application; and
4. I/we waive any and all claims against Hurricane City that are in any way related to water availability for any project, permit, or use for which the land use application has been approved.

Dated this 29th day of July, 2022.

Applicant Name: RANLIFE HOMES CONDENS LLC

Name of Signer (if different from Applicant Name): BUTTON SHARP

Title of Signer: PRESIDENT

Signature: [Handwritten Signature]

STATE OF Utah)

COUNTY OF Salt Lake)

On the 29th day of July, 2022, personally appeared before me Laurie Lund the signer of the above instrument, who duly acknowledged to me that he/she executed the same in the capacity indicated on behalf of the Applicant.

Notary Public: [Handwritten Signature]

My Commission Expires: 2-12-2024



All signatures to this Acknowledgment, other than for Applicants signing in an individual capacity, shall be accompanied by documentation acceptable to the City attesting to the fact that the signer hereof is authorized to execute the Acknowledgment on behalf of the Applicant (e.g. a copy of a corporate resolution, copy of a partnership agreement, etc.). (Ord. No. 2022-37, 6-16-2022)

AFFIDAVIT

PROPERTY OWNER

STATE OF UTAH)

COUNTY OF Salt Lake

:SS

I (we), RANLIFE HOMES CORP LLC, being duly sworn, depose and say that I (we) am (are) the owner(s) of the property identified in the attached application and that the statements herein contained and the information provided identified in the attached plans and other exhibits are in all respects true and correct to the best of my (our) knowledge. I (we) also acknowledge that I have received written instructions regarding the process for which I am applying and the Hurricane City Planning staff have indicated they are available to assist me in making this application.

Bertton Sharp
(Property Owner)

(Property Owner)

Subscribed and sworn to me this 29th day of July 2022

Laurie Lund
(Notary Public)

Residing in: Salt Lake

My Commission Expires: 2-12-2024



Agent Authorization

I (we), RANLIFE HOMES CORP LLC, the owner(s) of the real property described in the attached application, do authorize as my (our) agent(s) Dustin Johnson, Inc. to represent me (us) regarding the attached application and to appear on my (our) behalf before any administrative or legislative body in the City considering this application and to act in all respects as our agent in matters pertaining to the attached application.

Bertton Sharp
(Property Owner)

(Property Owner)

Subscribed and sworn to me this 29th day of July 2022

Laurie Lund
(Notary Public)

Residing in: Salt Lake

My Commission Expires: 2-12-2024

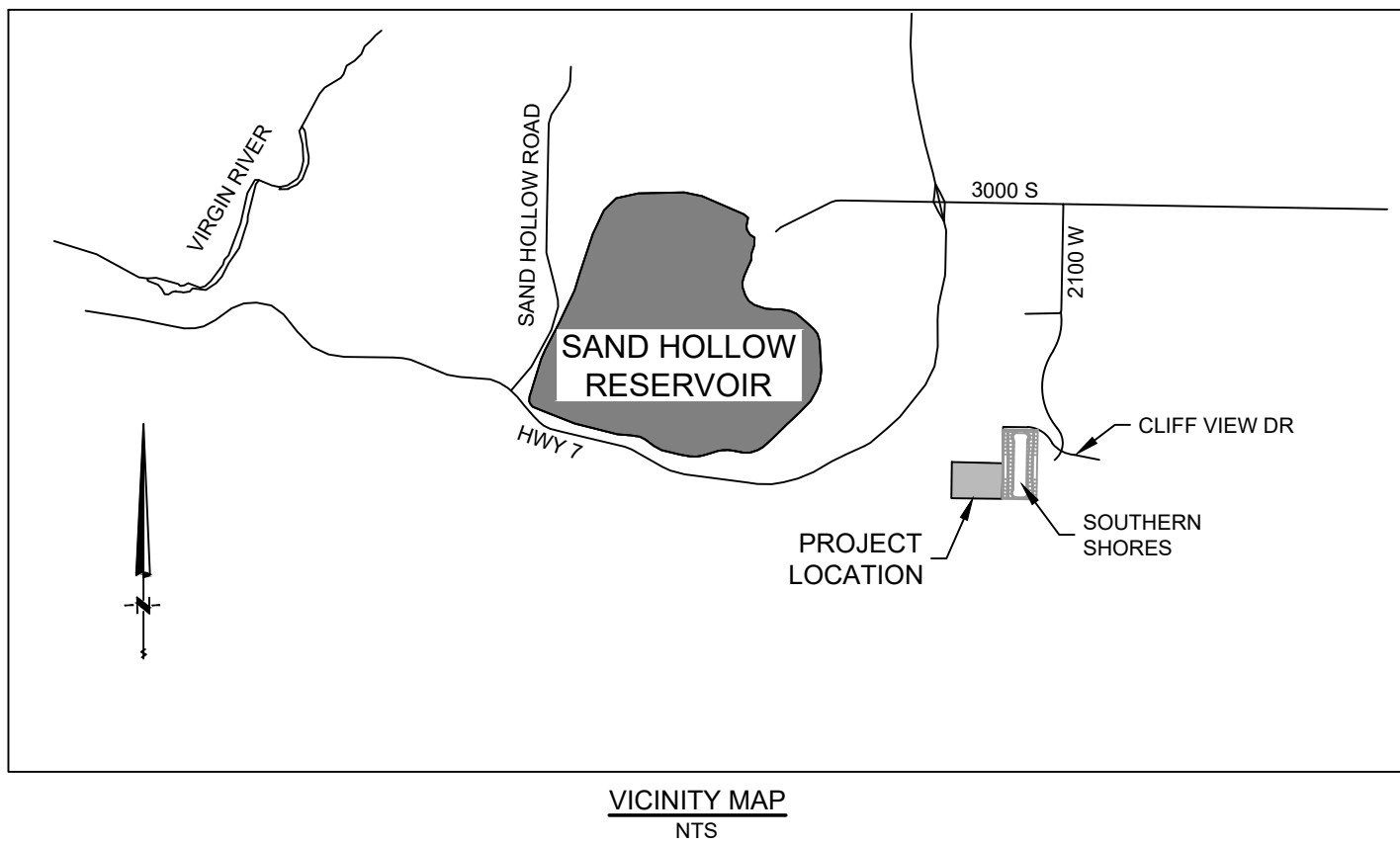


B&G PROJECT NUMBER 221077

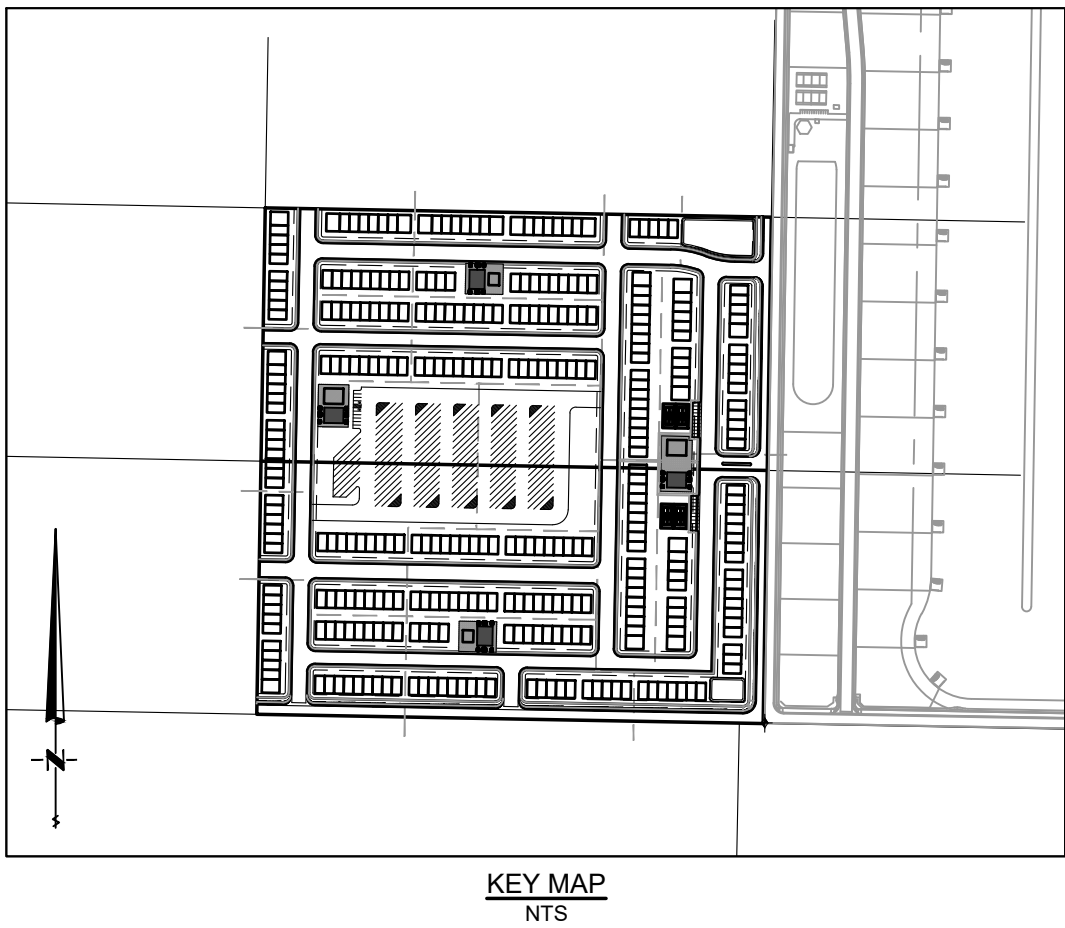
SOUTHERN DUNES TOWNHOMES

PRELIMINARY PLAT LOCATED IN HURRICANE, UTAH

SOUTHEAST 1/4 OF SOUTHWEST 1/4 OF SECTION 29 ,
TOWNSHIP 42 SOUTH, RANGE 13 WEST, SALT LAKE BASE AND MERIDIAN
PARCELS H-3400-N & H-3400-O



SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SITE AND UTILITY PLAN
3	OFFSITE UTILITY PLAN
4	GRADING PLAN
5	PHASING EXHIBIT



GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM WITH THE CURRENT EDITION OF HURRICANE CITY STANDARDS FOR DESIGN AND CONSTRUCTION, TOGETHER WITH HURRICANE CITY STANDARD DRAWINGS. ANY CONFLICT BETWEEN THESE PLANS AND HURRICANE CITY STANDARDS SHALL BE RESOLVED IN FAVOR OF HURRICANE CITY STANDARDS.
- ALL WORK SHALL BE SUPERVISED BY A PROPERLY LICENSED AND QUALIFIED GENERAL CONTRACTOR.
- CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND MUST BE AUTHORIZED UNDER THE UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES). OWNERS AND GENERAL CONTRACTORS ARE REQUIRED TO OBTAIN A STORM WATER PERMIT FROM THE STATE OF UTAH.
- THE CONTRACTOR/OWNER SHALL PROVIDE ADEQUATE RESOURCES TO CONTROL DUST ON THE SITE AND TRACKING OF MUD FROM THE SITE. DUST COMPLAINTS WILL RESULT IN SUSPENSION OF WORK UNTIL THE PROBLEM IS CORRECTED. TRACKING OF MUD ONTO ADJACENT STREETS SHALL BE MINIMIZED AND CLEANED UP DAILY.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE MUST-CALL MANDATORY INSPECTION LIST PROVIDED BY THE PUBLIC WORKS DEPARTMENT AND TO ARRANGE FOR MATERIAL TESTING AT THE STANDARD INTERVALS AND QUANTITIES REQUIRED AND PROVIDE DOCUMENTATION OF TEST RESULTS.
- PROOFS FOR STREET SIGNS SHALL BE SUBMITTED TO THE GIS COORDINATOR PRIOR TO ORDERING OF SIGNS.
- WORK IN THE PUBLIC WAY REQUIRES AN ENCROACHMENT PERMIT ISSUED BY HURRICANE CITY PUBLIC WORKS.
- A CITY-APPROVED TRAFFIC CONTROL PLAN MUST BE IN PLACE PRIOR TO COMMENCING ANY WORK THAT AFFECTS THE TRAVELLING PUBLIC.
- NO WORK SHALL COMMENCE UNTIL A NOTICE-TO-PROCEED HAS BEEN ISSUED BY HURRICANE CITY PUBLIC WORKS.

DEVELOPER INFORMATION
RANLIFE HOMES CORDERO LLC
ANTHONY BOCCHINNO
(801) 918-1779
9272 S. 700 E
SANDY, UT 84070

ENGINEER INFORMATION
BUSH AND GUDGELL, INC.
PROJECT MANAGER: RICK MEYER
(435) 673-2337
205 EAST TABERNACLE #4
ST. GEORGE, UT 84770

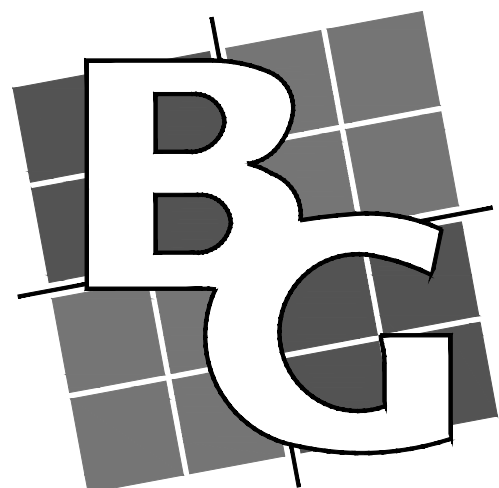
PROJECT INFORMATION	
ZONING	RR
LAND USE	PLANNED COMMUNITY
TOTAL AREA	39.97 ACRES
TOTAL UNITS	344
DENSITY	8.61 D.U./ ACRE

OCTOBER 2022

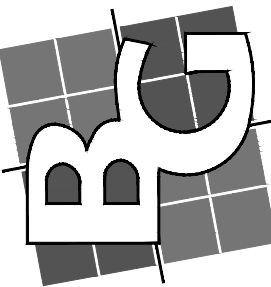
BUSH & GUDGELL, INC.

Engineers - Planners - Surveyors

205 East Tabernacle #4
St. George, Utah 84770
Phone (435) 673-2337



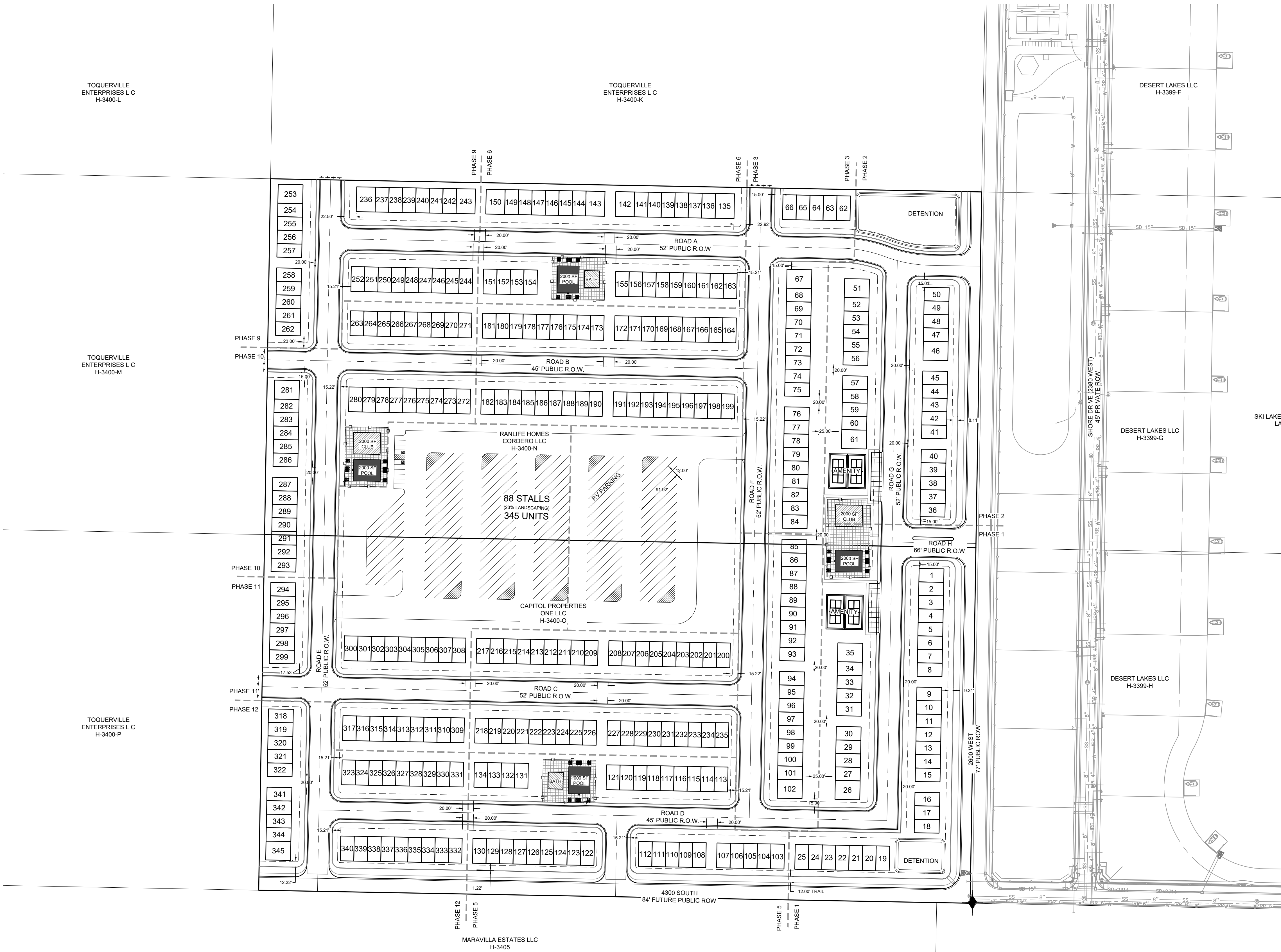
BUSH & GUDGELL, INC.
Engineers - Planners - Surveyors
205 East Tabernacle Suite #4
St. George, Utah 84770
Phone (435) 673-2337 / Fax (435) 673-3161
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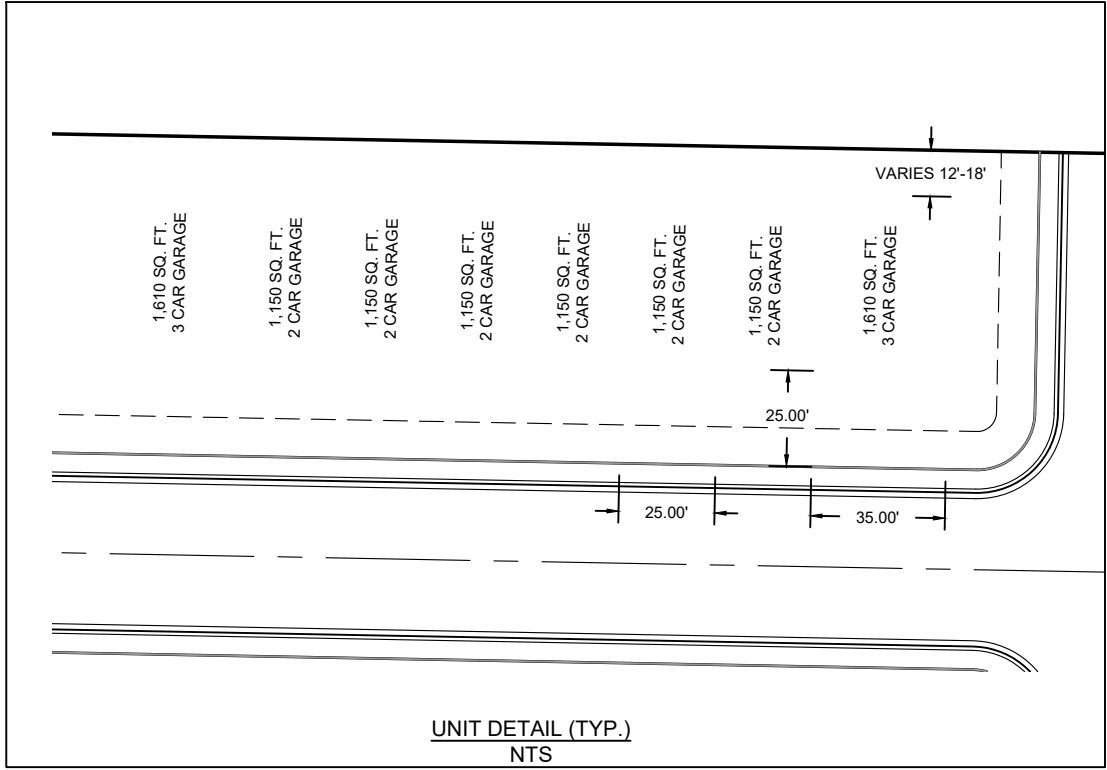
DATE: OCT 2022
DRAWN: CBW/CCL
APPROVED: WEM
SCALE: NTS
JOB NO. 221077

COVER SHEET
SOUTHERN DUNES TOWNHOMES
LOCATED IN HURRICANE, UTAH

SHEET 1 OF 5 SHEETS
FILE: 221077-PRELIMINARY PLAT



- LEGEND**
- EXISTING RIGHT OF WAY LINE
 - PROPOSED CURB & GUTTER
 - DRAINAGE CHANNEL FLOW LINE
 - EXISTING CURB & GUTTER
 - EXISTING FENCING
 - EXISTING SEWER
 - EXISTING WATER
 - EXISTING IRRIGATION
 - EXISTING GAS
 - EXISTING POWER / JUC TRENCH
 - PROPOSED SEWER
 - PROPOSED WATER
 - PROPOSED IRRIGATION
 - PROPOSED GAS
 - PROPOSED JUC TRENCH
 - PHASE LINE
 - PUBLIC UTILITY EASEMENT
 - STOP / STREET SIGN
 - END OF ROAD MARKERS
 - SECTIONAL MONUMENT (TYPE, LOCATION, ETC AS NOTED IN PLAT)
 - LIMITED COMMON SPACE
 - BUILDING PARCEL



AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.

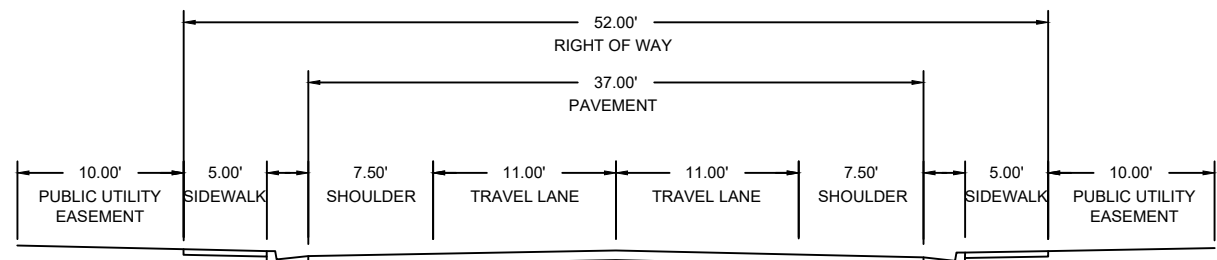
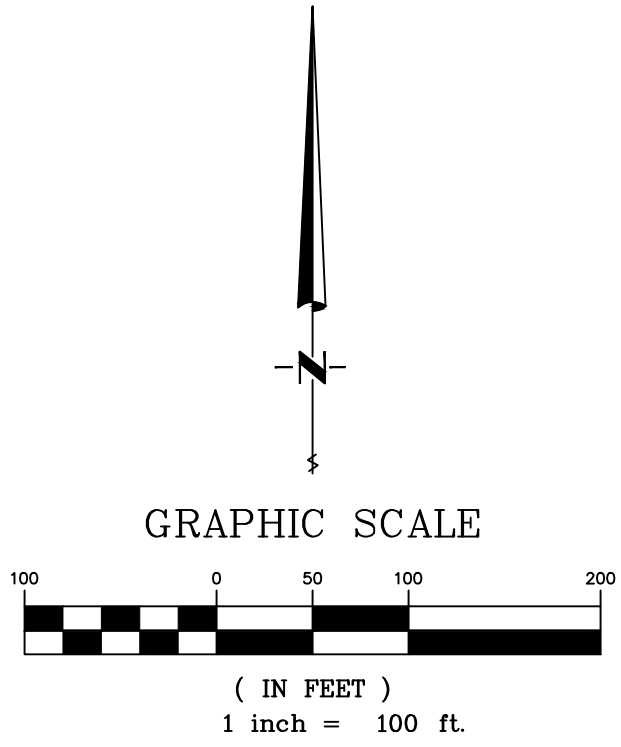
Call before you Dig

1-800-662-4111

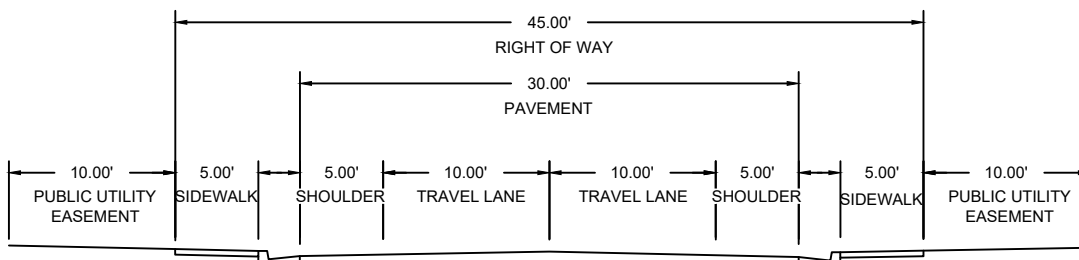
8-16-10 (08/01/2010) (08/01/2010)

DEVELOPER INFORMATION
RANLIFE HOMES CORDERO LLC
ANTHONY BOCCINNO
(801) 918-1773
9272 S. 700 E.
SANDY, UT 84070

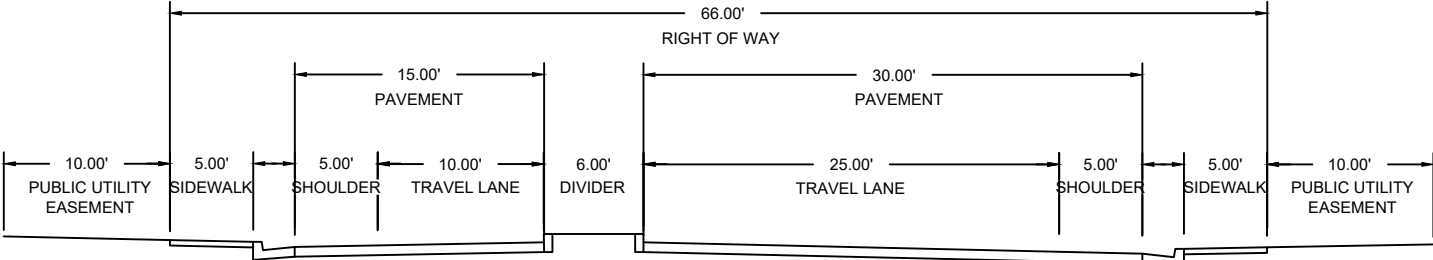
ENGINEER INFORMATION
BUSH AND GUDGELL, INC.
PROJECT MANAGER: RICK MEYER
(435) 673-2337
205 EAST TABERNACLE #4
ST. GEORGE, UT 84770



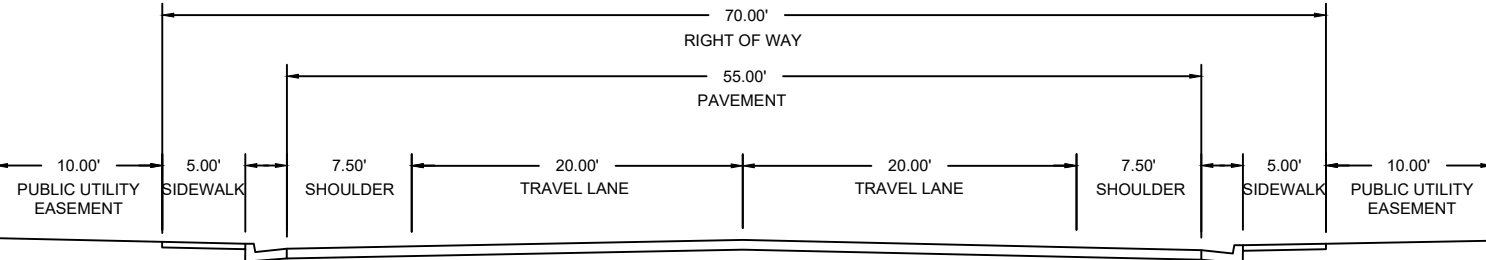
52' PUBLIC RIGHT OF WAY
NTS



45' PUBLIC RIGHT OF WAY
NTS

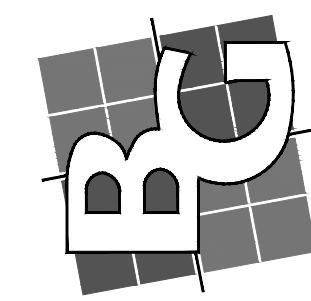


66' PUBLIC RIGHT OF WAY
NTS



70' PUBLIC RIGHT OF WAY
NTS

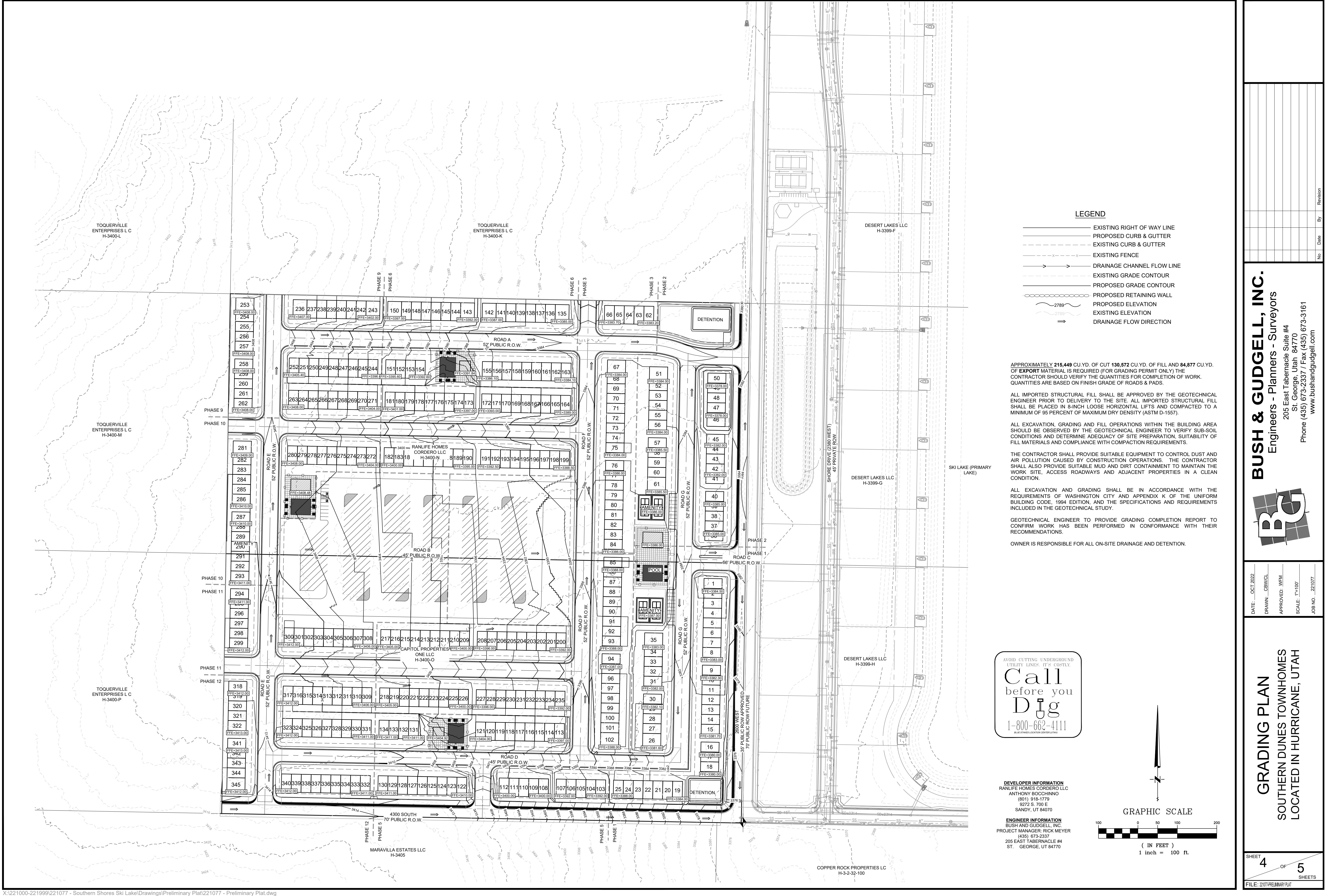
BUSH & GUDGELL, INC.
Engineers - Planners - Surveyors
205 East Tabernacle Suite #4
St. George, Utah 84770
Phone (435) 673-2337 / Fax (435) 673-3161
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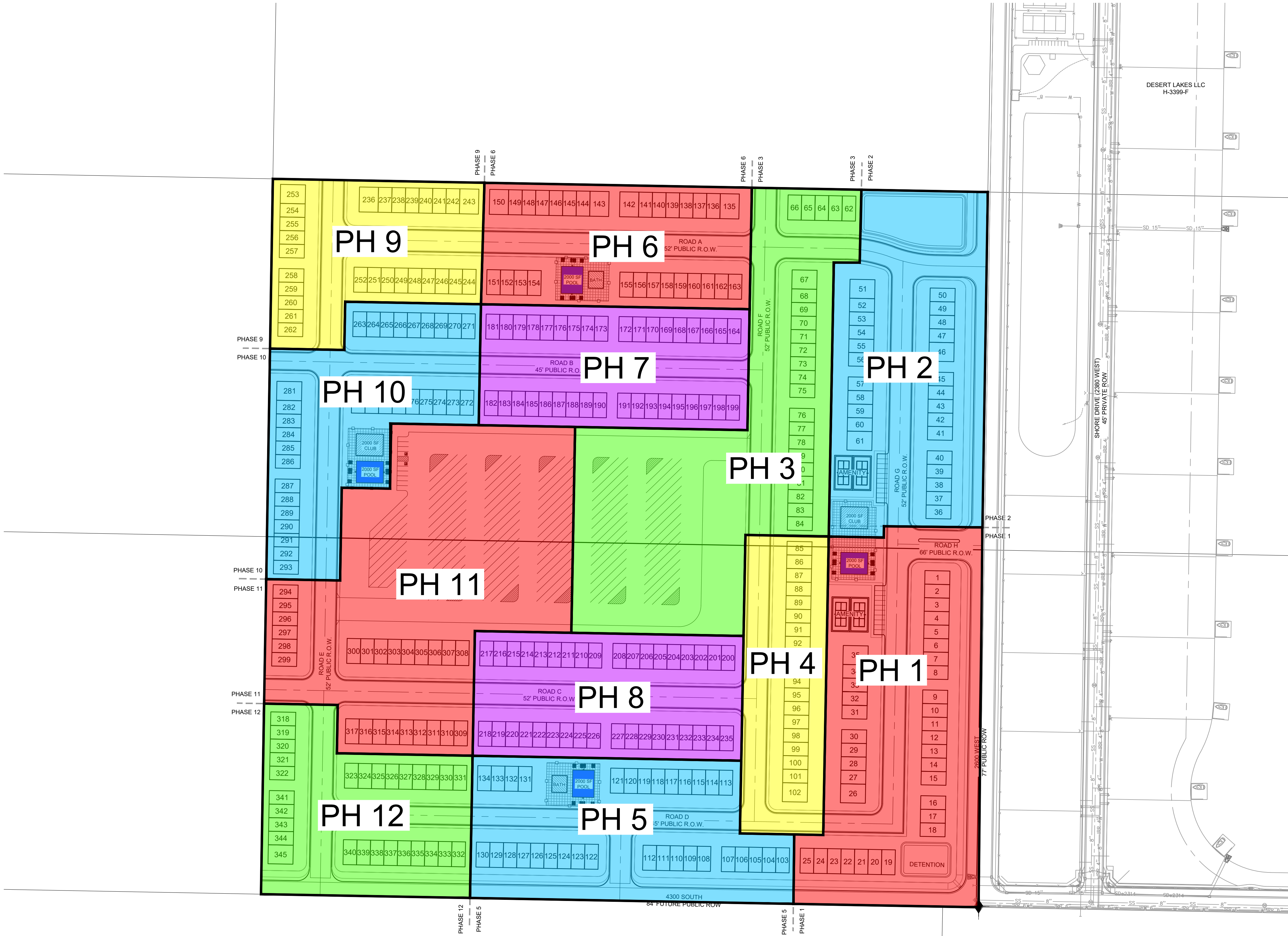


DATE: OCT 2022
DRAWN: CBW/C
APPROVED: WFM
SCALE: 1"=100'
JOB NO. 221077

SITE & UTILITY PLAN
SOUTHERN DUNES TOWNHOMES
LOCATED IN HURRICANE, UTAH

SHEET 2 OF 5 SHEETS
FILE: 221077.PRELIMINARY.PLT

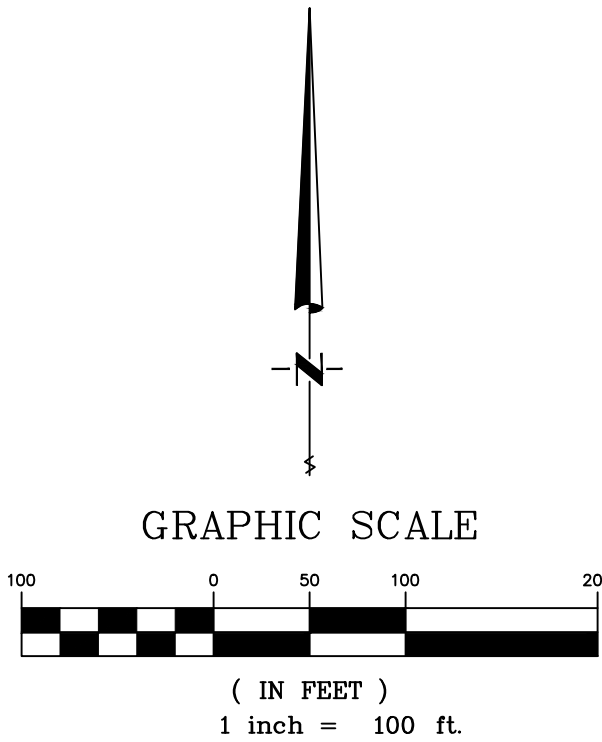




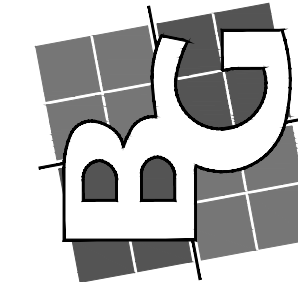
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call
before you
Dig
1-800-662-4111
ALWAYS CHECK LOCAL OR STATE RECORDS

DEVELOPER INFORMATION
RANLIFE HOMES CORDERO LLC
ANTHONY BOCCHINO
(801) 919-1779
9272 S. 700 E
SANDY, UT 84070

ENGINEER INFORMATION
BUSH AND GUDGELL, INC.
PROJECT MANAGER: RICK MEYER
(435) 673-2337
205 EAST TABERNACLE #4
ST. GEORGE, UT 84770



BUSH & GUDGELL, INC.
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205 East Tabernacle Suite #4
St. George, Utah 84770
Phone (435) 673-2337 / Fax (435) 673-3161
www.bushandgudgell.com



DATE: OCT 2022
DRAWN: CBW/CCL
APPROVED: WFM
SCALE: 1"=100'
JOB NO. 221077

PHASING EXHIBIT
SOUTHERN DUNES TOWNHOMES
LOCATED IN HURRICANE, UTAH

SHEET 5 OF 5 SHEETS
FILE: 221077.PRELIMINARY.PLT

Addendum to Hurricane Circuit CW101 Analysis Report

In the "Hurricane Circuit CW101 Analysis Report" it was stated:

Load Flow Analysis

Circuit CW-101 was studied using real time regulator load data and through computer modeling using SKM software. Study shows that the existing circuit does not have overloading conditions but is voltage limited. It was determined that:

- 1. Areas of the existing circuit does experience voltage drop below Level of Service criteria under peak loading.*
- 2. Addition of load without improvements is not recommended as voltage will be further reduced and existing customers will experience substandard voltage levels.*

Potential short term solutions for some load addition would be:

- 1. Optimize voltage regulator bank position.*
- 2. Add another in line regulator bank.*
- 3. Add capacitor banks to maintain a high power factor during peak loading.*
- 4. If possible, move existing load to another circuit to allow new load.*

Additional work is needed to determine potential loading with equipment addition and or load transfer; noting the limitations of the existing Bench Lake regulators (1.9 MVA margin) and line conductors.

Subsequent to report issuance, ICPE was requested to study potential short term solutions to maximize load addition to the southern end of the circuit. This addendum provides finding of the additional study.

As a part of the study ICPE was directed to study transferring approximately 1.5 MW from circuit CW101 to other circuits. Transferred load include loads along 600N, loads east of 700 West, and some loads off 2500 South and 700 west.

Studies included:

1. Determining possible load addition at the southern end of the circuit with only the 1.5 MW load transfers.
2. Determining possible load addition with load transfer and relocation of the Bench Lake regulators in the Northward direction.
3. Determine possible load addition with a new regulator bank and with the Bench Lake regulators.
4. Study optimizing regulator bank(s) locations.
5. Studying the effect of capacitor banks added for power factor correction.

For the studies voltage was allowed to drop to 0.97 pu at circuit end points. Studies indicate that maximum power transfer is possible with:

1. The addition of a regulator bank in the vicinity of 1300 South and 950 West (with no load between the substation and regulator bank).
2. Add a second regulator bank southward (approx. ½ mile) of the existing Bench Lake regulator bank. (The existing Bench Lake regulators would need to be removed and with a larger bank installed in the southward location)
3. Install capacitor banks as needed and in optimal locations to main a high power factor on the circuit.
4. Maintain a balanced circuit.

With improvements as indicated loading on circuit CW101 can go to approximately 4.8 MW with approximately 4.2 MW's flowing southward of 2050 south. The 4.2 MW flow represents 2.3 MW over existing loads south of the Bench Lake regulators. Under indicated loading voltage at the unregulated (source side) bus of the 1300 South regulator bank falls to 0.95 pu.

Some incremental load addition (600 kW) may be obtained by reconductoring the 1/0 circuit section between approximately 2100 South and 3000 south and with the regulator bank bench lake regulator bank upsized and located southward 1mile, verses 0.5 mile, from the existing site.

Removal of the existing Bench Lake regulator bank with a new down line replacement bank should be delayed until needed allowing to monitor load growth patterns.

It is noted that actual allowable load addition will be influenced by actual grow patterns.

For review select load flow studies and results are tabulated and results for various configurations.

All cases with approx 1.5MVA moved to other circuits from 2021 Loading

Hurricane City - Clifton Wilson CW101 Circuit Load Flow Results ---															
Study No.	Case Description	Power Flow	CW-Regs (600 North)	Bus-004 (1300 South)	Bus-009 (2050 South)	Bench Lake Non Reg Bus-011	Bench Lake Reg Bus-012	Bus-014 (3000 South)	Bus-017 (2100 West)	Bus-018 (1100 West) RMP TAP	Bus-020 (3800 S)	Bus-022 (4370 S) So. end skypark	Bus-033 -- New Development pumps		
1	2021 loading with loads relocated to other circuits and aprox 500KW added below BL reg's Capacitor Addition: none	@CW MVA 2.637; MW 2.157; MVAR .788 @ BL REGS MVA 2.277; MW 2.161; MVAR .717.3 CW P.F: .95	Volt: 12,579 Vpu: 1.008	Volt: 12,243 Vpu: 0.982	Volt: 12,186 Vpu: 0.977	Volt: 12,099 Vpu: 0.97	Volt: 12,675 Vpu: 1.016	Volt: 12,499 Vpu: 1.002	Volt: 12,426 Vpu: 0.997	Volt: 12,488 Vpu: 1.001	Volt: 12,486 Vpu: 1.001	Volt: 12,322 Vpu: 0.981	Volt: 12,390 Vpu: 0.994		

All cases with approx 1.5MVA moved to other circuits from 2021 loading

Hurricane City - Clifton Wilson CW101 Circuit Load Flow Results ---- with BL Regulators Removed and NEW Regulator at approx. 1300 So and 950 West															
Study No.	Case Description	Power Flow	CW-Regs (600 North)	1300 So 950West non Reg bus	1300 So 950 West Reg bus	Bus-004 (1300 South)	Bus-009 (2050 South)	-	Bus-012	Bus-014 (3000 South)	Bus-017 (2100 West)	Bus-018 (1100 West) RMP TAP	Bus-020 (3800 S)	Bus-022 (4370 S) So. end skypark	Bus-033 -- New Development pumps
4	No BL Regs -- Regs at 1300 So and pump load at end of circuit -- Addition: none	@CW MVA 2.820; MW 2.674; MVAR .896 CW PF: .95	Volt: 12,570 Vpu: 1.008	Volt: 12,260 Vpu: 0.983	Volt: 12,668 Vpu: 1.016	Volt: 12,617 Vpu: 1.012	Volt: 12,559 Vpu: 1.007		Volt: 12,470 Vpu: 1	Volt: 12,277 Vpu: 0.985	Volt: 12,189 Vpu: 0.977	Volt: 12,265 Vpu: 0.984	Volt: 12,263 Vpu: 0.983	Volt: 12,096 Vpu: 0.97	Volt: 12,153 Vpu: 0.975
4A	No BL Regs -- Regs at 1300 So and pump load at end of circuit removed. Addition: 450 kvar	@CW MVA 3.06; MW 3.025; MVAR .460 CW PF: .99	Volt: 12,577 Vpu: 1.009	Volt:12,307 Vpu: 0.987	Volt: 12,651 Vpu: 1.015	Volt: 12,608 Vpu: 1.011	Volt: 12,553 Vpu: 1.006		Volt: 12,464 Vpu: 0.995	Volt: 12,272 Vpu: 0.984	Volt: 12,172 Vpu: 0.976	Volt: 12,263 Vpu: 0.9864	Volt: 12,262 Vpu: 0.983	Volt: 12,097 Vpu: 0.97	Volt: - NA Vpu: - NA

All cases with approx 1.5MVA moved to other circuits from 2021 loading

Hurricane City - Clifton Wilson CW101 Circuit Load Flow Results -- With BL Regulators and NEW Regulators at 1300 south and 950 west															
Study No.	Case Description	Power Flow	CW-Regs (600 North)	1300 So 950West non Reg bus	1300 So 950 West Reg bus	Bus-004 (1300 South)	Bus-009 (2050 South)	Bench Lake Non Reg Bus-011	Bench Lake Reg Bus-012	Bus-014 (3000 South)	Bus-017 (2100 West)	Bus-018 (1100 West) RMP TAP	Bus-020 (3800 S)	Bus-022 (4370 S) So. end skypark	Bus-033 -- New Development pumps
7	BL Regs & Regs at 1300 So and pump load at end of circuit. CAP Addition: 600 kvar	@CW MVA 4.259; MW 4.05; MVAR 1.319 @ BL REGS MVA 3.676 ; MW 3.545 ; MVAR .973 CW PF: .95	Volt: 12,562 Vpu: 1.007	Volt: 12,100 Vpu: 0.97	Volt: 12,683 Vpu: 1.017	Volt: 12,612 Vpu: 1.014	Volt: 12,525 Vpu: 1.004	Volt: 12,390 Vpu: 0.994	Volt: 12,662 Vpu: 1.015	Volt: 12,378 Vpu: 0.993	Volt: 12,177 Vpu: 0.977	Volt: 12,369 Vpu: 0.992	Volt: 12,367 Vpu: 0.992	Volt: 12,201 Vpu: 0.979	Volt: 12,096 Vpu: 0.97
8	BL Regs & Regs at 1300 So and pump load at end of circuit Removed. CAP Addition: none	@CW MVA 4.737; MW 4.165; MVAR 2.255 @ BL REGS MVA 3.963; MW 3.615; MVAR 1.625 CW PF: .95	Volt: 12,589 Vpu: 1.009	Volt: 11,984 Vpu: 0.961	Volt: 12,679 Vpu: 1.016	Volt: 12,585 Vpu: 1.009	Volt: 12,483 Vpu: 1.001	Volt: 12,331 Vpu: 0.989	Volt: 12,668 Vpu: 1.016	Volt: 12,344 Vpu: 0.989	Volt: 12,125 Vpu: 0.972	Volt: 12,331 Vpu: 0.989	Volt: 12,329 Vpu: 0.988	Volt: 12,163 Vpu: 0.975	Volt: - NA Vpu: - NA
11	BL Regs Relocated 1/2 mile South & Regs at 1300 So and pump load at end of circuit Removed. CAP Addition: 750 kvar	@CW MVA 5.24 ; MW 4.860 ; MVAR 1.960 @ BL REGS 4.209 ; MW 3.993; MVAR 1.33 CW PF: .93	Volt: 12,563 Vpu: 1.007	Volt: 11,957 Vpu: 0.959	Volt: 12,665 Vpu: 1.016	Volt: 12,574 Vpu: 1.008	Volt: 12,467 Vpu: 0.999	Volt: 12,105 Vpu: 0.986	Volt: 12,631 Vpu: 1.017	Volt: 12,513 Vpu: 1.003	Volt: 12,228 Vpu: 0.981	Volt: 12,505 Vpu: 1.002	Volt: 12,502 Vpu: 1.002	Volt: 12,339 Vpu: 0.989	Volt: - NA Vpu: - NA
12	BL Regs Relocated 1/2 mile South & Regs at 1300 So and pump load at end of circuit Removed. CAP Addition: 1.05 mvar	@CW MVA 4.871 ; MW 4.605; MVAR 1.432 @ BL REGS MVA 3.942; MW 3.788; MVAR 1.091 CW PF: .95	Volt: 12,527 Vpu: 1.005	Volt: 12,013 Vpu: 0.963	Volt: 12,617 Vpu: 1.018	Volt: 12,540 Vpu: 1.006	Volt: 12,440 Vpu: 0.9976	Volt: 12,098 Vpu: 0.97	Volt: 12,631 Vpu: 1.013	Volt: 12,470 Vpu: 1	Volt: 12,211 Vpu: 0.979	Volt: 12,462 Vpu: 0.994	Volt: 12,460 Vpu: 0.999	Volt: 12,296 Vpu: 0.986	Volt: - NA Vpu: - NA
10	BL Regs Relocated 1 mile South & Regs at 1300 So and pump load at end of circuit Removed. CAP Addition: 750 kvar	@CW MVA 4.017; MW 3.867 ; MVAR 1.088 @ BL REGS MVA 3.066; MW 3.002; MVAR .623 CW PF: .96	Volt: 12,599 Vpu: 1.01	Volt: 12,185 Vpu: 0.977	Volt: 12,653 Vpu: 1.015	Volt: 12,588 Vpu: 1.009	Volt: 12,508 Vpu: 1.003	Volt: 12,097 Vpu: 0.97	Volt: - Vpu: -	Volt: 12,648 Vpu: 1.014	Volt: 12,478 Vpu: 1.006	Volt: 12,640 Vpu: 1.013	Volt: 12,638 Vpu: 1.014	Volt: 12,476 Vpu: 1.005	Volt: - NA Vpu: - NA
13	BL Regs Relocated 1 mile South; Regs at 1300 So; pump load at end of circuit removed. 1/0 conductor replaced with 336 CAP Addition: 1.65 mvar	@CW MVA 5.798; MW 5.522 ; MVAR 1.767 @ BL REGS MVA 4.719; MW 4.484; MVAR 1.468 CW PF: .95	Volt: 12,478 Vpu: 1.00	Volt: 11,816 Vpu: 0.947	Volt: 12,603 Vpu: 1.010	Volt: 12,506 Vpu: 1.003	Volt: 12,383 Vpu: 0.993	Volt: 12,091 Vpu: 0.97	Volt: - Vpu: -	Volt: 12,652 Vpu: 1.014	Volt: 12,276 Vpu: 0.984	Volt: 12,643 Vpu: 1.014	Volt: 12,639 Vpu: 1.014	Volt: 12,479 Vpu: 1.00	Volt: - NA Vpu: - NA

Culinary Water Distribution System Sizing & Modeling Report

The Cordero Subdivision



April 15, 2022
Prepared by: Jake Black, EIT
Reviewed by: Brant Tuttle, PE
Northern Engineering, Inc.
1040 East 800 North
Orem, Utah 84097
(801) 802-8992

The Cordero Subdivision

1.0 INTRODUCTION & PURPOSE:

The original Cordero Subdivision is a 200-acre residential development located at Copper Rock Parkway and 2100 West. An 80-acre parcel has been sold for the Southern Shores Ski Lake Community, which has been designed, approved, and is under construction with 56 lots. The remaining 120-acres has been divided into the east 80-acres (299 units) consisting of single-family lots zoned R1-6, and west 40-acres (345 units) which is zoned Recreational Resort and planned for vacation rentals. The total combined unit count for the 200-acres is 700 units. The purpose of this report is to demonstrate that the proposed water distribution system can meet the anticipated peak water demands that it may come subject to. The State of Utah stipulates that public water systems be sized adequately to deliver the high flows associated with the periods of peak use and for fire flow emergencies. (See applicable Utah codes R309-105, R309-510, and R309-511 along with the International Fire Code). Typically, these peak usage events occur during the hottest period of the summer, when outdoor watering is at its highest.

- The Peak Day Demand (PDD) for a system is defined as the maximum volume of water used on any given day during the year, including water used for irrigation.
- Peak Instantaneous Demand (PID) is defined as the maximum amount of water used in a single hour, in any given day, including water used for irrigation.
- The Fire Flow Demand (FFD) is the flow rate expected at any given fire hydrant within the system and is determined by the Fire Marshall in accordance with building codes.

Delivery of these peak flows are to be provided while simultaneously keeping residual pressures within the system above certain levels. Flow tests performed on the new fire hydrant located at the 2100 W and Copper Rock Parkway intersection (also known as Ex.FH3 in the water model labeling system) by City Staff, provided information on what types of pressures the model needed to meet. The fire hydrant elevation is 3338 feet. The static pressure of the hydrant was 95 psi. According to State Code, Public Water Systems are to ensure that distribution systems maintain a ***minimum*** residual system pressure of:

- (a) at least 40 psi during a *peak day demand* condition;
- (b) at least 30 psi during a *peak instantaneous demand* condition; and
- (c) at least 20 psi during *fire flow conditions* **and** that this fire demand be experienced concurrently with a *peak day demand* condition.

1.1 WATER SYSTEM DESIGN CRITERIA:

State of Utah Admin Code Section R309R-510 was used to calculate the Peak Day Demand for each residential lot. Both indoor use and irrigation use together was analyzed to calculate the PDD. For indoor use, Table 510-1 of State code lists a PDD of 800 gallons per day per residence. This equates to 0.556 gallons per minute. Table 510-3 lists a PDD of 4.90 gallons per minute per irrigated acre within Map Zone 6, which this project falls within. We determined this project will have an average

of 3,000 square feet of irrigation per lot which equates to 0.0689 acres. Multiplying 4.90 gallons per minute per acre by 0.0689 acres equates to 0.337 gallons per minute. Adding this to the indoor use, the total PDD equals 0.893 gallons per minute. This demand was applied to all 700 lots of the project for analysis of PDD and PDD+FFD.

For the Peak Instantaneous Demand, the Peak Day Demand is multiplied by a factor of 2. This equals 1.786 gallons per minute. This demand was applied to all 700 lots of the project for the analysis of PID.

State of Utah Admin Code Section R309R-510 was used to calculate the total storage requirement for the project. Both indoor use and irrigation use together was analyzed to calculate the total storage. For indoor use, Table 510-4 of State code lists a storage of 400 gallons per residence. Table 510-5 lists a storage of 4,964 gallons per irrigated acre within Map Zone 6, which this project falls within. We determined this project will have an average of 3,000 square feet of irrigation per lot which equates to 0.0689 acres. Multiplying 4,964 gallons per acre by 0.0689 acres equates to 342 gallons. Adding this to the indoor use storage, the total storage equals 742 gallons per residence. This storage applied to all 700 lots of the project equates to a total storage requirement of 519,400 gallons.

According to the International Code, Fire Flow demand is dependent on dwelling size. For dwellings less than 3,600 sq. ft. the Fire Flow Demand is 1,500 gpm. For dwellings less than 4,800 sq. ft. but greater than 3600 sq. ft. the Fire Flow Requirement is 1,750 gpm. For dwellings less than 6,200 sq. ft. but greater than 4,800 sq. ft. the Fire Flow Requirement is 2,000 gpm.

$$FFD = \begin{cases} 1500 \text{ gpm}, & \text{dwelling} < 3600 \text{ ft}^2 \\ 1750 \text{ gpm}, & 3600 \text{ ft}^2 < \text{dwelling} < 4800 \text{ ft}^2 \\ 2000 \text{ gpm}, & 4800 \text{ ft}^2 < \text{dwelling} < 6200 \text{ ft}^2 \end{cases}$$

It was determined that the average dwelling size for this project will be less than 3600 sq. ft. For the PDD+FFD analysis, the PDD was applied to all lots and a 1500 gallons per minute fire flow was applied to the most critical fire hydrant for the project. This fire hydrant is node labeled “FH-SW” in the model as shown in the Appendix and sits higher in elevation than all other hydrants. Applying the fire flow to this hydrant resulted in the lowest pressures as compared to applying the fire flow to all other hydrants.

➔ <u>Peak Day Demand (PDD)</u>	0.893 GPM
➔ <u>Peak Instantaneous Demand (PID)</u>	1.786 GPM
➔ <u>Peak Day w/ Fire Flow Flows (PDD+FFD)</u>	0.893 GPM + 1500 GPM

1.2 HYDRAULIC ANALYSIS AND COMPUTER MODELING:

Hydraulic modeling software programs have been developed to aid in the analysis and design of water distribution systems and, when properly prepared, have been found to accurately simulate available flows and system pressures with a system. These analyses allow the designer to size, compare, and confirm the performance of existing or proposed infrastructure.

“EPANET 2.2”, a hydraulic modeling software developed by the United States Department of Environmental Protection, was utilized for the water distribution system analysis herein described. EPANET 2.2 was developed for conducting steady-state analysis of pressure pipe networks and allows the evaluation of a variety of water demands and operating conditions within a water system. The software allows the designer to link a graphical representation of the water distribution system to a database that describes the physical characteristics of each hydraulic feature (i.e. length, diameter, and roughness coefficient for a pipeline) and the physical attributes and demand conditions at junction nodes (i.e. ground elevation, demand, etc.). In a water model, junction nodes are established at all intersections between pipes as well as other water demand locations in the system. Altogether, these water models can accurately simulate the different components of the distribution system, including the piping, points of connection, system elevations, system demands, and available pressures.

1.3 DISTRIBUTION SYSTEM:

The distribution system within the model was laid within the proposed public streets. All 700 lots were divided up and their water demands applied to the nearest node. Nodes representing fire hydrants were also placed throughout the system according to fire code and Hurricane City Standards.

As per Hurricane City Standards, pipes 12-inches and larger are to be constructed as ductile iron. All smaller pipes are to be constructed as PVC. The model was created to reflect this standard. A roughness coefficient of 150 was applied to all PVC pipes and 130 to all ductile iron pipes. See Appendix A for an exhibit of the subdivision showing the proposed waterline sizes and location, as well as fire hydrant locations. See Appendix A for a map of the 200 acres.

The model was calibrated to reflect the existing condition of the new fire hydrant at 2100 W and Copper Rock Parkway intersection that was tested at a static 95 psi. In order for the model to reflect the measured static pressures in hydrants, a coefficient of 134 was applied to the existing 8-inch water line in 3000 South. A static test was conducted in the model with no demands applied to the lots or hydrants to verify matching static pressures at existing hydrant.

1.4 SYSTEM ANALYSIS:

The goal of the model is to determine if upsizing the 8” water main in 3000 South to a 12” water main will provide sufficient flows to meet state code. The system was modeled using the following:

- Upsizing the existing 8” main in 3000 South to a 12” main from 1100 W to 2100 W.
- The new 12” main that runs down 2100 West from 3000 South to Copper Rock Parkway remains.
- The new 8” main running from 1500 West to 2100 West in approximately 2800 South remains. (across the Zarbock and Beard Property).
- The new 12” main connected to the new 8” main mentioned previous, running from 2100 West to 2600 West at approximately 2800 South and then down to 3000 South remains.

- The new 18" main in 2600 West running from 3000 South to Copper Rock Parkway remains.
- The new 12" main in Copper Rock Parkway running from 2600 West to 2100 West remains.

All new mains listed above have been approved and are under construction. The only new proposed change would be the upsizing of the existing 3000 S main from 1100 W to 2100 W. See Table 1 for model results. See Figure 1 for a map exhibit of main lines.

Table 1 – Minimum Connection Pressure Values:

MODEL	LOWEST RESULTING PRESSURE PSI			MODEL RESULTS: PASS/FAIL
	PDD (P>40psi)	PID (P>30psi)	PDD+FFD (P>20psi)	
SCENARIO 1	56.93	49.12	29.59	PASS

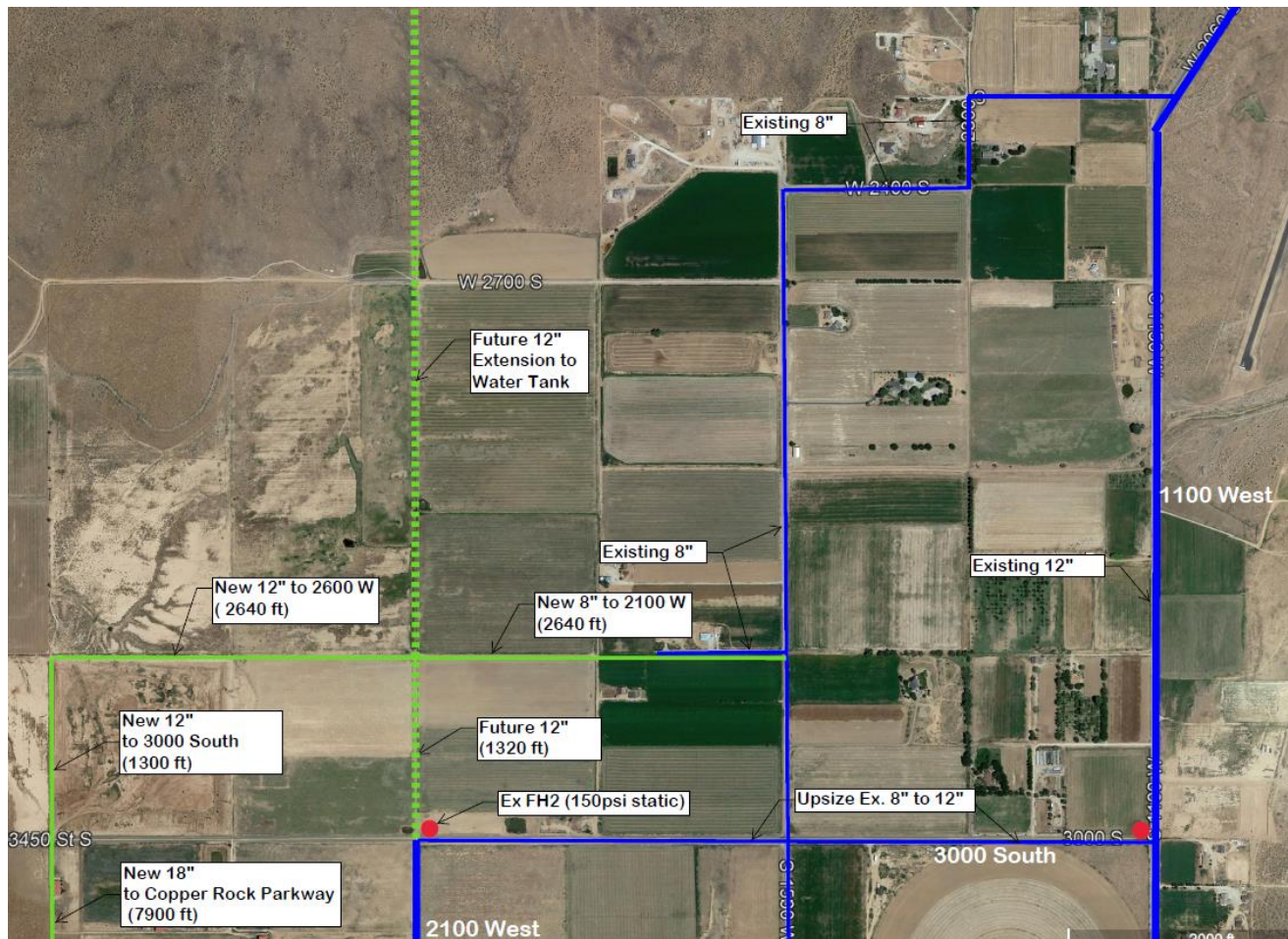


Figure 1: Map Exhibit of Main Water Lines

1.5 RESULTS:

The modeled system was able to supply sufficient pressure during PDD, PID, and Fire Flow + PDD and is acceptable per state code. See Appendix for all figures and data of the model.

1.6 CONCLUSION:

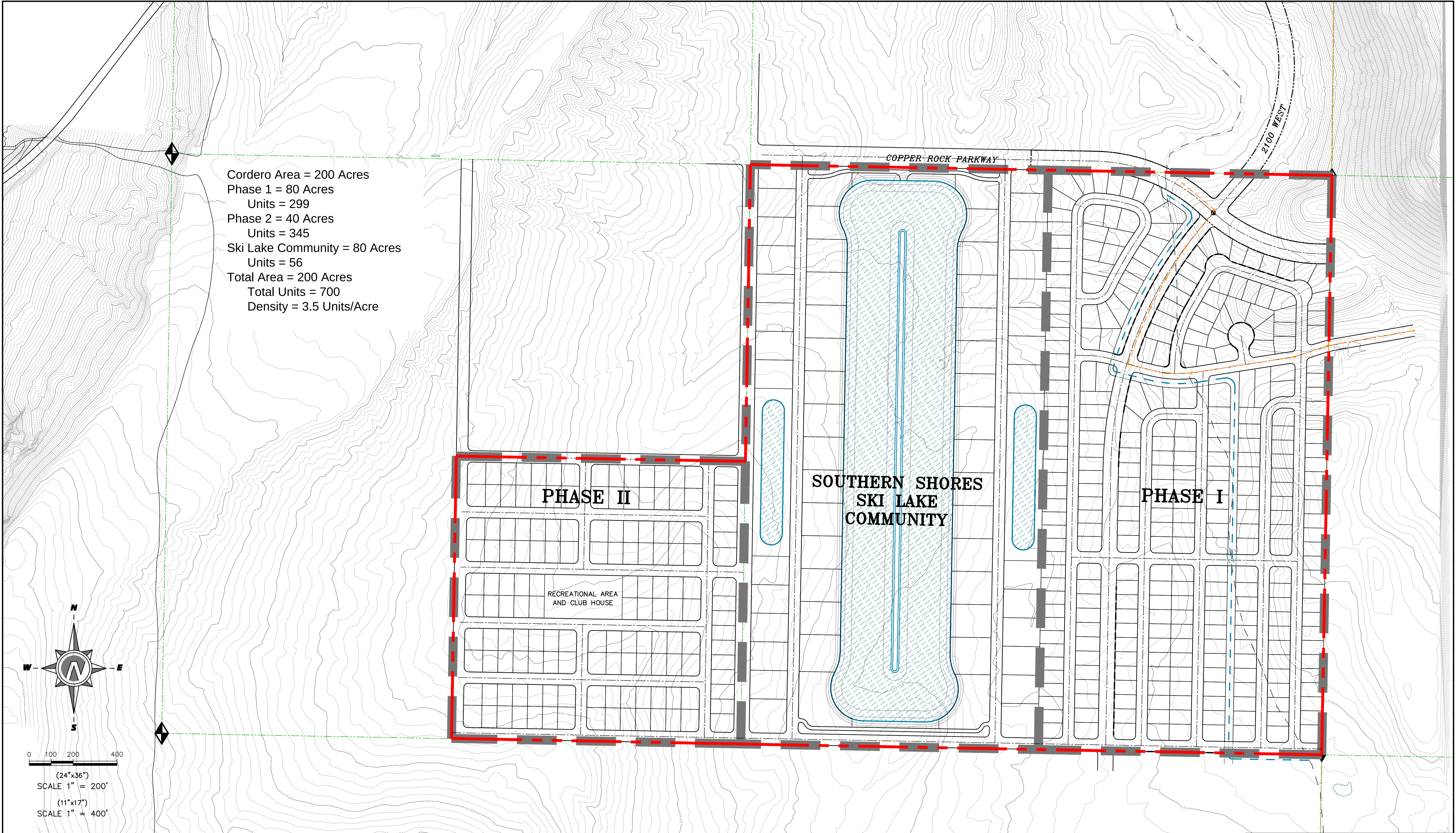
The new, under construction water system is able to supply the pressures and meet the design criteria minimums of Utah State Code.

1.7 APPENDIX:

Appendix A – Project Map

Appendix B – Node & Pipe Locations

Appendix C – Scenario 1 Model Tests

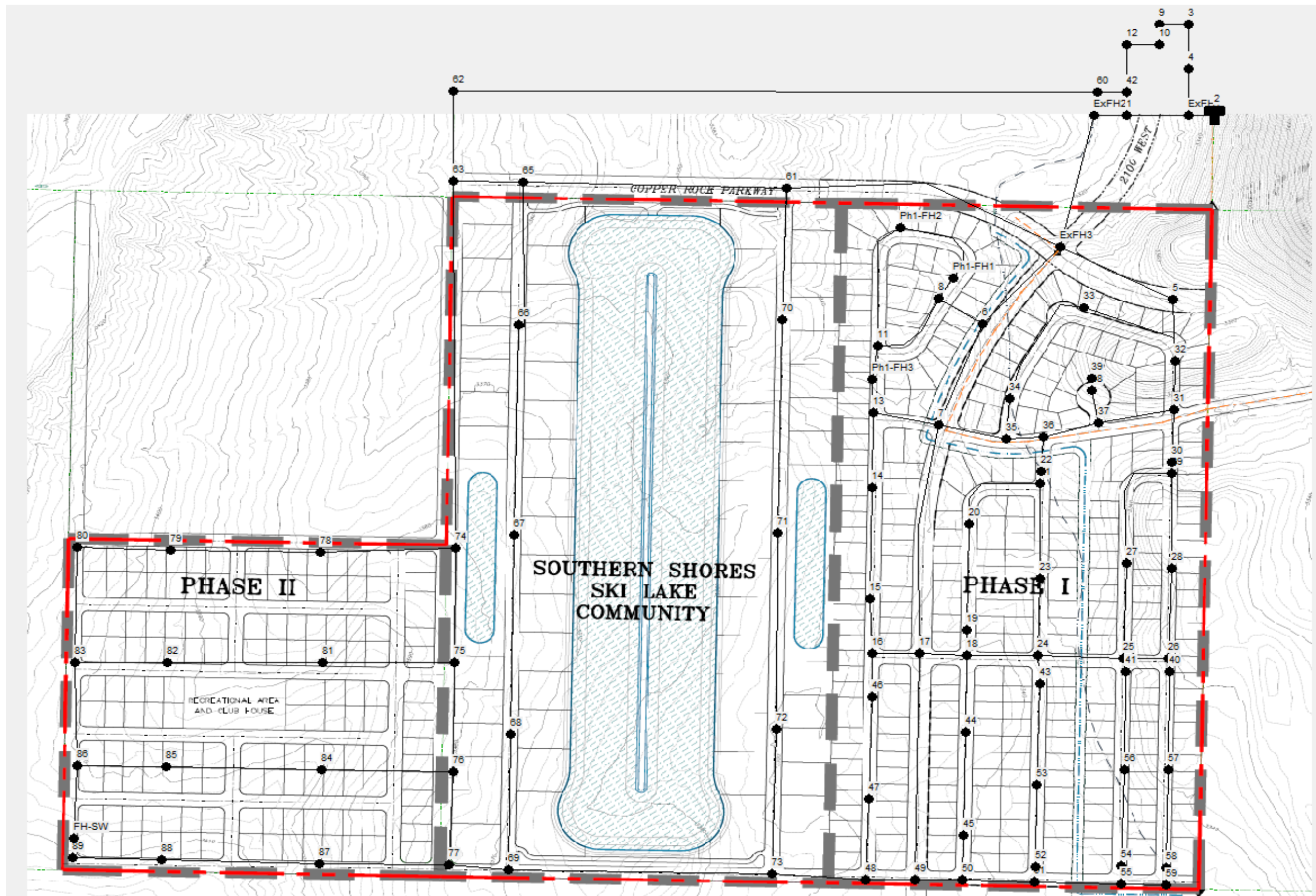


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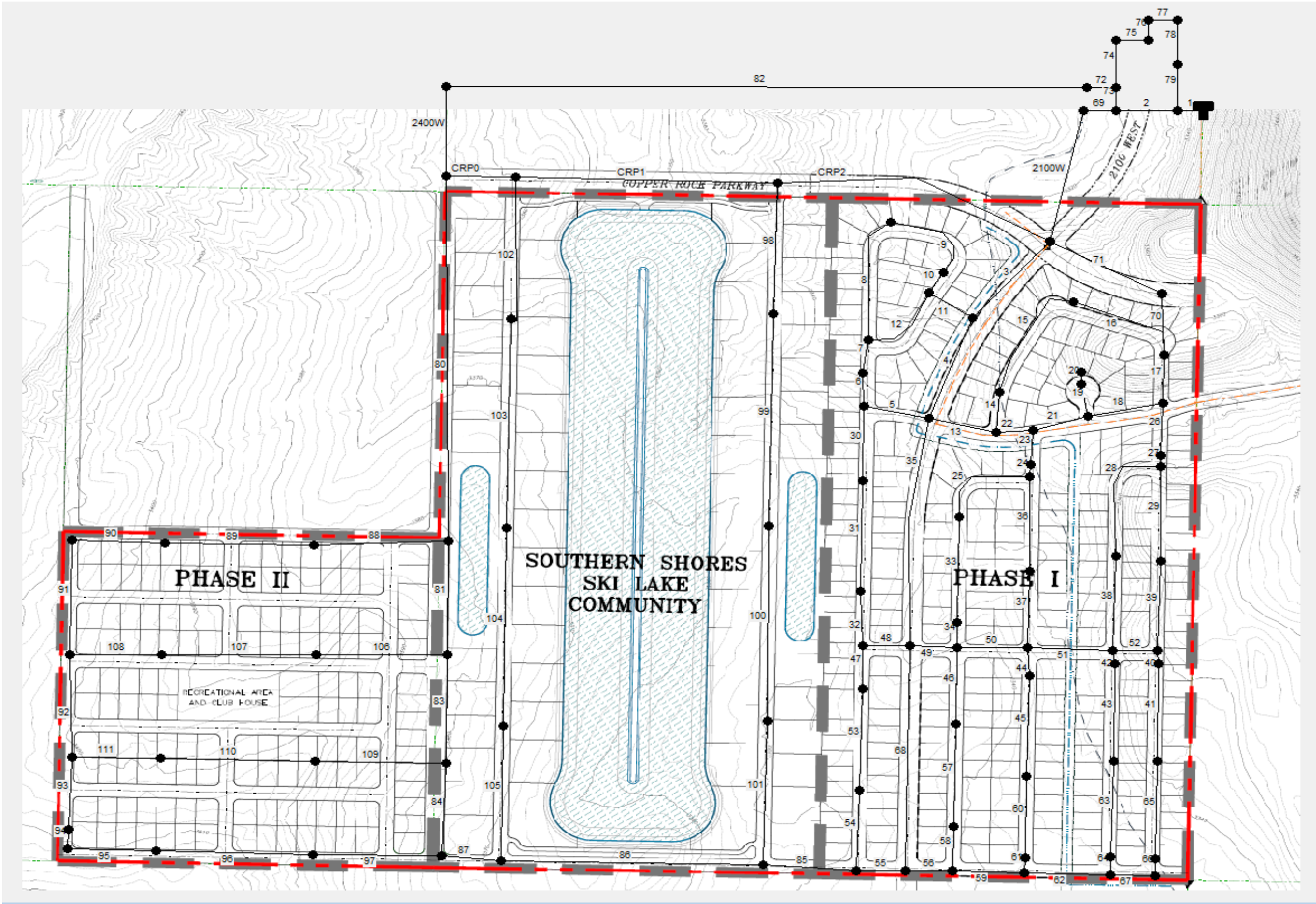
 Northern ENGINEERING INC ENGINEERING-LAND PLANNING CONSTRUCTION MANAGEMENT	1040 E. 800 N. OREM, UTAH 84097 (801) 802-8992	CORDERO	CONCEPT PLAN	JOB NO. 3-16-052
			HURRICANE, UTAH	SHEET NO. 1

THESE DRAWINGS, OR ANY PORTION THEREOF, SHALL NOT BE USED ON ANY PROJECT OR EXTENSIONS OF THIS PROJECT EXCEPT BY AGREEMENT IN WRITING WITH NORTHERN ENGINEERING, INC.

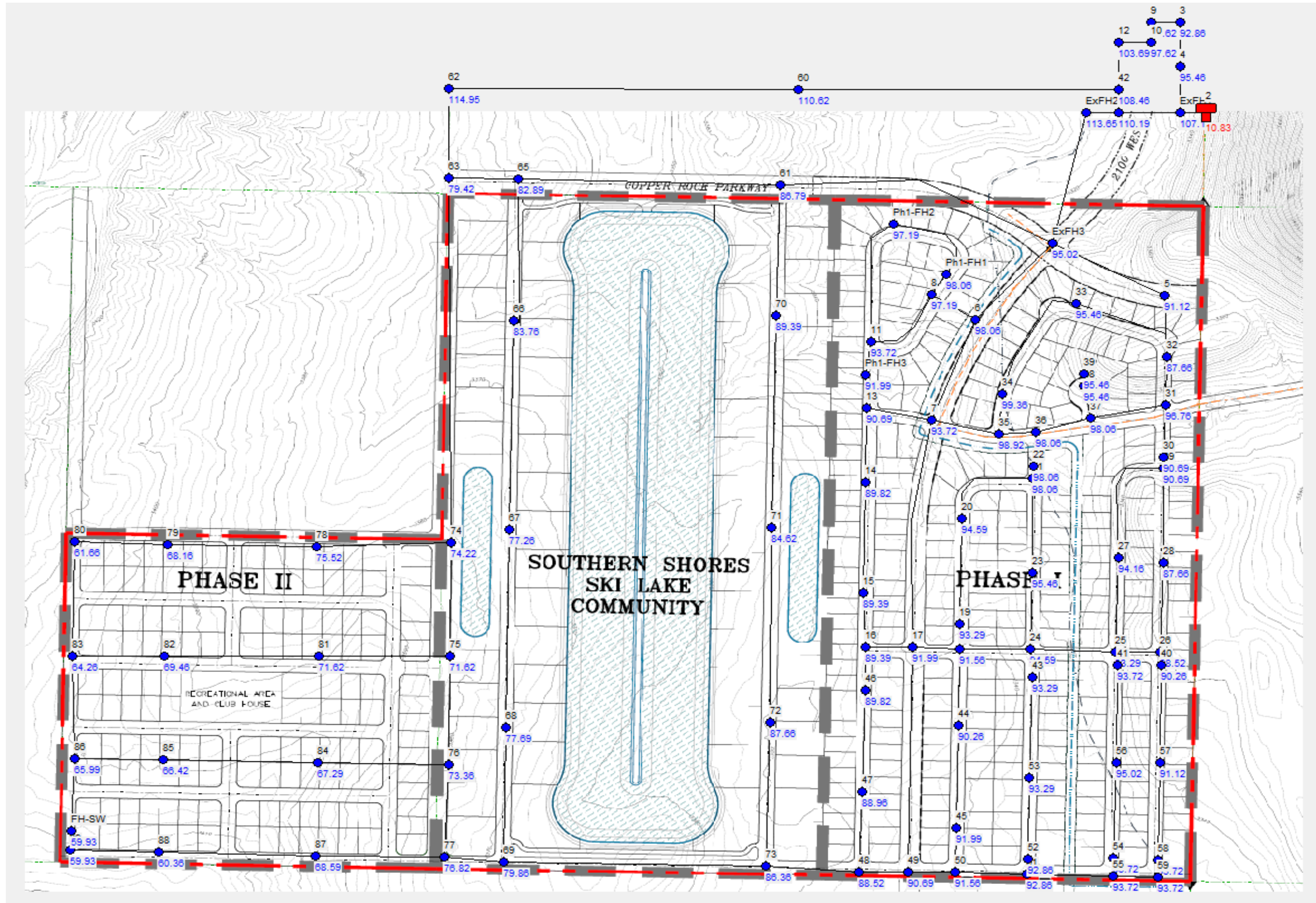
Node IDs and Locations



Link IDs and Locations



Static - No Demands



Static - No Demands - Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 89	3414	0	3552.3	59.93
Junc FH-SW	3414	0	3552.3	59.93
Junc 88	3413	0	3552.3	60.36
Junc 80	3410	0	3552.3	61.66
Junc 83	3404	0	3552.3	64.26
Junc 86	3400	0	3552.3	65.99
Junc 85	3399	0	3552.3	66.42
Junc 84	3397	0	3552.3	67.29
Junc 79	3395	0	3552.3	68.16
Junc 87	3394	0	3552.3	68.59
Junc 82	3392	0	3552.3	69.46
Junc 81	3387	0	3552.3	71.62
Junc 75	3387	0	3552.3	71.62
Junc 76	3383	0	3552.3	73.36
Junc 74	3381	0	3552.3	74.22
Junc 78	3378	0	3552.3	75.52
Junc 77	3375	0	3552.3	76.82
Junc 67	3374	0	3552.3	77.26
Junc 68	3373	0	3552.3	77.69
Junc 63	3369	0	3552.3	79.42
Junc 69	3368	0	3552.3	79.86
Junc 65	3361	0	3552.3	82.89
Junc 66	3359	0	3552.3	83.76
Junc 71	3357	0	3552.3	84.62
Junc 73	3353	0	3552.3	86.36
Junc 61	3352	0	3552.3	86.79
Junc 72	3350	0	3552.3	87.66
Junc 32	3350	0	3552.3	87.66
Junc 28	3350	0	3552.3	87.66
Junc 26	3348	0	3552.3	88.52
Junc 48	3348	0	3552.3	88.52
Junc 47	3347	0	3552.3	88.96

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 15	3346	0	3552.3	89.39
Junc 16	3346	0	3552.3	89.39
Junc 70	3346	0	3552.3	89.39
Junc 46	3345	0	3552.3	89.82
Junc 14	3345	0	3552.3	89.82
Junc 40	3344	0	3552.3	90.26
Junc 44	3344	0	3552.3	90.26
Junc 49	3343	0	3552.3	90.69
Junc 13	3343	0	3552.3	90.69
Junc 29	3343	0	3552.3	90.69
Junc 30	3343	0	3552.3	90.69
Junc 5	3342	0	3552.3	91.12
Junc 57	3342	0	3552.3	91.12
Junc 18	3341	0	3552.3	91.56
Junc 50	3341	0	3552.3	91.56
Junc Ph1-FH3	3340	0	3552.3	91.99
Junc 17	3340	0	3552.3	91.99
Junc 45	3340	0	3552.3	91.99
Junc 3	3338	0	3552.3	92.86
Junc 51	3338	0	3552.3	92.86
Junc 52	3338	0	3552.3	92.86
Junc 19	3337	0	3552.3	93.29
Junc 43	3337	0	3552.3	93.29
Junc 53	3337	0	3552.3	93.29
Junc 25	3337	0	3552.3	93.29
Junc 41	3336	0	3552.3	93.72
Junc 54	3336	0	3552.3	93.72
Junc 59	3336	0	3552.3	93.72
Junc 58	3336	0	3552.3	93.72
Junc 11	3336	0	3552.3	93.72
Junc 55	3336	0	3552.3	93.72
Junc 7	3336	0	3552.3	93.72

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 27	3335	0	3552.3	94.16
Junc 20	3334	0	3552.3	94.59
Junc 24	3334	0	3552.3	94.59
Junc 56	3333	0	3552.3	95.02
Junc ExFH3	3333	0	3552.3	95.02
Junc 4	3332	0	3552.3	95.46
Junc 38	3332	0	3552.3	95.46
Junc 23	3332	0	3552.3	95.46
Junc 33	3332	0	3552.3	95.46
Junc 39	3332	0	3552.3	95.46
Junc 31	3329	0	3552.3	96.76
Junc 8	3328	0	3552.3	97.19
Junc Ph1-FH2	3328	0	3552.3	97.19
Junc 10	3327	0	3552.3	97.62
Junc 9	3327	0	3552.3	97.62
Junc Ph1-FH1	3326	0	3552.3	98.06
Junc 6	3326	0	3552.3	98.06
Junc 21	3326	0	3552.3	98.06
Junc 22	3326	0	3552.3	98.06
Junc 37	3326	0	3552.3	98.06
Junc 36	3326	0	3552.3	98.06
Junc 35	3324	0	3552.3	98.92
Junc 34	3323	0	3552.3	99.36
Junc 12	3313	0	3552.3	103.69
Junc ExFH1	3305	0	3552.3	107.16
Junc 42	3302	0	3552.3	108.46
Junc 1	3298	0	3552.3	110.19
Junc 60	3297	0	3552.3	110.62
Junc ExFH2	3290	0	3552.3	113.65
Junc 62	3287	0	3552.3	114.95

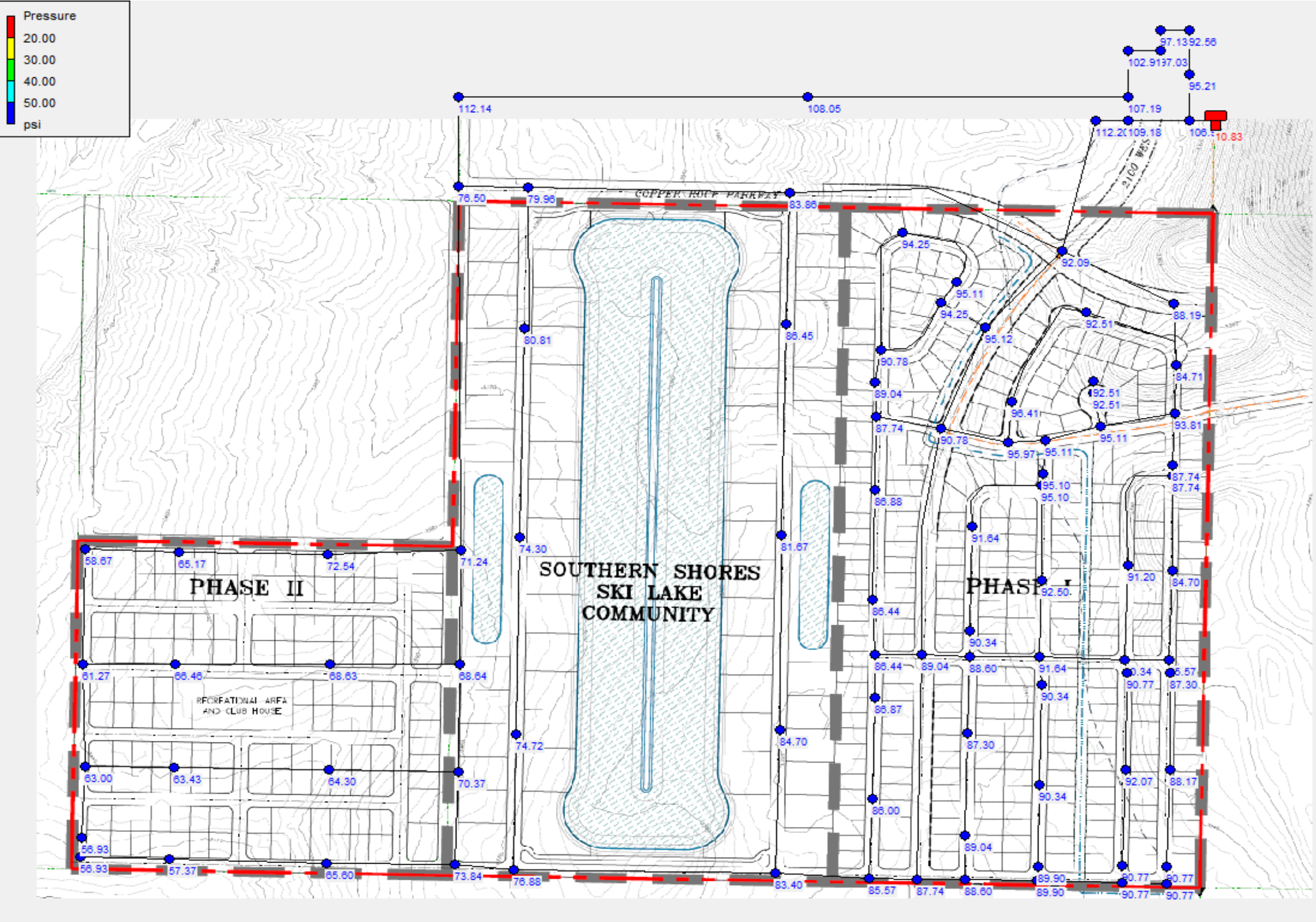
Static - No Demands - Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 38	362.01	8	150	0	0
Pipe 35	874.02	18	130	0	0
Pipe 86	920	12	130	0	0
Pipe 87	240	12	130	0	0
Pipe 103	880	8	150	0	0
Pipe 102	440	8	150	0	0
Pipe 104	880	8	150	0	0
Pipe 36	361.83	8	150	0	0
Pipe 105	440	8	150	0	0
Pipe 80	1400	12	130	0	0
Pipe 28	478.35	8	150	0	0
Pipe 42	49.2	8	150	0	0
Pipe 22	125.92	8	150	0	0
Pipe 85	340	12	130	0	0
Pipe 61	55.41	12	100	0	0
Pipe 56	162.17	12	130	0	0
Pipe 63	366.83	8	150	0	0
Pipe 43	372.26	8	150	0	0
Pipe 37	293.37	8	150	0	0
Pipe 2400W	9200	18	130	0	0
Pipe 64	66.37	8	150	0	0
Pipe 45	385.3	8	150	0	0
Pipe 60	311.45	8	150	0	0
Pipe 44	106.8	8	150	0	0
Pipe 59	248.84	8	150	0	0
Pipe 68	860.44	18	130	0	0
Pipe 48	159.97	8	150	0	0
Pipe 67	154.89	8	150	0	0
Pipe 24	45.86	8	150	0	0
Pipe 98	440	8	150	0	0
Pipe 101	440	8	150	0	0
Pipe 23	129.72	8	150	0	0
Pipe 100	880	8	150	0	0
Pipe 40	49.07	8	150	0	0
Pipe 99	880	8	150	0	0
Pipe 81	430	12	130	0	0
Pipe 82	2640	12	130	0	0
Pipe 55	167.7	12	130	0	0
Pipe 89	430	12	130	0	0

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 91	430	12	130	0	0
Pipe 88	430	12	130	0	0
Pipe 90	430	12	130	0	0
Pipe CRP1	950	12	130	0	0
Pipe 21	197.76	8	150	0	0
Pipe CRP0	250	12	130	0	0
Pipe 33	399.99	8	150	0	0
Pipe 34	99.03	8	150	0	0
Pipe 25	368.41	8	150	0	0
Pipe 46	292.53	8	150	0	0
Pipe 57	390.74	8	150	0	0
Pipe 58	169.58	8	150	0	0
Pipe 62	293.1	8	150	0	0
Pipe 39	342.98	8	150	0	0
Pipe 29	361.83	8	150	0	0
Pipe CRP2	1000	12	130	0	0
Pipe 27	41.9	8	150	0	0
Pipe 26	198.2	8	150	0	0
Pipe 3	384.76	18	130	0.01	0
Pipe CRP3	420	12	130	0	0
Pipe 47	165.56	8	150	0	0
Pipe 54	308.02	8	150	0	0
Pipe 53	385.25	8	150	0	0
Pipe 66	66.34	8	150	0	0
Pipe 41	372.25	8	150	0	0
Pipe 83	430	12	130	0	0
Pipe 65	372.36	8	150	0	0
Pipe 12	304.26	8	150	0	0
Pipe 52	152.35	8	150	0	0
Pipe 92	430	12	130	0	0
Pipe 78	2643	12	130	0	0
Pipe 79	2674	12	130	0	0
Pipe 106	430	8	150	0	0
Pipe 108	430	8	150	0	0
Pipe 107	430	8	150	0	0
Pipe 4	413.75	18	130	0.01	0
Pipe 17	186.67	8	150	0	0
Pipe 1	400	12	130	0	0
Pipe 72	2640	8	150	0	0

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 73	1330	8	134	0	0
Pipe 30	281.87	8	150	0	0
Pipe 31	422.84	8	150	0	0
Pipe 32	209.62	8	150	0	0
Pipe 51	293.49	8	150	0	0
Pipe 19	127.75	8	150	0	0
Pipe 20	45.7	8	150	0	0
Pipe 11	179.66	8	150	0	0
Pipe 7	127.12	8	150	0	0
Pipe 6	129.55	8	150	0	0
Pipe 110	430	8	150	0	0
Pipe 109	430	8	150	0	0
Pipe 111	430	8	150	0	0
Pipe 2100W	8620	12	130	0.01	0
Pipe 69	2650	12	130	0.01	0
Pipe 50	239.95	8	150	0	0
Pipe 49	163.95	8	150	0	0
Pipe 84	430	12	130	-0.01	0
Pipe 94	30	12	130	0.01	0
Pipe 97	430	12	130	0.01	0
Pipe 96	430	12	130	0.01	0
Pipe 95	430	12	130	0.01	0
Pipe 93	400	12	130	0.01	0
Pipe 70	200	8	150	0	0
Pipe 18	259.94	8	150	0	0
Pipe 2	2650	12	130	0.01	0
Pipe 74	3268	8	134	0	0
Pipe 76	628	8	134	0	0
Pipe 75	1320	8	134	0	0
Pipe 77	1340	8	134	0	0
Pipe 8	487.49	8	150	0	0
Pipe 10	96.13	8	150	0	0
Pipe 9	355.92	8	150	0	0
Pipe 5	225.58	8	150	0	0
Pipe 13	238.37	8	150	0	0
Pipe 14	156.58	8	150	0	0
Pipe 15	480.87	8	150	0	0
Pipe 16	415.24	8	150	0	0

Peak Daily Demand (PDD)



Peak Daily Demand (PDD) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	0	3545.39	56.93
Junc 89	3414	8.93	3545.39	56.93
Junc 88	3413	16.97	3545.4	57.37
Junc 80	3410	8.93	3545.39	58.67
Junc 83	3404	16.97	3545.39	61.27
Junc 86	3400	16.97	3545.39	63
Junc 85	3399	33.93	3545.39	63.43
Junc 84	3397	34.83	3545.39	64.3
Junc 79	3395	16.97	3545.4	65.17
Junc 87	3394	16.97	3545.4	65.6
Junc 82	3392	33.93	3545.39	66.46
Junc 81	3387	33.93	3545.39	68.63
Junc 75	3387	16.97	3545.41	68.64
Junc 76	3383	16.97	3545.41	70.37
Junc 74	3381	8.93	3545.42	71.24
Junc 78	3378	16.97	3545.41	72.54
Junc 77	3375	8.93	3545.41	73.84
Junc 67	3374	8.04	3545.47	74.3
Junc 68	3373	8.04	3545.44	74.72
Junc 63	3369	0	3545.54	76.5
Junc 69	3368	0	3545.43	76.88
Junc 65	3361	0	3545.54	79.96
Junc 66	3359	8.93	3545.51	80.81
Junc 71	3357	8.04	3545.49	81.67
Junc 73	3353	0	3545.47	83.4
Junc 61	3352	0	3545.53	83.86
Junc 72	3350	8.04	3545.48	84.7
Junc 28	3350	0	3545.48	84.7
Junc 32	3350	0	3545.5	84.71
Junc 26	3348	16.07	3545.48	85.57
Junc 48	3348	11.61	3545.48	85.57
Junc 47	3347	0	3545.49	86

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Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 16	3346	24.11	3545.49	86.44
Junc 15	3346	0	3545.49	86.44
Junc 70	3346	8.93	3545.51	86.45
Junc 46	3345	0	3545.49	86.87
Junc 14	3345	0	3545.5	86.88
Junc 40	3344	0	3545.48	87.3
Junc 44	3344	0	3545.49	87.3
Junc 29	3343	18.75	3545.48	87.74
Junc 30	3343	0	3545.49	87.74
Junc 49	3343	0	3545.49	87.74
Junc 13	3343	16.97	3545.5	87.74
Junc 57	3342	0	3545.48	88.17
Junc 5	3342	0	3545.52	88.19
Junc 18	3341	19.65	3545.49	88.6
Junc 50	3341	10.72	3545.49	88.6
Junc 45	3340	0	3545.49	89.04
Junc 17	3340	0	3545.49	89.04
Junc Ph1-FH3	3340	0	3545.5	89.04
Junc 51	3338	10.72	3545.48	89.9
Junc 52	3338	0	3545.48	89.9
Junc 25	3337	14.29	3545.48	90.34
Junc 43	3337	0	3545.48	90.34
Junc 53	3337	0	3545.48	90.34
Junc 19	3337	0	3545.49	90.34
Junc 59	3336	8.04	3545.48	90.77
Junc 58	3336	0	3545.48	90.77
Junc 55	3336	8.04	3545.48	90.77
Junc 54	3336	0	3545.48	90.77
Junc 41	3336	0	3545.48	90.77
Junc 11	3336	18.75	3545.5	90.78
Junc 7	3336	0	3545.51	90.78
Junc 27	3335	0	3545.48	91.2

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	19.65	3545.48	91.64
Junc 20	3334	0	3545.49	91.64
Junc 56	3333	0	3545.48	92.07
Junc ExFH3	3333	0	3545.53	92.09
Junc 23	3332	0	3545.49	92.5
Junc 38	3332	6.25	3545.49	92.51
Junc 39	3332	0	3545.49	92.51
Junc 33	3332	0	3545.5	92.51
Junc 3	3338	0	3551.61	92.56
Junc 31	3329	12.5	3545.49	93.81
Junc Ph1-FH2	3328	0	3545.51	94.25
Junc 8	3328	11.61	3545.51	94.25
Junc 21	3326	19.65	3545.49	95.1
Junc 22	3326	0	3545.49	95.1
Junc 36	3326	0.89	3545.49	95.11
Junc 37	3326	1.79	3545.49	95.11
Junc Ph1-FH1	3326	0	3545.51	95.11
Junc 6	3326	0	3545.52	95.12
Junc 4	3332	0	3551.74	95.21
Junc 35	3324	16.97	3545.5	95.97
Junc 34	3323	0	3545.5	96.41
Junc 10	3327	0	3550.94	97.03
Junc 9	3327	0	3551.16	97.13
Junc 12	3313	0	3550.49	102.91
Junc ExFH1	3305	0	3551.88	106.97
Junc 42	3302	0	3549.38	107.19
Junc 60	3297	0	3546.36	108.05
Junc 1	3298	0	3549.98	109.18
Junc 62	3287	0	3545.81	112.14
Junc ExFH2	3290	0	3548.93	112.2

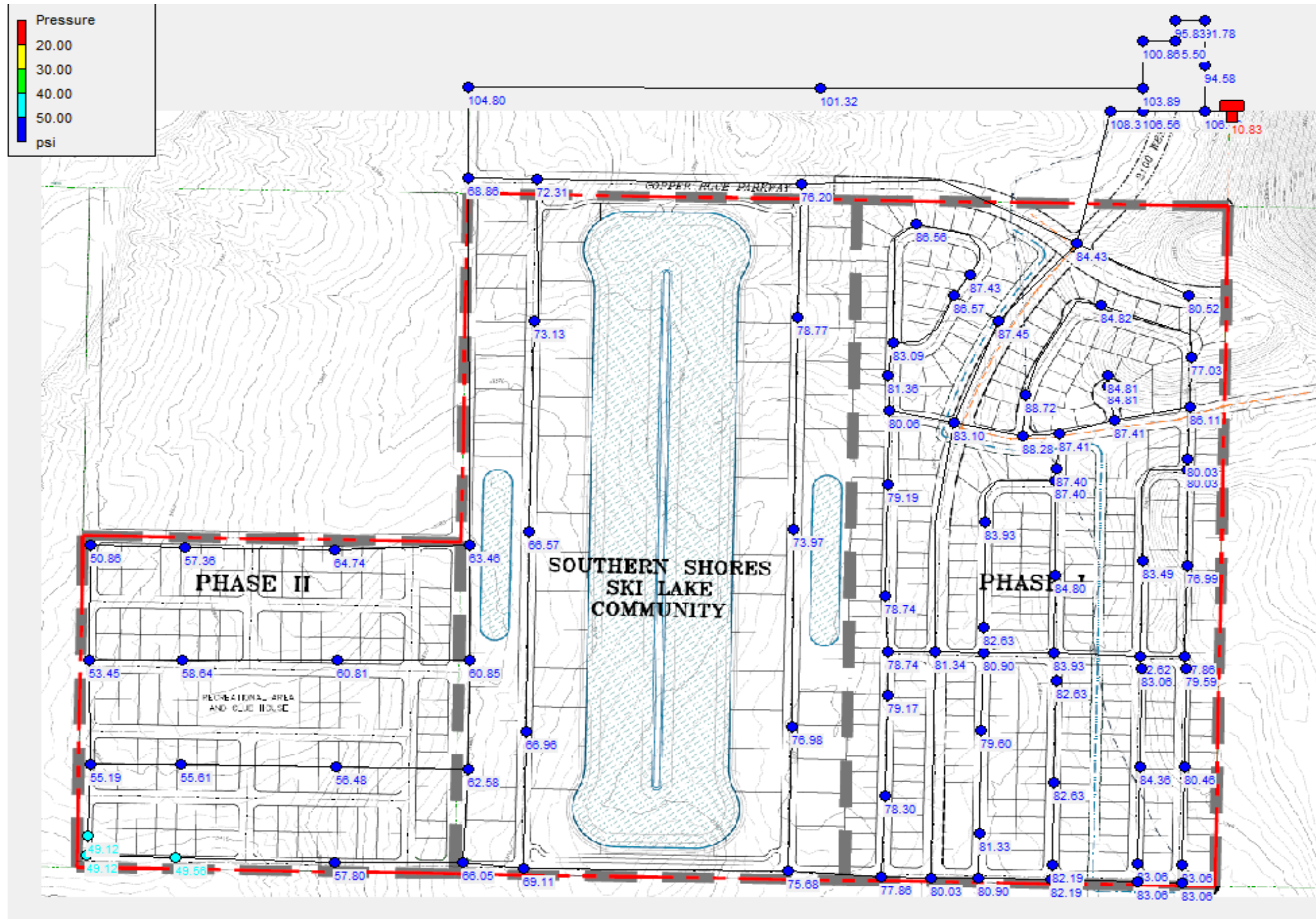
Peak Daily Demand (PDD) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 61	55.41	12	100	2.16	0.01
Pipe 40	49.07	8	150	1.19	0.01
Pipe 66	66.34	8	150	1.19	0.01
Pipe 41	372.25	8	150	1.19	0.01
Pipe 65	372.36	8	150	1.19	0.01
Pipe 92	430	12	130	2.83	0.01
Pipe 64	66.37	8	150	1.32	0.01
Pipe 42	49.2	8	150	1.32	0.01
Pipe 63	366.83	8	150	1.32	0.01
Pipe 43	372.26	8	150	1.32	0.01
Pipe 58	169.58	8	150	1.71	0.01
Pipe 57	390.74	8	150	1.71	0.01
Pipe 46	292.53	8	150	1.71	0.01
Pipe CRP2	1000	12	130	-4.06	0.01
Pipe 44	106.8	8	150	2.16	0.01
Pipe 45	385.3	8	150	2.16	0.01
Pipe 60	311.45	8	150	2.16	0.01
Pipe 34	99.03	8	150	2.18	0.01
Pipe 33	399.99	8	150	2.18	0.01
Pipe 25	368.41	8	150	2.18	0.01
Pipe 18	259.94	8	150	3.29	0.02
Pipe 83	430	12	130	9.08	0.03
Pipe 21	197.76	8	150	-4.75	0.03
Pipe 19	127.75	8	150	6.25	0.04
Pipe 67	154.89	8	150	6.85	0.04
Pipe 52	152.35	8	150	7.06	0.05
Pipe 38	362.01	8	150	8.72	0.06
Pipe 28	478.35	8	150	8.72	0.06
Pipe 39	342.98	8	150	10.2	0.07
Pipe 29	361.83	8	150	10.2	0.07
Pipe 110	430	8	150	11.85	0.08
Pipe 10	96.13	8	150	-12.25	0.08
Pipe 9	355.92	8	150	-12.25	0.08
Pipe 8	487.49	8	150	-12.25	0.08
Pipe 107	430	8	150	12.44	0.08
Pipe 36	361.83	8	150	13.36	0.09
Pipe 37	293.37	8	150	13.36	0.09
Pipe 62	293.1	8	150	13.57	0.09

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	31.15	0.09
Pipe 51	293.49	8	150	13.95	0.09
Pipe 14	156.58	8	150	-15.75	0.1
Pipe 16	415.24	8	150	-15.75	0.1
Pipe 15	480.87	8	150	-15.75	0.1
Pipe 6	129.55	8	150	-15.99	0.1
Pipe 7	127.12	8	150	-15.99	0.1
Pipe 93	400	12	130	-36.22	0.1
Pipe 94	30	12	130	-36.22	0.1
Pipe CRP1	950	12	130	-38.77	0.11
Pipe 101	440	8	150	17.82	0.11
Pipe 91	430	12	130	41.28	0.12
Pipe 47	165.56	8	150	19.99	0.13
Pipe 54	308.02	8	150	19.99	0.13
Pipe 53	385.25	8	150	19.99	0.13
Pipe 95	430	12	130	-45.15	0.13
Pipe 48	159.97	8	150	-21.31	0.14
Pipe 108	430	8	150	-21.49	0.14
Pipe 111	430	8	150	-22.08	0.14
Pipe 59	248.84	8	150	22.13	0.14
Pipe 90	430	12	130	50.21	0.14
Pipe 50	239.95	8	150	22.4	0.14
Pipe 12	304.26	8	150	22.49	0.14
Pipe 31	422.84	8	150	22.79	0.15
Pipe 30	281.87	8	150	22.79	0.15
Pipe 32	209.62	8	150	22.79	0.15
Pipe 68	860.44	18	130	117.99	0.15
Pipe 5	225.58	8	150	23.77	0.15
Pipe 84	430	12	130	-54.57	0.15
Pipe 100	880	8	150	25.86	0.17
Pipe 96	430	12	130	-62.12	0.18
Pipe 105	440	8	150	29.54	0.19
Pipe 89	430	12	130	67.18	0.19
Pipe CRP3	420	12	130	-69.21	0.2
Pipe 81	430	12	130	72.43	0.21
Pipe 99	880	8	150	33.9	0.22
Pipe 97	430	12	130	-79.09	0.22
Pipe 24	45.86	8	150	35.19	0.22
Pipe 23	129.72	8	150	35.19	0.22

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 35	874.02	18	130	180.87	0.23
Pipe 88	430	12	130	84.15	0.24
Pipe 104	880	8	150	37.58	0.24
Pipe 26	198.2	8	150	37.67	0.24
Pipe 27	41.9	8	150	37.67	0.24
Pipe 55	167.7	12	130	-86.84	0.25
Pipe 22	125.92	8	150	-40.83	0.26
Pipe CRP0	250	12	130	-93.32	0.26
Pipe 49	163.95	8	150	41.57	0.27
Pipe 13	238.37	8	150	42.05	0.27
Pipe 85	340	12	130	95.23	0.27
Pipe 98	440	8	150	42.83	0.27
Pipe 103	880	8	150	45.62	0.29
Pipe 11	179.66	8	150	-46.35	0.3
Pipe 106	430	8	150	46.37	0.3
Pipe 109	430	8	150	46.68	0.3
Pipe 4	413.75	18	130	246.69	0.31
Pipe 86	920	12	130	113.05	0.32
Pipe 2400W	9200	18	130	258.83	0.33
Pipe 78	2643	12	130	-119.86	0.34
Pipe 79	2674	12	130	-119.86	0.34
Pipe 17	186.67	8	150	53.46	0.34
Pipe 102	440	8	150	54.55	0.35
Pipe 3	384.76	18	130	293.04	0.37
Pipe 87	240	12	130	142.59	0.4
Pipe 70	200	8	150	-69.21	0.44
Pipe 80	1400	12	130	165.51	0.47
Pipe 82	2640	12	130	258.83	0.73
Pipe 75	1320	8	134	-119.86	0.77
Pipe 74	3268	8	134	-119.86	0.77
Pipe 77	1340	8	134	-119.86	0.77
Pipe 76	628	8	134	-119.86	0.77
Pipe 73	1330	8	134	-138.98	0.89
Pipe 2100W	8620	12	130	366.32	1.04
Pipe 69	2650	12	130	366.32	1.04
Pipe 2	2650	12	130	505.29	1.43
Pipe 72	2640	8	150	-258.83	1.65
Pipe 1	400	12	130	625.15	1.77

Peak Instantaneous Demand (PID)



Peak Instantaneous Demand (PID) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	0	3527.37	49.12
Junc 89	3414	17.86	3527.37	49.12
Junc 88	3413	33.94	3527.38	49.56
Junc 80	3410	17.86	3527.37	50.86
Junc 83	3404	33.94	3527.36	53.45
Junc 86	3400	33.94	3527.36	55.19
Junc 85	3399	67.86	3527.34	55.61
Junc 84	3397	69.66	3527.35	56.48
Junc 79	3395	33.94	3527.39	57.36
Junc 87	3394	33.94	3527.41	57.8
Junc 82	3392	67.86	3527.34	58.64
Junc 81	3387	67.86	3527.35	60.81
Junc 75	3387	33.94	3527.42	60.85
Junc 76	3383	33.94	3527.42	62.58
Junc 74	3381	17.86	3527.45	63.46
Junc 78	3378	33.94	3527.41	64.74
Junc 77	3375	17.86	3527.44	66.05
Junc 67	3374	16.08	3527.64	66.57
Junc 68	3373	16.08	3527.53	66.96
Junc 63	3369	0	3527.91	68.86
Junc 69	3368	0	3527.5	69.11
Junc 65	3361	0	3527.88	72.31
Junc 66	3359	17.86	3527.78	73.13
Junc 71	3357	16.08	3527.71	73.97
Junc 73	3353	0	3527.65	75.68
Junc 61	3352	0	3527.86	76.2
Junc 72	3350	16.08	3527.66	76.98
Junc 28	3350	0	3527.69	76.99
Junc 32	3350	0	3527.76	77.03
Junc 26	3348	32.14	3527.69	77.86
Junc 48	3348	23.22	3527.69	77.86
Junc 47	3347	0	3527.7	78.3

30 req.

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 16	3346	48.22	3527.72	78.74
Junc 15	3346	0	3527.73	78.74
Junc 70	3346	17.86	3527.8	78.77
Junc 46	3345	0	3527.71	79.17
Junc 14	3345	0	3527.75	79.19
Junc 40	3344	0	3527.69	79.59
Junc 44	3344	0	3527.7	79.6
Junc 29	3343	37.5	3527.69	80.03
Junc 30	3343	0	3527.7	80.03
Junc 49	3343	0	3527.71	80.03
Junc 13	3343	33.94	3527.76	80.06
Junc 57	3342	0	3527.69	80.46
Junc 5	3342	0	3527.84	80.52
Junc 50	3341	21.44	3527.7	80.9
Junc 18	3341	39.3	3527.7	80.9
Junc 45	3340	0	3527.7	81.33
Junc 17	3340	0	3527.73	81.34
Junc Ph1-FH3	3340	0	3527.77	81.36
Junc 51	3338	21.44	3527.69	82.19
Junc 52	3338	0	3527.69	82.19
Junc 25	3337	28.58	3527.69	82.62
Junc 53	3337	0	3527.69	82.63
Junc 43	3337	0	3527.69	82.63
Junc 19	3337	0	3527.7	82.63
Junc 59	3336	16.08	3527.69	83.06
Junc 58	3336	0	3527.69	83.06
Junc 55	3336	16.08	3527.69	83.06
Junc 54	3336	0	3527.69	83.06
Junc 41	3336	0	3527.69	83.06
Junc 11	3336	37.5	3527.77	83.09
Junc 7	3336	0	3527.77	83.1
Junc 27	3335	0	3527.69	83.49

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	39.3	3527.69	83.93
Junc 20	3334	0	3527.7	83.93
Junc 56	3333	0	3527.69	84.36
Junc ExFH3	3333	0	3527.86	84.43
Junc 23	3332	0	3527.7	84.8
Junc 38	3332	12.5	3527.72	84.81
Junc 39	3332	0	3527.72	84.81
Junc 33	3332	0	3527.75	84.82
Junc 31	3329	25	3527.72	86.11
Junc Ph1-FH2	3328	0	3527.78	86.56
Junc 8	3328	23.22	3527.78	86.57
Junc 21	3326	39.3	3527.7	87.4
Junc 22	3326	0	3527.71	87.4
Junc 37	3326	3.58	3527.72	87.41
Junc 36	3326	1.78	3527.72	87.41
Junc Ph1-FH1	3326	0	3527.78	87.43
Junc 6	3326	0	3527.81	87.45
Junc 35	3324	33.94	3527.74	88.28
Junc 34	3323	0	3527.74	88.72
Junc 3	3338	0	3549.81	91.78
Junc 4	3332	0	3550.29	94.58
Junc 10	3327	0	3547.4	95.5
Junc 9	3327	0	3548.17	95.83
Junc 12	3313	0	3545.78	100.86
Junc 60	3297	0	3530.84	101.32
Junc 42	3302	0	3541.77	103.89
Junc 62	3287	0	3528.87	104.8
Junc ExFH1	3305	0	3550.77	106.49
Junc 1	3298	0	3543.92	106.56
Junc ExFH2	3290	0	3540.14	108.39

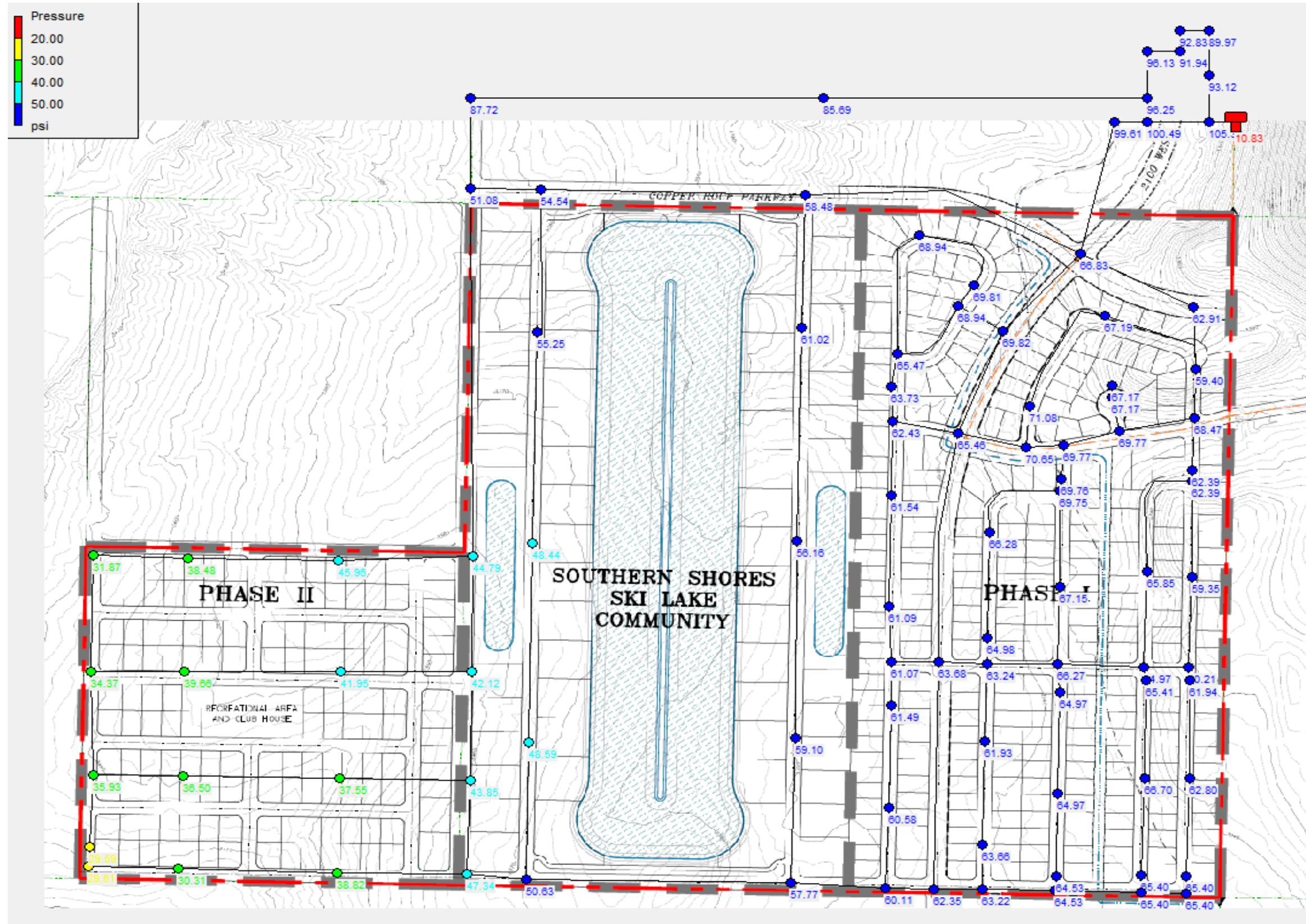
Peak Instantaneous Demand (PID) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 61	55.41	12	100	4.31	0.01
Pipe 66	66.34	8	150	2.39	0.02
Pipe 41	372.25	8	150	2.39	0.02
Pipe 40	49.07	8	150	2.39	0.02
Pipe 65	372.36	8	150	2.39	0.02
Pipe 92	430	12	130	5.65	0.02
Pipe 64	66.37	8	150	2.63	0.02
Pipe 42	49.2	8	150	2.63	0.02
Pipe 43	372.26	8	150	2.63	0.02
Pipe 63	366.83	8	150	2.63	0.02
Pipe 58	169.58	8	150	3.41	0.02
Pipe 57	390.74	8	150	3.41	0.02
Pipe 46	292.53	8	150	3.41	0.02
Pipe CRP2	1000	12	130	-8.13	0.02
Pipe 44	106.8	8	150	4.31	0.03
Pipe 45	385.3	8	150	4.31	0.03
Pipe 60	311.45	8	150	4.31	0.03
Pipe 34	99.03	8	150	4.37	0.03
Pipe 33	399.99	8	150	4.37	0.03
Pipe 25	368.41	8	150	4.37	0.03
Pipe 18	259.94	8	150	6.58	0.04
Pipe 83	430	12	130	18.17	0.05
Pipe 21	197.76	8	150	-9.5	0.06
Pipe 19	127.75	8	150	12.5	0.08
Pipe 67	154.89	8	150	13.69	0.09
Pipe 52	152.35	8	150	14.12	0.09
Pipe 38	362.01	8	150	17.44	0.11
Pipe 28	478.35	8	150	17.44	0.11
Pipe 39	342.98	8	150	20.41	0.13
Pipe 29	361.83	8	150	20.41	0.13
Pipe 110	430	8	150	23.7	0.15
Pipe 10	96.13	8	150	-24.48	0.16
Pipe 9	355.92	8	150	-24.48	0.16
Pipe 8	487.49	8	150	-24.48	0.16
Pipe 107	430	8	150	24.89	0.16
Pipe 36	361.83	8	150	26.72	0.17
Pipe 37	293.37	8	150	26.72	0.17
Pipe 62	293.1	8	150	27.14	0.17

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	62.29	0.18
Pipe 51	293.49	8	150	27.9	0.18
Pipe 14	156.58	8	150	-31.5	0.2
Pipe 16	415.24	8	150	-31.5	0.2
Pipe 15	480.87	8	150	-31.5	0.2
Pipe 6	129.55	8	150	-31.97	0.2
Pipe 7	127.12	8	150	-31.97	0.2
Pipe 93	400	12	130	-72.45	0.21
Pipe 94	30	12	130	-72.45	0.21
Pipe CRP1	950	12	130	-77.53	0.22
Pipe 101	440	8	150	35.64	0.23
Pipe 91	430	12	130	82.56	0.23
Pipe 47	165.56	8	150	39.98	0.26
Pipe 54	308.02	8	150	39.98	0.26
Pipe 53	385.25	8	150	39.98	0.26
Pipe 95	430	12	130	-90.31	0.26
Pipe 48	159.97	8	150	-42.63	0.27
Pipe 108	430	8	150	-42.97	0.27
Pipe 111	430	8	150	-44.16	0.28
Pipe 59	248.84	8	150	44.27	0.28
Pipe 90	430	12	130	100.42	0.28
Pipe 50	239.95	8	150	44.79	0.29
Pipe 12	304.26	8	150	45	0.29
Pipe 31	422.84	8	150	45.58	0.29
Pipe 30	281.87	8	150	45.58	0.29
Pipe 32	209.62	8	150	45.58	0.29
Pipe 68	860.44	18	130	235.98	0.3
Pipe 5	225.58	8	150	47.54	0.3
Pipe 84	430	12	130	-109.13	0.31
Pipe 100	880	8	150	51.72	0.33
Pipe 96	430	12	130	-124.25	0.35
Pipe 105	440	8	150	59.09	0.38
Pipe 89	430	12	130	134.36	0.38
Pipe CRP3	420	12	130	-138.43	0.39
Pipe 81	430	12	130	144.86	0.41
Pipe 99	880	8	150	67.8	0.43
Pipe 97	430	12	130	-158.19	0.45
Pipe 24	45.86	8	150	70.38	0.45
Pipe 23	129.72	8	150	70.38	0.45

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 35	874.02	18	130	361.74	0.46
Pipe 88	430	12	130	168.3	0.48
Pipe 104	880	8	150	75.17	0.48
Pipe 26	198.2	8	150	75.35	0.48
Pipe 27	41.9	8	150	75.35	0.48
Pipe 55	167.7	12	130	-173.69	0.49
Pipe 22	125.92	8	150	-81.66	0.52
Pipe CRP0	250	12	130	-186.64	0.53
Pipe 49	163.95	8	150	83.14	0.53
Pipe 13	238.37	8	150	84.1	0.54
Pipe 85	340	12	130	190.45	0.54
Pipe 98	440	8	150	85.66	0.55
Pipe 103	880	8	150	91.25	0.58
Pipe 11	179.66	8	150	-92.69	0.59
Pipe 106	430	8	150	92.75	0.59
Pipe 109	430	8	150	93.36	0.6
Pipe 4	413.75	18	130	493.39	0.62
Pipe 86	920	12	130	226.09	0.64
Pipe 2400W	9200	18	130	517.66	0.65
Pipe 78	2643	12	130	-239.71	0.68
Pipe 79	2674	12	130	-239.71	0.68
Pipe 17	186.67	8	150	106.92	0.68
Pipe 102	440	8	150	109.11	0.7
Pipe 3	384.76	18	130	586.08	0.74
Pipe 87	240	12	130	285.18	0.81
Pipe 70	200	8	150	-138.43	0.88
Pipe 80	1400	12	130	331.02	0.94
Pipe 82	2640	12	130	517.66	1.47
Pipe 75	1320	8	134	-239.71	1.53
Pipe 74	3268	8	134	-239.71	1.53
Pipe 77	1340	8	134	-239.71	1.53
Pipe 76	628	8	134	-239.71	1.53
Pipe 73	1330	8	134	-277.95	1.77
Pipe 2100W	8620	12	130	732.64	2.08
Pipe 69	2650	12	130	732.64	2.08
Pipe 2	2650	12	130	1010.59	2.87
Pipe 72	2640	8	150	-517.66	3.3
Pipe 1	400	12	130	1250.3	3.55

Peak Daily Demand + Fire Flow Demand (PDD+FFD)



Peak Daily Demand + Fire Flow Demand (PDD+FFD) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	1500	3482.29	29.59
Junc 89	3414	8.93	3482.33	29.61
Junc 88	3413	16.97	3482.94	30.31
Junc 80	3410	8.93	3483.56	31.87
Junc 83	3404	16.97	3483.32	34.37
Junc 86	3400	16.97	3482.92	35.93
Junc 85	3399	33.93	3483.24	36.5
Junc 84	3397	34.83	3483.66	37.55
Junc 79	3395	16.97	3483.81	38.48
Junc 87	3394	16.97	3483.59	38.82
Junc 82	3392	33.93	3483.53	39.66
Junc 81	3387	33.93	3483.82	41.95
Junc 75	3387	16.97	3484.22	42.12
Junc 76	3383	16.97	3484.2	43.85
Junc 74	3381	8.93	3484.36	44.79
Junc 78	3378	16.97	3484.08	45.96
Junc 77	3375	8.93	3484.26	47.34
Junc 67	3374	8.04	3485.8	48.44
Junc 68	3373	8.04	3485.14	48.59
Junc 69	3368	0	3484.84	50.63
Junc 63	3369	0	3486.88	51.08
Junc 65	3361	0	3486.88	54.54
Junc 66	3359	8.93	3486.5	55.25
Junc 71	3357	8.04	3486.6	56.16
Junc 73	3353	0	3486.32	57.77
Junc 61	3352	0	3486.97	58.48
Junc 72	3350	8.04	3486.4	59.1
Junc 28	3350	0	3486.97	59.35
Junc 32	3350	0	3487.09	59.4
Junc 48	3348	11.61	3486.74	60.11
Junc 26	3348	16.07	3486.95	60.21
Junc 47	3347	0	3486.81	60.58

20 req.

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 70	3346	8.93	3486.83	61.02
Junc 16	3346	24.11	3486.95	61.07
Junc 15	3346	0	3486.98	61.09
Junc 46	3345	0	3486.91	61.49
Junc 14	3345	0	3487.03	61.54
Junc 44	3344	0	3486.94	61.93
Junc 40	3344	0	3486.95	61.94
Junc 49	3343	0	3486.89	62.35
Junc 29	3343	18.75	3486.98	62.39
Junc 30	3343	0	3486.99	62.39
Junc 13	3343	16.97	3487.07	62.43
Junc 57	3342	0	3486.94	62.8
Junc 5	3342	0	3487.19	62.91
Junc 50	3341	10.72	3486.9	63.22
Junc 18	3341	19.65	3486.95	63.24
Junc 45	3340	0	3486.91	63.66
Junc 17	3340	0	3486.96	63.68
Junc Ph1-FH3	3340	0	3487.08	63.73
Junc 51	3338	10.72	3486.92	64.53
Junc 52	3338	0	3486.92	64.53
Junc 53	3337	0	3486.94	64.97
Junc 43	3337	0	3486.95	64.97
Junc 25	3337	14.29	3486.95	64.97
Junc 19	3337	0	3486.96	64.98
Junc 55	3336	8.04	3486.93	65.4
Junc 54	3336	0	3486.94	65.4
Junc 59	3336	8.04	3486.94	65.4
Junc 58	3336	0	3486.94	65.4
Junc 41	3336	0	3486.95	65.41
Junc 7	3336	0	3487.08	65.46
Junc 11	3336	18.75	3487.09	65.47
Junc 27	3335	0	3486.96	65.85

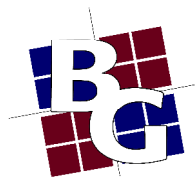
Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	19.65	3486.95	66.27
Junc 20	3334	0	3486.97	66.28
Junc 56	3333	0	3486.94	66.7
Junc ExFH3	3333	0	3487.23	66.83
Junc 23	3332	0	3486.97	67.15
Junc 38	3332	6.25	3487.02	67.17
Junc 39	3332	0	3487.02	67.17
Junc 33	3332	0	3487.07	67.19
Junc 31	3329	12.5	3487.03	68.47
Junc Ph1-FH2	3328	0	3487.1	68.94
Junc 8	3328	11.61	3487.11	68.94
Junc 21	3326	19.65	3486.99	69.75
Junc 22	3326	0	3487	69.76
Junc 36	3326	0.89	3487.02	69.77
Junc 37	3326	1.79	3487.02	69.77
Junc Ph1-FH1	3326	0	3487.11	69.81
Junc 6	3326	0	3487.15	69.82
Junc 35	3324	16.97	3487.05	70.65
Junc 34	3323	0	3487.05	71.08
Junc 60	3297	0	3494.76	85.69
Junc 62	3287	0	3489.45	87.72
Junc 3	3338	0	3545.64	89.97
Junc 10	3327	0	3539.19	91.94
Junc 9	3327	0	3541.25	92.83
Junc 4	3332	0	3546.92	93.12
Junc 12	3313	0	3534.86	96.13
Junc 42	3302	0	3524.14	96.25
Junc ExFH2	3290	0	3519.88	99.61
Junc 1	3298	0	3529.92	100.49
Junc ExFH1	3305	0	3548.2	105.38

Peak Daily Demand + Fire Flow Demand (PDD+FFD) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 52	152.35	8	150	1.6	0.01
Pipe 19	127.75	8	150	6.25	0.04
Pipe 51	293.49	8	150	6.77	0.04
Pipe 21	197.76	8	150	9.87	0.06
Pipe 61	55.41	12	100	39.31	0.11
Pipe 18	259.94	8	150	17.91	0.11
Pipe 50	239.95	8	150	18.14	0.12
Pipe 67	154.89	8	150	-19.67	0.13
Pipe CRP0	250	12	130	-52.03	0.15
Pipe 65	372.36	8	150	27.71	0.18
Pipe 40	49.07	8	150	27.71	0.18
Pipe 41	372.25	8	150	27.71	0.18
Pipe 66	66.34	8	150	27.71	0.18
Pipe 63	366.83	8	150	29.23	0.19
Pipe 64	66.37	8	150	29.23	0.19
Pipe 43	372.26	8	150	29.23	0.19
Pipe 42	49.2	8	150	29.23	0.19
Pipe 9	355.92	8	150	-29.88	0.19
Pipe 8	487.49	8	150	-29.88	0.19
Pipe 10	96.13	8	150	-29.88	0.19
Pipe 5	225.58	8	150	30.32	0.19
Pipe 38	362.01	8	150	38.35	0.24
Pipe 28	478.35	8	150	38.35	0.24
Pipe 45	385.3	8	150	39.31	0.25
Pipe 44	106.8	8	150	39.31	0.25
Pipe 60	311.45	8	150	39.31	0.25
Pipe 25	368.41	8	150	39.53	0.25
Pipe 33	399.99	8	150	39.53	0.25
Pipe 34	99.03	8	150	39.53	0.25
Pipe 14	156.58	8	150	-40.22	0.26
Pipe 15	480.87	8	150	-40.22	0.26
Pipe 16	415.24	8	150	-40.22	0.26
Pipe 83	430	12	130	91	0.26
Pipe 62	293.1	8	150	-40.86	0.26
Pipe 39	342.98	8	150	42.18	0.27
Pipe 29	361.83	8	150	42.18	0.27
Pipe 36	361.83	8	150	47.59	0.3
Pipe 37	293.37	8	150	47.59	0.3

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	-113.77	0.32
Pipe 49	163.95	8	150	53.3	0.34
Pipe 12	304.26	8	150	54.92	0.35
Pipe 46	292.53	8	150	55.04	0.35
Pipe 57	390.74	8	150	55.04	0.35
Pipe 58	169.58	8	150	55.04	0.35
Pipe 48	159.97	8	150	-58.6	0.37
Pipe 7	127.12	8	150	-66.04	0.42
Pipe 6	129.55	8	150	-66.04	0.42
Pipe 59	248.84	8	150	-69.45	0.44
Pipe 13	238.37	8	150	74.53	0.48
Pipe CRP1	950	12	130	169.56	0.48
Pipe CRP3	420	12	130	-169.92	0.48
Pipe 30	281.87	8	150	79.39	0.51
Pipe 31	422.84	8	150	79.39	0.51
Pipe 32	209.62	8	150	79.39	0.51
Pipe 84	430	12	130	-199.16	0.56
Pipe 68	860.44	18	130	464.14	0.59
Pipe 11	179.66	8	150	-96.4	0.62
Pipe 22	125.92	8	150	-97.79	0.62
Pipe 27	41.9	8	150	99.28	0.63
Pipe 26	198.2	8	150	99.28	0.63
Pipe 101	440	8	150	100.49	0.64
Pipe 24	45.86	8	150	106.77	0.68
Pipe 23	129.72	8	150	106.77	0.68
Pipe 100	880	8	150	108.53	0.69
Pipe 35	874.02	18	130	576.03	0.73
Pipe 47	165.56	8	150	113.88	0.73
Pipe 53	385.25	8	150	113.88	0.73
Pipe 54	308.02	8	150	113.88	0.73
Pipe 99	880	8	150	116.57	0.74
Pipe 98	440	8	150	125.5	0.8
Pipe 17	186.67	8	150	129.69	0.83
Pipe CRP2	1000	12	130	-295.07	0.84
Pipe 4	413.75	18	130	680.89	0.86
Pipe 81	430	12	130	337.47	0.96
Pipe 3	384.76	18	130	777.29	0.98
Pipe 108	430	8	150	161.64	1.03
Pipe 70	200	8	150	-169.92	1.08

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 2400W	9200	18	130	882.88	1.11
Pipe 78	2643	12	130	-407.88	1.16
Pipe 79	2674	12	130	-407.88	1.16
Pipe 107	430	8	150	195.57	1.25
Pipe 91	430	12	130	441.58	1.25
Pipe 105	440	8	150	196.58	1.25
Pipe 90	430	12	130	450.51	1.28
Pipe 111	430	8	150	204.43	1.3
Pipe 104	880	8	150	204.62	1.31
Pipe 89	430	12	130	467.48	1.33
Pipe 103	880	8	150	212.66	1.36
Pipe 88	430	12	130	484.45	1.37
Pipe 102	440	8	150	221.59	1.41
Pipe 106	430	8	150	229.5	1.46
Pipe 110	430	8	150	238.36	1.52
Pipe 55	167.7	12	130	-577.91	1.64
Pipe 92	430	12	130	586.25	1.66
Pipe 109	430	8	150	273.19	1.74
Pipe 85	340	12	130	680.18	1.93
Pipe 94	30	12	130	-726.28	2.06
Pipe 95	430	12	130	-735.21	2.09
Pipe 96	430	12	130	-752.18	2.13
Pipe 97	430	12	130	-769.15	2.18
Pipe 93	400	12	130	773.72	2.19
Pipe 86	920	12	130	780.67	2.21
Pipe 80	1400	12	130	830.85	2.36
Pipe 82	2640	12	130	882.88	2.5
Pipe 74	3268	8	134	-407.88	2.6
Pipe 77	1340	8	134	-407.88	2.6
Pipe 76	628	8	134	-407.88	2.6
Pipe 75	1320	8	134	-407.88	2.6
Pipe 87	240	12	130	977.25	2.77
Pipe 73	1330	8	134	-474.99	3.03
Pipe 2100W	8620	12	130	1242.27	3.52
Pipe 69	2650	12	130	1242.27	3.52
Pipe 2	2650	12	130	1717.27	4.87
Pipe 72	2640	8	150	-882.88	5.64
Pipe 1	400	12	130	2125.15	6.03



September 14, 20

Southern Dunes Townhomes Hurricane, Utah JUC and Staff Comments

RE: Hurricane City Staff Comments

Discussion:

The applicant has filed a preliminary plat for Southern Dunes Townhomes within the Cordero development. The applicant is proposing 345 resort townhome units for a density of about 8.63 units per acre. The Cordero development, as approved in 2020 is split into three sections with different zonings: the west side is zoned Recreation Resort (Southern Dunes), the middle section is zoned R1-10 (Southern Shores) and the east side is zoned R1-6 (Cordero). A development agreement governs this development that limits the overall unit count to 700 units across all three sections. This preliminary plat will complete the preliminary plat process for the entire development. Utilities are still scarce throughout the region so any approval should be contingent on the developer being able to supply adequate services to the property.

JUC Comments

The following items will need to be addressed:

1. **Public Works:** Must dedicate and improve 2600 W. Must obtain full ROW for 2600 W and utilities.

Response: 70' ROW improvements along 2600 West matching Transportation Master Plan are part of this plan set.

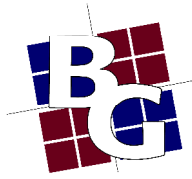
2. **Power:** "At this time, the City's power grid is inadequate to support all of the development planned in the area south of 2700 South Street. Although the Power Department has plans to expand and enhance its system to supply adequate power to this area, those plans are subject to funding limitations, the City's acquisition of easements and rights-of-way, the availability of materials, and other limitations. Therefore, the Power Department cannot presently guarantee that it can provide power to all of the development planned in this area, which includes this proposed development."

Response: We understand and acknowledge that power will be provided on a first come first serve basis. We also understand that a new substation is in the plans to provide power to the entire area.

3. **Sewer:** No comments

Response: N/A

4. **Street:** Do these units have garages? Driveways for parking? On street parking?



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Response: All units have a 2 car garage with some end units having a 3 car garage. Driveways are 25' and can be used for parking. Some street parking will be available within the 52' ROW but the street parking on the 45' ROW will not be permitted.

5. **Water:** Water model needed. Public or private streets? Private streets require ductile iron piping

Response: Water model is provided; all streets are Public.

6. **Engineering:** It appears this development is located in the FH110 subbasin of the Hurricane Storm Drain Master Plan and stormwater from this development will eventually drain to the open channel along 2100 W. The drainage study for this development should elaborate on how. Avoid block lengths greater than 800' stub roadways accordingly. Verify corner lot driveways are out of sight distance triangles. 4300 S is a master-planned 84' ROW with trails on the north and south sides. 2600 W is a master-planned 77' ROW with a trail on the west side that will need to be dedicated at this time. For some reason the current ROW dedication for 2600 W shows a curve in the southeast corner of this development; the road needs to be straight through here.

Response: When Drainage study is finished it will demonstrate how drainage will work. Block lengths are less than 800'. Corner lots meet set back requirements. Will need to address the difference from the Transportation Master Plan that shows 70' ROW in the area.

7. **Fire:** Need second access and buildings to be sprinkled

Response: A second access will be provided and all buildings will be fire sprinkled

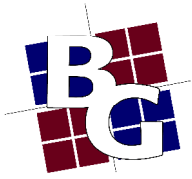
8. **Cable:** Add Centurylink fiber optic notes for construction drawings

Response: Notes will be added to CD's

9. **Gas:** No comments.

Response: N/A

10. **Water Conservancy:** No comments



Response: N/A

Staff Comments: Preliminary Site Plan and Plat

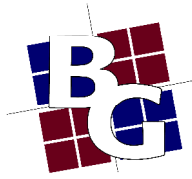
1. Zoning is a Recreation Resort and meets the density requirements of that zone.
 - a. A “concept plan” that showed this area was submitted as part of the zone change that happened in 2020, before the requirements of the Recreation Resort zone were changed. Due to the fact that this previous plan was both substantially different than what is being proposed here and was not part of an official application this will be reviewed under HCC 10-26 as amended under Ordinance No. 2021-09
2. The development is partly governed by a development agreement which capped the total number of lots at 700 for the whole area. The development agreement required preliminary plats to list the number of lots that have been approved for the full Cordero development. This table is not provided. However, this plat plus the other approved preliminary plats add up to 691 units.
3. Staff would assume that all streets and alleyways not specifically marked “public” are private. This should be made more clear on the plat.

Response: All streets will be clearly labeled, there are no alley ways or private streets in this project.

4. **Parking:** Per HCC 10-26-6: *“Within recreational resorts, an application shall provide two parking spaces per unit or one space per bedroom, whichever is higher. Tandem parking spaces are permitted only if approved as part of the preliminary site plan by the Planning Commission.”*
 - a. It appears from the site plan that the townhome units will have garages and driveways such to meet this code but this should be called out
 - b. RV/trailer spaces are also required at a rate of one space per five units. 69 spaces are required and approximately 130 are provided
 - c. On-street parking is shown on Road F and Road G. On-street parking is allowed in Recreation Resort zoning, however the code states, *“Parking areas shall be located 50 feet away from any intersection of public roadways.”* These parking spaces do not meet this standard

Response: On-street parking has been moved away from intersections.

5. **Amenities:** Per HCC 10-26-4: two clubhouses with at least 2,000 sq ft of total nonoffice space and four pools of at least 2,000 sq ft are required. The proposed site plan shows two “amenity areas” and one pool. More details are required on the proposed amenities. The Planning Commission may approve consolidated amenities if it leads to a better amenity area. A Pool, club house and on-site management will need to be in place within the first phase a development.



Response: Amenities will be labeled and tallied.

6. Block lengths and connectivity: Per Hurricane City Design Standards: *“When designing local road networks, block lengths without an intervening connector street shall not exceed eight hundred feet (800') in length unless previous approval has been obtained from the City Engineer. Cul-de-sacs are not considered an intervening connecting street.”* Several blocks do not meet this standard on one side or another.

- a. This site plan appears to only show alleyway access to the property to the north and limited street access to the property to the west. The Preliminary Site Plan for Sand Hollow Mesa Neighborhoods 7 and 8 shows full street access to this property at approximately the points these alleyways are shown.

Response: Will compare designs and make changes as needed.

- b. The applicant should provide better connection to the surrounding property to
 - i. Cut down on block lengths
 - ii. Provide better transportation and utility connections with adjacent properties.

Response: Added street connections to north and west properties

- c. Connecting Streets: Hurricane City Code states the following for connectivity within subdivisions:

Sec. 10-39-11. - Subdivision streets and fencing.

- A. *Relation to adjoining street systems.*

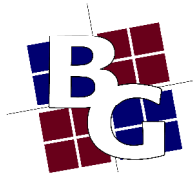
1. *The arrangements of streets in new subdivisions shall make provision for the continuation of the existing streets to adjoining areas insofar as such may be deemed necessary by the Planning Commission for public requirements. New streets within subdivisions shall not preclude future access to adjoining properties.*
2. *Standard residential streets shall approach the arterial or collector streets at an angle of not less than 80 degrees.*
3. *Except as otherwise provided elsewhere in this Code, all subdivision streets and roadways shall be constructed and installed in accordance with the City roadway construction standards.*

An couple of recommendation would be to have Road B connect all the way through the project. Have Road F make a conection to the North. Have Road D connect to the west.

Response: Road F & D stubs have been added to plans with utilities extended.

All alleyways are shown to be 20' wide which may not meet fire code.

Response: No alley ways are proposed on this plat, 20' is the building separation.



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7. All park strips will need to be landscaped and have the proper improvements.

Response: Landscaping will be provided

8. A will serve letter from the culinary and sanitary water providers has been provided

Response: Will serve letters have been provided

9. A note indicating whether or not the property is in a tortoise take area has not been provided

Response: Property is not in tortoise take area

Recommendation: Staff recommends the Planning Commission review this application based on standards with Hurricane City Code. Staff would recommend continuing this application so the applicant can address staff concerns about layout and amenities.

Culinary Water Distribution System Sizing & Modeling Report

The Cordero Subdivision



April 15, 2022
Prepared by: Jake Black, EIT
Reviewed by: Brant Tuttle, PE
Northern Engineering, Inc.
1040 East 800 North
Orem, Utah 84097
(801) 802-8992

The Cordero Subdivision

1.0 INTRODUCTION & PURPOSE:

The original Cordero Subdivision is a 200-acre residential development located at Copper Rock Parkway and 2100 West. An 80-acre parcel has been sold for the Southern Shores Ski Lake Community, which has been designed, approved, and is under construction with 56 lots. The remaining 120-acres has been divided into the east 80-acres (299 units) consisting of single-family lots zoned R1-6, and west 40-acres (345 units) which is zoned Recreational Resort and planned for vacation rentals. The total combined unit count for the 200-acres is 700 units. The purpose of this report is to demonstrate that the proposed water distribution system can meet the anticipated peak water demands that it may come subject to. The State of Utah stipulates that public water systems be sized adequately to deliver the high flows associated with the periods of peak use and for fire flow emergencies. (See applicable Utah codes R309-105, R309-510, and R309-511 along with the International Fire Code). Typically, these peak usage events occur during the hottest period of the summer, when outdoor watering is at its highest.

- The Peak Day Demand (PDD) for a system is defined as the maximum volume of water used on any given day during the year, including water used for irrigation.
- Peak Instantaneous Demand (PID) is defined as the maximum amount of water used in a single hour, in any given day, including water used for irrigation.
- The Fire Flow Demand (FFD) is the flow rate expected at any given fire hydrant within the system and is determined by the Fire Marshall in accordance with building codes.

Delivery of these peak flows are to be provided while simultaneously keeping residual pressures within the system above certain levels. Flow tests performed on the new fire hydrant located at the 2100 W and Copper Rock Parkway intersection (also known as Ex.FH3 in the water model labeling system) by City Staff, provided information on what types of pressures the model needed to meet. The fire hydrant elevation is 3338 feet. The static pressure of the hydrant was 95 psi. According to State Code, Public Water Systems are to ensure that distribution systems maintain a ***minimum*** residual system pressure of:

- (a) at least 40 psi during a *peak day demand* condition;
- (b) at least 30 psi during a *peak instantaneous demand* condition; and
- (c) at least 20 psi during *fire flow conditions* **and** that this fire demand be experienced concurrently with a *peak day demand* condition.

1.1 WATER SYSTEM DESIGN CRITERIA:

State of Utah Admin Code Section R309R-510 was used to calculate the Peak Day Demand for each residential lot. Both indoor use and irrigation use together was analyzed to calculate the PDD. For indoor use, Table 510-1 of State code lists a PDD of 800 gallons per day per residence. This equates to 0.556 gallons per minute. Table 510-3 lists a PDD of 4.90 gallons per minute per irrigated acre within Map Zone 6, which this project falls within. We determined this project will have an average

of 3,000 square feet of irrigation per lot which equates to 0.0689 acres. Multiplying 4.90 gallons per minute per acre by 0.0689 acres equates to 0.337 gallons per minute. Adding this to the indoor use, the total PDD equals 0.893 gallons per minute. This demand was applied to all 700 lots of the project for analysis of PDD and PDD+FFD.

For the Peak Instantaneous Demand, the Peak Day Demand is multiplied by a factor of 2. This equals 1.786 gallons per minute. This demand was applied to all 700 lots of the project for the analysis of PID.

State of Utah Admin Code Section R309R-510 was used to calculate the total storage requirement for the project. Both indoor use and irrigation use together was analyzed to calculate the total storage. For indoor use, Table 510-4 of State code lists a storage of 400 gallons per residence. Table 510-5 lists a storage of 4,964 gallons per irrigated acre within Map Zone 6, which this project falls within. We determined this project will have an average of 3,000 square feet of irrigation per lot which equates to 0.0689 acres. Multiplying 4,964 gallons per acre by 0.0689 acres equates to 342 gallons. Adding this to the indoor use storage, the total storage equals 742 gallons per residence. This storage applied to all 700 lots of the project equates to a total storage requirement of 519,400 gallons.

According to the International Code, Fire Flow demand is dependent on dwelling size. For dwellings less than 3,600 sq. ft. the Fire Flow Demand is 1,500 gpm. For dwellings less than 4,800 sq. ft. but greater than 3600 sq. ft. the Fire Flow Requirement is 1,750 gpm. For dwellings less than 6,200 sq. ft. but greater than 4,800 sq. ft. the Fire Flow Requirement is 2,000 gpm.

$$FFD = \begin{cases} 1500 \text{ gpm}, & \text{dwelling} < 3600 \text{ ft}^2 \\ 1750 \text{ gpm}, & 3600 \text{ ft}^2 < \text{dwelling} < 4800 \text{ ft}^2 \\ 2000 \text{ gpm}, & 4800 \text{ ft}^2 < \text{dwelling} < 6200 \text{ ft}^2 \end{cases}$$

It was determined that the average dwelling size for this project will be less than 3600 sq. ft. For the PDD+FFD analysis, the PDD was applied to all lots and a 1500 gallons per minute fire flow was applied to the most critical fire hydrant for the project. This fire hydrant is node labeled “FH-SW” in the model as shown in the Appendix and sits higher in elevation than all other hydrants. Applying the fire flow to this hydrant resulted in the lowest pressures as compared to applying the fire flow to all other hydrants.

➔ <u>Peak Day Demand (PDD)</u>	0.893 GPM
➔ <u>Peak Instantaneous Demand (PID)</u>	1.786 GPM
➔ <u>Peak Day w/ Fire Flow Flows (PDD+FFD)</u>	0.893 GPM + 1500 GPM

1.2 HYDRAULIC ANALYSIS AND COMPUTER MODELING:

Hydraulic modeling software programs have been developed to aid in the analysis and design of water distribution systems and, when properly prepared, have been found to accurately simulate available flows and system pressures with a system. These analyses allow the designer to size, compare, and confirm the performance of existing or proposed infrastructure.

“EPANET 2.2”, a hydraulic modeling software developed by the United States Department of Environmental Protection, was utilized for the water distribution system analysis herein described. EPANET 2.2 was developed for conducting steady-state analysis of pressure pipe networks and allows the evaluation of a variety of water demands and operating conditions within a water system. The software allows the designer to link a graphical representation of the water distribution system to a database that describes the physical characteristics of each hydraulic feature (i.e. length, diameter, and roughness coefficient for a pipeline) and the physical attributes and demand conditions at junction nodes (i.e. ground elevation, demand, etc.). In a water model, junction nodes are established at all intersections between pipes as well as other water demand locations in the system. Altogether, these water models can accurately simulate the different components of the distribution system, including the piping, points of connection, system elevations, system demands, and available pressures.

1.3 DISTRIBUTION SYSTEM:

The distribution system within the model was laid within the proposed public streets. All 700 lots were divided up and their water demands applied to the nearest node. Nodes representing fire hydrants were also placed throughout the system according to fire code and Hurricane City Standards.

As per Hurricane City Standards, pipes 12-inches and larger are to be constructed as ductile iron. All smaller pipes are to be constructed as PVC. The model was created to reflect this standard. A roughness coefficient of 150 was applied to all PVC pipes and 130 to all ductile iron pipes. See Appendix A for an exhibit of the subdivision showing the proposed waterline sizes and location, as well as fire hydrant locations. See Appendix A for a map of the 200 acres.

The model was calibrated to reflect the existing condition of the new fire hydrant at 2100 W and Copper Rock Parkway intersection that was tested at a static 95 psi. In order for the model to reflect the measured static pressures in hydrants, a coefficient of 134 was applied to the existing 8-inch water line in 3000 South. A static test was conducted in the model with no demands applied to the lots or hydrants to verify matching static pressures at existing hydrant.

1.4 SYSTEM ANALYSIS:

The goal of the model is to determine if upsizing the 8” water main in 3000 South to a 12” water main will provide sufficient flows to meet state code. The system was modeled using the following:

- Upsizing the existing 8” main in 3000 South to a 12” main from 1100 W to 2100 W.
- The new 12” main that runs down 2100 West from 3000 South to Copper Rock Parkway remains.
- The new 8” main running from 1500 West to 2100 West in approximately 2800 South remains. (across the Zarbock and Beard Property).
- The new 12” main connected to the new 8” main mentioned previous, running from 2100 West to 2600 West at approximately 2800 South and then down to 3000 South remains.

- The new 18" main in 2600 West running from 3000 South to Copper Rock Parkway remains.
- The new 12" main in Copper Rock Parkway running from 2600 West to 2100 West remains.

All new mains listed above have been approved and are under construction. The only new proposed change would be the upsizing of the existing 3000 S main from 1100 W to 2100 W. See Table 1 for model results. See Figure 1 for a map exhibit of main lines.

Table 1 – Minimum Connection Pressure Values:

MODEL	LOWEST RESULTING PRESSURE PSI			MODEL RESULTS: PASS/FAIL
	PDD (P>40psi)	PID (P>30psi)	PDD+FFD (P>20psi)	
SCENARIO 1	56.93	49.12	29.59	PASS

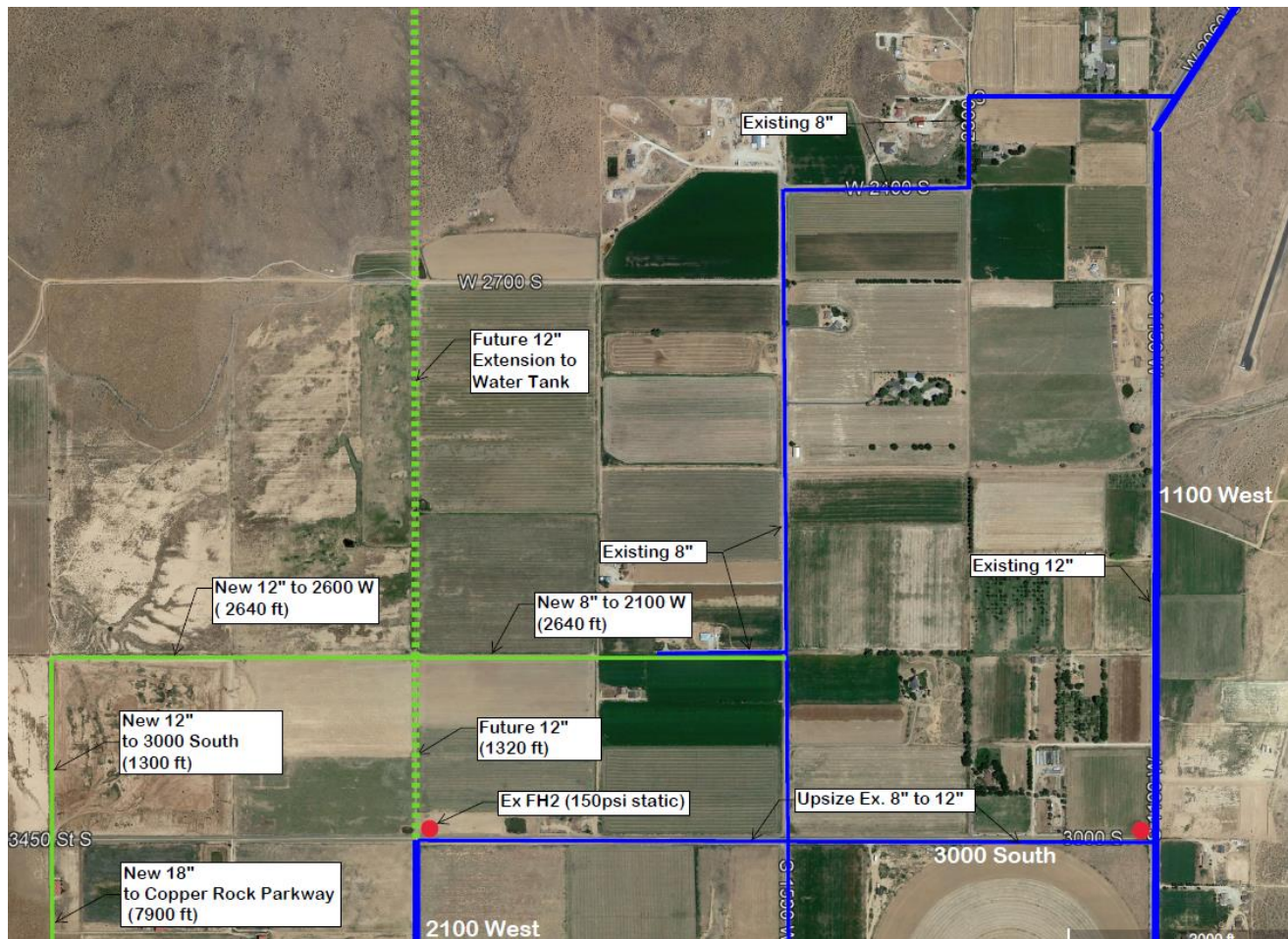


Figure 1: Map Exhibit of Main Water Lines

1.5 RESULTS:

The modeled system was able to supply sufficient pressure during PDD, PID, and Fire Flow + PDD and is acceptable per state code. See Appendix for all figures and data of the model.

1.6 CONCLUSION:

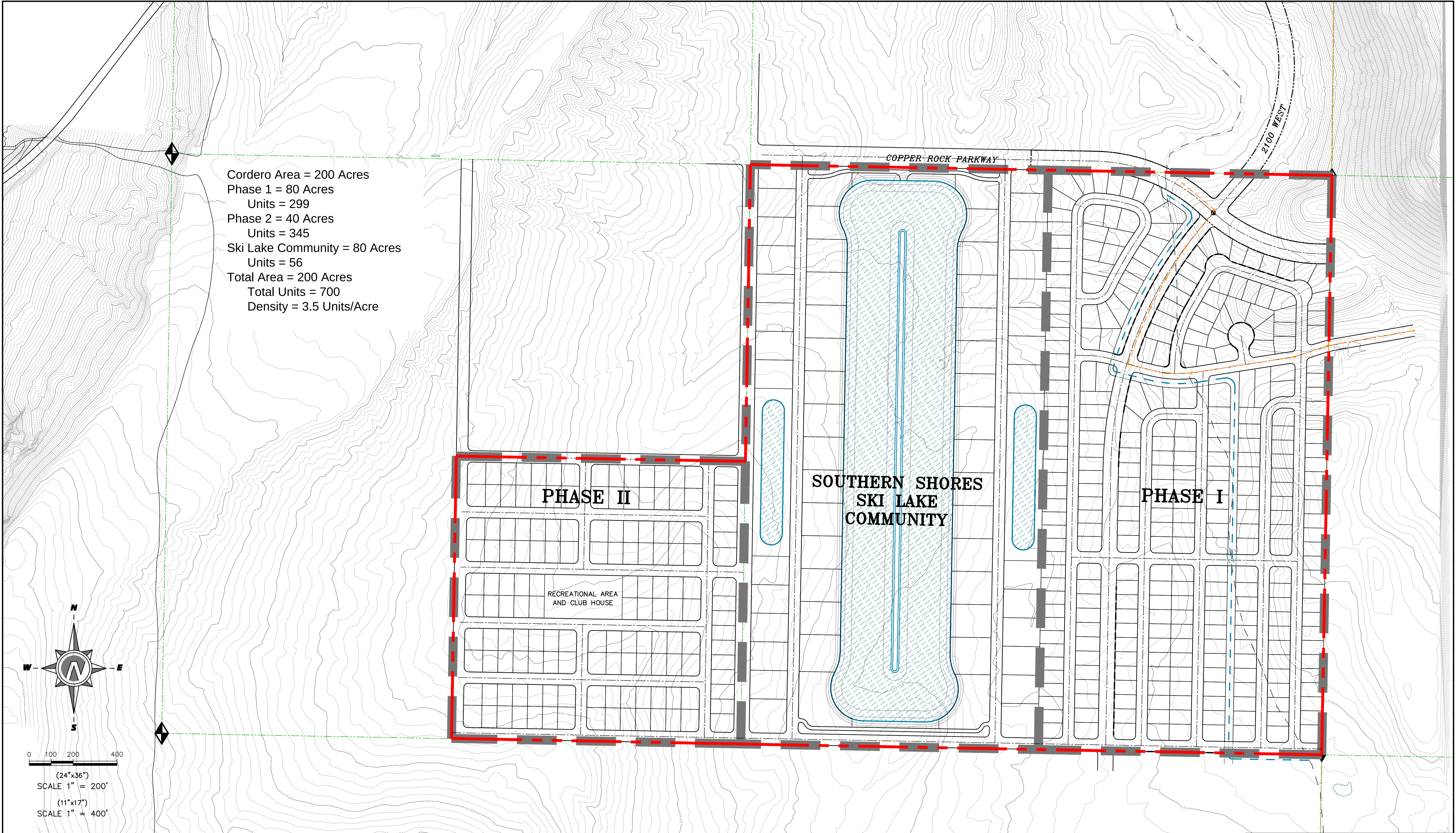
The new, under construction water system is able to supply the pressures and meet the design criteria minimums of Utah State Code.

1.7 APPENDIX:

Appendix A – Project Map

Appendix B – Node & Pipe Locations

Appendix C – Scenario 1 Model Tests



THESE DRAWINGS, OR ANY PORTION THEREOF, SHALL NOT BE USED ON ANY PROJECT OR EXTENSIONS OF THIS PROJECT EXCEPT BY AGREEMENT IN WRITING WITH NORTHERN ENGINEERING, INC.

5			DESIGNED BY:	DATE:
4			DRAWN BY:	DATE:
3			CHECKED BY:	DATE:
2			APPROVED:	DATE:
1			COGO FILE:	DATE:
NO.	REVISIONS	BY	DATE	REV. COGO FILE:

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Northern
ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT

1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

CORDERO

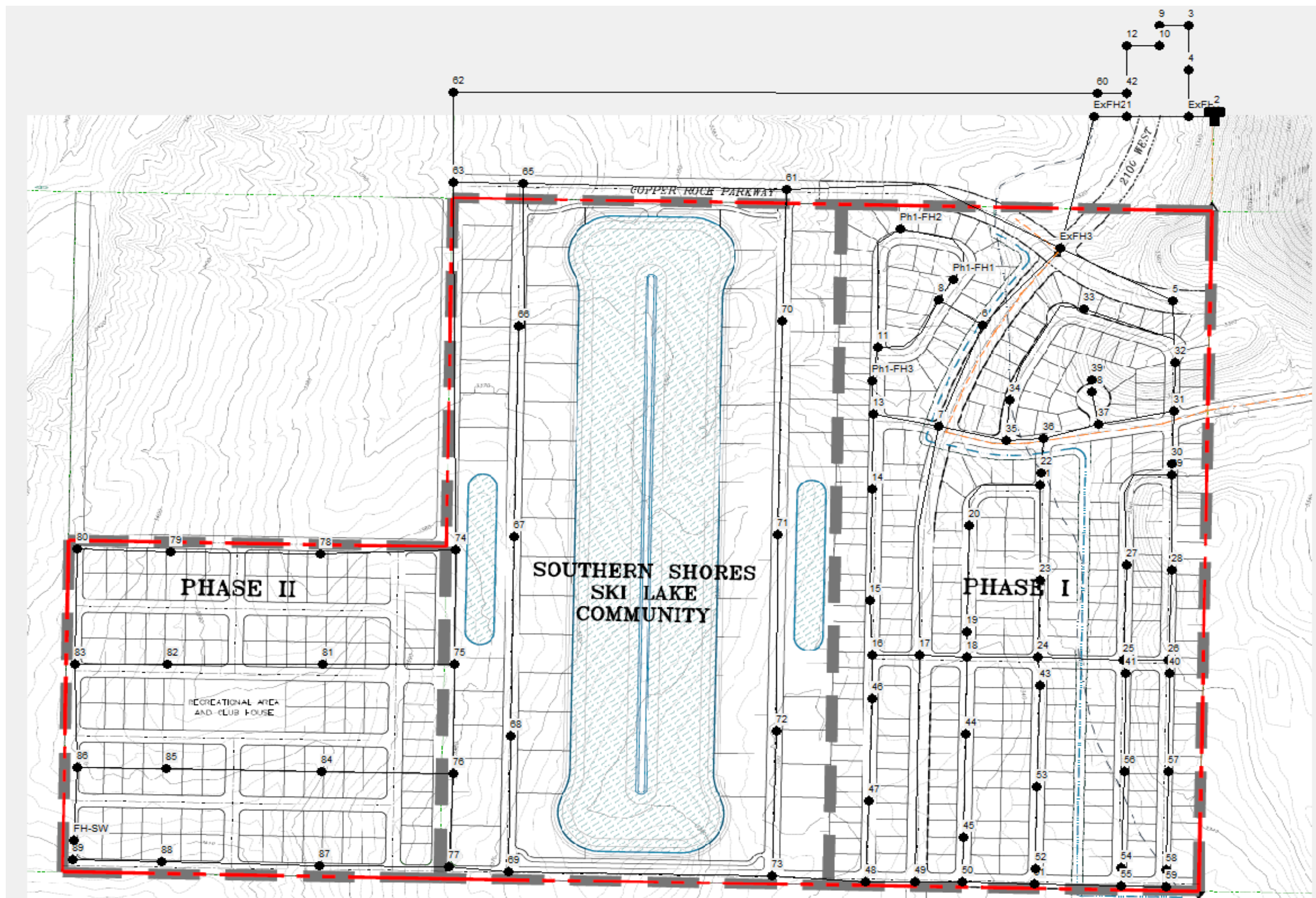
CONCEPT PLAN

HURRICANE, UTAH

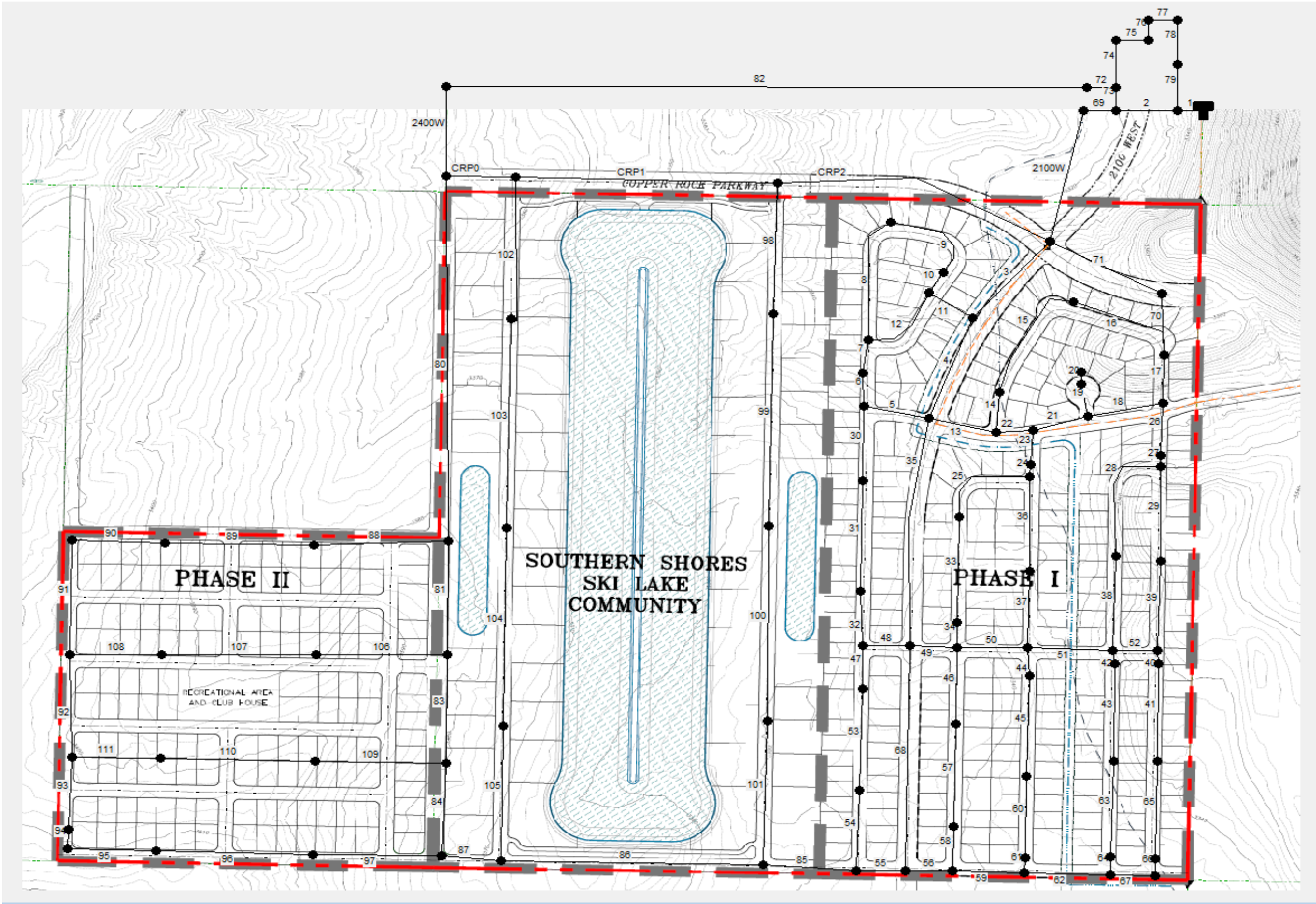
JOB NO.
3-16-052

SHEET NO.
1

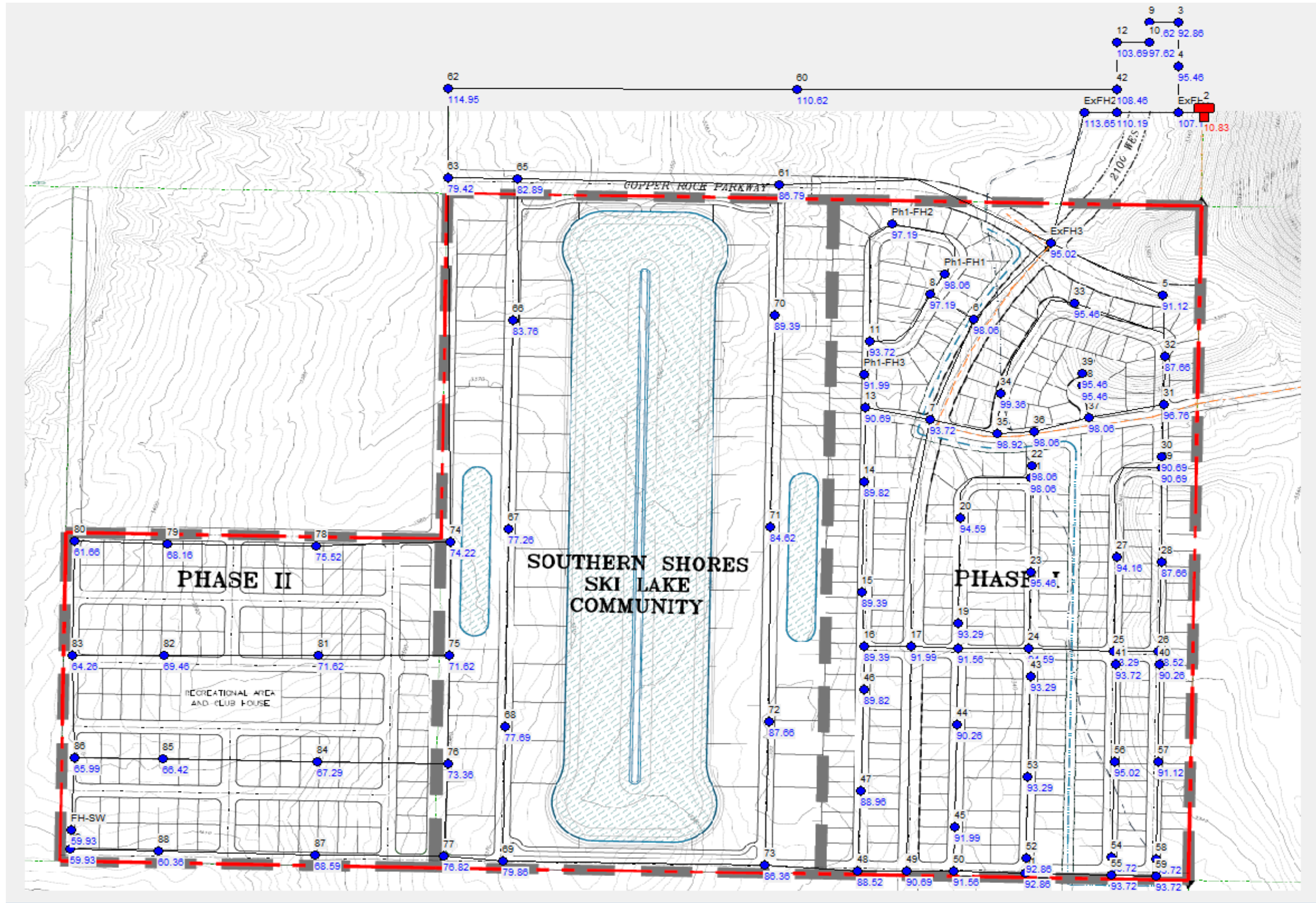
Node IDs and Locations



Link IDs and Locations



Static - No Demands



Static - No Demands - Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 89	3414	0	3552.3	59.93
Junc FH-SW	3414	0	3552.3	59.93
Junc 88	3413	0	3552.3	60.36
Junc 80	3410	0	3552.3	61.66
Junc 83	3404	0	3552.3	64.26
Junc 86	3400	0	3552.3	65.99
Junc 85	3399	0	3552.3	66.42
Junc 84	3397	0	3552.3	67.29
Junc 79	3395	0	3552.3	68.16
Junc 87	3394	0	3552.3	68.59
Junc 82	3392	0	3552.3	69.46
Junc 81	3387	0	3552.3	71.62
Junc 75	3387	0	3552.3	71.62
Junc 76	3383	0	3552.3	73.36
Junc 74	3381	0	3552.3	74.22
Junc 78	3378	0	3552.3	75.52
Junc 77	3375	0	3552.3	76.82
Junc 67	3374	0	3552.3	77.26
Junc 68	3373	0	3552.3	77.69
Junc 63	3369	0	3552.3	79.42
Junc 69	3368	0	3552.3	79.86
Junc 65	3361	0	3552.3	82.89
Junc 66	3359	0	3552.3	83.76
Junc 71	3357	0	3552.3	84.62
Junc 73	3353	0	3552.3	86.36
Junc 61	3352	0	3552.3	86.79
Junc 72	3350	0	3552.3	87.66
Junc 32	3350	0	3552.3	87.66
Junc 28	3350	0	3552.3	87.66
Junc 26	3348	0	3552.3	88.52
Junc 48	3348	0	3552.3	88.52
Junc 47	3347	0	3552.3	88.96

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 15	3346	0	3552.3	89.39
Junc 16	3346	0	3552.3	89.39
Junc 70	3346	0	3552.3	89.39
Junc 46	3345	0	3552.3	89.82
Junc 14	3345	0	3552.3	89.82
Junc 40	3344	0	3552.3	90.26
Junc 44	3344	0	3552.3	90.26
Junc 49	3343	0	3552.3	90.69
Junc 13	3343	0	3552.3	90.69
Junc 29	3343	0	3552.3	90.69
Junc 30	3343	0	3552.3	90.69
Junc 5	3342	0	3552.3	91.12
Junc 57	3342	0	3552.3	91.12
Junc 18	3341	0	3552.3	91.56
Junc 50	3341	0	3552.3	91.56
Junc Ph1-FH3	3340	0	3552.3	91.99
Junc 17	3340	0	3552.3	91.99
Junc 45	3340	0	3552.3	91.99
Junc 3	3338	0	3552.3	92.86
Junc 51	3338	0	3552.3	92.86
Junc 52	3338	0	3552.3	92.86
Junc 19	3337	0	3552.3	93.29
Junc 43	3337	0	3552.3	93.29
Junc 53	3337	0	3552.3	93.29
Junc 25	3337	0	3552.3	93.29
Junc 41	3336	0	3552.3	93.72
Junc 54	3336	0	3552.3	93.72
Junc 59	3336	0	3552.3	93.72
Junc 58	3336	0	3552.3	93.72
Junc 11	3336	0	3552.3	93.72
Junc 55	3336	0	3552.3	93.72
Junc 7	3336	0	3552.3	93.72

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 27	3335	0	3552.3	94.16
Junc 20	3334	0	3552.3	94.59
Junc 24	3334	0	3552.3	94.59
Junc 56	3333	0	3552.3	95.02
Junc ExFH3	3333	0	3552.3	95.02
Junc 4	3332	0	3552.3	95.46
Junc 38	3332	0	3552.3	95.46
Junc 23	3332	0	3552.3	95.46
Junc 33	3332	0	3552.3	95.46
Junc 39	3332	0	3552.3	95.46
Junc 31	3329	0	3552.3	96.76
Junc 8	3328	0	3552.3	97.19
Junc Ph1-FH2	3328	0	3552.3	97.19
Junc 10	3327	0	3552.3	97.62
Junc 9	3327	0	3552.3	97.62
Junc Ph1-FH1	3326	0	3552.3	98.06
Junc 6	3326	0	3552.3	98.06
Junc 21	3326	0	3552.3	98.06
Junc 22	3326	0	3552.3	98.06
Junc 37	3326	0	3552.3	98.06
Junc 36	3326	0	3552.3	98.06
Junc 35	3324	0	3552.3	98.92
Junc 34	3323	0	3552.3	99.36
Junc 12	3313	0	3552.3	103.69
Junc ExFH1	3305	0	3552.3	107.16
Junc 42	3302	0	3552.3	108.46
Junc 1	3298	0	3552.3	110.19
Junc 60	3297	0	3552.3	110.62
Junc ExFH2	3290	0	3552.3	113.65
Junc 62	3287	0	3552.3	114.95

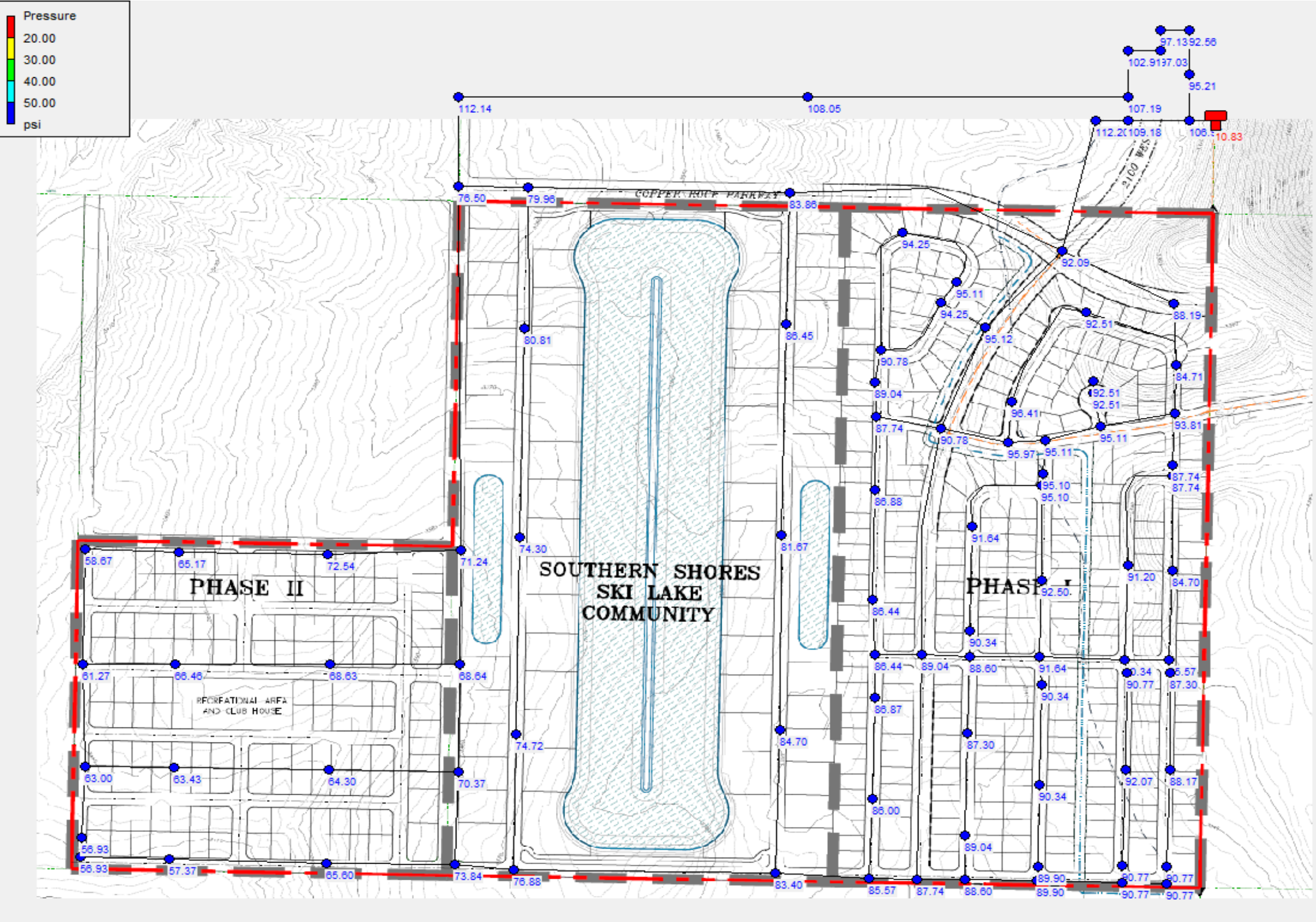
Static - No Demands - Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 38	362.01	8	150	0	0
Pipe 35	874.02	18	130	0	0
Pipe 86	920	12	130	0	0
Pipe 87	240	12	130	0	0
Pipe 103	880	8	150	0	0
Pipe 102	440	8	150	0	0
Pipe 104	880	8	150	0	0
Pipe 36	361.83	8	150	0	0
Pipe 105	440	8	150	0	0
Pipe 80	1400	12	130	0	0
Pipe 28	478.35	8	150	0	0
Pipe 42	49.2	8	150	0	0
Pipe 22	125.92	8	150	0	0
Pipe 85	340	12	130	0	0
Pipe 61	55.41	12	100	0	0
Pipe 56	162.17	12	130	0	0
Pipe 63	366.83	8	150	0	0
Pipe 43	372.26	8	150	0	0
Pipe 37	293.37	8	150	0	0
Pipe 2400W	9200	18	130	0	0
Pipe 64	66.37	8	150	0	0
Pipe 45	385.3	8	150	0	0
Pipe 60	311.45	8	150	0	0
Pipe 44	106.8	8	150	0	0
Pipe 59	248.84	8	150	0	0
Pipe 68	860.44	18	130	0	0
Pipe 48	159.97	8	150	0	0
Pipe 67	154.89	8	150	0	0
Pipe 24	45.86	8	150	0	0
Pipe 98	440	8	150	0	0
Pipe 101	440	8	150	0	0
Pipe 23	129.72	8	150	0	0
Pipe 100	880	8	150	0	0
Pipe 40	49.07	8	150	0	0
Pipe 99	880	8	150	0	0
Pipe 81	430	12	130	0	0
Pipe 82	2640	12	130	0	0
Pipe 55	167.7	12	130	0	0
Pipe 89	430	12	130	0	0

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 91	430	12	130	0	0
Pipe 88	430	12	130	0	0
Pipe 90	430	12	130	0	0
Pipe CRP1	950	12	130	0	0
Pipe 21	197.76	8	150	0	0
Pipe CRP0	250	12	130	0	0
Pipe 33	399.99	8	150	0	0
Pipe 34	99.03	8	150	0	0
Pipe 25	368.41	8	150	0	0
Pipe 46	292.53	8	150	0	0
Pipe 57	390.74	8	150	0	0
Pipe 58	169.58	8	150	0	0
Pipe 62	293.1	8	150	0	0
Pipe 39	342.98	8	150	0	0
Pipe 29	361.83	8	150	0	0
Pipe CRP2	1000	12	130	0	0
Pipe 27	41.9	8	150	0	0
Pipe 26	198.2	8	150	0	0
Pipe 3	384.76	18	130	0.01	0
Pipe CRP3	420	12	130	0	0
Pipe 47	165.56	8	150	0	0
Pipe 54	308.02	8	150	0	0
Pipe 53	385.25	8	150	0	0
Pipe 66	66.34	8	150	0	0
Pipe 41	372.25	8	150	0	0
Pipe 83	430	12	130	0	0
Pipe 65	372.36	8	150	0	0
Pipe 12	304.26	8	150	0	0
Pipe 52	152.35	8	150	0	0
Pipe 92	430	12	130	0	0
Pipe 78	2643	12	130	0	0
Pipe 79	2674	12	130	0	0
Pipe 106	430	8	150	0	0
Pipe 108	430	8	150	0	0
Pipe 107	430	8	150	0	0
Pipe 4	413.75	18	130	0.01	0
Pipe 17	186.67	8	150	0	0
Pipe 1	400	12	130	0	0
Pipe 72	2640	8	150	0	0

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 73	1330	8	134	0	0
Pipe 30	281.87	8	150	0	0
Pipe 31	422.84	8	150	0	0
Pipe 32	209.62	8	150	0	0
Pipe 51	293.49	8	150	0	0
Pipe 19	127.75	8	150	0	0
Pipe 20	45.7	8	150	0	0
Pipe 11	179.66	8	150	0	0
Pipe 7	127.12	8	150	0	0
Pipe 6	129.55	8	150	0	0
Pipe 110	430	8	150	0	0
Pipe 109	430	8	150	0	0
Pipe 111	430	8	150	0	0
Pipe 2100W	8620	12	130	0.01	0
Pipe 69	2650	12	130	0.01	0
Pipe 50	239.95	8	150	0	0
Pipe 49	163.95	8	150	0	0
Pipe 84	430	12	130	-0.01	0
Pipe 94	30	12	130	0.01	0
Pipe 97	430	12	130	0.01	0
Pipe 96	430	12	130	0.01	0
Pipe 95	430	12	130	0.01	0
Pipe 93	400	12	130	0.01	0
Pipe 70	200	8	150	0	0
Pipe 18	259.94	8	150	0	0
Pipe 2	2650	12	130	0.01	0
Pipe 74	3268	8	134	0	0
Pipe 76	628	8	134	0	0
Pipe 75	1320	8	134	0	0
Pipe 77	1340	8	134	0	0
Pipe 8	487.49	8	150	0	0
Pipe 10	96.13	8	150	0	0
Pipe 9	355.92	8	150	0	0
Pipe 5	225.58	8	150	0	0
Pipe 13	238.37	8	150	0	0
Pipe 14	156.58	8	150	0	0
Pipe 15	480.87	8	150	0	0
Pipe 16	415.24	8	150	0	0

Peak Daily Demand (PDD)



Peak Daily Demand (PDD) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	0	3545.39	56.93
Junc 89	3414	8.93	3545.39	56.93
Junc 88	3413	16.97	3545.4	57.37
Junc 80	3410	8.93	3545.39	58.67
Junc 83	3404	16.97	3545.39	61.27
Junc 86	3400	16.97	3545.39	63
Junc 85	3399	33.93	3545.39	63.43
Junc 84	3397	34.83	3545.39	64.3
Junc 79	3395	16.97	3545.4	65.17
Junc 87	3394	16.97	3545.4	65.6
Junc 82	3392	33.93	3545.39	66.46
Junc 81	3387	33.93	3545.39	68.63
Junc 75	3387	16.97	3545.41	68.64
Junc 76	3383	16.97	3545.41	70.37
Junc 74	3381	8.93	3545.42	71.24
Junc 78	3378	16.97	3545.41	72.54
Junc 77	3375	8.93	3545.41	73.84
Junc 67	3374	8.04	3545.47	74.3
Junc 68	3373	8.04	3545.44	74.72
Junc 63	3369	0	3545.54	76.5
Junc 69	3368	0	3545.43	76.88
Junc 65	3361	0	3545.54	79.96
Junc 66	3359	8.93	3545.51	80.81
Junc 71	3357	8.04	3545.49	81.67
Junc 73	3353	0	3545.47	83.4
Junc 61	3352	0	3545.53	83.86
Junc 72	3350	8.04	3545.48	84.7
Junc 28	3350	0	3545.48	84.7
Junc 32	3350	0	3545.5	84.71
Junc 26	3348	16.07	3545.48	85.57
Junc 48	3348	11.61	3545.48	85.57
Junc 47	3347	0	3545.49	86

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Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 16	3346	24.11	3545.49	86.44
Junc 15	3346	0	3545.49	86.44
Junc 70	3346	8.93	3545.51	86.45
Junc 46	3345	0	3545.49	86.87
Junc 14	3345	0	3545.5	86.88
Junc 40	3344	0	3545.48	87.3
Junc 44	3344	0	3545.49	87.3
Junc 29	3343	18.75	3545.48	87.74
Junc 30	3343	0	3545.49	87.74
Junc 49	3343	0	3545.49	87.74
Junc 13	3343	16.97	3545.5	87.74
Junc 57	3342	0	3545.48	88.17
Junc 5	3342	0	3545.52	88.19
Junc 18	3341	19.65	3545.49	88.6
Junc 50	3341	10.72	3545.49	88.6
Junc 45	3340	0	3545.49	89.04
Junc 17	3340	0	3545.49	89.04
Junc Ph1-FH3	3340	0	3545.5	89.04
Junc 51	3338	10.72	3545.48	89.9
Junc 52	3338	0	3545.48	89.9
Junc 25	3337	14.29	3545.48	90.34
Junc 43	3337	0	3545.48	90.34
Junc 53	3337	0	3545.48	90.34
Junc 19	3337	0	3545.49	90.34
Junc 59	3336	8.04	3545.48	90.77
Junc 58	3336	0	3545.48	90.77
Junc 55	3336	8.04	3545.48	90.77
Junc 54	3336	0	3545.48	90.77
Junc 41	3336	0	3545.48	90.77
Junc 11	3336	18.75	3545.5	90.78
Junc 7	3336	0	3545.51	90.78
Junc 27	3335	0	3545.48	91.2

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	19.65	3545.48	91.64
Junc 20	3334	0	3545.49	91.64
Junc 56	3333	0	3545.48	92.07
Junc ExFH3	3333	0	3545.53	92.09
Junc 23	3332	0	3545.49	92.5
Junc 38	3332	6.25	3545.49	92.51
Junc 39	3332	0	3545.49	92.51
Junc 33	3332	0	3545.5	92.51
Junc 3	3338	0	3551.61	92.56
Junc 31	3329	12.5	3545.49	93.81
Junc Ph1-FH2	3328	0	3545.51	94.25
Junc 8	3328	11.61	3545.51	94.25
Junc 21	3326	19.65	3545.49	95.1
Junc 22	3326	0	3545.49	95.1
Junc 36	3326	0.89	3545.49	95.11
Junc 37	3326	1.79	3545.49	95.11
Junc Ph1-FH1	3326	0	3545.51	95.11
Junc 6	3326	0	3545.52	95.12
Junc 4	3332	0	3551.74	95.21
Junc 35	3324	16.97	3545.5	95.97
Junc 34	3323	0	3545.5	96.41
Junc 10	3327	0	3550.94	97.03
Junc 9	3327	0	3551.16	97.13
Junc 12	3313	0	3550.49	102.91
Junc ExFH1	3305	0	3551.88	106.97
Junc 42	3302	0	3549.38	107.19
Junc 60	3297	0	3546.36	108.05
Junc 1	3298	0	3549.98	109.18
Junc 62	3287	0	3545.81	112.14
Junc ExFH2	3290	0	3548.93	112.2

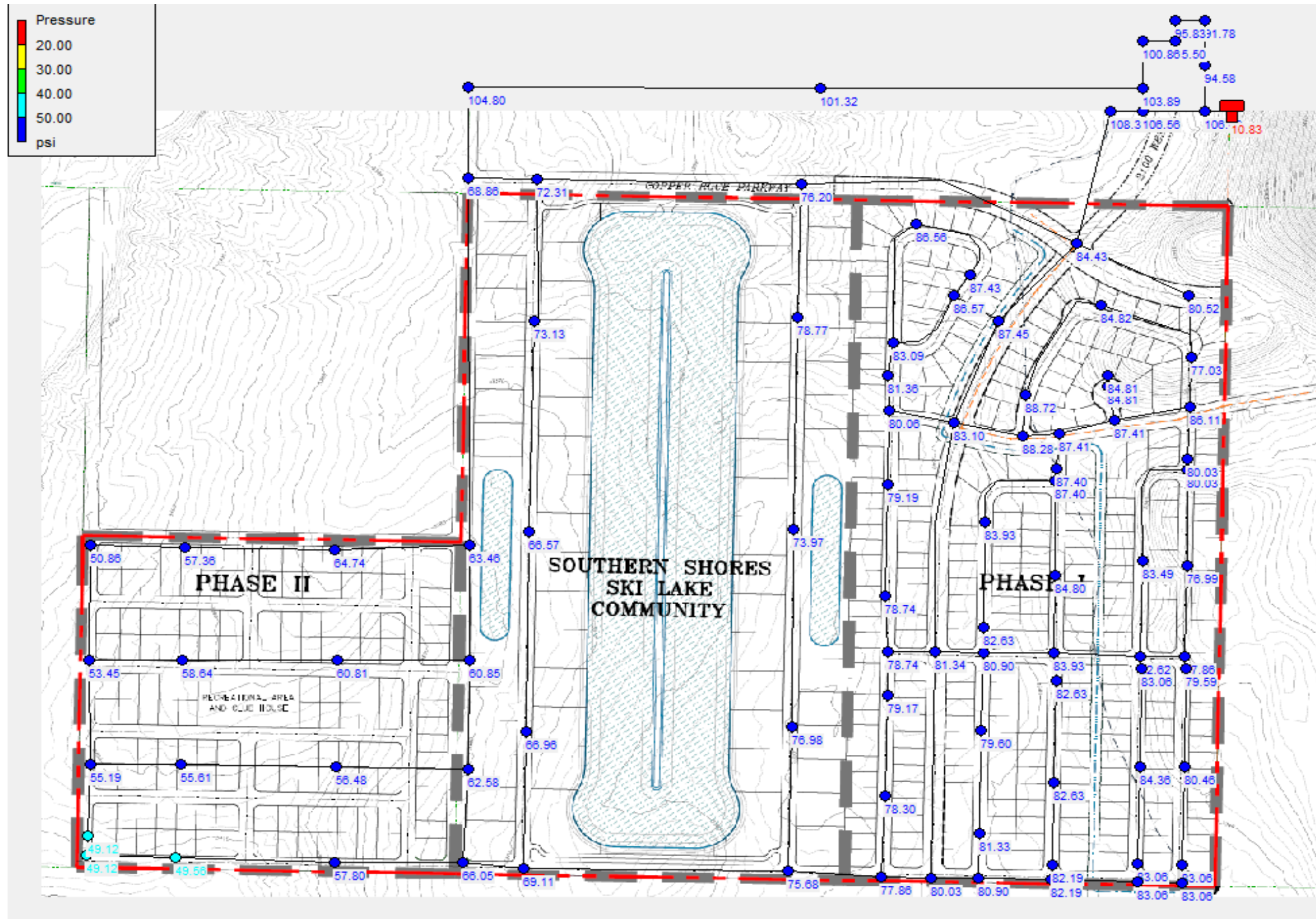
Peak Daily Demand (PDD) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 61	55.41	12	100	2.16	0.01
Pipe 40	49.07	8	150	1.19	0.01
Pipe 66	66.34	8	150	1.19	0.01
Pipe 41	372.25	8	150	1.19	0.01
Pipe 65	372.36	8	150	1.19	0.01
Pipe 92	430	12	130	2.83	0.01
Pipe 64	66.37	8	150	1.32	0.01
Pipe 42	49.2	8	150	1.32	0.01
Pipe 63	366.83	8	150	1.32	0.01
Pipe 43	372.26	8	150	1.32	0.01
Pipe 58	169.58	8	150	1.71	0.01
Pipe 57	390.74	8	150	1.71	0.01
Pipe 46	292.53	8	150	1.71	0.01
Pipe CRP2	1000	12	130	-4.06	0.01
Pipe 44	106.8	8	150	2.16	0.01
Pipe 45	385.3	8	150	2.16	0.01
Pipe 60	311.45	8	150	2.16	0.01
Pipe 34	99.03	8	150	2.18	0.01
Pipe 33	399.99	8	150	2.18	0.01
Pipe 25	368.41	8	150	2.18	0.01
Pipe 18	259.94	8	150	3.29	0.02
Pipe 83	430	12	130	9.08	0.03
Pipe 21	197.76	8	150	-4.75	0.03
Pipe 19	127.75	8	150	6.25	0.04
Pipe 67	154.89	8	150	6.85	0.04
Pipe 52	152.35	8	150	7.06	0.05
Pipe 38	362.01	8	150	8.72	0.06
Pipe 28	478.35	8	150	8.72	0.06
Pipe 39	342.98	8	150	10.2	0.07
Pipe 29	361.83	8	150	10.2	0.07
Pipe 110	430	8	150	11.85	0.08
Pipe 10	96.13	8	150	-12.25	0.08
Pipe 9	355.92	8	150	-12.25	0.08
Pipe 8	487.49	8	150	-12.25	0.08
Pipe 107	430	8	150	12.44	0.08
Pipe 36	361.83	8	150	13.36	0.09
Pipe 37	293.37	8	150	13.36	0.09
Pipe 62	293.1	8	150	13.57	0.09

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	31.15	0.09
Pipe 51	293.49	8	150	13.95	0.09
Pipe 14	156.58	8	150	-15.75	0.1
Pipe 16	415.24	8	150	-15.75	0.1
Pipe 15	480.87	8	150	-15.75	0.1
Pipe 6	129.55	8	150	-15.99	0.1
Pipe 7	127.12	8	150	-15.99	0.1
Pipe 93	400	12	130	-36.22	0.1
Pipe 94	30	12	130	-36.22	0.1
Pipe CRP1	950	12	130	-38.77	0.11
Pipe 101	440	8	150	17.82	0.11
Pipe 91	430	12	130	41.28	0.12
Pipe 47	165.56	8	150	19.99	0.13
Pipe 54	308.02	8	150	19.99	0.13
Pipe 53	385.25	8	150	19.99	0.13
Pipe 95	430	12	130	-45.15	0.13
Pipe 48	159.97	8	150	-21.31	0.14
Pipe 108	430	8	150	-21.49	0.14
Pipe 111	430	8	150	-22.08	0.14
Pipe 59	248.84	8	150	22.13	0.14
Pipe 90	430	12	130	50.21	0.14
Pipe 50	239.95	8	150	22.4	0.14
Pipe 12	304.26	8	150	22.49	0.14
Pipe 31	422.84	8	150	22.79	0.15
Pipe 30	281.87	8	150	22.79	0.15
Pipe 32	209.62	8	150	22.79	0.15
Pipe 68	860.44	18	130	117.99	0.15
Pipe 5	225.58	8	150	23.77	0.15
Pipe 84	430	12	130	-54.57	0.15
Pipe 100	880	8	150	25.86	0.17
Pipe 96	430	12	130	-62.12	0.18
Pipe 105	440	8	150	29.54	0.19
Pipe 89	430	12	130	67.18	0.19
Pipe CRP3	420	12	130	-69.21	0.2
Pipe 81	430	12	130	72.43	0.21
Pipe 99	880	8	150	33.9	0.22
Pipe 97	430	12	130	-79.09	0.22
Pipe 24	45.86	8	150	35.19	0.22
Pipe 23	129.72	8	150	35.19	0.22

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 35	874.02	18	130	180.87	0.23
Pipe 88	430	12	130	84.15	0.24
Pipe 104	880	8	150	37.58	0.24
Pipe 26	198.2	8	150	37.67	0.24
Pipe 27	41.9	8	150	37.67	0.24
Pipe 55	167.7	12	130	-86.84	0.25
Pipe 22	125.92	8	150	-40.83	0.26
Pipe CRP0	250	12	130	-93.32	0.26
Pipe 49	163.95	8	150	41.57	0.27
Pipe 13	238.37	8	150	42.05	0.27
Pipe 85	340	12	130	95.23	0.27
Pipe 98	440	8	150	42.83	0.27
Pipe 103	880	8	150	45.62	0.29
Pipe 11	179.66	8	150	-46.35	0.3
Pipe 106	430	8	150	46.37	0.3
Pipe 109	430	8	150	46.68	0.3
Pipe 4	413.75	18	130	246.69	0.31
Pipe 86	920	12	130	113.05	0.32
Pipe 2400W	9200	18	130	258.83	0.33
Pipe 78	2643	12	130	-119.86	0.34
Pipe 79	2674	12	130	-119.86	0.34
Pipe 17	186.67	8	150	53.46	0.34
Pipe 102	440	8	150	54.55	0.35
Pipe 3	384.76	18	130	293.04	0.37
Pipe 87	240	12	130	142.59	0.4
Pipe 70	200	8	150	-69.21	0.44
Pipe 80	1400	12	130	165.51	0.47
Pipe 82	2640	12	130	258.83	0.73
Pipe 75	1320	8	134	-119.86	0.77
Pipe 74	3268	8	134	-119.86	0.77
Pipe 77	1340	8	134	-119.86	0.77
Pipe 76	628	8	134	-119.86	0.77
Pipe 73	1330	8	134	-138.98	0.89
Pipe 2100W	8620	12	130	366.32	1.04
Pipe 69	2650	12	130	366.32	1.04
Pipe 2	2650	12	130	505.29	1.43
Pipe 72	2640	8	150	-258.83	1.65
Pipe 1	400	12	130	625.15	1.77

Peak Instantaneous Demand (PID)



Peak Instantaneous Demand (PID) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	0	3527.37	49.12
Junc 89	3414	17.86	3527.37	49.12
Junc 88	3413	33.94	3527.38	49.56
Junc 80	3410	17.86	3527.37	50.86
Junc 83	3404	33.94	3527.36	53.45
Junc 86	3400	33.94	3527.36	55.19
Junc 85	3399	67.86	3527.34	55.61
Junc 84	3397	69.66	3527.35	56.48
Junc 79	3395	33.94	3527.39	57.36
Junc 87	3394	33.94	3527.41	57.8
Junc 82	3392	67.86	3527.34	58.64
Junc 81	3387	67.86	3527.35	60.81
Junc 75	3387	33.94	3527.42	60.85
Junc 76	3383	33.94	3527.42	62.58
Junc 74	3381	17.86	3527.45	63.46
Junc 78	3378	33.94	3527.41	64.74
Junc 77	3375	17.86	3527.44	66.05
Junc 67	3374	16.08	3527.64	66.57
Junc 68	3373	16.08	3527.53	66.96
Junc 63	3369	0	3527.91	68.86
Junc 69	3368	0	3527.5	69.11
Junc 65	3361	0	3527.88	72.31
Junc 66	3359	17.86	3527.78	73.13
Junc 71	3357	16.08	3527.71	73.97
Junc 73	3353	0	3527.65	75.68
Junc 61	3352	0	3527.86	76.2
Junc 72	3350	16.08	3527.66	76.98
Junc 28	3350	0	3527.69	76.99
Junc 32	3350	0	3527.76	77.03
Junc 26	3348	32.14	3527.69	77.86
Junc 48	3348	23.22	3527.69	77.86
Junc 47	3347	0	3527.7	78.3

30 req.

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 16	3346	48.22	3527.72	78.74
Junc 15	3346	0	3527.73	78.74
Junc 70	3346	17.86	3527.8	78.77
Junc 46	3345	0	3527.71	79.17
Junc 14	3345	0	3527.75	79.19
Junc 40	3344	0	3527.69	79.59
Junc 44	3344	0	3527.7	79.6
Junc 29	3343	37.5	3527.69	80.03
Junc 30	3343	0	3527.7	80.03
Junc 49	3343	0	3527.71	80.03
Junc 13	3343	33.94	3527.76	80.06
Junc 57	3342	0	3527.69	80.46
Junc 5	3342	0	3527.84	80.52
Junc 50	3341	21.44	3527.7	80.9
Junc 18	3341	39.3	3527.7	80.9
Junc 45	3340	0	3527.7	81.33
Junc 17	3340	0	3527.73	81.34
Junc Ph1-FH3	3340	0	3527.77	81.36
Junc 51	3338	21.44	3527.69	82.19
Junc 52	3338	0	3527.69	82.19
Junc 25	3337	28.58	3527.69	82.62
Junc 53	3337	0	3527.69	82.63
Junc 43	3337	0	3527.69	82.63
Junc 19	3337	0	3527.7	82.63
Junc 59	3336	16.08	3527.69	83.06
Junc 58	3336	0	3527.69	83.06
Junc 55	3336	16.08	3527.69	83.06
Junc 54	3336	0	3527.69	83.06
Junc 41	3336	0	3527.69	83.06
Junc 11	3336	37.5	3527.77	83.09
Junc 7	3336	0	3527.77	83.1
Junc 27	3335	0	3527.69	83.49

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	39.3	3527.69	83.93
Junc 20	3334	0	3527.7	83.93
Junc 56	3333	0	3527.69	84.36
Junc ExFH3	3333	0	3527.86	84.43
Junc 23	3332	0	3527.7	84.8
Junc 38	3332	12.5	3527.72	84.81
Junc 39	3332	0	3527.72	84.81
Junc 33	3332	0	3527.75	84.82
Junc 31	3329	25	3527.72	86.11
Junc Ph1-FH2	3328	0	3527.78	86.56
Junc 8	3328	23.22	3527.78	86.57
Junc 21	3326	39.3	3527.7	87.4
Junc 22	3326	0	3527.71	87.4
Junc 37	3326	3.58	3527.72	87.41
Junc 36	3326	1.78	3527.72	87.41
Junc Ph1-FH1	3326	0	3527.78	87.43
Junc 6	3326	0	3527.81	87.45
Junc 35	3324	33.94	3527.74	88.28
Junc 34	3323	0	3527.74	88.72
Junc 3	3338	0	3549.81	91.78
Junc 4	3332	0	3550.29	94.58
Junc 10	3327	0	3547.4	95.5
Junc 9	3327	0	3548.17	95.83
Junc 12	3313	0	3545.78	100.86
Junc 60	3297	0	3530.84	101.32
Junc 42	3302	0	3541.77	103.89
Junc 62	3287	0	3528.87	104.8
Junc ExFH1	3305	0	3550.77	106.49
Junc 1	3298	0	3543.92	106.56
Junc ExFH2	3290	0	3540.14	108.39

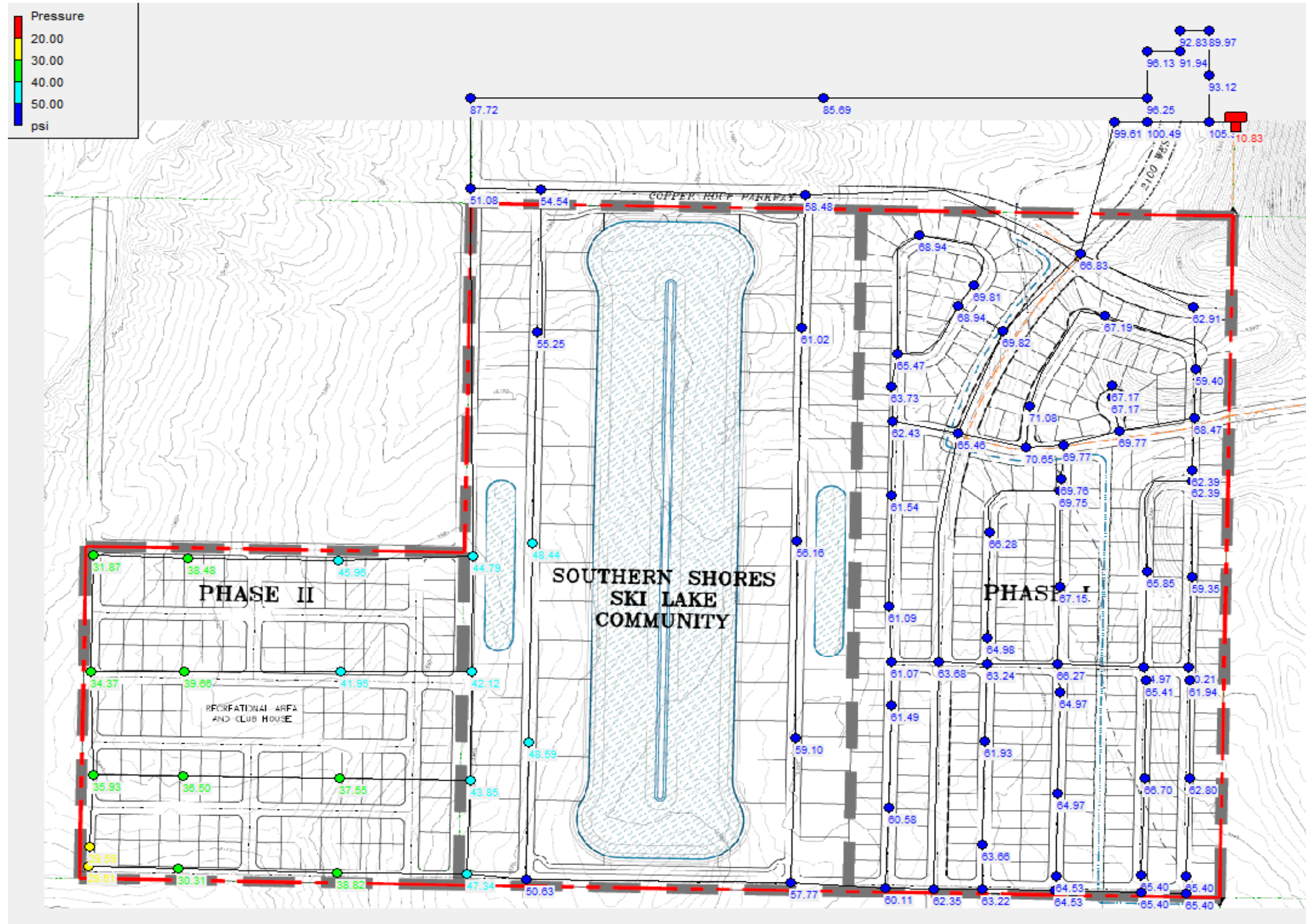
Peak Instantaneous Demand (PID) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 61	55.41	12	100	4.31	0.01
Pipe 66	66.34	8	150	2.39	0.02
Pipe 41	372.25	8	150	2.39	0.02
Pipe 40	49.07	8	150	2.39	0.02
Pipe 65	372.36	8	150	2.39	0.02
Pipe 92	430	12	130	5.65	0.02
Pipe 64	66.37	8	150	2.63	0.02
Pipe 42	49.2	8	150	2.63	0.02
Pipe 43	372.26	8	150	2.63	0.02
Pipe 63	366.83	8	150	2.63	0.02
Pipe 58	169.58	8	150	3.41	0.02
Pipe 57	390.74	8	150	3.41	0.02
Pipe 46	292.53	8	150	3.41	0.02
Pipe CRP2	1000	12	130	-8.13	0.02
Pipe 44	106.8	8	150	4.31	0.03
Pipe 45	385.3	8	150	4.31	0.03
Pipe 60	311.45	8	150	4.31	0.03
Pipe 34	99.03	8	150	4.37	0.03
Pipe 33	399.99	8	150	4.37	0.03
Pipe 25	368.41	8	150	4.37	0.03
Pipe 18	259.94	8	150	6.58	0.04
Pipe 83	430	12	130	18.17	0.05
Pipe 21	197.76	8	150	-9.5	0.06
Pipe 19	127.75	8	150	12.5	0.08
Pipe 67	154.89	8	150	13.69	0.09
Pipe 52	152.35	8	150	14.12	0.09
Pipe 38	362.01	8	150	17.44	0.11
Pipe 28	478.35	8	150	17.44	0.11
Pipe 39	342.98	8	150	20.41	0.13
Pipe 29	361.83	8	150	20.41	0.13
Pipe 110	430	8	150	23.7	0.15
Pipe 10	96.13	8	150	-24.48	0.16
Pipe 9	355.92	8	150	-24.48	0.16
Pipe 8	487.49	8	150	-24.48	0.16
Pipe 107	430	8	150	24.89	0.16
Pipe 36	361.83	8	150	26.72	0.17
Pipe 37	293.37	8	150	26.72	0.17
Pipe 62	293.1	8	150	27.14	0.17

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	62.29	0.18
Pipe 51	293.49	8	150	27.9	0.18
Pipe 14	156.58	8	150	-31.5	0.2
Pipe 16	415.24	8	150	-31.5	0.2
Pipe 15	480.87	8	150	-31.5	0.2
Pipe 6	129.55	8	150	-31.97	0.2
Pipe 7	127.12	8	150	-31.97	0.2
Pipe 93	400	12	130	-72.45	0.21
Pipe 94	30	12	130	-72.45	0.21
Pipe CRP1	950	12	130	-77.53	0.22
Pipe 101	440	8	150	35.64	0.23
Pipe 91	430	12	130	82.56	0.23
Pipe 47	165.56	8	150	39.98	0.26
Pipe 54	308.02	8	150	39.98	0.26
Pipe 53	385.25	8	150	39.98	0.26
Pipe 95	430	12	130	-90.31	0.26
Pipe 48	159.97	8	150	-42.63	0.27
Pipe 108	430	8	150	-42.97	0.27
Pipe 111	430	8	150	-44.16	0.28
Pipe 59	248.84	8	150	44.27	0.28
Pipe 90	430	12	130	100.42	0.28
Pipe 50	239.95	8	150	44.79	0.29
Pipe 12	304.26	8	150	45	0.29
Pipe 31	422.84	8	150	45.58	0.29
Pipe 30	281.87	8	150	45.58	0.29
Pipe 32	209.62	8	150	45.58	0.29
Pipe 68	860.44	18	130	235.98	0.3
Pipe 5	225.58	8	150	47.54	0.3
Pipe 84	430	12	130	-109.13	0.31
Pipe 100	880	8	150	51.72	0.33
Pipe 96	430	12	130	-124.25	0.35
Pipe 105	440	8	150	59.09	0.38
Pipe 89	430	12	130	134.36	0.38
Pipe CRP3	420	12	130	-138.43	0.39
Pipe 81	430	12	130	144.86	0.41
Pipe 99	880	8	150	67.8	0.43
Pipe 97	430	12	130	-158.19	0.45
Pipe 24	45.86	8	150	70.38	0.45
Pipe 23	129.72	8	150	70.38	0.45

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 35	874.02	18	130	361.74	0.46
Pipe 88	430	12	130	168.3	0.48
Pipe 104	880	8	150	75.17	0.48
Pipe 26	198.2	8	150	75.35	0.48
Pipe 27	41.9	8	150	75.35	0.48
Pipe 55	167.7	12	130	-173.69	0.49
Pipe 22	125.92	8	150	-81.66	0.52
Pipe CRP0	250	12	130	-186.64	0.53
Pipe 49	163.95	8	150	83.14	0.53
Pipe 13	238.37	8	150	84.1	0.54
Pipe 85	340	12	130	190.45	0.54
Pipe 98	440	8	150	85.66	0.55
Pipe 103	880	8	150	91.25	0.58
Pipe 11	179.66	8	150	-92.69	0.59
Pipe 106	430	8	150	92.75	0.59
Pipe 109	430	8	150	93.36	0.6
Pipe 4	413.75	18	130	493.39	0.62
Pipe 86	920	12	130	226.09	0.64
Pipe 2400W	9200	18	130	517.66	0.65
Pipe 78	2643	12	130	-239.71	0.68
Pipe 79	2674	12	130	-239.71	0.68
Pipe 17	186.67	8	150	106.92	0.68
Pipe 102	440	8	150	109.11	0.7
Pipe 3	384.76	18	130	586.08	0.74
Pipe 87	240	12	130	285.18	0.81
Pipe 70	200	8	150	-138.43	0.88
Pipe 80	1400	12	130	331.02	0.94
Pipe 82	2640	12	130	517.66	1.47
Pipe 75	1320	8	134	-239.71	1.53
Pipe 74	3268	8	134	-239.71	1.53
Pipe 77	1340	8	134	-239.71	1.53
Pipe 76	628	8	134	-239.71	1.53
Pipe 73	1330	8	134	-277.95	1.77
Pipe 2100W	8620	12	130	732.64	2.08
Pipe 69	2650	12	130	732.64	2.08
Pipe 2	2650	12	130	1010.59	2.87
Pipe 72	2640	8	150	-517.66	3.3
Pipe 1	400	12	130	1250.3	3.55

Peak Daily Demand + Fire Flow Demand (PDD+FFD)



Peak Daily Demand + Fire Flow Demand (PDD+FFD) Nodes

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc FH-SW	3414	1500	3482.29	29.59
Junc 89	3414	8.93	3482.33	29.61
Junc 88	3413	16.97	3482.94	30.31
Junc 80	3410	8.93	3483.56	31.87
Junc 83	3404	16.97	3483.32	34.37
Junc 86	3400	16.97	3482.92	35.93
Junc 85	3399	33.93	3483.24	36.5
Junc 84	3397	34.83	3483.66	37.55
Junc 79	3395	16.97	3483.81	38.48
Junc 87	3394	16.97	3483.59	38.82
Junc 82	3392	33.93	3483.53	39.66
Junc 81	3387	33.93	3483.82	41.95
Junc 75	3387	16.97	3484.22	42.12
Junc 76	3383	16.97	3484.2	43.85
Junc 74	3381	8.93	3484.36	44.79
Junc 78	3378	16.97	3484.08	45.96
Junc 77	3375	8.93	3484.26	47.34
Junc 67	3374	8.04	3485.8	48.44
Junc 68	3373	8.04	3485.14	48.59
Junc 69	3368	0	3484.84	50.63
Junc 63	3369	0	3486.88	51.08
Junc 65	3361	0	3486.88	54.54
Junc 66	3359	8.93	3486.5	55.25
Junc 71	3357	8.04	3486.6	56.16
Junc 73	3353	0	3486.32	57.77
Junc 61	3352	0	3486.97	58.48
Junc 72	3350	8.04	3486.4	59.1
Junc 28	3350	0	3486.97	59.35
Junc 32	3350	0	3487.09	59.4
Junc 48	3348	11.61	3486.74	60.11
Junc 26	3348	16.07	3486.95	60.21
Junc 47	3347	0	3486.81	60.58

20 req.

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 70	3346	8.93	3486.83	61.02
Junc 16	3346	24.11	3486.95	61.07
Junc 15	3346	0	3486.98	61.09
Junc 46	3345	0	3486.91	61.49
Junc 14	3345	0	3487.03	61.54
Junc 44	3344	0	3486.94	61.93
Junc 40	3344	0	3486.95	61.94
Junc 49	3343	0	3486.89	62.35
Junc 29	3343	18.75	3486.98	62.39
Junc 30	3343	0	3486.99	62.39
Junc 13	3343	16.97	3487.07	62.43
Junc 57	3342	0	3486.94	62.8
Junc 5	3342	0	3487.19	62.91
Junc 50	3341	10.72	3486.9	63.22
Junc 18	3341	19.65	3486.95	63.24
Junc 45	3340	0	3486.91	63.66
Junc 17	3340	0	3486.96	63.68
Junc Ph1-FH3	3340	0	3487.08	63.73
Junc 51	3338	10.72	3486.92	64.53
Junc 52	3338	0	3486.92	64.53
Junc 53	3337	0	3486.94	64.97
Junc 43	3337	0	3486.95	64.97
Junc 25	3337	14.29	3486.95	64.97
Junc 19	3337	0	3486.96	64.98
Junc 55	3336	8.04	3486.93	65.4
Junc 54	3336	0	3486.94	65.4
Junc 59	3336	8.04	3486.94	65.4
Junc 58	3336	0	3486.94	65.4
Junc 41	3336	0	3486.95	65.41
Junc 7	3336	0	3487.08	65.46
Junc 11	3336	18.75	3487.09	65.47
Junc 27	3335	0	3486.96	65.85

Node ID	Elevation ft	Demand GPM	Head ft	Pressure psi
Junc 24	3334	19.65	3486.95	66.27
Junc 20	3334	0	3486.97	66.28
Junc 56	3333	0	3486.94	66.7
Junc ExFH3	3333	0	3487.23	66.83
Junc 23	3332	0	3486.97	67.15
Junc 38	3332	6.25	3487.02	67.17
Junc 39	3332	0	3487.02	67.17
Junc 33	3332	0	3487.07	67.19
Junc 31	3329	12.5	3487.03	68.47
Junc Ph1-FH2	3328	0	3487.1	68.94
Junc 8	3328	11.61	3487.11	68.94
Junc 21	3326	19.65	3486.99	69.75
Junc 22	3326	0	3487	69.76
Junc 36	3326	0.89	3487.02	69.77
Junc 37	3326	1.79	3487.02	69.77
Junc Ph1-FH1	3326	0	3487.11	69.81
Junc 6	3326	0	3487.15	69.82
Junc 35	3324	16.97	3487.05	70.65
Junc 34	3323	0	3487.05	71.08
Junc 60	3297	0	3494.76	85.69
Junc 62	3287	0	3489.45	87.72
Junc 3	3338	0	3545.64	89.97
Junc 10	3327	0	3539.19	91.94
Junc 9	3327	0	3541.25	92.83
Junc 4	3332	0	3546.92	93.12
Junc 12	3313	0	3534.86	96.13
Junc 42	3302	0	3524.14	96.25
Junc ExFH2	3290	0	3519.88	99.61
Junc 1	3298	0	3529.92	100.49
Junc ExFH1	3305	0	3548.2	105.38

Peak Daily Demand + Fire Flow Demand (PDD+FFD) Links

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 20	45.7	8	150	0	0
Pipe 52	152.35	8	150	1.6	0.01
Pipe 19	127.75	8	150	6.25	0.04
Pipe 51	293.49	8	150	6.77	0.04
Pipe 21	197.76	8	150	9.87	0.06
Pipe 61	55.41	12	100	39.31	0.11
Pipe 18	259.94	8	150	17.91	0.11
Pipe 50	239.95	8	150	18.14	0.12
Pipe 67	154.89	8	150	-19.67	0.13
Pipe CRP0	250	12	130	-52.03	0.15
Pipe 65	372.36	8	150	27.71	0.18
Pipe 40	49.07	8	150	27.71	0.18
Pipe 41	372.25	8	150	27.71	0.18
Pipe 66	66.34	8	150	27.71	0.18
Pipe 63	366.83	8	150	29.23	0.19
Pipe 64	66.37	8	150	29.23	0.19
Pipe 43	372.26	8	150	29.23	0.19
Pipe 42	49.2	8	150	29.23	0.19
Pipe 9	355.92	8	150	-29.88	0.19
Pipe 8	487.49	8	150	-29.88	0.19
Pipe 10	96.13	8	150	-29.88	0.19
Pipe 5	225.58	8	150	30.32	0.19
Pipe 38	362.01	8	150	38.35	0.24
Pipe 28	478.35	8	150	38.35	0.24
Pipe 45	385.3	8	150	39.31	0.25
Pipe 44	106.8	8	150	39.31	0.25
Pipe 60	311.45	8	150	39.31	0.25
Pipe 25	368.41	8	150	39.53	0.25
Pipe 33	399.99	8	150	39.53	0.25
Pipe 34	99.03	8	150	39.53	0.25
Pipe 14	156.58	8	150	-40.22	0.26
Pipe 15	480.87	8	150	-40.22	0.26
Pipe 16	415.24	8	150	-40.22	0.26
Pipe 83	430	12	130	91	0.26
Pipe 62	293.1	8	150	-40.86	0.26
Pipe 39	342.98	8	150	42.18	0.27
Pipe 29	361.83	8	150	42.18	0.27
Pipe 36	361.83	8	150	47.59	0.3
Pipe 37	293.37	8	150	47.59	0.3

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 56	162.17	12	130	-113.77	0.32
Pipe 49	163.95	8	150	53.3	0.34
Pipe 12	304.26	8	150	54.92	0.35
Pipe 46	292.53	8	150	55.04	0.35
Pipe 57	390.74	8	150	55.04	0.35
Pipe 58	169.58	8	150	55.04	0.35
Pipe 48	159.97	8	150	-58.6	0.37
Pipe 7	127.12	8	150	-66.04	0.42
Pipe 6	129.55	8	150	-66.04	0.42
Pipe 59	248.84	8	150	-69.45	0.44
Pipe 13	238.37	8	150	74.53	0.48
Pipe CRP1	950	12	130	169.56	0.48
Pipe CRP3	420	12	130	-169.92	0.48
Pipe 30	281.87	8	150	79.39	0.51
Pipe 31	422.84	8	150	79.39	0.51
Pipe 32	209.62	8	150	79.39	0.51
Pipe 84	430	12	130	-199.16	0.56
Pipe 68	860.44	18	130	464.14	0.59
Pipe 11	179.66	8	150	-96.4	0.62
Pipe 22	125.92	8	150	-97.79	0.62
Pipe 27	41.9	8	150	99.28	0.63
Pipe 26	198.2	8	150	99.28	0.63
Pipe 101	440	8	150	100.49	0.64
Pipe 24	45.86	8	150	106.77	0.68
Pipe 23	129.72	8	150	106.77	0.68
Pipe 100	880	8	150	108.53	0.69
Pipe 35	874.02	18	130	576.03	0.73
Pipe 47	165.56	8	150	113.88	0.73
Pipe 53	385.25	8	150	113.88	0.73
Pipe 54	308.02	8	150	113.88	0.73
Pipe 99	880	8	150	116.57	0.74
Pipe 98	440	8	150	125.5	0.8
Pipe 17	186.67	8	150	129.69	0.83
Pipe CRP2	1000	12	130	-295.07	0.84
Pipe 4	413.75	18	130	680.89	0.86
Pipe 81	430	12	130	337.47	0.96
Pipe 3	384.76	18	130	777.29	0.98
Pipe 108	430	8	150	161.64	1.03
Pipe 70	200	8	150	-169.92	1.08

Link ID	Length ft	Diameter in	Roughness	Flow GPM	Velocity fps
Pipe 2400W	9200	18	130	882.88	1.11
Pipe 78	2643	12	130	-407.88	1.16
Pipe 79	2674	12	130	-407.88	1.16
Pipe 107	430	8	150	195.57	1.25
Pipe 91	430	12	130	441.58	1.25
Pipe 105	440	8	150	196.58	1.25
Pipe 90	430	12	130	450.51	1.28
Pipe 111	430	8	150	204.43	1.3
Pipe 104	880	8	150	204.62	1.31
Pipe 89	430	12	130	467.48	1.33
Pipe 103	880	8	150	212.66	1.36
Pipe 88	430	12	130	484.45	1.37
Pipe 102	440	8	150	221.59	1.41
Pipe 106	430	8	150	229.5	1.46
Pipe 110	430	8	150	238.36	1.52
Pipe 55	167.7	12	130	-577.91	1.64
Pipe 92	430	12	130	586.25	1.66
Pipe 109	430	8	150	273.19	1.74
Pipe 85	340	12	130	680.18	1.93
Pipe 94	30	12	130	-726.28	2.06
Pipe 95	430	12	130	-735.21	2.09
Pipe 96	430	12	130	-752.18	2.13
Pipe 97	430	12	130	-769.15	2.18
Pipe 93	400	12	130	773.72	2.19
Pipe 86	920	12	130	780.67	2.21
Pipe 80	1400	12	130	830.85	2.36
Pipe 82	2640	12	130	882.88	2.5
Pipe 74	3268	8	134	-407.88	2.6
Pipe 77	1340	8	134	-407.88	2.6
Pipe 76	628	8	134	-407.88	2.6
Pipe 75	1320	8	134	-407.88	2.6
Pipe 87	240	12	130	977.25	2.77
Pipe 73	1330	8	134	-474.99	3.03
Pipe 2100W	8620	12	130	1242.27	3.52
Pipe 69	2650	12	130	1242.27	3.52
Pipe 2	2650	12	130	1717.27	4.87
Pipe 72	2640	8	150	-882.88	5.64
Pipe 1	400	12	130	2125.15	6.03



July 29, 2022

RANlife Homes
9272 South 700 East
Sandy, Utah 84070

Attention: Anthony Bochino
Email: anthonyboc1@gmail.com

Subject: Geotechnical Consultation
Codero Subdivision
Hurricane, Utah
AGEC Project No. 2220977

Applied Geotechnical Engineering Consultants, Inc., (AGEC) was requested to conduct a geotechnical investigation for the proposed Codero Subdivision located in Hurricane, Utah. The study is currently in progress. We have scheduled to excavate 8 exploratory test pits across the 40-acre development. A final report will be provided upon completion of the study. The report summarizes the work to date and the conditions of the site along with conclusions to the suitability of the property for the proposed development.

Site Conditions

The property is located west of the Southern Shores Ski Lake Community project in south Hurricane. The property consists of undeveloped property. There is vacant property to the west, north and south.

The property slopes down to the north with approximately 30 feet of elevation change. . The property is moderately covered with small brush and grasses infilled with wind blown sand and silt.

Geology

AGEC has reviewed the available literature for the property including the following:

- | | |
|-----------------------------------|---|
| <i>Literature Document No. 1:</i> | Geologic Map of the Hurricane 7.5' Quadrangle, Washington County, Utah, Map M-187, 2003, Robert F. Biek. |
| <i>Literature Document No. 2:</i> | Geologic Hazards and adverse Construction Conditions, St. George-hurricane Metropolitan Area, Washington County, Utah, SS-127, 2008, Lund etal. |

Based on the literature review the following conclusions are made:

1. There is minor amounts of wind blown or aeolian type deposits overlying the basalt with greater amounts along the south end of the site.
2. There are not faults on or near the property. The nearest fault, the Hurricane Fault is on the order of 1.9 miles to the east.
3. There is also shallow hard rock anticipated below the surface sands.

Anticipated Subsurface Conditions

AGEC is in the process of completing 8 test pits (explorations) as shown below. AGEC has also reviewed previous geotechnical studies in the area including:

1. Romney Study – Larger parcel that included this parcel.
2. 100 Acre Study to the south

Based on our experience and review of the property, the subsurface conditions are anticipated to consist of silty sand (wind blown) overlying caliche and/or sandstone bedrock.

Groundwater was not encountered during previous investigations, nor anticipated throughout the property.

Proposed Construction

The property consists of approximately 40 acres and is to be developed with single family residences. There will be public improvements throughout the property.

Conclusions

Based on the review of the various items noted above, the following conclusions are noted:

1. The site is suitable for the proposed development. No geologic hazards other than hard rock for excavation purposes are noted on the property.
2. The site will require cuts and fills. The on-soils and bedrock may be used as fill materials.

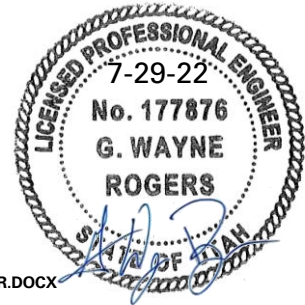
Limitations

AGEC will be providing a final report upon completion of the field exploration and the necessary laboratory testing. The information within this report may be used for review and preliminary design details.

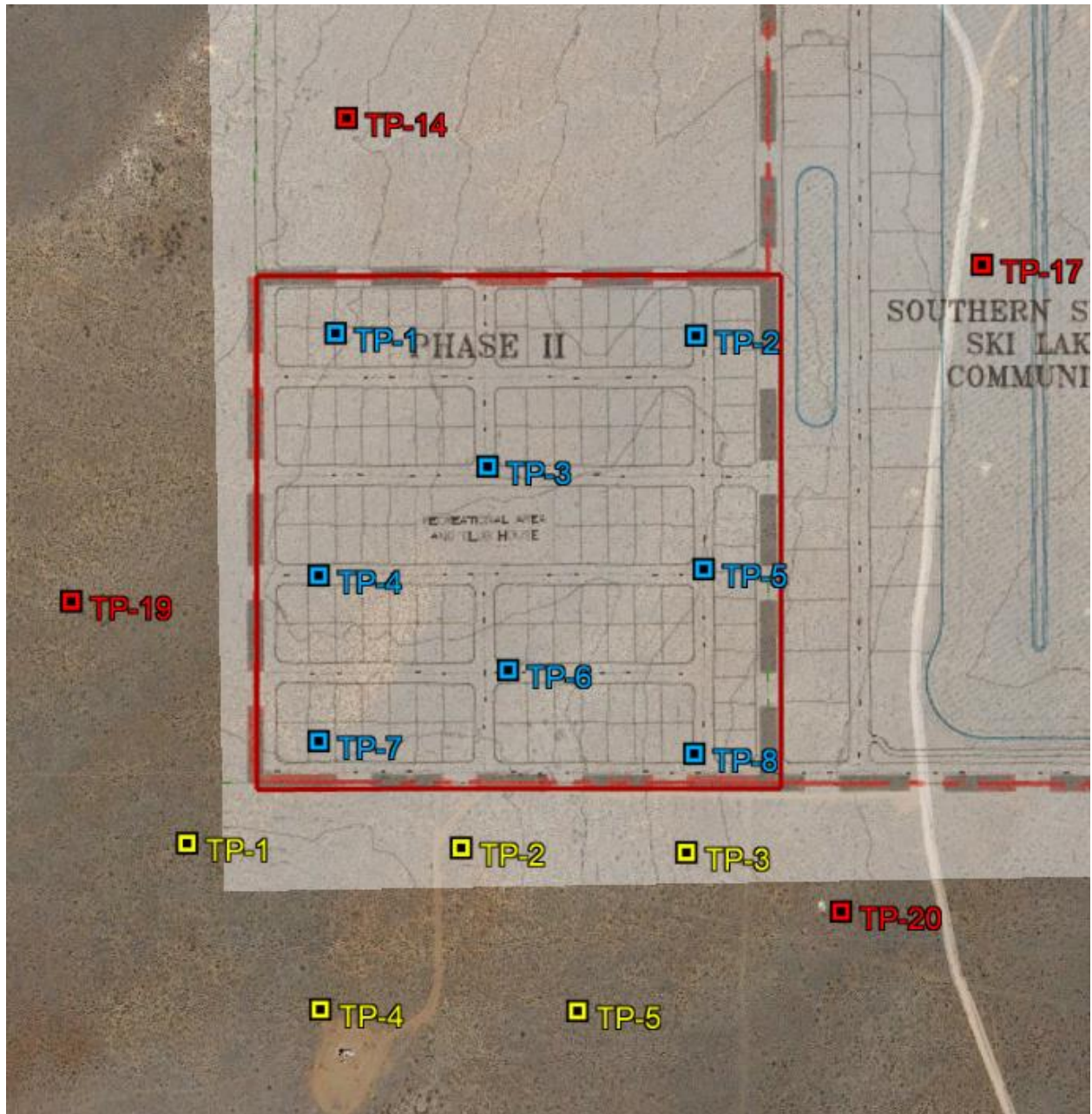
Sincerely,

APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS, INC.

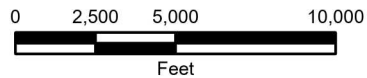
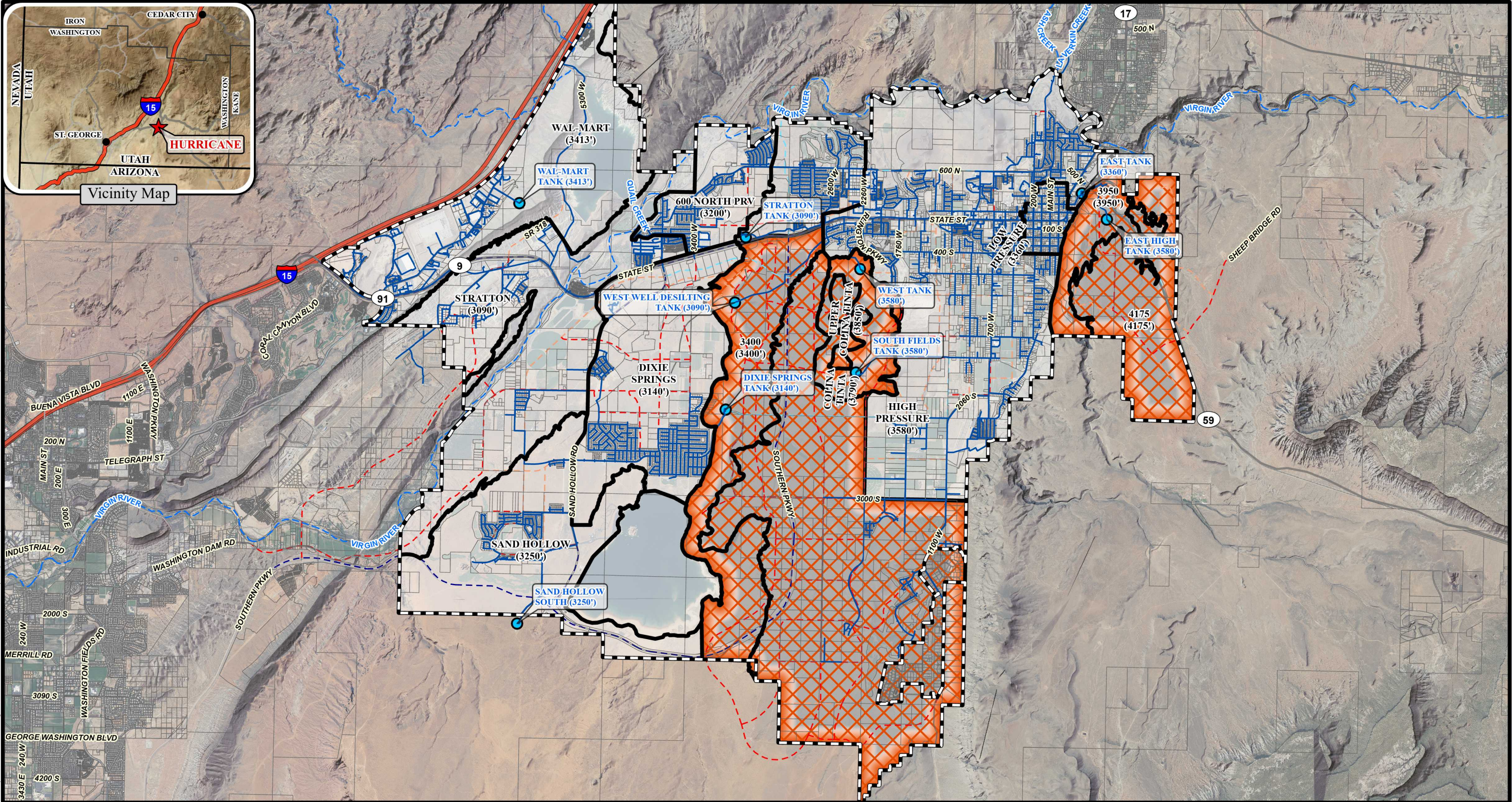
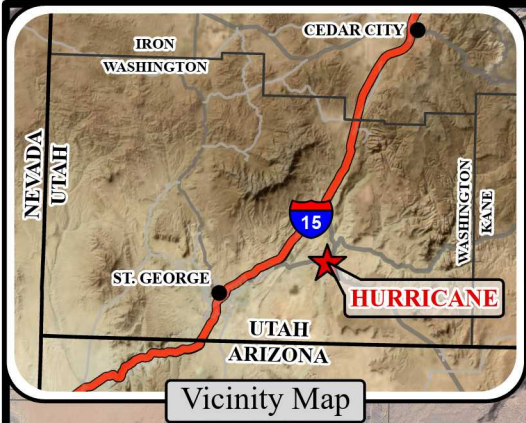
G. Wayne Rogers, P.E.



P:\2022 PROJECT FILES\2220900\2220977 - GT CORDERO SUBDIVISION (40 ACRES)\GEOTECHNICAL CONSULTATION LETTER.DOCX



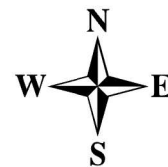
Yellow TP- indicates test pits from 100 Acre Study
 Red TP- indicates test pits from Romney Study
 Blue = test pits this study



Legend

- Hurricane Municipal Boundary
- Washington County Parcels
- Pressure Zone Boundaries
- Approximate Extent of Limit Culinary Distribution
- Existing Culinary Water

- Existing Tank
- Master Planned Roads
 - Major Arterial (106' ROW)
 - Minor Arterial (90' ROW)
 - Major Collector (70' ROW)
 - Minor Collector (60' ROW)



1 of 1

Approximate Areas of Limited Distribution Capacity

Hurricane, Utah

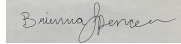
Spatial Reference: Utah State Plane NAD 83, feet

Drawn By: JRH

Scale: 1" = 6,000 feet

Date: October 2022

**Application**

Application Accepted Date: 12/21/2023		Valuation		\$	0.00				
Type of Improvement: Subdivision (Preliminary Plat)		PERMIT FEES							
Description:		Planning Fee		\$	150.00				
Tenant / Project Name: Trails at Sand Hollow		Planning Fee		\$	150.00				
Bldg. Address: 4000 West Sand Hollow Road		Sub Total:		\$	150.00				
City: Hurricane City State: UT Zip: 84737		Permit Total:		\$	150.00				
Subdivision: Trails at Sand Hollow Phase:		Amount Paid:		\$	0.00				
Block: Lot #: Parcel #: H-4-2-1-324-GS1 AND		Remaining Due:		\$	150.00				
Zone: RM-3 H-4-2-1-322-GS1									
Property Owner: Simply Land LLC									
Permit Contact: Karl Rasmussen P:(435) 680-0816									
Email: karl@pv-eng.com									
CONTACT INFORMATION									
Engineer of Record: Karl Rasmussen									
Email: karl@pv-eng.com P: (435) 680-0816									
General Contractor: Brad Mabey									
License #: TBD P: (801) 910-9910									
Address: 2135 W 6800 S									
City: BENJAMIN State: UT Zip: 84660									
Email: karl@pv-eng.com									
APPLICATION DETAILS									
						APPROVALS		DATE	INFO
						Plan Review Finalized:		Yes	01/09/24 Brienna Spencer
Setbacks		Front:	Rear:	Left:	Right:				
Min.									
Actual:									
APPLICATION NUMBER: PENDPP24-01									
This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I here-by certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty of perjury. Maintenance Deposit is refundable after final inspection if: 1) site is kept clean 2) building is NOT occupied prior to final inspection and issuance of Certificate of Occupancy.									
Applicant Name: Jeffrey G Thomas									
Signature of Applicant/Authorized Agent or Owner: Date:									
Application Approved By:		Date:							
		01/09/2024							
Application Issued By:		Date:							
Receipt #: 8.175163-12/21/23									

**Application**

Application Accepted Date: 12/21/2023		Valuation		\$	0.00
Type of Improvement: Site Plan (Preliminary)		PERMIT FEES			
Description:		Planning Fee		\$	200.00
Tenant / Project Name: Trails at Sand Hollow		Planning Fee		\$	200.00
Bldg. Address: 4001 West Sand Hollow Road		Sub Total:		\$	200.00
City: Hurricane City State: UT Zip: 84737		Permit Total:		\$	200.00
Subdivision: Trails at Sand Hollow Phase:		Amount Paid:		\$	0.00
Block: Lot #: Parcel #: H-4-2-1-324-GS1 AND		Remaining Due:		\$	200.00
Property Owner: SIMPLY LAND LLC H-4-2-1-322-GS1					
Permit Contact: Karl Rasmussen P:(435) 680-0816					
Email: karl@pv-eng.com					
CONTACT INFORMATION					
Engineer of Record: Karl Rasmussen					
Email: karl@pv-eng.com P: (435) 680-0816					
General Contractor: Brad Mabey					
License #: TBD P: (801) 910-9910					
Address: 2135 W 6800 S					
City: BENJAMIN State: UT Zip: 84660					
Email: brad.mabey@academymortgage.com					
APPLICATION DETAILS					
Plan Review Finalized:		Yes	01/09/24	Brienna Spencer	
Setbacks	Front:	Rear:	Left:	Right:	
Min.					
Actual:					
APPLICATION NUMBER: PENDPSP24-01					
This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I here-by certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty of perjury. Maintenance Deposit is refundable after final inspection if: 1) site is kept clean 2) building is NOT occupied prior to final inspection and issuance of Certificate of Occupancy.					
Applicant Name: Jeffrey G Thomas					
Signature of Applicant/Authorized Agent or Owner: Date:					
Application Approved By:		Date:			
		01/09/2024			
Application Issued By:		Date:			
Receipt #: 8.175163-12/21/23					



December 19, 2023

Hurricane City
Gary Cupp
127 N. 870 W.
Hurricane, UT 84737

Subject: Trails at Sand Hollow

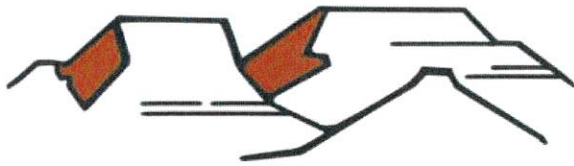
Gary,

There is sewer capacity for this project. The developers understand and agree that they will need to get plan approval for the sewer system.

After approval, they agree to pay all costs associated with construction and impact fees. Please let us know if you have any questions.

Sincerely,

Amber Gillette, P.E.
Engineer
Ash Creek Special Service District



HURRICANE CITY UTAH

*Water Department
Ken Richins, Superintendent*

Date: December 19, 2023

To Whom It May Concern:

Simply Land LLC – Brad Mabey (the “Developer”) has requested a culinary water will serve letter for the subdivision known as Trails at Sand Hollow, located at approximately 400 S Sand Hollow Road in Hurricane, Utah (the “Project”).

Infrastructure

The City currently has infrastructure to supply culinary water in the general area of the Project. However, Developer will be responsible to connect the Project to the existing water infrastructure, including the installation of infrastructure in dedicated public streets and as otherwise required to meet City standards. In addition, Developer may be required to obtain and supply a hydraulic water study to ensure the waterline will deliver required fire flows. A looped water system may be required.

Water Supply

As of the date of this letter, the city has adequate water to supply water to 645 residential connections within the Project. However, water within the City is a finite resource with limited supply. The ability of the City to supply water to previously approved projects, as well as continue to serve additional water customers, is contingent on water supplies being available from the Washington County Water Conservancy District (the “Conservancy District”). Therefore, the City’s statements in this letter regarding the adequacy of water supply is (1) contingent on water being available from the Conservancy District and (2) shall expire one year from the date of this letter, after which a renewed will serve letter will be required for any property or lot that has not obtained a metered connection to the City’s culinary water system. Developer is encouraged to obtain a guarantee of water from the Conservancy District.

General Requirements

In addition to the requirements and limitations described above, Developer shall be required to comply with all applicable laws, ordinances, policies, and construction and design standards. These requirements include, but are not limited to, secondary water system requirements and any obligations described in an applicable development agreement.

Sincerely,

Ken Richins
Water Department Superintendent



STAFF COMMENTS

Agenda Date:	01/25/2024
Application Number:	PP24-01 PSP24-01
Type of Application:	Preliminary Plat and Site Plan Application
Action Type:	Administrative
Applicant:	Simply Land LLC-Brad Mabey
Agent:	Karl Rasmussen
Request:	Approval of a Preliminary Plat and Site Plan
Location:	4000 W Sand Hollow Road
Zoning:	RM-3
General Plan Map:	Planned Community

Discussion:

The applicant has filed a preliminary plat and site plan for Trails at Sand Hollow, a 673 unit multifamily development located within the Gateway at Sand Hollow Public Infrastructure District. The property is located northeast of the Glampers Inn RV park. The project consists of a 252 unit apartment complex, 211 townhomes, and 210 condos. A previous development proposal on this property was approved in 2021; this application is for a new proposal.

on the plat. The existing grade seems to split the subdivision into two sub-basins. Block length and access from Jellystone Road and Resort Drive. Phasing plan? Traffic impact study should determine the need for a deceleration lane from Sand Hollow Road to Road F. Dead end public roads longer than 150' should include a cul-de-sac or a hammerhead turnaround in the public right of way. Road C (Hillside Dr) is a 45' street on the other side of Resort Dr. Applicant should show all "existing" accesses and streets.

7. **Fire:** No comments.
8. **Cable:** No comments.
9. **Gas:** No comments.
10. **Water Conservancy:** Washington County Water Conservancy District hereby acknowledges that based on the information provided, the proposed plans adequately mitigate interference with district facilities and property interests. The District reserves the right to rescind this acknowledgement if additional information becomes available. The district has not determined whether water will be available for this development and does not hereby make any guarantee of water availability. In addition, the development must conform with applicable district requirements, including but not limited to payment of fees.

Staff Comments: Preliminary Site Plan and Plat

1. Zoning is RM-3 which has a maximum density of 15 units per acre. The property is 43 acres and they are counting an additional four acres of roadway for 47 acres and 673 units. Per the most recent zone change in this area, the RM-3 zoning only extends to the center line of Resort Drive and Jellystone Road. This will need to be clarified
2. **Parking:** Parking is required at a rate of 1.5 spaces for single bedroom/studio units and 2 spaces for all other units. Information on bedroom breakdown for the units has not been provided. The apartment area shows 467 parking spaces for 252 units which would mean some of those apartment units would need to be single bedroom or studio, all units appear to be the same size.
 - a. The applicant's agent has told staff that the 26' private drives shown throughout the townhome/condo area of the plat are intended to be accesses for garages for each unit. This should be indicated on the site plan.
3. **Open Space and Amenities:** Per HCC 10-33-5(9), open landscaped space shall be 20% of the development. No information is given regarding the amount of open landscaped space, a note on the plat indicates that the stormwater pond in the northwest corner will be parkspace.
 - a. A development of this size requires 12 amenities, and the type of amenity shall generally vary. The site plan shows 14 amenities including eight pickleball courts, two swimming pools, a clubhouse, and three picnic pavilion areas.
4. All park strips will need to be landscaped and have the proper improvements.
5. A note indicating whether or not the property is in a tortoise take area has been provided.
6. **Sensitive Lands:** The southern portion of this property has a small number of rock outcroppings, during a previous attempt at developing this property the Zoning Administrator at that time determined that these rock formations do not meet the intent of the Sensitive Lands code and are exempt from the requirements of that chapter. Even with the change in development plan staff maintains that assessment (see attached email dated March 16, 2022)
7. Hurricane City Code 10-37-4 states:

- a. *Land shall be developed only where existing infrastructure is in place or will be timely provided to service proposed development. The City may require an analysis to be completed to determine whether adequate public facilities are available to service a development and whether such development will change existing levels of service or will create a demand which exceeds acceptable levels of service for roadways, intersections, bridges, storm drainage facilities, water lines, water pressure, sewer lines, fire and emergency response times, and other similar public services. The City may disapprove a proposed development if demand for public services exceeds accepted levels of service. No subsequent approval of such development shall be given until either the developer or the City installs improvements calculated to raise service levels to the standard adopted by the City.*
 - b. While this development is not as isolated from existing services as other approved developments within the Gateway to Sand Hollow PID area, the PID or the developer will need to provide significant infrastructure improvements before this development could fully build out.
8. **Water use:** The Washington County Water Conservancy District has a county-wide tracking budget of approximately 75,000 units with approximately 25,000 units being located within Hurricane City. As part of the Gateway to Sand Hollow Public Infrastructure District this development and its 673 units are already accounted for within Hurricane City's tracking data. Studies have shown that multifamily developments use significantly less water on a per-capita basis which will mitigate the additional water use.

Recommendation: Staff recommends the Planning Commission review this application based on standards with Hurricane City Code. More information is needed to determine the adequacy of parking, openspace and amenities, road standards, and provision of adequate public facilities. Staff recommends that this item be tabled until the required information is provided by the applicant.

From: Adam Allen <Adam@alcsg.com>
Sent: Wednesday, March 16, 2022 7:16 PM
To: Stephen Nelson; Jared Madsen; Jon Sorensen
Cc: Fred Resch
Subject: RE: Sensitive Lands

Thank you for the update. We appreciate it

Thank You,

Adam Allen
President
American Land Consulting
(435)-680-6711 Cell

Sent from my smartphone

----- Original message -----

From: Stephen Nelson <stephen@cityofhurricane.com>
Date: 3/16/22 5:06 PM (GMT-07:00)
To: Adam Allen <Adam@alcsg.com>, Jared Madsen <jaredmadsen@alphaengineering.com>, Jon Sorensen <jons@desertsagehomesutah.com>
Cc: Fred Resch <fred@cityofhurricane.com>
Subject: Sensitive Lands

Adam and Jared,

I was glad we were able to meet last week to walk to the property and talk about if an application would require sensitive lands application for the Quail Hollow area. There are some hillsides with steep slopes but mostly limited to a few rock outcrops and washes different from the surrounding area. After review, I have found that the area in question is not sensitive lands, and protecting it does not help fulfill the purpose of the code listed within 10-24-1. Therefore, a sensitive lands application will not be required for the development of this property. However, any grading on the property will still need to meet the grading standards of the City for roadways, remaining hillsides, and retaining walls; and a complete geotechnical and drainage plan needs to be submitted with construction drawings. Staff would also recommend that the property's natural slope be incorporated into the design as much as possible.

The following section of code and criteria are all quoted from [10-24 Sensitive Lands](#) and are used to help determine if a sensitive lands application would be required.

Sec. 10-24-2. Sensitive lands defined.

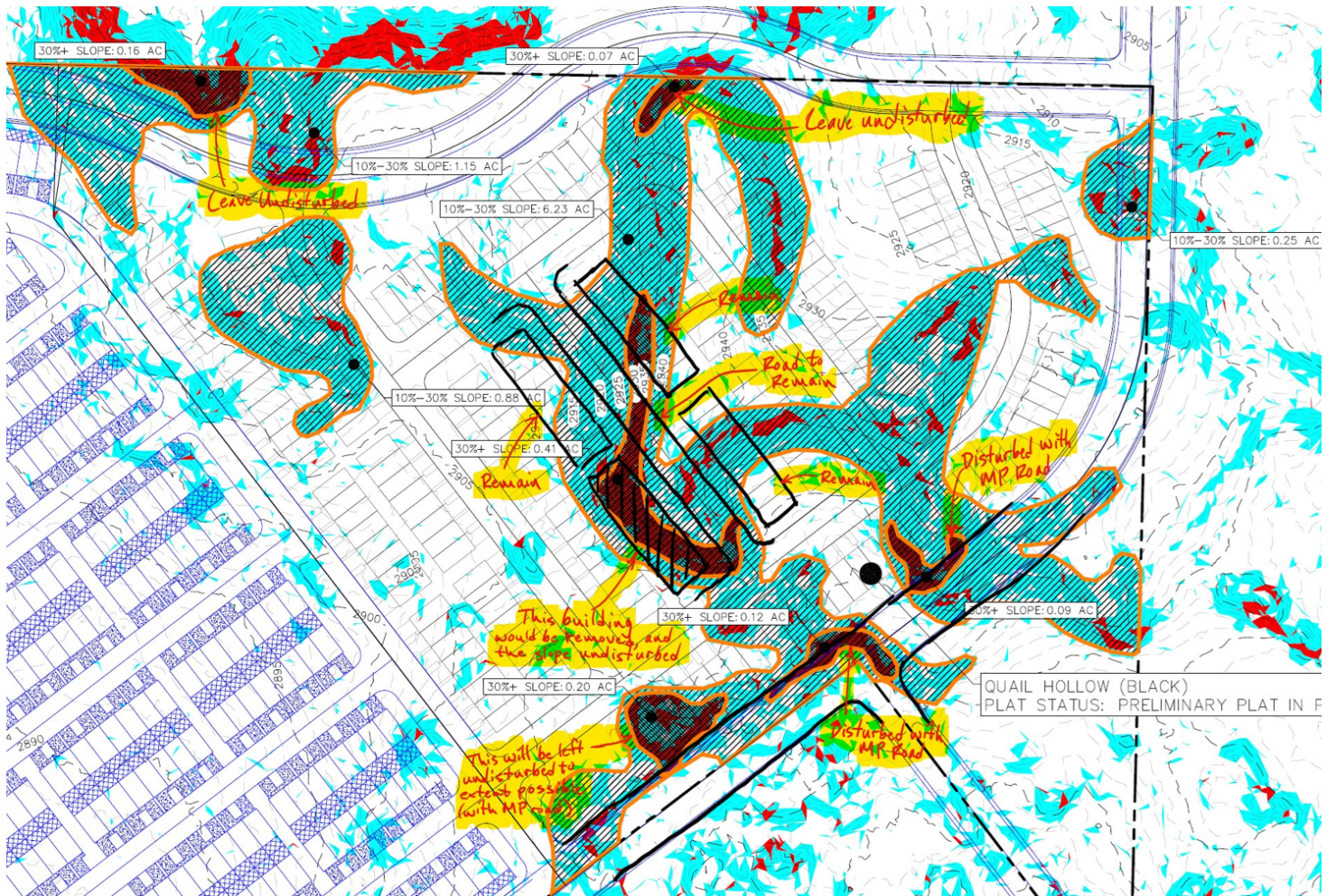
For the purposes of this chapter, the following lands are "sensitive lands" and shall be subject to the requirements of this chapter:

Any area where there is a change in elevation which is equal to or greater than ten percent (one foot of vertical grade change for every ten feet of horizontal run) for a distance of 100 feet or more, and where said grade change covers an area of at least two contiguous acres, or an entire parcel if said parcel is less than two acres (see section 10-24-9, appendix diagram A of this chapter).

Also, it states:

Sec. 10-24-5. Hillsides and ridge areas.

- A. *Applicability. The following procedures, submittal requirements and standards shall apply to those projects located on lands identified as having at least one of the following characteristics:*
1. *Slopes over ten percent which are:*
 - a. *Identified through computer generated programs capable of calculating slopes on topographic maps prepared with two-foot contour interval accuracy; or*
 - b. *Established by profile lines drawn perpendicular to contour lines at intervals no greater than 150 feet apart, when the slope, measured along any 100-foot segment of the profile line is ten percent or greater (see section 10-24-9, appendix diagram A, of this chapter).*
 - c. *A slope shall be subject to this chapter only when a contiguous identified area of ten percent or greater exceeds two acres, or if the site is less than one acre and the entire site is ten percent or greater.*
 2. *Lands located within 100 vertical feet of a ridgeline measured perpendicular from the ridgeline; and*
 3. *Lands located within 100 feet of an edge of a bluff.*

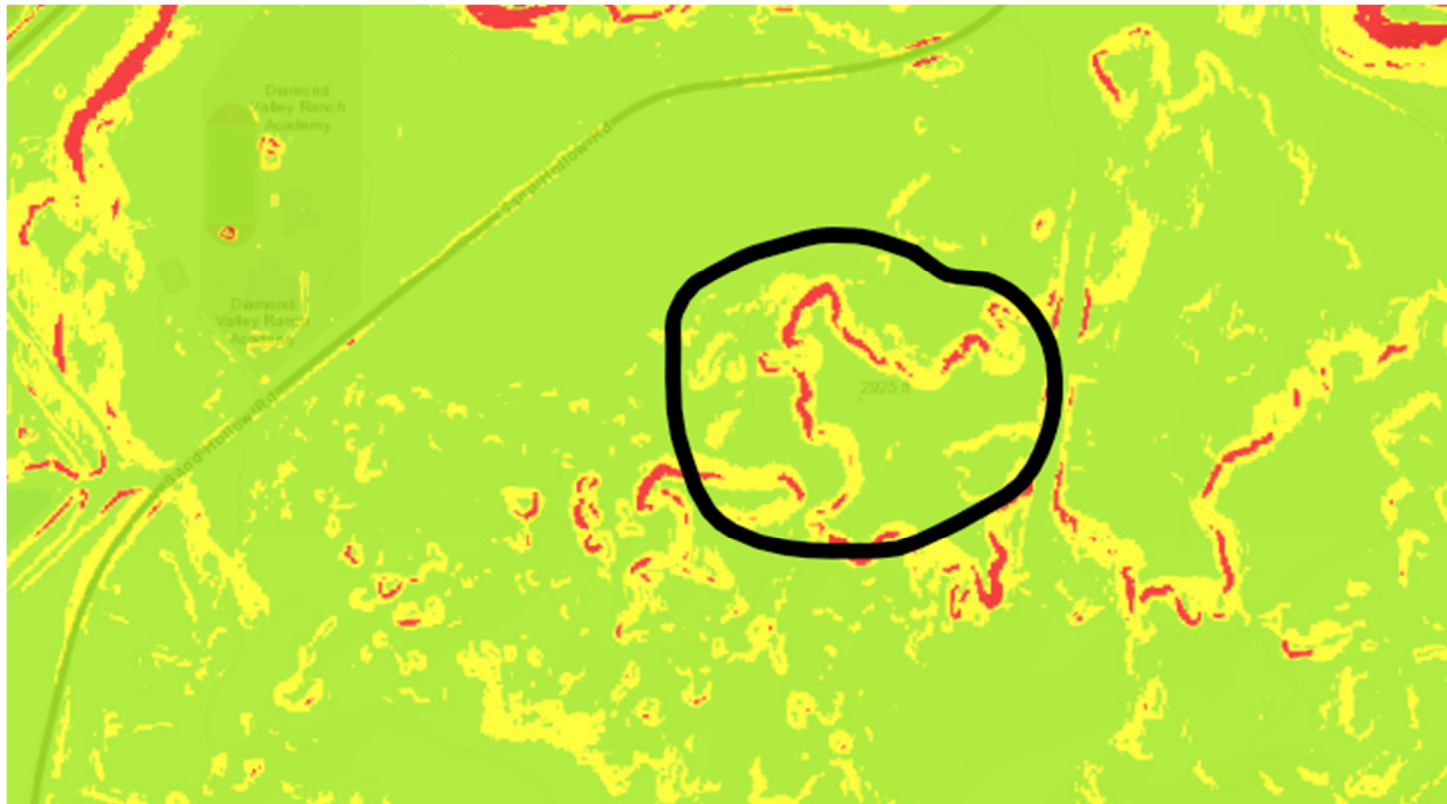


On the maps provided, it is clear that it meets these criteria.

Within Section C.1.d under the Development Plan Submittal for lot development, it states:

The average grade shall be determined by calculating the grade of the natural slope between two opposing property lines, based on profiles taken perpendicular to the contours, no less than 150 feet apart, nor greater than 75 feet from an existing or proposed property line. Small washes or rock outcrops which have slopes distinctly different from surrounding property may be excluded from slope determination, if the exclusion of such small areas from slope determination will not be contrary to the overall purpose of this chapter, as reasonably determined by the Zoning Administrator.

This latter section of code allows for the zoning administrator not to waive the requirement of the sensitive lands application but allows exceptions from some of the requirements. The mapping of the surrounding area seems to be a small rock outcropping and will not impact the conditions of 10-24-1, as seen in the map below.





Finally, the code allows the Zoning Administrator to determine if the application will affect sensitive lands within the City take all the above into consideration.

Sec. 10-24-3. Determination of applicability.

- B. *Support information.* An applicant may provide information to support a determination that the project is not located on sensitive lands. Further on site investigation from licensed professionals may be necessary to conclude whether or not a project is located on sensitive lands.
- C. *Zoning Administrator determination.* If additional information is provided by an applicant, the Zoning Administrator shall review the information and make a final determination whether or not the project is subject to this chapter. The Zoning Administrator may also review the project on site and may determine the project is not located on sensitive lands and therefore not subject to this chapter. The decision of the Zoning Administrator may be appealed to the Planning Commission.

Please let me know if you have any questions.

Stephen Nelson, AICP

*Hurricane City
Planning Director
(435) 635-2811*



PLANNING & ZONING
HURRICANE CITY
UTAH

SITE DATA		
AREA	43	ACRES
TOTAL AREA	1,870,703	SQ.FT.
TOTAL LOTS/UNITS	645	
UNITS PER ACRE	15	

APARTMENTS	252
TOWNHOMES	193
CONDOS	200
TOTAL UNITS	645

PHASE TABLE

PHASE NO.	NO. OF LOTS OR UNITS
PHASE 1	TBD
PHASE 2	TBD
PHASE 3	TBD
PHASE 4	TBD
PHASE 5	TBD
PHASE 6	TBD
PHASE 7	TBD
PHASE 8	TBD
TOTAL	TBD

LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

WATER LINE

6" SANITARY SEWER LINE

PHASE LINE

12" EXISTING SEWER LINE

EXISTING WATER LINE

EXISTING STORM DRAIN LINE

EXISTING LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

SECTION LINE

CENTERLINE

EDGE OF EXISTING PAVEMENT

EXISTING GAS MAIN

EXISTING GAS MAIN

EXISTING 1' CONTOUR

EXISTING 5' CONTOUR
- T-T EXISTING COMMUNICATION LINE

W-W EXISTING WATER LINE, SIZE SHOWN

IRR-IRR EXISTING IRRIGATION LINE, SIZE SHOWN

SS-SS EXISTING SEWER LINE, SIZE SHOWN

SS-SS EXISTING SEWER LINE

EXISTING CURB & GUTTER

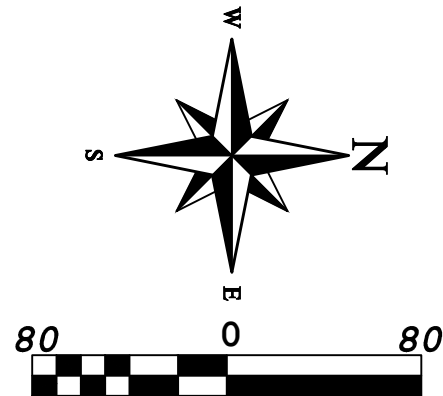
PROPOSED PAVEMENT

PROPOSED SIDEWALK

EXISTING FIRE HYDRANT

EXISTING SEWER MANHOLE

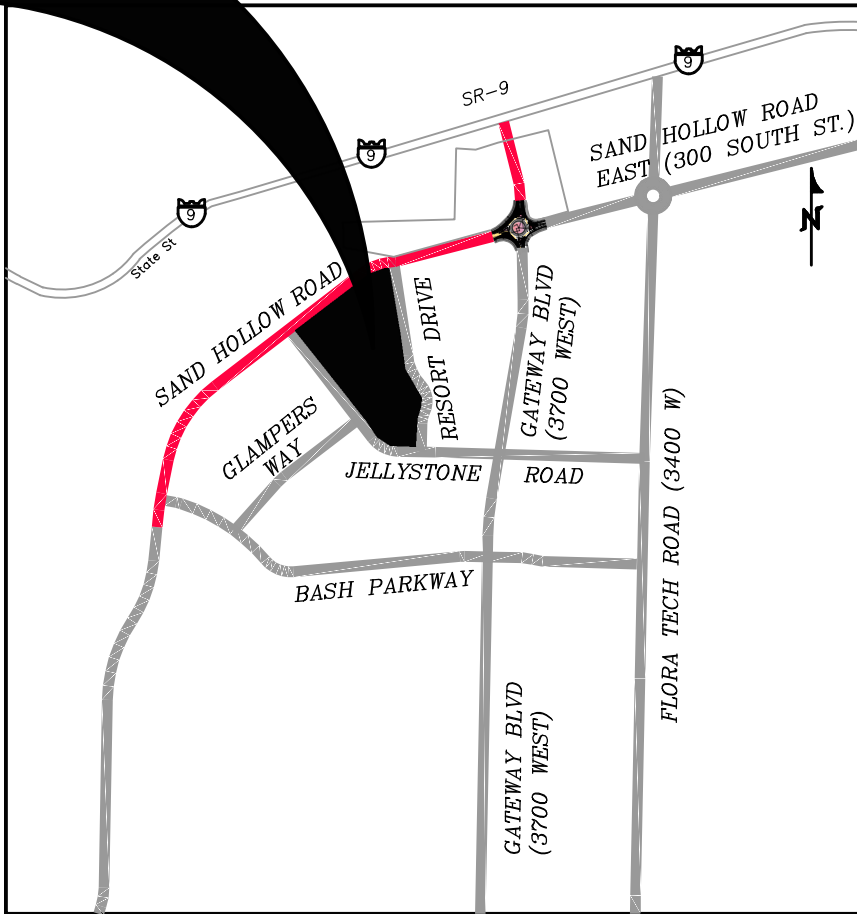
EXISTING WATER VALVE



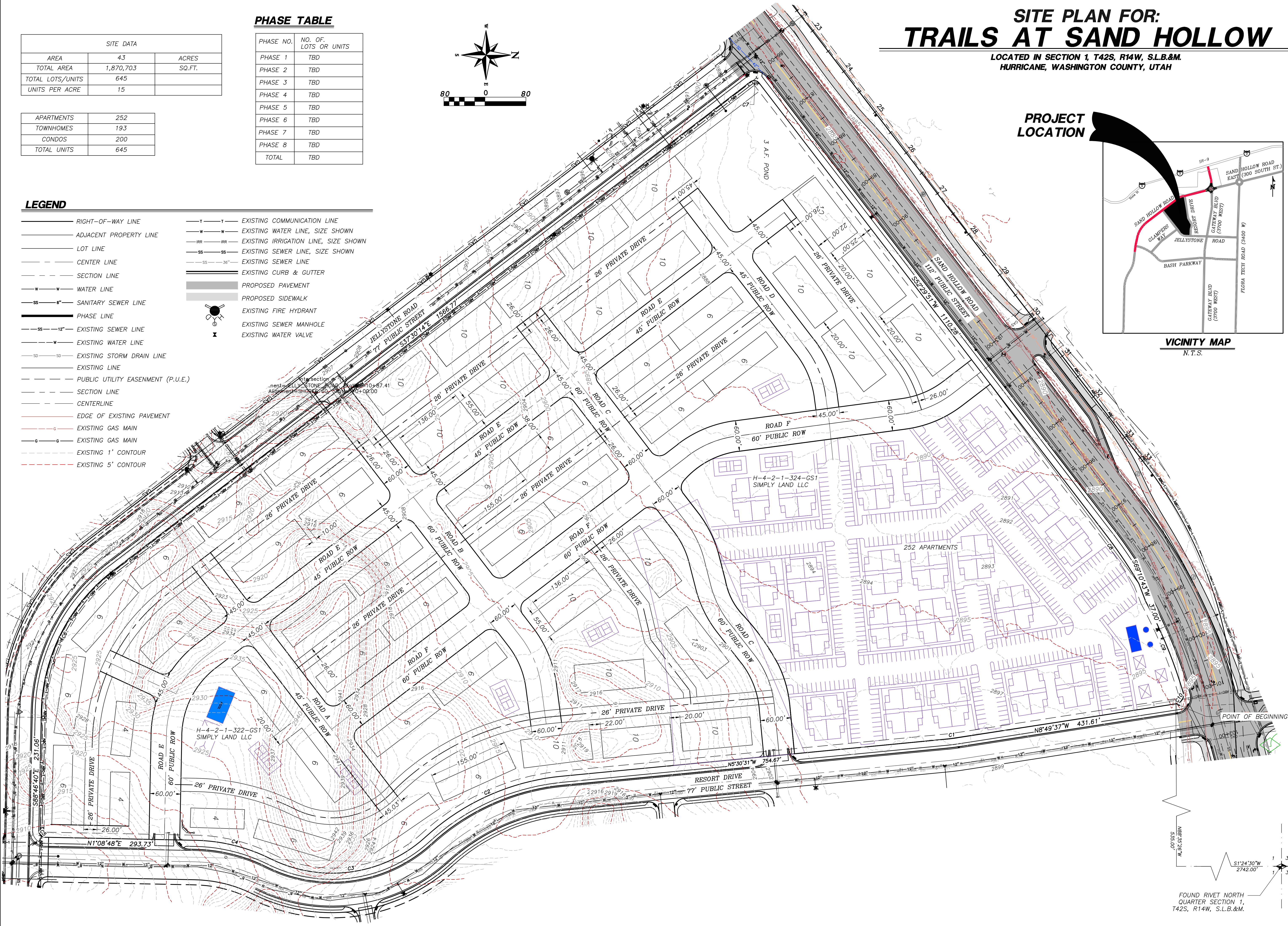
SITE PLAN FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

PROJECT
LOCATION



VICINITY MAP
N.T.S.



REVISIONS		DATE	BY
NO	DESCRIPTION		

PROVALUE
ENGINEERING, INC.
ENGINEERS - LAND SURVEYORS - LAND PLANNERS
20 South 850 West, Suite 1
Hurricane, UT 84503
Phone: 435-668-8307

SITE PLAN FOR:
TRAILS AT SAND HOLLOW
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	12/21/2023
SCALE	1"=80'
JOB NO.	378-002
SHEET NO.	1 OF 1

713-002 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG

SITE DATA		
AREA	43	ACRES
TOTAL AREA	1,870,703	SQ.FT.
TOTAL LOTS/UNITS	645	
UNITS PER ACRE	15	

APARTMENTS	252
TOWNHOMES	193
CONDOS	200
TOTAL UNITS	645

PHASE TABLE

PHASE NO.	NO. OF LOTS OR UNITS
PHASE 1	TBD
PHASE 2	TBD
PHASE 3	TBD
PHASE 4	TBD
PHASE 5	TBD
PHASE 6	TBD
PHASE 7	TBD
PHASE 8	TBD
TOTAL	TBD

LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

EXISTING SEWER LINE

EXISTING WATER LINE

PROPOSED STORM DRAIN, SIZE SHOWN

EXISTING LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

SECTION LINE

CENTERLINE

EDGE OF EXISTING PAVEMENT

EXISTING GAS MAIN

PROPOSED GAS MAIN

EXISTING CURB & GUTTER
- EXISTING COMMUNICATION LINE

PROPOSED WATER LINE, SIZE SHOWN

PROPOSED IRRIGATION LINE, SIZE SHOWN

PROPOSED SEWER LINE, SIZE SHOWN

EXISTING SEWER LINE

PROPOSED CURB & GUTTER

EXISTING PAVEMENT

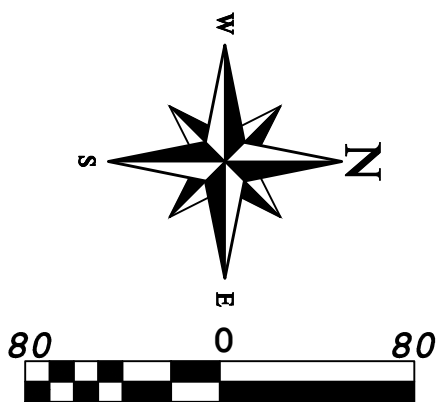
EXISTING SIDEWALK

FIRE HYDRANT

SEWER MANHOLE

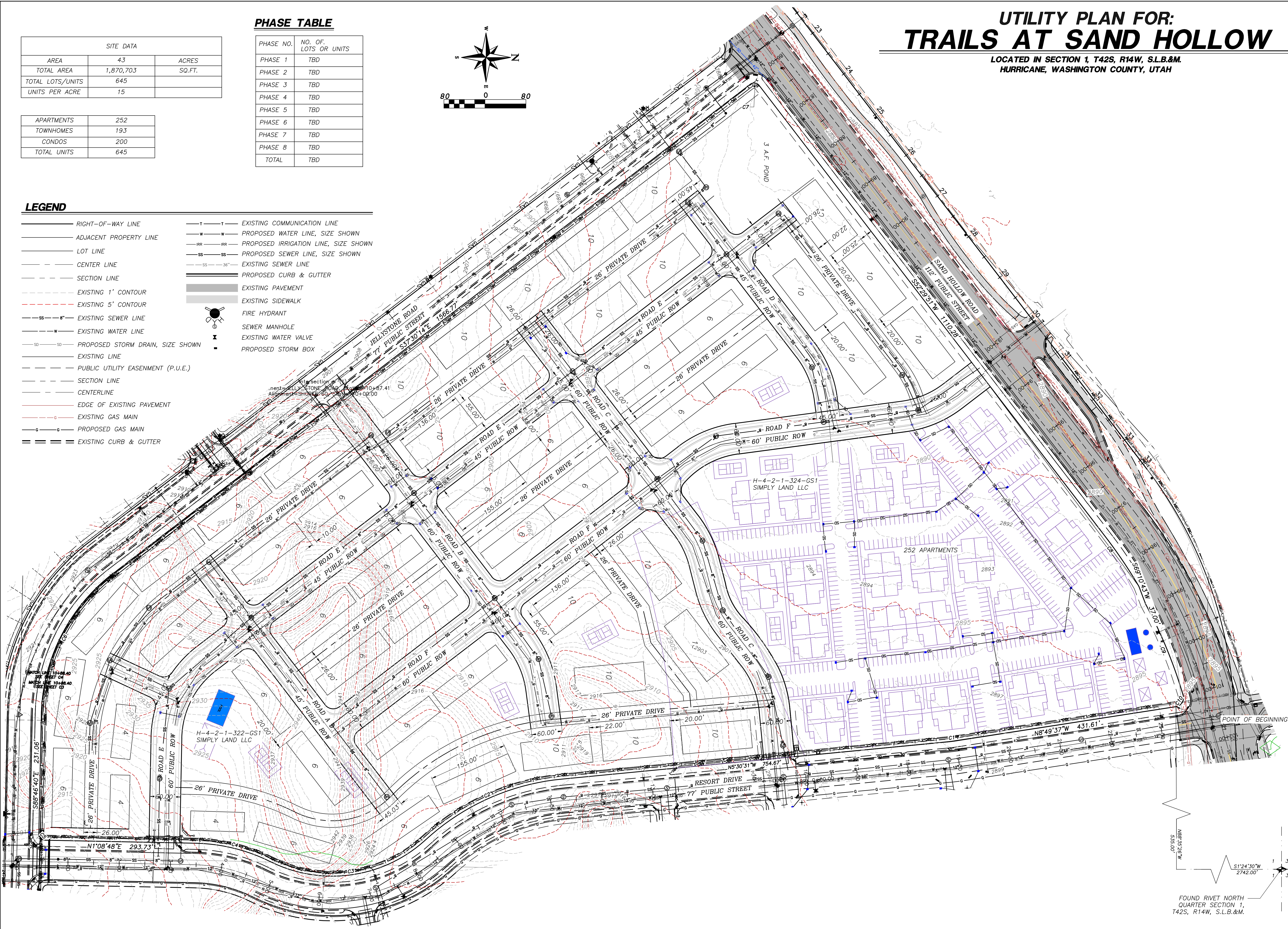
EXISTING WATER VALVE

PROPOSED STORM BOX



UTILITY PLAN FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



REVISIONS		NO	DESCRIPTION	DATE	BY

PROVALUE
ENGINEERING, INC.
ENGINEERS - LAND SURVEYORS - LAND PLANNERS
20 South 850 West, Suite 1
Hurricane, UT 84737
Phone: 435-668-8307



UTILITY PLAN FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

713-002 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG

DATE	12/21/2023
SCALE	1"=80'
JOB NO.	378-002
SHEET NO.	1 OF 1

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DESERT TORTOISE TAKE AREA

THE PROJECT IS NOT LOCATED IN A DESERT TORTOISE TAKE AREA (PER RED CLIFFS DESERT RESERVE TAKE AREA 7 & 10 MAP)

ADDITIONAL NOTES

STORM WATER CAN BE LOCALLY DETAINED AND CONTROLLED USING DETENTION BASINS. WATER WILL BE COLLECTED AND DELIVERED TO THE REGIONAL DETENTION BASIN AT THE PROPOSED PARK THERE ARE NO IRRIGATION FACILITIES.

PROPERTY CAN BE SERVED BY HURRICANE CITY WATER, AND ASH CREEK SPECIAL SERVICE DISTRICT.

THERE ARE NO WELLS, SPRINGS OR SEEPS ON THIS PROPERTY.

OWNER PLANS TO ALLOW PLACEMENT OF COMMUNICATIONS INFRASTRUCTURE AND PLACEMENT OF UTILITY INFRASTRUCTURE ON AND ALONG ALL RIGHTS-OF-WAY AND EASEMENTS.

THERE ARE NO IRRIGATION FACILITIES.

OWNER PLANS TO ALLOW PLACEMENT OF COMMUNICATIONS INFRASTRUCTURE AND PLACEMENT OF UTILITY INFRASTRUCTURE ON AND ALONG ALL RIGHTS-OF-WAY AND EASEMENTS.

PROPERTY IS ZONED AS:
RM-3

THE PARENT PARCELS FOR THIS SUBDIVISION ARE:
H-4-2-1-324-GS1 AND H-4-2-1-322-GS1.

OWNER:

SIMPLY LAND LLC
2135 W 6800 S
BENJAMIN, UT 84660
(801) 910-9910

LAND USE SUMMARY

SITE DATA		
GROSS AREA	2,060,500	SQ. FT.
JELLYSTONE RD. & RESORT DR. AREA	189,797	SQ. FT.
NET AREA	1,870,703	SQ. FT.
TOTAL LOTS/UNITS	673	
UNITS PER ACRE	15	
APARTMENTS	252	
TOWNHOMES	211	
CONDOS	210	
TOTAL UNITS	673	

JELLYSTONE ROAD & RESORT DRIVE AREA DEDICATED TO HURRICANE CITY WITH:
DOC#: 20230036797 & DOC#: 20230036798

AMENITIES:
• 8 PICKLEBALL COURTS
• 2 SWIMMING POOLS
• 1 CLUB HOUSE
• 3 PAVILIONS WITH TABLES
TOTAL OF 14 AMENITIES

BASIS OF BEARINGS

BASIS OF BEARINGS IS S1°17'04"W 450.42 FEET FROM THE SOUTHWEST CORNER OF SECTION 31, TOWNSHIP 41 SOUTH, RANGE 13 WEST, TO THE NORTHEAST CORNER OF SECTION 1, TOWNSHIP 42 SOUTH, RANGE 14 WEST, OF THE SALT LAKE BASE AND MERIDIAN.

TRAILS AT SAND HOLLOW DESCRIPTION:

THENCE N08°49'37"W 431.61 FEET; THENCE NORTHERLY ALONG THE ARC OF A 358.00 FOOT RADIUS CURVE TO THE LEFT A DISTANCE OF 20.73 FEET, THROUGH A CENTRAL ANGLE OF 03°19'06", (LONG CHORD BEARS: N07°10'04"W 20.73 FEET); THENCE N05°30'31"W 754.67 FEET; THENCE NORTHWESTERLY ALONG THE ARC OF A 457.00 FOOT RADIUS REVERSE CURVE TO THE RIGHT A DISTANCE OF 295.41 FEET, THROUGH A CENTRAL ANGLE OF 37°02'13", (LONG CHORD BEARS: N24°01'38"W 290.30 FEET); THENCE NORTHERLY ALONG THE ARC OF A 270.00 FOOT RADIUS REVERSE CURVE TO THE LEFT A DISTANCE OF 325.40 FEET, THROUGH A CENTRAL ANGLE OF 69°03'04", (LONG CHORD BEARS: N08°01'12"W 306.06 FEET); THENCE NORTHERLY ALONG THE ARC OF A 342.00 FOOT RADIUS CURVE TO THE RIGHT A DISTANCE OF 151.37 FEET, THROUGH A CENTRAL ANGLE OF 25°21'32", (LONG CHORD BEARS: N13°49'34"E 150.14 FEET); THENCE N01°08'48"E 293.73 FEET; THENCE NORTHEASTERLY ALONG THE ARC OF A 12.50 FOOT RADIUS CURVE TO THE LEFT A DISTANCE OF 19.65 FEET, THROUGH A CENTRAL ANGLE OF 90°04'33", (LONG CHORD BEARS: N46°11'04"E 17.69 FEET); THENCE S88°46'40"E 231.06 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF A 358.00 FOOT RADIUS CURVE TO THE LEFT A DISTANCE OF 320.37 FEET, THROUGH A CENTRAL ANGLE OF 51°16'26", (LONG CHORD BEARS: S63°08'27"E 309.79 FEET); THENCE S37°30'14"E 1566.77 FEET; THENCE SOUTHERLY ALONG THE ARC OF A 12.50 FOOT RADIUS CURVE TO THE LEFT A DISTANCE OF 19.64 FEET, THROUGH A CENTRAL ANGLE OF 90°00'05", (LONG CHORD BEARS: S07°29'49"W 17.68 FEET); THENCE S52°29'51"W 1110.28 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT A DISTANCE OF 115.67 FEET, HAVING A RADIUS OF 944.00 FEET AND A RADIAL BEARING OF S30°28'54"E, THROUGH A CENTRAL ANGLE OF 07°01'15" (LONG CHORD BEARS: S56°00'28"W 115.60 FEET); THENCE S69°10'43"W 37.00 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF A 938.50 FOOT RADIUS COMPOUND CURVE TO THE LEFT A DISTANCE OF 192.60 FEET, THROUGH A CENTRAL ANGLE OF 11°45'30", (LONG CHORD BEARS: S67°37'29"W 192.26 FEET); THENCE NORTHWESTERLY ALONG THE ARC OF A 17.50 FOOT RADIUS CURVE TO THE LEFT A DISTANCE OF 29.83 FEET, THROUGH A CENTRAL ANGLE OF 97°40'09", (LONG CHORD BEARS: N57°39'42"W 26.35 FEET);

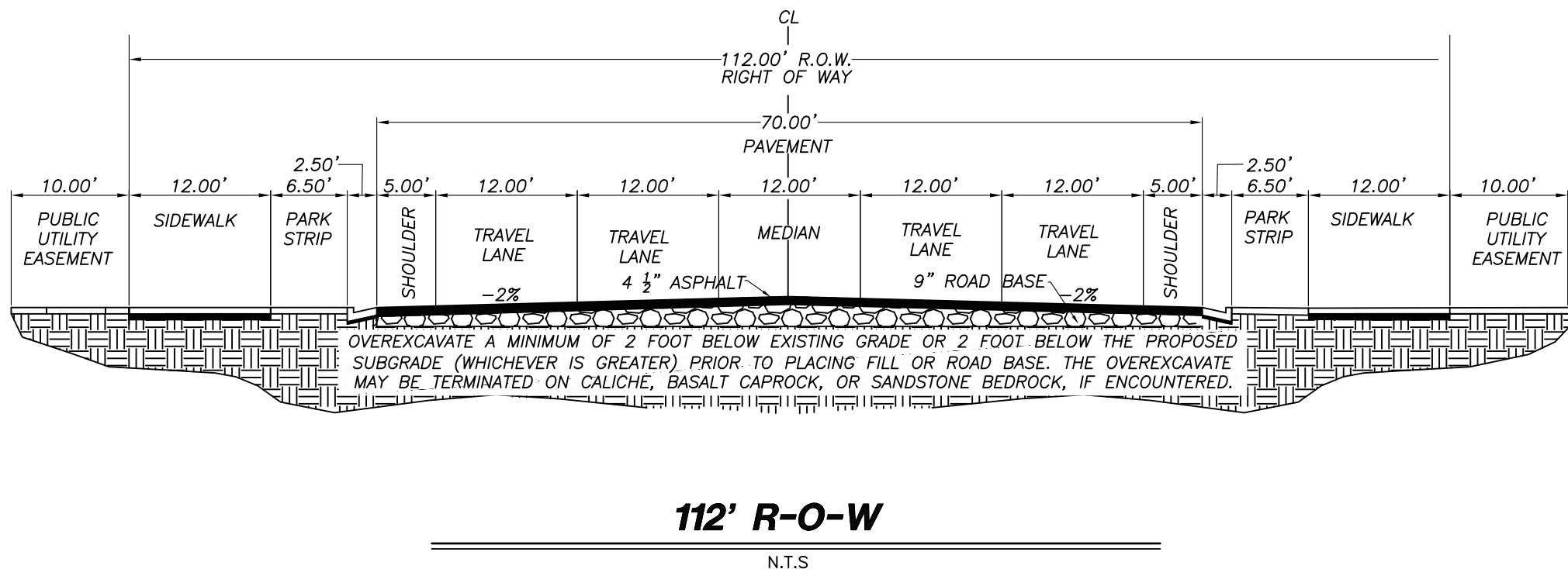
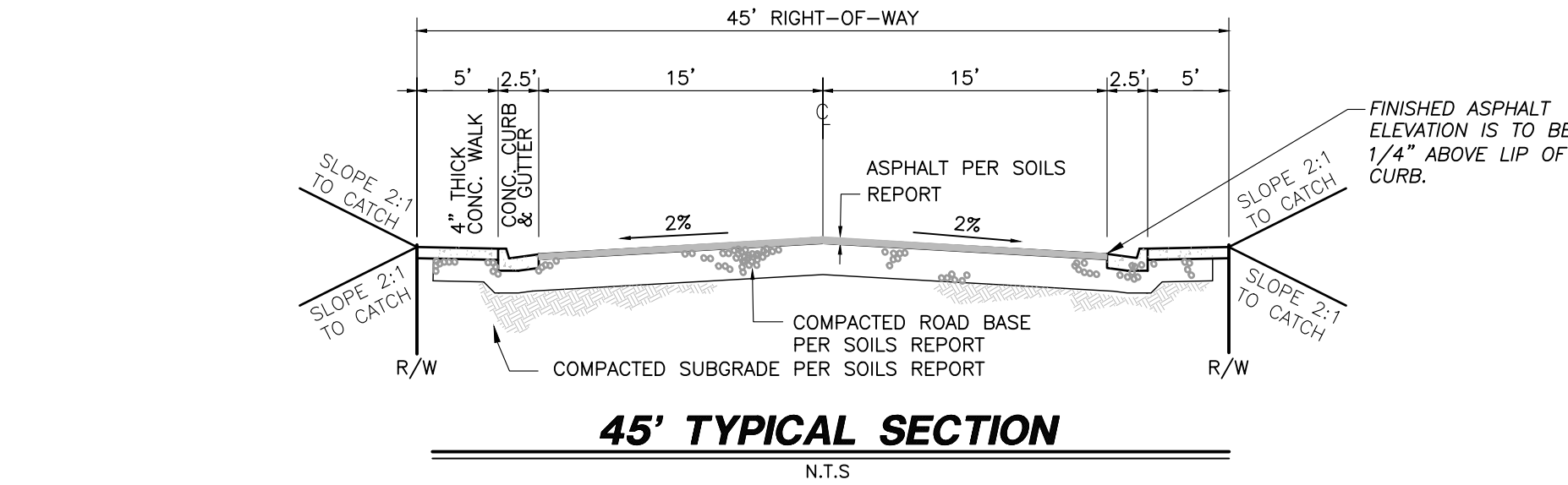
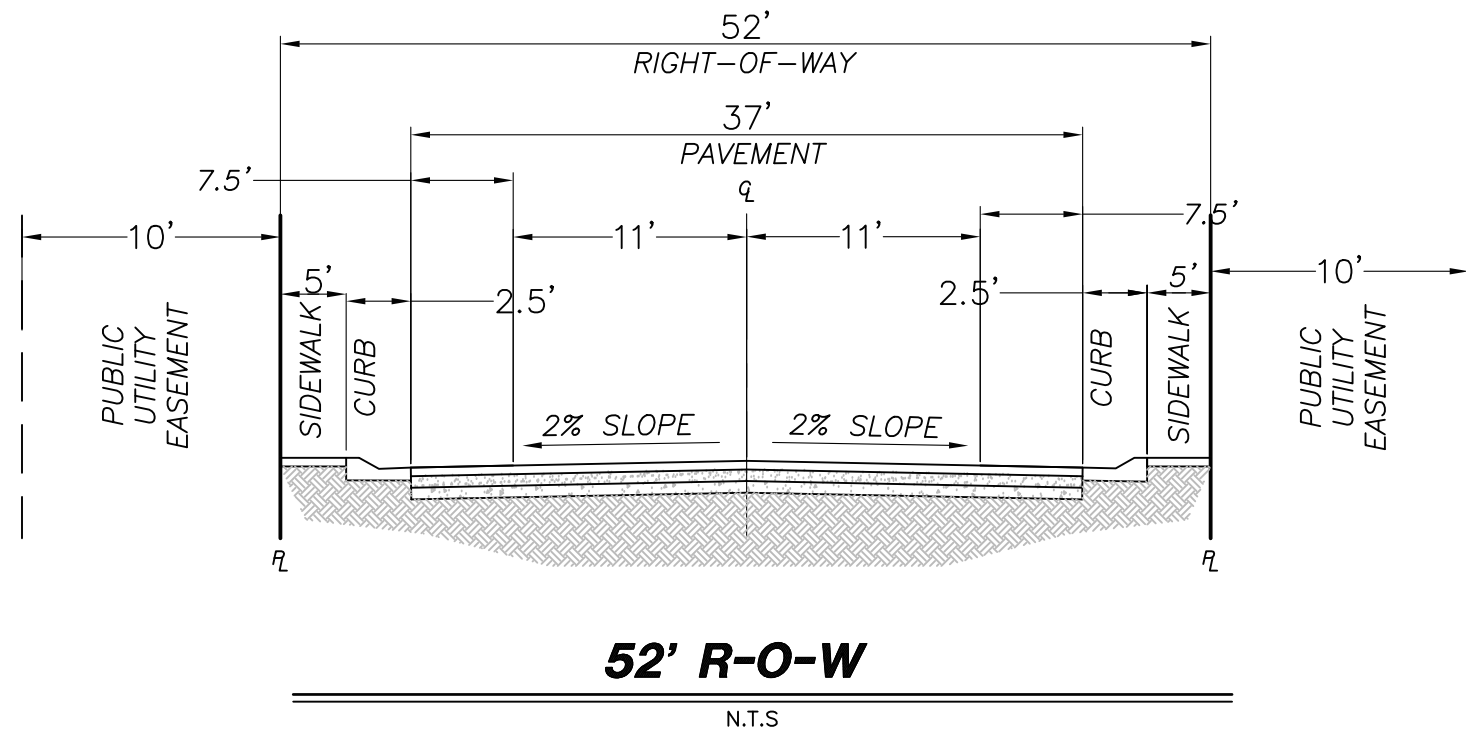
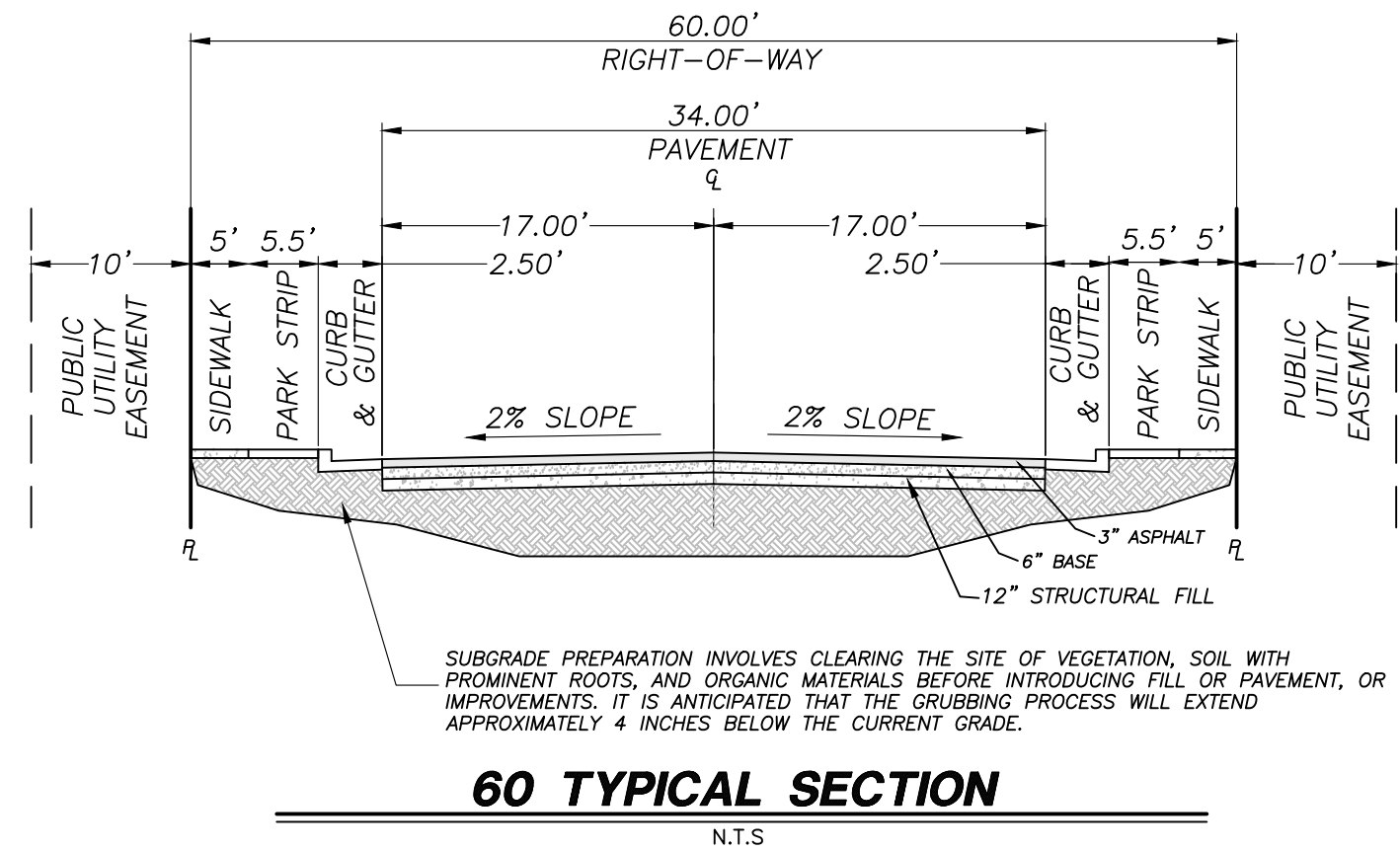
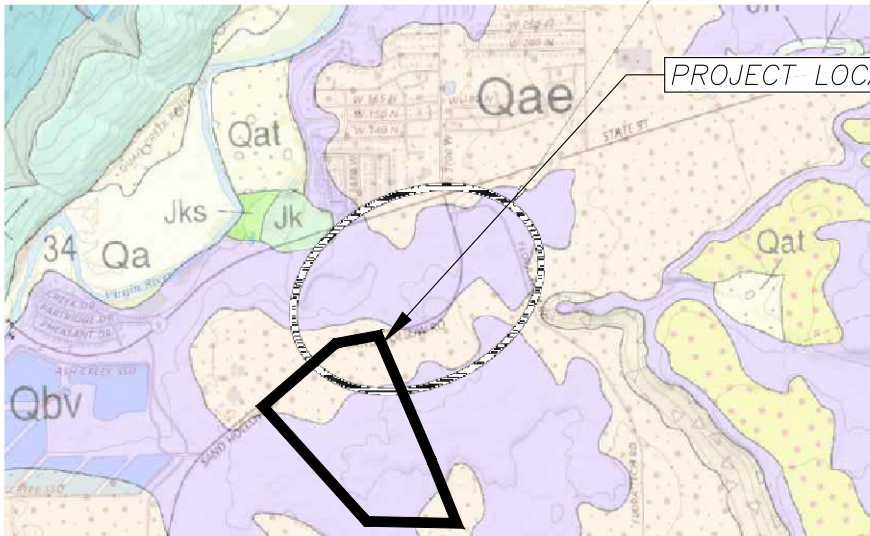
TO THE POINT OF BEGINNING. AREA CONTAINS 1870703 SQUARE FEET OR 43 ACRES.

GEOLOGICAL NARRATIVE

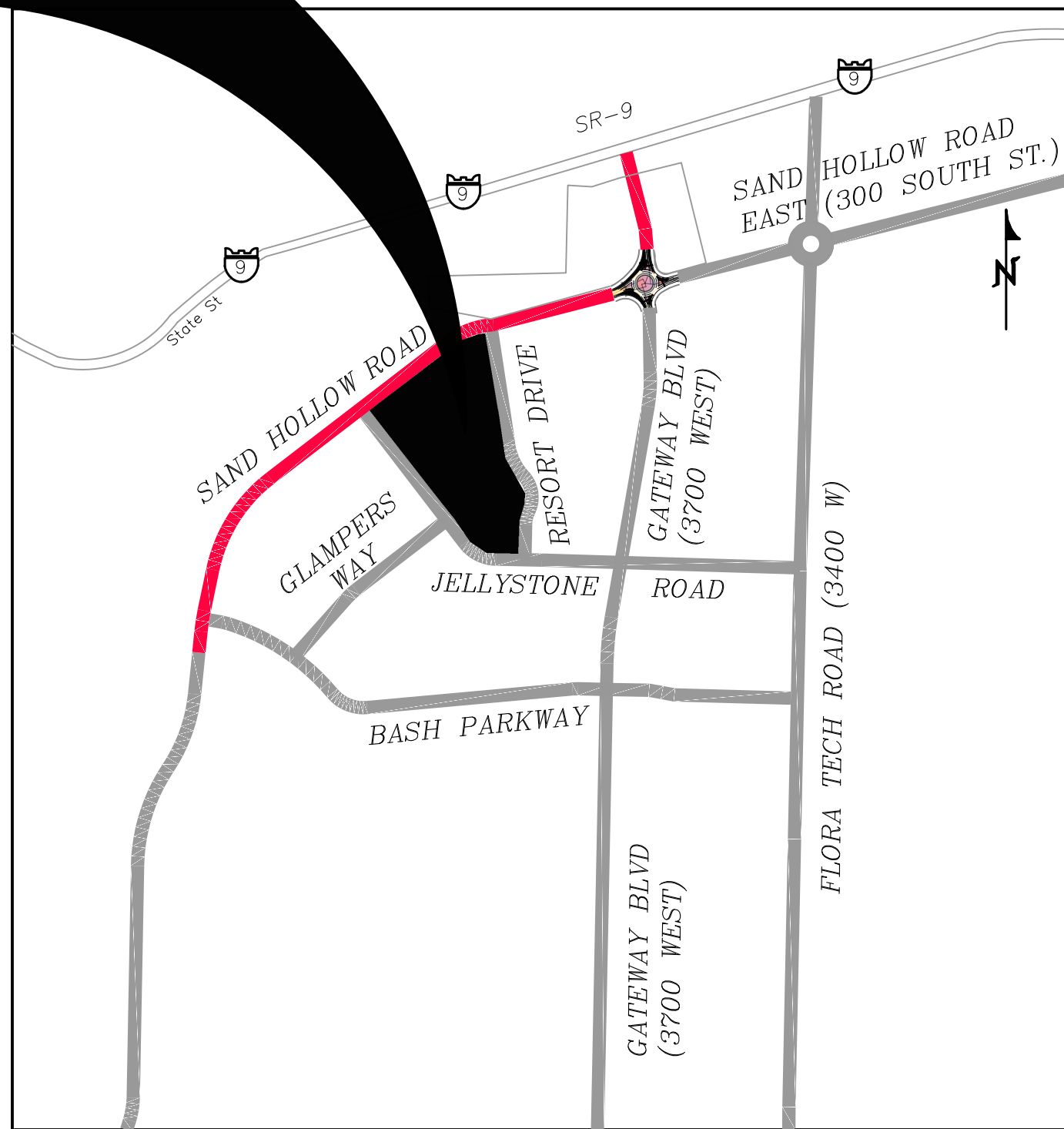
THIS PARCEL OF LAND LIES INSIDE A VOLCANO MOUNTAIN LAVA FLOW (MIDDLE PLEISTOCENE) SHOWN WITH A Qbv. IT ALSO LIES INSIDE AN ALLUVIAL AND EOLIAN DEPOSITS (HOLOCENE TO UPPER PLEISTOCENE) SHOWN WITH A Qae. THIS AREA ALSO HAS A MEDIUM TO DARK-GRAY TO GRAYISH-BLACK, FINE TO MEDIUM-GRAINED ALKALI BASALT (Qbv) WITH SPARSE OLIVINE PHENOCRYSTS; ERUPTED FROM A VENT AT VOLCANO MOUNTAIN (Qbvc) SOUTHWEST OF HURRICANE; DIVISIBLE INTO THREE SEPARATE FLOWS (BieK, 2003a, 2003b); YOUNGEST AND MIDDLE-LEVEL FLOWS YIELDED 40Ar/39Ar AGES OF 0.289 ± 0.024 Ma AND 0.353 ± 0.045 Ma, RESPECTIVELY (SANCHEZ, 1995), IN ACCORD WITH K-Ar AGES OF 0.289 ± 0.085 AND 0.303 ± 0.30 (BEST AND OTHERS, 1980) ON THE MIDDLE-LEVEL FLOW; MIDDLE-LEVEL FLOW IS DISPLACED ABOUT 240 FEET (73 m) BY THE HURRICANE FAULT AT TIMPOWEAP CANYON AND LOCALLY HAS PILLLOW BASALT AT ITS BASE; THE OLDEST LAVA FLOW FLOWED ABOUT 8 MILES (13 km) DOWN THE VIRGIN RIVER; LAVA FLOWS ARE GENERALLY 35 TO 45 FEET (11-14 m) THICK AND FORM ROUGH, BLOCKY SURFACES, BUT THE MIDDLE-LEVEL FLOW IS AS MUCH AS 170 FEET (50 m) THICK WHERE IT FILLS THE ANCESTRAL VIRGIN RIVER CHANNEL. THIS AREA ALSO HAS MODERATELY SORTED GRAVEL, SAND, AND SILT DEPOSITED IN SMALL CHANNELS AND ON ALLUVIAL FLATS, AND WELL-SORTED, FINE- TO MEDIUM-GRAINED, REDDISH-BROWN EOLIAN SAND LOCALLY REWORKED BY ALLUVIAL PROCESSES, YOUNGER DEPOSITS (Qae) FORM ACTIVE DEPOSITIONAL SURFACES, WHEREAS OLDER DEPOSITS (Qaeo) TYPICALLY FORM INCISED, INACTIVE SURFACES; AS MUCH AS ABOUT 20 FEET (6 m) THICK.

GEOLOGICAL HAZARDS

FAULTS & SURFACE FAULTING	NONE
LIQUEFACTION	H2 - HIGH2-SIMILAR IN TEXTURE TO HIGH CATEGORY; NO GROUND-WATER INFORMATION
FLOODING	ZONE X-AREA OF MINIMAL FLOOD HAZARD
LANDSLIDE HAZARD	NONE
ROCKFALL HAZARD	NONE
BRECCIA PIPES AND PALEOKARST	NONE
CALICHE	CA - CALICHE
COLLAPSIBLE SOIL	CSA-STREAM/TERRACE ALLUVIUM >=3%
EXPANSIVE SOIL	ESL-LOW SUSCEPTIBILITY TO EXPANSION
GYPSIFEROUS SOIL & ROCK	NONE
PIPING & EROSION	P&ES-SOILS SUSCEPTIBLE TO PIPING AND EROSION
SHALLOW BEDROCK	BRB-BURIED: AREAS WHERE DEPTH TO BEDROCK IS GENERALLY ≤10 FEET BENEATH SOIL COVER
WIND BLOWN SAND	WBSL-LOW: MIXED-UNIT GEOLOGIC DEPOSITS WHICH CONTAIN WIND-BLOWN COMPONENT
SHALLOW GROUND WATER	NONE



PROJECT LOCATION



VICINITY MAP
N. T. S.

REVISIONS

NO	DESCRIPTION	DATE	BY

PROVALUE ENGINEERING, INC.

ENGINEERS - LAND SURVEYORS - LAND PLANNERS

20 South 850 West, Suite 1
Hurricane City, Utah 84737
Phone: 435-668-8307

PRELIMINARY PLAT FOR:

TRAILS AT SAND HOLLOW

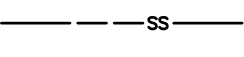
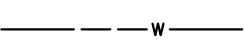
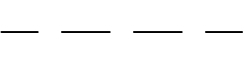
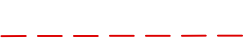
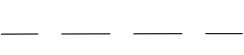
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE CITY, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	N. T. S.
JOB NO.	713-002
SHEET NO.	1 OF 15

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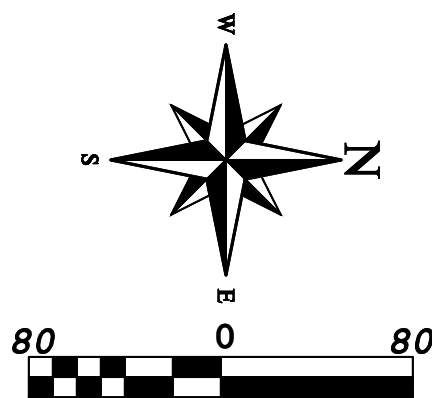
713-002 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG

LEGEND

RIGHT-OF-WAY LINE		FUTURE PRIVATE/LIMITED COMMON AREA
ADJACENT PROPERTY/LOT LINE		OPEN SPACE
LOT LINE		
CENTER LINE		
SECTION LINE		
W-W WATER LINE		
SS-SS SANITARY SEWER LINE		
BLOCK LINE		
PHASE LINE		
		EXISTING SEWER LINE
		EXISTING WATER LINE
		PUBLIC UTILITY EASEMENT (P.U.E.)
		EXISTING 1' CONTOUR
		EXISTING 5' CONTOUR
		TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



BLOCK TABLE

BLOCK NO.	NO. OF CONDOS /TOWNHOMES /APARTMENTS
BLOCK 1	50 CONDOS
BLOCK 2	90 CONDOS
BLOCK 3	28 TOWNHOMES
BLOCK 4	28 TOWNHOMES
BLOCK 5	70 CONDOS
BLOCK 6	28 TOWNHOMES
BLOCK 7	28 TOWNHOMES
BLOCK 8	49 TOWNHOMES
BLOCK 9	24 TOWNHOMES
BLOCK 10	26 TOWNHOMES
BLOCK A1	132 APARTMENTS
BLOCK A2	120 APARTMENTS
TOTAL	673

AMENITIES:
• 8 PICKLEBALL COURTS
• 2 SWIMMING POOLS
• 1 CLUB HOUSE
• 3 PAVILIONS WITH TABLES
TOTAL OF 14 AMENITIES

PROVALUE
ENGINEERING, INC.
ENGINEERS - LAND SURVEYORS - LAND PLANNERS
20 South 850 West, Suite 1
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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

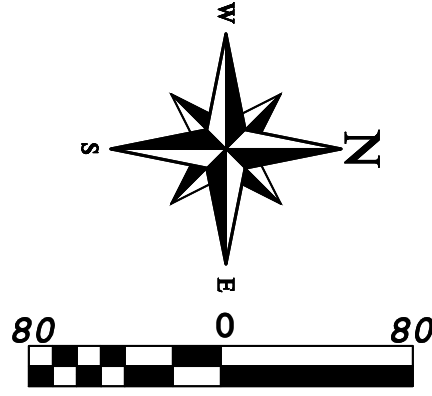
DATE 1/18/2024
SCALE 1"=80'
JOB NO. 378-002
SHEET NO:

LEGEND

	RIGHT-OF-WAY LINE		FUTURE PRIVATE/LIMITED COMMON AREA
	ADJACENT PROPERTY/LOT LINE		OPEN SPACE
	LOT LINE		EXISTING SEWER LINE
	CENTER LINE		EXISTING WATER LINE
	SECTION LINE		PUBLIC UTILITY EASEMENT (P.U.E.)
	WATER LINE		EXISTING 1' CONTOUR
	SANITARY SEWER LINE		EXISTING 5' CONTOUR
	BLOCK LINE		TIE LINE
	PHASE LINE		

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



BLOCK TABLE

BLOCK NO.	NO. OF CONDOS /TOWNHOMES /APARTMENTS
BLOCK 1	50 CONDOS
BLOCK 2	90 CONDOS
BLOCK 3	28 TOWNHOMES
BLOCK 4	28 TOWNHOMES
BLOCK 5	70 CONDOS
BLOCK 6	28 TOWNHOMES
BLOCK 7	28 TOWNHOMES
BLOCK 8	49 TOWNHOMES
BLOCK 9	24 TOWNHOMES
BLOCK 10	26 TOWNHOMES
BLOCK A1	132 APARTMENTS
BLOCK A2	120 APARTMENTS
TOTAL	673

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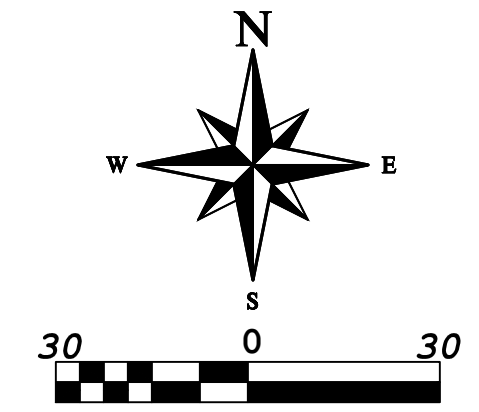
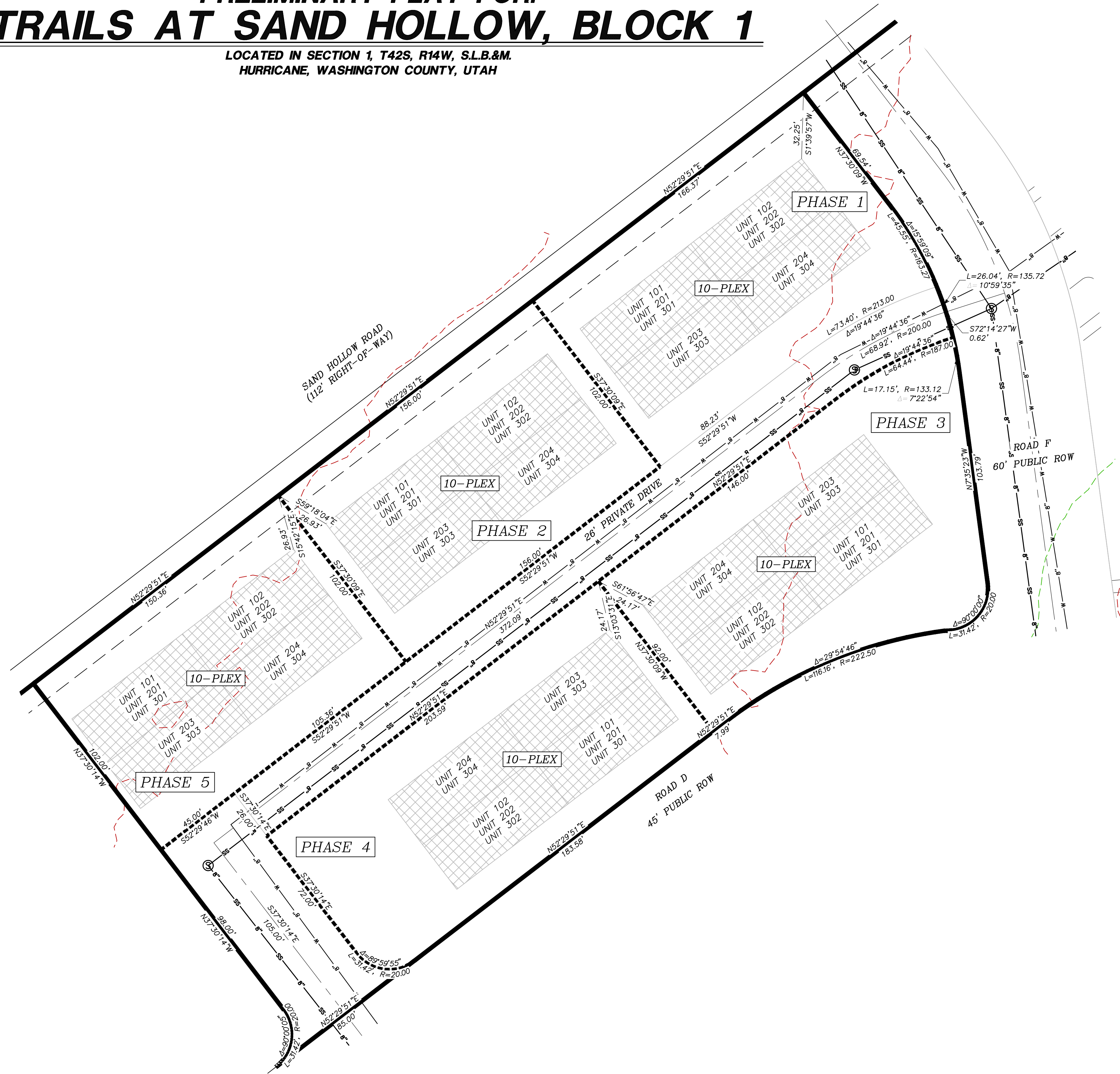
PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=80'
JOB NO.	378-002
SHEET NO.	

**LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH**

**LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH**



<i>REVISIONS</i>					
<i>NO</i>	<i>DESCRIPTION</i>	<i>DATE</i>	<i>BY</i>		

**PROVALUE
ENGINEERING, INC.**
ENGINEERS - LAND SURVEYORS - LAND PLANNERS
20 South 850 West, Suite 1
Hurricane City, Utah 84737
Phone: 435-668-8307



PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 1

LOCATED IN SECTION 1, 142S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
OB NO.	378-002
SHEET NO:	

3 OF 15

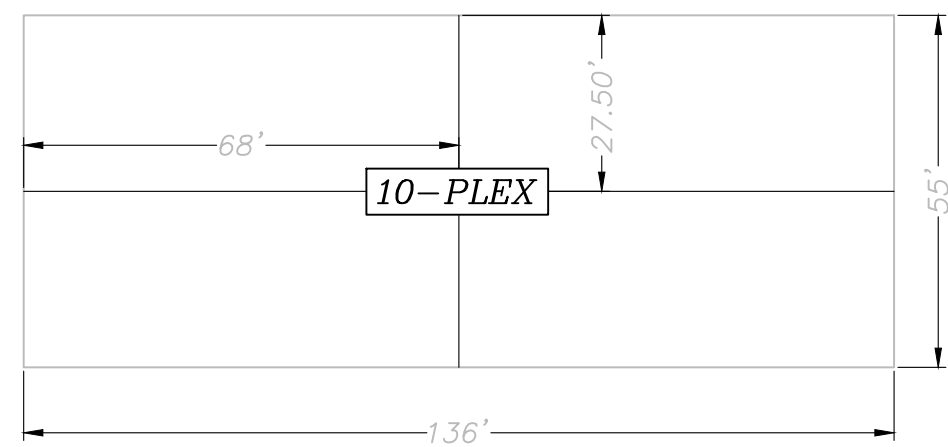
713-002 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG

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LEGEND

- | | | | |
|---|------------------------|---|------------------------------------|
|  | RIGHT-OF-WAY LINE |  | FUTURE PRIVATE/LIMITED COMMON AREA |
|  | ADJACENT PROPERTY LINE |  | OPEN SPACE |
|  | BUILDING LINE |  | EXISTING SEWER LINE |
|  | CENTER LINE |  | EXISTING WATER LINE |
|  | SECTION LINE |  | PUBLIC UTILITY EASEMENT (P.U.E.) |
|  | WATER LINE |  | EXISTING 1' CONTOUR |
|  | SANITARY SEWER LINE |  | EXISTING 5' CONTOUR |
|  | BLOCK LINE |  | TIE LINE |
|  | PHASE LINE | | |

3 STORY 10-PLEX TYP.

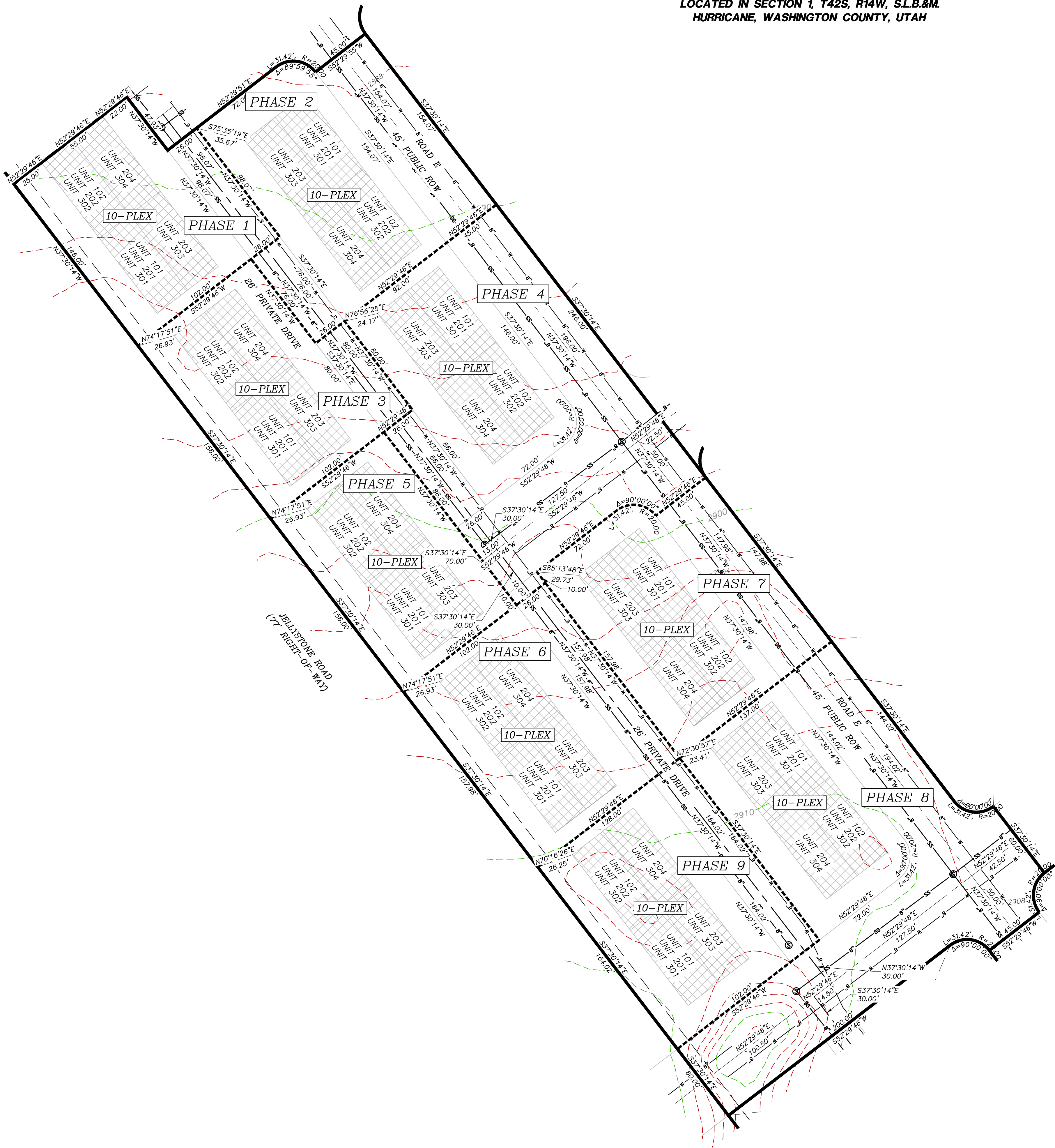
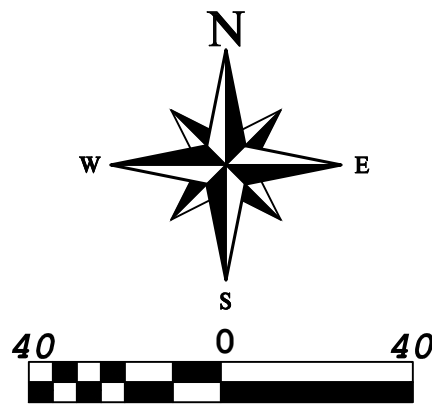


LEGEND

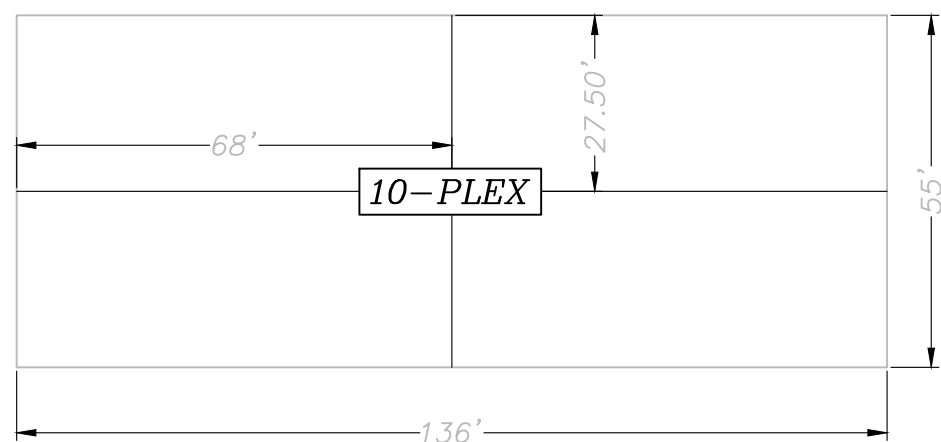
- RIGHT-OF-WAY LINE
ADJACENT PROPERTY LINE
LOT LINE
CENTER LINE
SECTION LINE
WATER LINE
SANITARY SEWER LINE
BLOCK LINE
PHASE LINE
FUTURE PRIVATE/LIMITED COMMON AREA
OPEN SPACE
EXISTING SEWER LINE
EXISTING WATER LINE
PUBLIC UTILITY EASEMENT (P.U.E.)
EXISTING 1' CONTOUR
EXISTING 5' CONTOUR
TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 2

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



3 STORY 10-PLEX TYP.



REVISIONS		DATE	BY
NO	DESCRIPTION		

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Phone: 435-668-8307



PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 2

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	

LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

WATER LINE

SANITARY SEWER LINE

BLOCK LINE

PHASE LINE
-
- FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

EXISTING SEWER LINE

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

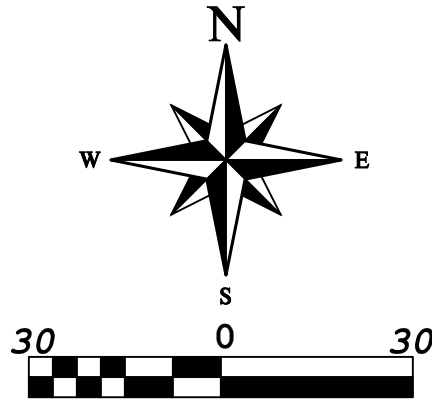
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

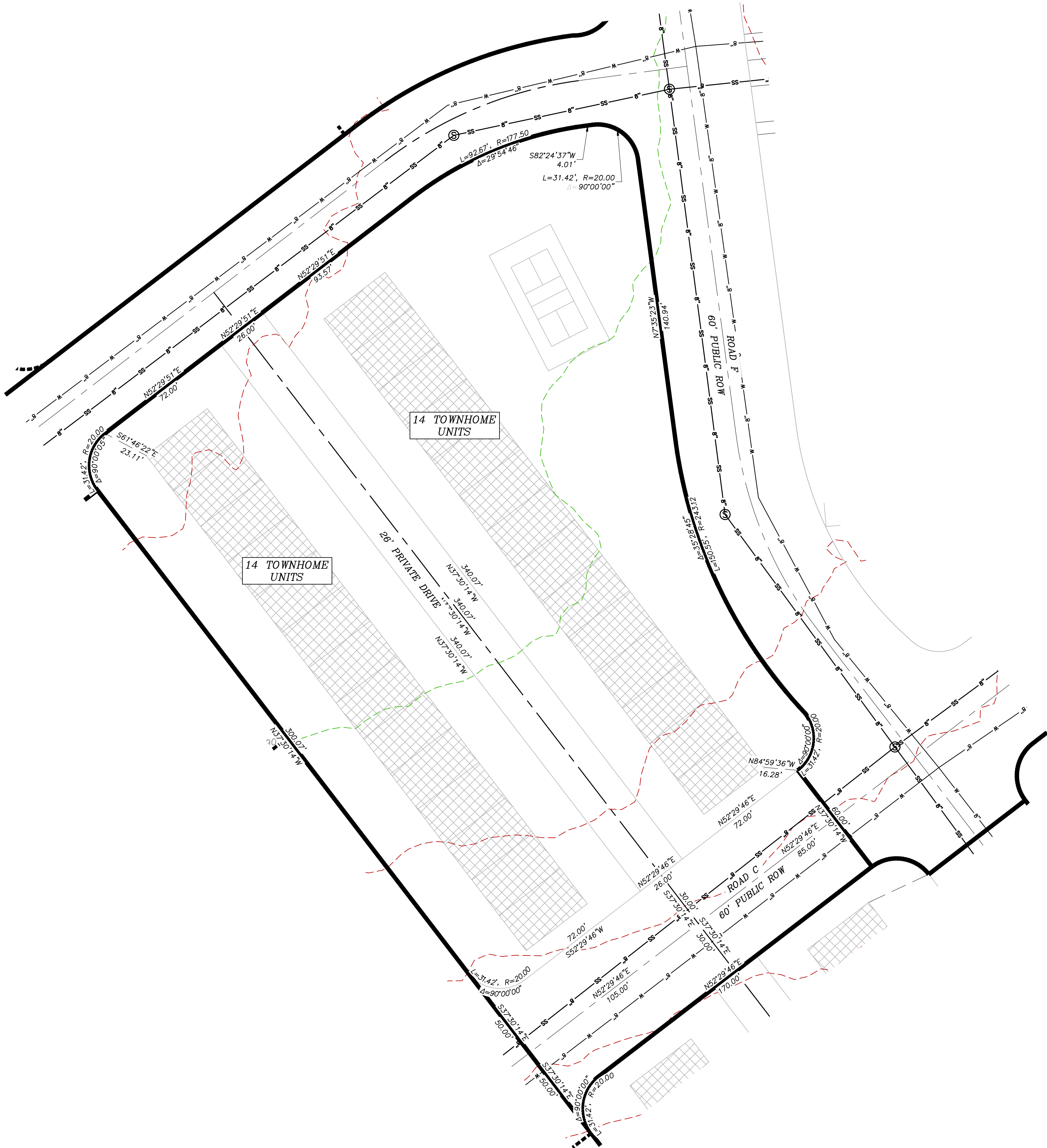
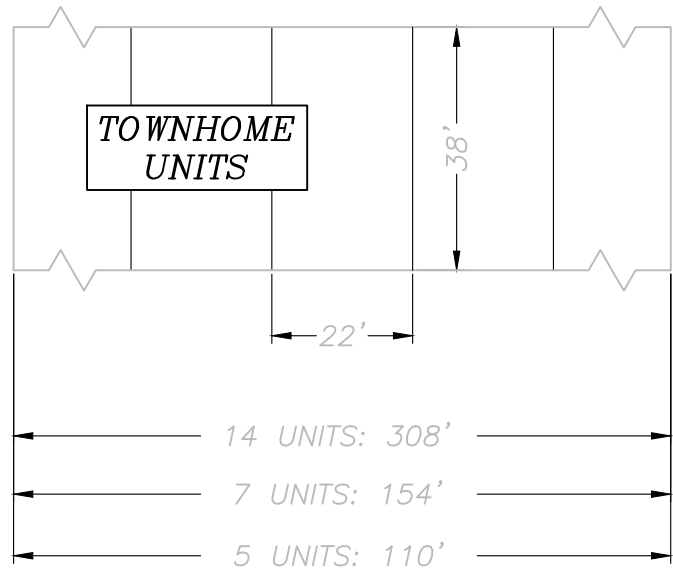
TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 3

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
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TOWNHOME UNITS TYP.



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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 3
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

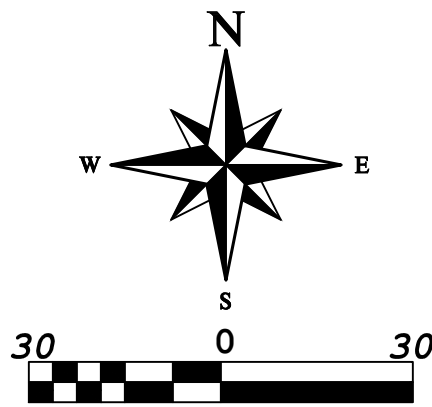
DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	5 OF 15

LEGEND

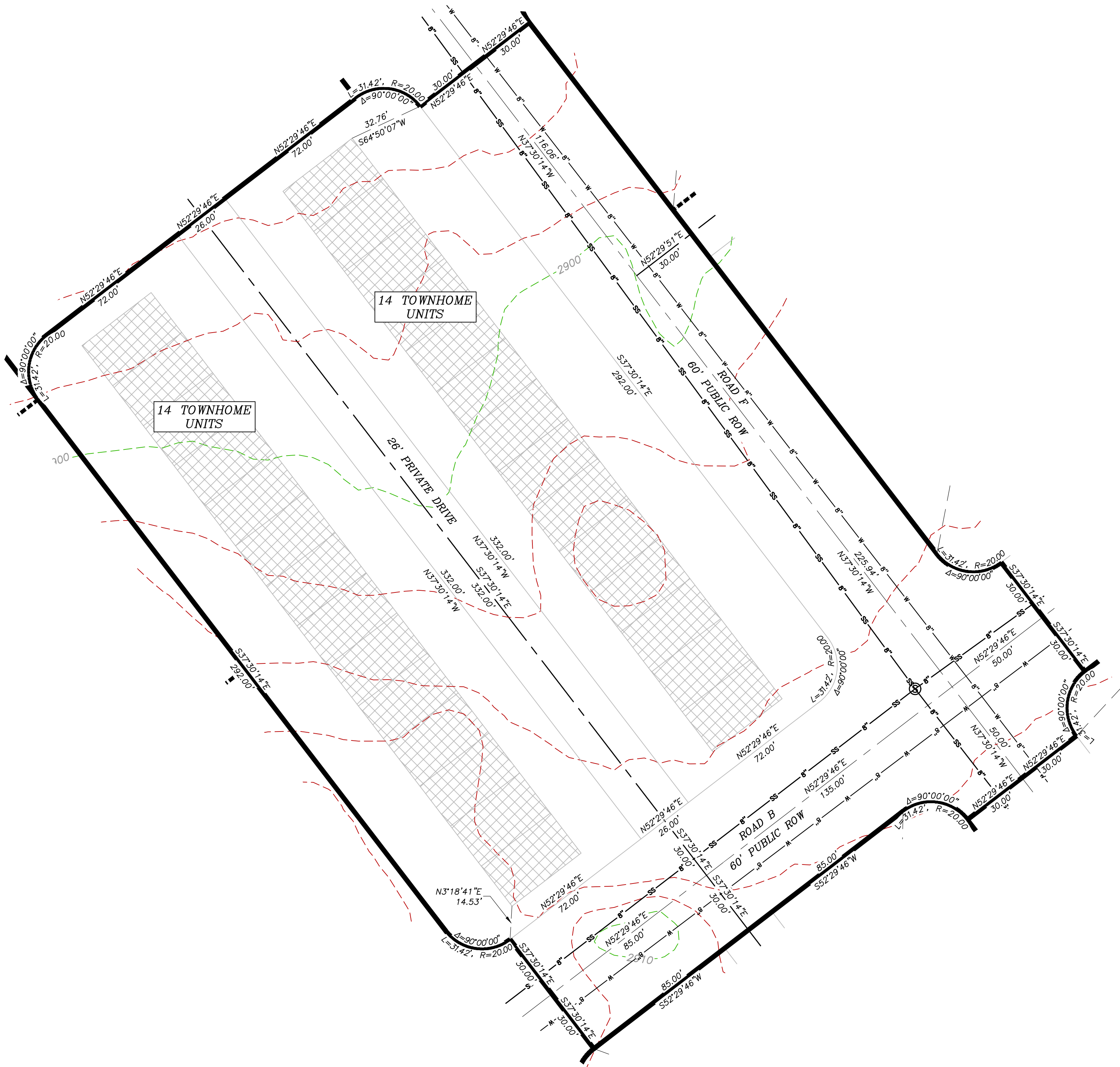
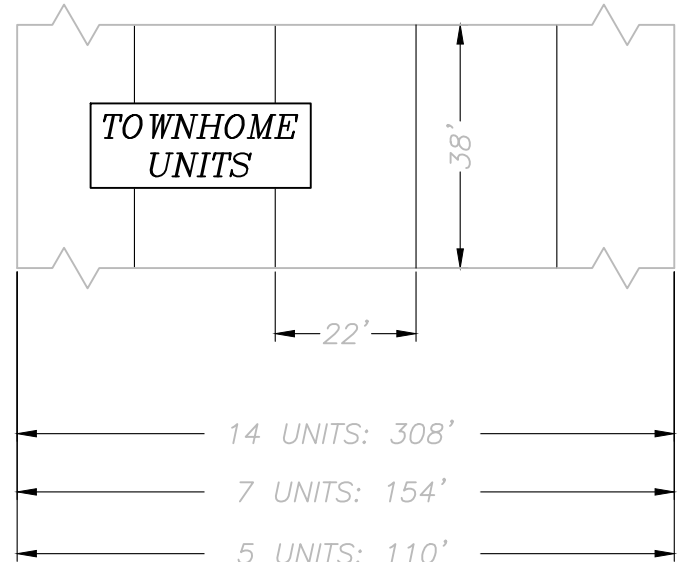
	RIGHT-OF-WAY LINE		FUTURE PRIVATE/LIMITED COMMON AREA
	ADJACENT PROPERTY LINE		OPEN SPACE
	LOT LINE		EXISTING SEWER LINE
	CENTER LINE		EXISTING WATER LINE
	SECTION LINE		PUBLIC UTILITY EASEMENT (P.U.E.)
	WATER LINE		EXISTING 1' CONTOUR
	SANITARY SEWER LINE		EXISTING 5' CONTOUR
	BLOCK LINE		TIE LINE
	PHASE LINE		

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 4

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



TOWNHOME UNITS TYP.



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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 4

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

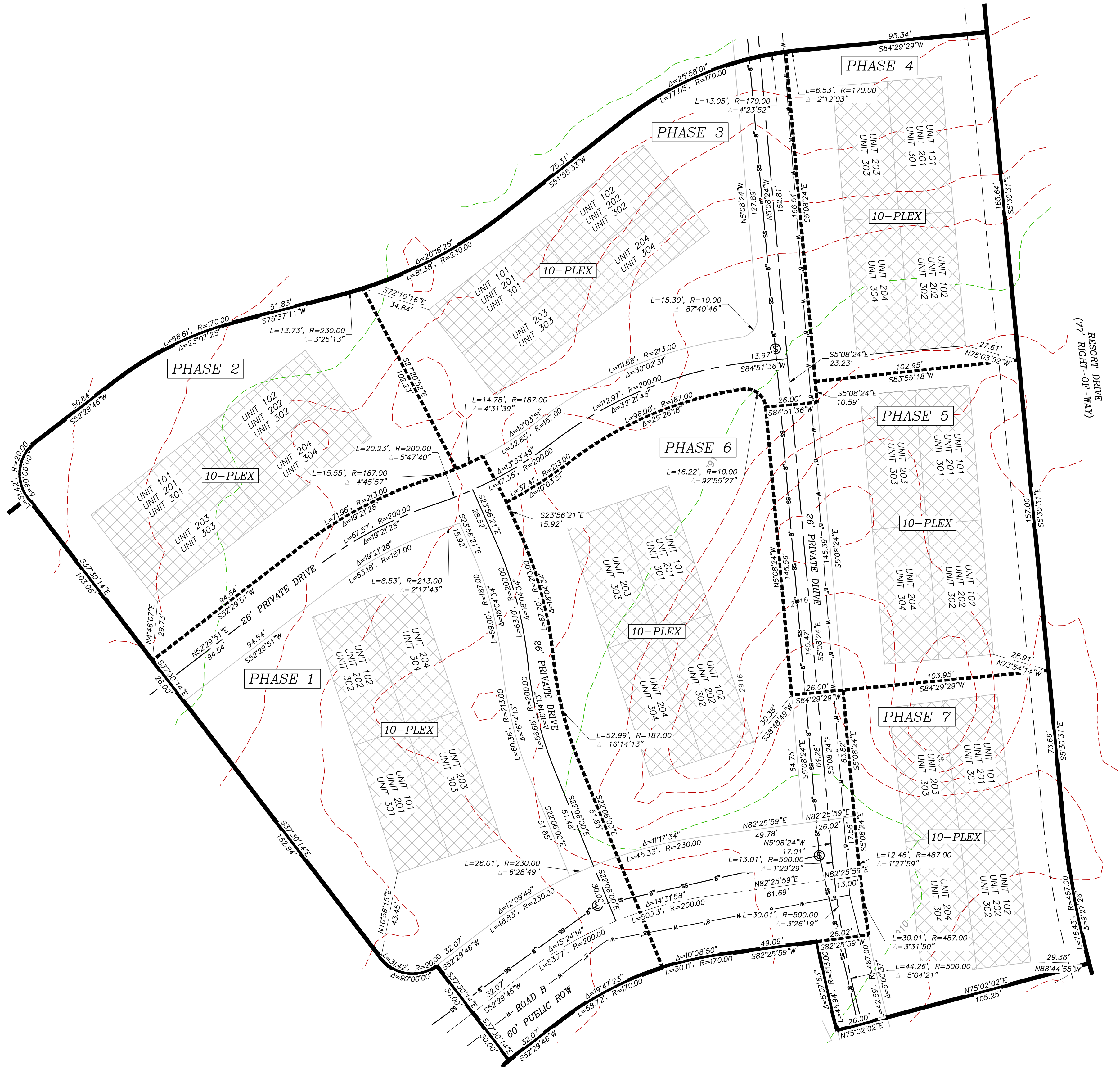
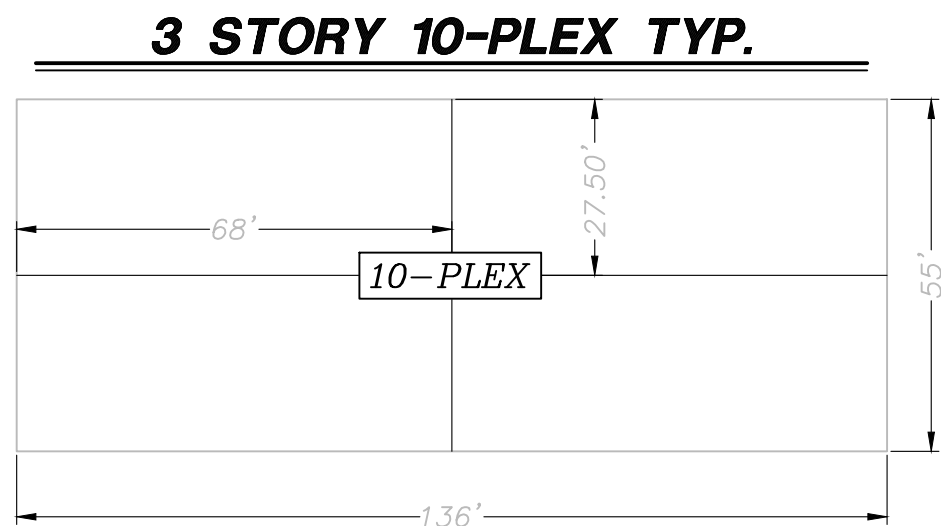
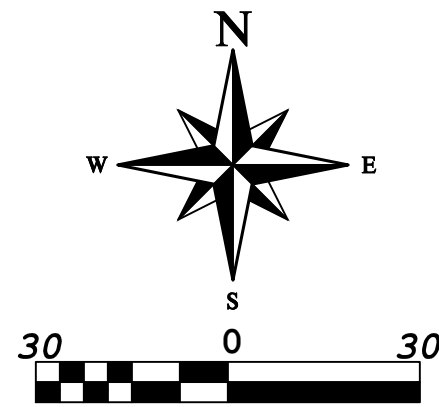
DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	

LEGEND

	RIGHT-OF-WAY LINE		FUTURE PRIVATE/LIMITED COMMON AREA
	ADJACENT PROPERTY LINE		OPEN SPACE
	LOT LINE		EXISTING SEWER LINE
	CENTER LINE		EXISTING WATER LINE
	SECTION LINE		PUBLIC UTILITY EASEMENT (P.U.E.)
	WATER LINE		EXISTING 1' CONTOUR
	SANITARY SEWER LINE		EXISTING 5' CONTOUR
	BLOCK LINE		TIE LINE
	PHASE LINE		

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 5

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 5

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	7 OF 15

LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

WATER LINE

SANITARY SEWER LINE

BLOCK LINE

PHASE LINE

FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

EXISTING SEWER LINE

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE
- PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 6
- LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH
-
- | REVISIONS | | DESCRIPTION | DATE | BY |
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| NO | | | | |
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Hurricane City, Utah 84737
Phone: 435-668-8307
-
- PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 6
- LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH
- | | |
|-----------|-----------|
| DATE | 1/18/2024 |
| SCALE | 1"=30' |
| JOB NO. | 378-002 |
| SHEET NO. | 8 OF 15 |
- TOWNHOME UNITS TYP.
-
-
- 7/13/02 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG
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LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

W-W WATER LINE

SS-SS SANITARY SEWER LINE

BLOCK LINE

PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

SS

EXISTING SEWER LINE

W

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

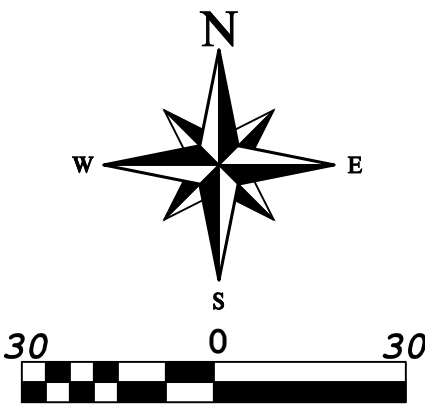
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 7

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



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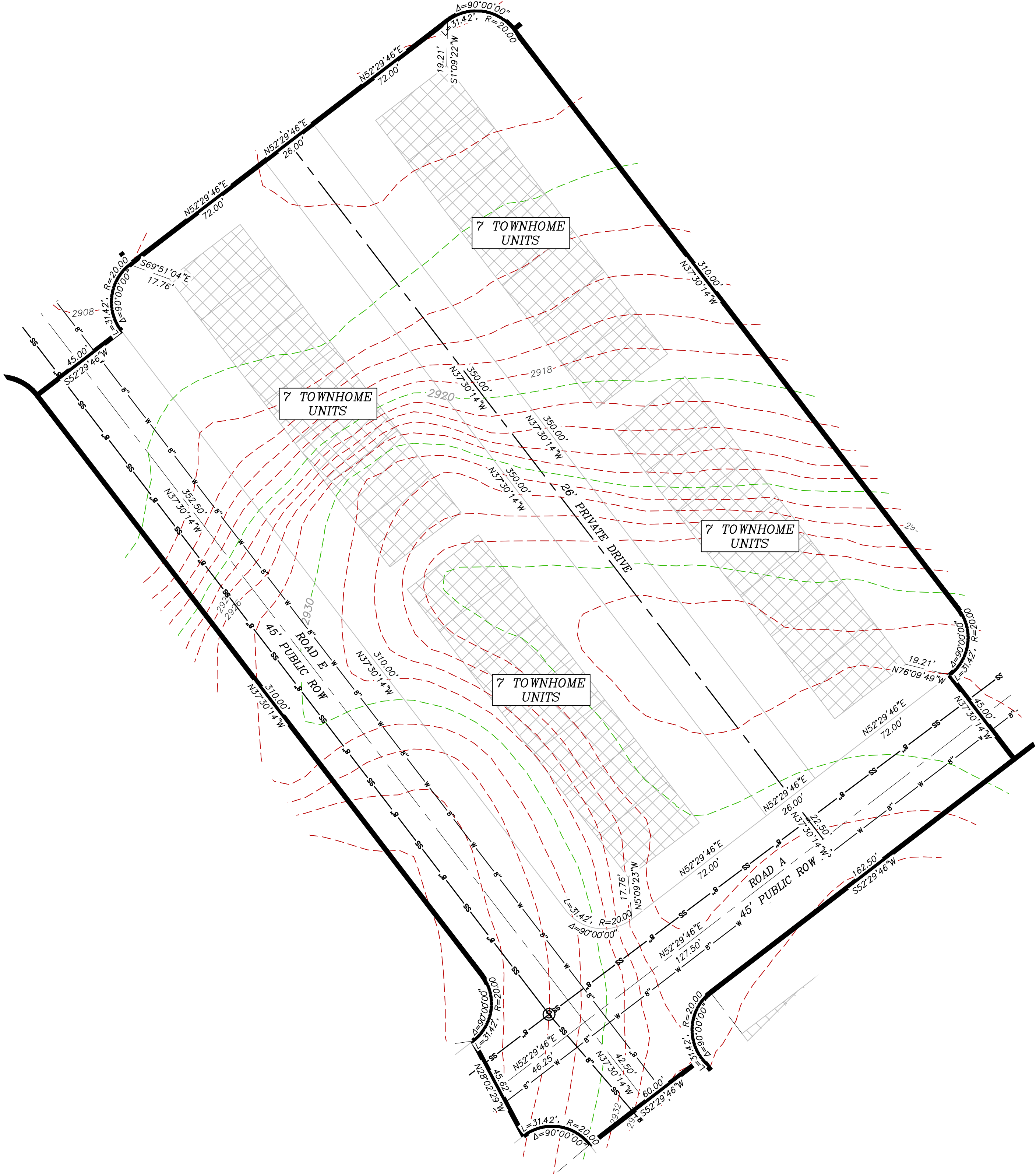
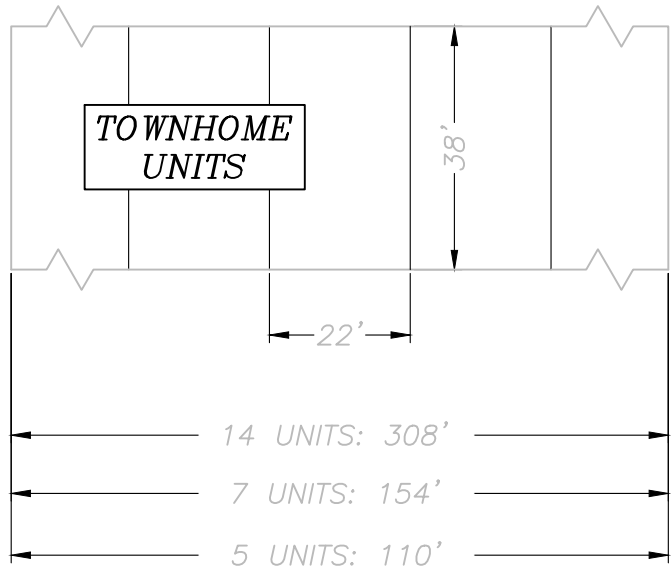
PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 7

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO:	

9 OF 15

TOWNHOME UNITS TYP.



713.002 TRAILS AT SAND HOLLOW PRELIMINARY PLAT.DWG

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LEGEND

- RIGHT-OF-WAY LINE

— ADJACENT PROPERTY LINE

— LOT LINE

— CENTER LINE

— SECTION LINE

— W — W — WATER LINE

— SS — SS — SANITARY SEWER LINE

— BLOCK LINE

— PHASE LINE
- SS — EXISTING SEWER LINE

— W — EXISTING WATER LINE

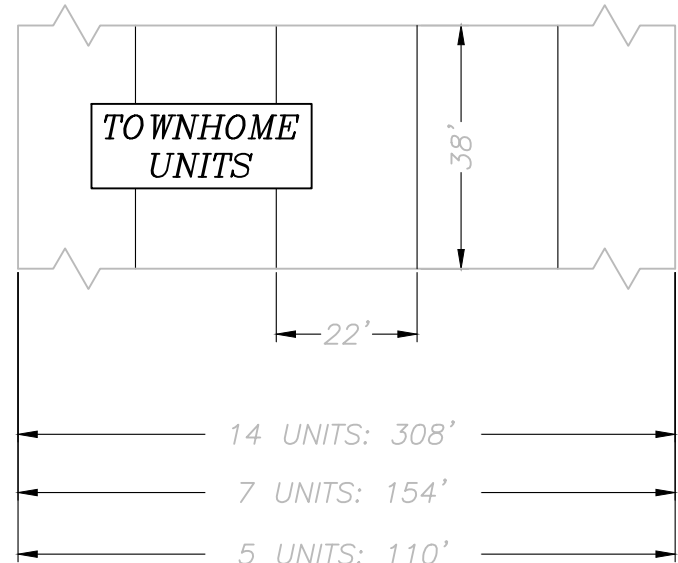
— PUBLIC UTILITY EASEMENT (P.U.E.)

— EXISTING 1' CONTOUR

— EXISTING 5' CONTOUR

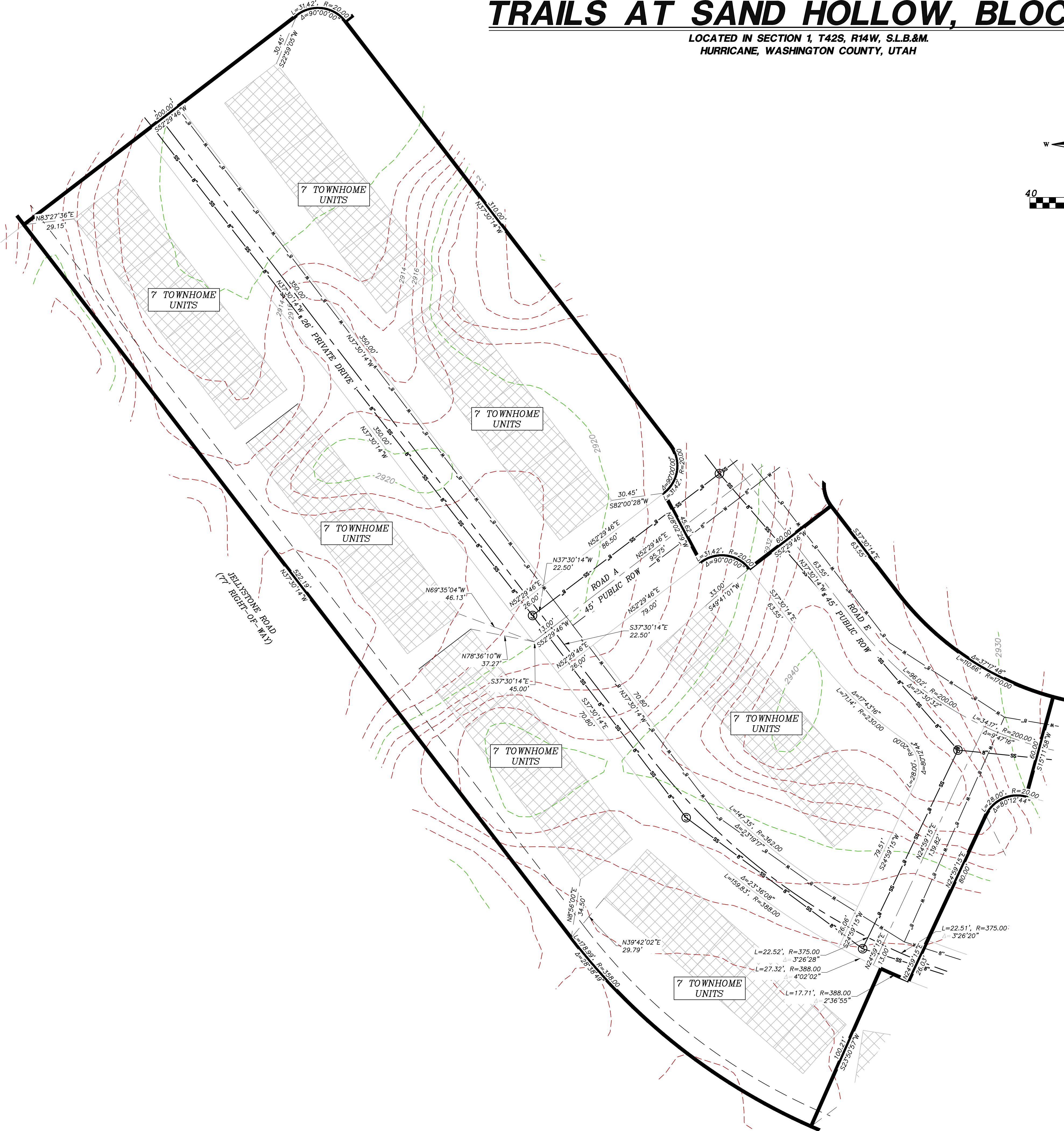
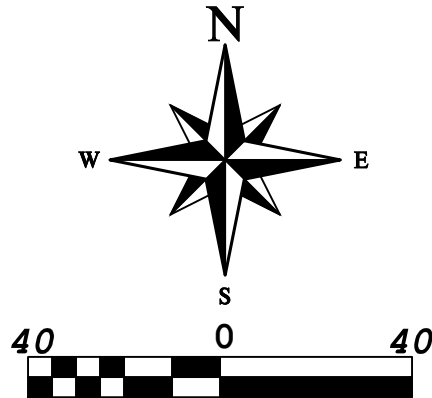
— TIE LINE

TOWNHOME UNITS TYP.



PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 8

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



REVISIONS		DESCRIPTION	DATE	BY
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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 8
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	10 OF 15

LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY LINE

LOT LINE

CENTER LINE

SECTION LINE

WATER LINE

SANITARY SEWER LINE

BLOCK LINE

PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

SS

SS

EXISTING SEWER LINE

W

W

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

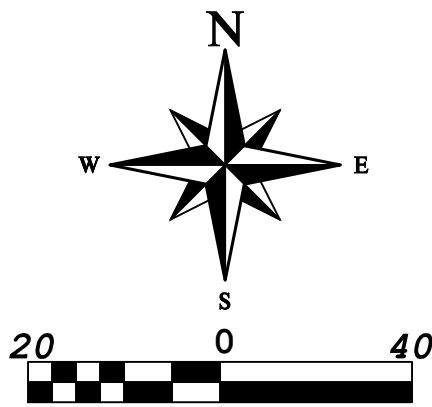
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 9

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



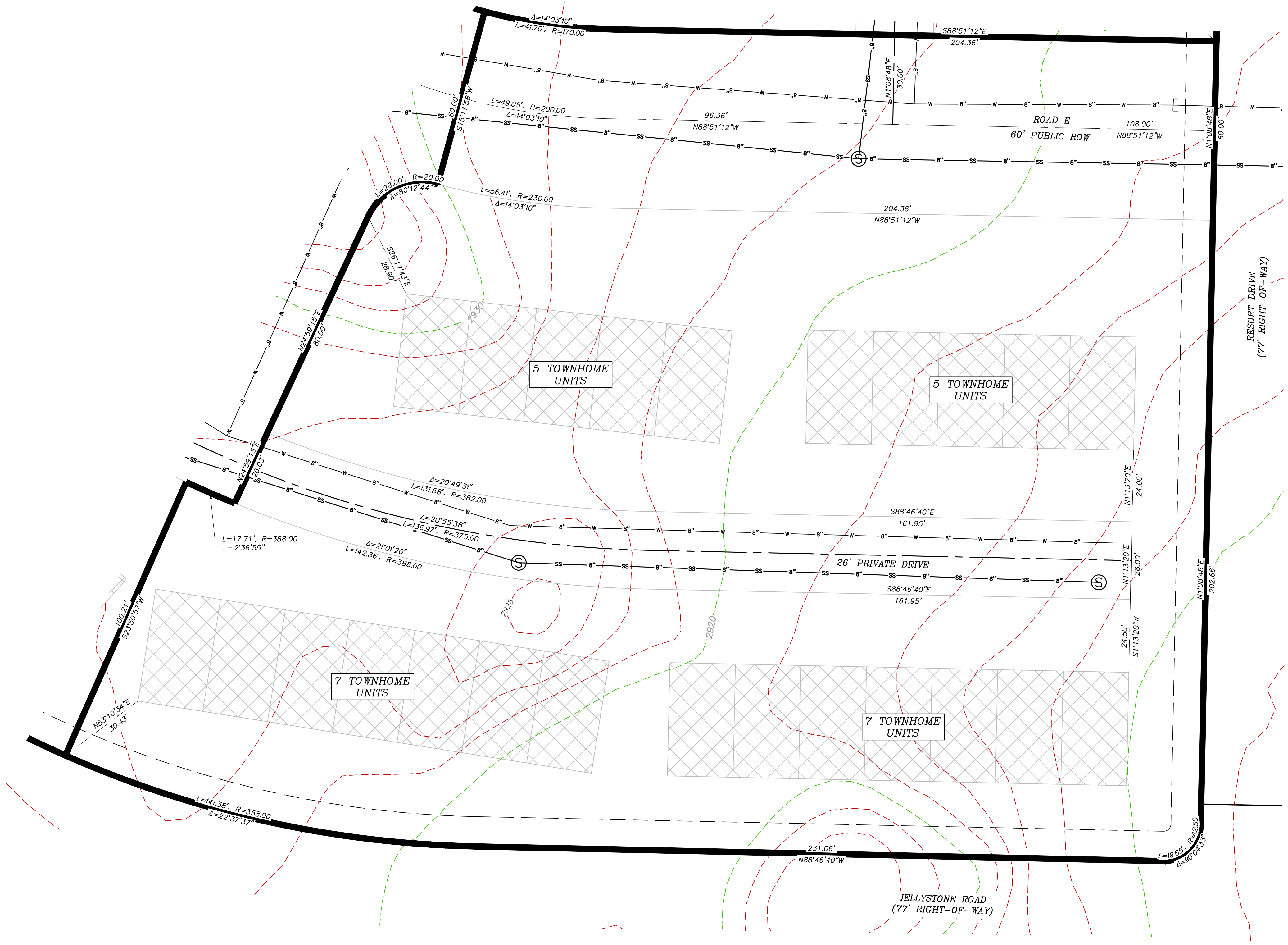
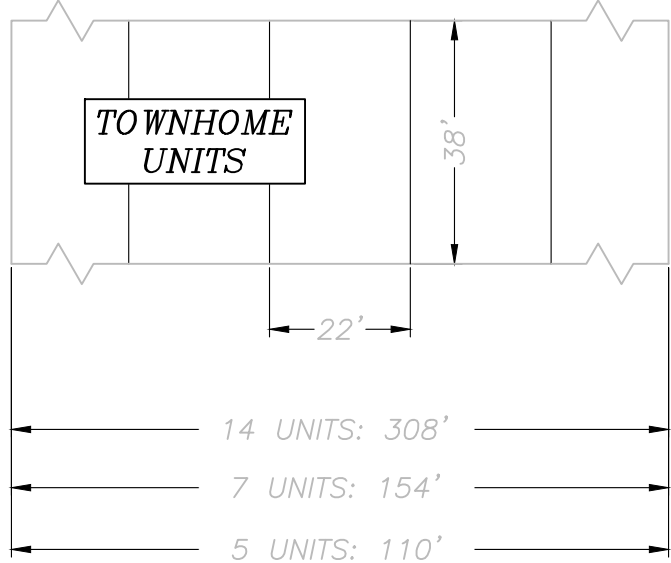
REVISIONS		DATE	BY
NO	DESCRIPTION		

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Phone: 435-668-8307

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 9
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE 1/18/2024
SCALE 1"=20'
JOB NO. 378-002
SHEET NO. 11 OF 15

TOWNHOME UNITS TYP.



LEGEND

- RIGHT-OF-WAY LINE

—

ADJACENT PROPERTY LINE

—

LOT LINE

—

CENTER LINE

—

SECTION LINE

—W—W—

WATER LINE

—SS—SS—

SANITARY SEWER LINE

—

BLOCK LINE

PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA
-
- OPEN SPACE

SS

EXISTING SEWER LINE

W

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

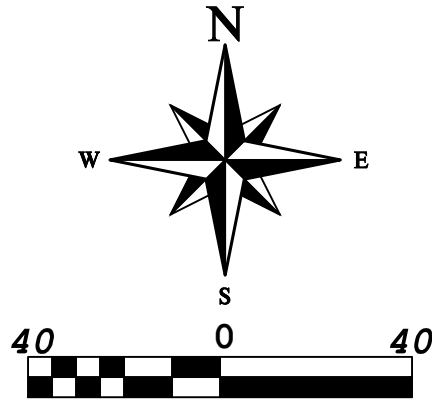
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 10

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



REVISIONS		DATE	BY
DESCRIPTION			
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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK 10
LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

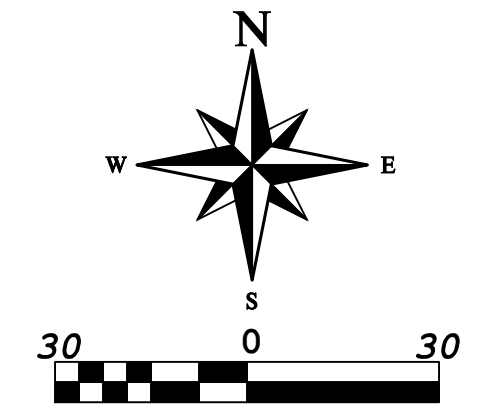
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SCALE	1"=30'
JOB NO.	378-002
SHEET NO:	

LEGEND

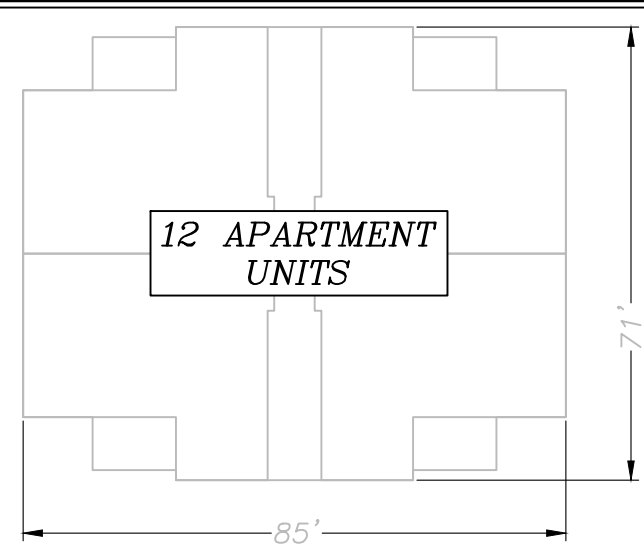
- RIGHT-OF-WAY LINE
ADJACENT PROPERTY LINE
LOT LINE
CENTER LINE
SECTION LINE
WATER LINE
SANITARY SEWER LINE
BLOCK LINE
PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA
OPEN SPACE
EXISTING SEWER LINE
EXISTING WATER LINE
PUBLIC UTILITY EASEMENT (P.U.E.)
EXISTING 1' CONTOUR
EXISTING 5' CONTOUR
TIE LINE
CURB/SIDEWALK LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A1

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



12 UNIT APARTMENT TYP.



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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A1

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE 1/18/2024
SCALE 1"=30'
JOB NO. 378-002
SHEET NO:

13 OF 15

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LEGEND

- RIGHT-OF-WAY LINE

ADJACENT PROPERTY/LOT LINE

LOT LINE

CENTER LINE

SECTION LINE

WATER LINE

SANITARY SEWER LINE

BLOCK LINE

PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

EXISTING SEWER LINE

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

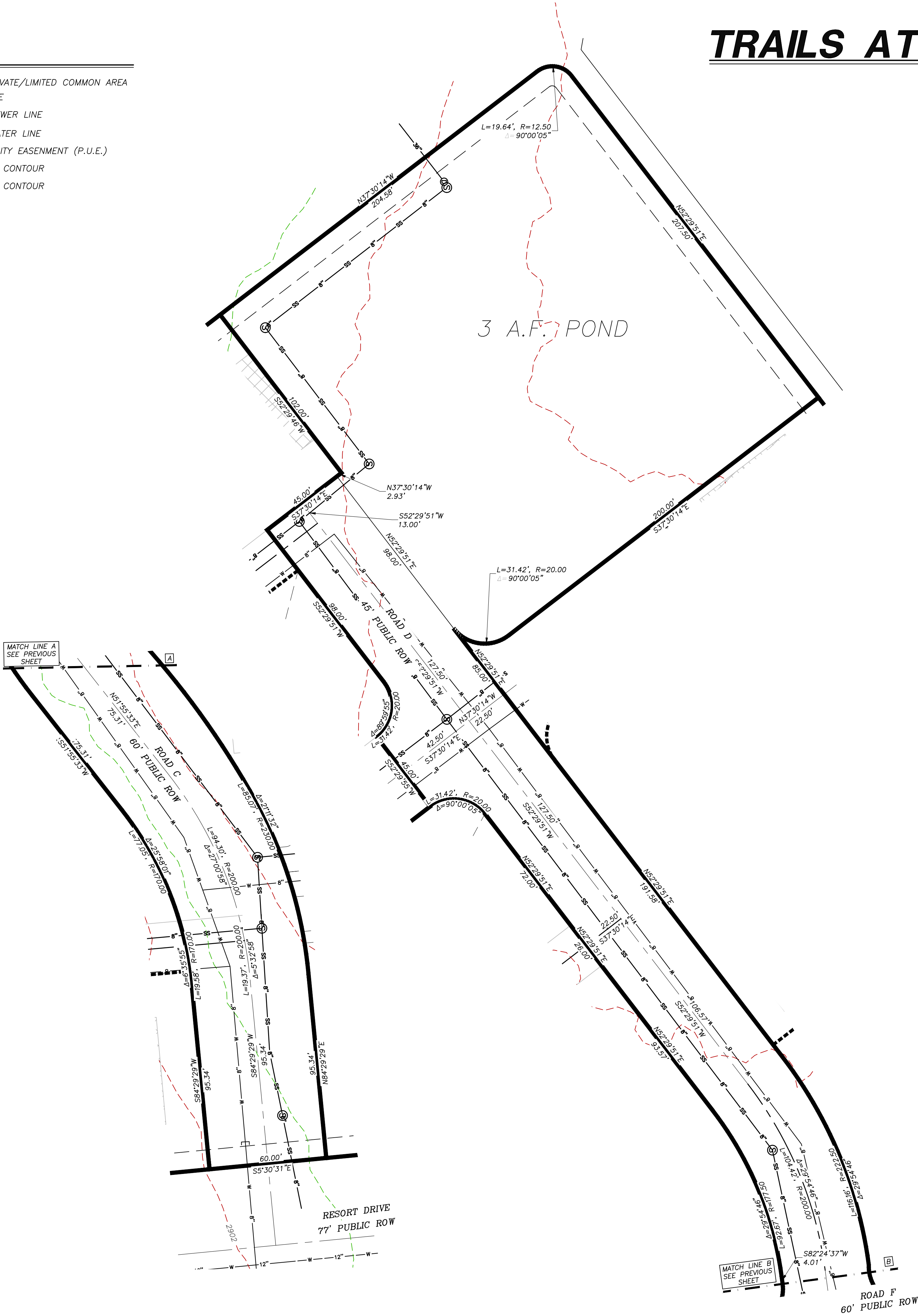
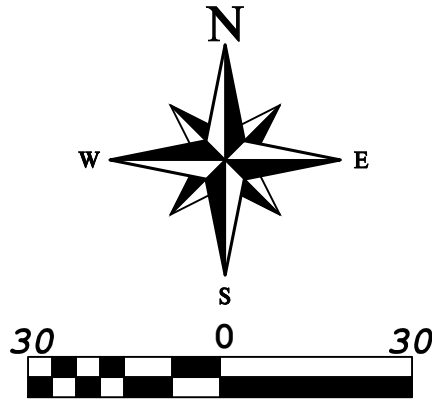
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE

PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A1

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



REVISIONS		DESCRIPTION	DATE	BY
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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A1

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	14 OF 15

LEGEND

- RIGHT-OF-WAY LINE

—

ADJACENT PROPERTY LINE

—

LOT LINE

—

CENTER LINE

—

SECTION LINE

—W—W

WATER LINE

—SS—SS

SANITARY SEWER LINE

—

BLOCK LINE

PHASE LINE
- FUTURE PRIVATE/LIMITED COMMON AREA

OPEN SPACE

—SS—

EXISTING SEWER LINE

—W—

EXISTING WATER LINE

PUBLIC UTILITY EASEMENT (P.U.E.)

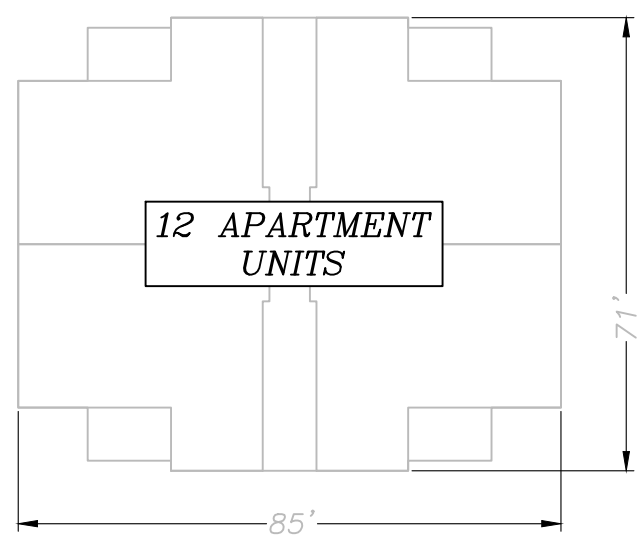
EXISTING 1' CONTOUR

EXISTING 5' CONTOUR

TIE LINE

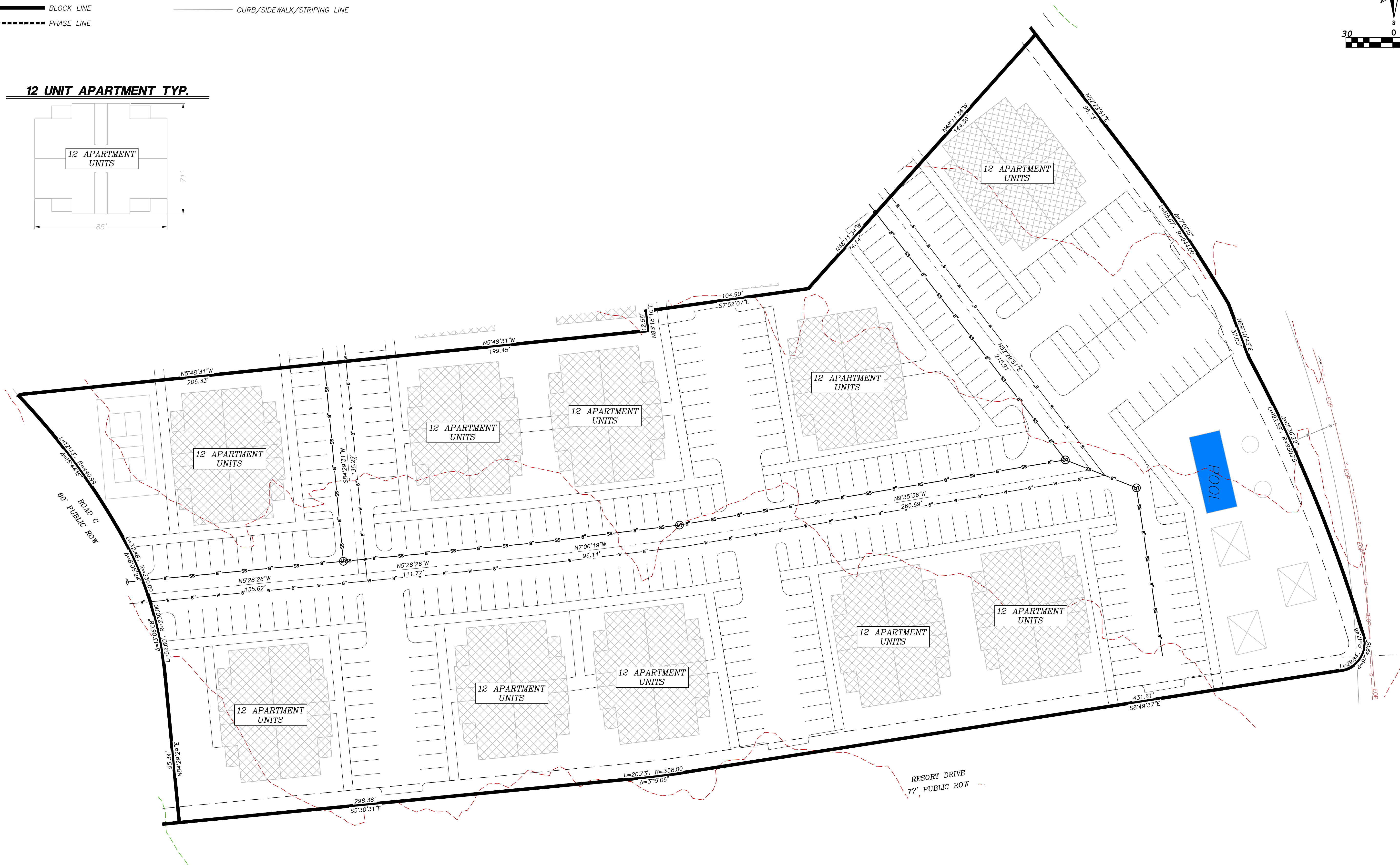
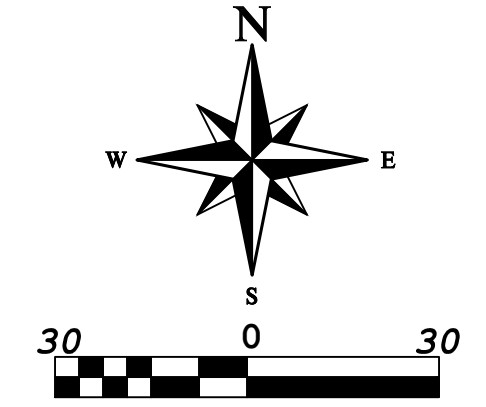
CURB/SIDEWALK/STRIPING LINE

12 UNIT APARTMENT TYP.



PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A2

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH



REVISIONS		DATE	BY
NO	DESCRIPTION		

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PRELIMINARY PLAT FOR:
TRAILS AT SAND HOLLOW, BLOCK A2

LOCATED IN SECTION 1, T42S, R14W, S.L.B.&M.
HURRICANE, WASHINGTON COUNTY, UTAH

DATE	1/18/2024
SCALE	1"=30'
JOB NO.	378-002
SHEET NO.	15 OF 15



Application

Application Accepted Date: 01/10/2024		Valuation		\$	0.00
Type of Improvement: Site Plan (Final)		PERMIT FEES			
Description: r Building permit approval		Planning Fee		\$	200.00
Tenant / Project Name: Final Site Plan - Goulding Home		Sub Total:		\$	200.00
Bldg. Address: 220 west 200 north		Permit Total:		\$	200.00
City: Hurricane City State: UT Zip: 84737		Amount Paid:		\$	0.00
Subdivision: Goulding Phase: 1		Remaining Due:		\$	200.00
Block: Lot #: Parcel #: H-333-B-1-A					
Property Owner: Dace and Laurie Goulding					
Permit Contact: Ben Sorensen P:(435) 862-7706					
Email: okcstg@gmail.com					
CONTACT INFORMATION					
Engineer of Record: Tyrell wood					
Email: tyrellwood@gmail.com P: (435) 559-1861					
General Contractor: Outdoor Kitchens and More					
License #: 8938445-5501 P: (435) 862-7706					
Address: 929 south Main st					
City: Glendale State: Utah Zip: 84729					
Email: okcstg@gmail.com					
APPLICATION DETAILS					
					
APPROVALS					
		DATE		INFO	
Setbacks	Front:	Rear:	Left:	Right:	
Min.					
Actual:					
APPLICATION NUMBER: PLANFSP24-01					
This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I here-by certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty of perjury. Maintenance Deposit is refundable after final inspection if: 1) site is kept clean 2) building is NOT occupied prior to final inspection and issuance of Certificate of Occupancy.					
Applicant Name: Ben Sorensen					
Signature of Applicant/Authorized Agent or Owner: Date:					
Application Approved By: Date:					
Application Issued By: Date:					
Receipt #:					



STAFF COMMENTS

Agenda Date:	01/25/2024
Application Number:	FSP24-01
Type of Application:	Final Site Plan
Action Type:	Administrative
Applicant:	Outdoor Kitchens and More (Ben Sorenson)
Agent:	
Request:	Approval of a final site plan for a home
Location:	220 W 200 N
Zoning:	RM-2
General Plan Map:	Downtown

Discussion

The applicant has submitted a final site plan for an additional unit in addition to an existing triplex on site. The preliminary site plan was approved in October of 2023. While accessory dwelling units are not permitted in this zone, a single family home, as long as it meets density limits of the zoning, is permitted.



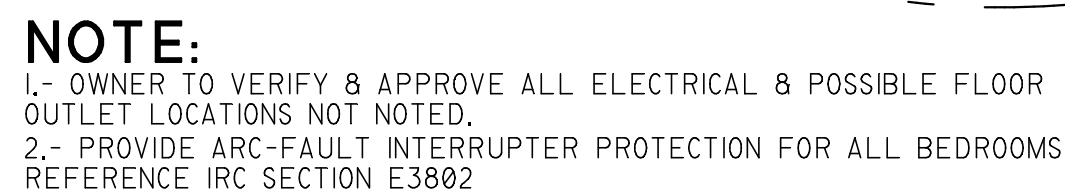
JUC Review:

1. Construction drawings have been signed off by the Joint Utility Committee

Staff Review

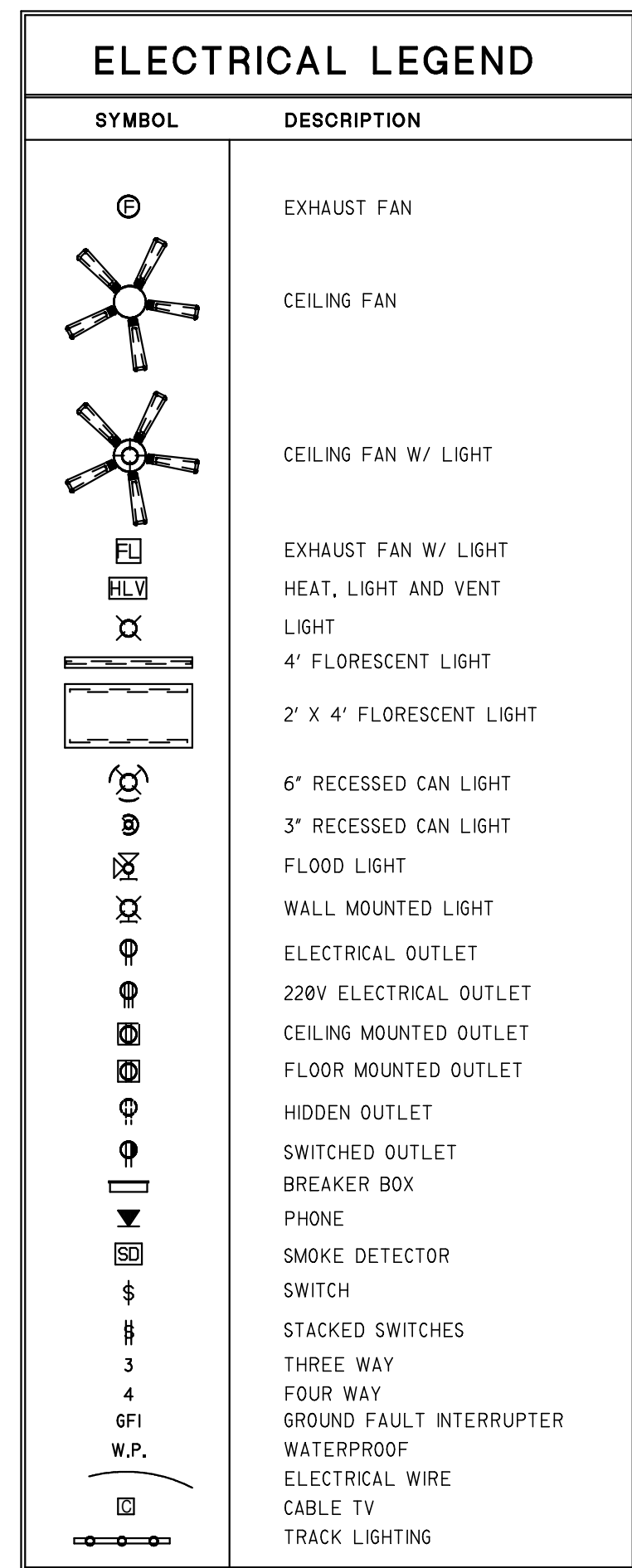
1. The site is zoned RM-2. This plan meets the standards of the zoning and the preliminary site plan.
2. Landscaping: The existing landscaping on site in conjunction with the proposed additional landscaping provided is sufficient to meet HCC 10-32.
3. Parking: Per HCC 10-34-6 two spaces are required per unit. Two spaces are provided per unit.
4. Elevations: The proposed new building will not be taller than 35'.
5. Outdoor lighting: Any and all outdoor lighting will need to be compliant with HCC 10-33-7.

Recommendation: Staff recommends the Planning Commission review this application based on standards within Hurricane City Code, and recommends approval subject to staff and JUC comments.



1. PROVIDE R-19 BATT INSULATION IN 2X6 WALLS, R-13 IN 2X4 WALLS, MINIMUM R-38 INSULATION IN FLAT CEILINGS AND R-30 BLANKET INSULATION IN VAULTED CEILINGS, ALLOW 1/2" MINIMUM AIRSPACE BETWEEN SHEATHING AND INSULATION, FACE FOIL DOWN TO WARM SIDE.
2. INSTALL SIDE WALL AND CEILING INSULATION IN CONTINUOUS BLANKETS WITHOUT HOLES FOR ELECTRICAL BOXES, LIGHT FIXTURES OR HEATING DUCTWORK. CAULK ALL OPENINGS IN EXTERIOR WALL CONSTRUCTION.
3. INSTALL 6 MIL POLYETHYLENE VAPOR BARRIER AGAINST INSIDE OF ALL INSULATION. LAP JOINTS 18" MINIMUM.
4. FLOORS OVER UNHEATED SPACE SHALL HAVE R-25 FOIL BACK INSULATION BETWEEN JOISTS.
5. SLAB EDGE INSULATION R-5.
6. HVAC DUCTS LOCATED IN UNHEATED SPACES SHALL BE INSULATED WITH R-8.

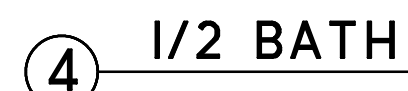
1. PLUMBING SHALL MEET ALL LOCAL CODES.
2. IF WATER HEATER IS LOCATED ANYWHERE, EXCEPT GARAGE OR BASEMENT, PROVIDE METAL DRAIN PAN WITH AUXILIARY DRAIN TO EXTERIOR.
3. ALL GAS WATER HEATERS SHALL BE VENTED AT TOPOUT.
4. PROVIDE INSIDE MAIN WATER CUT-OFF.
5. PROVIDE BLOCKING IF WALL PLATES OR JOISTS ARE CUT INTO.



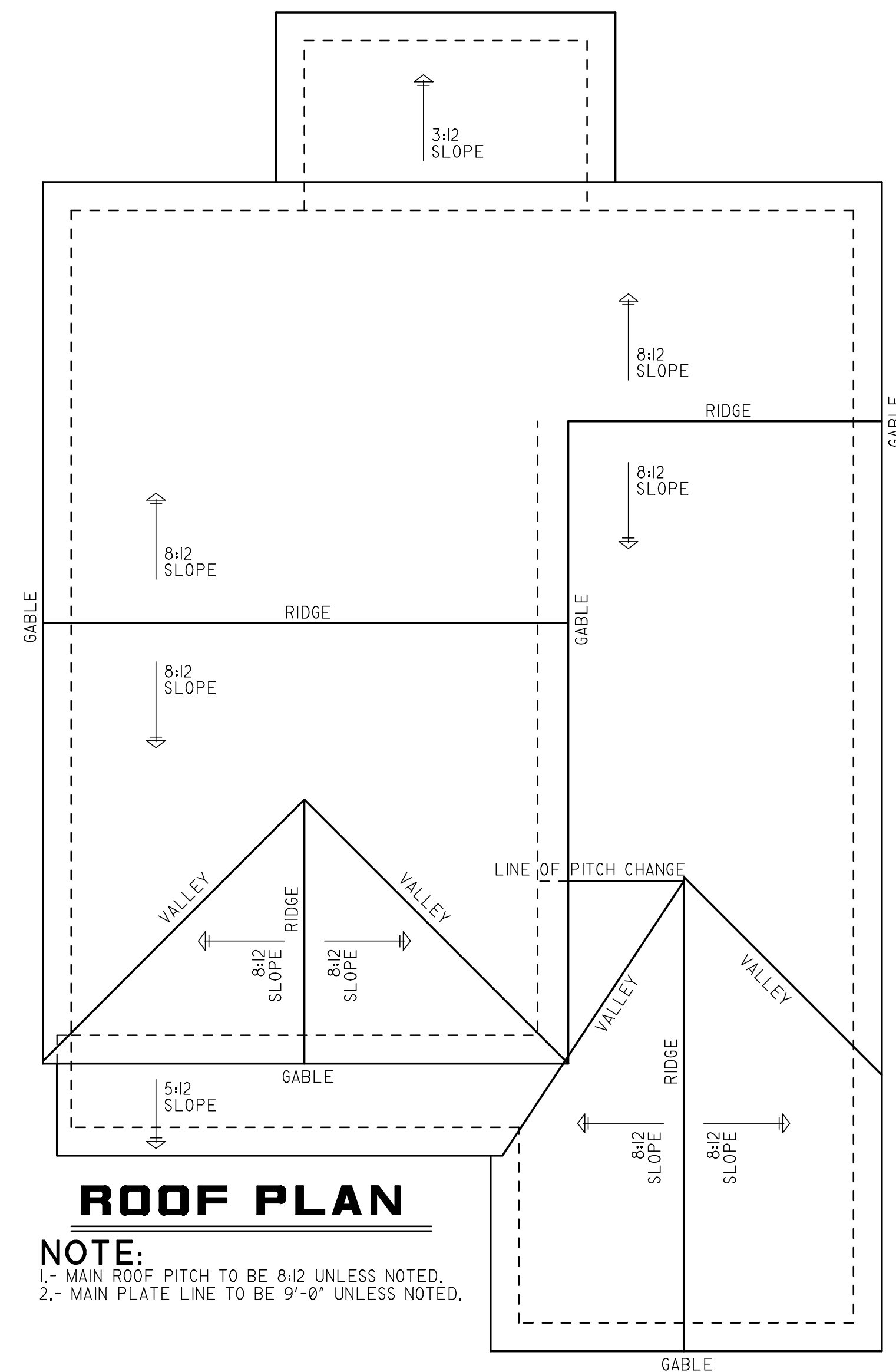
- 1- RAFTERS TO BE SUPPORTED BY CONT. BRACING FOR HORIZONTAL SPANS OF 15'-0" OR GREATER.
- 2- SUPPORT ALL HIP, VALLEY, AND RIDGES @ 8'-0" O.C. MAX.
- 3- ALL RAFTERS TO BEAR ON SECOND FLOOR WALLS WHERE APPLICABLE.
- 4- RAFTERS MAY BE SPLICED ONLY @ CONT. BRACING OR SECOND FLOOR WALLS.
- 5- RAFTERS TO BE PLACED IN COMPLIANCE WITH ALL LOCAL CODES.

EXAMPLES:

- A- 2X6 RAFTERS @ 16" O.C. MAX. WITH 1/2" P.W. DECKING.
- B- 2X6 RAFTERS @ 24" O.C. MAX. WITH 5/8" P.W. DECKING.
- C- 2X8 RAFTERS @ 24" O.C. MAX. WITH 18" W. DECKING.
- D- 2X8 RAFTERS @ 16" O.C. MAX. WITH 1/2" P.W. DECKING.
- E- FASCIA OVERHANG TO BE 12" (TYP) UNLESS NOTED ON ELEVATIONS.
- 7- ALL HIP / VALLEY RAFTERS TO BE 2X10 UNLESS NOTED.



1. PROVIDE INSULATION BAFFLES AT EAVE VENTS BETWEEN RAFTERS / TRUSSES.
2. RIDGES, VALLEY AND HIP MEMBERS SHALL BE FULL VERTICAL DEPTH OF FRAMING MEMBERS
3. PROVIDE 2X6 COLLAR TIES AT 48" O.C.
4. PROVIDE CONTINUOUS 2X6 PURLINS AT MID-SPAN OF RAFTERS, SPACE AT 8'-6" MAX.
5. PROVIDE 2X4 STRUTS AT 48" O.C. FROM PURLINS TO BEARING WALLS AT 45 MINIMUM ANGLE.
6. HANDRAILS SHALL BE MOUNTED 34" ABOVE NOSING OF STAIRS. GUARDRAILS SHALL BE MOUNTED AT 36".


$$1/2^\circ = 1'-0''$$


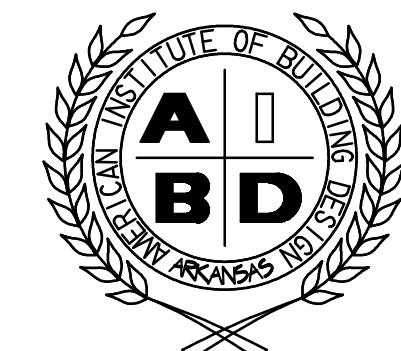
NOTE:
1.- MAIN ROOF PITCH TO BE 8:12 UNLESS NOTED.
2.- MAIN PLATE LINE TO BE 9'-0" UNLESS NOTED

[illegible]

Nelson Design Group, LLC
RESIDENTIAL PLANNERS • DESIGNERS
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006359C-2423

2280 FOWLER AVE.
SUITE 100
JONESBORO, AR 72408
870.945.7777
FAX 870.945.7792



MICHAEL E. NELSON
P.B.D. Cert. No. AR-104

DATE	1/1/98
SCALE	1/4" = 1'-0"
BUILDER	
JOB	NDGI88
DRAWN BY	

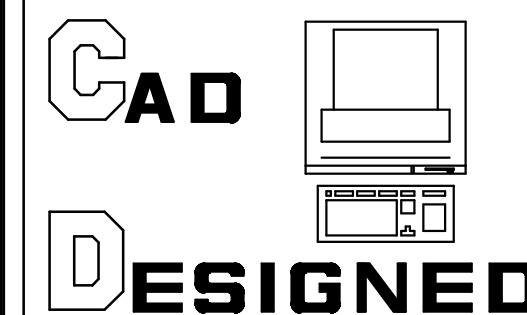
4 OF 4

NOTICE DUTY OF COOPERATION

[illegible]

NDG188

" Where Traditional Values and Family Come Together "



GOULDING CACITA
RESIDENTIAL PLAN
ENGINEERING SHEETS
PARCEL # H-333-B-1-A
SEC 34, T41S, R13W, SLB&M
220 W 200 N
HURRICANE CITY, UT 84737

-INDEX-

- SHEET 0 - TITLE SHEET
SHEET L1 - LOT LAYOUT
SHEET S1 - FOUNDATION LAYOUT
SHEET S2 - FLOOR JOIST LAYOUT 2ND FLOOR
- PORCH ROOF LAYOUT
- ROOF LAYOUT
- THERMAL ENVELOPE
SHEET D1 - DETAIL SHEET 1
SHEET D2 - DETAIL SHEET 2

ARCHITECTURAL PLANS BY OTHERS

GENERAL NOTES:

- 1 THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO CONSTRUCTION.
2 CONTRACTOR SHALL NOTIFY ENGINEER OF ANY INCONSISTENCIES IN THIS PLAN SET PRIOR TO CONSTRUCTION.
3 ALL WORK SHALL BE DONE ACCORDING TO THE LATEST VERSION OF ALL LOCAL AND NATIONAL CONSTRUCTION CODES SUCH AS BUT NOT LIMITED TO THE FOLLOWING: 2015 INTERNATIONAL RESIDENTIAL CODE, 2018 INTERNATIONAL BUILDING CODE INCLUDING ALL APPLICABLE FIRE, PLUMBING, MECHANICAL, FUEL GAS, AND ELECTRICAL CODES, 2018 IECC, 2018 INTERNATIONAL EXISTING BUILDING CODE, 2009 ICC/ANSI A117.1
4 CONSTRUCTION SITE SHALL BE MAINTAINED AND CLEANED AT THE END OF EACH WORK DAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL TRADES MAINTAIN A CLEAN AND SAFE WORKING SPACE AT ALL TIMES PER OSHA STANDARDS.
5 IT IS THE RESPONSIBILITY OF THE INDIVIDUALS AND COMPANIES PERFORMING WORK ON SITE TO MAINTAIN CURRENT CERTIFICATIONS FOR THE WORK BEING PERFORMED AS PER LOCAL REGULATIONS.
6 ALL MANUFACTURER SPECIFICATIONS AND INSTALLATION INSTRUCTIONS SHALL BE STRICTLY ADHERED TO.
7 RESIDENTIAL STRUCTURES IN THIS PLAN WERE DESIGNED TO WITHSTAND SEISMIC ACTIVITY PER ZONE D1 AS PER LOCAL GUIDELINES AND SHALL BE CONSTRUCTED ACCORDINGLY.
8 WINDOW HEIGHTS SHALL BE SEVEN FEET TO TOP OF WINDOW MEASURED FROM THE ROUGH FLOOR HEIGHT ON THE ASSOCIATED FLOOR OF SAID WINDOW.
9 RESIDENTIAL STRUCTURES IN THIS PLAN SET WERE DESIGNED TO WITHSTAND GROUND SNOW LOAD OF 25# AND SHALL BE CONSTRUCTED ACCORDINGLY.
10 RESIDENTIAL STRUCTURES ON THIS PLAN SET WERE DESIGNED TO WITHSTAND 115 MPH WIND GUSTS @ 3 SECOND BURSTS, EXPOSURE B AND SHALL BE CONSTRUCTED ACCORDINGLY.
11 NUMERIC DIMENSIONS ON THIS PLAN SET SUPERCEDE SCALED DIMENSIONS.
12 ENGINEER MAKES NO WARRANTY ON EXISTING STRUCTURES ON THIS PLAN SET. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL STRUCTURAL ELEMENTS OF EXISTING STRUCTURES PRIOR TO DEMOLITION OR CONSTRUCTION.

GRADING NOTES:

- 1 ALL EXTERIOR GRADES SHALL BE CONSTRUCTED TO MAINTAIN A MINIMUM DRAINAGE SLOPE OF 5% AWAY FROM NEWLY CONSTRUCTED STRUCTURES. DRAINAGE SHALL MAINTAIN EXISTING SLOPES SO AS TO NOT "FORCE DRAIN" ONTO ADJOINING PROPERTIES.
2 ONSITE DRAINAGE SHALL BE MAINTAINED ONSITE WITHIN LIMITS OF PROPERTY BOUNDARIES OR SHALL BE DIVERTED TO AN APPROVED MUNICIPAL STORM DRAINAGE SYSTEM AS APPROVED BY LOCAL GOVERNMENT AUTHORITIES.
3 FINISH GRADE SHALL BE FREE OF DEBRIS, TRASH AND EXCESS CONSTRUCTION MATERIALS UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
4 WINDOW WELL HEIGHTS SHALL BE BUILT ABOVE GRADE TO MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURE WHERE APPLICABLE.

EXCAVATION NOTES:

- 1 CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH LOCAL GOVERNMENT TO DETERMINE IF SOIL'S TESTING IS REQUIRED PRIOR TO CONSTRUCTION. THE ENGINEER DOES NOT GUARANTEE THE QUALITY OF SOILS UPON WHICH CONSTRUCTION WILL OCCUR. IF VERIFICATION OF SOIL'S CLASSIFICATION IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HIRE A THIRD PARTY GEOTECHNICAL ENGINEER TO DO SOILS TESTING AND VERIFY COMPACTION RESULTS OF SOILS.
3 THE ENGINEER HIGHLY RECOMMENDS THAT A SOILS CLASSIFICATION IS PERFORMED PRIOR TO CONSTRUCTION. THE ENGINEER SHALL NOT BE HELD LIABLE IF THE CONTRACTOR FAILS TO OBTAIN A GEOTECHNICAL ANALYSIS.

FOUNDATION NOTES:

- 1 BOTTOM OF FOOTING SHALL BEAR ON UNDISTURBED SOIL OR AS OTHERWISE REQUIRED BY GEOTECHNICAL REPORT.
2 MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS
3 FOUNDATION HOLD DOWN STRAPS SHALL BE INSTALLED ON ALL WALLS GREATER THAN 3 FEET IN LENGTH AS PER FOOTING/FOUNDATION PLAN. HOLD DOWN STRAPS SHALL MEET OR EXCEED SIMPSON STRONG-TIE STDH14J, ESR-2523. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY WINDOW LOCATIONS PRIOR TO INSTALLATION OF FOUNDATION HOLDOWN STRAPS. NOTIFY ENGINEER IF ANY STRAP LOCATIONS APPEAR TO BE BELOW AN OPENING OR WINDOW ON ANY ABOVE GROUND FLOORS. FOUNDATION HOLDOWN STRAPS SHALL BE INSTALLED WITHIN 6 INCHES OF CORNERS WHERE APPLICABLE.
4 STRUCTURAL STEEL SHALL BE GRADE 60. ALL STRUCTURAL STEEL WITHIN CONCRETE SHALL BE INSTALLED TO MAINTAIN A DISTANCE OF 2 INCHES FROM ANY SURFACE OF THE CONCRETE AND MUST BE TIED IN PLACE BEFORE POURING.
5 ANCHOR BOLTS SHALL BE INSTALLED PER LOCAL CODES AND SHALL BE A MINIMUM OF 1/2 INCH DIAMETER X10 INCHES @ 32 INCHES O.C. WITH A SQUARE PLATE WASHER AND NUT.
6 CONTROL JOINTS ON ALL CONCRETE SHALL BE SPACED NOR MORE THAN 12 FEET ON ALL CONCRETE FLAT WORK.
7 FOUNDATION SHALL BE A MINIMUM OF 18 INCHES ABOVE EXISTING CROWN OF ROAD OR 12 INCHES ABOVE EXISTING STREET ADJOINING CURB AT HIGHEST POINT ADJACENT TO LOT. SOME LOCAL CODES MAY REQUIRE ADJUSTMENTS TO THIS NOTE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH LOCAL GOVERNMENT TO DETERMINE FINISH FLOOR ELEVATION RESTRICTIONS.
8 BOTTOM OF FOOTING TO BE A MINIMUM OF 12 INCHES FROM NATURAL GRADE SURFACE (FROST DEPTH). TOP OF STEMPWALL MUST BE 6 INCHES ABOVE FINAL GRADE
9 WOOD ENGINEERING CONSULTANTS, LLC IS NOT RESPONSIBLE FOR LOT LINE VERIFICATION OR TOPOGRAPHIC SURVEY DATA FOR THIS PROJECT. A FULL GRADING PLAN HAS NOT BEEN DEVELOPED FOR THIS PROJECT. ALL GRADING, FINISH FLOOR ELEVATIONS AND GRADING SHALL BE COMPLETED AS PER CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FINAL GRADES AND FINISH FLOOR. FINISH FLOOR SHALL BE 18 INCHES ABOVE CROWN OF ROAD AT HIGHEST POINT ADJACENT TO LOT.

FRAMING NOTES:

- 1 ALL EXTERIOR WALLS (AND WALLS SEPARATING GARAGE FROM MAIN LIVING SPACE) SHALL BE 2X6 WOOD STUD @ 16 INCHES O.C.
2 INSULATION AND VAPOR BARRIER SHALL BE INSTALLED AS PER LOCAL CODES AND 2018 IECC STANDARDS
3 INTERIOR SHEATHING SHALL BE 1/2 INCH GYPSUM BOARD SHEETROCK.
4 PROVIDE STEP FLASHING AT ALL WALLS ADJACENT TO ROOF PLANES.
5 SOLID BLOCK REQUIRED AT ALL BEARING POINTS FOR ROOF RAFTERS OR TRUSSES, CEILING JOISTS AND AT ALL FLOOR AND ROOF PERIMETERS.
6 TRUSSES SHALL BE DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER AND INSTALLED PER MANUFACTURES INSTALLATION INSTRUCTIONS.
7 FIRE BLOCKING SHALL BE REQUIRED IN ALL AREAS GREATER THAN EIGHT FEET IN HEIGHT.
8 FLOOR JOISTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
9 INTERIOR WALLS SHALL BE 2X4 NOMINAL WOOD STUD @ 16 INCHES O.C.
10 INTERIOR LOAD BEARING WALLS SHALL BE 2X4 NOMINAL WOOD STUD @ 16 INCHES O.C. OR AS OTHERWISE SPECIFIED IN THIS PLAN SET.
11 HOUSE WRAP WITH DRAINAGE PLANE REQUIRED AS PER LOCAL CODES AND SHALL BE INSTALLED AS PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
12 INSTALL WINDOW FLASHING AROUND ALL WINDOWS AND EXTERIOR DOORS AS PER LOCAL CODES AND MANUFACTURERS INSTALLATION INSTRUCTIONS.

PLUMBING NOTES:

- 1 BACKFLOW PREVENTION REQUIRED AT WATER METER LOCATION.
2 FROST FREE EXTERIOR HOSE BIBS WITH BACKFLOW PREVENTION REQUIRED ON ALL EXTERIOR PLUMBING FIXTURES.
3 INSTALL ALL PLUMBING FIXTURES, TOILETS, ETC PER MANUFACTURERS RECOMMENDED INSTALLATION INSTRUCTIONS.

ELECTRICAL NOTES:

1. COORDINATION OF PANEL LOCATIONS SHALL BE DONE BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. PROVIDE GFCI PROTECTION FOR ALL OUTLETS ON KITCHEN COUNTERTOPS, GARAGE, BATHROOMS, WET BARS, AND WITHIN SIX FEET OF LAUNDRY ROOMS
3. PROVIDE ADEQUATE SPACING BETWEEN ALL FIXTURES, WALLS AND SHELVEING IN CLOSETS FOR FUTURE MAINTENANCE.
4. CARBON MONOXIDE DETECTORS SHALL BE INSTALLED ON EACH FLOOR LEVEL OF INHABITABLE LIVING SPACE AS DETAILED ON THIS PLAN SET.
5. INSTALL A MINIMUM OF TWO WEATHER PROOF GFCI PROTECTED OUTLETS NEAR EXTERIOR ENTRIES.
6. ELECTRICAL PANELS AND ALL SIMILAR EQUIPMENT SHALL BE INSTALLED WITH ADEQUATE WORKING SPACE MINIMUM 36 INCHES WIDE AND 30 INCHES DEEP.

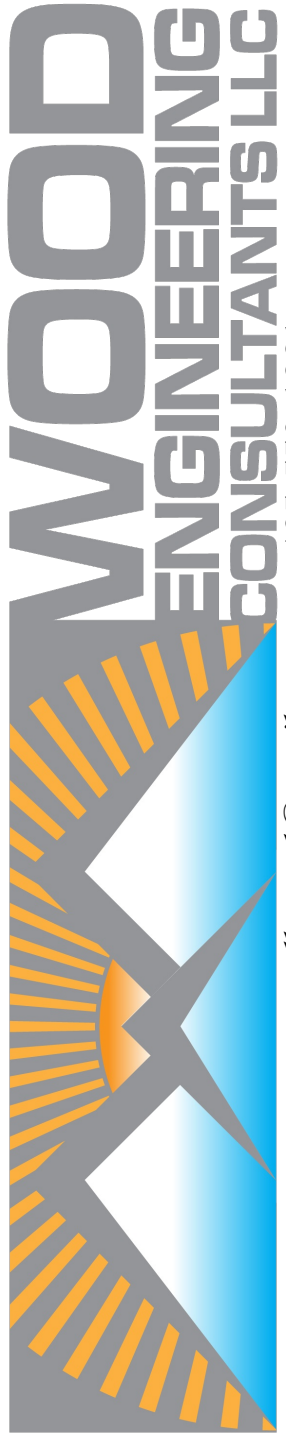
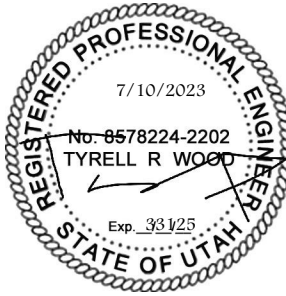
MECHANICAL NOTES:

- 1 MECHANICAL CONTRACTOR SHALL DESIGN CENTRAL AIR UNIT PER APPLICABLE CODES AND PER 2018 IECC.
2 NEWLY CONSTRUCTED MECHANICAL ROOMS SHALL BE SEALED AND VENTED FOR COMBUSTION FROM EXTERIOR OF BUILDING.
3 EXHAUST FANS SHALL BE A MINIMUM OF 100 C.F.M. AND BE VENTED TO EXTERIOR OF BUILDING.
4 CLOTHES DRYERS SHALL BE VENTED TO EXTERIOR OF BUILDING WITH A MINIMUM FOUR INCH METAL VENT PIPE.
5 DUCTS SHALL BE CONSTRUCTED WITH FOUR INCH METAL DUCTING WITH SMOOTH INTERIOR SURFACES AND EQUIPPED WITH BACK DRAFT DAMPERS. SHEET METAL SCREWS ARE NOT PERMITTED.
6 ATTIC VENT CALCULATION SHALL BE PER FHA RECOMMENDED CALCULATION. I.E. EVERY 300 SQUARE FEET OF ATTIC SPACE SHALL HAVE A MINIMUM OF 1 FOOT OF ATTIC VENTILATION, BOTH INTAKE AND EXHAUST.
7 ALL EXHAUST VENTING FROM HOME SHALL BE A MINIMUM OF THREE FEET FROM ANY EXTERIOR OPENING.

DESIGN CRITERIA:

CODE: 2015 INTERNATIONAL RESIDENTIAL CODE, 2018 INTERNATIONAL BUILDING CODE INCLUDING ALL APPLICABLE FIRE, PLUMBING, MECHANICAL, FUEL GAS, AND ELECTRICAL CODES, 2018 IECC, 2018 INTERNATIONAL EXISTING BUILDING CODE, 2009 ICC/ANSI A117.1

SEISMIC: ZONE D
SNOW LOADS: GROUND SNOW LOAD: 25 PSF
WIND LOAD: 115 MPH (WIND GUSTS @ 3 SECOND BURSTS) EXPOSURE B
FROST DEPTH: 12 INCHES BELOW FINISH GRADE
ASSUMED SOIL PRESSURE AT TIME OF EXCAVATION: 1,500 PSF
FLOOR LOADING (WHERE APPLICABLE): 40 PSF LIVE LOAD INCLUDES 25 PSF DEAD LOAD



GOULDING CACITA
RESIDENTIAL PLAN
PARCEL # H-333-B-1-A
SEC 34, T41S, R13W, SLB&M
220 W 200 N
HURRICANE CITY, UT 84737

TITLE PAGE

DATE:

7/10/2023

*SCALE:

1/4" = 1' 1/8" = 1' (*24x36) (*11x17)

SHEET:

0

LOT NOTES:

1. LOT LINE INFORMATION WAS OBTAINED FROM PROPERTY OWNER INFORMATION PROVIDED BY OWNER, PARCEL # H-333-B-1-A LOCATED WITHIN SEC 34, T41S R13W, SLB&M.

2- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION OR EXCAVATION AND NOTIFY ENGINEER OF DISCREPANCIES ON PLANS.

3. INFORMATION ON THIS PLAN SET IS FOR INFORMATION ONLY AND IS NOT TO SCALE

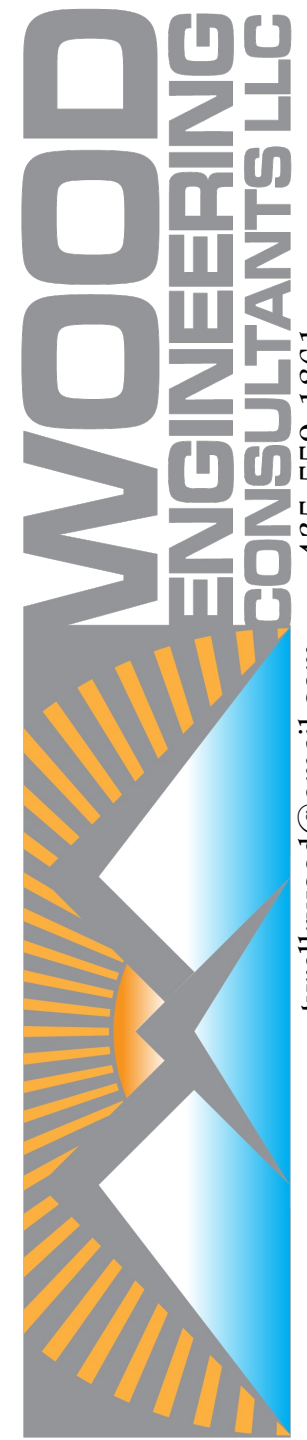
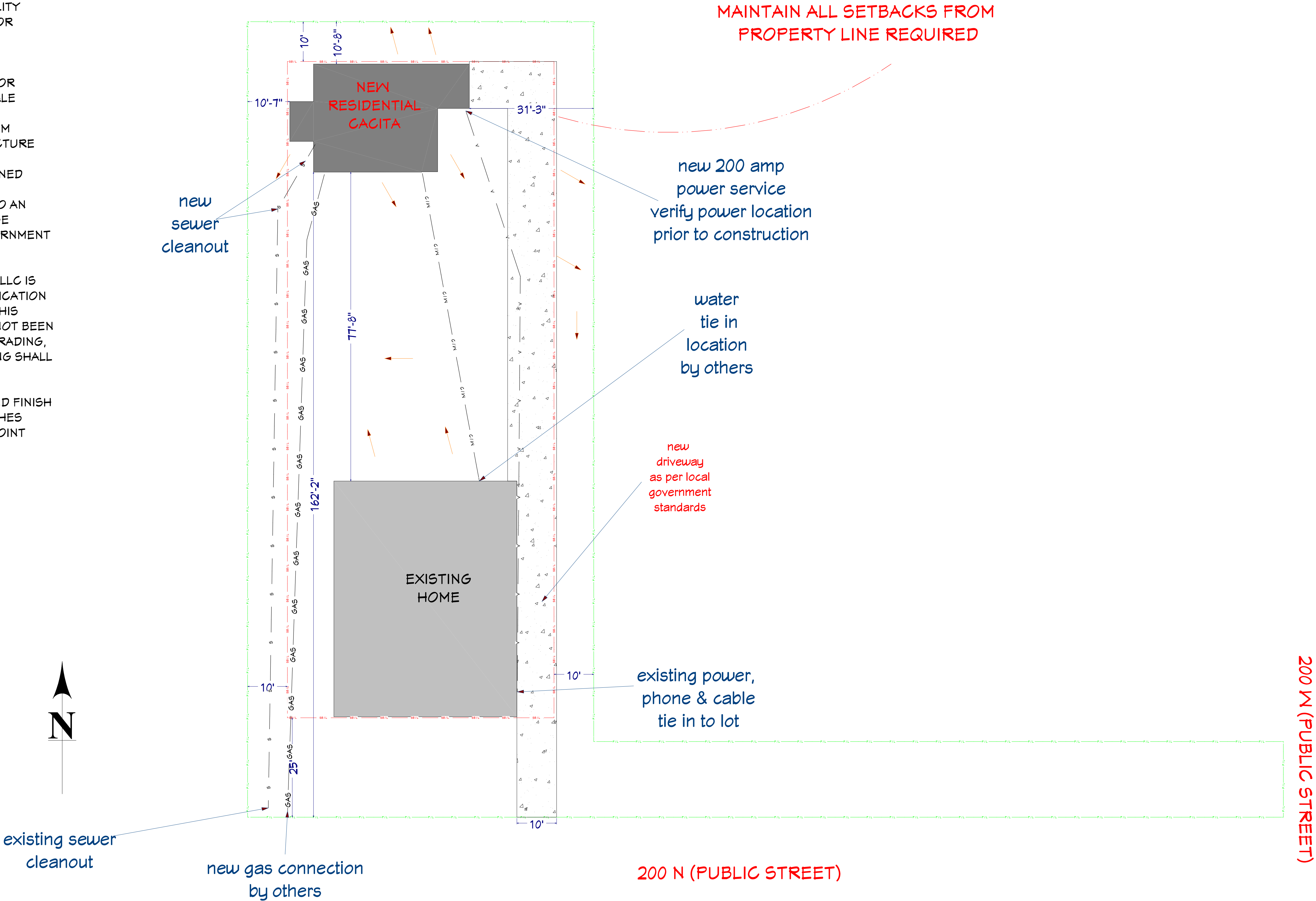
4. ALL MEASUREMENTS ARE TAKEN FROM PROPERTY LINE TO SETBACK OR STRUCTURE

5. ONSITE DRAINAGE SHALL BE MAINTAINED ONSITE WITHIN LIMITS OF PROPERTY BOUNDARIES OR SHALL BE DIVERTED TO AN APPROVED MUNICIPAL STORM DRAINAGE SYSTEM AS APPROVED BY LOCAL GOVERNMENT AUTHORITIES.

6. WOOD ENGINEERING CONSULTANTS, LLC IS NOT RESPONSIBLE FOR LOT LINE VERIFICATION OR TOPOGRAPHIC SURVEY DATA FOR THIS PROJECT. A FULL GRADING PLAN HAS NOT BEEN DEVELOPED FOR THIS PROJECT. ALL GRADING, FINISH FLOOR ELEVATIONS AND GRADING SHALL BE COMPLETED AS PER CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FINAL GRADES AND FINISH FLOOR. FINISH FLOOR SHALL BE 18 INCHES ABOVE CROWN OF ROAD AT HIGHEST POINT ADJACENT TO LOT.

LEGEND FOR NEW UTILITIES:

PROPERTY LINE	— P / L —
SET BACK LINE	-SB / L — SB / L-
POWER LINE	- V — V -
GAS LINE	-GAS — GAS —
WATER LINE	— C / W — C / W-
SANITARY SEWER	— S — S -
DRAINAGE ARROWS	→



GOULDING CACTIA
RESIDENTIAL PLAN
PARCEL # H-333-B-1-A
SEC 34, T41S, R13W, SLB&M
220 W 200 N
HURRICANE CITY, UT 84737

LOT LAYOUT

DATE:

7/10/2023

*SCALE:

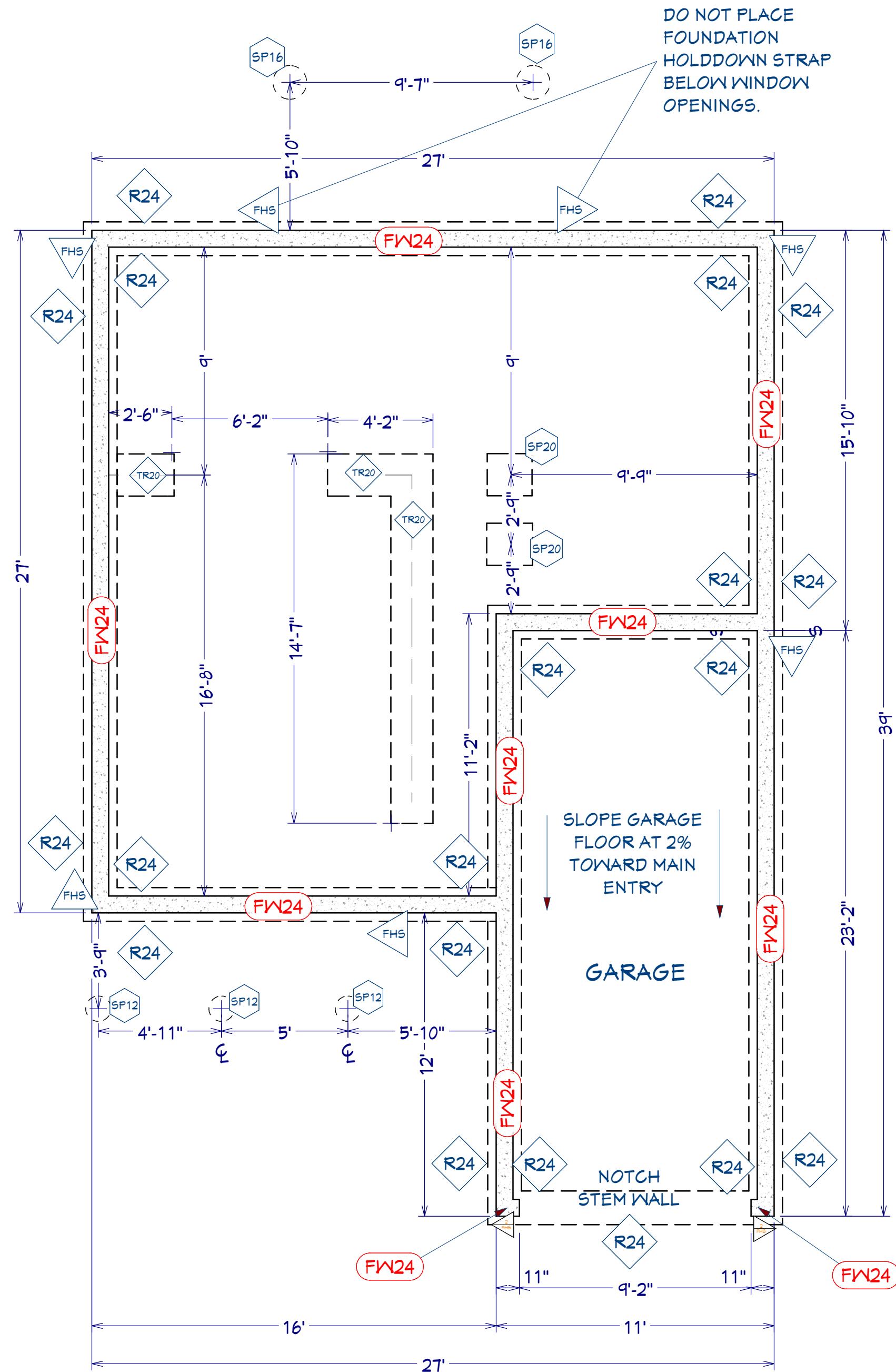
1/4" = 1' 1/8" = 1'
(*24X36) (*11X17)

SHEET:

L1

FOUNDATION NOTES:

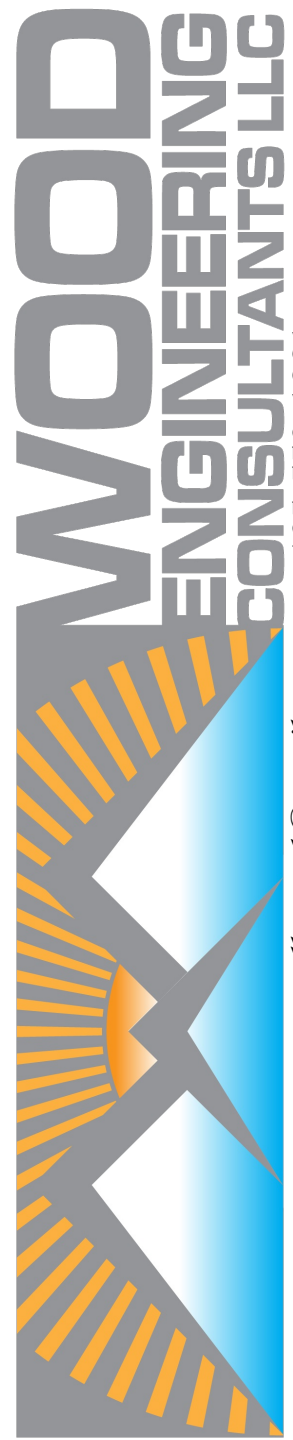
- 1 BOTTOM OF FOOTING SHALL BEAR ON UNDISTURBED SOIL OR AS OTHERWISE REQUIRED BY GEOTECHNICAL REPORT.
- 2 MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS
- 3 FOUNDATION HOLD DOWN STRAPS SHALL BE INSTALLED ON ALL WALLS GREATER THAN 3 FEET IN LENGTH AS PER FOOTING/FOUNDATION PLAN. HOLD DOWN STRAPS SHALL MEET OR EXCEED SIMPSON STRONG-TIE STD14J, ESR-2523. IT IS THE RESPONSIBILITY OF THE FOUNDATION CONTRACTOR TO VERIFY WINDOW LOCATIONS PRIOR TO INSTALLATION OF FOUNDATION HOLDDOWN STRAPS. NOTIFY ENGINEER IF ANY STRAP LOCATIONS APPEAR TO BE BELOW AN OPENING OR WINDOW ON ANY ABOVE GROUND FLOORS. FOUNDATION HOLDOWN STRAPS SHALL BE INSTALLED WITHIN 6 INCHES OF CORNERS WHERE APPLICABLE.
- 4 STRUCTURAL STEEL SHALL BE GRADE 60. ALL STRUCTURAL STEEL WITHIN CONCRETE SHALL BE INSTALLED TO MAINTAIN A DISTANCE OF 2 INCHES FROM ANY SURFACE OF THE CONCRETE AND MUST BE TIED IN PLACE BEFORE POURING.
- 5 ANCHOR BOLTS SHALL BE INSTALLED PER LOCAL CODES AND SHALL BE A MINIMUM OF 1/2 INCH DIAMETER X10 INCHES @ 32 INCHES O.C. WITH A SQUARE PLATE WASHER AND NUT.
- 6 CONTROL JOINTS ON ALL CONCRETE SHALL BE SPACED NOR MORE THAN 12 FEET ON ALL CONCRETE FLAT WORK.
- 7 FOUNDATION SHALL BE A MINIMUM OF 18 INCHES ABOVE EXISTING CROWN OF ROAD OR 12 INCHES ABOVE EXISTING STREET ADJOINING CURB AT HIGHEST POINT ADJACENT TO LOT. SOME LOCAL CODES MAY REQUIRE ADJUSTMENTS TO THIS NOTE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH LOCAL GOVERNMENT TO DETERMINE FINISH FLOOR ELEVATION RESTRICTIONS.
- 8 BOTTOM OF FOOTING TO BE A MINIMUM OF 12 INCHES FROM NATURAL GRADE SURFACE (FROST DEPTH). TOP OF STEMWALL MUST BE 6 INCHES ABOVE FINAL GRADE WHERE APPLICABLE
- 9 WOOD ENGINEERING CONSULTANTS, LLC IS NOT RESPONSIBLE FOR LOT LINE VERIFICATION OR TOPOGRAPHIC SURVEY DATA FOR THIS PROJECT. A FULL GRADING PLAN HAS NOT BEEN DEVELOPED FOR THIS PROJECT. ALL GRADING, FINISH FLOOR ELEVATIONS AND GRADING SHALL BE COMPLETED AS PER CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FINAL GRADES AND FINISH FLOOR. FINISH FLOOR SHALL BE 18 INCHES ABOVE CROWN OF ROAD AT HIGHEST POINT ADJACENT TO LOT.



FOUNDATION LAYOUT

FOUNDATION DESIGN NOTES:

- (2) TWO FOUNDATION HOLDOWN STRAPS REQUIRED SEE NOTES SHEET 0 & SEE DETAIL SHEETS FOR GARAGE OPENING
- FOUNDATION HOLDOWN STRAP REQUIRED SEE NOTES & DETAIL SHEETS FOR INSTALLATION & MATERIAL REQUIREMENTS.
- 4" THICK SLAB SEE DETAIL SHEETS
- 24"x12" CONTINUOUS FOOTING (2) #4 REBAR CONTINUOUS #4 VERTICAL REBAR PLACED AT 24" O.C.
- 20"x10" CONTINUOUS SLAB FOOTING (2) #4 REBAR CONTINUOUS
- 20"x10" IN SLAB SPOT FOOTING (4) #4 REBAR GRID EVENLY SPACED
- 12" DIAMETER OR 12"x12" SPOT FOOTING (4)#4 REBAR GRID EVENLY SPACED
- 16" DIAMETER OR 16"x16" SPOT FOOTING (4)#4 REBAR GRID EVENLY SPACED
- 8" THICK X 24" STEM WALL, (2) #4 REBAR CONTINUOUS HORIZONTALLY, #4 VERTICAL REBAR @ 24" O.C.
- OR
- (2) 8"x8"x16" CMU BLOCK NOTCHED FOR SLAB AS PER DETAIL, (2) #4 REBAR CONTINUOUS HORIZONTALLY, #4 VERTICAL REBAR @ 24" O.C. TIED INTO SLAB OR
- 8" THICK X 6" STEM WALL, (2) #4 REBAR CONTINUOUS HORIZONTALLY, #4 VERTICAL REBAR @ 24" O.C., MONOLITHIC SLAB POUR IS AN ACCEPTABLE CONSTRUCTION METHOD IN CONJUNCTION WITH STEM WALL AND FLOOR POUR. MAINTAIN FOOTING DEPTH.



Goulding CACTA
RESIDENTIAL PLAN
PARCEL # H-333-B-1-A
SEC 34, T41S, R13W, S1R&M
220 W 200 N
HURRICANE CITY, UT 84737

FOUNDATION LAYOUT

DATE:

7/10/2023

*SCALE:

1/4" = 1' 1/8" = 1'
(*24X36) (*11X17)

SHEET:

S1

SHEAR WALL SCHEDULE:

SHEATHING THICKNESS:	STAPLE SIZE:	SPACING EDGE/PLANE:	LABEL:
7/16"	4/8	16 gauge	6"
* ALL WALLS NOT LABELED			

7/16"	2/12	0.131x2-1/2"	3"
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ATTIC DESIGN NOTES:

1. VENTILATION FOR ALL ATTIC SPACES SHALL BE PER IRC SECTION R806
2. ATTIC ACCESS SHALL BE CONSTRUCTED AS PER IRC SECTION R801 WHERE APPLICABLE

HEADER SCHEDULE:

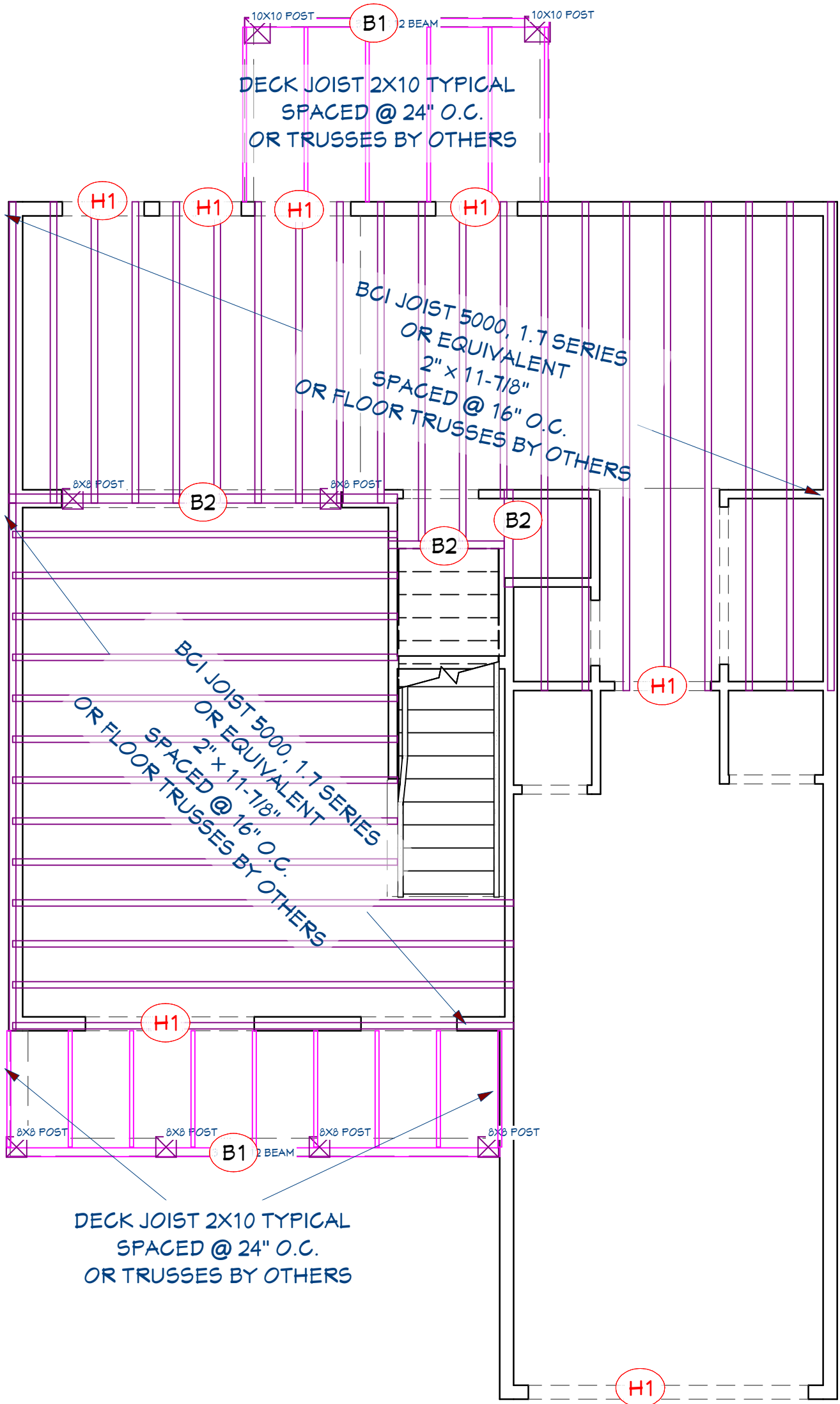
OPENING WIDTH	LOAD BEARING & SHEAR WALLS	NON-LOAD BEARING WALLS
0-3 FEET	(2) 2X6 NOMINAL	(2) 2X4 NOMINAL
3-5 FEET	(2) 2X10 NOMINAL	(2) 2X4 NOMINAL
5-7 FEET	(2) 2X12 NOMINAL or (3) 2x10 NOM.	(2) 2X6 NOMINAL
7-9 FEET	(2) 2X12 NOMINAL W/ PLYWOOD BETWEEN or (3) 2x10 NOM. w/plywood between	(2) 2X8 NOMINAL

OVER 9 FEET:

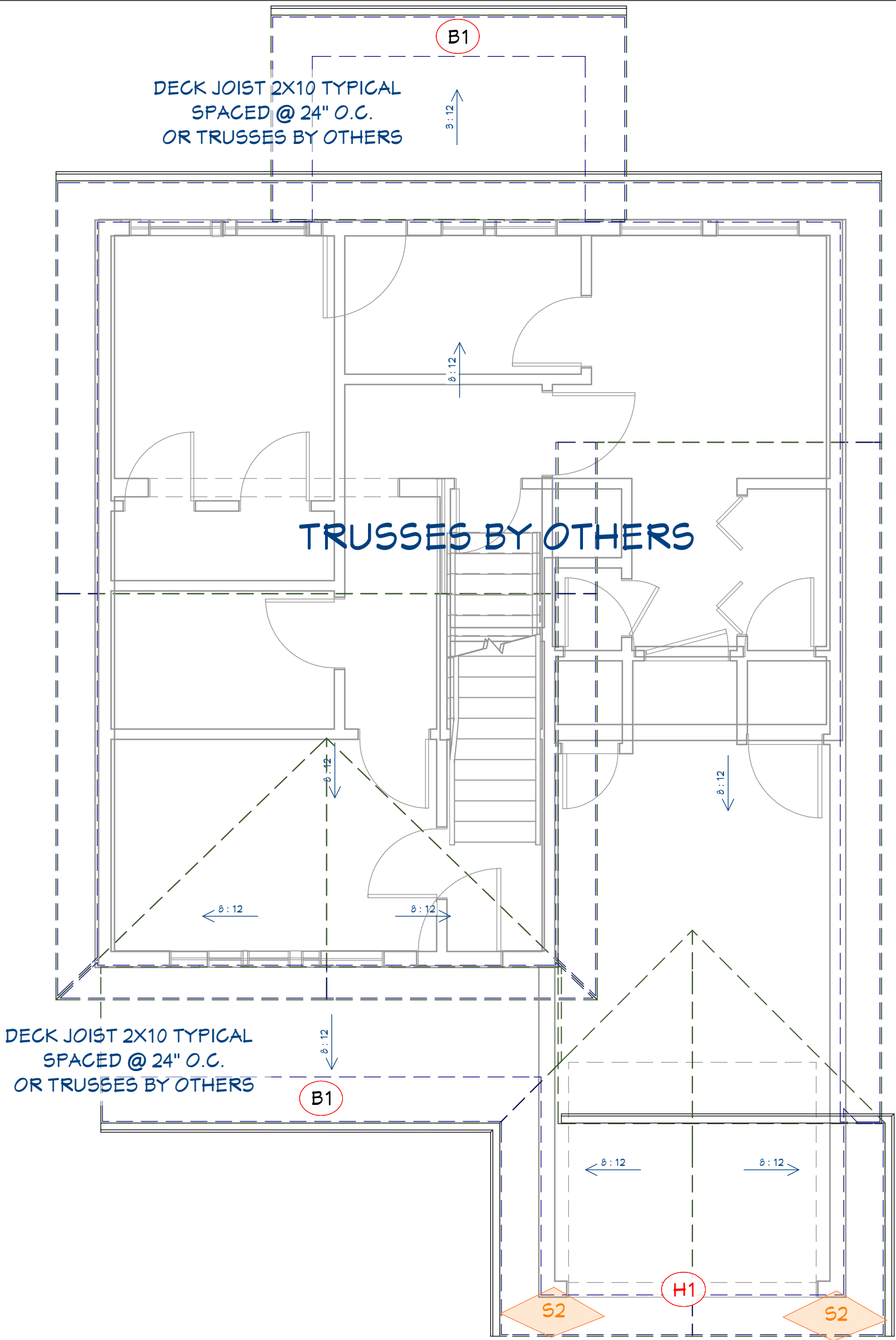
BEAM AND HEADER SCHEDULE:

LABEL: STRUCTURAL ELEMENT:

- H1** (2) 1-3/4" x 11-7/8 BCI LVL VERSA-LAM 2.1E 3100 (TYP)
OR (1) 3-1/8" X 12" BOISE GLULAM BEAM 24F-V4
- H2** (3) 1-3/4" x 11-7/8 BCI LVL VERSA-LAM 2.1E 3100
OR
(1) 5-1/8" X 12" BOISE GLULAM BEAM 24F-V4
- B1** (2) 1-3/4" x 11-7/8 BCI LVL VERSA-LAM 2.1E 3100 (TYP) WRAPPED WHEN EXPOSED TO ELEMENTS
OR
(1) 3-1/8" X 12" BOISE GLULAM BEAM 24F-V4 PAINTED/STAINED
- B2** (3) 1-3/4" x 11-7/8 BCI LVL VERSA-LAM 2.1E 3100 (TYP) WRAPPED WHEN EXPOSED TO ELEMENTS
OR
(1) 5-1/8" X 12" BOISE GLULAM BEAM 24F-V4 PAINTED/STAINED

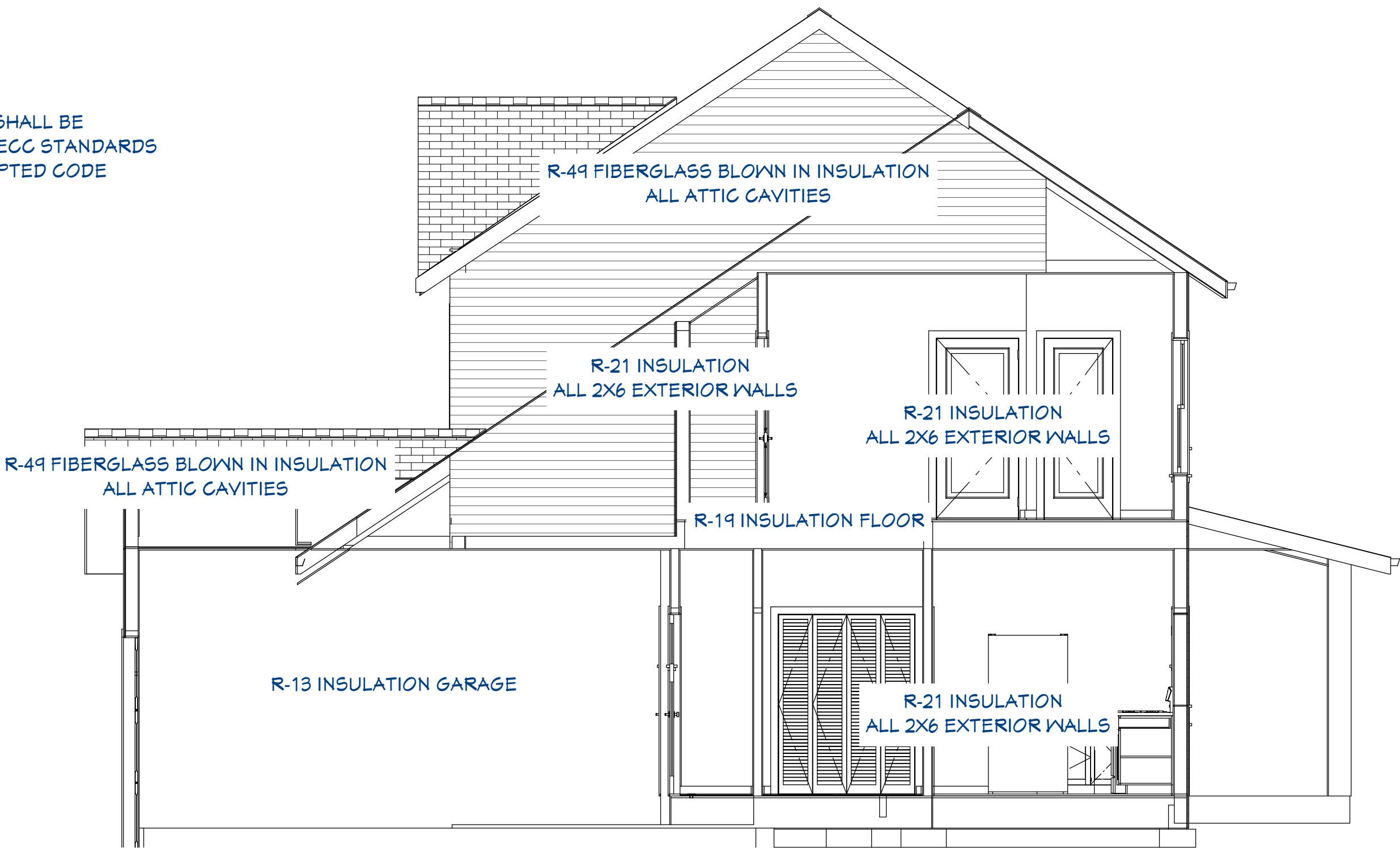


**FLOOR JOIST LAYOUT AND
ROOF PORCH ROOF LAYOUT**



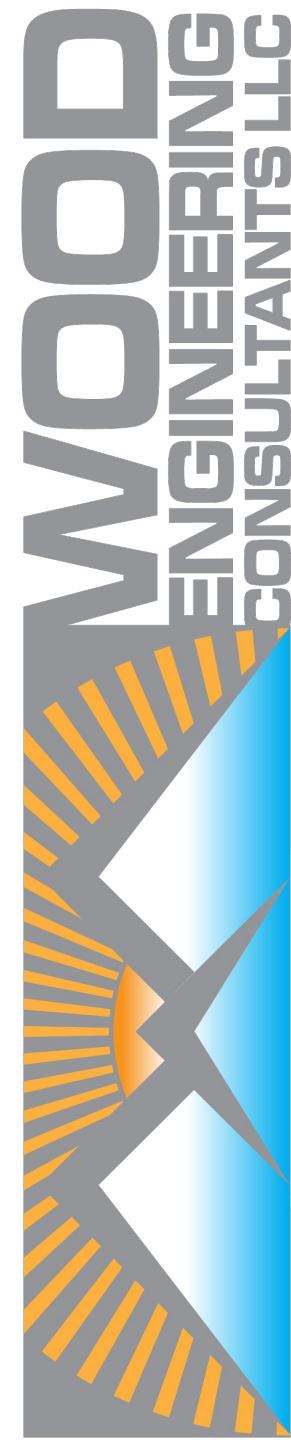
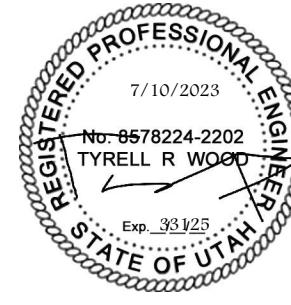
ROOF LAYOUT

CONSTRUCTION SHALL BE
PRESCRIPTIVE TO 2015 IECC STANDARDS
OR UTAH 2012 ADOPTED CODE



THERMAL ENVELOPE

ATTIC VENTILATION REQUIREMENTS:
1025 SQ. FT. ATTIC AREA, 1025/300 = 3.42 SQ. FT. VENTING
AREA REQUIRED 3.42 SQ. FT. = 492.48 SQ. IN.
ROOF SHALL BE VENTED WITH RIDGE VENTS, GE VENTS,
TURTLE VENTS IN CONJUNCTION WITH SOFFIT VENTS &
MUST MEET OR EXCEED MINIMUM VENTING AREA.



GOULDING CACTIA
RESIDENTIAL PLAN
PARCEL # H-333-B-1-A
SEC 34, T41S, R13W, S18&M
220 W 200 N
HURRICANE CITY, UT 84737

FLOOR JOIST LAYOUT

DATE:

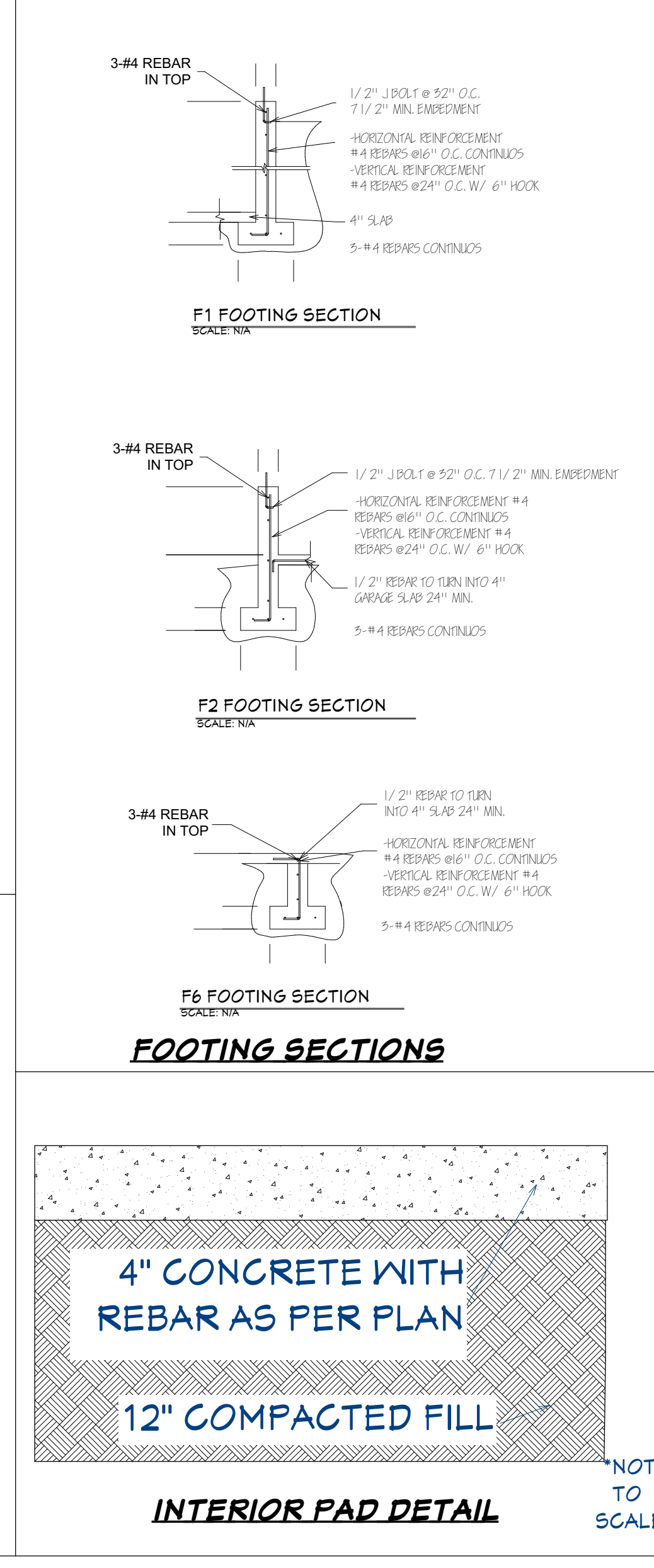
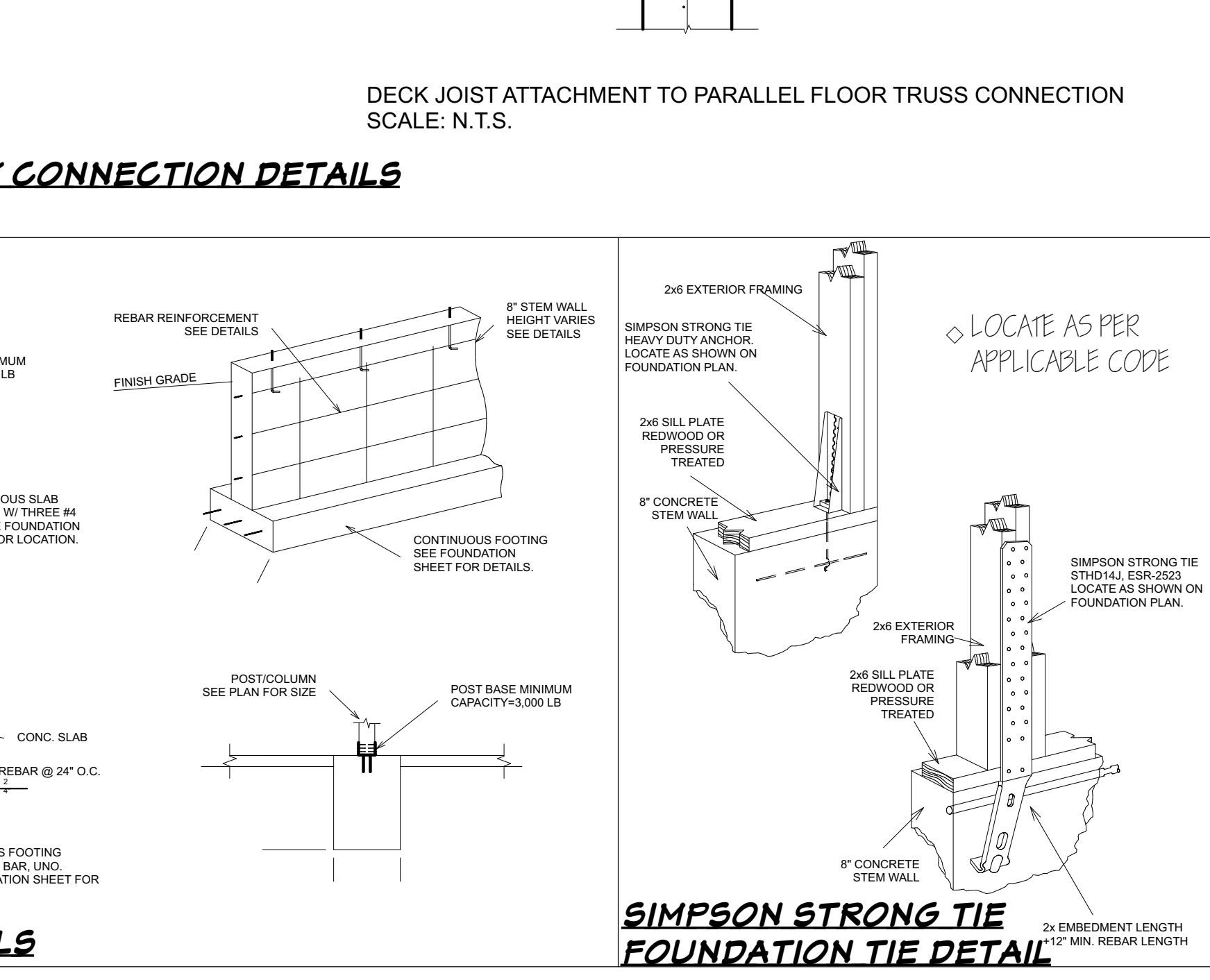
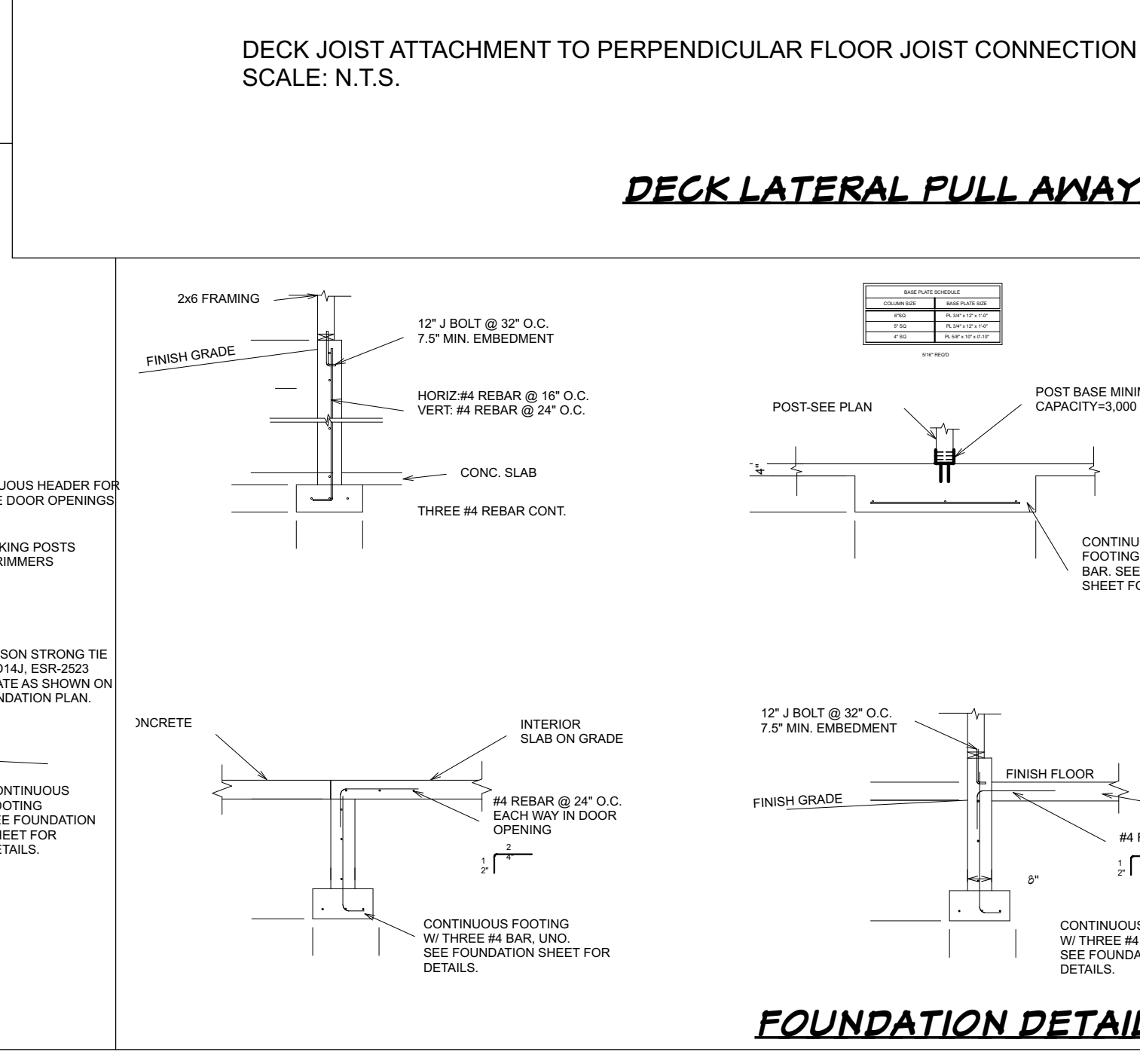
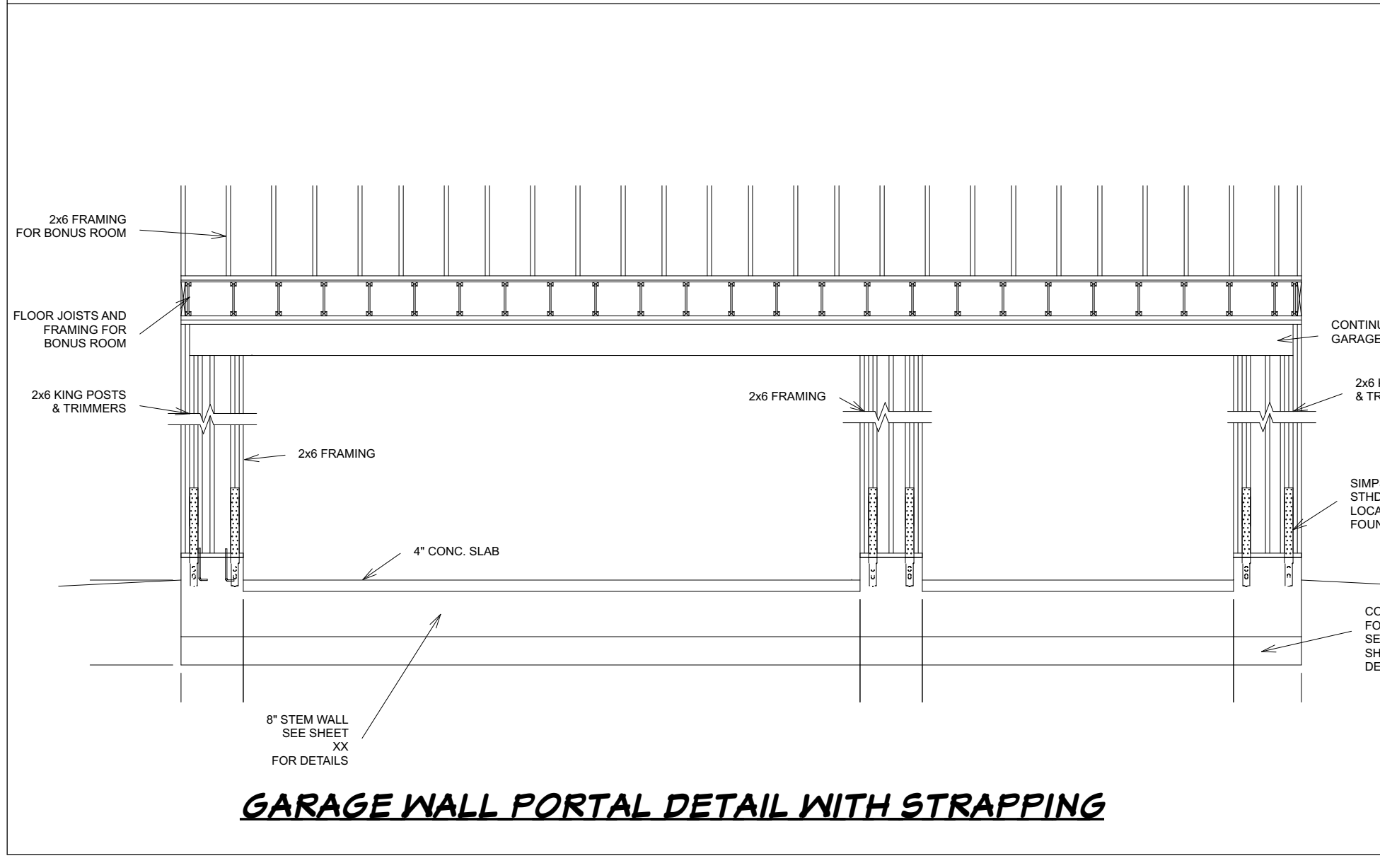
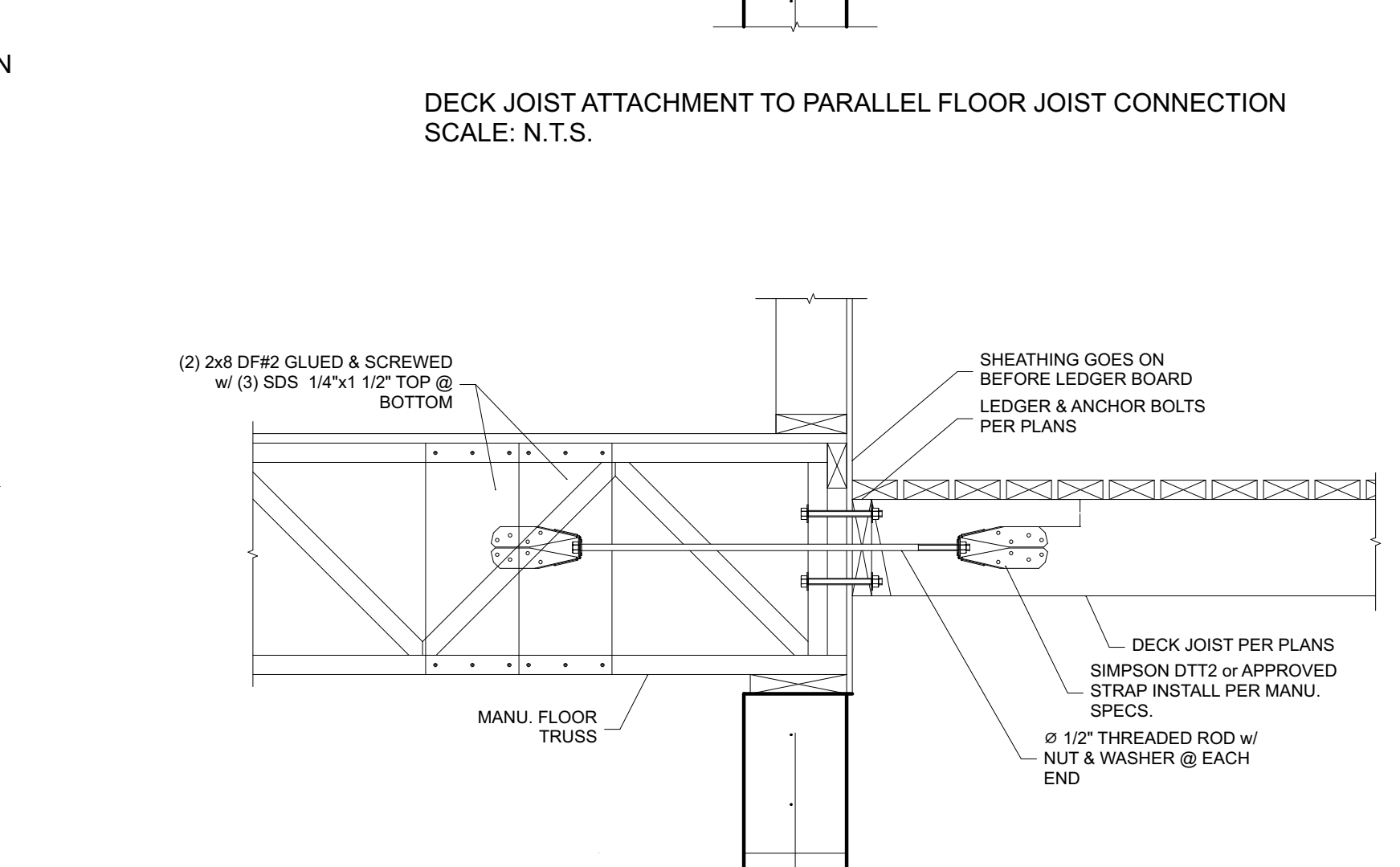
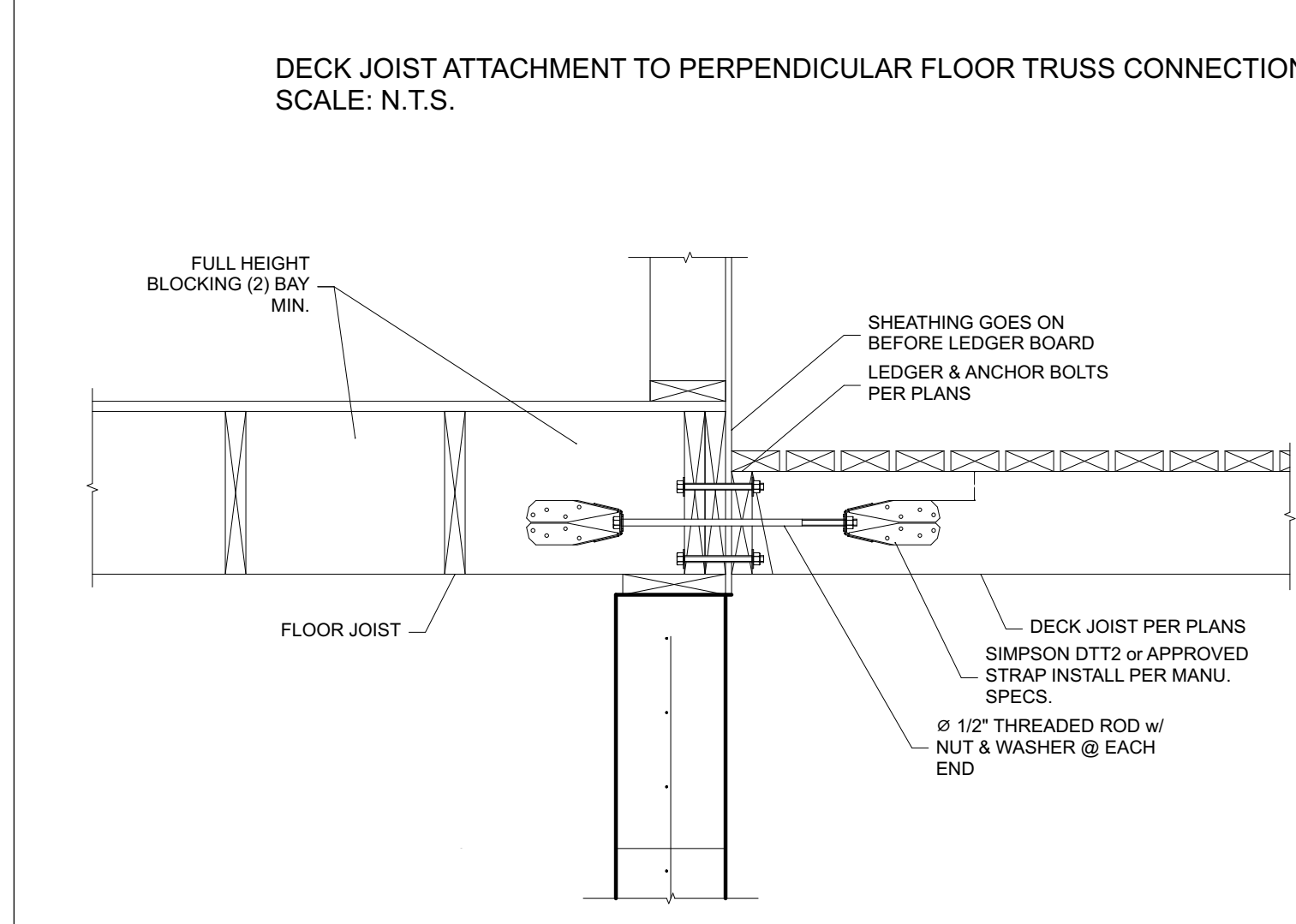
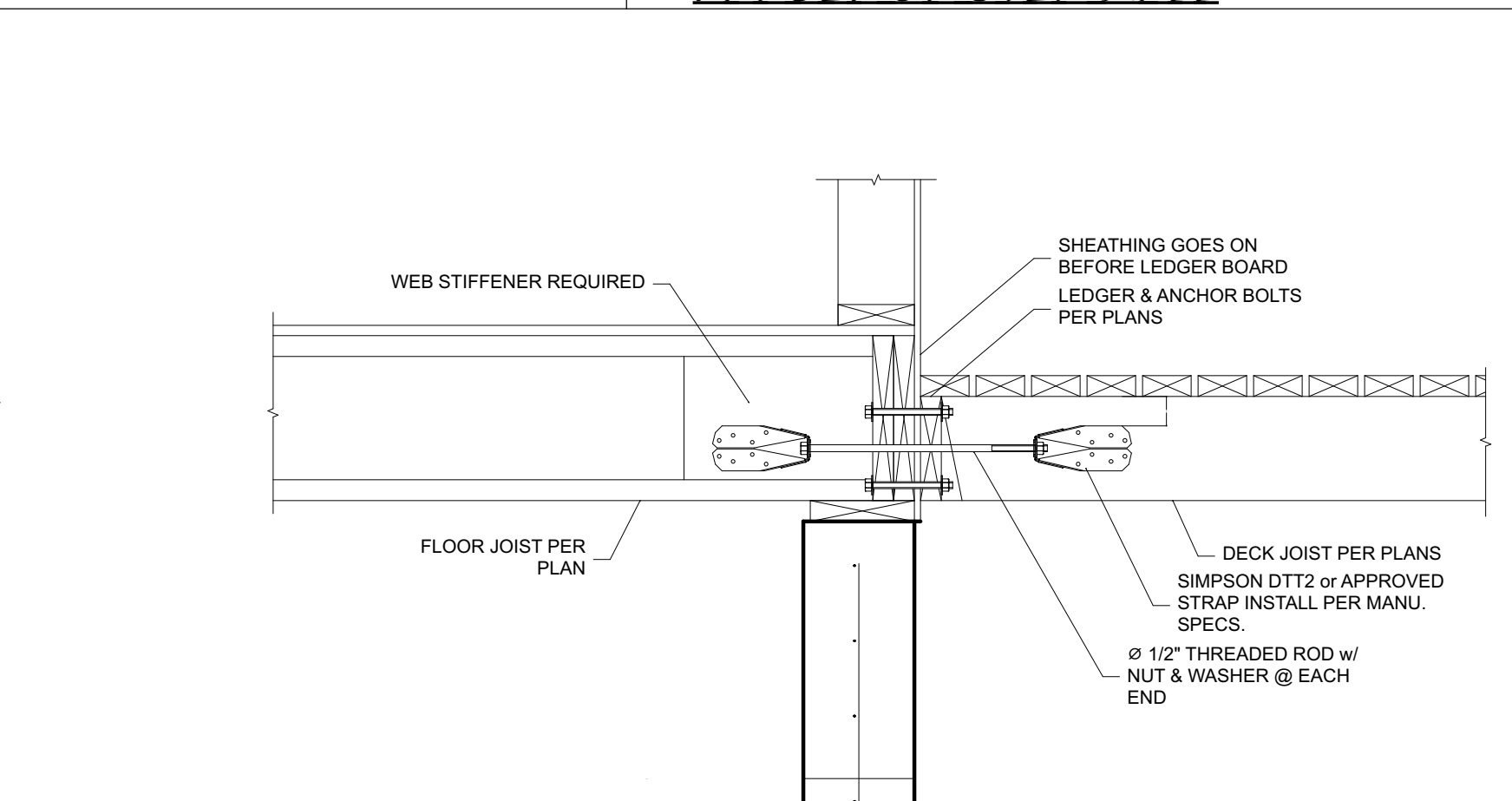
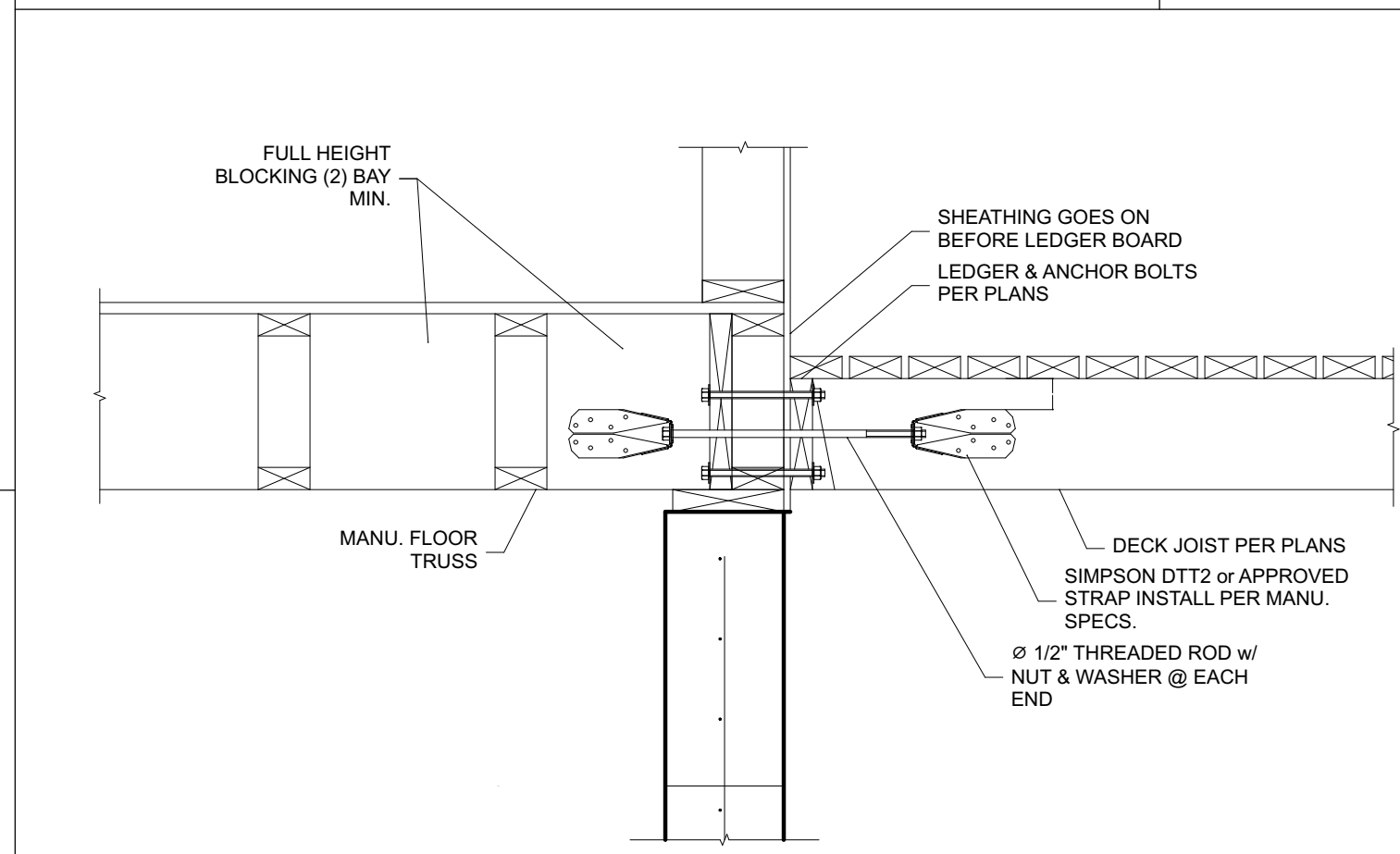
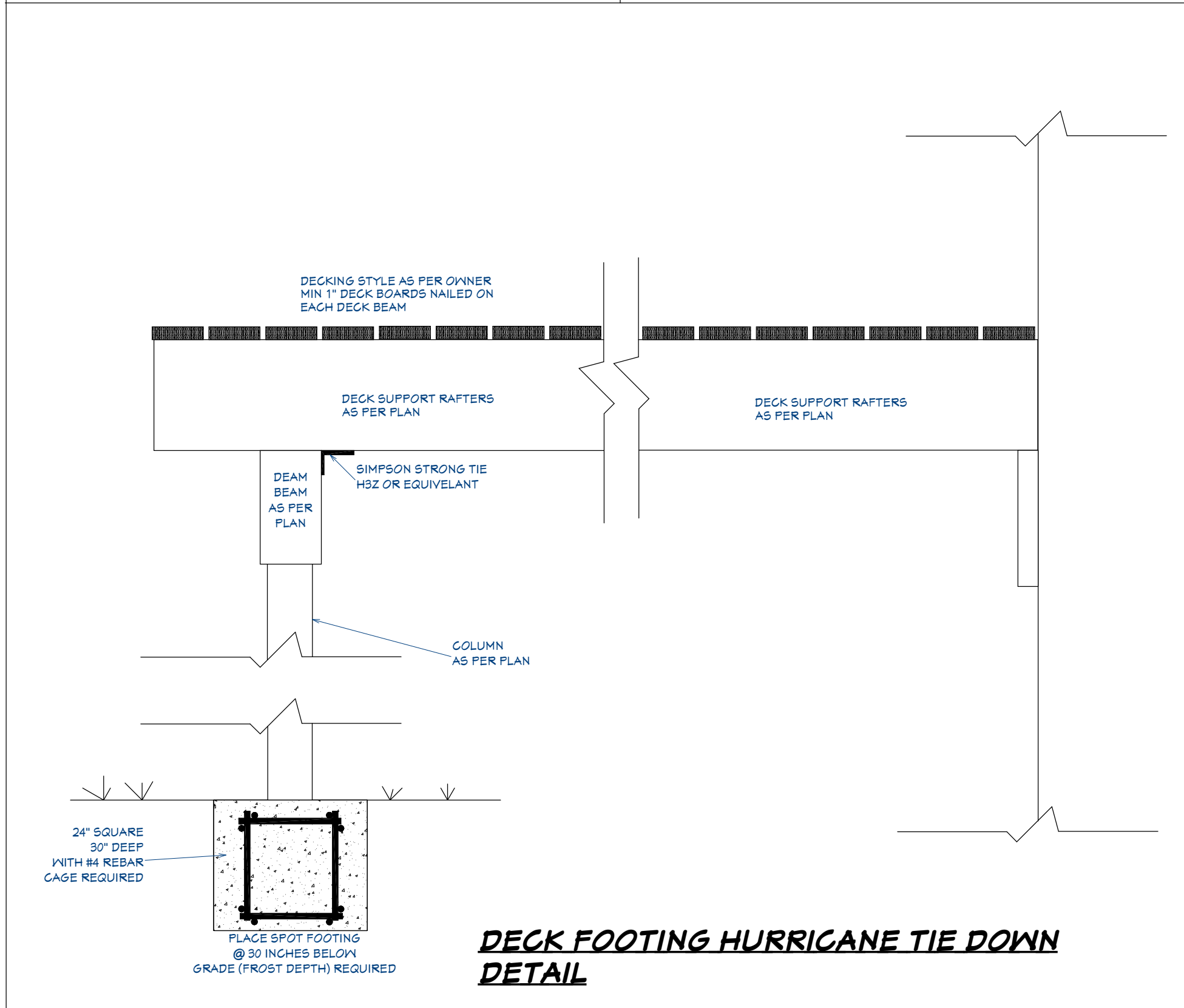
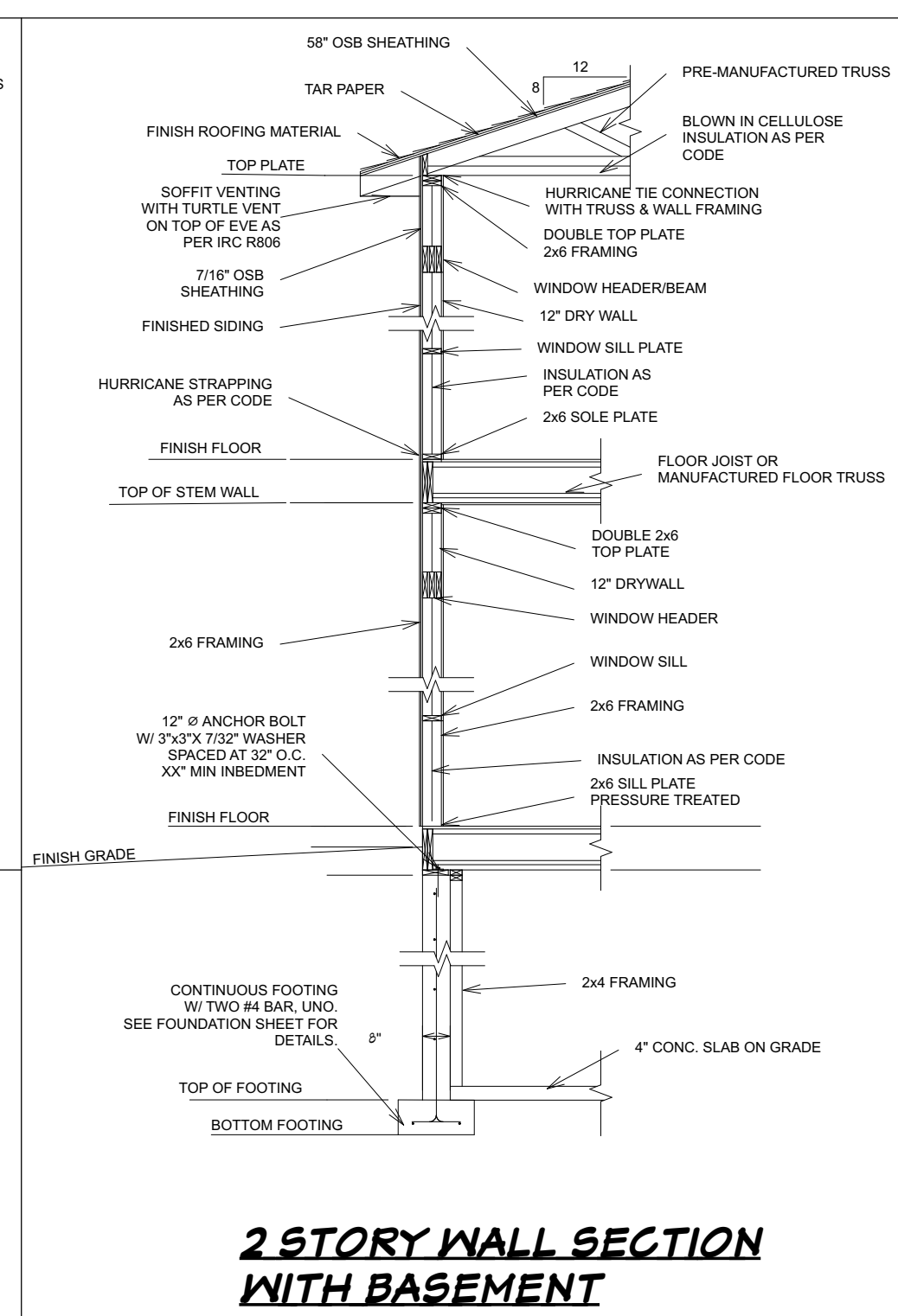
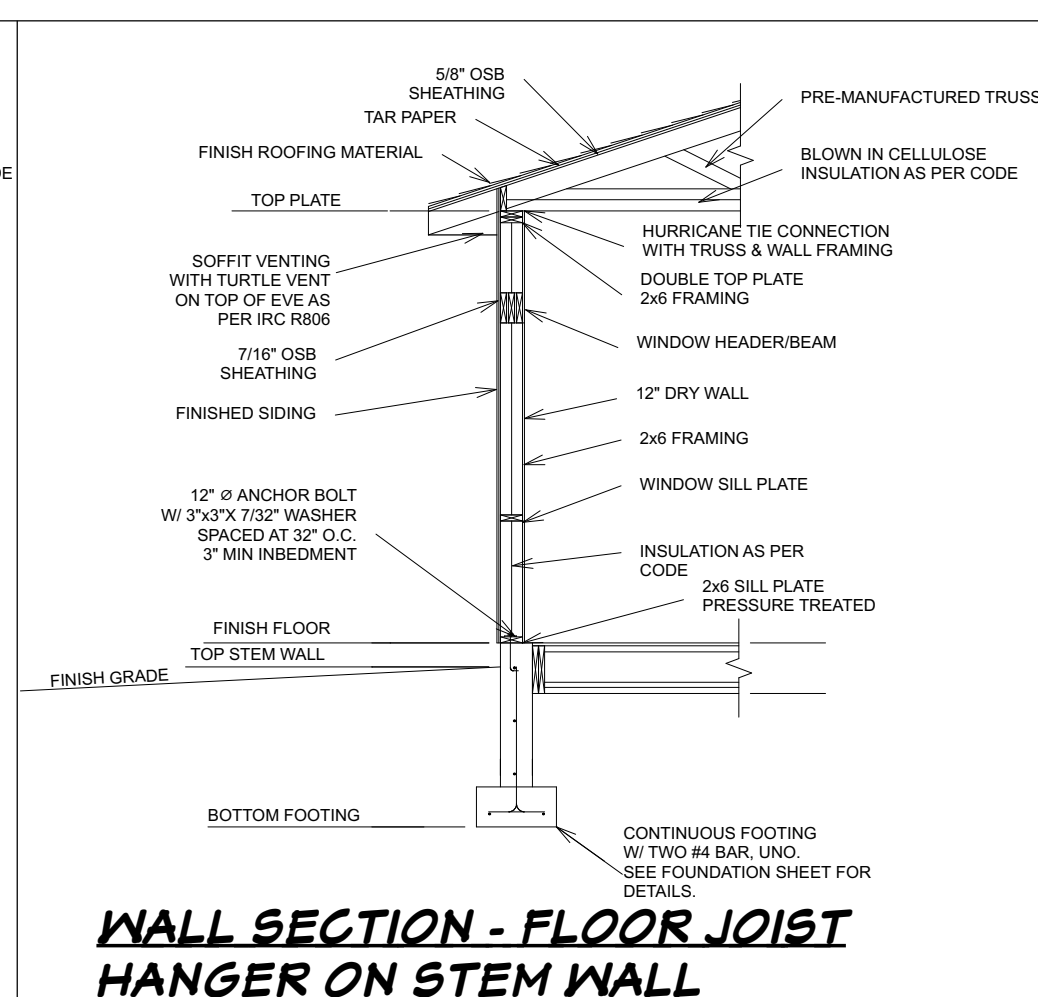
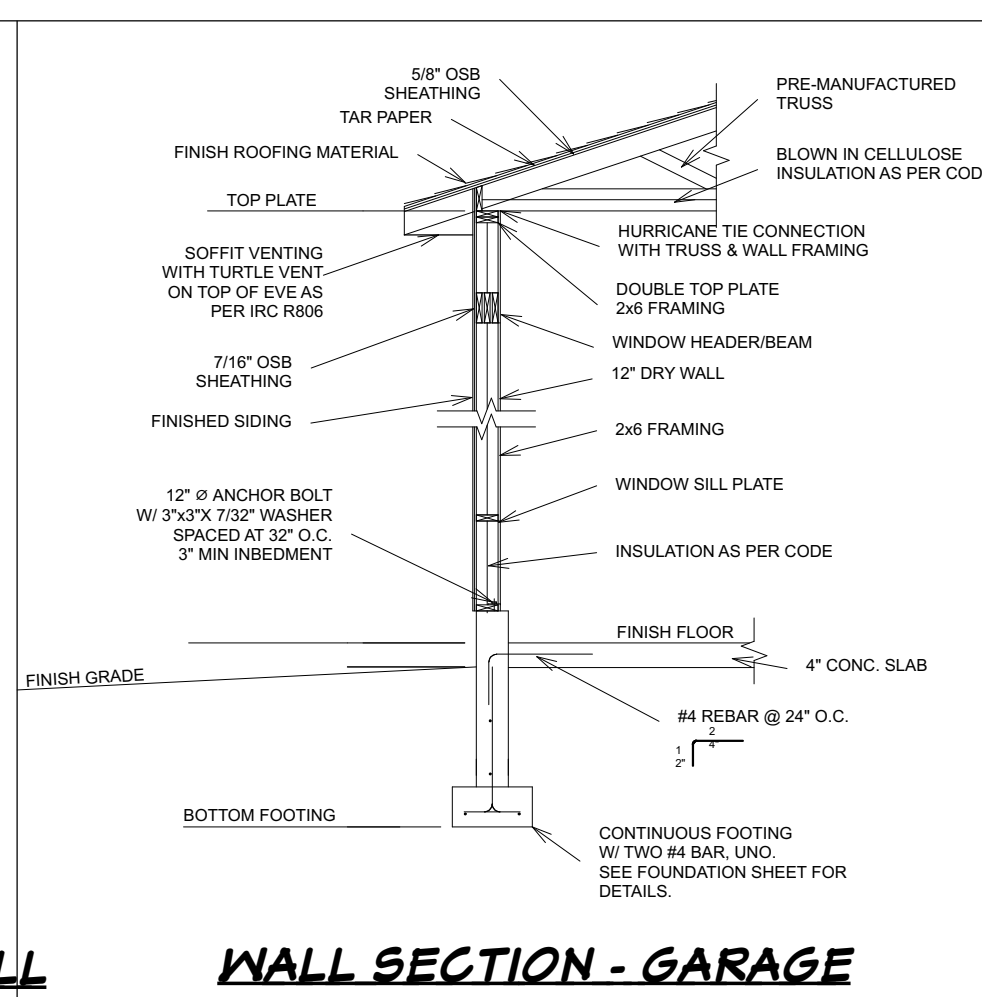
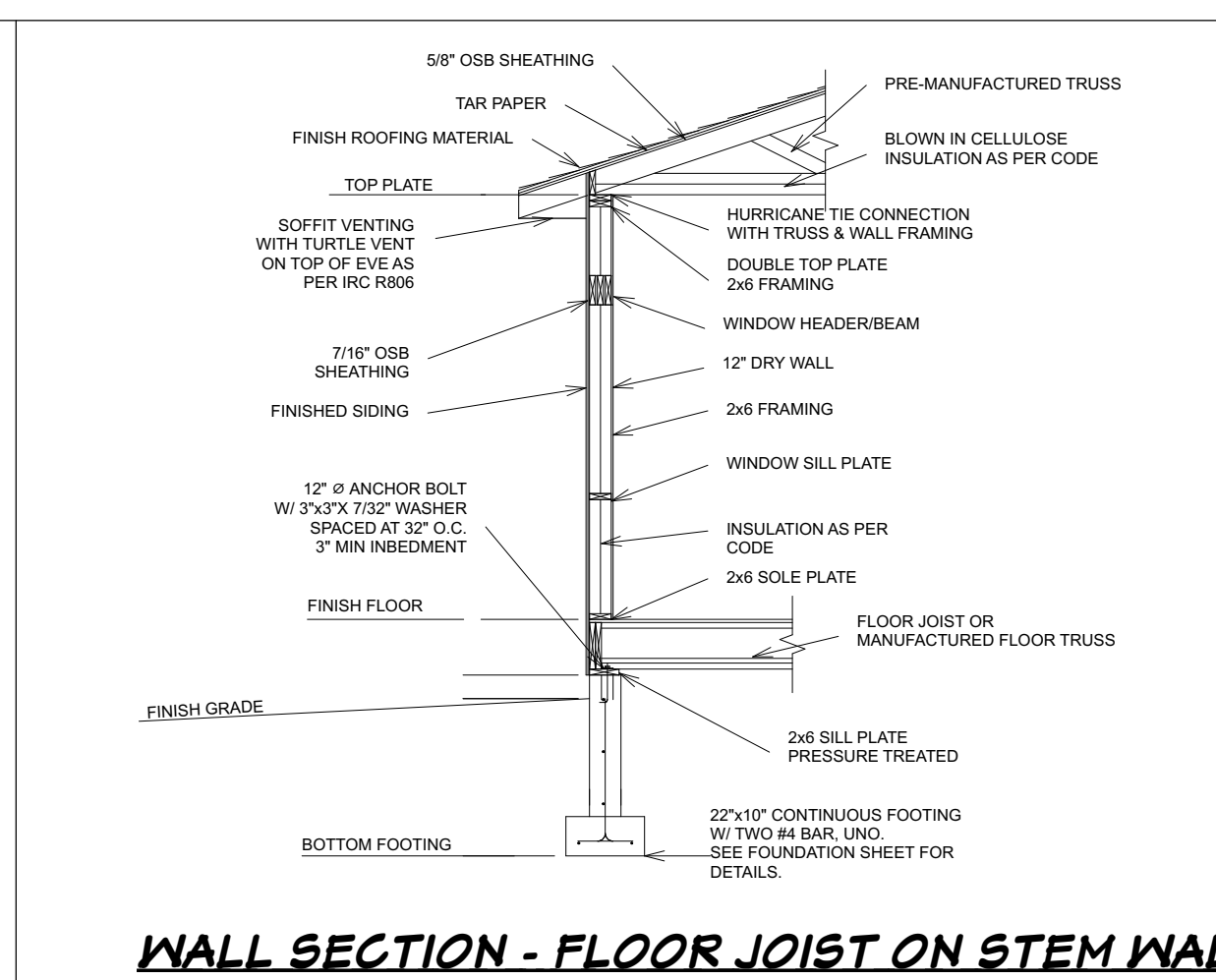
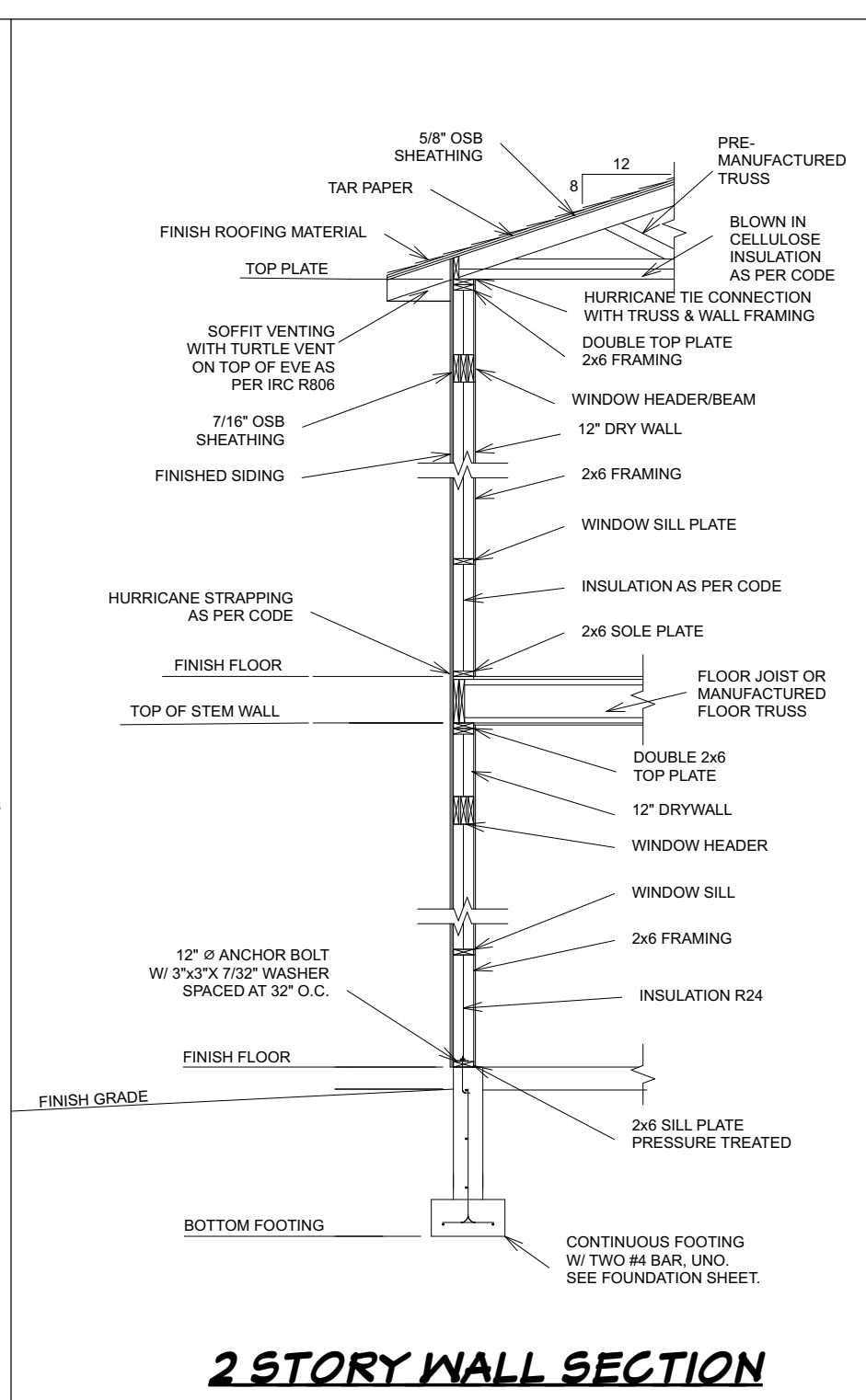
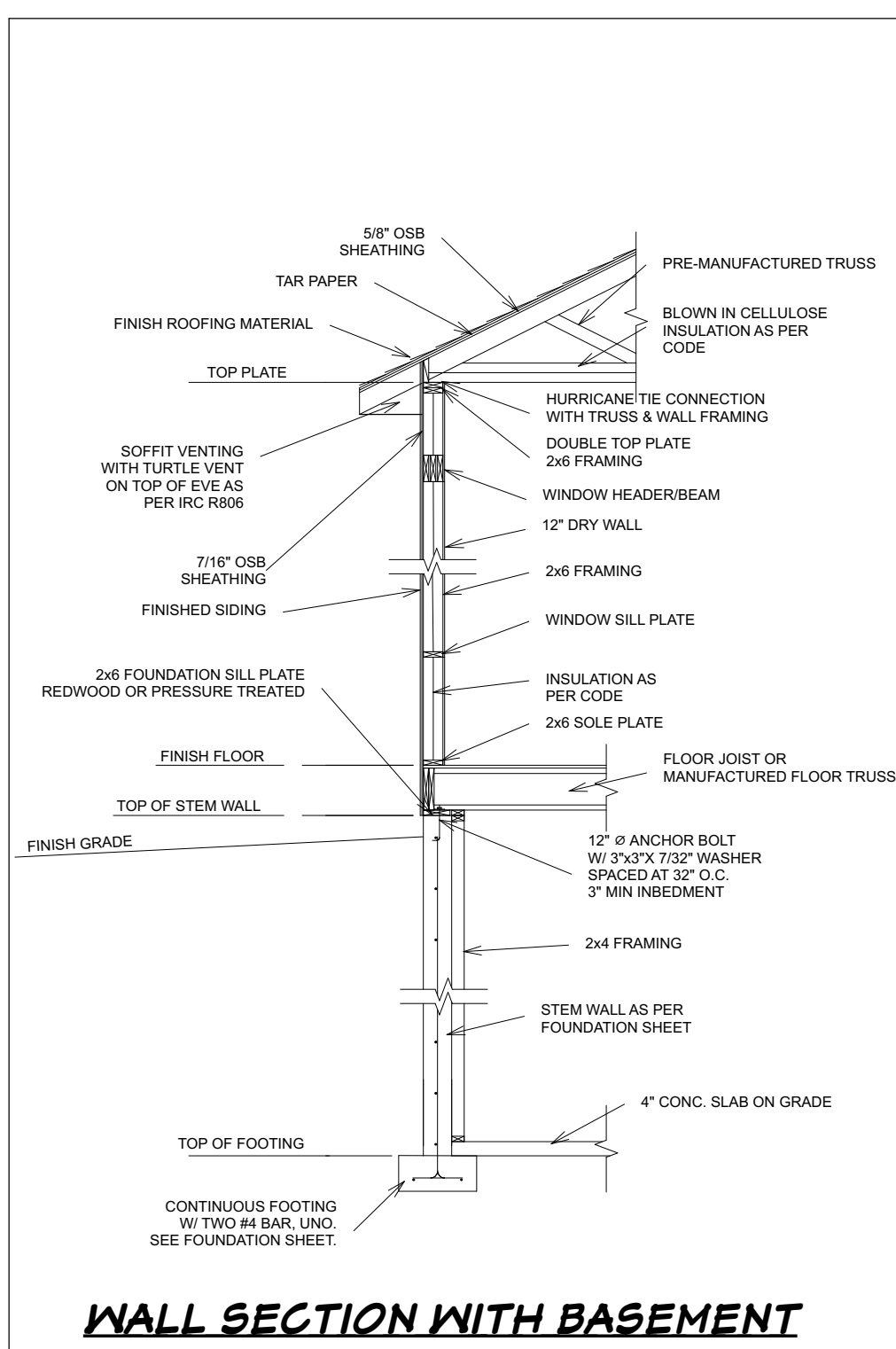
7/10/2023

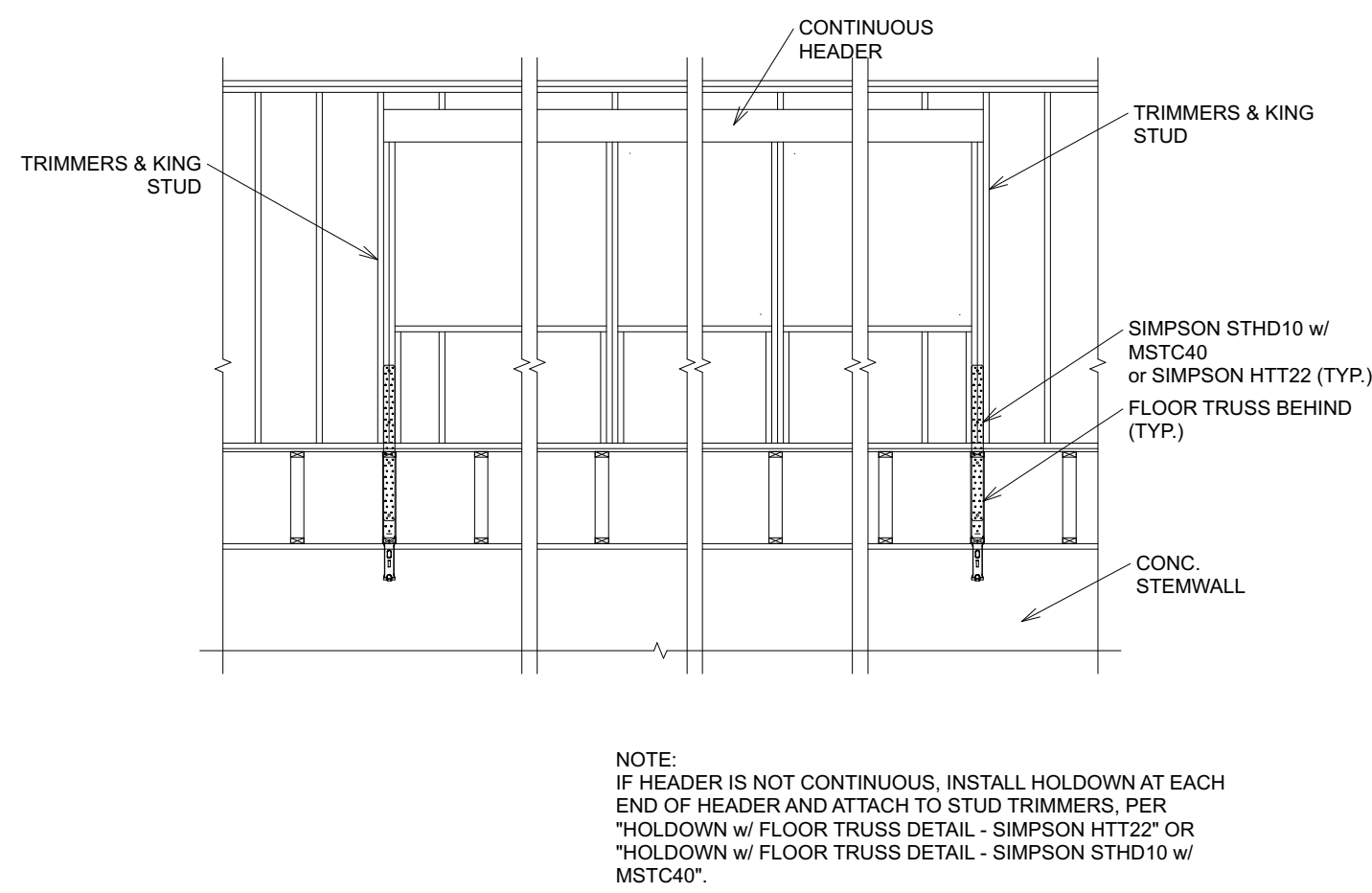
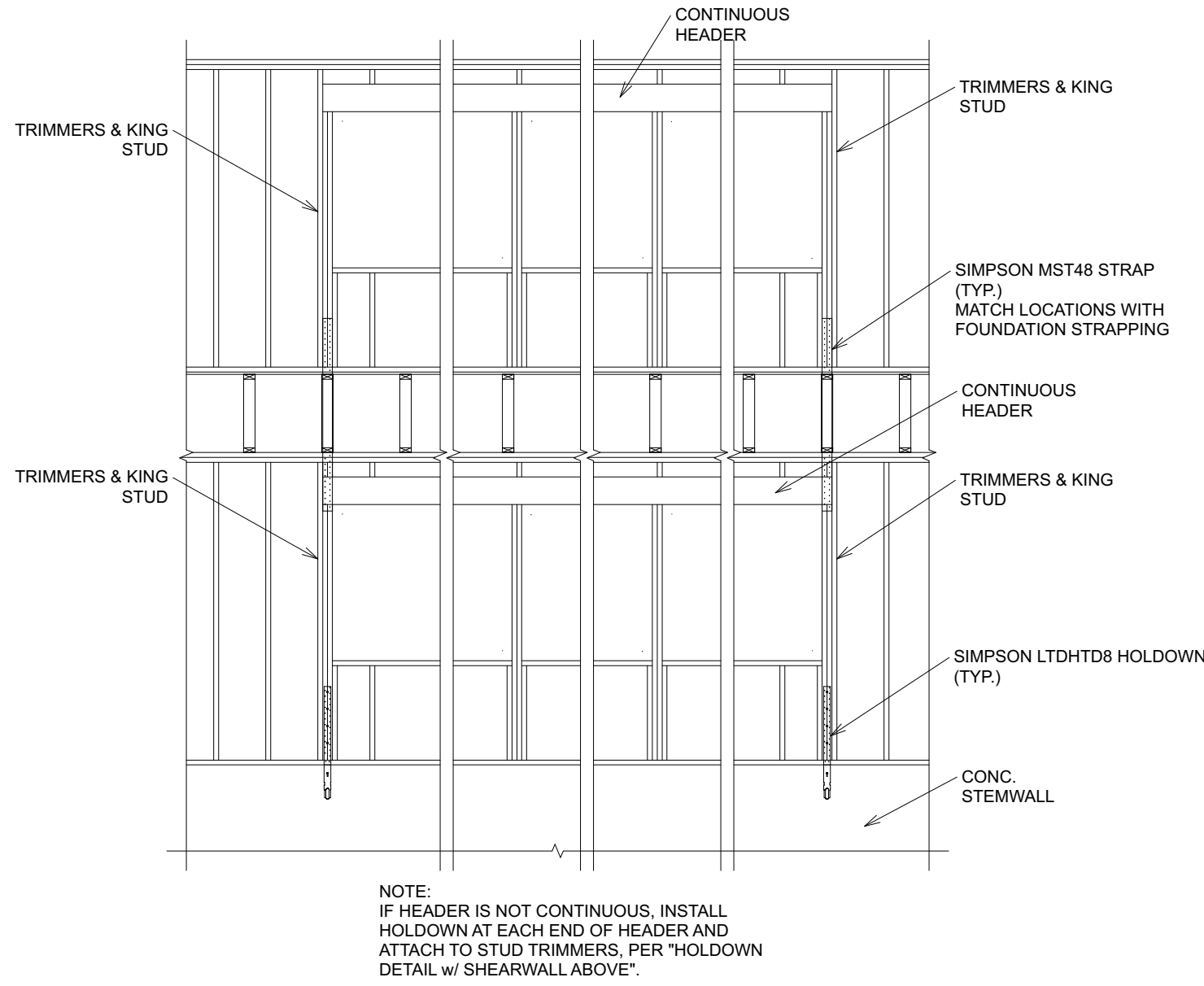
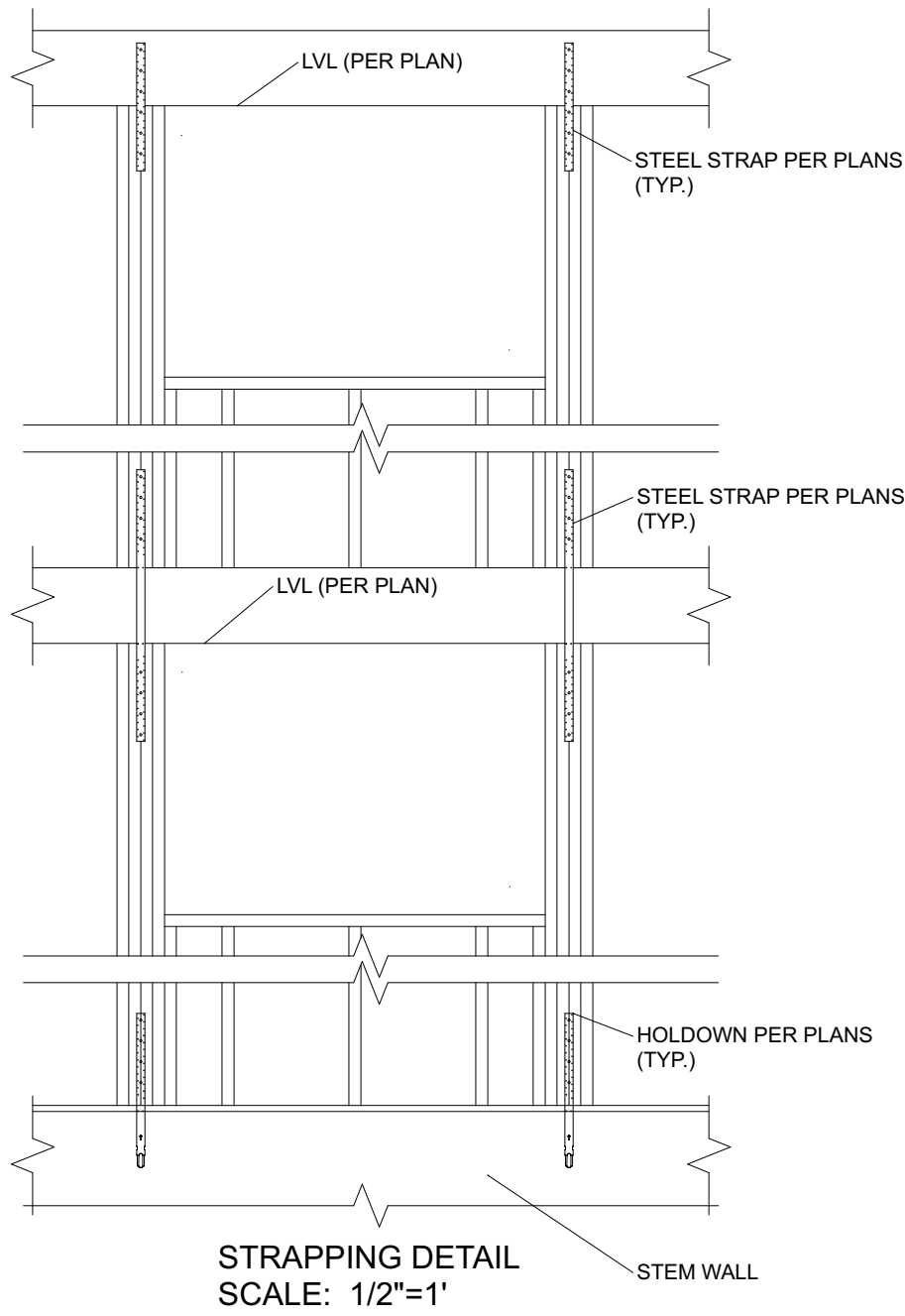
*SCALE:

1/4" = 1' 1/8" = 1'
(*24X36) (*11X17)

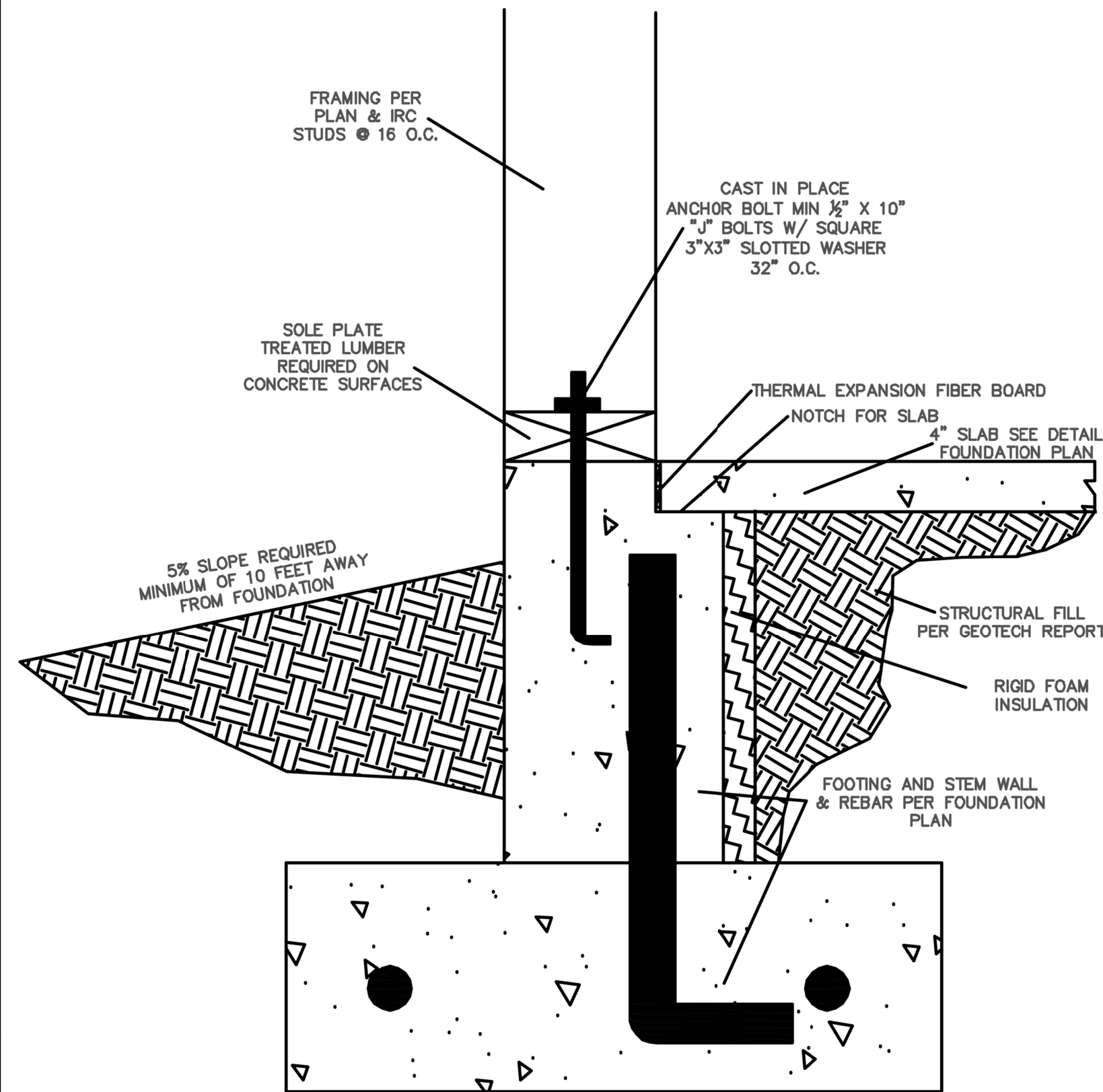
SHEET:

S2

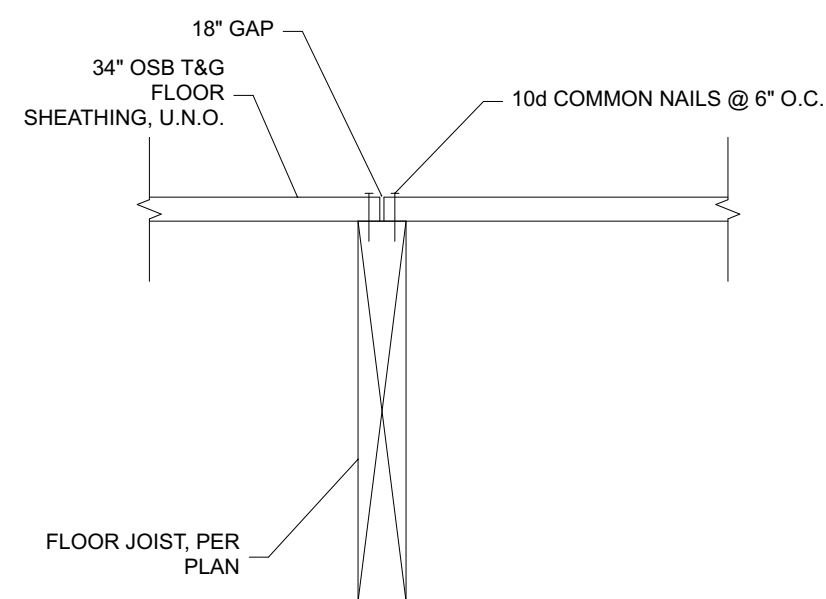




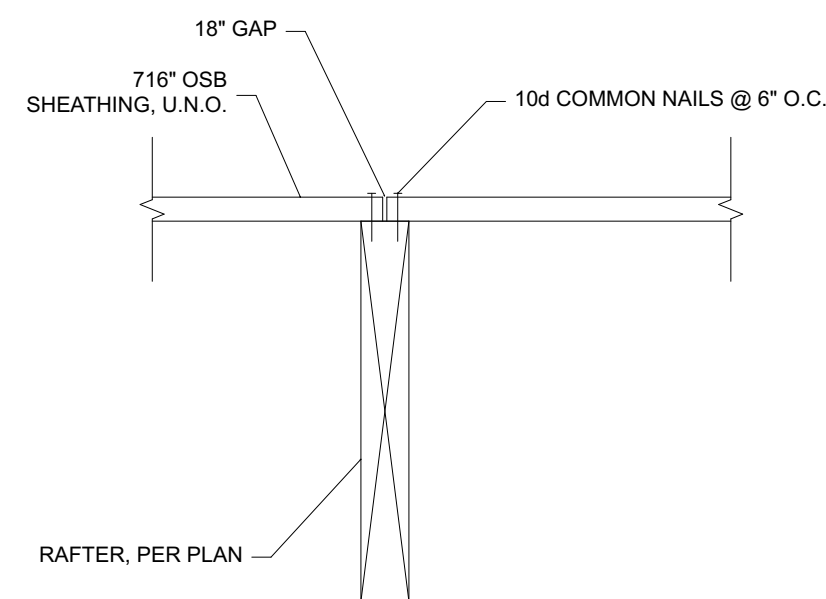
STRAPPING DETAILS



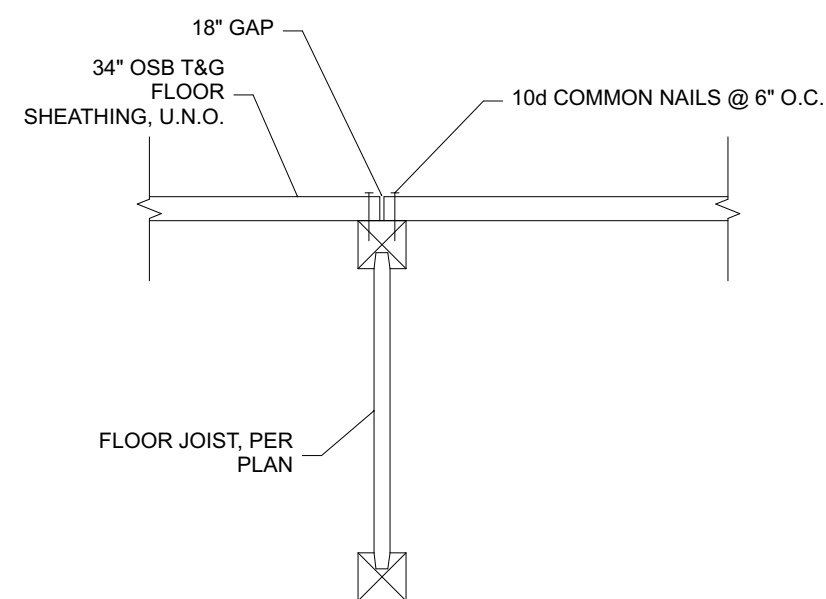
SLAB ANCHOR BOLT SPACING DETAIL



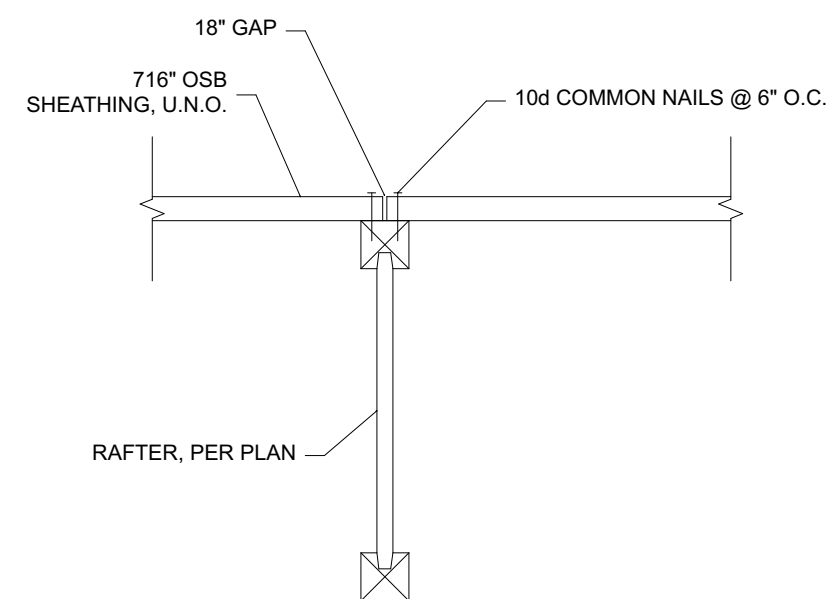
FLOOR SHEATHING @ FLOOR JOIST
SCALE: N.T.S.



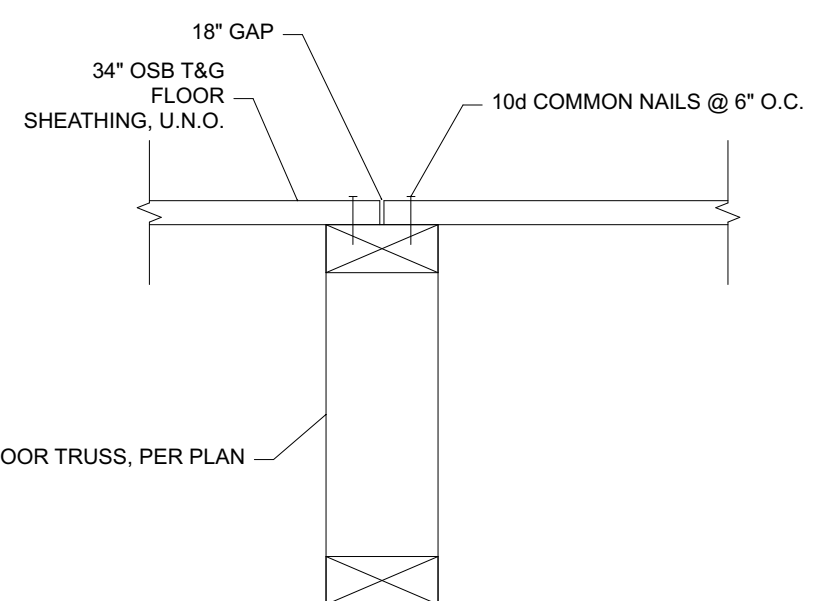
SHEATHING @ ROOF RAFTER
SCALE: N.T.S.



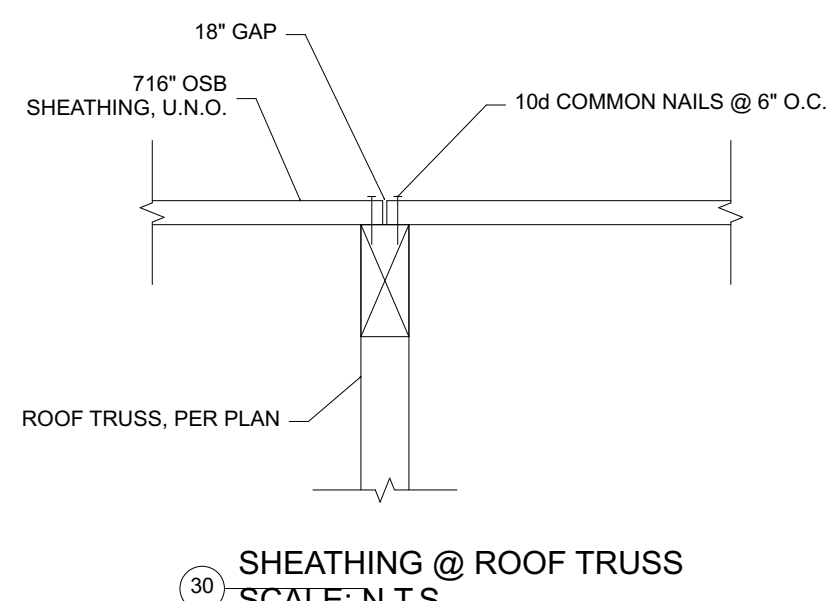
FLOOR SHEATHING @ FLOOR JOIST
SCALE: N.T.S.



SHEATHING @ ROOF RAFTER
SCALE: N.T.S.

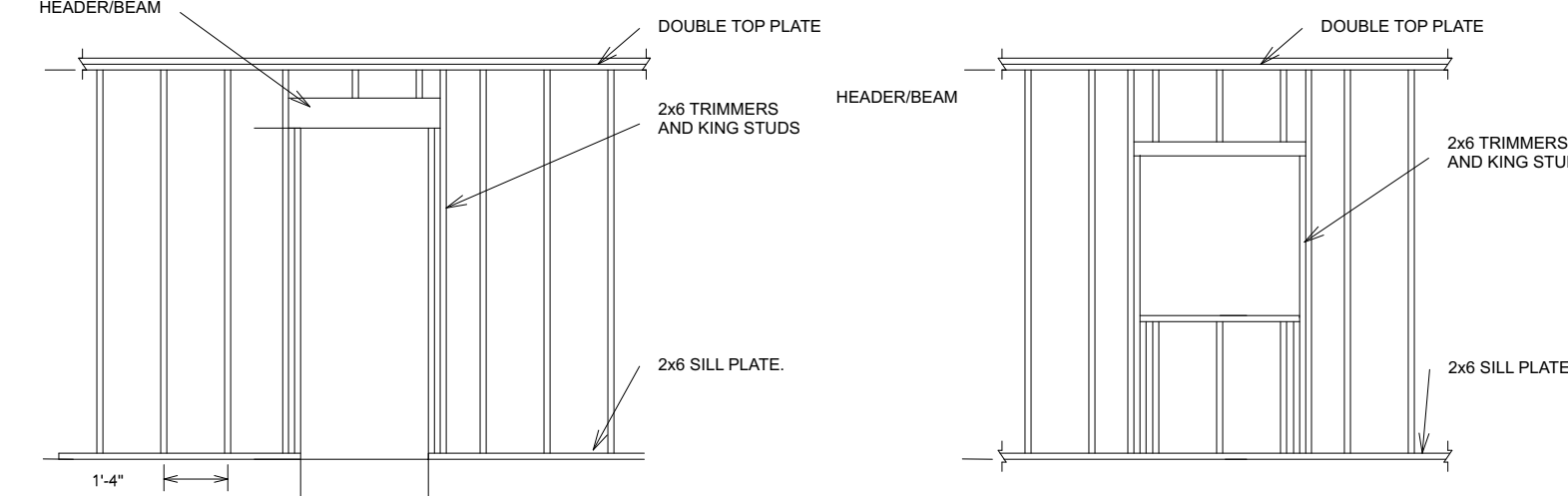


FLOOR SHEATHING @ FLOOR TRUSS
SCALE: N.T.S.

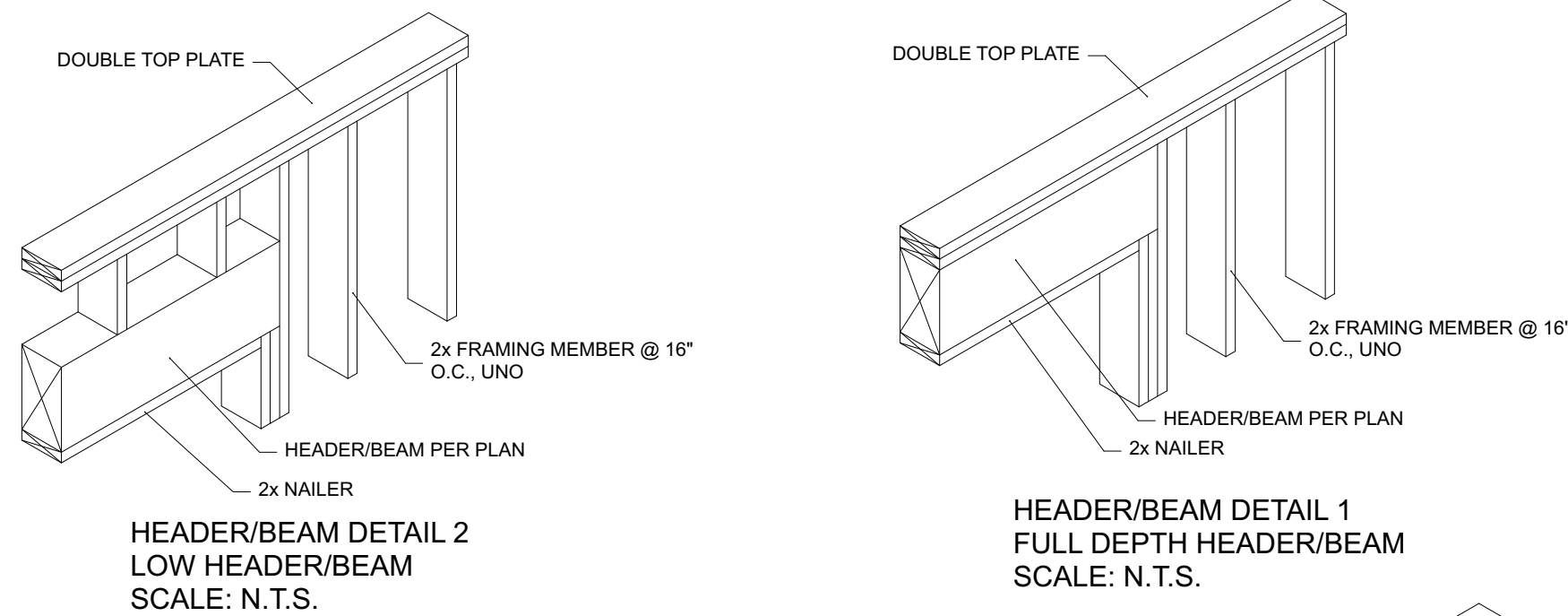


SHEATHING @ ROOF TRUSS
SCALE: N.T.S.

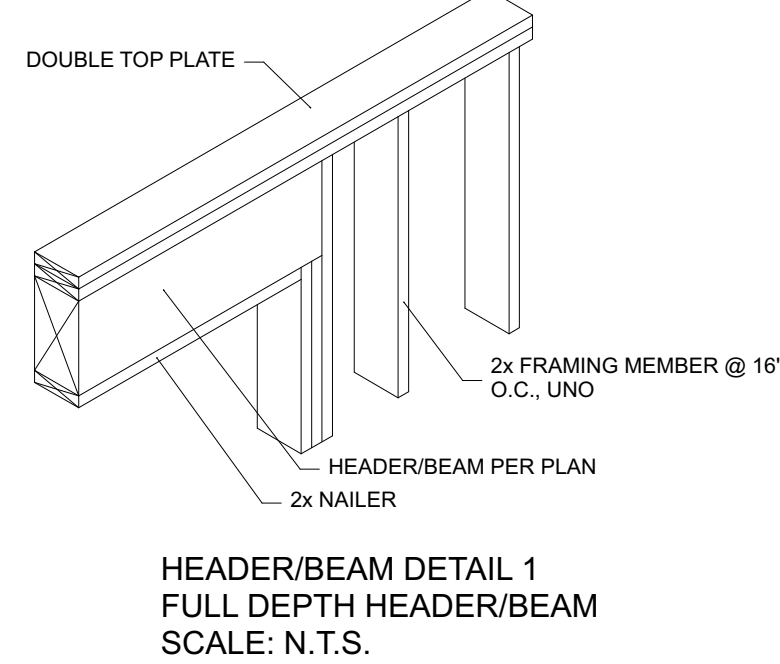
SHEATHING DETAILS



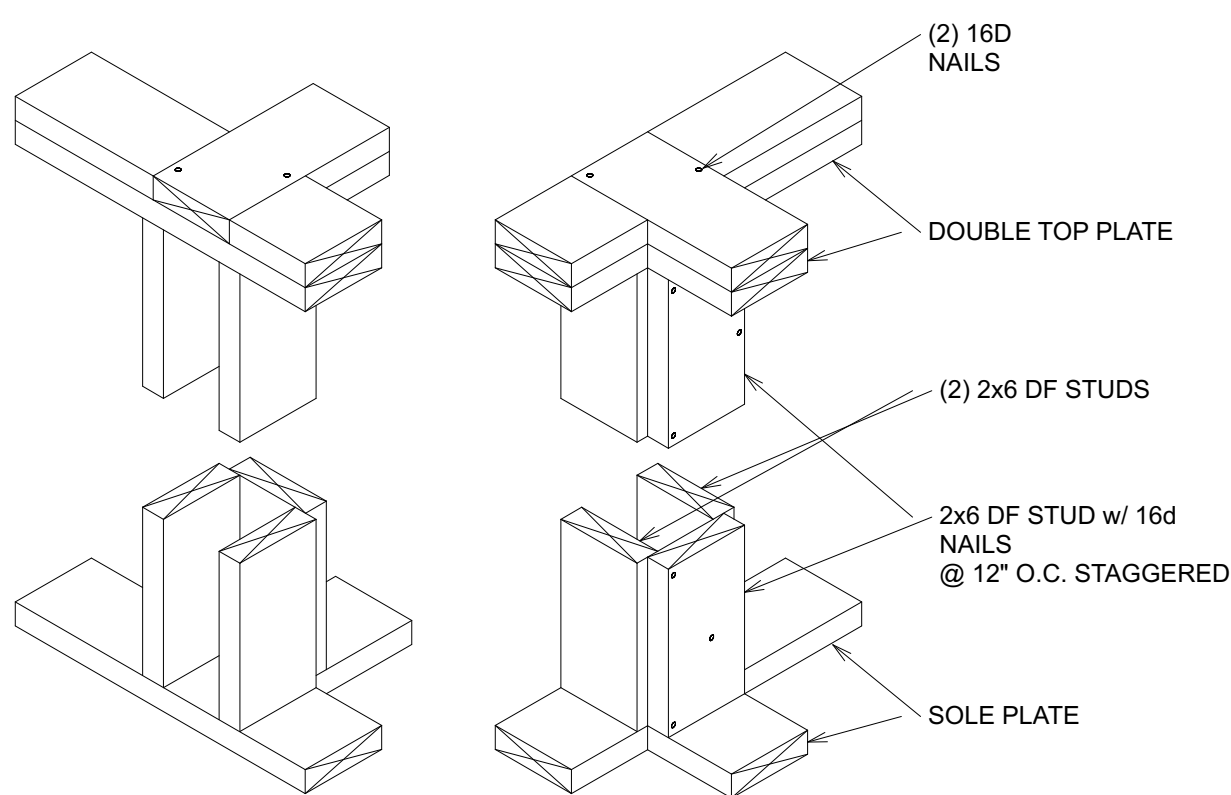
WALL PORTAL DETAILS DOORS - WINDOWS



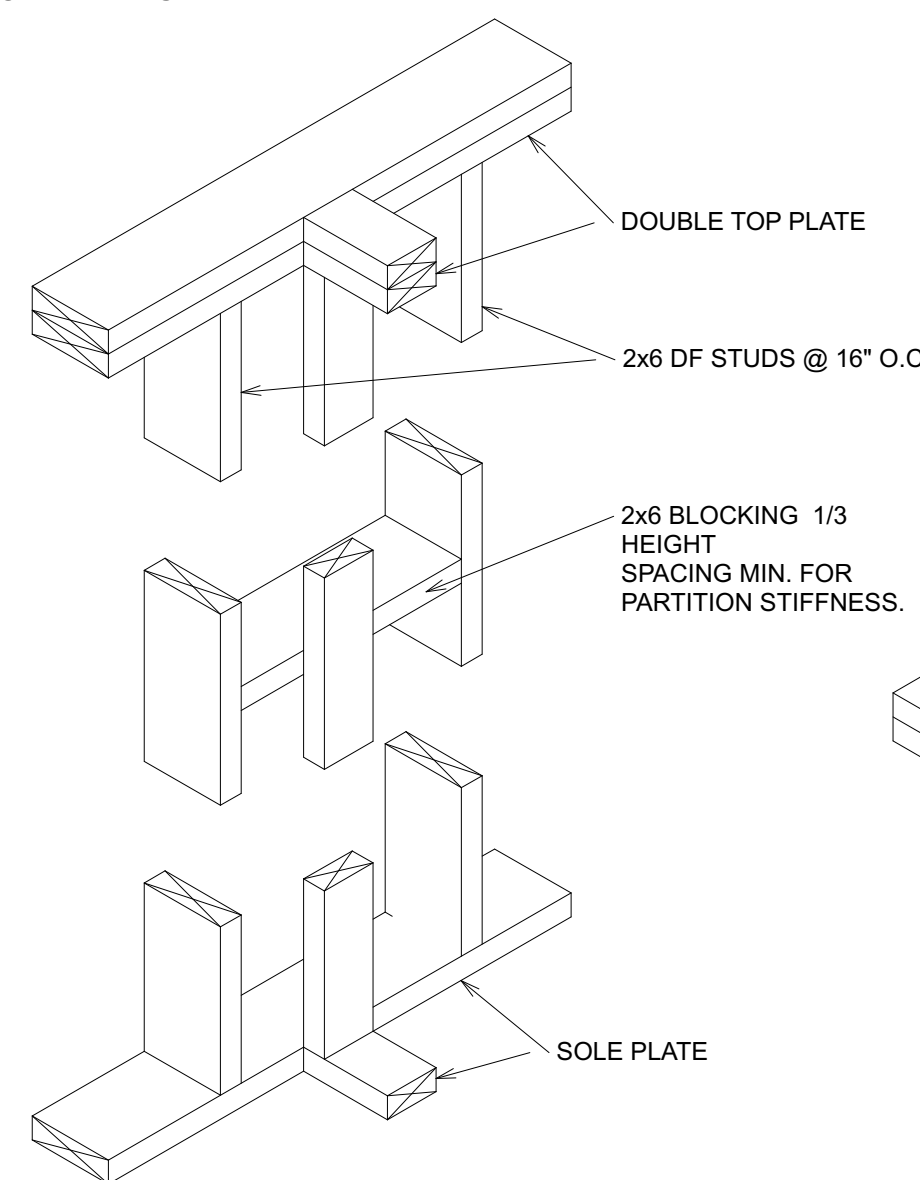
HEADER/BEAM DETAIL 2
LOW HEADER/BEAM
SCALE: N.T.S.



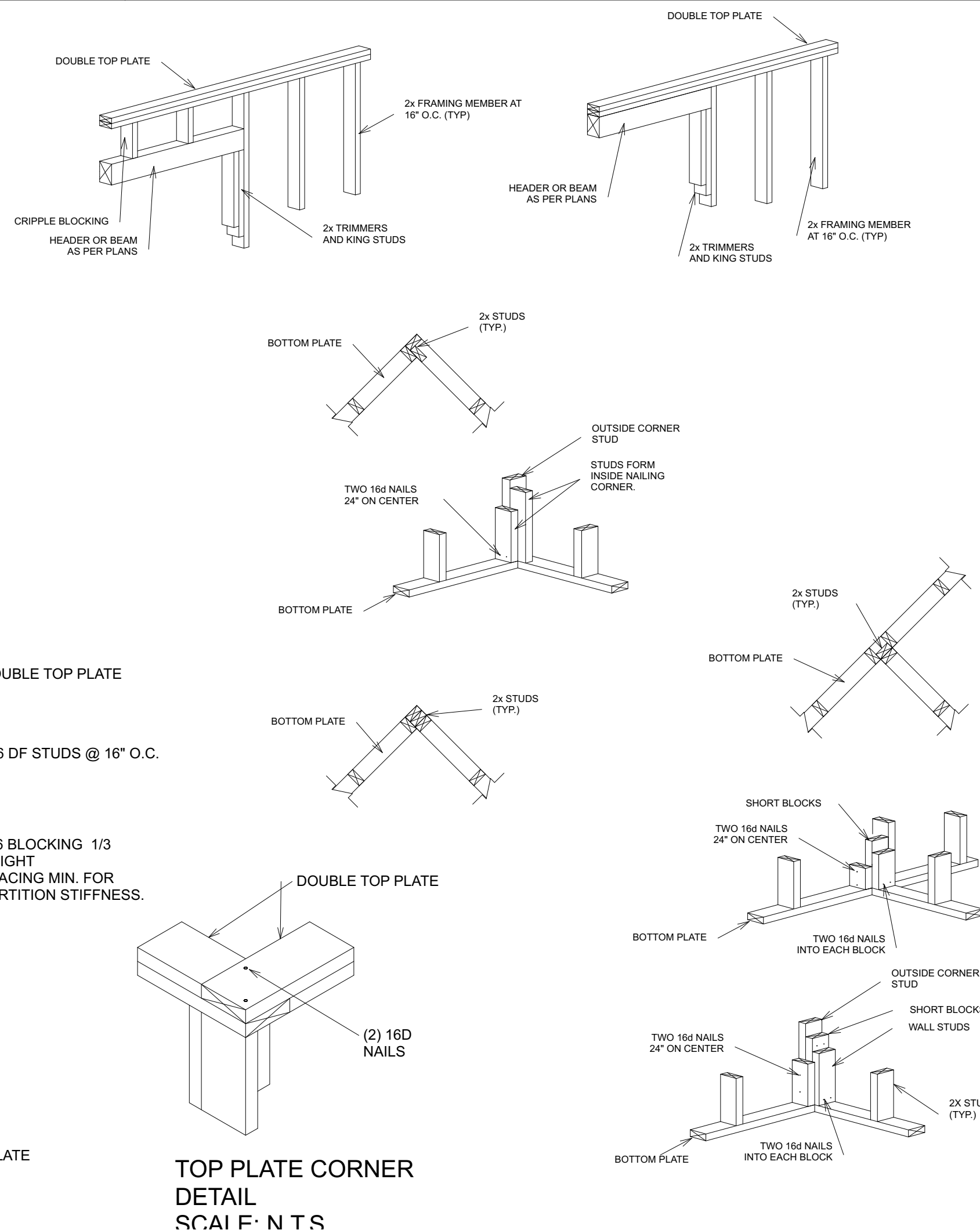
HEADER/BEAM DETAIL 1
FULL DEPTH HEADER/BEAM
SCALE: N.T.S.



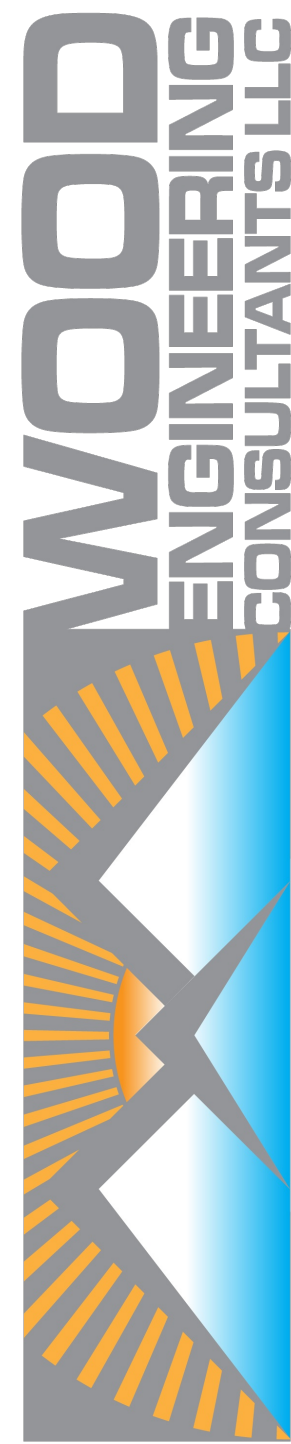
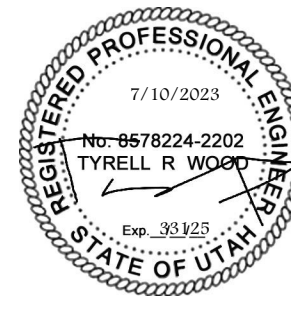
EXTERIOR WALL TO INTER BEARING WALL
CONNECTION
SCALE: N.T.S.



INTERIOR NONBEARING PARTITION WALL
CONNECTION



FRAMING DETAILS



Goulding Cactia
Residential Plan
Parcel # H-333-B-1-A
SEC 34, T41S, R13W, S18&M
220 W 200 N
HURRICANE CITY, UT 84737

DETAIL 2

DATE:

7/10/2023

*SCALE:

1/4" = 1' 1/8" = 1'
(*24x36) (*11x17)

SHEET:

D2



4. GUTTERS AND DOWNSPOUTS ARE NOT SHOWN FOR CLARITY. DOWNSPOUTS SHALL BE LOCATED TOWARDS THE FRONT AND REAR OF THE HOUSE. LOCATE DOWNSPOUTS IN NON-VISUALLY OFFENSIVE LOCATIONS. FOR EXAMPLE, FIRST WALL OF HOUSE, BESIDE POST COLUMNS, ETC. GENERAL CONTRACTOR SHALL VERIFY EXISTING GRADES AND COORDINATE ANY NECESSARY ADJUSTMENTS TO HOUSE WITH OWNER.
5. PLUMBING AND HVAC VENTS SHALL BE GROUPED IN ATTIC TO LIMIT ROOF PENETRATIONS AND TO BE LOCATED AWAY FROM PUBLIC VIEW, I.E. AT THE REAR OF THE HOUSE AND SHALL BE PRIMED AND PAINTED TO MATCH ROOF COLOR.
6. PROVIDE ATTIC VENTILATION PER LOCAL CODE REQUIREMENTS.
7. EXTERIOR FLASHING SHALL BE CORRECTLY INSTALLED AT ALL CONNECTIONS BETWEEN ROOFS, WALLS, CHIMNEYS, PROJECTIONS AND PENETRATIONS AS REQUIRED BY APPROVED CONSTRUCTION PRACTICES.
8. CONTRACTOR SHALL PROVIDE ADEQUATE ATTIC VENTILATIONS / ROOF VENTS PER LOCAL GOVERNING CODE. INSTALL CONTINUOUS RIDGE VENTILATION AND PAINT TO MATCH ROOF. PROVIDE APPROPRIATE SOFFIT VENTILATION AT OVERHANGS.



3 OF **4**

[illegible]

NDG 188

" Where Traditional Values and Family Come Together "

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consent of the Designer, is prohibited.

CAD DESIGNED

LOT NOTES:

1. LOT LINE INFORMATION WAS OBTAINED FROM PROPERTY OWNER INFORMATION PROVIDED BY OWNER, PARCEL # H-333-B-1-A LOCATED WITHIN SEC 34, T41S R13W, SLB&M.

2. CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION OR EXCAVATION AND NOTIFY ENGINEER OF DISCREPANCIES ON PLANS.

3. INFORMATION ON THIS PLAN SET IS FOR INFORMATION ONLY AND IS NOT TO SCALE

4. ALL MEASUREMENTS ARE TAKEN FROM PROPERTY LINE TO SETBACK OR STRUCTURE

5. ONSITE DRAINAGE SHALL BE MAINTAINED ONSITE WITHIN LIMITS OF PROPERTY BOUNDARIES OR SHALL BE DIVERTED TO AN APPROVED MUNICIPAL STORM DRAINAGE SYSTEM AS APPROVED BY LOCAL GOVERNMENT AUTHORITIES.

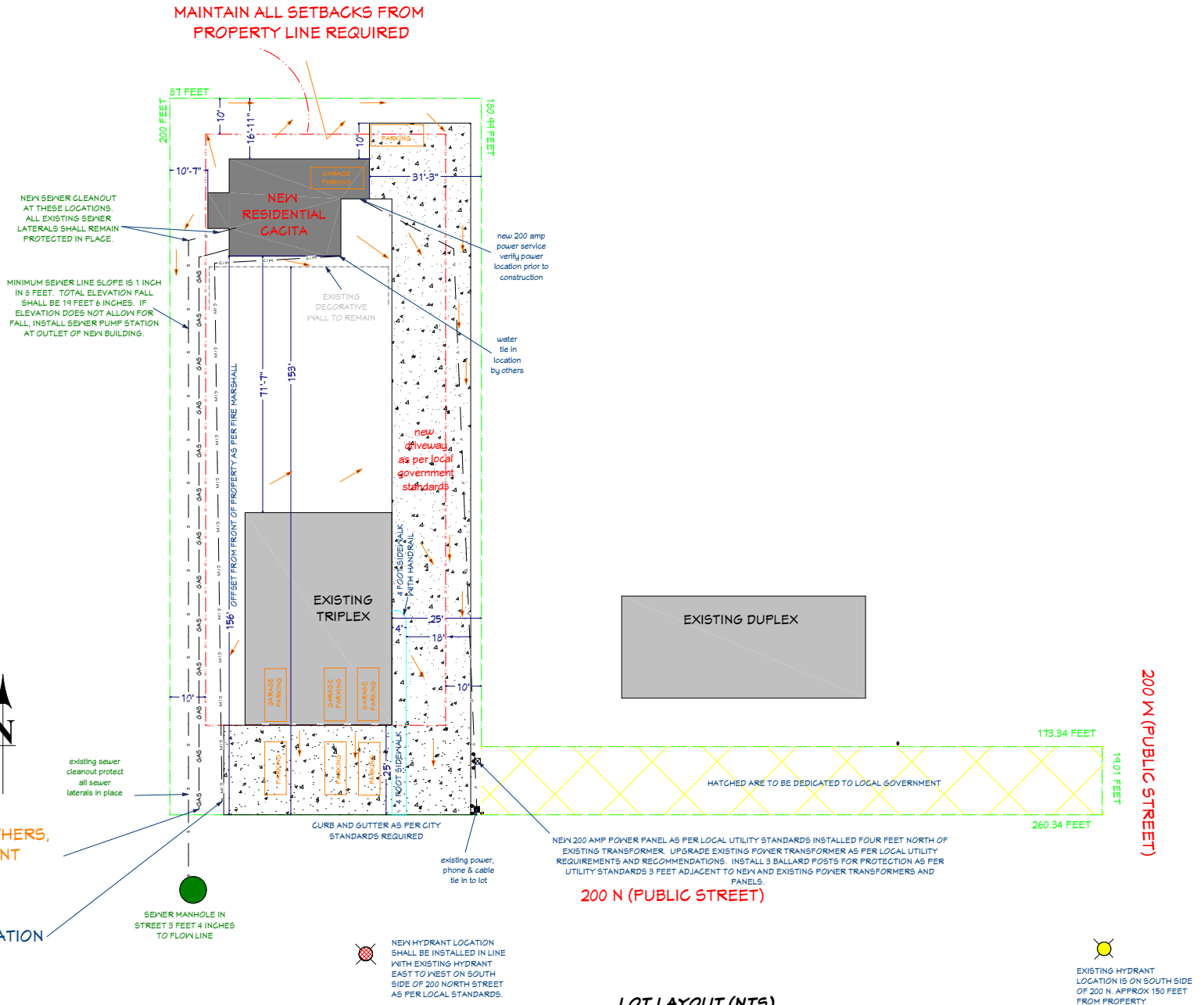
6. WOOD ENGINEERING CONSULTANTS, LLC IS NOT RESPONSIBLE FOR LOT LINE VERIFICATION OR TOPOGRAPHIC SURVEY DATA FOR THIS PROJECT. A FULL GRADING PLAN HAS NOT BEEN DEVELOPED FOR THIS PROJECT. ALL GRADING, FINISH FLOOR ELEVATIONS AND GRADING SHALL BE COMPLETED AS PER CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL FINAL GRADES AND FINISH FLOOR. FINISH FLOOR SHALL BE 18 INCHES ABOVE CROWN OF ROAD AT HIGHEST POINT ADJACENT TO LOT.

LEGEND FOR NEW UTILITIES:

PROPERTY LINE	— P / L —
SET BACK LINE	— SB / L — SB / L —
POWER LINE	— V — V —
GAS LINE	— GAS — GAS —
WATER LINE	— C / W — C / W —
SANITARY SEWER	— S — S —
DRAINAGE ARROWS	→

NEW GAS CONNECTION BY OTHERS,
20 FOOT ACCESS EASEMENT
REQUIRED

EXISTING WATER METER LOCATION



EXISTING CACTA
PARCEL # H-333-B-1-A
SEC 34, T41S R13W, SLB&M
220 W 200 N
HEBER-CANYON CITY, UT 84737

LOT LAYOUT

DATE:

11/17/2023

*SCALE:

1/4" = 1' 1/8" = 1"

(*24X36) (*11X17)

SHEET:

L1



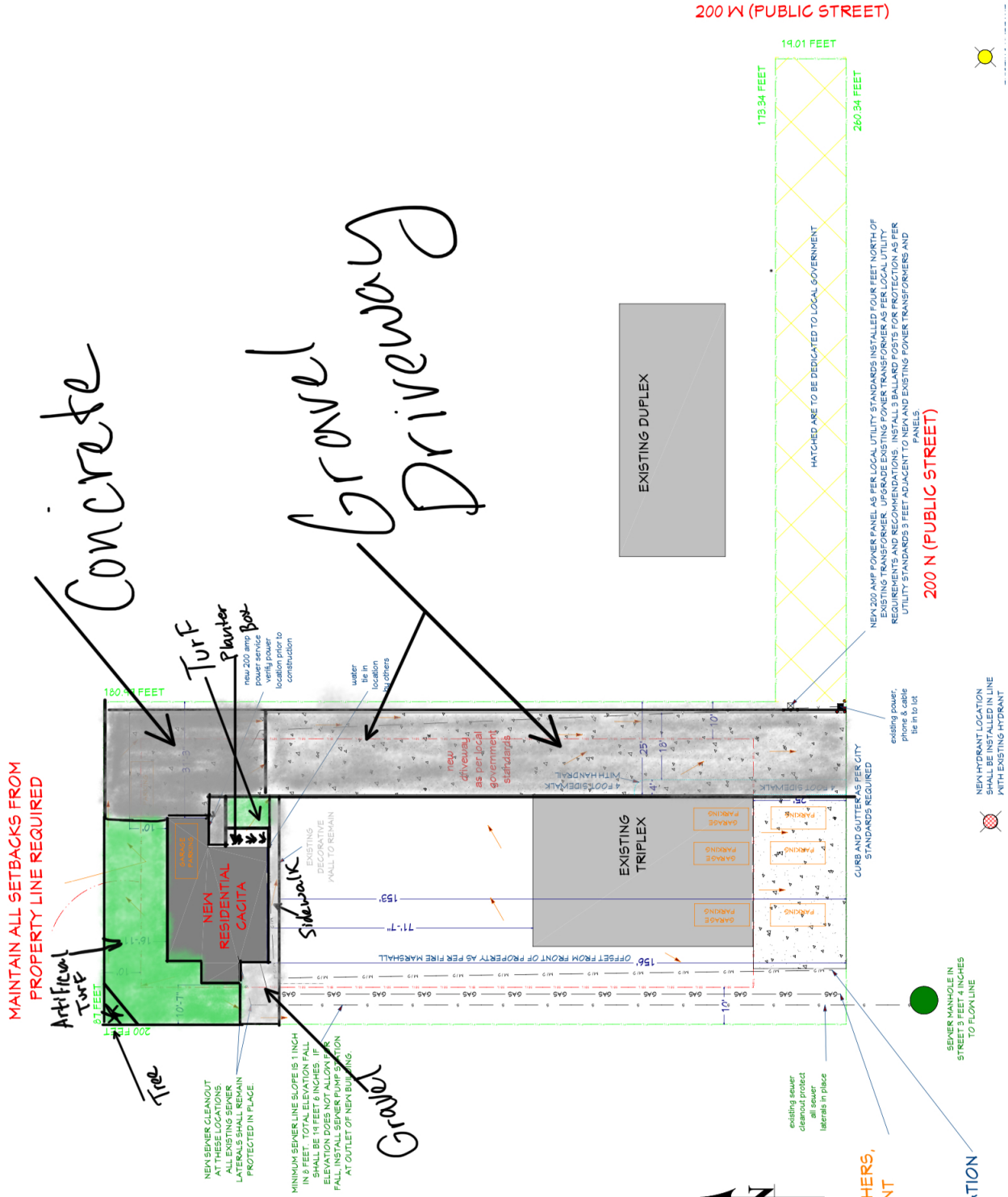
LOT LAYOUT

11/17/2023

 $1\frac{1}{4}'' = 1'' \quad 1\frac{1}{8}'' = 1''$
 $(\cdot 24 \times 36) (\cdot 11 \times 17)$

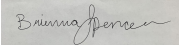
CURT.

EXISTING WATER METER LOCATION





Hurricane City Application

Application Accepted Date: 01/16/2024		Valuation		\$	0.00				
Type of Improvement: Conditional Use Permit		PERMIT FEES							
Description: Casita on a 1 acre lot		Planning Fee		\$	250.00				
Tenant / Project Name: Grondel		Planning Fee		\$	250.00				
Bldg. Address: 198 South 1230 West		Sub Total:		\$	250.00				
City: Hurricane City State: UT Zip: 84737		Permit Total:		\$	250.00				
Subdivision: country lane estates Phase: 1		Amount Paid:		\$	0.00				
Block: Lot #: Parcel #: h-cole-9		Remaining Due:		\$	250.00				
Zone: R1A									
Property Owner: Darrin Grondel									
Permit Contact: Mike Jensen P:(435) 817-1355									
Email: mikejensen5@gmail.com									
CONTACT INFORMATION									
Engineer of Record: Pray Eng									
Email: gerold@pratteng.com P: (435) 229-0518									
General Contractor: Mike Jensen									
License #: P: (435) 817-1355									
Address: 365 s 1230 w									
City: Hurricane State: UTAH Zip: 84737									
Email: mikejensen5@gmail.com									
APPLICATION DETAILS									
						APPROVALS		DATE	INFO
						Plan Review Finalized:		Yes	01/16/24 Brienna Spencer
Setbacks		Front:	Rear:	Left:	Right:				
Min.									
Actual:									
APPLICATION NUMBER: PENDCUP24-01									
This permit becomes null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work is commenced. I here-by certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not the granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction or the performance of construction and that I make this statement under penalty of perjury. Maintenance Deposit is refundable after final inspection if: 1) site is kept clean 2) building is NOT occupied prior to final inspection and issuance of Certificate of Occupancy.									
Applicant Name: Mike Jensen									
Signature of Applicant/Authorized Agent or Owner: Date:									
Application Approved By:		Date:							
		01/16/2024							
Application Issued By:		Date:							
Receipt #: 8.175743-01/16/24									



STAFF COMMENTS

Agenda Date:	01/25/2024
Application Number:	CUP24-01
Type of Application:	Conditional Use Permit
Action Type:	Administrative
Applicant:	Darrin and Rebecca Grondel
Agent:	Mike Jensen
Request:	A conditional use permit for a building with a greater size
Location:	198 S 1230 W
Zoning:	RA-1
General Plan Map:	N/A

Discussion: The applicant proposes constructing a 2,182 sq. ft. and 19' tall casita/garage. A conditional unit for a different sized building was approved in 2022 but has since expired. Hurricane City Code (HCC) 10-14-4 allows the maximum square feet and height of an accessory building to be 2,000 sq. ft. and 20' tall. A property owner may apply for a conditional use permit to build a larger building. The standards to obtain a conditional use permit are as follows:

10-7-9: CONDITIONAL USE PERMIT E. Approval Standards: The following standards shall apply to the issuance of a conditional use permit:

- 1. A conditional use permit may be issued only when the proposed use is shown as conditional in the zone where the conditional use will be located, or by another provision of this title.*
- 2. Standards for each use must be reviewed. Specific standards are set forth for each use in subsections E2a through E2l of this section (section f applies):*

f. Standards for greater size than permitted by this Code.

- (1) The greater size building desired must be of compatible architecture with immediately adjacent buildings.*
- (2) At least 50 percent of the lot on which the building is located must remain free of buildings.*
- (3) The building must be for a use permitted in the zone in which it is located.*

Findings:

1. The proposed building is not greater than two stories or 55 feet.
2. The proposed building will be of compatible architecture with the neighboring house.
3. The building is set back a minimum of 2' from the side property lines and 2' off the back (plans show 3').
4. The proposed buildings will take up approximately 13% of the lot.
5. The building is for a permitted use in this zoning.

Recommendation: Staff recommends approval of the conditional use permit.

CODE REVIEW

CONSTRUCTION SHALL COMPLY WITH IRC 2018 AND ALL LOCAL ORDINANCES AND CODES

CONCRETE

01. TERMITES CONTROL MUST BE PROVIDED PRIOR TO POUR OF BASEMENT SLAB.

02. ALL FOOTINGS SHALL EXTEND BELOW FROST DEPTH MEASURED FROM THE BOTTOM OF THE FOOTING TO FINISH GRADE REGARDLESS OF FOOTING DEPTH SHOWN ON PLANS.

03. FOUNDATIONS SUPPORTING WOOD WALLS WILL EXTEND AT LEAST 6" ABOVE FINISH GRADE.

FRAMING

01. ALL HEADERS TO BE DOUBLE 2X10'S U.N.O. HEADER CONSTRUCTION SHALL CONFORM TO LATEST IRC CODE.

02. WATER RESISTANT GYP BOARD MAY NOT BE USED OVER VAPOR BARRIERS AND CEILINGS OR ON ANY EXTERIOR SURFACES.

03. BRACED WALLS ARE REQUIRED EXACTLY AS SHOWN ON PLAN AND SHALL BE ENGINEERED IF GOVERNING AGENCY REQUIRES.

04. GARAGE SHALL BE SEPARATED FROM ANYH LIVING AREA BY A 1 HR FIRE RATED ASSEMBLY INCLUDING 5/8" TYPE "X" GYP BOARD ON WALLS ADJACENT TO LIVING AREAS AND ON CEILING OF GARAGE.

05. DOORS FROM LIVING AREAS OPENING INTO GARAGE SHALL BE A 20 MINUTE RATED DOOR WITH CLOSER.

PLUMBING

01. MANOBLOCK SYSTEM SHALL NOT BE INSTALLED IN GARAGE FIRE WALLS.

02. BACK FLOW PREVENTION MUST BE PROVIDED ON HOSE BIBS AND IN SPRINKLING SYSTEMS.

03. A PRESSURE REDUCTION VALVE SHALL BE INSTALLED WHERE WATER PRESSURE EXCEEDS 80 LBS AND SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION.

04. PROVIDE SEISMIC STRAPS ON WATER HEATER.

05. WATER HEATER SHALL BE MOUNTED ON AN 18" HIGH PLATFORM AND MUST BE EQUIPED WITH AN EXPANSION TANK.

MECHANICAL

01. ATTIC VENTILATION IS REQUIRED. FOR HOMES WITH EAVES - ONE SQ FT OF VENT FOR EVERY 300 SQ FT OF ATTIC SPACE. FOR HOMES WITHOUT EAVES - ONE SQ FT OF VENT FOR EVERY 150 SQ FT OF ATTIC SPACE.

02. OUTSIDE COMBUSTION AIR SHALL BE PROVIDED TO ALL FUEL BURNING APPLIANCES UNDAMPED.

03. FURNACES IN A CLOSET SHALL HAVE A MIN CLEAR WORKING SPACE OF 3" ON SIDES, BACK & TOP.

04. VENT CLOTHES DRYER TO OUTSIDE - DUCTS SHALL BE METAL WITH SMOOTH INTERIOR SURFACES EQUIPPED W/ BACK-DRAFT DAMPERS - TERMINATE AT THE EXTERIOR OF THE BUILDING AND NOT TO BE INSTALLED W/ SHEET METAL SCREWS - MAX LENGTH DUCT 14' W/ 2 90 DEGREE ELBOWS MAX - DUCT DIAMETER MIN 4".

ELECTRICAL

01. SMOKE DETECTORS SHALL BE HARD WIRED TOGETHER IN SERIES W/ BATTERY BACKUP - A CO DETECTOR SHALL BE INSTALLED ON EACH LEVEL OF THE HOUSE.

02. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY DEDICATED 20 AMP BRANCH CIRCUIT W/ NO OTHER AND SHALL BE GFCI PROTECTED.

03. ALL KITCHEN SURFACE OUTLETS, BATH OUTLETS AND GARAGE OUTLETS SHALL BE GFCI PROTECTED.

04. GARAGE OUTLETS SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR MIN.

05. OUTDOOR OUTLETS SHALL BE GFCI RATED AND SHALL BE WEATHER PROTECTED.

06. ALL CEILING FANS SHALL BE INSTALLED WITH FAN RATED BOXES.

GENERAL NOTES:

1. SITE ADDRESS:
2. LEGAL DESCRIPTION: REFER TO SURVEY PLAT AS PREPARED BY THE CIVIL ENGINEER.
3. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE (INCLUDING APPLICABLE AMENDMENTS), AND SHALL COMPLY WITH ALL CODES, ORDINANCES, AND REQUIREMENTS SET FORTH BY THE LOCAL JURISDICTION.
4. ZONING DISTRICT: RESIDENTIAL
5. OCCUPANCY TYPE: R-3
6. CONSTRUCTION TYPE: V-B
7. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO BECOME AWARE OF THE LOCATION OF ALL UNDERGROUND UTILITIES ON THE SITE BEFORE ANY DRILLING OR EXCAVATION BEGINS.
8. ALL LANDSCAPING / IRRIGATION WORK IS NOT IN CONTRACT. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH LANDSCAPE CONTRACTOR (UNDER SEPARATE CONTRACT) AND PROVIDE ROUGH GRADING IN PLANTING AREA. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DRAINAGE OF LANDSCAPED AREAS AWAY FROM BUILDING.
9. ALL DIMENSIONS ARE TO BE FIELD VERIFIED FOR CORRECTNESS. IF ANY VARIANCES OCCUR, THE DESIGNER SHALL BE CONTACTED FOR VERIFICATION. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. ALL INTERIOR DIMENSIONS ARE TO BE TO FACE OF STUD OR CONC WALLS UNLESS OTHERWISE NOTED.
10. A SOILS TEST SHALL BE PERFORMED WHERE HOUSE IS TO BE LOCATED AND FOOTINGS AND FOUNDATION SHALL COMPLY WITH SOILS ENGINEERS RECOMMENDATIONS REGARDLESS OF WHAT IS SHOWN IN THE PLANS. FOUNDATION RE-ENGINEERING WILL BE REQUIRED IF RECOMMENDED BY SOILS ENGINEERS
11. ANY ENGINEERING SHALL TAKE PRECEDENCE TO WHAT IS SHOWN ON THESE DRAWINGS - DISCREPANCIES SHALL BE CLARIFIED AND COORDINATED BEFORE CONSTRUCTION BEGINS.

INDEX:

COVER PAGE	CODE REVIEW, GENERAL NOTES		
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A-3	ROOF PLAN		
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A-5	ELECTRICAL PLAN		

THERMAL ENVELOPE:

WALLS:

DRYWALL:

R-2.5

INTERIOR AIR FILM:

R-0.5

5 1/2" BLOWN-IN INSULATION:

R-19

7/16" OSB:

R-0.6

EXTERIOR AIR FILM:

R-0.5

1" EXTRUDED POLYSTYRENE RIGID FOAM:

R-5

STUCCO:

R-0.2

TOTAL EXTERIOR WALL R-VALUE

R-28.3

ROOFING:

HOUSE ROOF:

R-38

GLASS BATTS:

GARAGE ATTIC:

R19 GLASS BATTS:

R-19

DETACHED ACCESSORY DWELLING UNIT

FOR DARRIN & REBECCA GRONDEL

198 S 1230 W, HURRICANE, UTAH

PLOT PLAN

SCALE: 1"=20'

1230 W STREET

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DATE:

1/5/2024

DRAWN BY:

KT

PROJECT #

23039

DETACHED ACCESSORY DWELLING UNIT

FOR DARRIN & REBECCA GRONDEL

198 S 1230 W, HURRICANE, UTAH

I u d z . n n v

970 N 120 E

HURRICANE, UT 84737

435-634-1450

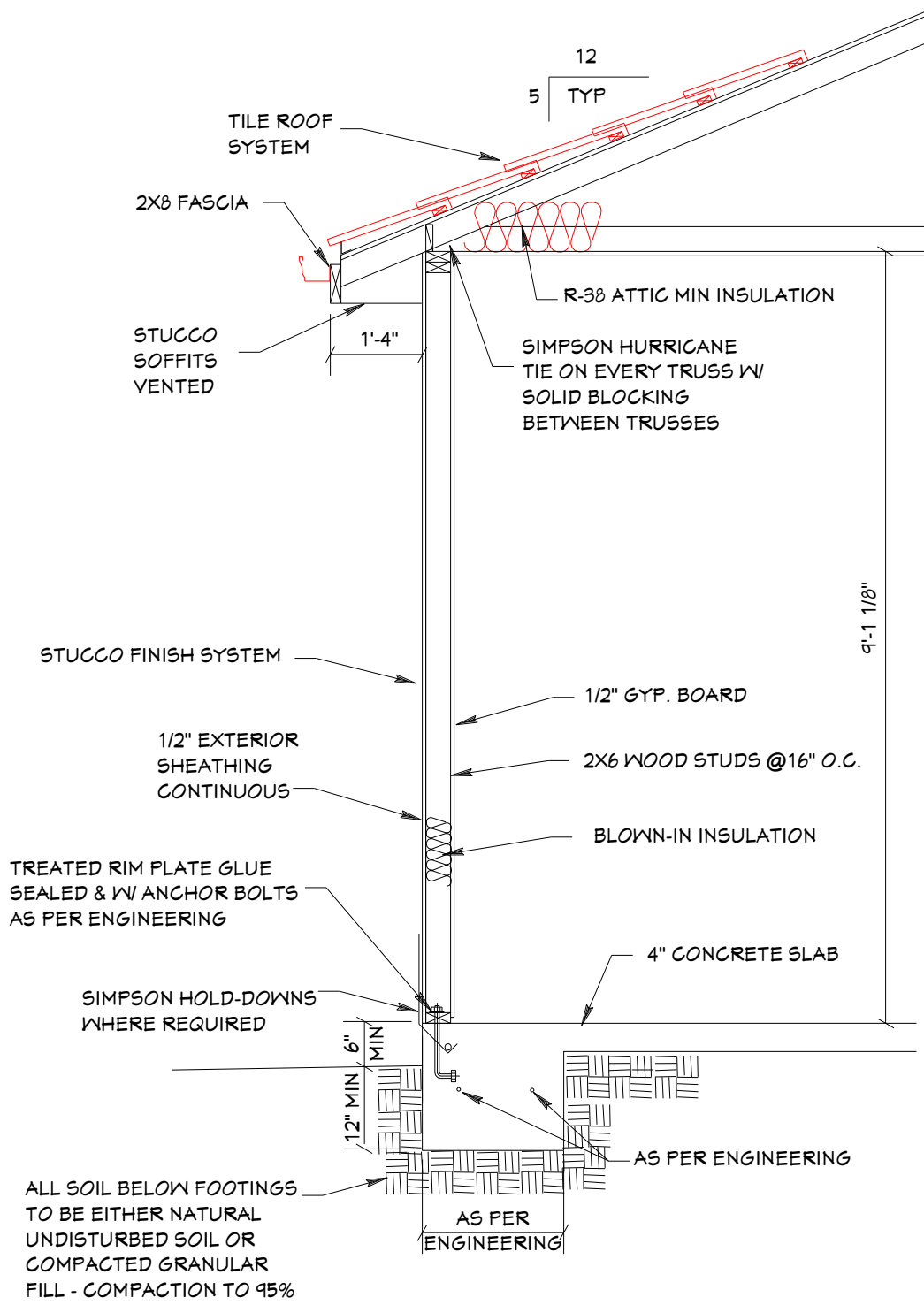
KEVIN D. THOMAS

HOME DESIGNER

SHEET:

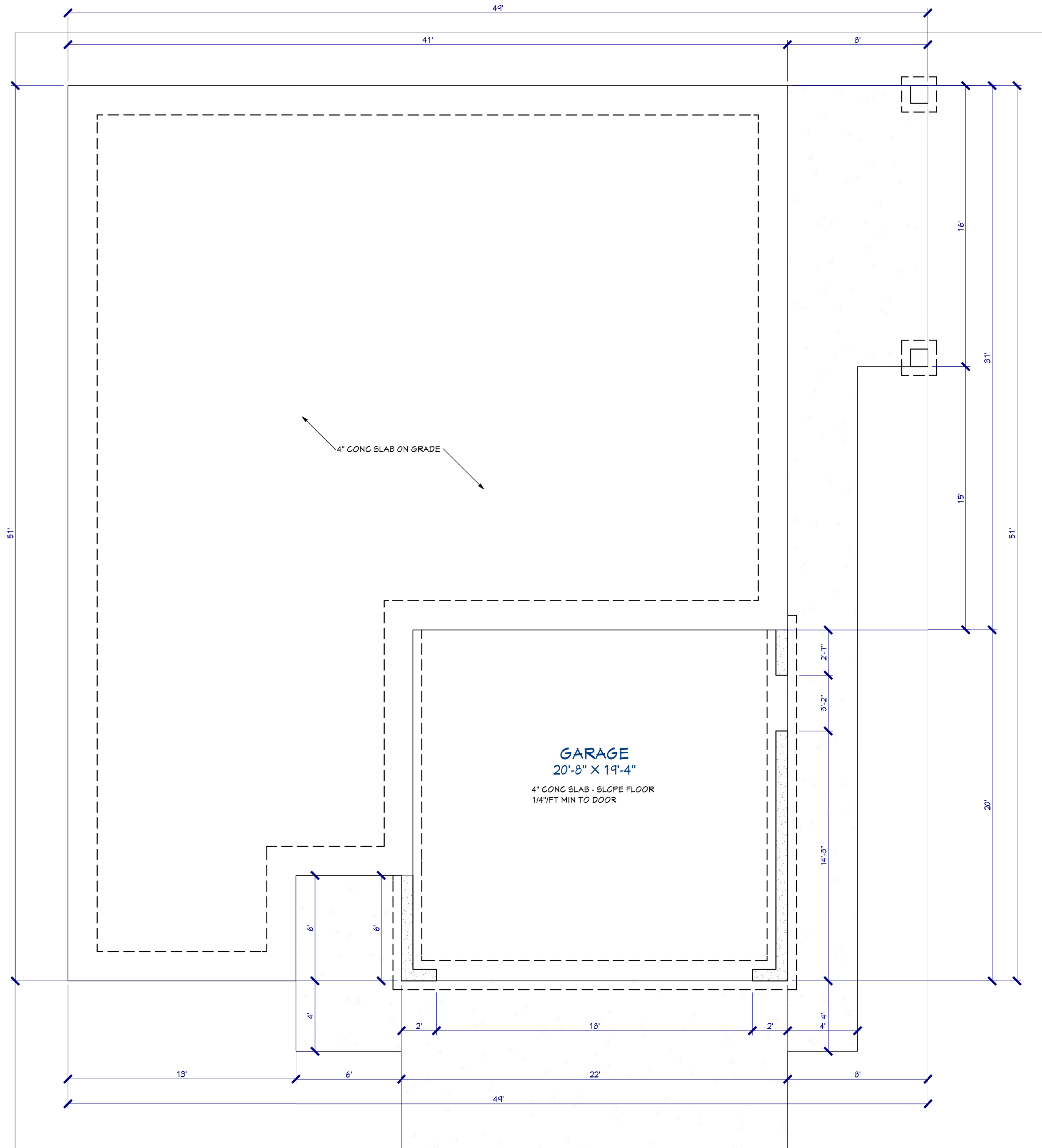
COVER PAGE

D:\Draw Works Stuff\Draw2023\23039 Rebecca Grondel Detached Casita Revisions to another designer's work\23039 Darrin & Rebecca Grondel Detached ADU Finished Plans layout



TYPICAL WALL SECTION

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



FOOTING & FOUNDATION PLAN

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

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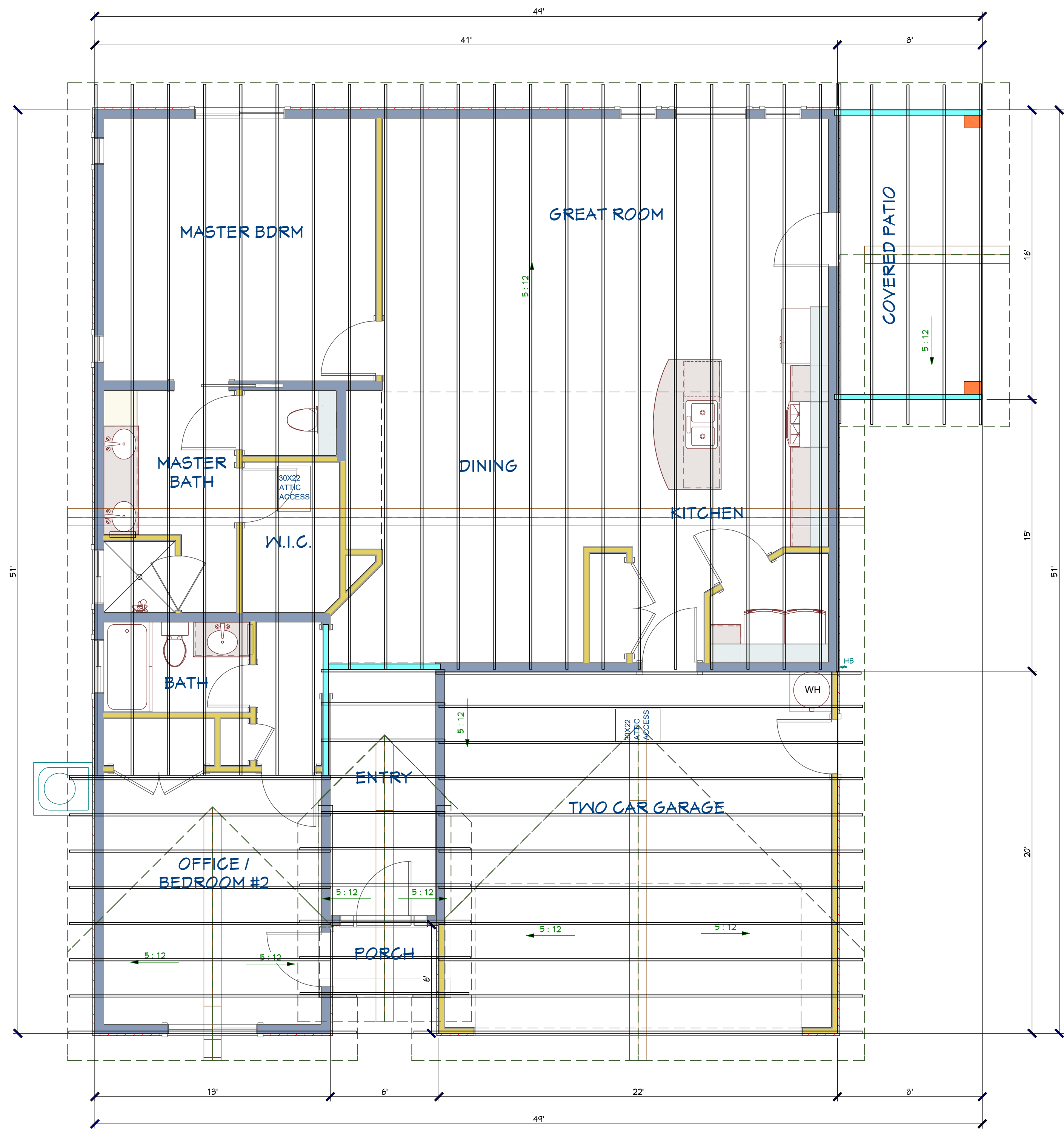
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PROJECT #23039

DETACHED ACCESSORY DWELLING UNIT
FOR DARRIN & REBECCA GRONDEL
198 S 1230 W, HURRICANE, UTAH

I udz, \ runv
970 N 120 E
HURRICANE, UT 84737
435-634-1450
KEVIN D. THOMAS HOME DESIGNER

SHEET:
A-1



ROOF FRAMING PLAN
SCALE: 1/4"=1'-0"

AT LEAST 50% & NOT MORE THAN 80% OF REQUIRED VENTS SHALL BE IN UPPER PORTION OF VENTILATED ROOF SPACE (MIN. 3" ABOVE EAVE OR CORNICE VENTS) WITH THE BALANCE OF REQUIRED VENTILATION PROVIDED BY EAVE VENTING.
PER IRC 206.1 ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FOR WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION OF EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW.
VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION RESISTANT WIRE MESH WITH 1/8" MIN. 4 1/4" MAX. OPENINGS.
IF EAVE VENTS ARE INSTALLED INSULATION SHALL NOT OBSTRUCT THE FREE FLOW OF AIR (MIN. 1" SPACE BETWEEN INSULATION AND ROOF SHEATHING & VENT LOCATION).
BAFFLING OF THE VENT OPENINGS SHALL BE INSTALLED. BAFFLES SHALL BE RIGID AND WIND-DRIVEN MOISTURE RESISTANT. IF FEASIBLE BAFFLES SHOULD BE INSTALLED FROM THE TOP OF THE OUTSIDE OF THE EXTERIOR WALL, EXTENDING INWARD TO A POINT 6" VERTICALLY ABOVE THE HEIGHT OF NON-COMPRESSED INSULATION & 12" VERTICALLY ABOVE LOOSE FILL INSULATION. (ALL CALCULATIONS WILL BE NET FREE AREA).

2,054 SQ FT OF ATTIC AREA / 300 = 6.85 SQ FT OR X 144 = 985.92 SQ INCHES OF VENTILATION IS REQUIRED. VENTILATION WILL BE PROVIDED BY 14 O'HAGIN'S PRE-PAINTED PROFILE SPECIFIC VENTS, OR EQUIVALENT, INSTALLED WITH AND TO MATCH ROOFING TILE SYSTEM AS PRESCRIBED BY THE MANUFACTURER'S SPECIFICATIONS.

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1/5/2024

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PROJECT #23039

DETACHED ACCESSORY DWELLING UNIT
FOR DARRIN & REBECCA GRONDEL
198 S 1230 W, HURRICANE, UTAH

I utz, rnv
970 N 120 E
HURRICANE, UT 84737
435-634-1450
KEVIN D. THOMAS HOME DESIGNER

SHEET:
A-3

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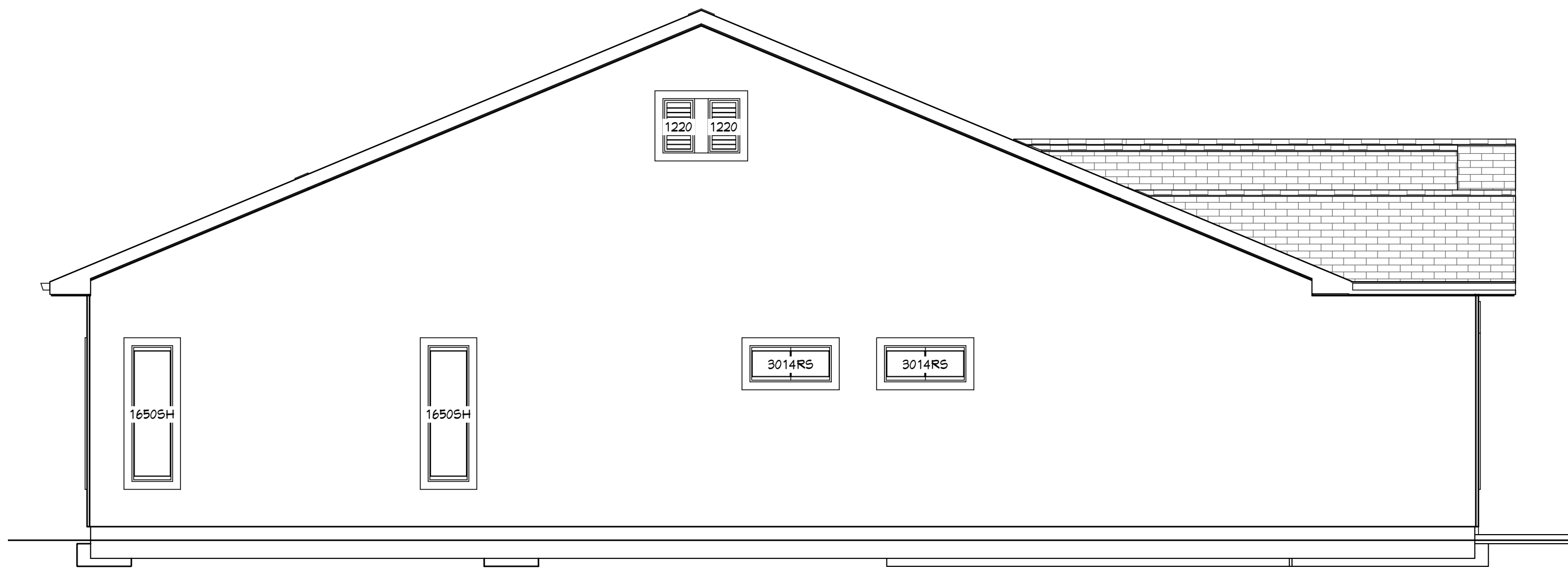
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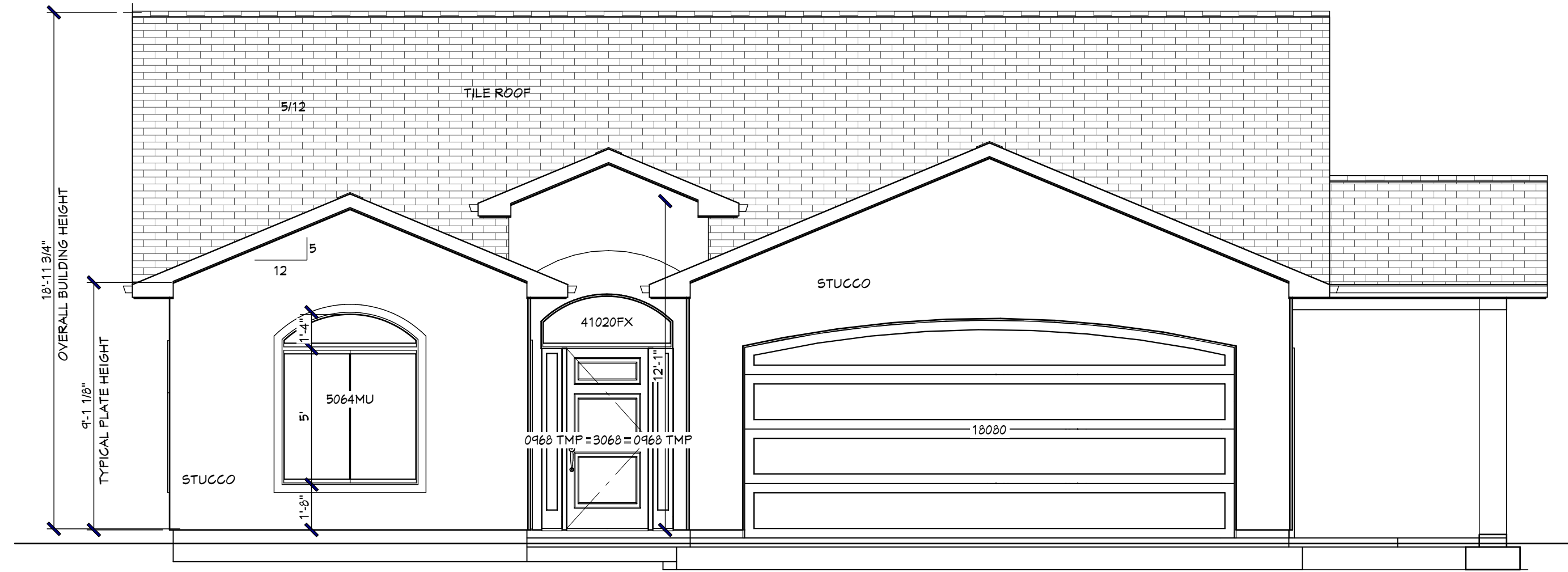
DETACHED ACCESSORY DWELLING UNIT
FOR DARRIN & REBECCA GRONDEL
198 S 1230 W, HURRICANE, UTAH

I u d z . n n v
970 N 120 E
HURRICANE, UT 84737
435-634-1450
KEVIN D. THOMAS HOME DESIGNER

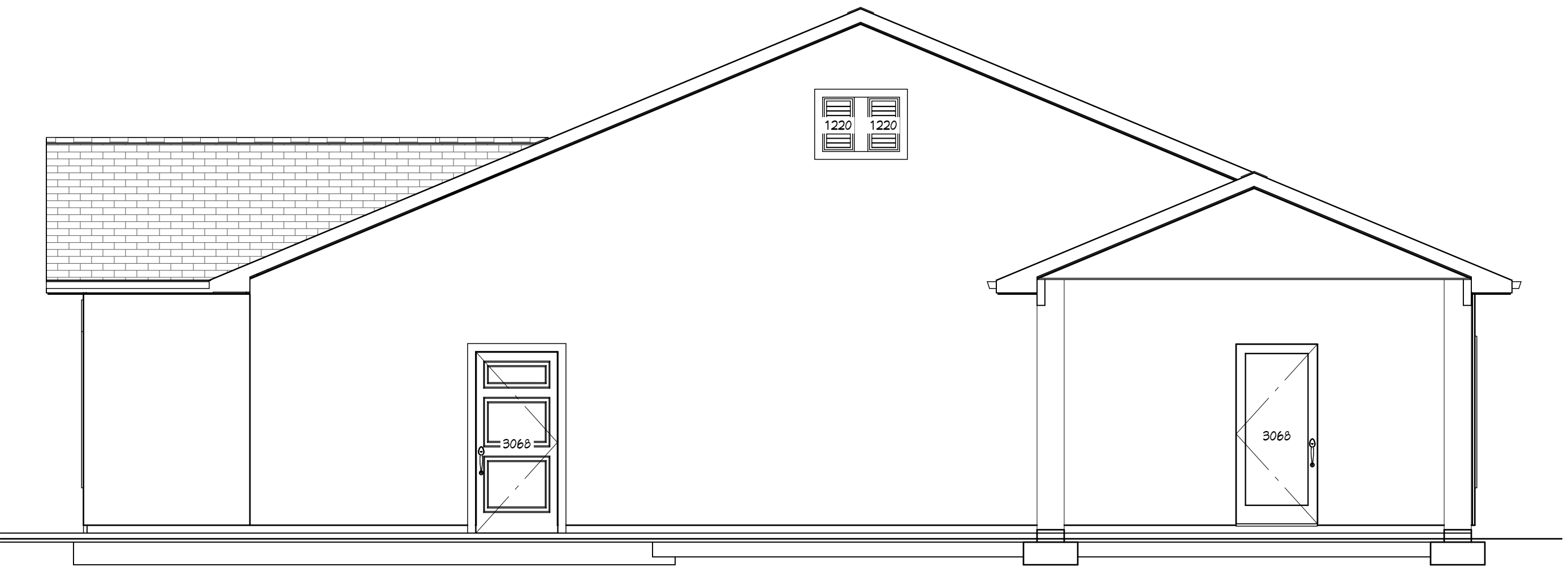
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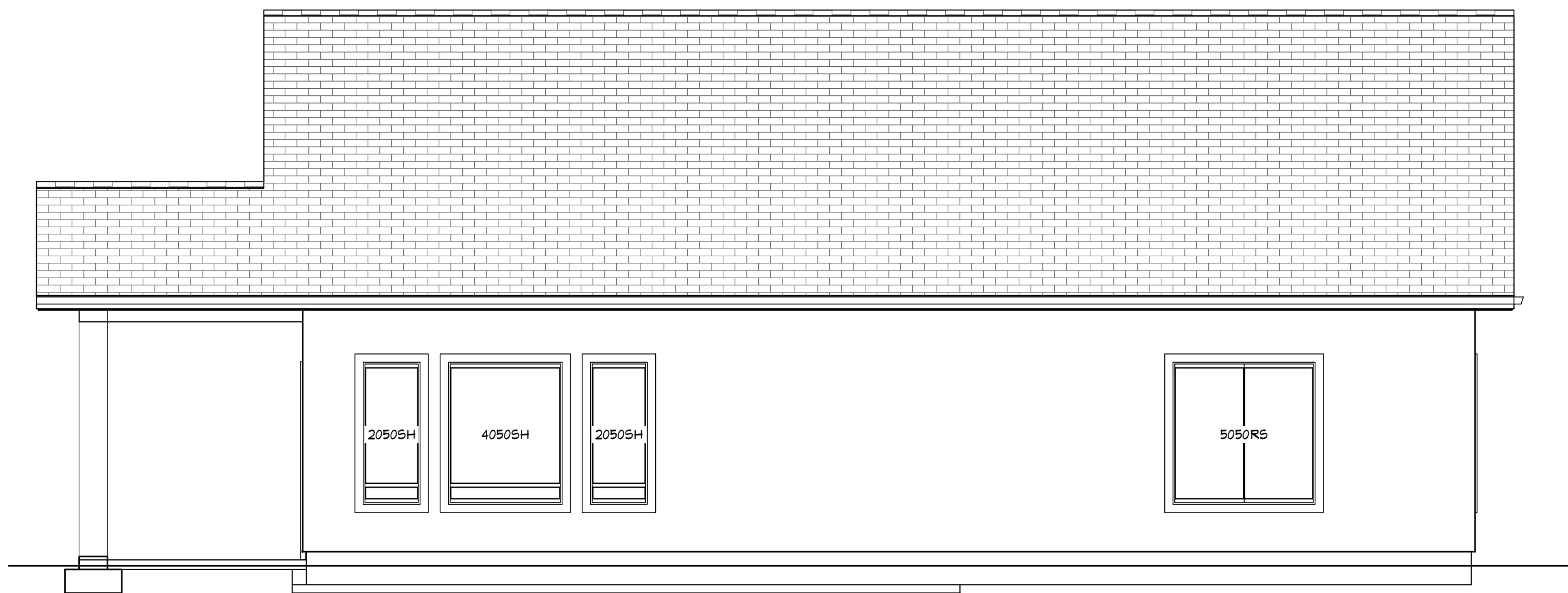
LEFT SIDE ELEVATION
SCALE: 1/4"=1'-0"



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



RIGHT SIDE ELEVATION
SCALE: 1/4"=1'-0"



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

DATE:
1/5/2024

DRAWN BY:
KT

PROJECT #23039

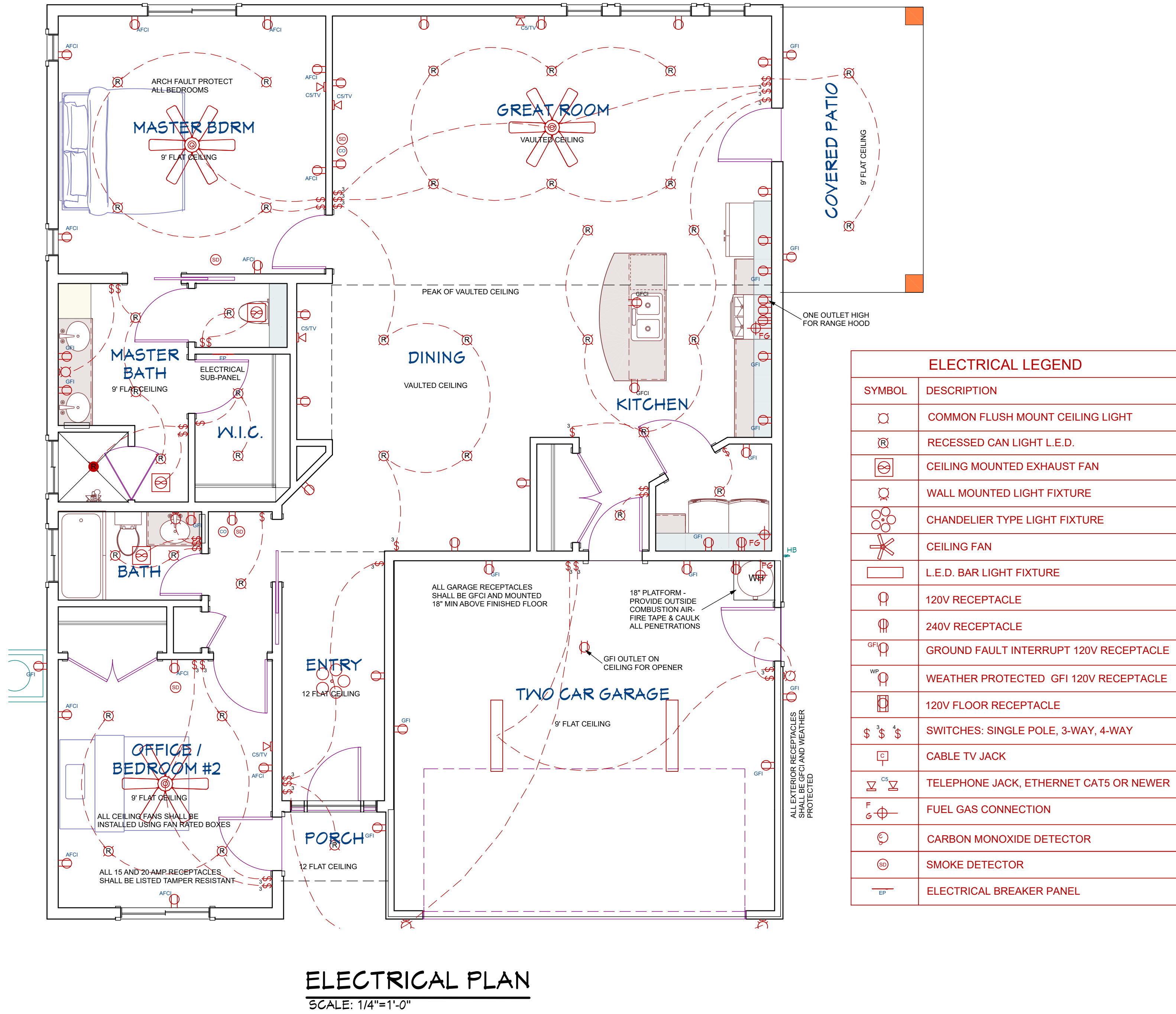
DETACHED ACCESSORY DWELLING UNIT
FOR DARRIN & REBECCA GRONDEL
198 S 1230 W, HURRICANE, UTAH

I u d z **nmv**
970 N 120 E
HURRICANE, UT 84737
435-634-1450

KEVIN D. THOMAS HOME DESIGNER

SHEET:

A-5



R1-4 Zone Newly Proposed for Hurricane, UT

Average lot area:	4,000 sq. ft.
Minimum lot area or acreage:	3,600 sq. ft.
Minimum lot width and/or project frontage:	50'
Maximum density per acre:	n/a
Maximum height:	35'
Maximum height of accessory building:	No ADU's allowed – sheds not to exceed 12' tall
Maximum size of accessory building:	12'X20'? for storage or carport/garage only
Building coverage:	50% of lot
Distance between buildings:	10'
Setbacks:	15' front to foundation, 20' to garage, 5' side, 10' R
Minimum lot width:	50'
Minumum lot depth:	50'
Minimum living area sq. ft.	900 sq. ft.
Permitted Uses:	
Single Family homes:	Yes
Multi-Family homes:	No
Residential Pets:	2 Max

RM-4 Residential Zone

18.45.010 Purpose.

To provide areas of medium residential density with the opportunity for varied housing styles and neighborhood character, with a maximum density of eleven dwelling units per gross acre. [Ord. 21-28 § 1 (Exh. A).]

18.45.020 Permitted uses.

- (1) Detached single-family units;
- (2) Household pets, maximum two animals;
- (3) Parks and open spaces (public). [Ord. 21-28 § 1 (Exh. A).]

18.45.040 Permitted accessory uses.

- (1) Accessory Buildings. Detached garages, sheds.
- (2) Recreation Facilities. Basketball and tennis courts, other sports facilities, gazebos and pavilions, and pools and jacuzzis, subject to this chapter.
- (3) Community Facilities. Club houses, common meeting rooms, pool houses, etc., subject to the same setback, height requirements, and architectural standards of this chapter as apply to dwelling units. [Ord. 21-28 § 1 (Exh. A).]

18.45.050 Area requirements.

- (1) Parcel Size. Each application pursuant to this chapter shall be for a site of not less than one acre and not more than 15 acres. The city council may approve zoning and development under the RM-4 zone on parcels of at least one-half acre where such parcels have frontage onto a major street and where such use is in compliance with the Hurricane City general plan and with the surrounding properties.

18.45.170 Fencing.

- (1) Fencing. All fencing shall comply with City Code
- (2) Single-Family Residential Land Uses. All properties adjacent to or abutting an existing multifamily or commercial zone shall install fencing compliant. For the purposes of fencing, this zone shall be considered compatible with adjacent single-family zones, unless otherwise directed by the city during zoning or development approvals.

18.45.180 Development standards.

(1) Lot Area. The minimum lot area shall be 4,000 square feet.

(2) Lot Width. The minimum lot width shall be 40 feet. For multifamily units, the minimum lot width shall be 70 feet. Lot width shall be measured at the front yard setback line.

(3) Lot Depth. The minimum lot depth shall be 50 feet.

(4) Front Yard.

Main building: 15-foot minimum front yard setback measured to foundation.

Garage: 20-foot minimum setback measured to foundation.

(5) Side Yards.

Main building: five-foot minimum side yard setback measured to foundation. On corner lots, the street side yard setback shall be 15 feet from the right-of-way.

(6) Rear Yard.

Main building: The minimum rear yard setback shall be 15 feet. Where adjacent to existing single-family residential zoning or use, the setback shall be 25 feet.

(7) Minimum Living Area Square Footage. The minimum finished living area square footage shall be 1,000 square feet for each dwelling unit.

(8) Maximum Building Height.

Main building: 35 feet. No dwelling shall contain less than one story.

(9) Accessory Buildings. Accessory buildings shall comply with the requirements of Chapter 18.225 RCC, Accessory Structures.

(10) Open Space. Projects over 10 acres shall include a minimum of one acre of open space. A 10 percent reduction in lot size may be allowed to compensate for this requirement, except where a stormwater management area is utilized as open space. Said open space shall be privately owned and

maintained unless otherwise approved by the city council prior to recordation of a plat and/or issuance of any building permits within the project. [Ord. 21-28 § 1 (Exh. A).]

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Automobile wrecking yard	N	N	N	N	N	N	N	N
Freight terminal	N	N	N	N	N	N	N	N
Heavy industry	N	N	N	N	N	N	N	N
Junk or salvage yard	N	N	N	N	N	N	N	N
Laundry services	N	N	N	N	N	N	N	N
Manufacturing, general	N	N	N	N	N	N	N	N
Manufacturing, limited	N	N	N	N	N	N	N	N
Mineral extraction	N	N	N	N	N	N	N	N
Wholesale and warehousing, general	N	N	N	N	N	N	N	N
Wholesale and warehousing, limited	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Agricultural uses:								
Accessory building	P	P	P	P	P	P	P	P
Agricultural business	N	N	N	N	N	N	N	N
Agricultural industry	N	N	N	N	N	N	N	N
Agriculture	N	N	N	N	N	N	N	N
Agriculture residential	P	P	P	P	P	P	P	P
Animal specialties	P	P	N	N	N	N	N	N
Animals and fowl for recreation and family food production	P3/C	P3/C	P3	P3	N	N	N	N
Stable, private	N	N	N	N	N	N	N	N
Residential uses:								
Assisted living facility	C	C	C	C	N	N	N	N
Boarding house	N	N	N	N	N	N	N	N
Building, accessory	P	P	P	P	P	P	P	P
Dwelling, earth sheltered	P	P	P	P	P	P	P	N
Dwelling, multiple-family	N	N	N	N	P	P	P	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Dwelling, single-family	P	P	P	P	P	P	P	P
Dwelling, single-family with single accessory dwelling unit	P	P	P	P	N	N	N	N
Dwelling, temporary	P	P	P	P	P	P	P	P
Dwelling, two-family	N	N	N	N	P	P	P	N
Guesthouse or casita	P	P	P	N	N	N	N	N
Manufactured home	P	P	P	P	N	N	N	P
Manufactured/mobile home park	N	N	N	N	N	N	N	P
Manufactured/mobile home subdivision	N	N	N	N	N	N	N	P
Protective housing facility	N	N	N	N	N	N	N	N
Rehabilitation/treatment facility	N	N	N	N	N	N	N	N
Residential facility for elderly persons ¹	P	P	P	P	P	P	P	P
Residential facility for persons with a disability ¹	P	P	P	P	P	P	P	P

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Residential facility for troubled youth	N	N	N	N	N	N	N	N
Short term rental ⁴	P	P	P	N	N	N	N	N
Transitional housing facility	N	N	N	N	N	N	N	N
Public and civic uses:								
Airport	N	N	N	N	N	N	N	N
Auditorium or stadium	N	N	N	N	N	N	N	N
Bus terminal	N	N	N	N	N	N	N	N
Cemetery	P	P	P	P	P	P	P	P
Church or place of worship	P	P	P	P	P	P	P	P
Club or service organization	N	N	N	N	N	N	N	N
College or university	N	N	N	N	N	N	N	N
Convalescent care facility	N	N	N	N	N	N	N	N
Correctional facility	N	N	N	N	N	N	N	N
Cultural service	N	N	N	N	N	N	N	N
Golf course	P	P	P	P	P	P	P	P
Government service	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Hospital	N	N	N	N	N	N	N	N
Operations center	N	N	N	N	N	N	N	N
Park	P	P	P	P	P	P	P	P
Post office	N	N	N	N	N	N	N	N
Protective service	P	P	P	P	P	P	P	P
Reception center	N	N	N	N	N	N	N	N
School, elementary, middle, high or private	P	P	P	P	P	P	P	P
School, vocational	N	N	N	N	N	N	N	N
Stable, public	N	N	N	N	N	N	N	N
Utility, major	N	N	N	N	N	N	N	N
Utility, minor	P	P	P	P	P	P	P	P
Commercial uses:								
Agricultural sales and service	N	N	N	N	N	N	N	N
Animal hospital	N	N	N	N	N	N	N	N
Bail bond service	N	N	N	N	N	N	N	N
Bank or financial institution	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Bed and breakfast, home	P	P	P	P	N	N	N	N
Bed and breakfast inn	N	N	N	N	N	N	N	N
Business equipment rental, services, and supplies	N	N	N	N	N	N	N	N
Car wash	N	N	N	N	N	N	N	N
Club, private	N	N	N	N	N	N	N	N
Construction sales and service	N	N	N	N	N	N	N	N
Convenience store	N	N	N	N	N	N	N	N
Family child daycare facility ²	P	P	P	P	P	P	P	P
Family child group daycare facility ²	C	C	C	C	C	C	C	C
Family child residential certificate care facility ²	P	P	P	P	P	P	P	P
Family childcare center	N	N	N	N	N	N	N	N
Funeral home	N	N	N	N	N	N	N	N
Garden center	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Gas and fuel, storage and sales	N	N	N	N	N	N	N	N
Gasoline service station	N	N	N	N	N	N	N	N
Hostel	N	N	N	N	N	N	N	N
Hotel	N	N	N	N	N	N	N	N
Kennel	N	N	N	N	N	N	N	N
Kennel, residential	P	P	P	P	P	P	P	P
Laundry or dry cleaning, limited	N	N	N	N	N	N	N	N
Liquor store	N	N	N	N	N	N	N	N
Media service	N	N	N	N	N	N	N	N
Medical or dental laboratory	N	N	N	N	N	N	N	N
Medical service	N	N	N	N	N	N	N	N
Motel	N	N	N	N	N	N	N	N
Office, general	N	N	N	N	N	N	N	N
Parking garage, public	N	N	N	N	N	N	N	N
Parking lot, public	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Pawnshop	N	N	N	N	N	N	N	N
Personal care service, home based ²	P	P	P	P	P	P	P	P
Personal instruction service, home based ²	P	P	P	P	P	P	P	P
Printing and copying, limited	N	N	N	N	N	N	N	N
Printing, general	N	N	N	N	N	N	N	N
Produce stand	N	N	N	N	N	N	N	N
Recreation and entertainment, indoor	N	N	N	N	N	N	N	N
Recreation and entertainment, outdoor	N	N	N	N	N	N	N	N
Recreational vehicle park	N	N	N	N	N	N	N	P
Repair service	N	N	N	N	N	N	N	N
Research service	N	N	N	N	N	N	N	N
Residential hosting facility	P	P	P	P	N	N	N	N
Restaurant, fast food	N	N	N	N	N	N	N	N
Restaurant, general	N	N	N	N	N	N	N	N

Use	Zones							
	R1-15	R1-10	R1-8	R1-6	RM-1	RM-2	RM-3	MH/RV
Retail, general	N	N	N	N	N	N	N	N
Secondhand store	N	N	N	N	N	N	N	N
Shopping center	N	N	N	N	N	N	N	N
Tattoo establishment	N	N	N	N	N	N	N	N
Tavern	N	N	N	N	N	N	N	N
Temporary trailer	P	P	P	P	P	P	P	P
Transportation service	N	N	N	N	N	N	N	N
Vehicle and equipment rental or sale	N	N	N	N	N	N	N	N
Vehicle and equipment repair, general	N	N	N	N	N	N	N	N
Vehicle repair, limited	N	N	N	N	N	N	N	N
Veterinary service	N	N	N	N	N	N	N	N
Warehouse, self-service storage	N	N	N	N	N	N	N	N
Wireless telecommunication facility	See section 10-50-5, table 10-50-1 of this title							
Industrial uses:								

Hurricane Planning Commission
Meeting Minutes
December 14, 2023

Minutes of the Hurricane City Planning Commission meeting held on December 14, 2023, at 5:00 p.m. in the City Council Chambers located at 147 N. 870 West Hurricane UT, 84737

Members Present: Mark Sampson, Shelley Goodfellow, Ralph Ballard, Rebecca Bronemann, Michelle Cloud, Brad Winder, and Kelby Iverson.

Members Excused: Paul Farthing

Staff Present: Planning Director Gary Cupp, City Planner Fred Resch III, City Attorney Dayton Hall, Planning Technician Brienna Spencer, and City Engineer Representative Jeremy Pickering.

5:00 p.m. - Planning Commission Business:

1. Discussion on Title 10 Chapter 39 regarding subdivisions

Gary Cupp explained that Senate Bill 174 requires new subdivision review and approval standards. The proposed land use code amendment streamlines the process and consists of the preliminary and final plat reviews. The construction drawings will be submitted with the preliminary plat, and the City Council will not be the land use authority. Staff is proposing that the Planning Commission be the land use authority. Dayton Hall explained that the legislature was concerned that City Councils could be politically driven to make decisions regarding subdivisions. Mr. Cupp reported that there is no review cycle time limit. However, the city must complete its review within twenty days. He noted that there can be up to four review cycles per the new standards. Mr. Hall reported that the city cannot add additional comments after the first review.

2. Discussion on Title 10 Chapter 32 regarding water use efficiency standards.

Dayton Hall explained that the water efficiency standard adopted by the City Council does not meet the standard for residents to qualify for the rebate program. The updated ordinance meets the water efficiency standard. Mr. Hall reviewed the changes made to the existing standards.

3. Discussion on residential hosting standards and short-term rentals in commercial zones

Gary Cupp reported that licenses for whole home vacation rentals in residential areas will no longer be issued, and the waitlist has been eliminated. This discussion pertains to extending the restrictions to short-term rentals in commercial zones to increase affordable housing. Shelley Goodfellow understands the need to limit short-term residential rentals in commercial areas. However, property owners should have the right to decide what they want to do with their property. Dayton Hall explained that licensed residential hosting allows property owners to rent short-term ADUs. The City Council feels long-term rentals will increase affordable housing. Rebecca Bronemann agrees with Mrs. Goodfellow.

Shelley Goodfellow was excused from the meeting.

6:00 p.m. - Call to Order

Roll Call

Pledge of Allegiance led by Brad Winder

Prayer and/or thought by invitation given by Kelby Iverson

1 Declaration of any conflicts of interest

2 *Brad Winder motioned to approve the agenda as presented. Michelle Cloud seconded the motion.*
3 *Unanimous.*

4 **Public Hearings**

- 5
6 **1. A Zone Change Amendment request located at approximately 560 N 1380 West from R1-**
7 **10, residential one unit per 10,000 square feet, to PC, planned commercial. Parcel number H-**
8 **3-1-3-1142.**

9 Gerald Murray explained that the plan includes low-income housing on the rear end of the property with
10 commercial use on the front of the property.

11 Mary Helm owns commercial property to the west of this parcel. She is not opposed to the zone change.
12 However, she is being denied access, and she asked where the applicant's access will be located.

- 13 **2. A Zone Change Amendment request located along Future Sand Hollow East Road and**
14 **Flora Tech Road from RM-3, multifamily 15 units per acre; R1-6, single family residential one**
15 **unit per 6,000 sq ft; R1-15, single family residential one unit per 15,000 sq ft; OS, open space,**
16 **and HC, highway commercial to RM-3, multifamily 15 units per acre and PC, planned**
17 **commercial. Parcels H-4-2-1-1112-GS1, H-4-2-1-11112-GS1, H-4-2-1-1103-GS1, H-4-2-1-1109-**
18 **GS2, H-3-2-6-1410-GS1.**

19 No comments

- 20 **3. A Zone Change Amendment request located at 2860 W 200 North to amend the existing**
21 **Canyons RV Planned Development Overlay to approve a density bonus. Parcel number H-3-1-**
22 **32-4409.**

23 Dean Harrington lives in Sky Ridge. This trailer park and traffic will devalue the homes in Sky Ridge.

24 Susan Eartman lives in Sky Ridge. She is also opposed to the zone change. This development will
25 decrease her home value, and the only access to the development is through Sky Ridge.

26 Cynthia lives in Sky Ridge. She reiterated the previous comments. The homeowners in the area paid a
27 premium for their views. Trailer homes will be an unsightly view.

28 Pamela Zimbolocity lives in Canyons. She asked if there is a guarantee that moving the rocks will not
29 damage the homes below.

30 Caroline Robinson lives in Canyons. She asked for clarification on the density bonus. Mark Sampson
31 explained the intent of a density bonus.

- 32 **4. A Zone Change Amendment request located at 119 S 700 West from RM-2, multifamily 10**
33 **units per acre, to GC, general commercial, to allow for a short-term rental unit. Parcel number**
34 **H-266-J-1.**

35 No comments

- 36 **5. A Land Use Amendment request to Title 10, Chapter 32 regarding water use efficiency**
37 **standards.**

38 An attendee asked for clarification of the proposed update. Mark Sampson reviewed the proposed
39 amendment.

- 40 **6. A Land Use Amendment request to Title 10, Chapter 39 regarding subdivisions.**

41 No comments

Kelby Iverson was excused from the meeting.

NEW BUSINESS

1. ZC23-26 PSP23-39: Discussion and consideration of a possible approval of a Zone Change Amendment request located at 560 N 1380 W from R1-10, single family residential one unit per 10,000 sq ft to PC, planned commercial. Parcel H-3-1-33-4882. Roger and Leslie Coleman Applicant. Gerald Muray, Agent.

Michelle Cloud feels this affirmatively answers the four-zone change criteria. Gary Cupp explained that private access will be eliminated, and public access will come from the Master Planned Roadway. Fred Resch III shared that there is public access to the north and south of the property.

Rebecca Bronemann motioned a recommendation of approval of ZC23-26 and PSP23-39 subject to staff and JUC comments acknowledging that the access from 600 North will need to be removed. Michelle Cloud seconded the motion. Unanimous.

Shelley Goodfellow rejoined the meeting at 6:30 p.m.

2. ZC23-23 PSP23-40: Discussion and consideration of a recommendation to the City Council on a Zone Change Amendment request located along Future Sand Hollow East Road and Flora Tech Road from RM-3, multifamily 15 units per acre; R1-6, single family residential one unit per 6,000 sq ft; R1-15, single family residential one unit per 15,000 sq ft; OS, open space, and HC, highway commercial to RM-3, multifamily 15 units per acre and PC, planned commercial. Parcels H-4-2-1-1112-GS1, H-4-2-1-1112-GS1, H-4-2-1-1103-GS1, H-4-2-1-1109-GS2, H-3-2-6-1410-GS1. Western Mortgage and Realty Co, Applicant. Karl Rasmussen, Agent.

Karl Rasmussen requested to table the item. He reviewed the map, current construction, the roadway, and services in the PID area. He asked for the Planning Commission's input on the planned commercial area. Michelle Cloud asked how many RM-3 units would be eliminated. Fred Resch III shared that 195 RM-3 units will be removed.

Ralph Ballard motioned to table ZC23-23 and PSP23-40. Rebecca Bronemann seconded the motion. Unanimous.

3. ZC23-28 PSP23-32: Discussion and consideration on a recommendation to the City Council on a Zone Change Amendment request to amend the existing Canyons RV Planned Development Overlay to approve a density bonus and approve the preliminary site plan for Ridge Crest, a 53 lot manufactured home subdivision located at 2860 W 200 N. VE Management and Investments Co, Applicant. Brandee Walker, Agent

Jovi Venuti reported that the property owner is working on 100 North access. He noted that the neighboring property does not back up to this property and explained that this is the Canyons RV PDO, not the Canyons RV Park. The lots in this subdivision are larger than the Canyons RV Park's. The homes are stick-frame modular homes, and he does not think this will decrease the property values in Sky Ridge. Dayton Hall explained that the applicant is seeking a density bonus. The applicant is proposing additional open space in exchange for three additional units.

Rebecca Bronemann motioned a recommendation of approval of ZC23-28 and PSP23-32 subject to staff and JUC comments and based on the findings that the open space is adequate for the density bonus. Brad Winder seconded the motion. Unanimous.

4. ZC23-25: Discussion and consideration of a recommendation to the City Council on a Zone Change Amendment request located at 119 S 700 W from RM-2, multifamily 10 units per acre, to GC, General Commercial. Parcel H-266-J-1. Oliver and Rebekah Radtke, Applicant

Oliver Radtke and his wife purchased the duplex two years ago. The units are currently long-term rentals. They are seeking a zone change to allow for short-term rentals. Mr. Radtke reviewed staff comments and his responses. He provided a map showing the location of commercial businesses in the area, noting that the proposed zone change is harmonious with the current development. He explained that the unit has a three-car garage and a wide driveway, noting that this should satisfy the parking requirements. Shelley Goodfellow feels this meets the four-zone change criteria. However, she is concerned about the precedent this will set. Michelle Cloud does not think this meets the zone change criteria. She acknowledges that the property is between two commercial units. Fred Resch III shared that no documentation shows the properties are zoned commercial. Rebecca Broneman noted the business surrounding this property and acknowledged the heavy traffic on 700 West. She is not opposed to changing the zoning to allow a vacation rental. Ralph Ballard feels this property better fits commercial zoning. He expressed concern regarding access off of 700 West. Mrs. Goodfellow asked if the property could be changed to allow access to 150 South. Mr. Resch III needs to review the standard to determine that. Gary Cupp noted that the business license will not be approved without adequate parking.

Shelley Goodfellow motioned a recommendation of approval of ZC23-25 because it is consistent with the objective and policies of the General Plan, is harmonious with the overall character of the development in the vicinity, will not adversely affect the adjacent properties, and has adequate services. Rebecca Bronemann seconded the motion. Michelle Cloud, Shelley Goodfellow, Rebecca Broneman, Ralph Ballard, Kelby Iverson, and Mark Sampson – aye. Brad Winder – nay. Motion carries.

5. LUCA23-11: Discussion and consideration of a possible recommendation to the City Council on a Land Use Code Amendment to Title 10, Chapter 32 of the City Code pertaining to water use efficiency standards. Hurricane City Applicant.

Shelley Goodfellow asked if the square feet water feature standard could be increased to seventy-five feet. Dayton Hall reported that the Washington County Water Conservancy District water feature standard is twenty-five square feet. If the city deviates from the standard, residents cannot qualify for the rebate program.

Michelle Cloud motioned a recommendation of approval of LUCA23-11. Brad Winder seconded the motion. Rebecca Bronemann, Mark Sampson, Michelle Cloud, Brad Winder, and Kelby Iverson – aye. Ralph Ballard and Shelly Goodfellow – nay. Motion carries.

Shelley Goodfellow feels the restrictions are too broad. Noting that pool restrictions are more important than water feature restrictions. Ralph Ballard agrees.

6. LUCA23-12: Discussion and consideration of a recommendation to the City Council on a Land Use Code Amendment to Title 10 Chapter 39 regarding subdivisions

Ralph Ballard motioned a recommendation of LUCA23-12. Shelley Goodfellow seconded the motion. Roll call vote. Unanimous.

7. PP23-26: Discussion and consideration of a recommendation to the City Council on a preliminary plat for Sand Hollow Mesa Neighborhood Six, a 623 lot residential subdivision located north of 3900 S and between 2100 W and 2400 W. Thane Smith-Romney Group, Applicant. Karl Rasmussen, Agent.

Karl Rasmussen reported that the applicant has requested to table the item while they work through utility issues. He provided a summary of the Sand Hollow Mesa Master Planned subdivision. This plat pertains to the sixth neighborhood.

Rebecca Bronemann motioned to table PP23-26. Kelby Iverson seconded the motion. Unanimous.

8. PP23-27: Discussion and consideration of a recommendation to the City Council on a preliminary plat for Horseman's Edge & Hurricane Cliffs Industrial, a six lot residential

1 **subdivision and 23 lot industrial subdivision located at 3155 S 1100 W. Scott Stratton,**
2 **Applicant. Karl Rasmussen, Agent.**

3 Fred Resch III reviewed the history and rezoning of the project. Scott Stratton reported that residential
4 and industrial are included on the preliminary plat. Phase 3 is undetermined.

5 *Michelle Cloud motioned a recommendation of approval of PP23-27, subject to staff and JUC*
6 *comments. Shelley Goodfellow seconded the motion. Unanimous.*

7 **9. PP23-28: Discussion and consideration of a recommendation to the City Council on a**
8 **preliminary plat for Hurricane Heights Townhomes Phase 5, a two-lot townhome subdivision**
9 **located at 475 N 500 W. HH5, LLC, Applicant. Bret Peterson, Agent.**

10 Bret Peterson reported this is the last phase of the Hurricane Heights Townhomes subdivision. The
11 retention was moved, and the applicant is requesting an additional duplex.

12 *Shelley Goodfellow motioned a recommendation of approval of PP23-28. Michelle Cloud seconded the*
13 *motion. Unanimous.*

14 **10. FSP23-60: Discussion and consideration of a possible approval of a final site plan for**
15 **Mountain View Apartments, a 31-unit apartment complex, located at 60 S 925 W. Interstate**
16 **Rock Products, Applicant. Chase Stratton, Agent.**

17 *Rebecca Bronemann motioned to approve FSP23-60 subject to staff and JUC comments. Shelley*
18 *Goodfellow seconded the motion. Unanimous.*

19 **11. PSP23-41: Discussion and consideration of a possible approval of a preliminary site plan**
20 **for Suites on Nine, a six-unit short-term rental complex located at 1580 W State St. Travis**
21 **Barney, Applicant.**

22 Barry Thompson reported that one unit is dedicated to onsite management.

23 *Brad Winder motioned to approve PSP23-41 subject to staff and JUC comments. Rebecca Bronemann*
24 *seconded the motion. Unanimous.*

25 **12. AFP23-18: Discussion and consideration of a recommendation to the City Council on an**
26 **amended final plat for Dixie Springs Plat C located at 3700 W 2640 S Circle. Heather Hugie,**
27 **Applicant. Rosenberg Associates, Agent.**

28 Mike Hugie explained that they seek approval to combine two lots to build a house and an RV garage.

29 *Shelley Goodfellow motioned a recommendation of approval of AFP23-18 subject to staff and JUC*
30 *comments. Rebecca Bronemann seconded the motion. Unanimous.*

31 **13. FSP23-61: Discussion and consideration of a possible approval of a final site plan for**
32 **Cedar Post Rentals, a four-unit short-term rental complex located at 72 W State St. Jill Hamblin,**
33 **Applicant.**

34 Jill Hamblin reported that nothing has changed from the original proposal. They are planning to build a
35 wall to separate commercial and residential. Fred Resch III shared that they need an approved parking
36 modification because of the shared parking.

37 *Rebecca Bronemann motioned to approve FSP23-61 subject to staff and JUC conditional upon an*
38 *approved agreement between the applicant and adjacent business to share parking and approval of the*
39 *parking modification. Ralph Ballard seconded the motion.*

14. 2022-PP-29: Discussion and consideration of a possible approval of an extension of the preliminary plat approval for Hurricane Heights Hobby Garages, a 33 lot hobby garages development located at 400 N 700 W. Max Stokes, Applicant. Brandee Walker, Agent.

Kelby Iverson motioned to approve the extension for 2022-PP-29. Brad Winder seconded the motion. Unanimous.

15. FSP23-63: Discussion and consideration of a possible approval of a final site plan for Forsyth Triplex, a three-unit apartment building located at 163 N Main St. Zachary Forsyth Applicant.

Shelley Goodfellow motioned to approve FSP23-63 subject to staff and JUC comments. Michelle Cloud seconded the motion. Unanimous.

16. FSP23-64: Discussion and consideration of a possible approval of a final site plan for Foryth duplex, a duplex located at 383 N Main St. Zachary Forsyth, Applicant.

Zack Forsyth explained that he intends to remove the home on the property to build a duplex. An orchard will be on the back of the property to avoid planting trees in the utility easement. He has a prescriptive easement of use along 390 North. He also has adequate property for the driveways and garages. Ralph Ballard expressed concern about the location of the fire hydrant. Mr. Forsyth stated that the fire hydrant will be moved to the south.

Kelby Iverson motioned to approve FSP23-64 subject to staff and JUC comments. Ralph Ballard seconded the motion. Unanimous.

17. CUP23-20: Discussion and consideration of a possible approval of a conditional use permit for a building of greater height and size located at 507 N 3650 W. Quay Stratton, Applicant.

Ralph Ballard motioned to approve CUP23-20 subject to staff and JUC comments. Shelley Goodfellow seconded the motion. Unanimous.

18. Consideration and possible approval of the 2024 meeting schedule

Rebecca Bronemann motioned to approve the 2024 meeting schedule as presented. Michelle Cloud seconded the motion. Unanimous.

Approval of Minutes:

1. October 26th, 2023

Michelle Cloud motioned to approve the October 26, 2023, minutes. Rebecca Bronemann seconded the motion. Unanimous.

2. November 9, 2023

As presented, Michelle Cloud motioned to approve the November 9, 2023, minutes. Rebecca Bronemann seconded the motion. Unanimous.

Rebecca Bronemann motioned to adjourn the meeting. Michelle Cloud seconded the motion. Unanimous.

Adjournment at 8:29 p.m.

Hurricane Planning Commission
Special Meeting Minutes
January 3, 2024

Minutes of the Hurricane City Planning Commission meeting held on January 3, 2024, at 5:00 p.m. in the City Council Chambers located at 147 N. 870 West Hurricane UT, 84737

Members Present: Mark Sampson, Paul Farthing, Ralph Ballard, Rebecca Bronemann, Michelle Cloud(online), Brad Winder, and Kelby Iverson.

Members Excused: Shelley Goodfellow

Staff Present: Planning Director Gary Cupp, City Planner Fred Resch III, City Attorney Dayton Hall, and Planning Technician Brienna Spencer.

5:00 p.m. - Call to Order

Roll Call

Declaration of any conflicts of interest

NEW BUSINESS

1. FSP23-68: Discussion and consideration of a possible approval of a final site plan for Buck's Ace Hardware, a commercial subdivision located at 1400 W 100 S. Buck Hurst, Applicant. Tyler Hughes, Agent.

Gary Cupp shared that their building permits are ready to go and we are just trying to accommodate them. Brad Winder asked if the roadway alignment will have some kind of jog, because it changes as you head south on 1400 West. Fred Resch III shared on the transportation master plan the alignment and where the jog will happen. Mr. Winder also asked what the restaurant will be. Buck Hurst shared that they are getting close with two locations but he doesn't want to share publicly yet. Kelby Iverson asked what the reasoning for the proposed alignment of the roadway was. Mr. Resch III shared that it was because of the sewer lines and where they are located. He also noted that the parking study is fine for reduced parking, the modification just needs to be noted in the motion.

Paul Farthing motioned to approve FSP23-68 as presented with the parking modifications subject to staff and JUC comments. Kelby Iverson seconded the motion. Unanimous.

Rebecca Bronemann motioned to adjourn the meeting. Paul Farthing seconded the motion. Unanimous.

Adjournment

Hurricane Planning Commission
Meeting Minutes
January 11, 2024

Minutes of the Hurricane City Planning Commission meeting held on January 11, 2024, at 6:00 p.m. in the City Council Chambers located at 147 N. 870 West Hurricane UT, 84737

Members Present: Mark Sampson, Paul Farthing, Shelley Goodfellow, Rebecca Bronemann, Michelle Cloud, and Brad Winder.

Members Excused: Ralph Ballard and Kelby Iverson

Staff Present: Planning Director Gary Cupp, City Planner Fred Resch III, City Attorney Dayton Hall, Planning Technician Brienna Spencer, and City Engineer Representative Jeremy Pickering.

6:00 p.m. - Call to Order

Roll Call

Pledge of Allegiance, led by Paul Farthing

Prayer and/or thought by invitation given by Shelley Goodfellow

Paul Farthing motioned to approve the agenda as presented. Michelle Cloud seconded the motion. Unanimous.

Declaration of any conflicts of interest

NEW BUSINESS

1. FSP23-62: Discussion and consideration of a possible approval of a final site plan for Obsidian Resorts Phase 1-5, a 144 unit recreation resort condominium development located along Bash Parkway. Russel Robison, Applicant. Karl Rasmussen, Agent.

Karl Rasmussen reported Bash Parkway has curb and gutter. They are waiting for the weather to warm up to pave the roads. He anticipates that the Gateway Parkway will be open in late April.

Rebecca Bronemann motioned to approve FSP23-62 subject to staff and JUC comments. Shelley Goodfellow seconded the motion. Unanimous.

2. PP23-29: Discussion and consideration of a recommendation to the City Council on a preliminary plat for Sandwater Estates, a 153 lot single family subdivision located at 4200 W 2300 S. Richardson Brothers Custom Homes, Applicant. Karl Rasmussen, Agent.

Karl Rasmussen reported that Alpha Engineering is designing the school along Wilson Dr. He reviewed the roadways and services. This development is zoned R1-10, and the lot sizes are identical to Dixie Springs. Gary Cupp reported that staff is agreeable with conditional approval before approved construction drawings of the roadways, and he is confident that staff comments can be addressed before the City Council meeting.

Paul Farthing motioned a recommendation of approval to the City Council of PP23-29 subject to staff and JUC comments and staff recommendations. Rebecca Bronemann seconded the motion. Unanimous.

1 **3. PP23-30 HIL23-03: Discussion and consideration of a recommendation to the City**
2 **Council on a preliminary plat and sensitive lands application for Kolob Views, a 20 lot single**
3 **family subdivision located at 1400 W 900 S. Stratton Dev LLC, Applicant. Colt Stratton, Agent.**

4 Colt Stratton reported that this was brought before the Planning Commission in October 2022. The
5 application was tabled while they were working on the 1150 West roadway. He cited a conversation with
6 the Mayor regarding the 1150 West roadway and stated that he feels this application reflects the Mayor's
7 recommendation and concessions. Paul Farthing asked why the report states that some lots are
8 inaccessible. Gary Cupp clarified that the lots were declared unbuildable because there is inadequate
9 information to prove that the lots are buildable. He noted that the lots will be accessible if the neighbor
10 participates in providing access. Mr. Stratton noted that Mountain View Estates had unbuildable lots and
11 were allowed to progress with grading, and the applicant expects the same exceptions. He explained
12 that the unbuildable lots are in phase two. Brad Winder asked about JUC comments regarding the water
13 canal company. Jeremy Pickering noted that this will be addressed during the construction drawings.
14 Shelley Goodfellow explained that the neighboring development was approved based on sound
15 engineering principles. Mr. Stratton reported that the applicant has similar grading and slopes. Mr. Cupp
16 noted that staff needs to review an engineered grading plan to grant a sensitive land ordinance. Dayton
17 Hall recommended sending this to the City Council to address the access and slope issues in the staff
18 report.

19 *Shelley Goodfellow motioned a recommended approval of PP23-30 and HIL23-03 to the City Council of*
20 *phase one only with a recommendation of denial of phase two, subject to staff and JUC comments. Brad*
21 *Winder seconded the motion. Unanimous.*

22 **4. PP23-31: Discussion and consideration of a recommendation to the City Council**
23 **on a preliminary plat for Black Ridge Phase 1, a residential subdivision consisting of 84 single**
24 **family homes and 20 townhomes, located at 1760 W and 700 S. Wasatch Commercial Developers,**
25 **Applicant. Rob Reid, Agent.**

26 Josh Lyon shared that this plat expired during the design and review process. Gary Cupp reported minor
27 changes in the site plan and roadway alignments.

28 *Rebecca Bronemann motioned a recommendation of approval of PP23-31 to the City Council subject to*
29 *staff and JUC comments, to renew their expired plat and approve the minor changes made. Paul*
30 *Farthing seconded the motion. Unanimous.*

31 **5. FSP23-52: Discussion and consideration of a recommendation to the City Council**
32 **on a final site plan for Fairgrounds RV park, a 110 stall RV park located at Regional Park Road**
33 **and 700 S. D&G Property Holdings LLC, Applicant. Brandee Walker and Alex Stewart, Agents.**

34 Fred Resch III stated that the applicant has signed construction drawings.

35 *Paul Farthing motioned a recommendation of approval of FSP23-52 to the City Council subject to staff*
36 *and JUC comments and staff recommendation. Brad Winder seconded the motion. Unanimous.*

37 **6. PP23-32: Discussion and consideration of a recommendation to the City Council**
38 **on a preliminary plat for Red Cliffs subdivision, a 31 unit duplex development located at 600 N**
39 **2170 W. Kirk Coppinger, Applicant.**

40 Jeremy Pickering shared that construction drawings have been submitted, and the secondary access
41 through Fire Rock is being addressed. Kirk Coppinger reported that the plat approval expired in
42 December 2023. Dayton Hall reported that the Planning Commission needs to determine whether the
43 submitted application meets Hurricane City standards for approval. Due to the low density, Shelley
44 Goodfellow is comfortable approving the plat without secondary access. Gary Cupp reported that the
45 hydrant and water looping need to be addressed.

1 *Brad Winder motioned a recommendation of approval of PP23-32 to the City Council subject to staff and*
2 *JUC comments. Michelle Cloud seconded the motion. Unanimous.*

3 **7. CUP23-23: Discussion and consideration of a possible approval of a conditional**
4 **use permit for a metal building located at 840 N Main St. Kyden Hansen, Applicant.**

5 Gary Cupp recommends tabling the item. The applicant is absent, and the staff has not received the
6 color palette.

7 *Michelle Cloud motioned to table the application CUP23-23. Brad Winder seconded the motion.*
8 *Unanimous.*

9 **8. AFP23-19: Discussion and consideration of a recommendation to the City Council**
10 **on an amended final plat for Quail Lake Estates Lot 13 located at 4400 W State St #13. Ryan**
11 **Scholes, Applicant**

12 *Rebecca Bronemann motioned a recommendation of approval of AFP23-19 to the City Council subject*
13 *to staff and JUC comments. Paul Farthing seconded the motion. Unanimous.*

14 **9. AFP23-20: Discussion and consideration of a recommendation to the City Council**
15 **on an amended final plat for Dixie Springs Plat B Lots 210 and 211 located at 3849 W 2700 S.**
16 **Ryan Scholes, Applicant.**

17 *Shelley Goodfellow motioned a recommendation of approval of AFP23-20 to the City Council subject to*
18 *staff and JUC comments. Rebecca Bronemann seconded the motion. Unanimous.*

19 **10. CUP23-22: Discussion and consideration of a possible approval of a conditional**
20 **use permit for a metal building located at 980 S 920 W. Kade Bringhurst, Applicant.**

21 Kade Bringhurst reported that he plans to build a metal shop behind his house.

22 *Paul Farthing motioned to approve CUP23-22 subject to staff and JUC comments. Brad Winder*
23 *seconded the motion. Unanimous.*

24 **11. AFP23-21: Discussion and consideration of a recommendation to the City Council**
25 **on an amended final plat for Pecan Valley Resort Phase 1 located at 5210 W 2400 S. Chris Wyler,**
26 **Applicant. Brandee Walker, Agent.**

27 Chris Wyler stated that they are applying to combine two units.

28 *Michelle Cloud motioned a recommendation of approval of AFP23-21 to the City Council. Paul Farthing*
29 *seconded the motion. Unanimous.*

30 **12. 2022-PP-24: Discussion and possible approval of an extension on the final plat**
31 **deadline for Gateway at Sand Hollow Resort, a 183 unit recreation resort condominium**
32 **development located at Sand Hollow Road and Gateway Blvd. Western Mortgage and Realty**
33 **Company, Applicant. Karl Rasmussen, Agent.**

34 *Shelley Goodfellow motioned to approve the extension of 2022-PP-24. Rebecca Bronemann seconded*
35 *the motion. Unanimous.*

36 Shelley Goodfellow asked if the sensitive lands ordinance protects citizens from potential geographical
37 issues. Dayton Hall explained the current policy.

38 *Paul Farthing motioned to adjourn the meeting. Michelle Cloud seconded the motion. Unanimous.*

39 **Adjournment**