



Memorandum

To: Planning Commission
From: Niall Connolly, Principal Planner
Date: October 10th, 2025
Re: Design Development Review, New Residence at 54 Hummingbird Lane

Introduction

This is a new design development review (DDR) application for a residence with detached garage/ casita at 54 Hummingbird Lane. The applicant is Mr. Breck Dockstader. The property is zoned "Village Commercial", but a Development Agreement applies to the property. The Development Agreement is appended to this report for reference, and is discussed later in this report.

Planning History

The Planning Commission approved a DDR for this development in September 2024. Mr Dockstader then applied for a revision to the DDR approval, which the Commission reviewed in the August 2025 regular meeting. The Commission determined that approval for the revised DDR should not be granted until questions about the fire access were resolved. The Commission directed the applicant to first resolve these questions, and to then return to the Planning Commission at that point for approval. Since then, the original DDR approval has expired, and, as a consequence, so has the DDR revision application. Mr. Dockstader has also been approved an erosion hazard permit and a floodplain development permit. These permits are both still valid.

Fire Access

The Fire District requires a 20 ft wide all-weather access to the property. The previous application showed this access cutting across a corner of no. 50 Hummingbird Lane's front yard. The Town pump house building sits at the end of Hummingbird Lane and obstructs access. Therefore, to achieve a 20 ft wide access to the property, the access included this corner of no. 50's yard.

This new application shows the 20ft wide access on the other (north) side of the pump house. This access arrangement crosses a small piece of land which is the property of no. 45. Both routes (north of the pump house and south of the pump house) have an existing 20ft width of all weather surface. However, in either case, the access depends on some land outside the applicant's ownership. Our understanding is that the applicant has not, to date, secured an easement from either of the property owners (no. 45 or no. 50). Town Staff's understanding is that the Fire District will require this for their approval.

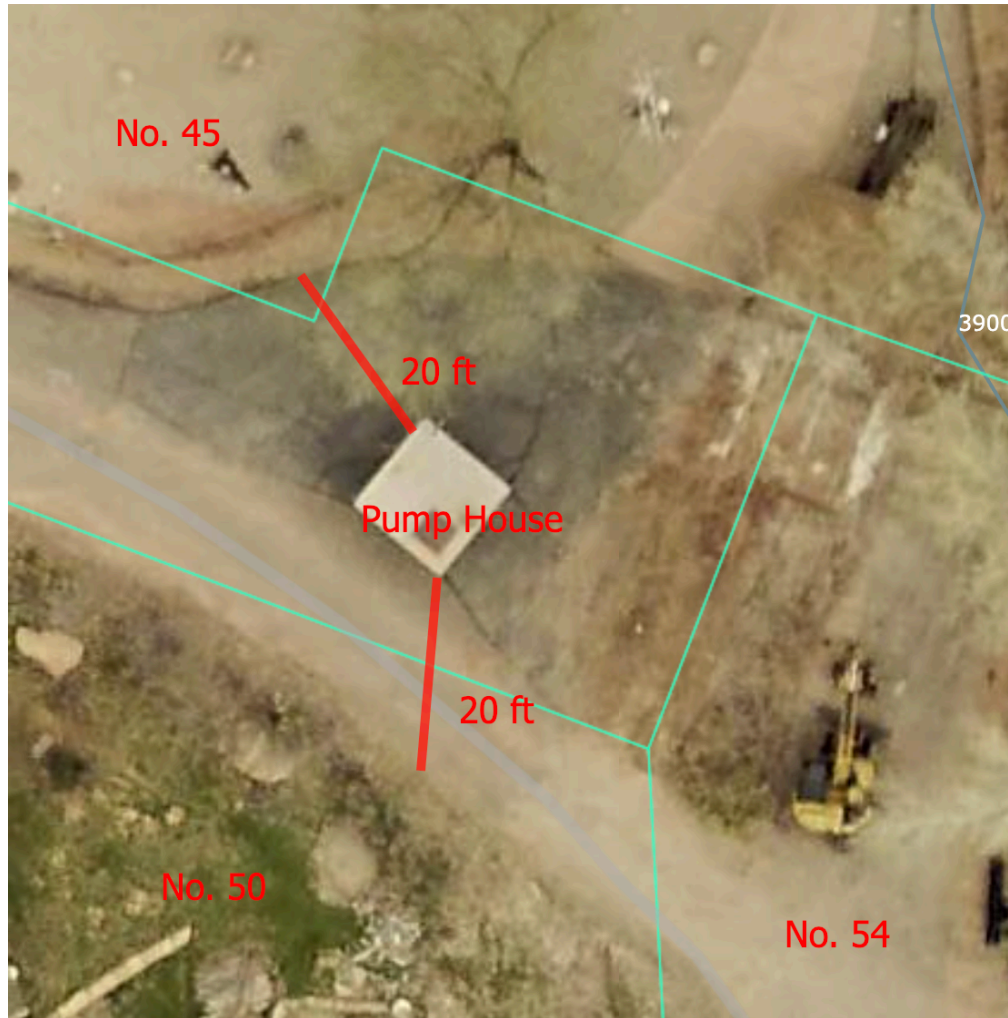


Figure 1. Aerial view showing the options for the 20 ft wide fire access. Green Lines signify property lines.

The Town Code does not require Fire District approval for Design Development Review applications. Instead, the Town requires confirmation from the Fire District at the Building Permit stage that the plans comply with their standards. The Town encourages applicants to engage in pre application consultation with the Fire District to ensure their plans comply with their standards.

Development Agreement

The Development Agreement dates from 2010. The Agreement allowed for the properties at no. 50 and no. 54 to change from the Valley Residential Zone to the Village Commercial Zone. This contemplated a single family home to be developed on each property. Subject to relevant approvals (a conditional use permit at the time of the Development Agreement) both houses could be used as vacation rentals. (Note: the applicant has not, to date, made any application to use the proposed house as a vacation rental).

The Development Agreement also contemplates the eventual construction of the Zion Canyon Trail, which is envisaged to run generally alongside the river. In the Agreement, the property owners

committed to work with the Town to establish an easement for this trail *“if and when similar trail easements or public rights of way are obtained on adjacent properties that would allow the development of a continuous trail through and across the adjacent properties”*. This easement would be 10 ft in width, along with temporary 5 ft construction easements on either side. While delivery of this trail remains a goal of the Town, no easements have been secured, to date, on neighboring properties. The proposed layout does not prejudice the delivery of this trail at some point in the future, as there is sufficient space between the proposed house and pool and the river (see figure 2 below).



Figure 2. Aerial view showing the distance between the proposed house and pool and the river

Access to No. 44 Hummingbird Lane

The proposed layout will alter the existing access arrangements to no. 44 Hummingbird Lane. The application drawings indicatively show a new driveway (through no. 50's yard) and parking area to serve no. 44. This driveway and parking area is indicative only, and will not be subject to any approval of this DDR application. The owner of no. 44 will need to make a separate application to build this new driveway and parking area.

Grading in the Erosion Hazard Zone

In the recent DDR revision application, grading was shown on the riverward side of the erosion protection. This appeared to be different from what had been shown on the original grading plan, and therefore this was flagged as a potential concern at that Commission meeting. Following that meeting, staff consulted with the project engineers (Rosenberg Engineering). Upon closer investigation, this grading does match the profiles which were approved with the erosion hazard permit and floodplain development permit. It had not previously been shown in plan however. The proposed grading is

intended to restore an artificially steep slope to a more natural slope down to the river. The hydraulic and hydrological modeling which was done at the time of the floodplain development permit demonstrates that this grading will not result in a rise in flood levels.

Landscaping

A condition of approval on the DDR last year was that Town staff and the applicant must walk the site together to identify all the native trees. The landscape plan was then to be updated to note these, and to ensure that two replacement trees are proposed per every native tree that is removed.

Town staff and the applicant has since walked over the site to catalogue the trees, and the landscape plan has been updated accordingly. It is worth noting that there are a number of trees on the property which are non-native, and therefore are not protected. Therefore, the code requirement for 2:1 replacement does not apply to these trees.

Applicable Ordinances

The Commission may wish to refer to the following ordinances to help inform the review of this application:

- Section 10- 11B: Village Commercial Zone
- Section 10- 16: Architectural Standards and Design Guidelines
- Section 10- 17: Color Palette
- Section 10- 18: Landscaping
- Section 10-15C: Outdoor Lighting

The Planning Commission may also wish to refer to the Development Agreement that relates to this property.

Staff Analysis

<i>Standard</i>	<i>Requirement</i>	<i>Proposal</i>	<i>Comments</i>
<i>Maximum Building Size</i>	5,000 sq ft, or 8,000 sq ft if a building is setback more than 100 ft from SR-9.	The house is 4,948 sq ft in size.	Complies.
<i>Separation Distances</i>	The distance between any two buildings or structures on the same lot or parcel of land must be equal to or greater than the average height of the	The house is 28 ft in height and the garage/casita is 24 ft in height. So the minimum separation distance between the two buildings is 26 ft.	Complies.

	two buildings being compared	There is 26 ft distance between the two buildings.	
<i>Building Height</i>	<p>Generally, the maximum building height in the VC zone is 26 ft (or 21 ft in the case of a high visual impact lot). This is not a high visual impact lot.</p> <p>However the maximum building height is increased to 28 ft, if the highest finished floor elevation of a building is more than 4 ft below the lowest elevation of SR-9 fronting the property.</p>	<p>The proposed house is 28 ft in height.</p> <p>Hummingbird Lane is sloped downwards towards the river, and so the proposed finished floor elevations are more than 4 ft below SR-9 at this location. Thus, the 28 foot building height is applicable to this property.</p>	Complies.
<i>Setbacks</i>	<p><i>Front setback:</i> Not less than 30 feet.</p> <p><i>Side setback:</i> Not less than ten feet.</p> <p><i>Rear setback:</i> Not less than 20 feet.</p> <p>(Note: The setback for driveways is 5 ft)</p>	<p>The parcel is an irregular shape, and it is not immediately obvious which property lines are the front, back or sides.</p> <p>Following analysis, staff consider that the south and west property lines around the casita could be considered “sides”, and the east can be considered the rear.</p> <p>The garage is 10 ft setback from the property lines. The driveway is set back 5 ft from the property line.</p> <p>The house itself is set back by more than 30 ft from the front of the</p>	Complies.

		property and 20 ft from the rear of the property.	
<i>Materials and Colors</i>	<p>Materials and colors must comply with 10-16 and 10-17 of the Code.</p> <p>Concrete color must comply with section 4.8(E) of the Town's Construction Design Standards and Details Manual.</p>	<p>The applicant has provided details of the proposed colors and materials.</p> <p>All appear to comply with the Town's standards. The photo of the roofing material looks dark gray, but is difficult to determine if it could be black from the photo (dark gray would be permitted, black would not be permitted).</p>	<p>Complies.</p> <p>The commission may wish to apply a condition requiring a sample of the roof material be shared with the Town prior to installation, to ensure compliance with the Town color palette.</p>
<i>Landscaping</i>	<p>60% requirement, 80% plants to be drought tolerant.</p> <p>Minimum trees - 1 per 1,000 sq ft of landscape area. Minimum shrubs - 4 per 1,000 sq ft of landscape area.</p> <p>For every 1 native tree removed, 2 replacement native trees are required.</p>	<p>More than 60% of the property is landscaped/ open space.</p> <p>80% of the plants are drought tolerant.</p> <p>18 native trees are to be removed. 36 new native trees are proposed.</p> <p>Well in excess of required 118 shrubs proposed.</p>	<p>Complies.</p> <p>Note: a condition of the approval in 2024 was that the applicant would walk the site with staff to identify the native trees. This was completed, and the landscape plan was drawn accordingly.</p>

<i>Outdoor Lighting</i>	<p>Maximum 40,000 lumens per acre. This is a 1.1 acre property, therefore the lumen cap is 44,000 lumens.</p> <p>All lights to have shade of at least 2 inches.</p>	<p>The outdoor lighting is provided by a mixture of recessed can lights and downward facing sconces.</p> <p>The proposed fixtures appear to be compliant.</p> <p>The color temperatures are shown as less than 3,000 Kelvin.</p> <p>The applicant has provided a calculation showing a total of 14,900 lumens. In the Village Commercial zone, 40,000 lumens per acre are allowed. The parcel is approximately 1.1 acres. Therefore the proposed outdoor lighting is well within the allowed limits.</p>	Complies
<i>Car Parking</i>	<p>Requirements set out in 10-23. Single family residences must have at least two off street parking spaces.</p>	<p>A three car garage is proposed.</p>	Complies.

Planning Commission Action

The Planning Commission should review the proposed Design Development Review Permit to determine if it complies with the applicable standards in the Town Ordinance. Staff recommends the Commission specifically consider the following:

- Does the proposed development meet all the requirements of the Village Commercial (VC) Zone?
- Does the proposed development meet all the requirements of the Architectural Standards and Design Guidelines ordinance?

- Does the proposed development meet all the requirements of the Landscaping ordinance?
- Does the proposed development meet all the requirements of the Color Palette ordinance?
- Does the proposed development meet all the requirements of the Outdoor Lighting ordinance?

Sample Motion Language

The Planning Commission may refer to the following sample language when making a motion on the application:

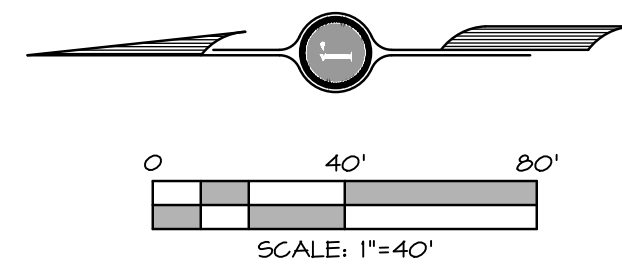
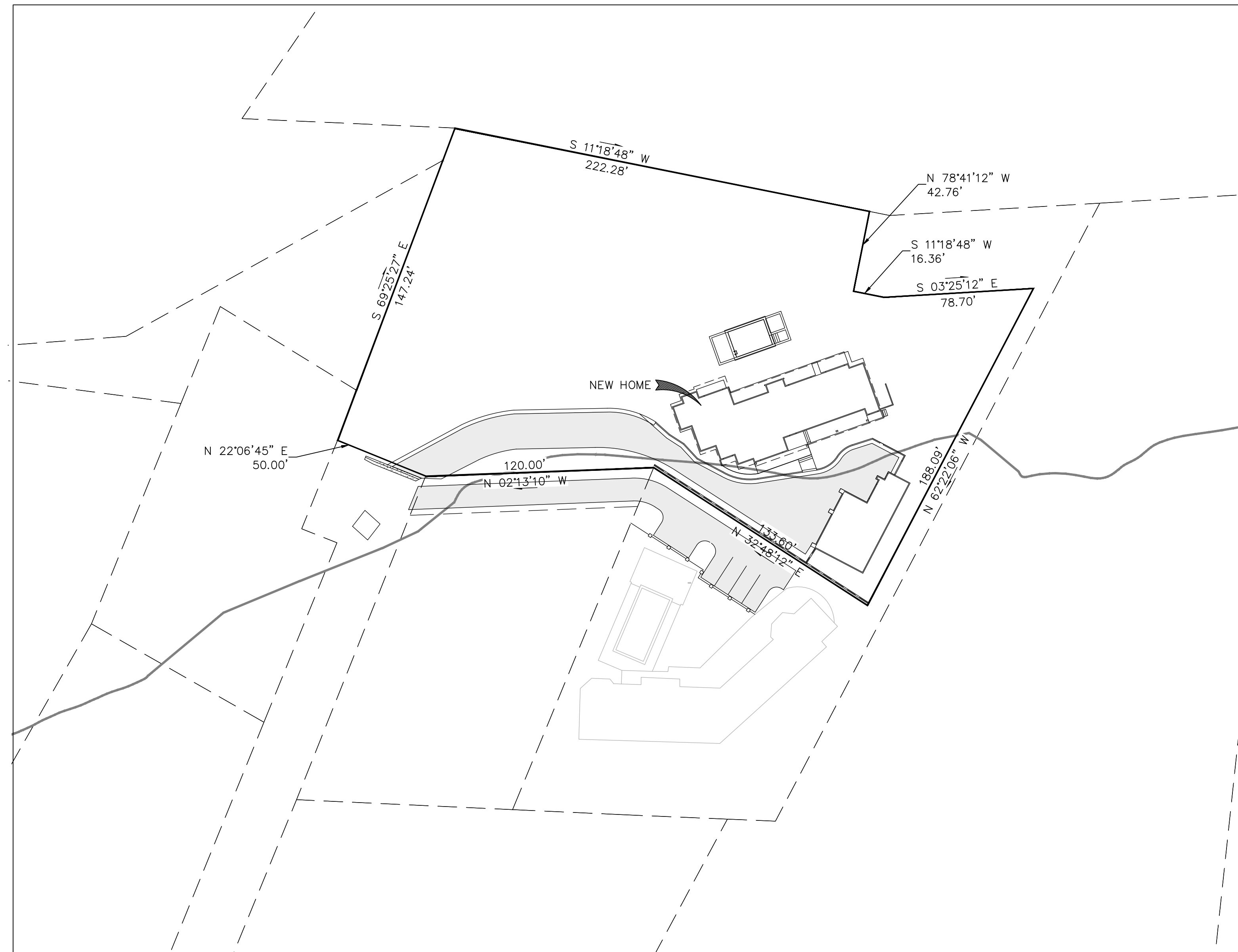
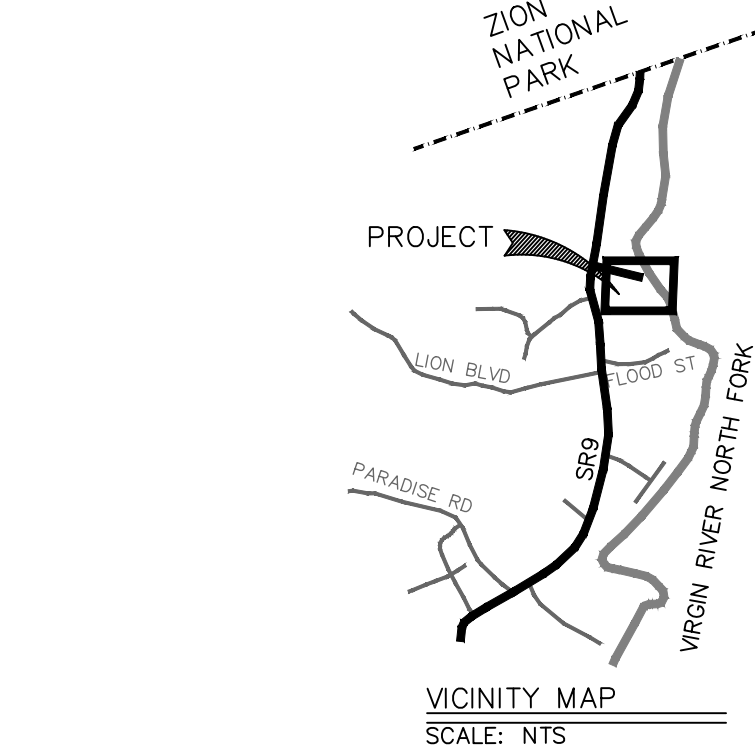
*The Planning Commission **approves/ denies** the proposed Design Development Review for a single family home and detached garage/ casita at 54 Hummingbird Lane, as discussed at the Commission meeting on October 15th, 2025. The motion is based on the following findings:*

[LIST FINDINGS]

If making a motion for approval, the planning commission may wish to consider the following conditions of approval:

1. The applicant must provide a sample of the roof material to the Town in advance of construction to ensure it complies with the Town's color palette.
2. The applicant must obtain a separate pool permit for the swimming pool.
3. The applicant must provide written confirmation from the Fire District that satisfactory Fire Truck Access to the property is in place, prior to issuance of a building permit.
4. The new driveway on no. 50 Hummingbird Lane and the new parking area on no. 44 Hummingbird Lane are shown on the drawings indicatively only, and not included in this approval. The relevant landowners must make separate permit applications for those improvements.

Appendix 1. Application Documents



SHEET INDEX	
SHEET NUMBER	SHEET DESCRIPTION
1	COVER SHEET
2	SITE & UTILITY PLAN
3	OVERALL GRADING PLAN
4	SITE GRADING & DRAINAGE PLAN
5	SEWER PROFILE
6	DETAILS
7	DETAILS

1. ALL ELEVATIONS AND HORIZONTAL LOCATIONS ARE BASED ON THE

1. ALL ELEVATIONS AND HORIZONTAL LOCATIONS ARE BASED ON THE NAVD 88 VERTICAL DATUM AND STATE PLANE COORDINATE SYSTEM.
2. A MANDATORY PRE-CONSTRUCTION MEETING SHALL BE REQUIRED ON ALL PROJECTS PRIOR TO ANY GRUBBING, GRADING, OR CONSTRUCTION ACTIVITIES. THE PERMIT HOLDER SHALL BE REQUIRED TO NOTIFY ALL DEVELOPMENT SERVICES INSPECTORS.
3. PROJECTS SHALL INSTALL AN INFORMATIONAL SIGN ON SITE BEFORE CONSTRUCTION BEGINNING. THIS SIGN WILL HAVE A MINIMUM SIZE, PLACEMENT LOCATION AND CONTENT INFORMATION WITH THE COMPANY NAME, PHONE CONTACT & GRADING PERMIT NUMBER.
4. ALL WORK SHALL BE CONTAINED ON THE SUBJECT SITE ONLY. NO STOCKPILING OR CONSTRUCTION ACTIVITY SHALL OCCUR OFF OF THE APPROVED LOT AREA.
5. THE PROJECT SHALL SUBMIT A DUST CONTROL PLAN WITH DETAILS ON EQUIPMENT, SCHEDULING AND REPORTING OF DUST CONTROL ACTIVITIES. A WATER TRUCK SHALL BE AVAILABLE ON-SITE THROUGHOUT CONSTRUCTION TO CONTROL AIRBORNE PARTICLES.
6. THE CONTRACTOR SHALL PROVIDE PORTABLE RESTROOMS AND A TEMPORARY TRASH ENCLOSURE ON SITE DURING ALL CONSTRUCTION ACTIVITIES.
7. ALL FIELD DESIGN CHANGES SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

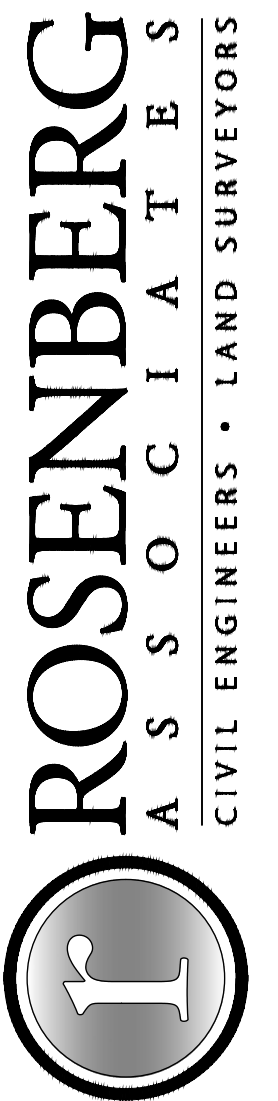
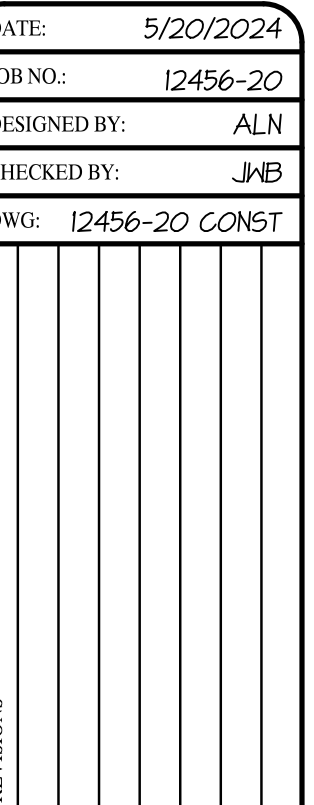


Know what's below.
Call before you dig.

NOTICE:
EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE
OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE
FOR THE LOCATION AND PROTECTION OF ALL UTILITIES. THE
ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN
OR SHOWN INCORRECTLY.

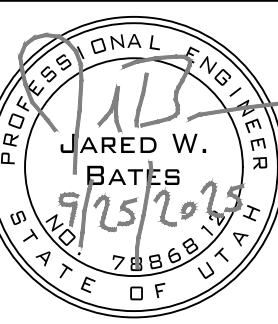
THE ENGINEER FOR THIS PROJECT IS:
ROSENBERG ASSOCIATES
CONTACT: JARED BATES, P.E.
352 EAST RIVERSIDE DRIVE, SUITE A2
ST. GEORGE, UTAH 84190 (435) 673-8586

THE DEVELOPER FOR THIS PROJECT IS:
SPILKER & COMPANY, LLC
CONTACT: CLARK SPILKER
933 E. ROCKWOOD CT.
WASHINGTON, UT 84780
(435)668-0762



2 East Riverside Drive, Suite A-2
St. George, Utah 84790
n (435) 673-8586 Fx (435) 673-8397
www.racivil.com

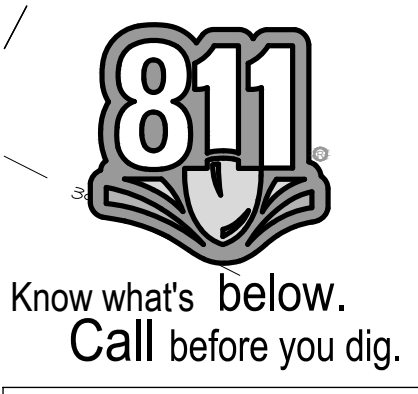
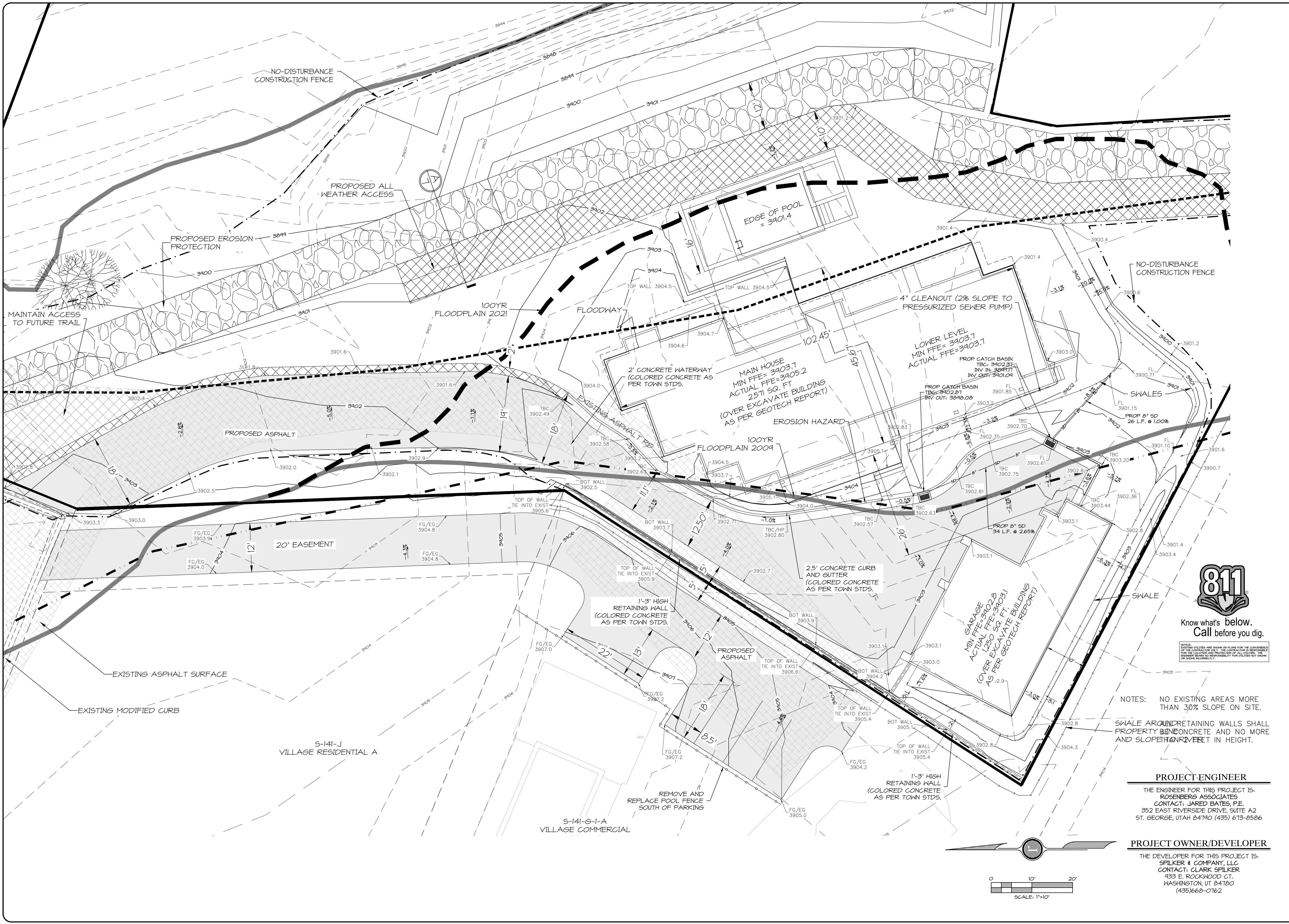
COVER SHEET
FOR
SNOW LEOPARD
54 E. HUMMINGBIRD LANE
SPRINGDALE, UTAH



SHEET

1

OF 7 SHEETS



NOTES:
EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.


NOTES: NO EXISTING AREAS MORE THAN 30% SLOPE ON SITE.
SWALE AROUND RETAINING WALLS SHALL BE PROPERTY BENECONCRETE AND NO MORE THAN 12" IN HEIGHT.

PROJECT ENGINEER
THE ENGINEER FOR THIS PROJECT IS:
ROSENBERG ASSOCIATES
CONTACT: JARED BATES, P.E.
352 EAST RIVERSIDE DRIVE, SUITE A2
ST. GEORGE, UTAH 84790 (435) 673-8586

PROJECT OWNER/DEVELOPER
THE DEVELOPER FOR THIS PROJECT IS:
SPILKER & COMPANY, LLC
CONTACT: CLARK SPILKER
433 E. ROCKWOOD CT.
WASHINGTON, UT 84780
(435) 668-0762

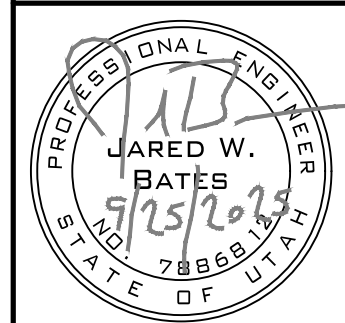
DATE:	5/20/2024
JOB NO.:	12456-20
DESIGNED BY:	ALN
CHECKED BY:	JWB
DWG:	12456-20 CONST
DATE:	
REVISIONS:	

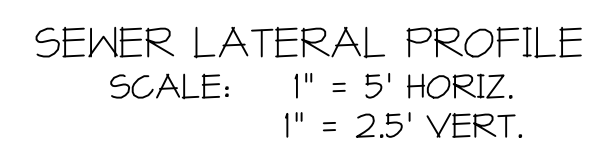
ROSENBERG
ASSOCIATES
CIVIL ENGINEERS • LAND SURVEYORS



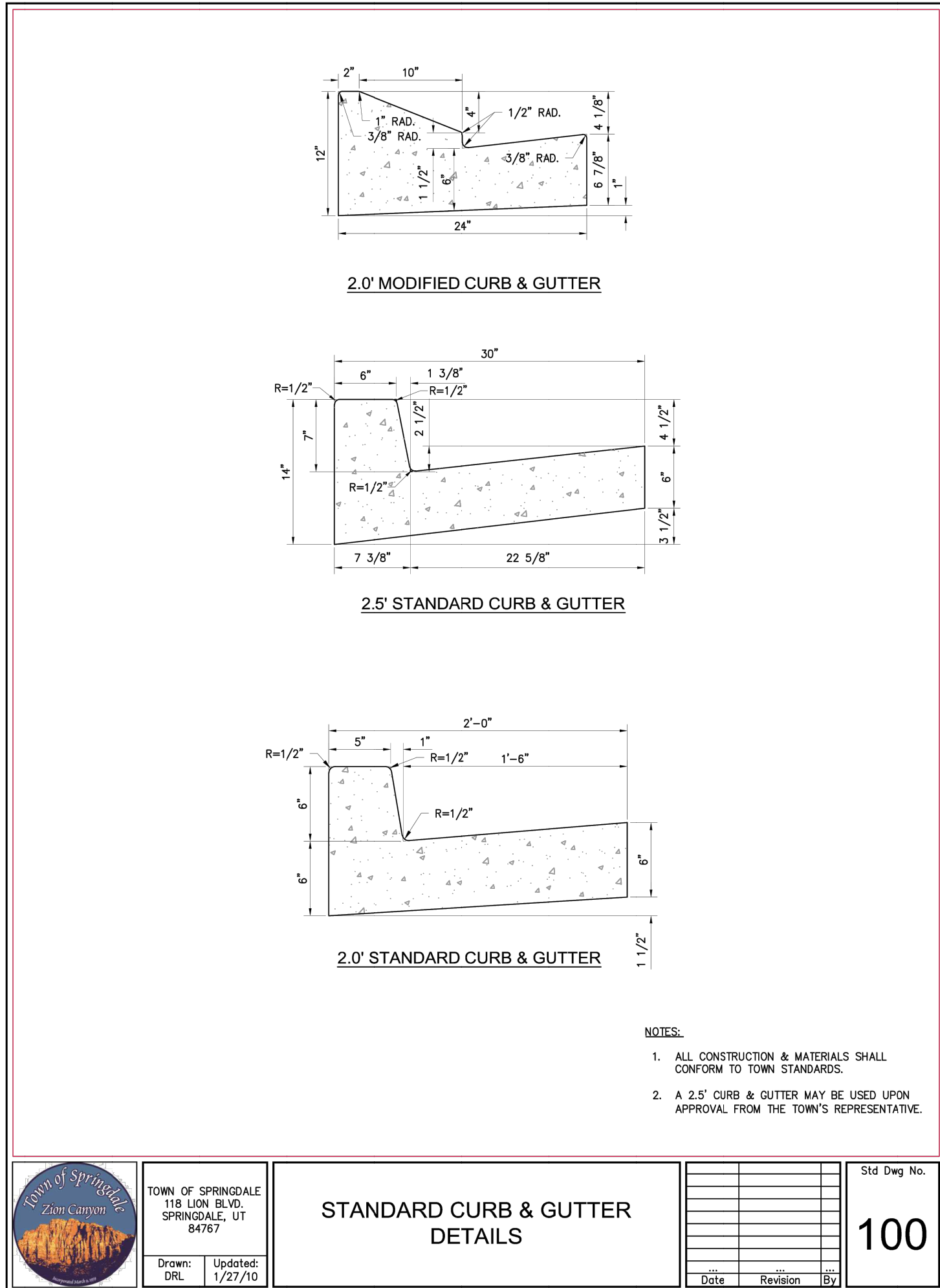
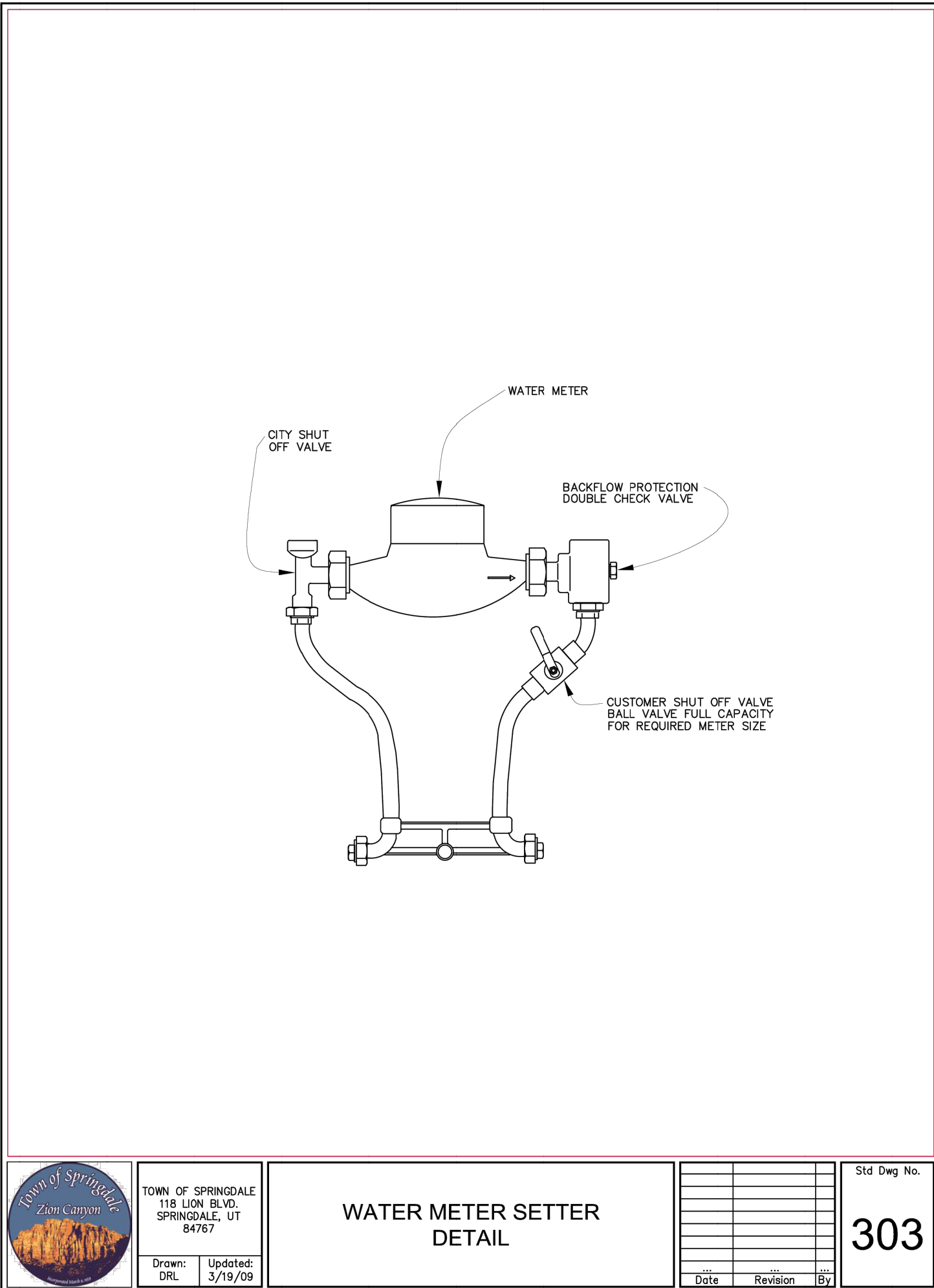
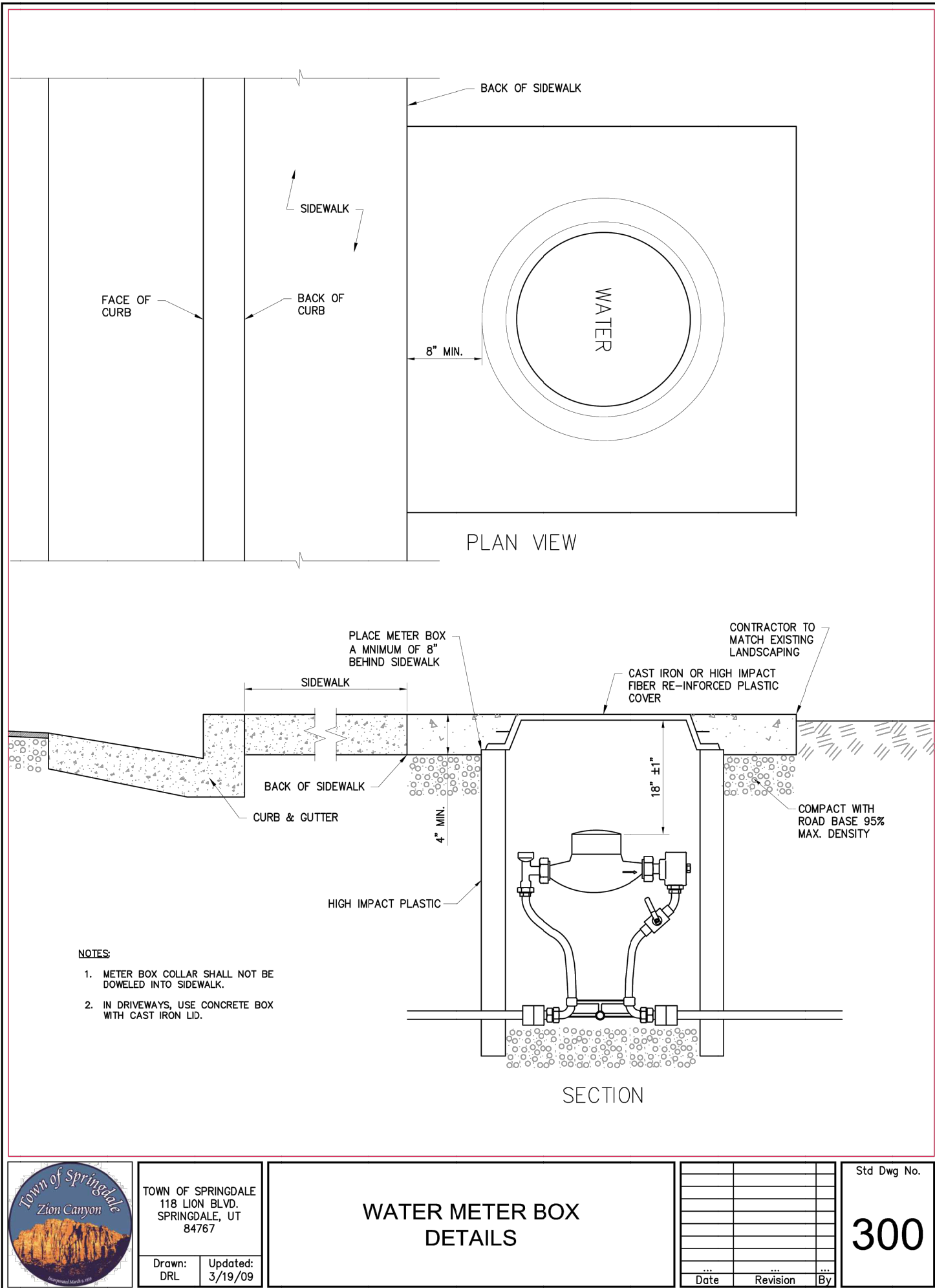
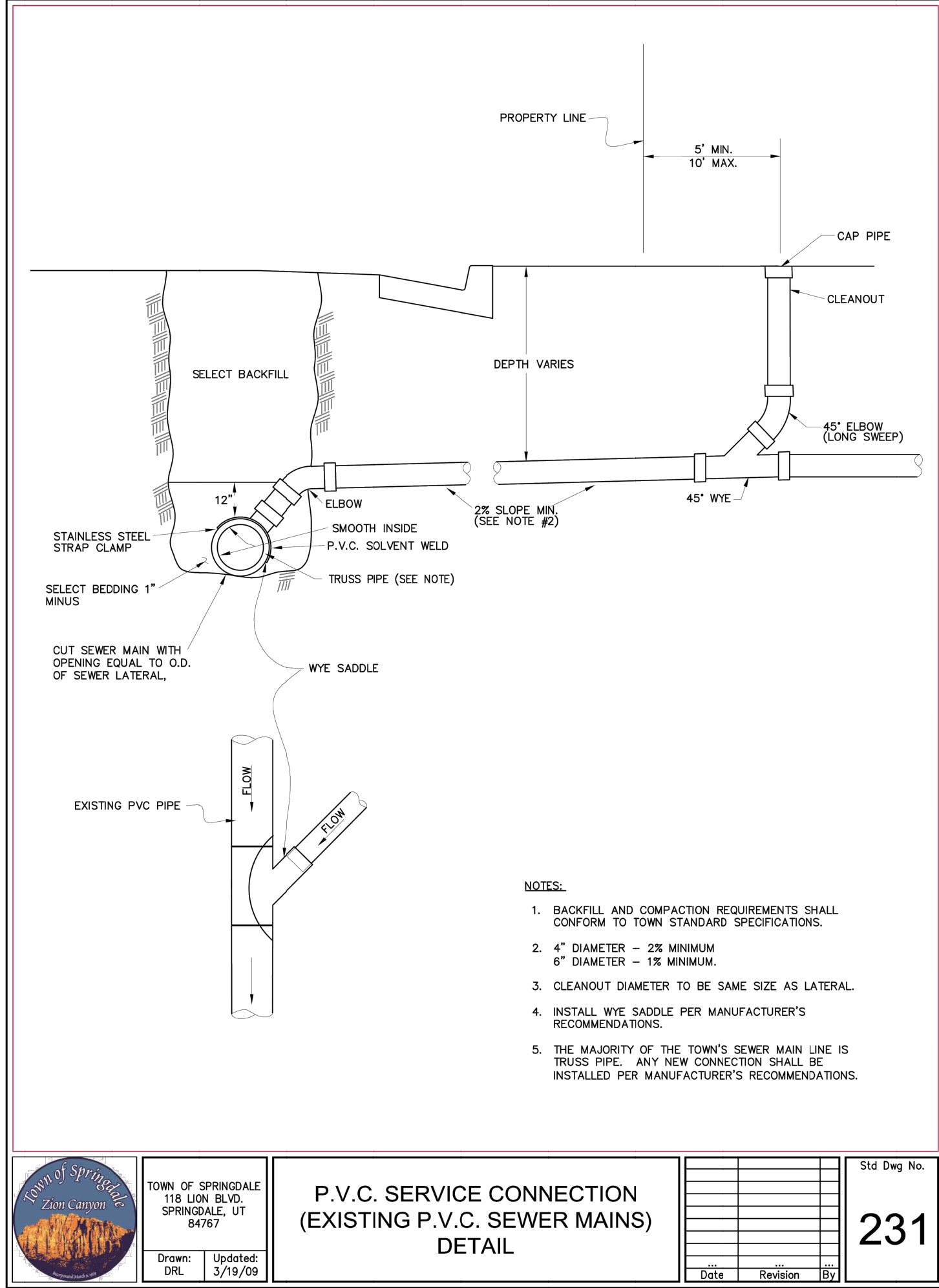
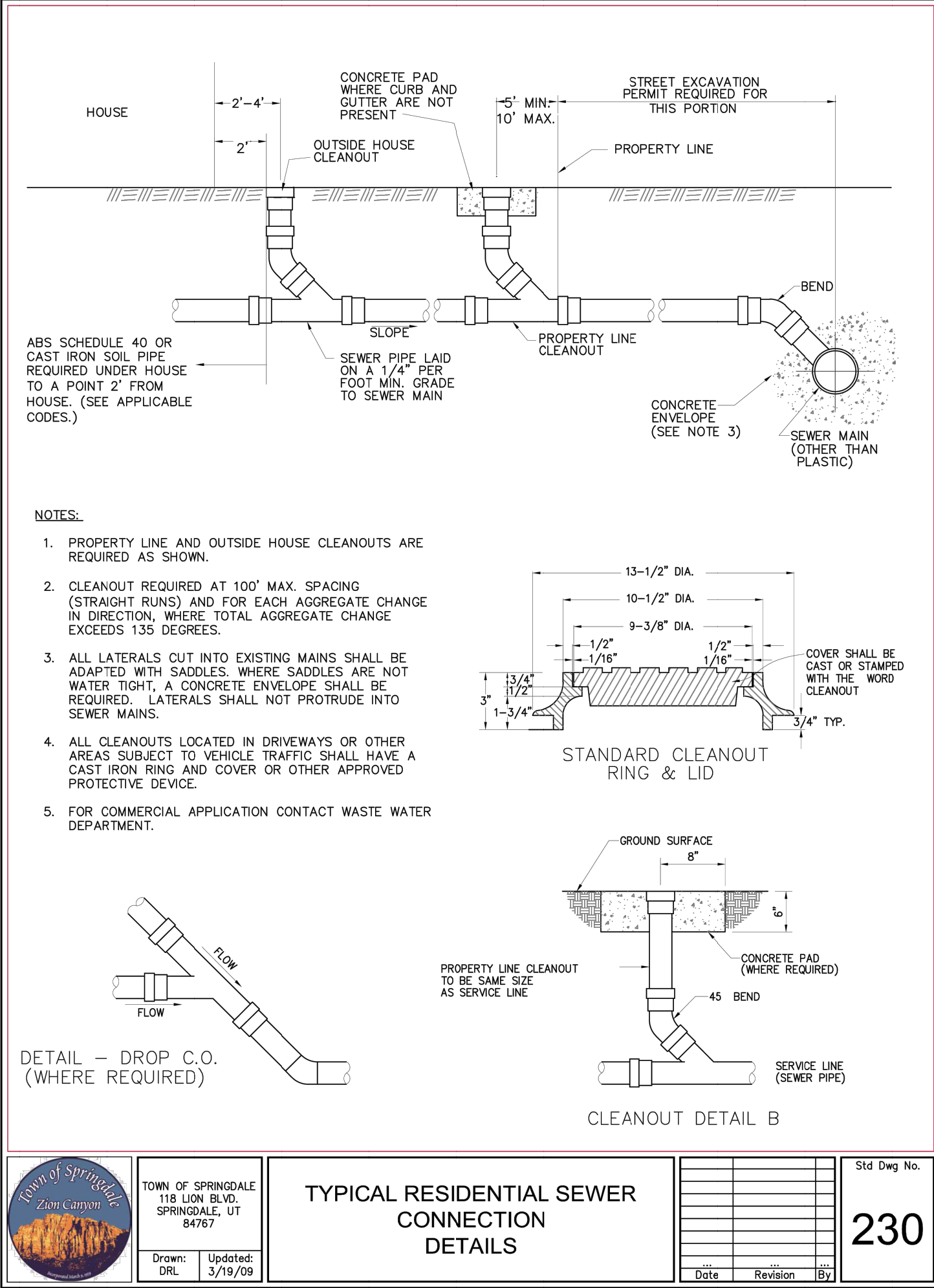
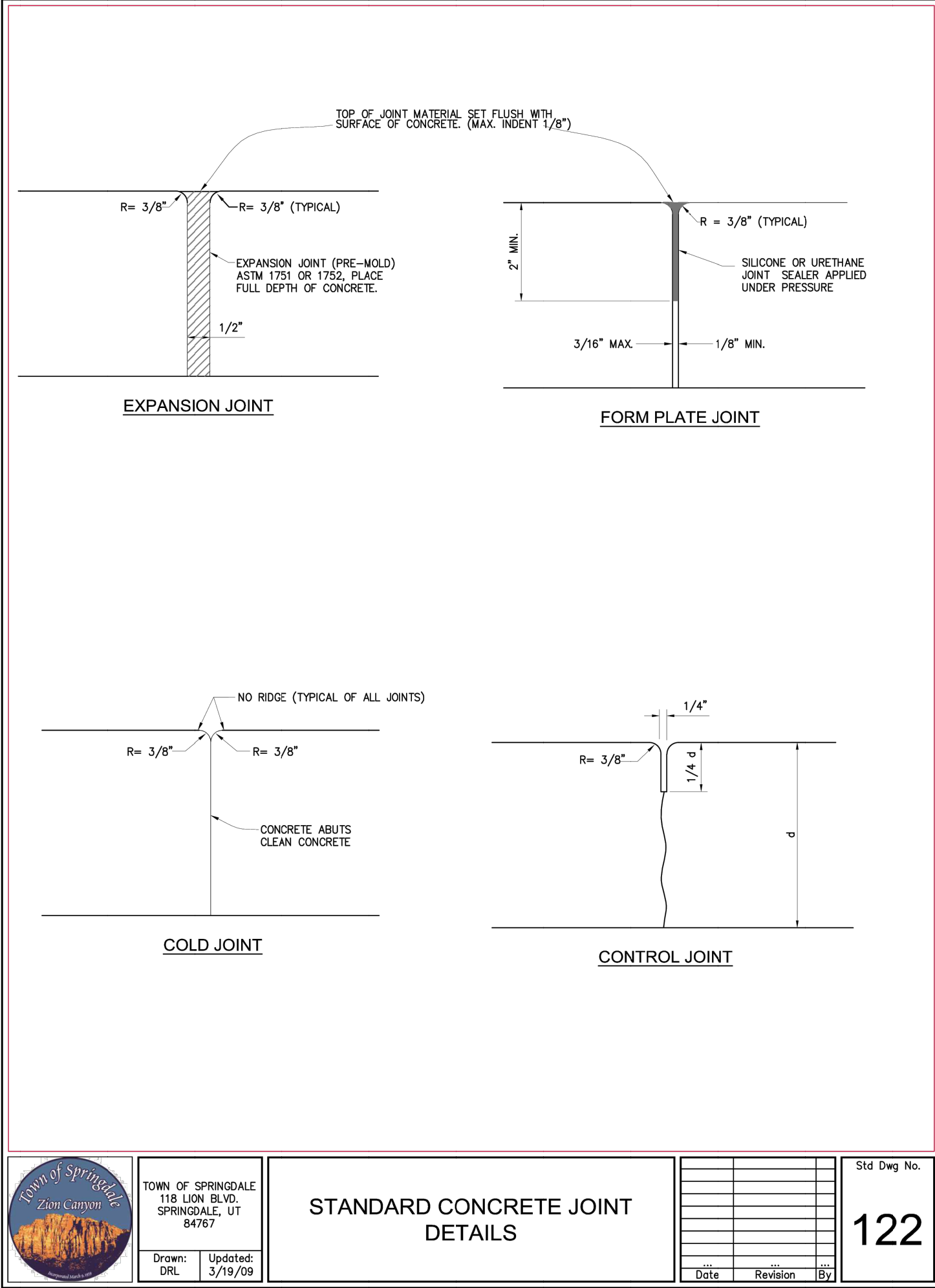
352 East Riverside Drive, Suite A-2
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SITE GRADING AND DRAINAGE PLAN
FOR
SNOW LEOPARD
54 E. HUMMINGBIRD LANE
SPRINGDALE, UTAH





SHEET
5
5 OF 7 SHEETS



1. AVERAGE ROCK SIZE, D50=24", USE ANGULAR-SHAPED ROCK FREE FROM CRACKS, OVERBURDEN, SHALE, WITH A MINIMUM DENSITY OF 156 LB. PER CUBIC FT. (SPECIFIC GRAVITY = 2.50), WITH THE BREADTH OR THICKNESS OF A SINGLE STONE NOT LESS THAN ONE THIRD ITS LENGTH. FURNISH ROCK GRADED AS INDICATED IN THE TABLE. ALL ROCK RIP-RAP SHALL BE INSPECTED BY THE ENGINEER PRIOR TO INSTALLATION AND BACKFILL.
2. FILTER FABRIC SHALL BE: MIRRI 180 N 8 OZ. NON WOVEN GEO-TEXTILE OR APPROVED EQUAL. FABRIC SHALL BE PLACED AS SHOWN HEREON AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. CARE SHALL BE TAKEN TO PREVENT FABRIC FROM TEARING DURING ROCK PLACEMENT.
3. CONTRACTOR SHALL FILL Voids IN RIP-RAP EROSION PROTECTION WITH SEDIMENT USING WATER JETTING OR OTHER APPROVED METHODS. ALL ROCK RIP-RAP SHALL BE INSPECTED BY THE ENGINEER PRIOR TO SEDIMENT PLACEMENT.
4. ALL UNSUITABLE VEGETATION AND WOODY DEBRIS MATERIAL SHALL BE REMOVED FROM THE WORK AREA AND DISPOSED OF PROPERLY OFFSITE.
5. ALL WORK SHALL COMPLY WITH THE ARMY CORPS OF ENGINEERS AND STATE OF UTAH PERMIT REQUIREMENT & CONDITIONS.
6. RIP-RAP EROSION PROTECTION REPAIR TERMINATION LOCATIONS TO BE VERIFIED BY ENGINEER BASED ON FIELD CONDITIONS.

ROCK RIP-RAP D50=24":	3.9 CU YDS PER
LF	
FILTER FABRIC:	3.8 SQ YDS PER LF

D100	42"
D75	36"
D50	24"
D25	18"
MIN SIZE	12"



DETAILS
FOR
SNOW LEOPARD
54 E. HUMMINGBIRD LANE
SPRINGDALE, UTAH

7
7 SHEETS



SPRINGDALE SNOWLEOPARD

54 HUMMINGBIRD LANE

SPRINGDALE, UTAH, 84767

PROJECT DATA

OWNER: BRECK DOCKSTADER

LEGAL DESCRIPTION: S-103-C-1-A-1

BLDG CLASSIFICATION: SINGLE FAMILY RESIDENCE

TYPE OF CONSTRUCTION: VB

CODES: HOMES SHALL BE CONSTRUCTED TO ALL LOCAL CODE REQUIREMENTS OF WASHINGTON COUNTY.

*2021 INTERNATIONAL RESIDENTIAL CODE('21 IRC)
*2021 INTERNATIONAL BUILDING CODE('21 IBC)
*2021 INTERNATIONAL PLUMBING CODE('21 IPC)
*2021 INTERNATIONAL MECHANICAL CODE('21 IMC)
*2021 NATIONAL ELECTRICAL CODE('21 NEC)
*2021 INTERNATIONAL ENERGY CONSERVATION CODE ('21 ECC) UTAH EDITION

SQUARE FOOTAGE	
MAIN HOUSE	
LOWER LEVEL	1,190' SQFT
MAIN LEVEL	1,768' SQFT
2ND LEVEL	1,990' SQFT
MAIN HOUSE TOTAL LIVING SQFT	4,948' SQFT
CASITA / GARAGE	
1ST LEVEL	1,319' SQFT
2ND LEVEL	1,215' SQFT
CASITA / GARAGE TOTAL LIVING SQFT	1,215' SQFT
TOTAL LIVING SQFT	6,217' SQFT

DEVELOPMENT SERVICES ITEMS CHECKLIST

- ELEVATION AT SIDEWALK CALLOUT
- SETBACK - MAX. & MIN.
- CORNER LOT SETBACKS
- ALL SETBACKS
- DOWN SPOUT PIPED TO LANDSCAPE STRIP OR STORM DRAIN
- GARAGE ENTRY ORIENTATION
- RETAIN & PRIVACY WALLS
- EXTERIOR LIGHT, NIGHT SKY COMP.

GENERAL NOTES

- ALL CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO FINAL INSPECTION. CONSTRUCTION DEBRIS SHALL BE SECURED AT ALL STAGES OF CONSTRUCTION TO PREVENT TRAVELING FROM THE JOB SITE.
- ALL CONSTRUCTION MUST CONFORM TO ALL ADOPTED CODES AND STATUTES OF THE JURISDICTION IN WHICH CONSTRUCTION TAKES PLACE.
- ANY EARTH FILL TO SUPPORT CONCRETE FLOORS, WALKS, DRIVEWAYS, ETC. MUST BE COMPACTED TO 90%.
- ALL FOOTINGS TO BE PLACED 12" BELOW UNDISTURBED GROUND AND A MINIMUM OF 30" BELOW FINISHED GRADE OR AS REQUIRED FOR LOCAL FROST LINE. TOP OF FOUNDATION SHALL BE 4" MIN. ABOVE FINISHED GRADE. FINISHED GRADE MUST SLOPE AWAY FROM THE BUILDING. A MIN. OF 6" FOR THE FIRST 10'-0" AND 2% AFTER. DRAINAGE FROM LOT SHALL FLOW INTO AN APPROVED DRAINAGE SYSTEM.
- 1/2" ANCHOR BOLTS EMBEDDED 7" INTO CONCRETE SHALL BE A MAXIMUM OF 32" O.C. AND NO MORE THAN 12" FROM THE CORNERS w/ 3" X 3" X 1/4" PLATE WASHERS.
- CURBS, GUTTERS AND SIDEWALKS AT FRONTAGE OF THE LOT SHALL BE INSTALLED AT THE TIME OF NEW CONSTRUCTION. CURB, GUTTER, AND SIDEWALKS SHALL BE CLEAN AND IN NEW CONDITION AT TIME OF FINAL INSPECTION.
- NO STUMPS, ROOTS, OR ORGANIC MATERIAL SHALL BE PRESENT IN SOIL AT THE AREA OF THE BUILDING.
- CONTRACTOR SHALL PROVIDE A MIN. OF 7'-0" HEADROOM IN ALL AREAS OF DWELLING. BEAMS MY PROJECT 6" BELOW REQUIRED CEILING HEIGHT. CEILING HEIGHT IN BASEMENT WITHOUT HABITABLE ROOMS MAY BE 6'-8" MIN. WITH BEAMS PROJECTING 4" BELOW CEILING HEIGHT.
- APPROVED NUMBERS SHALL BE PROVIDED FOR ADDRESS OF NEW BUILDINGS AND PLACED IN A POSITION WHICH IS PLAINLY VISIBLE AND LEGIBLE FROM THE STREET AT FRONTAGE OF PROPERTY.
- STAIRWAYS SHALL BE A MINIMUM OF 36" WIDE, MINIMUM HEADROOM OF 4'-8". A MAXIMUM RISE OF 7-3/4". MINIMUM RUN OF 10". A MAXIMUM VARIATION OF 3/8" IS PERMITTED IN RISE, RUN, OR PROJECTION IN A RUN OF STAIRS. SOLID RISERS (CONCRETE, ETC. REQUIRES A 3/4" - 1 1/4" NOSING OR A 10" MINIMUM RUN. WINDER TREADS SHALL HAVE A MINIMUM TREAD DEPTH OF 10" MEASURED AT A POINT 12" FROM THE SIDE WHERE THE TREADS ARE NARROWER. WINDER TREADS SHALL HAVE A MINIMUM TREAD DEPTH OF 4" AT ANY POINT.
- HANDRAILS MUST BE INSTALLED ON STAIRS WITH 2 OR MORE RISERS. HANDRAILS SHALL RETURN TO WALL OR TERMINATE INTO A NEWEL POST OR SAFETY TERMINALS. HAND RAILINGS SHALL NOT BE LESS THAN 34" OR MORE THAN 38" ABOVE NOSE OF TREAD. HANDRAIL SHALL HAVE A DIAMETER NOT LESS THAN 1 1/8" OR MORE THAN 2".
- GUARDRAILS SHALL BE NOT LESS THAN 36" IN HEIGHT. OPEN RAILING SHALL HAVE INTERMISSION RAILS SPACED SUCH THAT A 4" SPHERICAL OBJECT CANNOT PASS THROUGH.
- LANDINGS SHALL BE A MIN. 36" X 36" AT ALL EXTERIOR SWINGING HINGED DOORS AND AT TOP AND BOTTOM OF ALL STAIRS.
- INSTALL DENSE, NONABSORBENT WATER PROOF SHEET ROCK ON WALLS OF SHOWERS, TUBS, ETC. ENTIRE HEIGHT OF WALL.
- PROVIDE ATTIC ACCESS OF NOT LESS THAN 22" X 30" CLEAR OPENING AND ALLOW 30" MIN. HEADROOM. ATTIC ACCESS MUST BE LOCATED IN A READILY ACCESSIBLE LOCATION (NOT IN A CLOSET).
- ENCLOSED ATTICS AND SPACES BETWEEN RAFTERS SHALL HAVE A CLEAR CROSS VENTILATION AREA TO THE OUTSIDE. VENTS SHALL PROVIDE AIR INTAKE TO ALLOW A MIN. OF 1/150 OF TOTAL SQ. FT. OF ATTIC SPACE IN BOTH GABLE / ROOF VENTS. VENTS FOR SOFFITS SHALL PROVIDE AIR INTAKE TO ALLOW A MIN. OF 1/300 SQ. FT.
- CHIMNEYS FOR FIREPLACES SHALL EXTEND A MIN. OF 2'-0" ABOVE ROOF OR 10'-0" AWAY FROM OUTSIDE AIR INTAKE OPENINGS.
- ALL GARAGE WALLS, BEAMS, AND CEILINGS TO HAVE 5/8" TYPE 'X' SHEET ROCK INSTALLED. IN DWELLINGS WHICH HAVE LIVING SPACE OVER THE GARAGE INSTALL 5/8" TYPE 'X' SHEET ROCK OR EQUIVALENT.
- PROVIDE COUNTER FLASHING AND CAULKING AT ALL EXTERIOR OPENINGS (DOORS, WINDOWS, DRYER VENTS, ETC.) AND INSTALL PER MFG'R SPECS.
- PROVIDE METAL FLASHING OR 15# FELT BETWEEN WOOD SHEATHING AND CONCRETE PORCHES, LANDINGS AND STAIRS.
- ALL HABITABLE ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN 8% OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH WINDOWS DOORS, LOUVERS, OR OTHER APPROVED OPENING TO THE OUTSIDE AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OF SHALL OTHERWISE BE READILY CONTROLLED BY THE BUILDING OCCUPANTS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED.

FRAMING

- JOISTS UNDER PARALLEL BEARING PARTITIONS TO BE DOUBLED AND JOISTS UNDER PARALLEL NONBEARING WALLS SHALL BE DOUBLED IF WALL EXCEEDS 1/3 THE LENGTH OF THE JOIST 12" AND LONGER. 3/4" PLYWOOD OR O.S.B. SHALL BE USED FOR SUB FLOOR IF JOIST SPACING IS 24" O.C.
- FIRE STOPPING
 - FIRE BLOCK STUD SPACES OVER 10'-0" IN HEIGHT, FURRED SPACES, SOFFITS, DROP CEILINGS, COVE CEILINGS, STAIR STRINGERS AT TOP AND BOTTOM OF RUN, BEARING WALLS AND CEILING JOIST LINES, ETC. FIRE STOPPING SHALL CONSIST OF 2" NOMINAL LUMBER.
 - FIRE STOP OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, AND FIREPLACES AT CEILING AND FLOOR LEVERS WITH APPROVED NONCOMBUSTIBLE MATERIALS.
- STUDS WHICH EXCEED 9'-0" IN LENGTH SHALL BE 2X6 UNLESS OTHERWISE SPECIFIED BY ENGINEER.
- SOLID BLOCK BETWEEN JOISTS, RAFTERS, AND TRUSSES OVER BEARING WALLS, BLOCKING TO BE A 2" NOMINAL THICKNESS AND FULL DEPTH OF JOISTS, RAFTER, OR TRUSS.
- UNLESS OTHERWISE NOTED, BRACE ALL EXTERIOR WALL AND CROSS STUD PARTITIONS WITH MIN. 7/16" O.S.B. OR EQUIVALENT PLYWOOD WITH 8d NAILS @ 6" O.C. ON PANEL EDGES AND 12" O.C. IN FIELD OF PANEL.
- NAIL PLATES SHALL BE INSTALLED TO PROTECT CONCEALED PIPING PASSING THROUGH OR NOTCHED INTO STRUCTURAL MEMBERS WHERE THERE IS LESS THAN 1- 1/2" TO THE FACE OF THE MEMBER. WIRING INSIDE OF FRAMING MEMBERS WHERE THE BORED HOLE IS CLOSER THE 1- 1/4" TO THE NEAREST EDGE OF THE FRAMING MEMBER OR THE FRAMING MEMBER IS NOTCHED. A STEEL PLATE NOT LESS THAN 1/16" THICK AND APPROPRIATE LENGTH AND WIDTH SHALL BE INSTALLED TO COVER THE AREA.

WINDOW

- WINDOWS SHOULD BE HEAD AT DOOR HEIGHT.
- BEDROOM WINDOW SILLS SHALL BE WITHIN 44" OF THE FINISHED FLOOR. SUCH WIDOW SHALL HAVE A MIN. CLEAR OPENING OF 5.7 SQ. FT. WITH A MIN. HEIGHT CLEARANCE OF 24" AND A MIN. WIDTH CLEARANCE OF 20". (EGRESS REQUIREMENTS)
- ALL OPERABLE WINDOWS AND GLASS DOORS SHALL INCLUDE SCREENS.
- ALL BASEMENT WINDOWS NOT FULLY 6" ABOVE GRADE SHALL BE PROTECTED BY GALVANIZED IRON OR CONCRETE WINDOW WELLS. (SEE WINDOW WELL REQUIREMENTS).
- ALL WINDOWS SHALL BE DOUBLE GLAZED WITH 1/4" MIN. SPACES. U-VALUE OF WINDOW PER RES-CHECK MIN.
- SHOWER AND TUB ENCLOSURES SHALL BE FULLY TEMPERED.
- FRAMELESS GLASS DOORS, GLASS IN DOORS, FIXED GLASS PANELS, WINDOWS OVER BATH TUBS, ALL GLASS WITHIN 24" OF ANY DOOR, WINDOW WITHIN 18" OF FINISHED FLOOR, AND SIMILAR GLAZED OPENING SUBJECT TO HUMAN IMPACT SHALL BE TEMPERED GLASS.
- PROVIDE C FLASHING AROUND ALL WINDOWS AND DOORS WITH SILL PLATE FLASHING.

PLUMBING

- PLUMBING VENTS SHALL TERMINATE AT LEAST 3'-0" ABOVE AND 10'-0" AWAY FROM OUTSIDE AIR INTAKE OPENINGS AND CAN NOT BE FLAG POLED.
- INSTALL FREEZE-LESS BACK FLOW PREVENTION HOSE BIBS.
- SHOWER HEADS TO BE 2.5 GALLONS PER MINUTE MAX.
- ALL TOILETS AND WATER CLOSETS TO HAVE 1.6 GALLON FLUSH MAX.
- PROVIDE ANTI-SCALD VALVES ON ALL SHOWER HEADS AND BATH TUB COMBINATIONS.
- THE WALL AREA ABOVE THE BUILT-IN TUBS HAVING INSTALLED SHOWER HEADS AND IN-SHOWER COMPARTMENT WALLS SHALL FORM A WATERTIGHT JOINT WITH EACH OTHER AND WITH EITHER THE TUB, RECEPTOR, OR SHOWER FLOOR.
- WATER HEATER SHALL BE ANCHORED OR STRAPPED IN THE UPPER & LOWER THIRD OF THE APPLIANCE TO RESIST A MIN. 1/3 OF THE OPERATING WEIGHT OF THE APPLIANCE.
- PROVIDE ACCESS TO JETTED TUB PUMP PER MANUFACTURERS INSTALLATION INSTRUCTIONS. PROVIDE ACCESS TO ELECTRICAL WITHOUT DAMAGE TO BUILDING OF FINISHES. ELECTRICAL OUTLET FOR TUB TO BE GFCI PROTECTED. ALL METAL PIPING SYSTEMS, METAL PARTS OR ELECTRICAL EQUIPMENT, AND PUMP MOTORS ASSOCIATED WITH THE HYDRO MASSAGE TUB SHALL BE BONDED TOGETHER USING A COPPER BONDING JUMPER NOT SMALLER THAN #8 SOLID UNLESS IT IS AN APPROVED LISTED DOUBLE INSULATED SYSTEM.

AIR BARRIER

- AIR BARRIER AND THERMAL BARRIER
 - A CONTINUOUS AIR BARRIER SHALL BE INSTALLED IN THE BUILDING ENVELOPE
 - EXTERIOR THERMAL ENVELOPE CONTAINS A CONTINUOUS AIR BARRIER
 - BREAKS OR JOINTS IN THE AIR BARRIER SHALL BE SEALED
 - AIR-PERMEABLE INSULATION SHALL NOT BE USED AS A SEALING MATERIAL
- CEILING/ATTC
 - THE AIR BARRIER IN ANY DROPPED CEILING /SOFFIT SHALL BE ALIGNED WITH THE INSULATION AND ANY GAPS IN THE AIR BARRIER SEALED.
 - ACCESS OPENINGS, DROP DOWN STAIR OR KNEE WALL DOORS TO UNCONDITIONED ATTIC SPACES SHALL BE SEALED.
- WALLS
 - CORNERS AND HEADERS SHALL BE INSULATED AND THE JUNCTION OF THE FOUNDATION AND SILL PLATE SHALL BE SEALED.
 - THE JUNCTION OF THE TOP PLATE AND THE TOP OF THE EXTERIOR WALLS SHALL BE SEALED.
 - EXTERIOR THERMAL ENVELOPE INSULATION FOR FRAMED WALLS SHALL BE INSTALLED IN SUBSTANTIAL CONTACT AND CONTINUOUS ALIGNMENT WITH THE AIR BARRIER
 - KNEE WALLS SHALL BE SEALED.
 - WINDOWS, SKYLIGHTS AND DOORS
 - THE SPACE BETWEEN WINDOW/DOOR JAMBS AND FRAMING AND SKYLIGHTS AND FRAMING SHALL BE SEALED
- RIM JOISTS
 - RIM JOISTS SHALL BE INSULATED AND INCLUDE THE AIR BARRIER
- FLOORS (INCLUDING ABOVE GRADE AND CANTILEVERED FLOORS)
 - INSULATION SHALL BE INSTALLED TO MAINTAIN A PERMANENT CONTACT WITH UNDERSIDE OF SUBFLOOR DECKING
 - THE AIR BARRIER SHALL BE INSTALLED AT ANY EXPOSED EDGE OF INSULATION.
- CRAWL SPACE WALLS
 - WHERE PROVIDED IN LIEU OF FLOOR INSULATION, INSULATION SHALL BE PERMANENTLY ATTACHED TO THE CRAWLSPACE WALLS.
 - EXPOSED EARTH IN UNVENTED CRAWL SPACES SHALL BE COVERED WITH A CLASS 1 VAPOR RETARDER WITH OVERLAPPING JOINTS TAPED.
- SHAFT PENETRATIONS
 - DUCT SHAFTS, UTILITY PENETRATIONS, AND FLUE SHAFTS OPENING TO EXTERIOR OR UNCONDITIONED SPACE SHALL BE SEALED.
- NARROW CAVITIES
 - BATTS IN NARROW CAVITIES SHALL BE CUT TO FIT, NARROW CAVITIES SHALL BE FILLED BY INSULATION THAT ON INSTALLATION READILY CONFORMS TO THE AVAILABLE CAVITY SPACE.
- GARAGE SEPERATION
 - AIR SEALING SHALL BE PROVIDED BETWEEN THE GARAGE AND CONDITIONED SPACES.
- RECESSED LIGHTING
 - RECESSED LIGHT FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE AIR TIGHT, IC RATED, AND SEALED TO THE DRYWALL
- PLUMBING AND WIRING
 - BATT INSULATION SHALL BE CUT CLEARLY TO FIR AROUND WIRING AND PLUMBING IN EXTERIOR WALLS, OR INSULATION THAT ON INSTALLATION READILY CONFORMS TO AVAILABLE SPACE SHALL EXTEND BEHIND PIPING AND WIRING.
- SHOWER/TUB ON EXTERIOR WALL
 - EXTERIOR WALLS ADJACENT TO SHOWERS AND TUBS SHALL BE INSULATED AND THE AIR BARRIER INSTALLED SEPARATING THEM FROM THE SHOWERS AND TUBS.
- ELECTRICAL/PHONE BOX ON EXTERIOR WALLS
 - THE AIR BARRIER SHALL BE INSTALLED BEHIND ELECTRICAL OR COMMUNICATION BOXES OR AIR-SEALED BOXES SHALL BE INSTALLED.
- HYVAC REGISTER BOOTS
 - HYVAC REGISTER BOOTS THAT PENETRATE BUILDING ENVELOPE SHALL BE SEALED TO THE SUB-FLOOR OR DRYWALL.
- FIREPLACE
 - AN AIR BARRIER SHALL BE INSTALLED ON FIREPLACE WALLS. FIREPLACE SHALL HAVE GASKETED DOORS.

MECHANICAL

- FURNACE TO BE RHEEM (OR EQUAL) BTUH OUTPUT PER HEAT LOSS CALCULATIONS. EFFICIENCY SHALL BE PER RES-CHECK.
- PROVIDE 30" WORK SPACE IN FRONT OF ALL HEATING CONTROLS WITH A 3" MIN. WORK SPACE AT THE SIDES, BACK, AND TOP. INSTALL ACCORDING TO MANUFACTURERS INSTALLATION AND CLEARANCE INSTRUCTIONS.
- FURNACES AND WATER HEATERS SHALL BE INSTALLED SUCH THAT THEY CAN BE REMOVED INDIVIDUALLY WITHOUT REMOVING THE OTHER APPLIANCE.
- FLUE VENTS AND EXHAUST FAN VENTS SHALL BE AT LEAST 3'-0" ABOVE IF LOCATED WITHIN 10'-0" OF AN OUTSIDE AIR INLET.
- EXHAUST FANS SHALL BE CAPABLE OF EXHAUSTING A MIN. OF 50 CFM OF AIR TO THE OUTSIDE AND IS REQUIRED IN BATHROOMS, TOILET ROOMS, AND SIM. COMPARTMENTS WITHOUT A MIN. 1.5 SQ. FT. OF OPERABLE WINDOW.
- JOINTS FOR RESIDENTIAL HEATING DUCTS SHALL BE MECHANICALLY FASTENED BY MEANS OF A LEAST (3) SCREWS EVENLY SPACES. SUPPORT DUCTS WITH APPROVED METAL SUPPORTS.
- PROVIDE ADEQUATE COMBUSTION AIR TO OUTSIDE AND SIZED FOR FURNACE AND WATER HEATER. COVER INLET OF SUCH VENT WITH A CORROSION RESISTANT METAL SCREEN OF 1/4" MESH. VENT SHALL TERMINATE 4'-0" BELOW OR 4'-0" HORIZONTALLY AND AT LEAST 1'-0" ABOVE A DOOR, OPERABLE WINDOW, OR GRAVITY AIR INLET INTO BUILDING.
- ALLOW 30" MIN. CLEARANCE BETWEEN RANGE AND COMBUSTIBLE MATERIALS. ALLOW A SIDE CLEARANCE PER MANUFACTURERS SPECS ON APPLIANCE.

ELECTRICAL

- TEMPORARY WIRING SHALL BE IN ACCORDANCE WITH N.E.C. ARTICLE 305
- ELECTRICAL PANEL TO BE 200 AMP, (ELECTRICIAN TO VERIFY)
- CLEARANCE FOR ELECTRICAL PANEL SHALL BE 30" DEEP BY 36" DEEP BY 6'-6" TALL MIN. ELECTRICAL PANEL IS NOT TO BE INSTALLED IN BATHROOMS, FIRE RATED GARAGE WALLS, OR CLOSETS.
- PACIFIC CORP REQUIRED THAT THE MAIN ELECTRICAL SERVICE ENTRANCE MUST BE WITHIN 10'-0" OF THE FRONT CORNER OF THE HOUSE. ELECTRICAL METER MUST BE ON THE SIDE OF THE HOUSE. ELECTRICAL SERVICE ENTRANCE CANNOT BE LOCATED OVER A WINDOW WELL OR WITHIN 3'-0" OF THE GAS METER.
- KITCHEN COUNTER RECEPTACLES SHALL BE GFCI PROTECTED AND SUPPLIED BY A MIN. OF TWO 20 AMP SMALL APPLIANCE CIRCUITS. BATHROOM AND LAUNDRY AREA RECEPTACLES SHALL BE GFCI PROTECTED AND SUPPLIED BY AT LEAST ONE 20 AMP CIRCUIT.
- A UFER GROUNDING SYSTEM IS REQUIRED WHEN AVAILABLE.
- ELECTRICAL CENTRAL HEATING EQUIPMENT, OTHER THAN FIXED ELECTRICAL SPACE HEATING EQUIPMENT, SHALL BE SUPPLIED WITH AN INDIVIDUAL BRANCH CIRCUIT.
- ELECTRICAL CONVENIENCE OUTLETS SHALL BE SPACED SUCH THAT NO POINT ALONG THE FLOOR LINE OF ANY WALL SPACE IS MORE THAN 6'-0" FROM AN OUTLET.
- ALL ELECTRICAL OUTLETS LOCATED OUTSIDE, IN THE GARAGE, OR AS CALLED OUT ON PLAN SHALL BE PROTECTED BY GROUND FAULT CIRCUIT INTERRUPTERS.
- SMOKE DETECTORS SHALL BE INSTALLED IN ALL BEDROOMS, AT THE HALLWAYS LEADING TO BEDROOMS, AND AT EVERY FLOOR LEVEL (INCLUDING BASEMENT). SMOKE DETECTORS SHALL BE HARD WIRED IN A SERIES WITH A BATTERY BACKUP.
- ALL BRANCH CIRCUITS THAT SUPPLY 125-VOLT, SINGLE PHASE, 15- AND 20- AMPERE RECEPTACLE OUTLETS INSTALLED IN BEDROOMS SHALL BE PROTECTED BY AN ARC FAULT CIRCUIT INTERRUPTERS.
- LIGHTS IS CLOSETS SHALL HAVE A MIN. 12" CLEARANCE BETWEEN INCANDESCENT FIXTURE AND STORAGE SPACE OR 6" CLEARANCE BETWEEN FLUORESCENT FIXTURE AND STORAGE SPACE.
- ELECTRICAL BOXES IN GARAGE TO BE 2HR. RATED.

DRYER

- DRYER VENT DUCTS SHALL BE METAL WITH SMOOTH INTERIOR SURFACES AND SHALL BE EQUIPPED WITH BACK DRAFT DAMPERS. THE DUCTS MUST TERMINATE AT THE EXTERIOR OF THE BUILDING AND MUST NOT BE INSTALLED WITH SHEET METAL SCREWS.
- DRYER VENT DUCT SHALL BE 4" DIAMETER MIN. WITH A MAXIMUM LENGTH OF 25'-0" LESS 2.5' FOR EACH 45 DEG. BEND.
- DRYER VENT SHALL NOT CONNECT TO ANY OTHER VENT, DUCT, OR CHIMNEY. VENT HOOD SHALL BE A MIN. OF 12" ABOVE FINISHED GRADE.
- ALL DRYER VENTS SHALL BE COUNTER FLASHED AND CAULKED.

ABBREVIATIONS

AC - AIR CONDITIONING	FT - FEET	OC - ON CENTER
ALT - ALTERNATE	FLR - FLOOR	OPP - OPPOSITE
APPROX - APPROXIMATE	FIN FLR - FINISH FLOOR	OD - OUTSIDE DIAMETER
ARCH - ARCHITECT	FE - FIRE EXTINGUISHER	OA - OVERALL
	FIN - FINISH	OH DR - OVERHEAD DOOR
BD - BOARD	FD - FLOOR DRAIN	PR - PAIR
BRG - BEARING	FR - FRAME	PERP - PERPENDICULAR
BLKG - BLOCKING	FTG - FOOTING	PLAM - PLASTIC LAMINATE
BLDG - BUILDING	FND - FOUNDATION	PL - PLATE
		PLBG - PLUMBING
CLG - CEILING	GA - GAUGE	PREFAB - PREFABRICATED
CL - CENTERLINE	GALV - GALVANIZE	P.L. - PROPERTY LINE
CO - CLEANOUT	GI - GALVANIZED IRON	
CONC - CONCRETE	G.C. - GENERAL CONTRACTOR	REFR - REFRIGERATOR
CMU - CONCRETE MASONRY UNIT	GLU-LAM - GLUE LAMINATED	REINF - REINFORCE
CONF - CONFERENCE	GYP BD - GYPSUM BOARD	REQD - REQUIRED
CONSTR - CONSTRUCTION		RD - ROOF DRAIN
CONT - CONTINUOUS		R/S - ROD AND SHELF
CONTR - CONTRACTOR	H.B. - HOSE BIB	
CJ - CONTROL JOINT	HDWE - HARDWARE	SCHED - SCHEDULE
COORD - COORDINATE	HC - HANDICAP	SIM - SIMILAR
CORR - CORRIDOR	HYAC - HEATING VENTILATION & AIR CONDITIONING	SPEC - SPECIFICATION
CSK - COUNTERSINK	HORIZ - HORIZONTAL	SQ - SQUARE
	ID - INSIDE DIAMETER	STD - STANDARD
	INT - INTERIOR	SUSP CLG - SUSPENDED CEILING
	ISO - ISOMETRIC	
		THK - THICK
		T & G - TONGUE AND GROOVE
		T.O. - TOP OF
	LAB - LABORATORY	T.O.B. - TOP OF BEAM
	LAV - LAVATORY	T.O.S. - TOP OF SLAB
		T.O.W. - TOP OF WALL
	MAINT - MAINTENANCE	TRANSF - TRANSFORMER
	MH - MANHOLE	TYP - TYPICAL
	MFR - MANUFACTURER	
	MO - MASONRY OPENING	U.L. - UNDERWRITERS LABORATORY
	MAX - MAXIMUM	
	MECH - MECHANICAL	VTR - VENT THROUGH ROOF
	MEZZ - MEZZANINE	VERT - VERTICAL
	MIN - MINIMUM	VEST - VESTIBULE
	MISC - MISCELLANEOUS	VCT - VINYL COMPOSITION TILE
		WC - WATER CLOSET
		W/D - WASHER / DYER
	(N) NEW	WH - WATER HEATER
	NOM - NOMINAL	WWF - WELDED WIRE FABRIC
	NIC - NOT IN CONTRACT	W/ - WITH
	NO - NUMBER	

SYMBOLS LEGEND

	BUILDING SECTION OR WALL SECTION
	WALL SECTION DESIGNATION
	SHEET WHERE SECTION IS DRAWN
	DETAIL
	DETAIL NUMBER
	SHEET WHERE DETAIL IS DRAWN
	REFERENCE NOTE
	GRID LINE
	WINDOW
	DOOR NUMBER
	ELEVATION

MATERIALS LEGEND

	EARTH
	GRAVEL
	CONCRETE-SMALL SCALE
	METAL (SECTION)
	RIGID INSULATION
	STRUCTURAL STEEL
	BATT INSULATION
	(N) STUD WALLS
	(E) STUD WALLS



SNOWLEOPARD
CASITA / GARAGE



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CASITA / GARAGE RENDERINGS

A004

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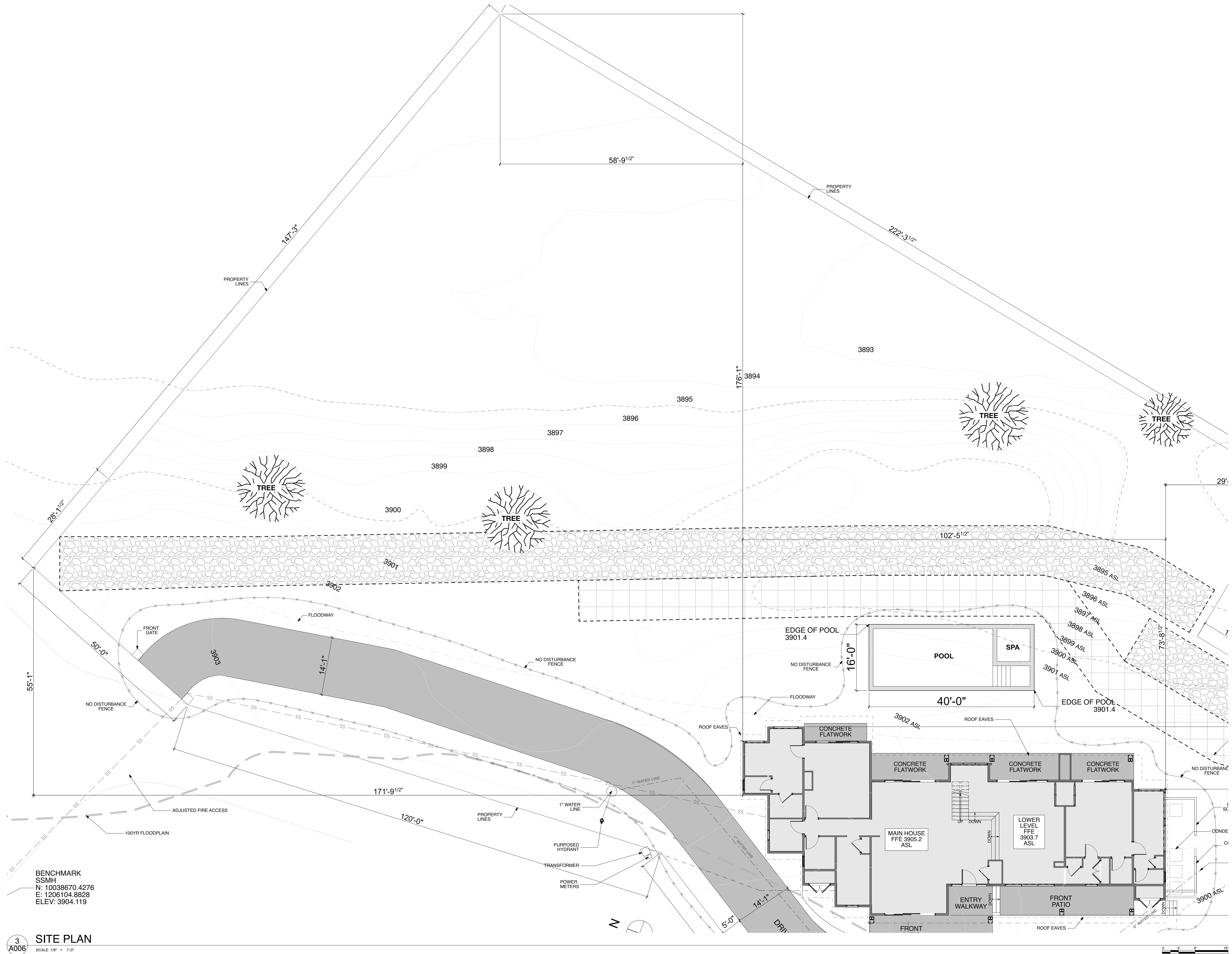
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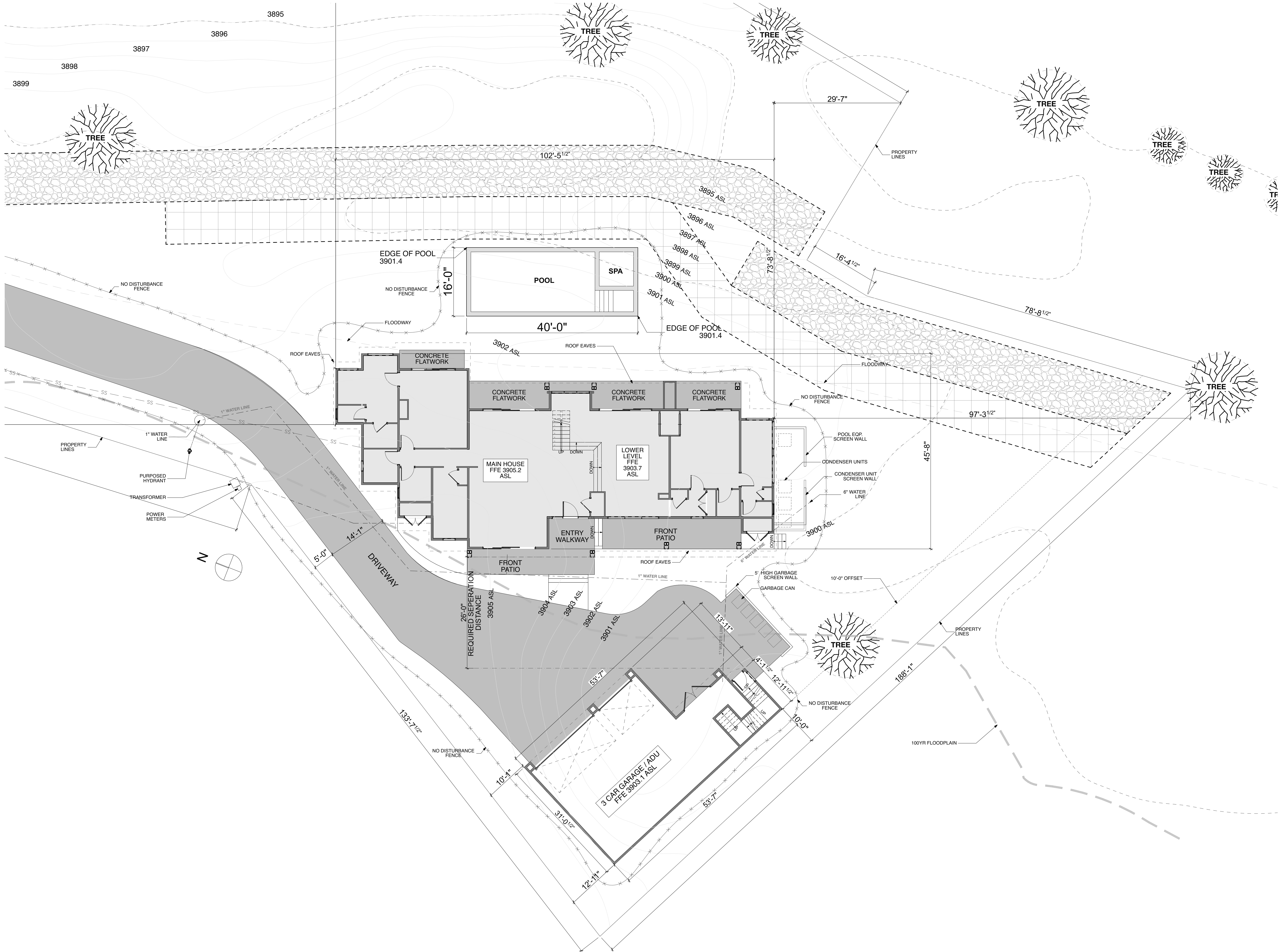
SITE PLAN (1 OF 2) -

ARCH

A006

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QUESTIONS:

SOLD.

SITE PLAN OVERALL

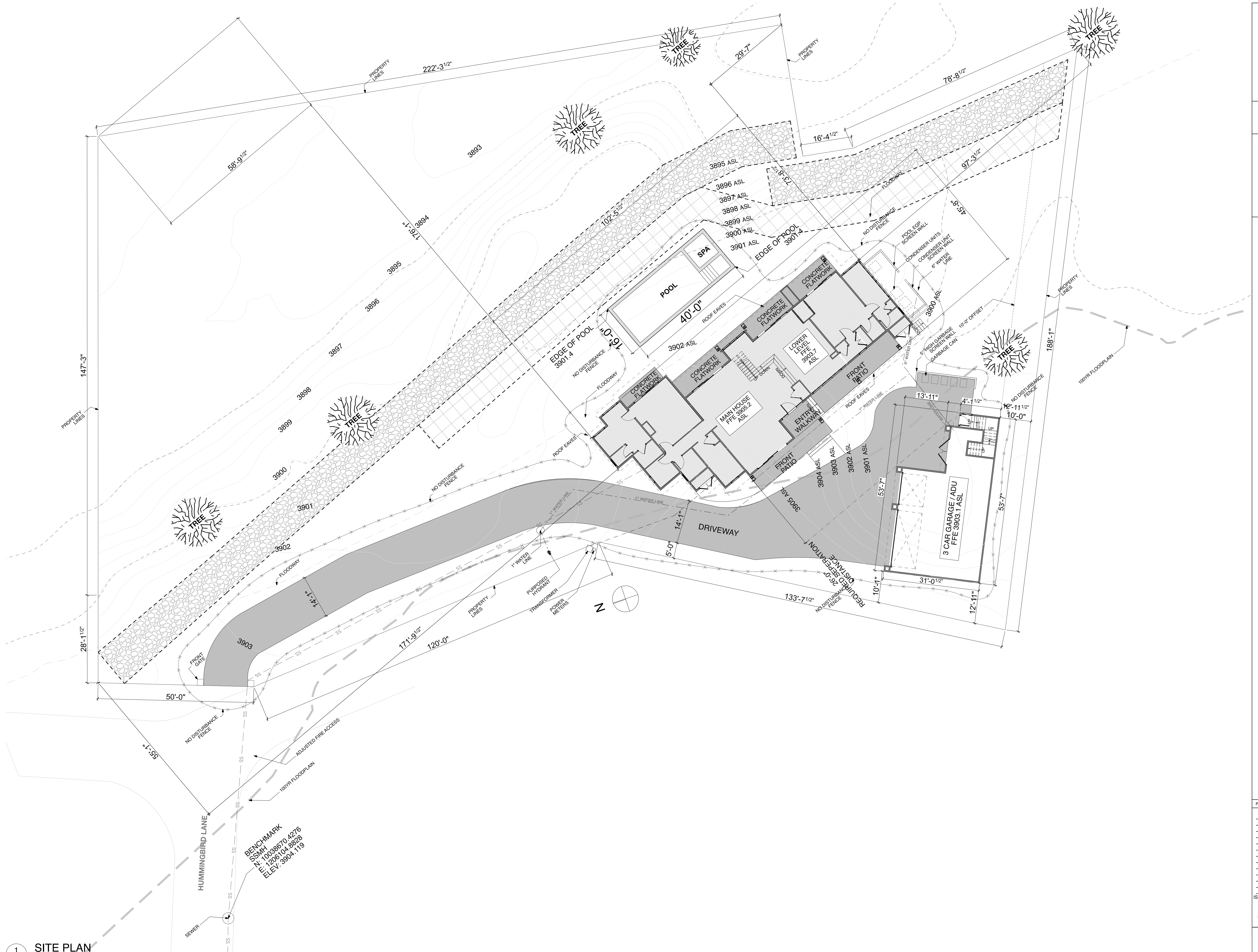
ONE YEAR OVERVIEW

APPENDIX

A007

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A007

SITE PLAN

SCALE: 3/32" = 1'-0"

- SLAB PLAN NOTES
1. SEE SHEETS PROVIDED BY STRUCTURAL ENGINEER FOR ALL SHEAR WALL CALLOUTS, NOTES AND DETAILS.

2. PROVIDE CONTROL JOINTS IN ALL WALK-WAYS AT 4'-0" O.C. OR U.N.O. BY CONTRACTOR.

3. PROVIDE CONTROL JOINTS IN DRIVEWAY AT 12'-0" O.C. OR U.N.O. BY CONTRACTOR.

4. PROVIDE REBAR 3' O.C. OR WIRE MESH IN HOUSE SLAB AND DRIVEWAY OR U.N.O.

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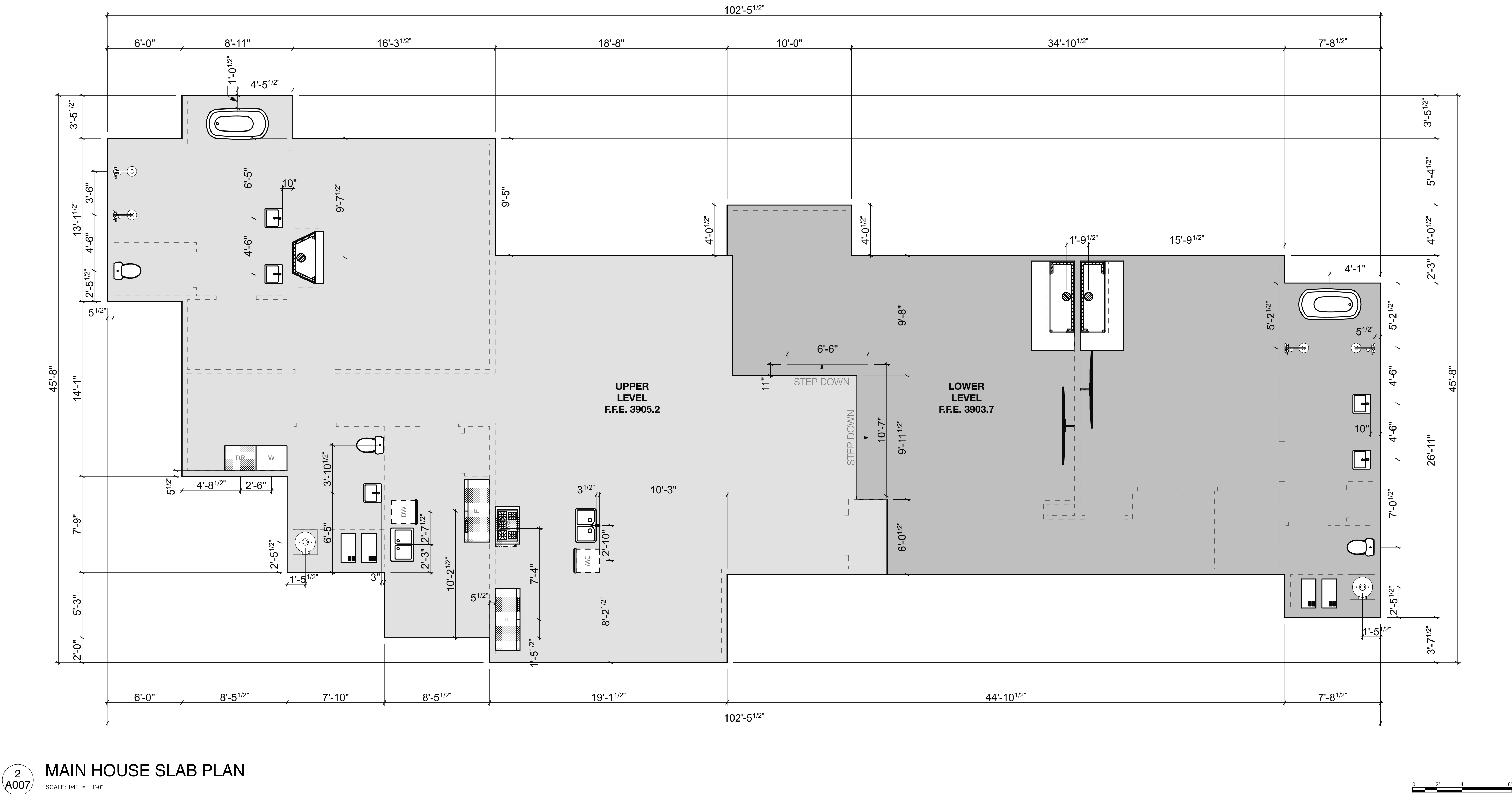
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MAIN HOUSE Slab Plan	
A007	
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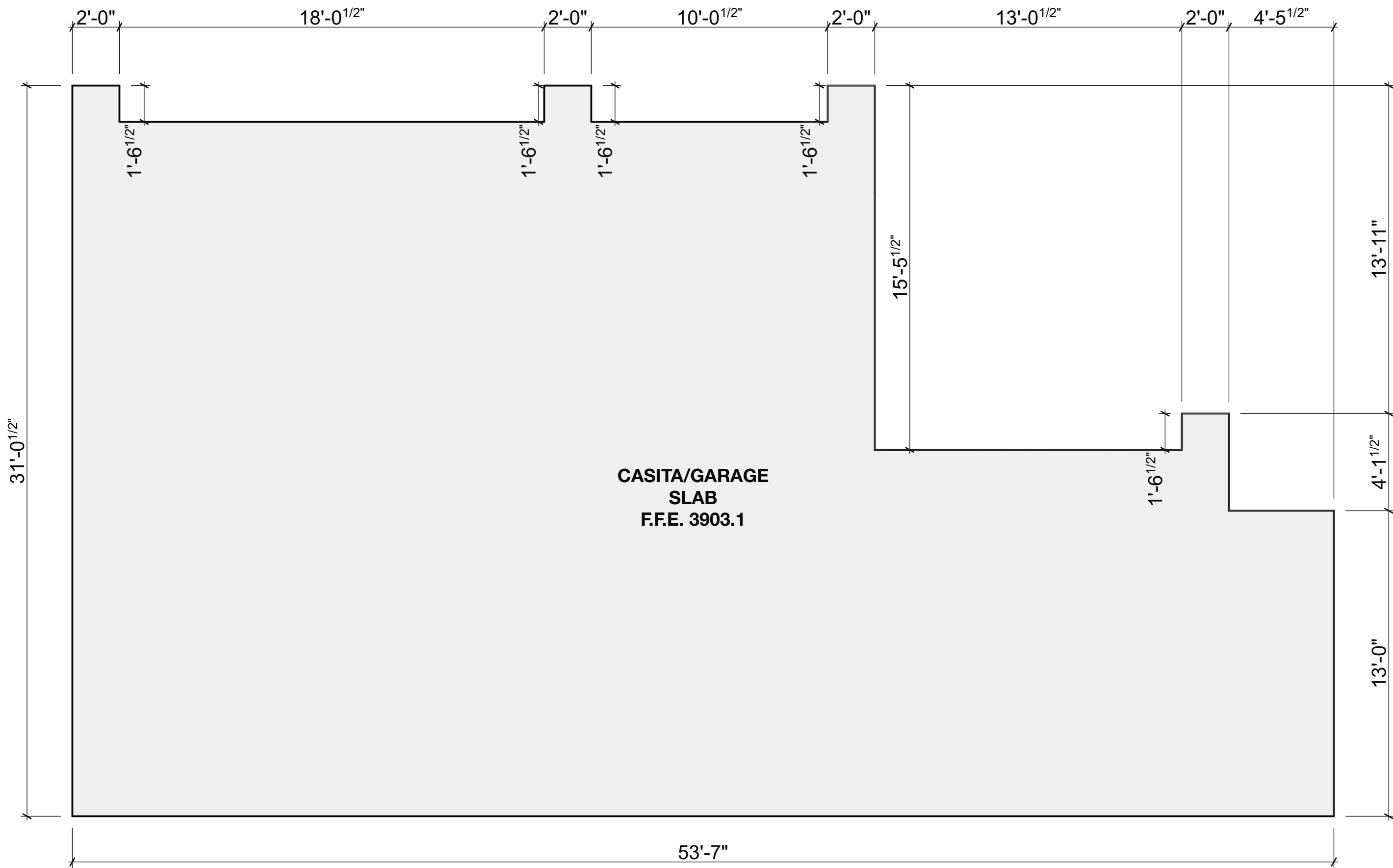
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CASITA / GARAGE SLAB
PLAN

A008

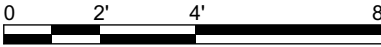
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CASITA/GARAGE SLAB PLAN

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



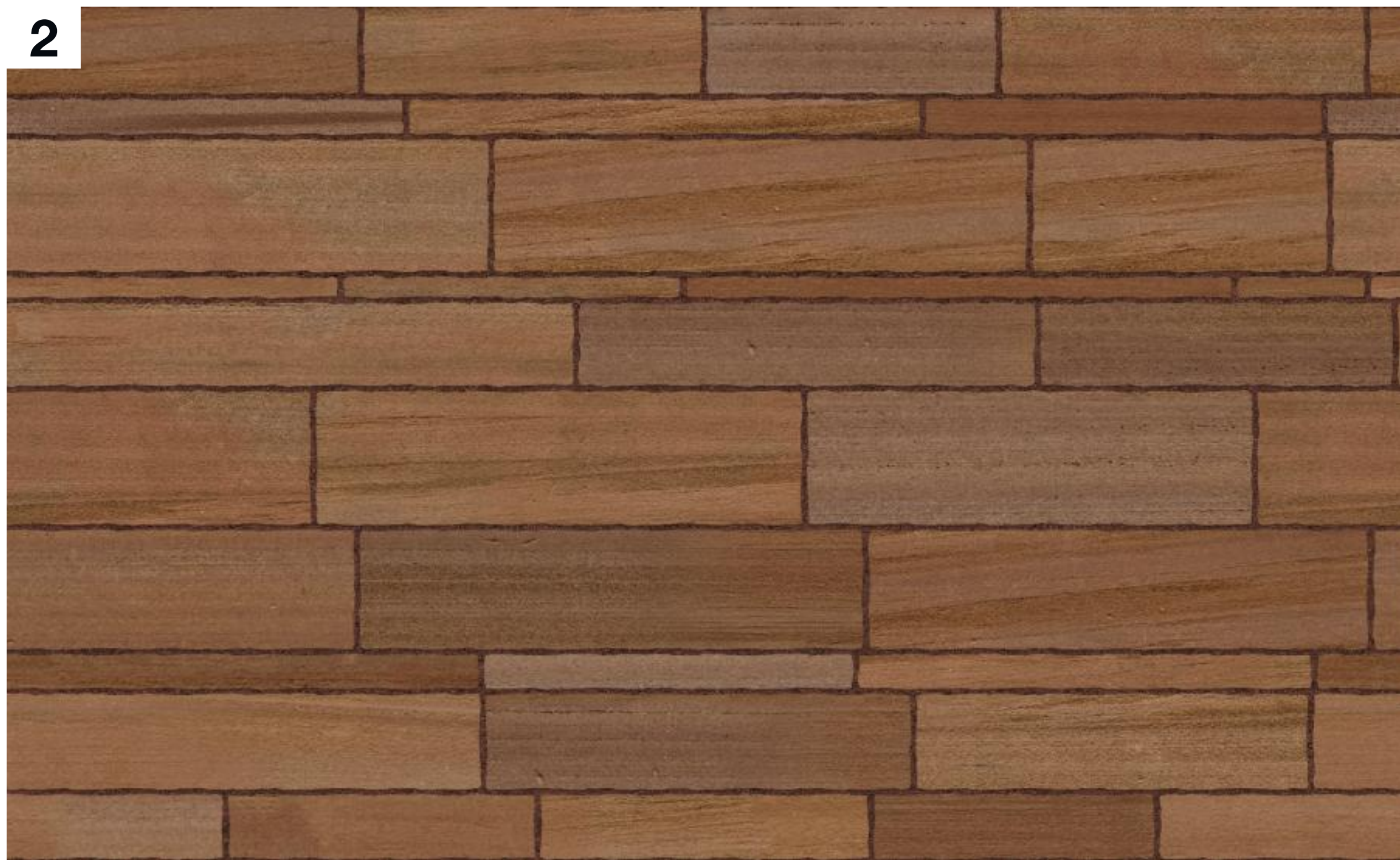
MATERIALS BOARD



STANDING SEAM METAL ROOF



EXTERIOR WOOD CLADDING



LOCAL RED SANDSTONE STRETCHER



PRE FINISHED METAL FACADE / ANODIZED BRONZE



STEEL COLUMNS



LOCAL RED SANDSTONE STRETCHER

ELEVATION LEGEND	
1	- WOOD CLADDING
2	- LOCAL SANDSTONE STRETCHER
3	- PRE-FINISHED METAL / ANODIZED BRONZE
4	- STEEL COLUMN
5	- CABLE / GLASS RAILING
6	- DOOR TRIM / ANODIZED BRONZE



CABLE RAILING/ DARK GREY OR ANODIZED BRONZE



GLASS RAILING



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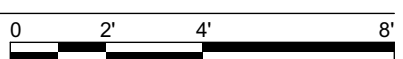
MAIN HOUSE First Flo

Plan

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A101

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A101

MAIN LEVEL FLOOR PLAN

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

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

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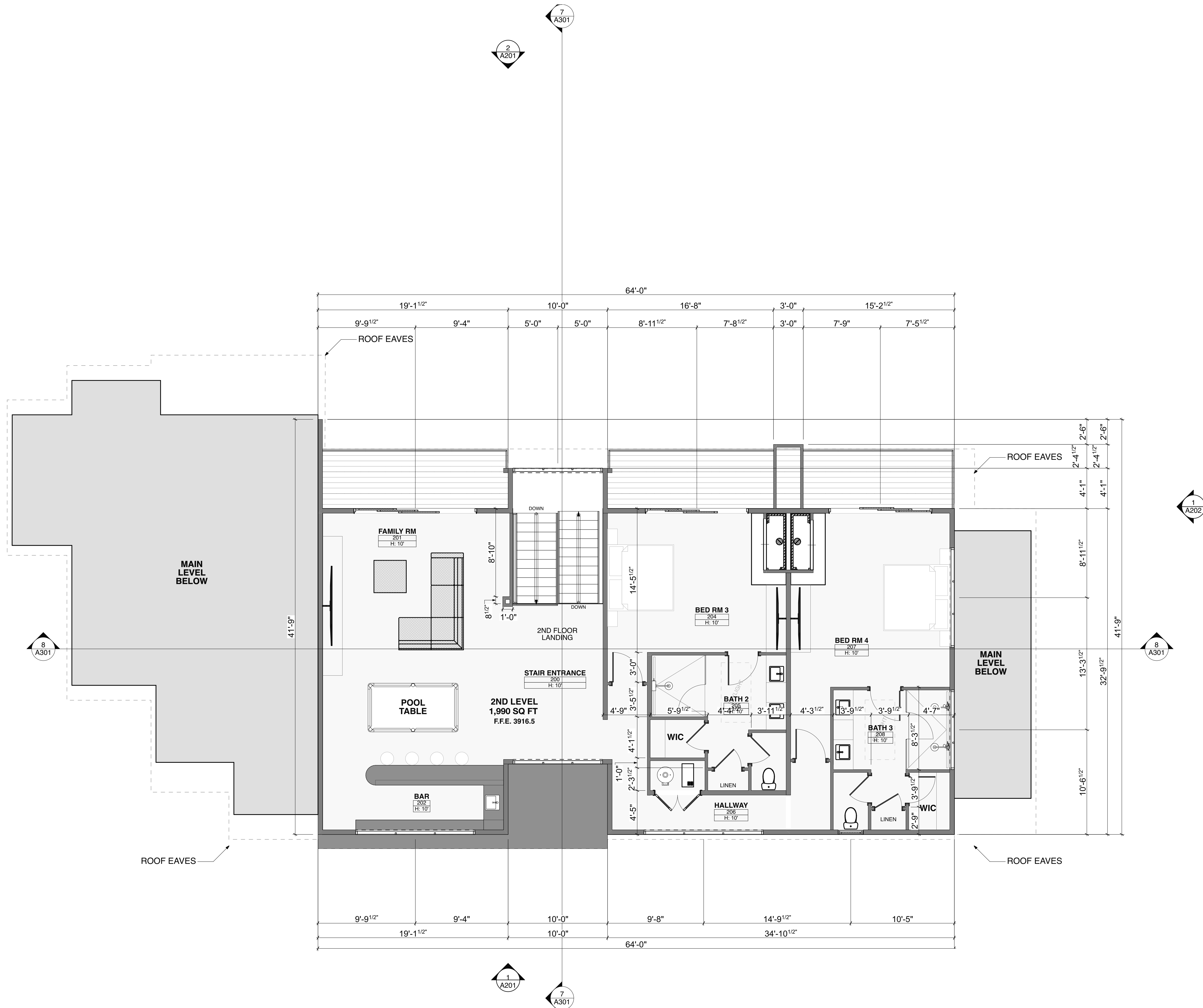
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MAIN HOUSE Second
Floor Plan

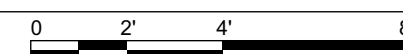
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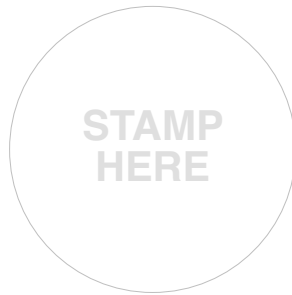
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1 A102 2ND LEVEL FLOOR PLAN

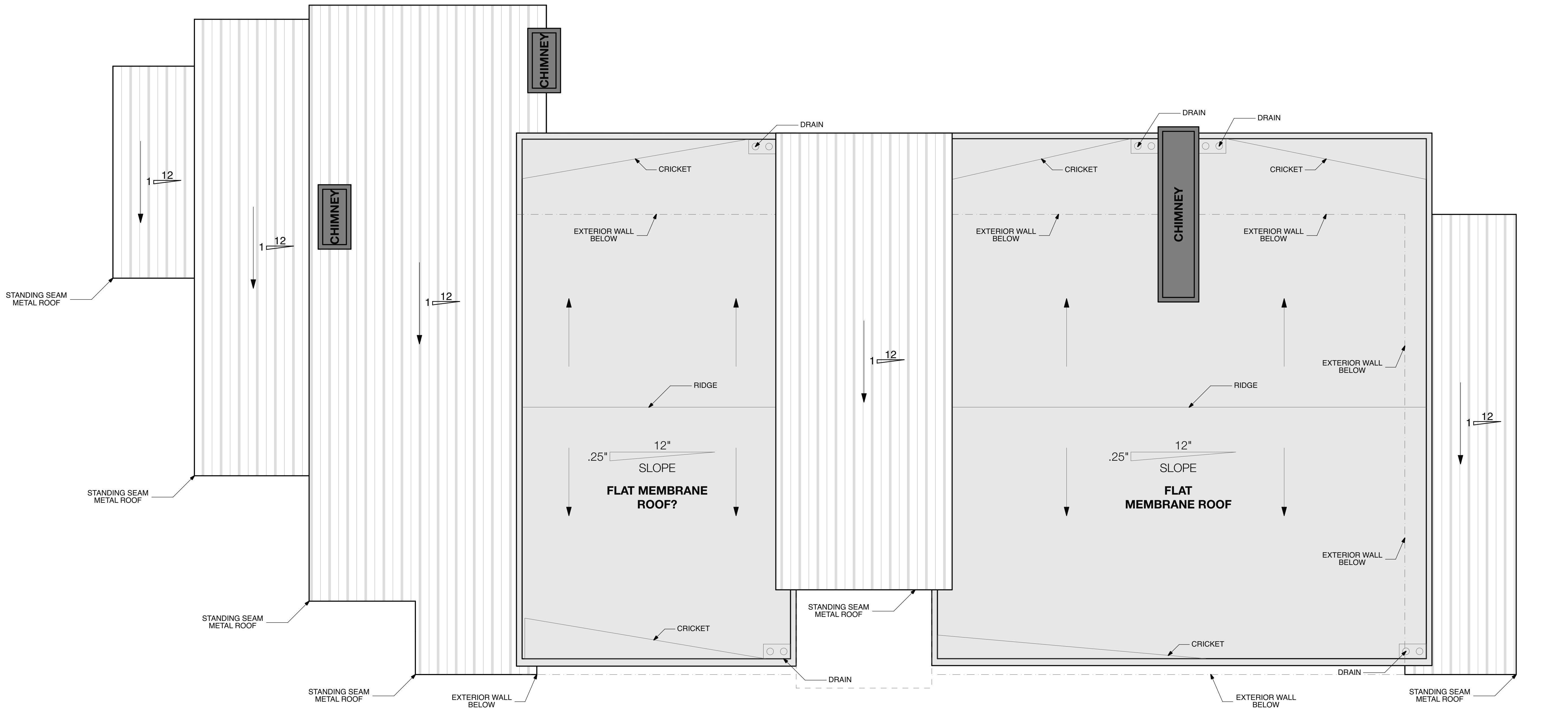
SCALE: 1/4" = 1'-0"





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A103

ROOF PLAN

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

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MAIN HOUSE Roof Plan

A103

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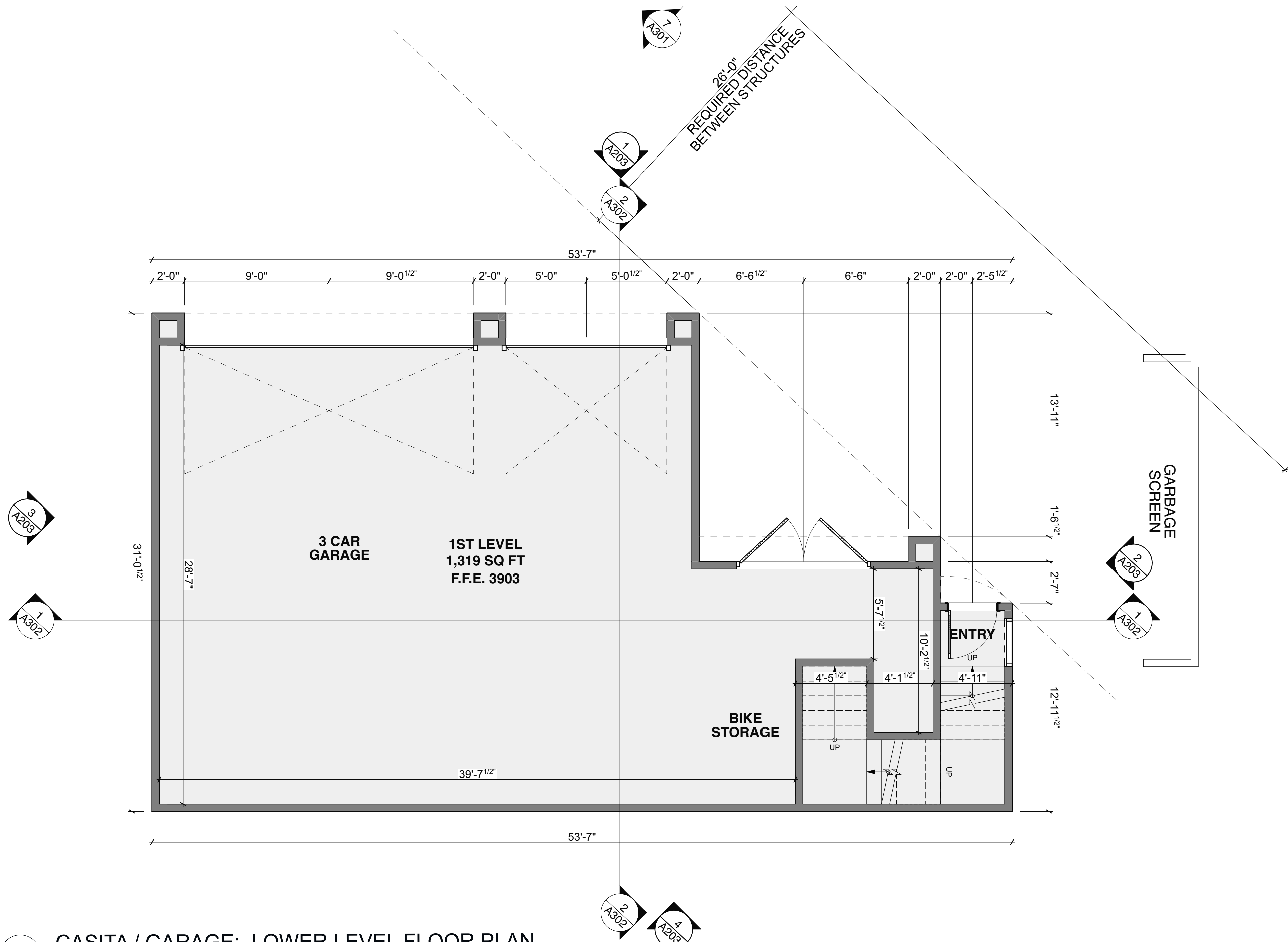
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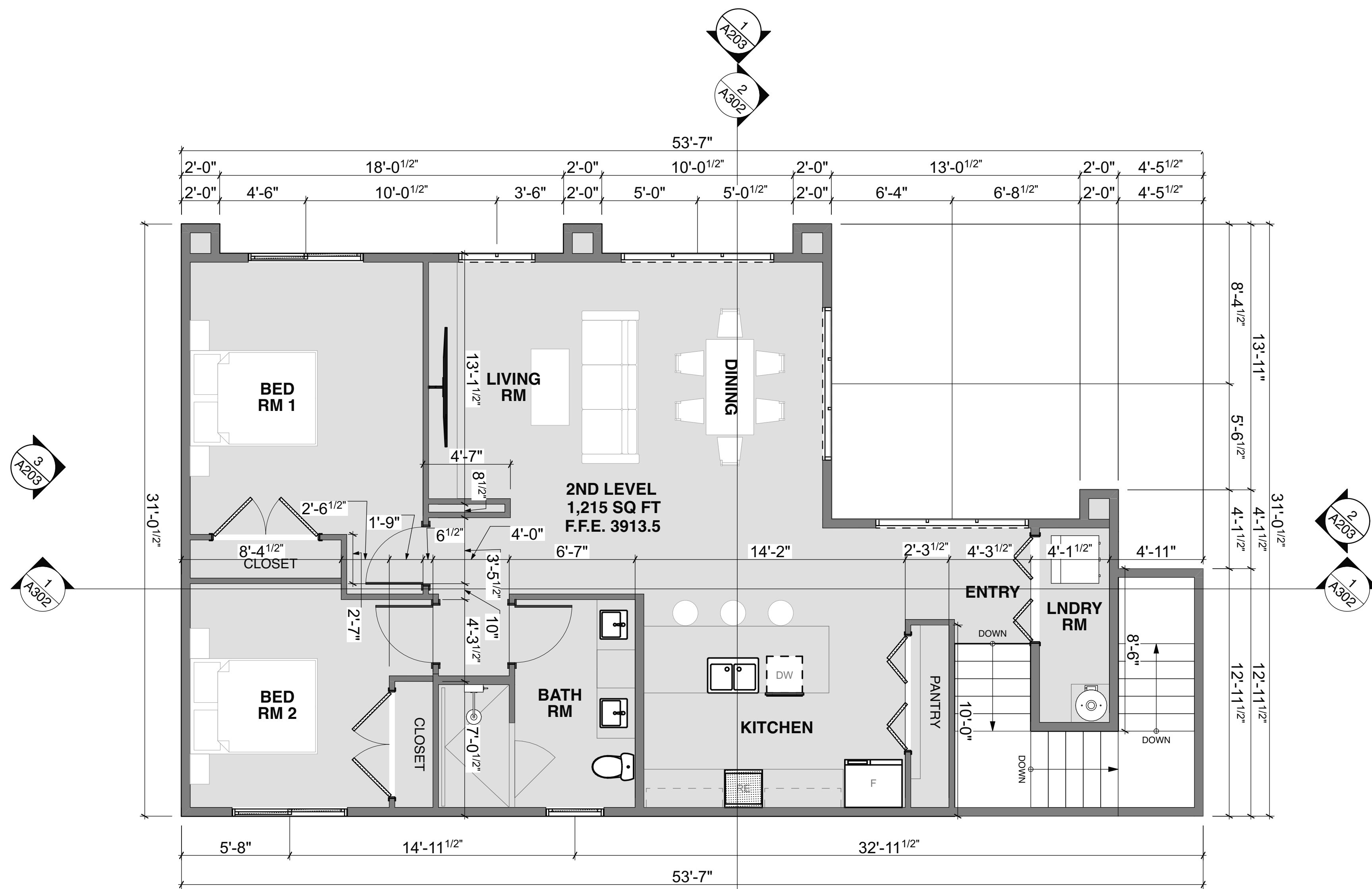
CASITA / GARAGE Plans

A104

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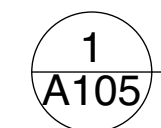
6 CASITA / GARAGE: LOWER LEVEL FLOOR PLAN
SCALE: 1/4" = 1'-0"



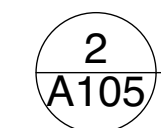
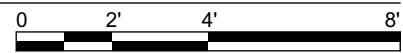
5 CASITA / GARAGE: UPPER LEVEL FLOOR PLAN
SCALE: 1/4" = 1'-0"

0 2' 4' 6'

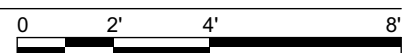
**SNOW
LEOPARD**
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767



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

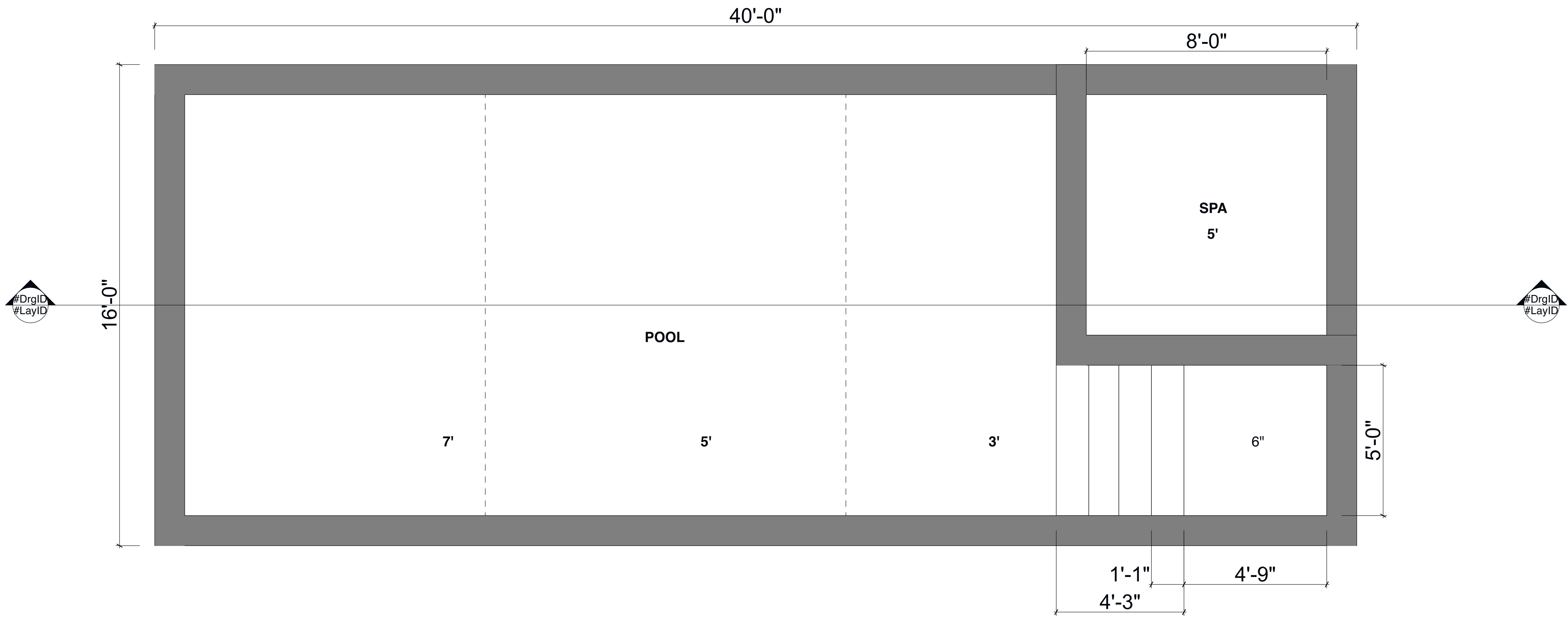


SCALE: 1/4" = 1'-0"



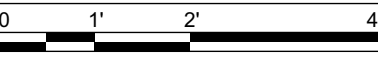
SUED:

A105



1
A106

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



G.H. TURNER DESIGN
ARCHITECTS

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435.229.9706

STAMP
HERE

SNOW
LEOPARD
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

△ ISSUANCE NAME	DATE

ISSUED:

POOL PLAN

A106

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SNOW
LEOPARD
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

ISSUANCE NAME DATE

ISSUED:

MAIN HOUSE Elevations

A201

Printed: 7/31/24

ELEVATION LEGEND

- 1 - WOOD CLADDING
- 2 - LOCAL SANDSTONE STRETCHER
- 3 - PRE-FINISHED METAL / ANODIZED BRONZE
- 4 - STEEL COLUMN / CORTEN STEEL
- 5 - CABLE / GLASS RAILING / DARK GRAY OR ANODIZED BRONZE
- 6 - DOOR TRIM / ANODIZED BRONZE



- ELEVATION LEGEND
- 1

-

WOOD CLADDING
- 2

-

LOCAL SANDSTONE STRETCHER
- 3

-

PRE-FINISHED METAL / ANODIZED BRONZE
- 4

-

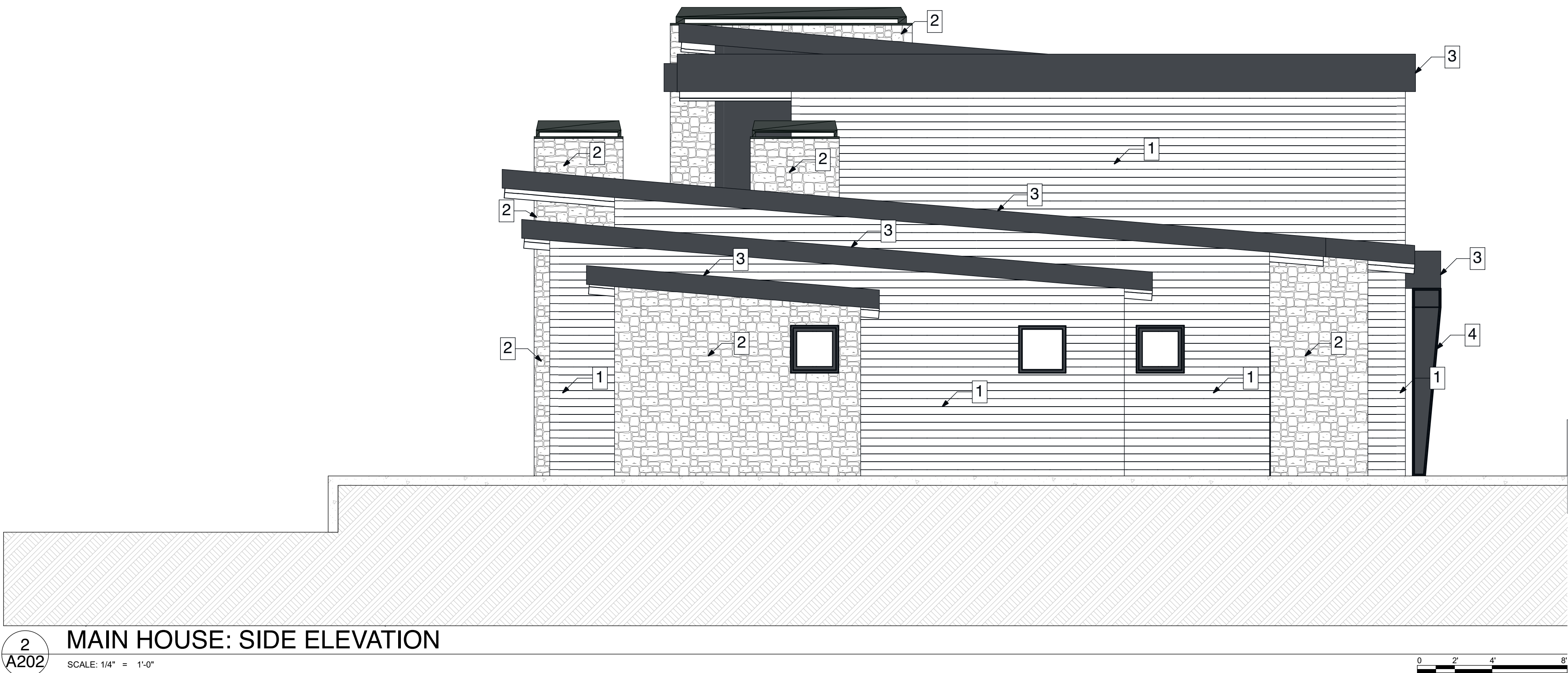
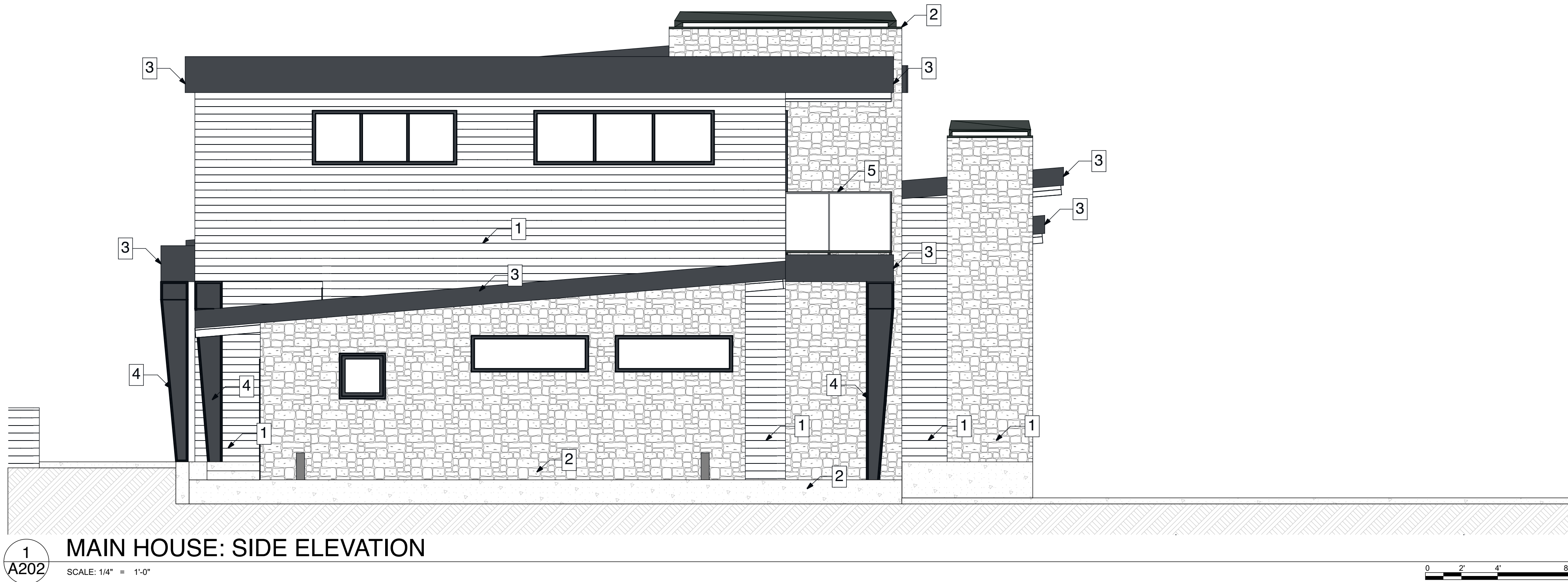
STEEL COLUMN / CORTEN STEEL
- 5

-

CABLE / GLASS RAILING / DARK GRAY OR ANODIZED BRONZE
- 6

-

DOOR TRIM / ANODIZED BRONZE





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**SNOW
LEOPARD**
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

△ ISSUANCE NAME	DATE
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SUED: _____

CASITA / GARAGE ELEVATIONS

A203

Printed: 7/31

- 1 - WOOD CLADDING
- 2 - LOCAL SANDSTONE STRETCHER
- 3 - PRE-FINISHED METAL / ANODIZED BRONZE
- 4 - STEEL COLUMN / CORTEN STEEL
- 5 - CABLE / GLASS RAILING / DARK GRAY OR ANODIZED BRONZE
- 6 - DOOR TRIM / ANODIZED BRONZE



**SNOW
LEOPARD**
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

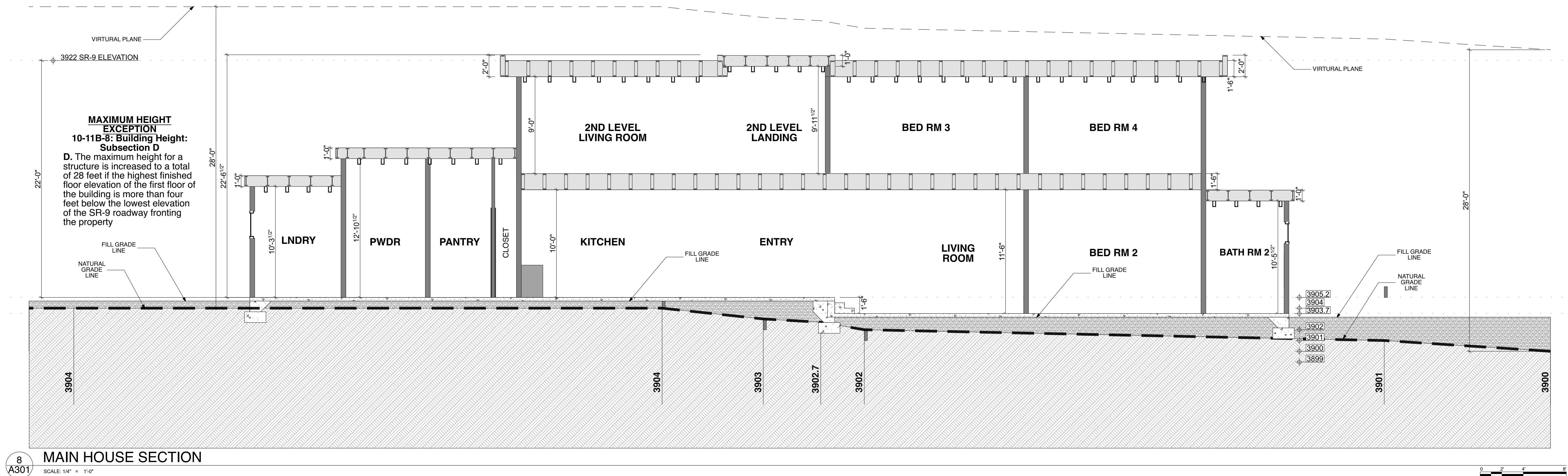
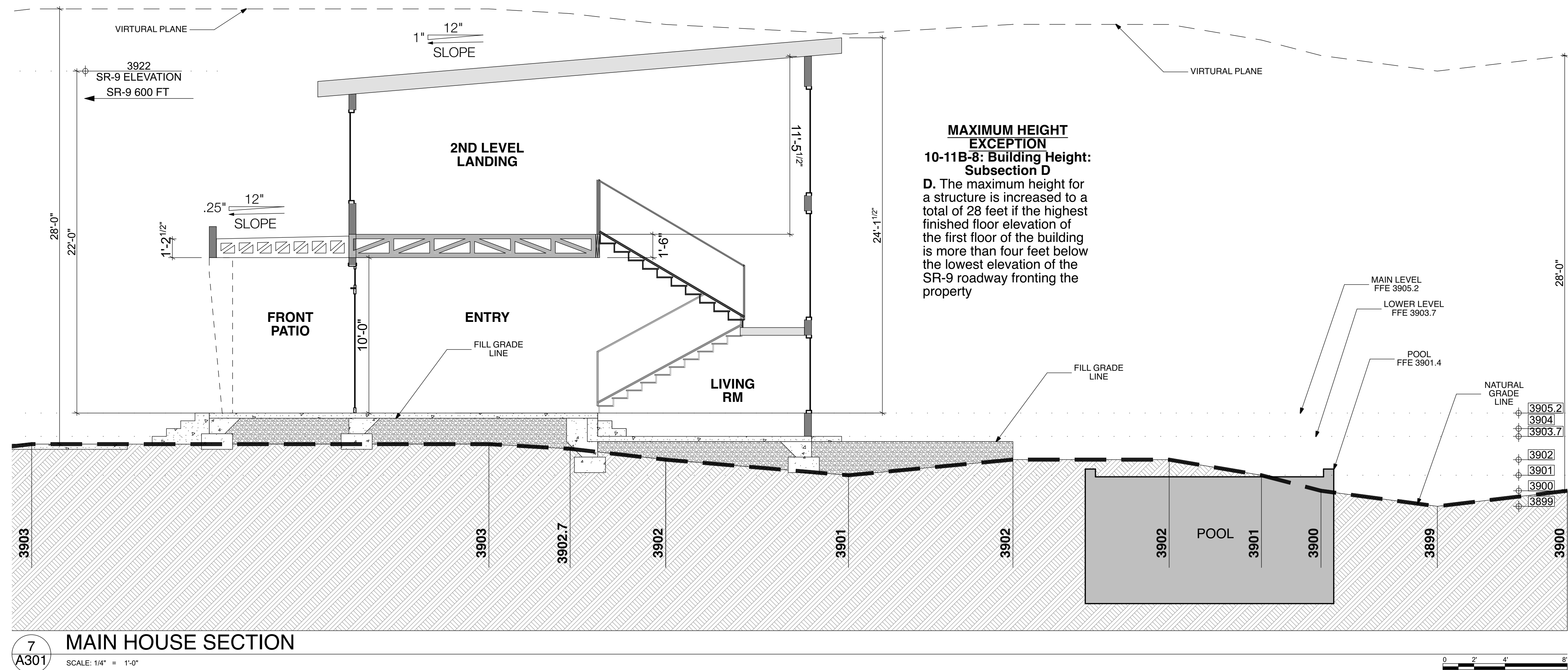
△ ISSUANCE NAME	DATE
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SUED:

MAIN HOUSE Section

A301

Printed: 7/31



**SNOW
LEOPARD**
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

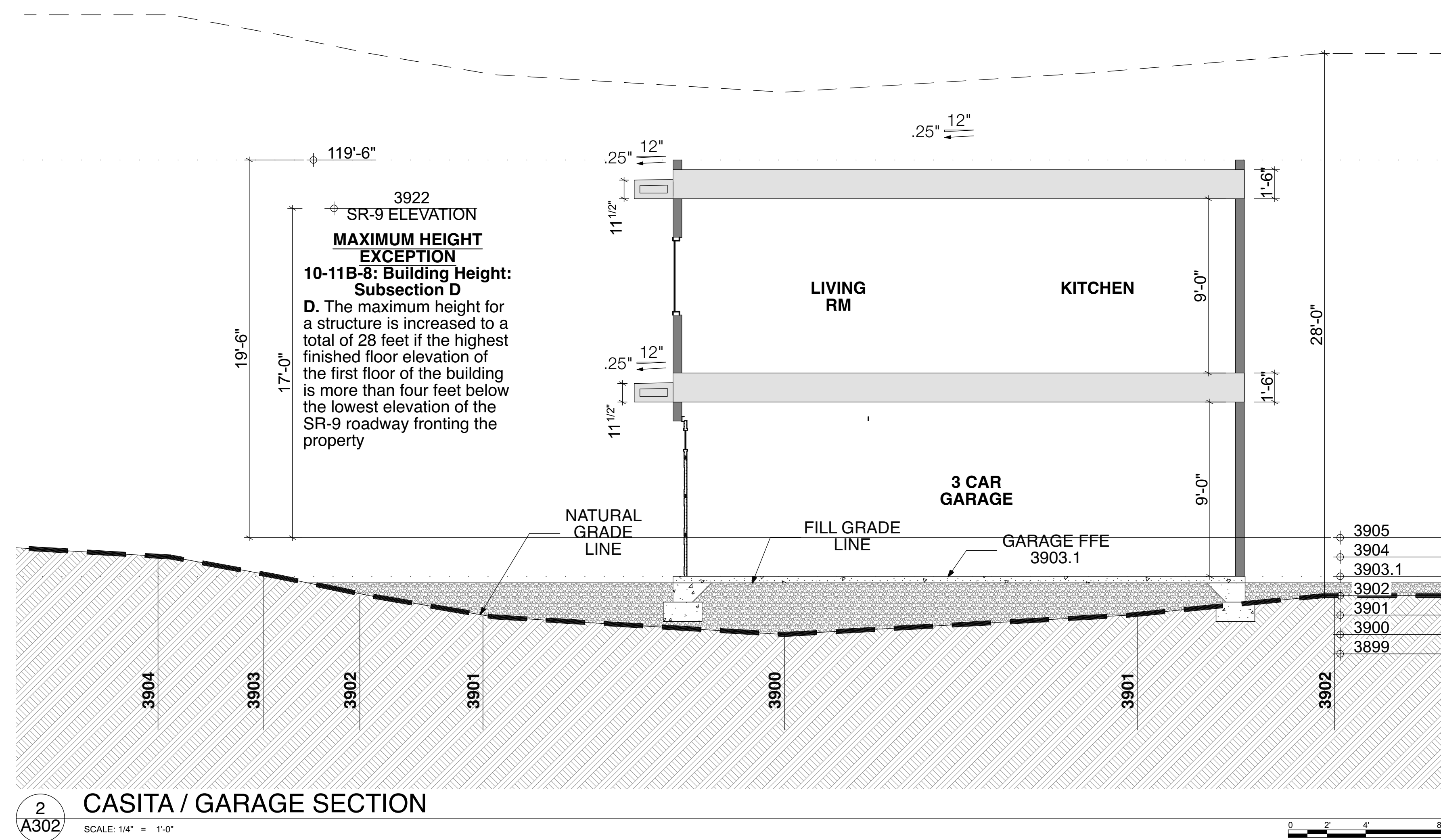
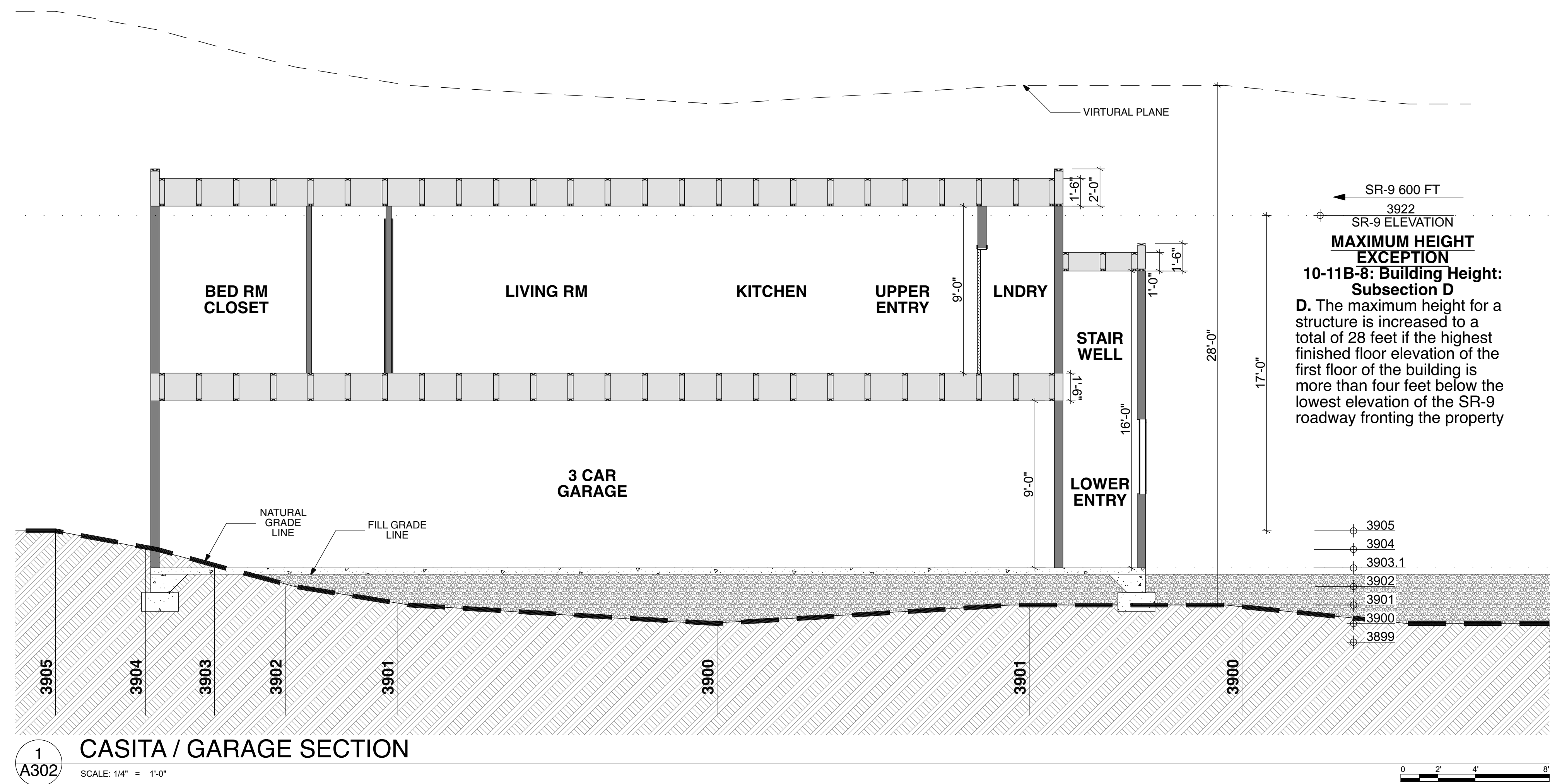
△ ISSUANCE NAME	DATE
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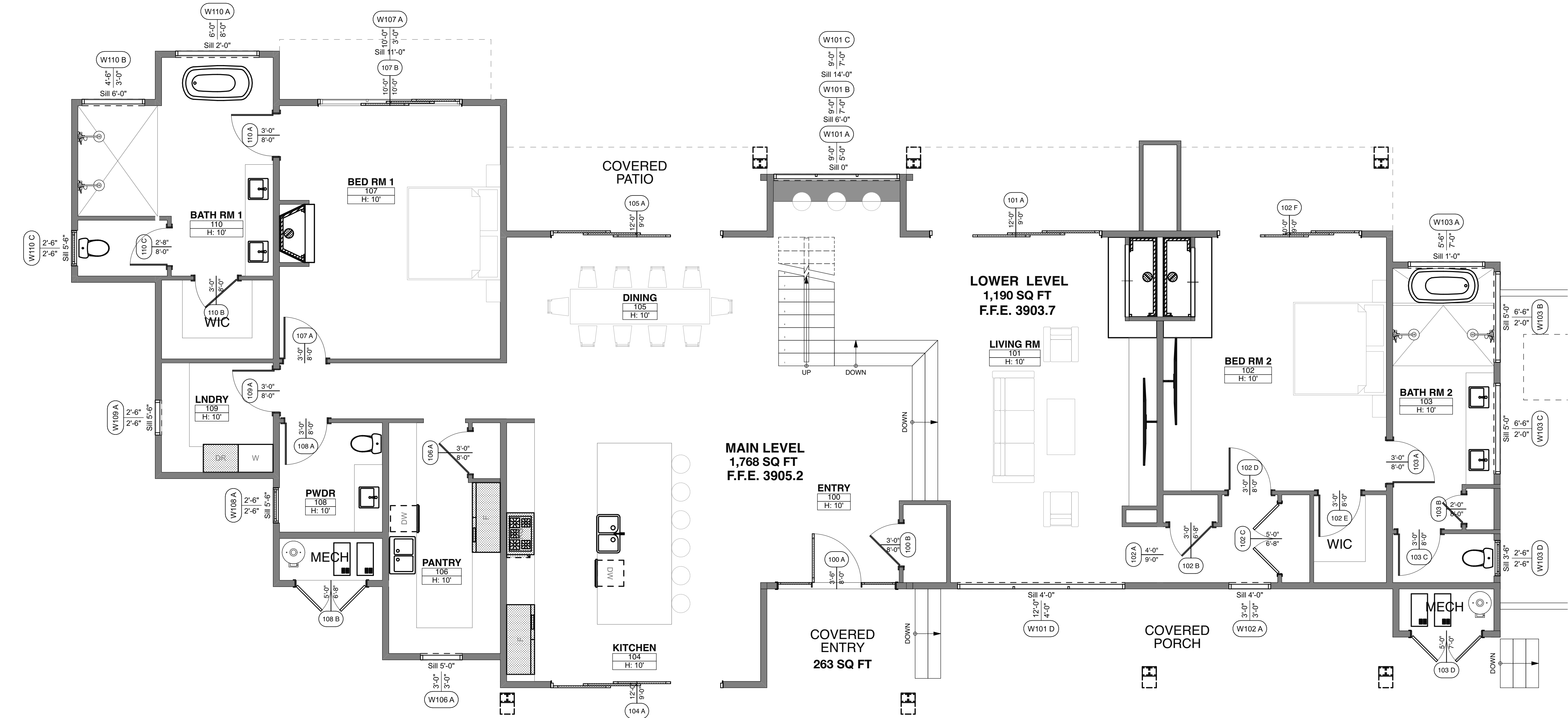
SUED: _____

CASITA / GARAGE SECTIONS

A302

Printed: 7/31/24

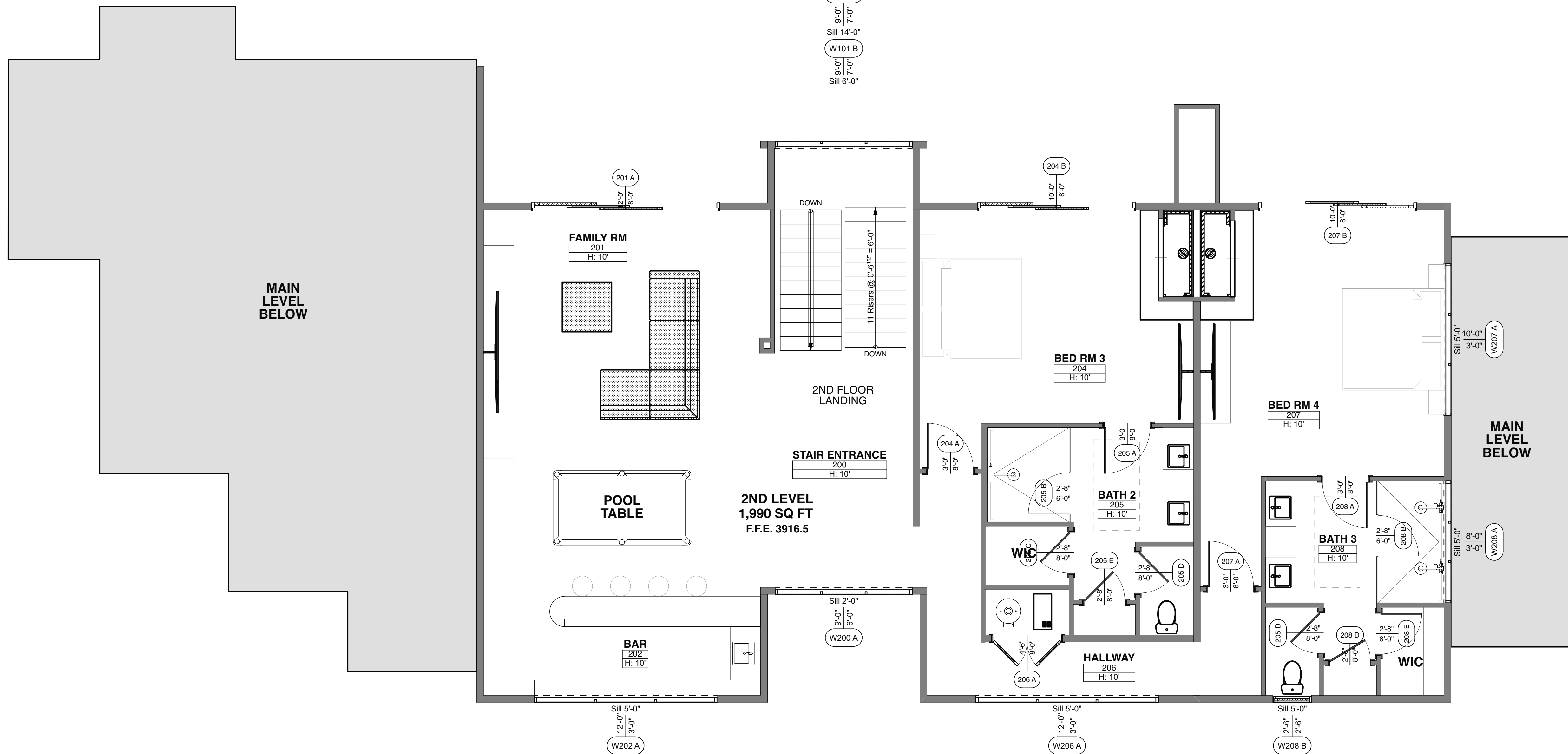
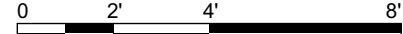




3 1ST FLOOR DOOR & WINDOW PLAN

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

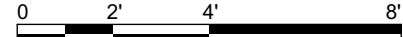
A401



4 2ND FLOOR DOOR & WINDOW PLAN

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

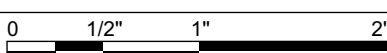
A401



DOOR SCHEDULE				
ID	DOOR		FIRE	NOTES
	W	HT		
100 A	3'-6"	8'-0"	Unrated	
100 B	3'-0"	8'-0"	Unrated	
101 A	12'-0"	9'-0"	Unrated	
102 A	4'-0"	9'-0"	Unrated	---
102 B	3'-0"	6'-8"	Unrated	
102 C	5'-0"	6'-8"	Unrated	
102 D	3'-0"	8'-0"	Unrated	
102 E	3'-0"	8'-0"	Unrated	
102 F	10'-0"	9'-0"	Unrated	
103 A	3'-0"	8'-0"	Unrated	
103 B	2'-0"	8'-0"	Unrated	
103 C	3'-0"	8'-0"	Unrated	
103 D	5'-0"	7'-0"	Unrated	
104 A	12'-0"	9'-0"	Unrated	
105 A	12'-0"	9'-0"	Unrated	
106 A	3'-0"	8'-0"	Unrated	
107 A	3'-0"	8'-0"	Unrated	
107 B	10'-0"	10'-0"	Unrated	
108 A	3'-0"	8'-0"	Unrated	
108 B	5'-0"	6'-8"	Unrated	
109 A	3'-0"	8'-0"	Unrated	
110 A	3'-0"	8'-0"	Unrated	
110 B	3'-0"	8'-0"	Unrated	
110 C	2'-8"	8'-0"	Unrated	
111 A	18'-0"	8'-0"	Unrated	
111 B	10'-0"	8'-0"	Unrated	
111 C	8'-0"	8'-0"	Unrated	
111 D	3'-0"	8'-0"	Unrated	
201 A	12'-0"	8'-0"	Unrated	
204 A	3'-0"	8'-0"	Unrated	
204 B	10'-0"	8'-0"	Unrated	
205 A	3'-0"	8'-0"	Unrated	
205 B	2'-8"	6'-0"	Unrated	
205 C	2'-8"	8'-0"	Unrated	
205 D	2'-8"	8'-0"	Unrated	
205 E	2'-8"	8'-0"	Unrated	
206 A	4'-6"	8'-0"	Unrated	
207 A	3'-0"	8'-0"	Unrated	
207 B	10'-0"	8'-0"	Unrated	
208 A	3'-0"	8'-0"	Unrated	
208 B	2'-8"	6'-0"	Unrated	
208 D	2'-8"	8'-0"	Unrated	
208 E	2'-8"	8'-0"	Unrated	
210 A	5'-0"	6'-8"	Unrated	
211 A	6'-0"	6'-8"	Unrated	
214 A	3'-0"	8'-0"	Unrated	
215 A	3'-0"	8'-0"	Unrated	
215 B	5'-6"	6'-8"	Unrated	
216 A	3'-0"	8'-0"	Unrated	
216 B	5'-6"	6'-8"	Unrated	

1 A401

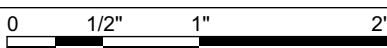
SCALE: 1" = 1'-0"



WINDOW SCHEDULE					
ID	SIZE		Tempered	Egress	Type
	WIDTH	HEIGHT			
W101 A	9'-0"	5'-0"	No	No	Undefined
W101 B	9'-0"	7'-0"	No	No	Fixed
W101 C	9'-0"	7'-0"	No	No	Undefined
W101 D	12'-0"	4'-0"	No	No	Fixed
W102 A	3'-0"	3'-0"	No	No	Fixed
W103 A	5'-6"	7'-0"	Yes	No	Fixed
W103 B	6'-6"	2'-0"	Yes	No	Fixed
W103 C	6'-6"	2'-0"	Yes	No	Fixed
W103 D	2'-6"	2'-6"	Yes	No	Fixed
W106 A	3'-0"	3'-0"	No	No	Fixed
W107 A	10'-0"	3'-0"	No	No	Undefined
W108 A	2'-6"	2'-6"	Yes	No	Fixed
W109 A	2'-6"	2'-6"	No	No	Fixed
W110 A	6'-0"	8'-0"	Yes	No	Fixed
W110 B	4'-6"	3'-0"	Yes	No	Fixed
W110 C	2'-6"	2'-6"	Yes	No	Fixed
W111 A	3'-0"	4'-0"	No	No	Undefined
W200 A	9'-0"	6'-0"	No	No	Fixed
W202 A	12'-0"	3'-0"	No	No	Fixed
W206 A	12'-0"	3'-0"	No	No	Fixed
W207 A	10'-0"	3'-0"	No	No	Undefined
W208 A	6'-0"	3'-0"	Yes	No	Undefined
W209 B	2'-6"	2'-6"	Yes	No	Fixed
W209 A	6'-0"	4'-0"	No	No	Fixed
W212 A	6'-0"	4'-0"	No	No	Fixed
W212 B	6'-0"	4'-0"	No	No	Fixed
W213 A	4'-0"	4'-0"	No	No	Fixed
W214 A	3'-0"	5'-0"	Yes	No	Fixed
W215 A	6'-0"	4'-0"	No	Yes	Sliding Window
W216 A	6'-0"	4'-0"	No	Yes	Sliding Window

2 A401

SCALE: 1" = 1'-0"



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54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

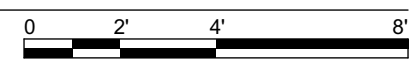
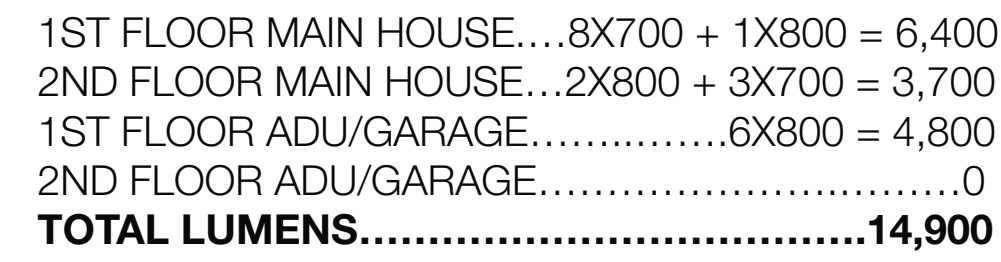
ISSUANCE NAME DATE

ISSUED:

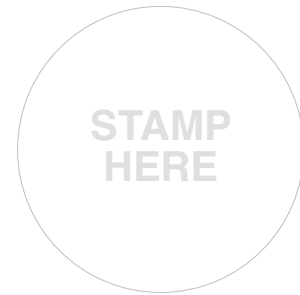
MAIN HOUSE 1ST
FLOOR DOOR &
WINDOW Details

A401

1. ALL SMOKE ALARMS TO BE 120V
UL LISTED BATTER BACKED-UP AND
INTERCONNECTED.
2. CO DETECTORS ON EACH LEVEL TO
BE 120V POWERED BATTERY
BACKED-UP AND INTERCONNECTED.
3. CO DETECTORS ARE TO BE
LOCATED ON EACH LEVEL IN THE
IMMEDIATE VICINITY OF THE
BEDROOMS.
4. SMOKE DETECTORS ARE TO
BE LOCATED IN EACH BEDROOM
ON EACH LEVEL IN THE IMMEDIATE
VICINITY OF THE BEDROOMS.
5. ALL 115-20 AMP RECEPTACLES
TO BE UL LISTED AND RESISTANT.
6. Branch circuits that supply
125-volt single phase and
20 amp outlets installed in
kitchens, family rooms, dining
rooms, living rooms, bedrooms,
libraries, dens, bedrooms,
sunrooms, recreation rooms
and other living areas, fireplaces
and similar rooms or areas shall
be protected by AFCI.
7. OUTLETS ARE REQUIRED TO BE
INSTALLED SO THAT NO POINT
ON THE WALL IS MORE THAN 6'
FROM AN OUTLET.
8. GFCI PROTECTION SHALL BE
PROVIDED FOR OUTLETS THAT SUPPLY
ELECTRIC CHARGE DISPOSAL &
DISHWASHER.



MAIN HOUSE First Floor



SNOW
LEOPARD
54 HUMMINGBIRD LANE
SPRINGDALE UTAH 84767

Project Number: Project Number

△ ISSUANCE NAME	DATE

ISSUED:

MAIN HOUSE Second
Floor

E002

LIGHTING LEGEND:

- 1) -  RECESSED CAN LIGHT
- 2) -  DOWNLIGHT SCONCE

LIGHT FIXTURE:

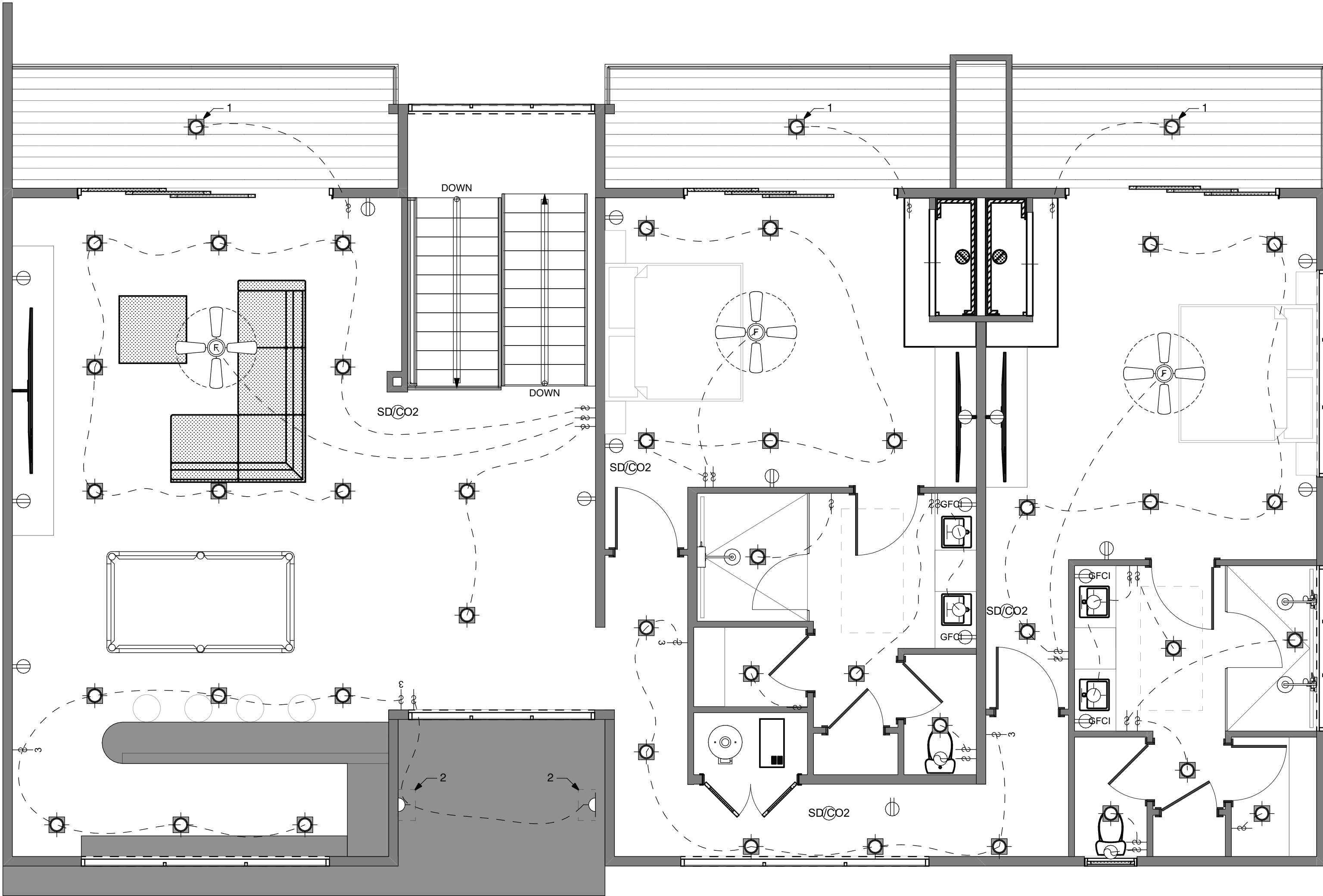
- 1) KICHLER LIGHTING - DLRCO4R2790WHT
DIRECT TO CEILING RECESSED LED DOWNLIGHT
6" X 2" | 2700 K | 700 LUMENS
- 2) KICHLER LIGHTING - 9234BK -
SMALL OUTDOOR WALL MOUNT
7" X 4.75" | 60-WATT BULBS | 800 LUMENS

LIGHTING NOTES:

- 1) ALL LIGHTING TO MEET LZ-2 LOW AMBIENT
LIGHTING OR 40,000 LUMENS PER ACRE
- 2) ALL LIGHTING TO COMPLY WITH "FULL CUTOFF
FIXTURE" STANDARDS: ALL OUTDOOR LIGHTING
TO FACE DOWNWARD WITH OPAQUE SHIELDING -
RECESSED INTO HOUSING BY 2" CUT SHEET
- 3) ALL EXT LIGHTING TO BE 3000K < (WARM
COLOR TEMP)

LUMEN COUNT:

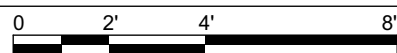
- 1ST FLOOR MAIN HOUSE...8X700 + 1X800 = 6,400
- 2ND FLOOR MAIN HOUSE...2X800 + 3X700 = 3,700
- 1ST FLOOR ADU/GARAGE.....6X800 = 4,800
- 2ND FLOOR ADU/GARAGE.....0
- TOTAL LUMENS.....14,900



1
E002

MAIN HOUSE: 2ND FLOOR ELECTRICAL PLAN

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



LIGHTING LEGEND:

- 1) -  RECESSED CAN LIGHT
- 2) -  DOWNLIGHT SCONCE

LIGHT FIXTURE:

1) KICHLER LIGHTING - DLRCO4R2790WHT
DIRECT TO CEILING RECESSED LED DOWNLIGHT
6" X 2" | 2700 K | 700 LUMENS

2) KICHLER LIGHTING - 9234BK -
SMALL OUTDOOR WALL MOUNT
7" X 4.75" | 60-WATT BULBS | 800 LUMENS

LIGHTING NOTES:

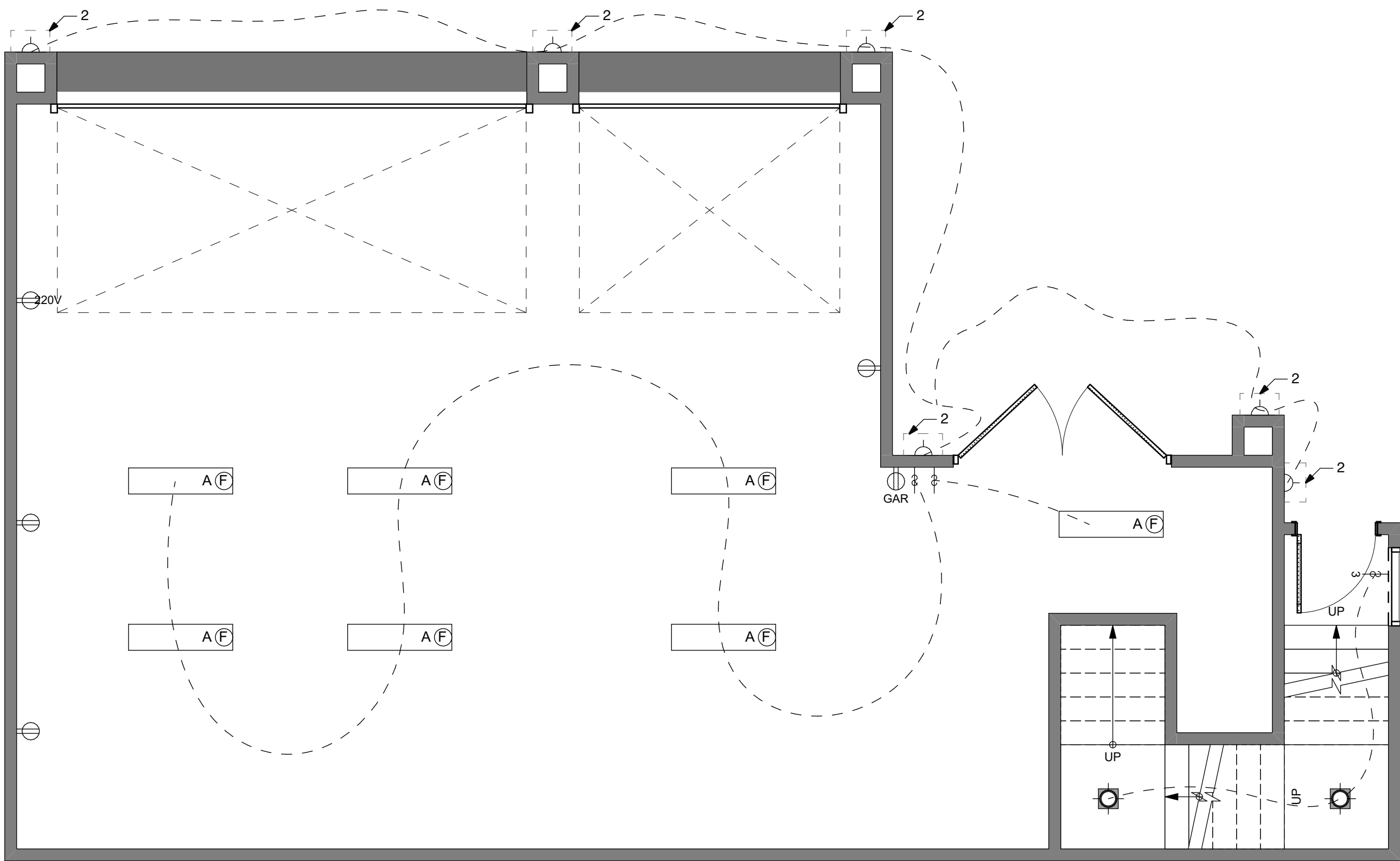
1) ALL LIGHTING TO MEET LZ-2 LOW AMBIENT
LIGHTING OR 40,000 LUMENS PER ACRE

2) ALL LIGHTING TO COMPLY WITH "FULL CUTOFF
FIXTURE" STANDARDS: ALL OUTDOOR LIGHTING
TO FACE DOWNWARD WITH OPAQUE SHIELDING -
RECESSED INTO HOUSING BY 2" CUT SHEET

3) ALL EXT LIGHTING TO BE 3000K < (WARM
COLOR TEMP)

LUMEN COUNT:

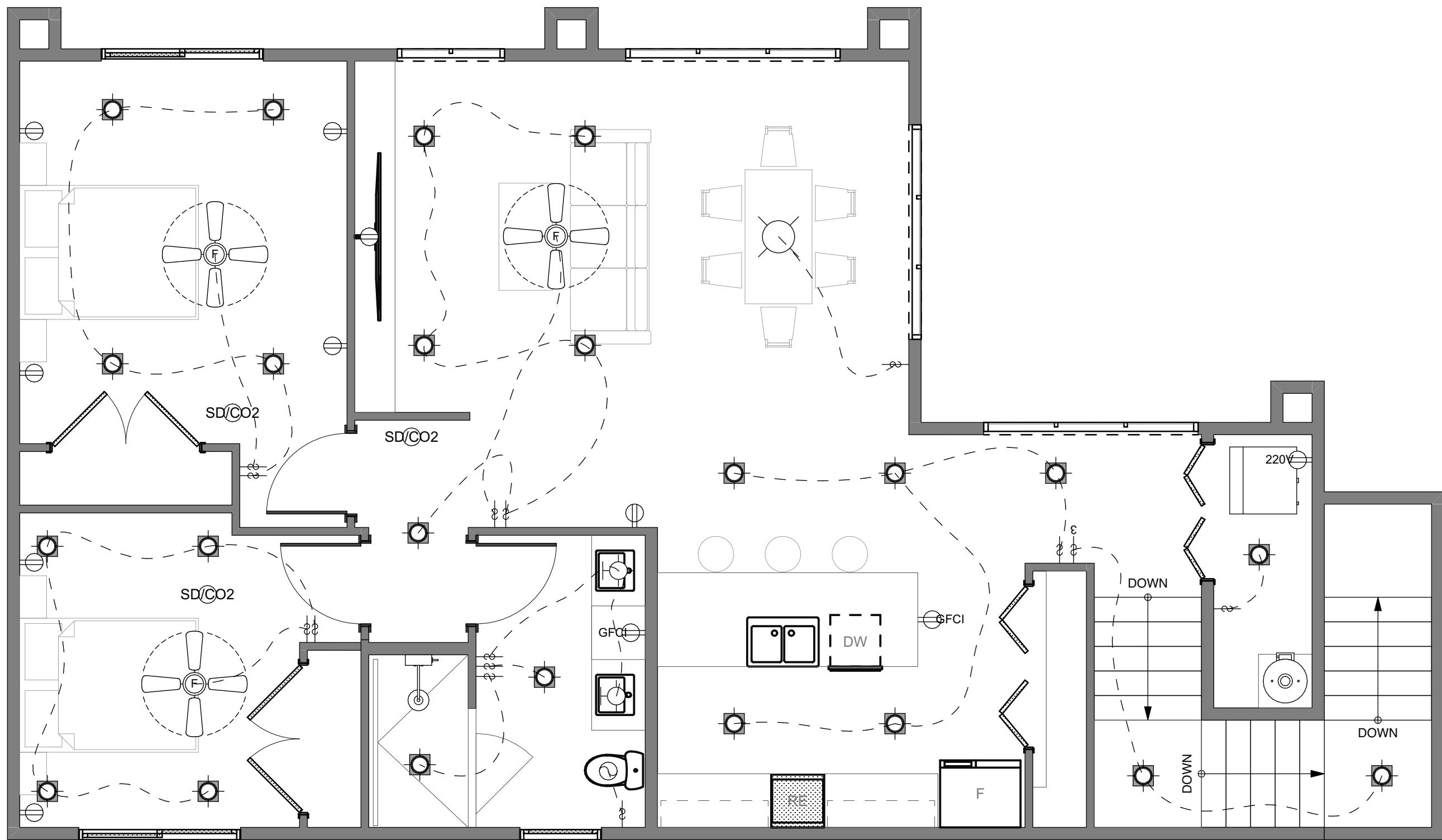
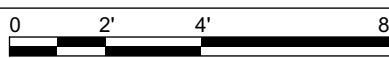
1ST FLOOR MAIN HOUSE...8X700 + 1X800 = 6,400
2ND FLOOR MAIN HOUSE...2X800 + 3X700 = 3,700
1ST FLOOR ADU/GARAGE.....6X800 = 4,800
2ND FLOOR ADU/GARAGE.....0
TOTAL LUMENS.....14,900



2
E003

ADU GARAGE FIRST FLOOR ELECTRICAL

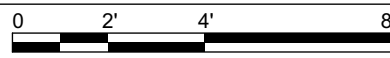
SCALE: 1/4" = 1'-0"

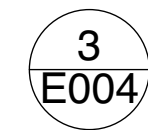


3
E003

ADU GARAGE SECOND FLOOR ELECTRICAL

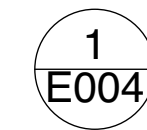
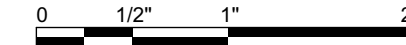
SCALE: 1/4" = 1'-0"





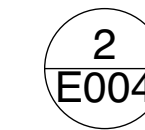
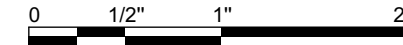
KICHLER RECESSED LED DOWNLIGHT

SCALE: 1' = 1'-0"



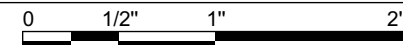
KICHLER SMALL OUTDOOR WALL MOUNT

SCALE: 1" = 1'-0"



KICHLER SMALL OUTDOOR WALL MOUNT

SCALE: 1' = 1'-0"



Project Number: Project Number

△ ISSUANCE NAME	DATE
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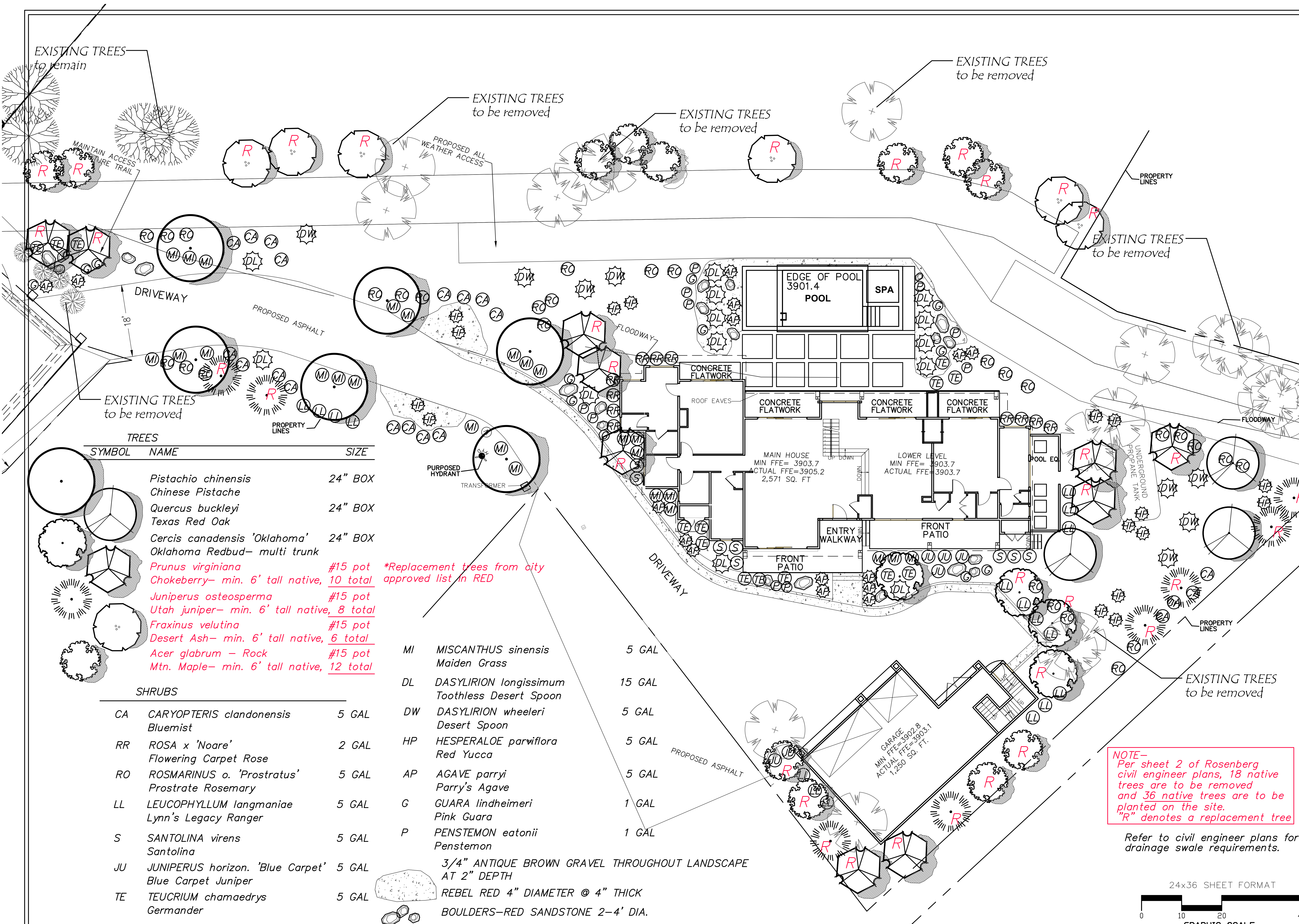
QUEST:

SUED:

ELECTRICAL SPECS

ELLIPTICAL SPACES

E004



TREES		
SYMBOL	NAME	SIZE

	<i>Pistachio chinensis</i>	24" BOX
	Chinese Pistache	
	<i>Quercus buckleyi</i>	24" BOX
	Texas Red Oak	
	<i>Cercis canadensis</i> 'Oklahoma'	24" BOX
	Oklahoma Redbud- multi trunk	
	<i>Prunus virginiana</i>	#15 pot
	Chokeberry- min. 6' tall native, 10 total	
	<i>Juniperus osteosperma</i>	#15 pot
	Utah juniper- min. 6' tall native, 8 total	
	<i>Fraxinus velutina</i>	#15 pot
	Desert Ash- min. 6' tall native, 6 total	
	<i>Acer glabrum</i> - Rock	#15 pot
	Mtn. Maple- min. 6' tall native, 12 total	

*Replacement trees from city approved list in RED

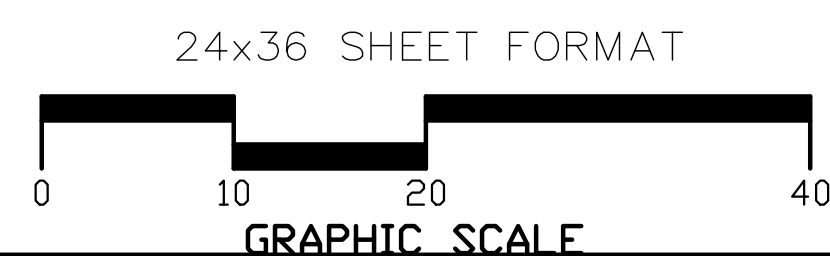
SHRUBS		
CA	<i>CARYOPTERIS clandonensis</i>	5 GAL
	Bluemist	
RR	<i>ROSA</i> x 'Noare'	2 GAL
	Flowering Carpet Rose	
RO	<i>ROSMARINUS</i> o. 'Prostratus'	5 GAL
	Prostrate Rosemary	
LL	<i>LEUCOPHYLLUM langmaniae</i>	5 GAL
	Lynn's Legacy Ranger	
S	<i>SANTOLINA virens</i>	5 GAL
	Santolina	
JU	<i>JUNIPERUS horizon.</i> 'Blue Carpet'	5 GAL
	Blue Carpet Juniper	
TE	<i>TEUCRIUM chamaedrys</i>	5 GAL
	Germander	

MI	<i>MISCANTHUS sinensis</i>	5 GAL
	Maiden Grass	
DL	<i>DASYLIRION longissimum</i>	15 GAL
	Toothless Desert Spoon	
DW	<i>DASYLIRION wheeleri</i>	5 GAL
	Desert Spoon	
HP	<i>HESPERALOE parviflora</i>	5 GAL
	Red Yucca	
AP	<i>AGAVE parryi</i>	5 GAL
	Parry's Agave	
G	<i>GUARA lindheimeri</i>	1 GAL
	Pink Guara	
P	<i>PENSTEMON eatonii</i>	1 GAL
	Penstemon	

3/4" ANTIQUE BROWN GRAVEL THROUGHOUT LANDSCAPE AT 2" DEPTH
REBEL RED 4" DIAMETER @ 4" THICK
BOULDERS-RED SANDSTONE 2-4' DIA.

NOTE- Per sheet 2 of Rosenberg civil engineer plans, 18 native trees are to be removed and 36 native trees are to be planted on the site. "R" denotes a replacement tree

Refer to civil engineer plans for drainage swale requirements.



COSTANZA PS ASSOCIATES
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John Costanza
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Professional Engineer
State of Utah
License No. 97-328108-5301

PRIVATE RESIDENCE
54 HUMMINGBIRD LANE
SPRINGDALE, UTAH

date by	
revisions	
no	

Scale: 1" = 10'-0"

Date: OCT. 30, 2022

Drawn By: JJC

Approved By:

PRIVATE RESIDENCE
SITE PLAN

Job No.
MISC.

Sheet No.
L-1
of 1

GEOTECHNICAL INVESTIGATION REPORT

Prepared for:

Spilker & Company LLC
Attn: Clark Spilker
933 East Rockwood
Court Washington, Utah
84780
January 7, 2021

Dockstader Parcel



Prepared by:



795 East Factory Drive
St. George, UT 84790

Landmark Project No: 20950



January 6, 2021

Spilker & Company LLC
Attn: Clark Spilker
933 East Rockwood
Court Washington, Utah
84780

Subject: Geotechnical Investigation Report
Dockstader Parcel
Springdale, Utah
Landmark Project No.: 20950

Reference: Geotechnical Investigation Report, Cliffrose Expansion, Landmark Project
Number: 17584, Dated November 29, 2017

Clark:

As requested, we have completed our Geotechnical Investigation for the above noted project. Our geotechnical recommendations, along with our field and laboratory data are presented in this report.

Our field investigation for this project consisted of the excavation of two test pits proximate to the proposed construction. The test pits extended to a depth of 10 feet below the ground surface. The soils encountered in the test pits predominantly consisted of loose to medium dense silty sand. Groundwater was not encountered in the test pits at the time of our investigation. In 2017, a boring was completed for another potential construction project on the site as described in the referenced report. The boring was extended to 26.5 feet below the ground surface. The soils in the boring consisted of sand with various quantities of gravel down to 24 feet where fractured sandstone was encountered. Groundwater was not observed in the boring at the time of drilling. Site grading recommendations are detailed in Section 5.0. Foundation recommendations are provided in Section 6.0 of this report. The on-site sandy soils, free from organics and other debris are suitable for use as structural fill.

Please feel free to contact our office at (435) 986-0566 if you have any questions.

Sincerely,

LANDMARK TESTING AND ENGINEERING

Steven Wells, P.E.
Geotechnical Manager

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1.0 INTRODUCTION

This report presents the results of Landmark Testing & Engineering's geotechnical investigation for two residences and a pool to be built on the east end of Hummingbird Road in Springdale, Utah. Figure 1 is a Vicinity Map showing the project location relative to surrounding features. Figure 2 is a Site Map showing the proposed project layout and the approximate location of the test pit completed for this investigation.

This investigation was completed to assist in developing opinions and recommendations concerning site earthwork and foundation design.

2.0 PROPOSED CONSTRUCTION

We understand that the proposed construction will consist of two one- to two-story residences and a swimming pool. The residences will be wood-framed with a slab-on-grade floor supported on conventional spread footings. The typical wall loads are expected to range from 1,000 to 1,800 pounds per lineal foot.

Any significant changes to the anticipated development should be reviewed by Landmark to evaluate the continued applicability of the recommendations contained in this report.

3.0 SITE SETTING

3.1 SURFACE CONDITIONS

The site of the proposed construction is located on a parcel at the end of Hummingbird Road in Springdale, Utah. There are several large trees separating the western and eastern sides of the site. The western side of the site is covered in manicured grass and slopes down to the southeast approximately 4 to 5 feet. The eastern portion of the site has minimal vegetation and is used as a dirt road. There are currently a trailer and a small shed on the east side of the parcel.

To the immediate east of the site is the Virgin River. The eastern side of the parcel has been built up approximately 5 feet higher than the river. There is a wall that retains the eastern portion of the parcel from the river. It is unknown if the wall was built to the Town of Springdale specifications.

3.2 GEOLOGIC SETTING

According to the Utah Geological Survey, the soils throughout the lot are classified as alluvium (Qa), consisting of "mostly sand with lenses of silty clay, sandy silt, and gravel deposited in stream beds, washes, adjacent floodplains, and on low alluvial slopes."¹ The soils encountered in the test pits and boring from the referenced report consisted of silty sand with varying amounts of gravel. The soils encountered in the soils explorations are consistent with geologic mapping.

3.3 GEOLOGIC HAZARDS

Fault Rupture

The trace of the Hurricane Fault is located approximately 15.2 miles to the west of the project site. The trace of the Sevier/Toroweap fault is approximately 18.1 miles east of the site. Strong ground motion associated with movement along the Hurricane Fault, the Sevier/Toroweap Fault, or other faults associated with the Intermountain Seismic Belt is possible, however, the potential for surface fault rupture is considered low.

Liquefaction

Liquefaction is the sudden loss of shear strength in the soil due to the buildup of excess pore water pressure.² This can occur when the soil is subjected to intense shaking such as during a seismic event. The soils that are most susceptible to liquefaction are loose, saturated sandy soils with a low fines content (material passing the #200 sieve).

Soils encountered in our test pits predominantly consisted of loose to medium dense silty sand. Groundwater was not encountered in the test pits or in the boring from the referenced report during our investigations. Therefore, despite loose to medium dense silty sand encountered throughout most of the test pits and boring from the referenced report, we believe that, due to the lack of ground water and relatively dry soil conditions at the time of our investigations, the liquefaction potential is low. A liquefaction study is beyond the scope of this report.

Flooding

The eastern portion of the parcel is mapped as, “Zone AE - Special Flood Hazard Area (SFHA) subject to inundation by the 1% annual chance flood (100-year flood) Base Flood Elevations (water-surface elevation of the 1% annual chance flood) determined.”³

The western portion of the site is mapped as, “active pediments and sloping depositional surfaces flanking ridges and other upland areas that are chiefly inundated by sheetfloods, but possibly by flash floods and debris flows during cloudburst storms.”

The site should have measures taken to mitigate the flood hazard. Flood mitigation is beyond the scope of this report.

3.4 SEISMICITY

Seismicity at the site was determined using the Structural Engineers Association (SEA), OSHPD Seismic Design Maps website. The following values are presented to assist with seismic design.

² Coduto, Donald P. (1999), *Geotechnical Engineering: Principles and Practices*, Prentice Hall, Upper Saddle River, NJ.

³ Tyler R. Knudsen, William R. Lund, *Flood and Debris-Flow Hazards State Route 9 Corridor Geologic-Hazard Study Area*, Washington County, Utah, 2013, Utah Geological Survey Special Study 148, Plate 1

- ▶ Latitude = 37.19492 North, Longitude = 112.99069 West
- ▶ Site Class = D (Default), based on ASCE 7-16 (Table 20.3.1) as referenced in 2018 IBC 1613.2

Period (sec)	S _a (g)	Site Class
0.2	0.484 S _S	B/C
1.0	0.159 S ₁	B/C
0.2	0.456 S _{DS}	D (Default)
1.0	0.242 S _{D1}	D (Default)

(2016 ASCE-7-16, SEA, Structural Engineers Association, <https://seismicmaps.org/>)

As per section 20.1 of ASCE 7-16, “The soil shall be classified in accordance with Table 20.3-1 and section 20.3 based on the upper 100 feet of the site profile.” However, section 20.1 continues, “Where site specific data are not available to a depth of 100 feet, appropriate soil properties are permitted to be estimated by the registered design professional preparing the soil investigation report based on known geologic conditions.” Based on our engineering experience in the area, mapped geology and the soils encountered in the test pit, it is the opinion of Landmark Testing and Engineering that the soils on site classify as Site Class D.

4.0 INVESTIGATION

4.1 FIELD INVESTIGATION

To investigate the subsurface soil conditions, two test pits were excavated proximate to the proposed structures and pool. The test pits were excavated with a Case backhoe to a depth of 10 feet.

The soil in the upper 4 feet of test pit TP-1 consisted of silty sand topsoil. The topsoil was underlain by brownish red clayey sand. The sand was underlain by poorly graded sand at 6 feet. The poorly graded sand graded with gravel at 9 feet. The test pit was terminated at 10 feet in sand with gravel.

The upper 2 to 4 feet of soil in test pit TP-2 consisted of medium dense to dense fill soils. The fill consisted of sand with gravel and blue clay. Underlying the fill was light brown silty sand. The sand extended to the bottom of the test pit at 10 feet.

Soils encountered in the boring from the referenced report were consistent with the soils encountered in the test pits.

For a detailed description of the subsurface soil conditions encountered in the test pits, please see the test pit logs on Figure 3. A key to the symbols and soil classifications used on the logs are presented on Figure 4.

4.2 *LABORATORY TESTING*

Soil samples from the test pits were returned to our St. George laboratory for testing. Tests performed on the samples included a mechanical sieve analysis to aid in soil classification, two consolidation tests to aid in excavation recommendations, and modified proctor test to aid in construction observation. Laboratory test results are shown on the test pit logs on Figure 3.

The results of the modified proctor test show that the maximum dry density of the bulk sample from test pit TP-1 was 124.8 pcf at 10.1 percent moisture.

The mechanical sieve analysis performed on the sample from test pit TP-2 at 9 feet classified the sample as silty sand.

Consolidation tests were performed on samples from test pits TP-1 at 5 feet and test pit TP-2 at 4.5 feet. The samples were wetted under loads of 1,000 psf. The sample from test pit TP-1 at 5 feet swelled 0.1 percent when wetted. This shows a low swell potential. The sample from test pit TP-2 at 4.5 feet collapsed 0.2 percent when wetted. This shows a low collapse potential. Consolidation Curves are shown on Figures 5 and 6.

4.3 *CONCLUSIONS*

Our field and laboratory test results indicate that the soils on site consisted of loose to medium dense soils. The soil in the upper portion of the test pits consisted of topsoil and undocumented fill. The topsoil and fill will need to be removed from below structures and the pool. General recommendations for the earthwork and the foundation system are outlined in Sections 5.0 and 6.0 of this report.

5.0 *SITE GRADING AND EARTHWORK*

5.1 *GENERAL GRADING*

Initial site preparation should include clearing and grubbing the building pad areas. We anticipate that grubbing the upper 3 to 6-inches of soil will be sufficient to remove the majority of the roots. If any of the large trees are to be removed, the excavation for the roots will need to extend to a sufficient depth to remove the entire root bulb.

We recommend that the topsoil and any fill in the building pad areas be excavated. All blue clay from the fill should be removed from the site. We anticipate that these excavations will extend to approximately 4 feet below the ground surface. The excavations should extend a minimum of 4 feet, horizontally, from the building pad footprints, where possible. If either of the structures is to have a basement, the basement excavation should extend a minimum of 1 foot below the bottom of footings.

Once the excavations are complete, the upper 8-inches of soil in the excavations should be scarified, moisture conditioned to within 2 percent of the optimum moisture content and compacted to a minimum of 90% of the maximum dry density as determined by ASTM D-1557.

Any excavated on-site silty sand may then be replaced according to structural fill recommendations as subsequently outlined. We recommend that imported, granular, structural fill be used to bring the building pad up to the desired elevation. The floor slabs and footings should be established on a minimum of 12 inches of structurally placed, imported, granular fill.

The pool excavation should extend a minimum of 1 foot deeper than the bottom of the pool to allow for the installation of any utilities for the pool. The bottom of the excavation should be scarified, moisture conditioned, and compacted as previously outlined for the building pad excavations.

5.2 FILL PLACEMENT AND COMPACTION

All fill to be placed for support of footings and slabs-on-grade should be considered structural fill. Imported, granular fill should be well-graded, non-expansive, and free of organics and all deleterious materials. Soils used for granular, imported, structural fill should meet the following specifications and preferably would classify as gravel.

GRADATION	PERCENT PASSING
3- inch	100
1 ½ -inch	80-100
No. 200 sieve	10-25

ATTERBERG LIMITS	
Liquid Limit	30 or less
Plasticity Index	9 or less

Material not meeting the above requirements may be suitable for use as structural fill at the discretion of the geotechnical engineer. Samples of structural fill should be submitted for testing prior to being transported to the site.

Any on-site soils used as structural fill or imported structural fill should be compacted to the following specifications.

FILL PLACEMENT AND COMPACTION	
Maximum lift thickness	8-inch (loose)
Minimum compaction	95% ASTM D-1557
Compacted Moisture Content	within 2% of optimum

Compaction of structural fill should be completed with equipment suitable for the conditions encountered in the field such that compaction requirements are met, including those areas that may be inaccessible to large rolling compactors. All structural fill should be evenly spread on a horizontal plane in eight-inch loose lifts. Each eight-inch lift of structural fill material placed at the site should be tested for compliance with the required relative compaction and moisture content prior to proceeding with additional lifts.

5.3 LIGHTLY LOADED ELEMENTS

Exterior concrete slabs on grade should be established on a minimum of 8-inches of scarified and recompacted on-site soils. Structural fill, including road base, should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM D-1557.

5.4 CUT AND FILL SLOPES

We anticipate cuts and fills will be on the order of up to 4 feet in the northwestern portion of the parcel. It is recommended that permanent cut or fill slopes in on-site silty sand be maintained at a slope of one vertical to two horizontal (1V:2H) or flatter unless structurally retained.

Grading of both cut and fill slopes should be such that surface water is directed away from the slopes and not concentrated on slopes or in unprotected channels. Construction procedures should ensure adequate compaction of slope faces. All excavations should conform to OSHA standards.

6.0 FOUNDATION & CONSTRUCTION CONSIDERATIONS

The following recommendations apply to conventional strip and spot footings. Footings may be established on imported, granular, structural fill or directly on structurally placed, on-site silty sand as previously outlined. Foundation excavations should be visually observed and tested by qualified personnel prior to placement of reinforcing steel or concrete. Additional foundation recommendations are subsequently presented.

DESCRIPTION	VALUE
Foundation Type	Continuous or spread footings
Bearing Material	Imported, granular structural fill
Allowable Bearing Capacity	2,000 psf on structurally placed soils
Minimum embedment depth below finished grade	1.5 feet (for frost and confinement)
Total estimated settlement	1-inch
Total differential settlement	less than 3/4 inch

The allowable bearing capacity is based upon dead load plus long-term live load. A one-third increase in allowable bearing capacity for short duration loads such as wind or seismic loads is permitted with the alternative load combinations given in Section 1605.3.2 of the IBC.

7.0 FLOOR SLABS

It is recommended that concrete floor slabs be constructed on a pad that has been prepared as previously indicated. A minimum of 4-inches of relatively free-draining material should be used beneath the slab in order to help distribute floor loads, break the rise of capillary water, and aid in the concrete curing process. Alternatively, 6 inches of road base may be used in place of the free draining-material.

Concrete slabs should be designed using rebar reinforcement and frequent crack control joints to help control normal shrinkage and stress cracking. Concrete placement and curing should meet ACI⁴ requirements including following hot or cold weather placement recommendations, when appropriate. If a moisture-sensitive floor covering will be installed, we recommend that a vapor barrier be installed beneath the concrete slab. The moisture sensitivity of floor finishes, anticipated project conditions, and the potential effects of slab curling and cracking should be considered in determining if the barrier should be placed directly beneath the slab or beneath the free-draining gravel (see ACI 302.IR-96 for more information regarding vapor barrier location). If the vapor barrier is installed directly beneath the slab, measures should be taken to minimize excessive slab curl such as reduced joint spacing and use of a low shrinkage (low water-cement ratio) mix.

8.0 LATERAL EARTH PRESSURES

Lateral loads imposed on footings may be resisted by the development of passive earth pressures against the sides of footings and friction between the base of the footing and the supporting soils. Lateral earth pressure values are presented in the following table.

Case Evaluated	Soil Type	Value
Active	On-site silty sand	37 psf/ft
		56 psf/ft (with seismic)
At-Rest	On-site silty sand	56 psf/ft
Passive	On-site silty sand	390 psf/ft
		340 psf/ft (with seismic)
Coefficient of friction $\tan(\phi*0.6)$ where $\phi = 32^\circ$	Imported, granular, structural fill	0.35

⁴

American Concrete Institute

The lateral earth pressures presented do not include any safety factors except where the friction angle (ϕ) used to determine the coefficient of friction has been multiplied by 0.6 to account for smooth contact conditions. The pressures also assume horizontal backfill and that the backfill is in a drained condition with no build-up of hydrostatic pressure. The additional effects of sloping backfill, surcharge, structural loads and groundwater conditions should be included in calculating lateral earth pressures. Backfill should be placed in accordance with the requirements of structural fill except that backfill in landscape and areas that will not be subject to structural loadings may be reduced to 90 percent of the maximum dry density as determined by ASTM D-1557.

9.0 MOISTURE CONTROL

This soils report provides recommendations for site preparation and foundation design. Inadequate surface drainage or failure to control moisture will result in excessive differential movement of slabs, walkways, porches, or patios and structural damage will occur regardless of the site preparation. The following moisture control measures are highly recommended:

- (1) The ground surface should be graded to drain surface water away from the residences and pool in all directions. A minimum grade of 5% in the first 10 feet is recommended. Impervious surfaces such as concrete walkways or patios adjacent to the structure are effective in reducing the potential for water migration beneath foundations and slabs and should be considered in design. Impervious surfaces such as concrete within 10 feet of the residence foundation should be sloped a minimum of 2% away from the building.
- (2) Roof runoff should be collected, and downspouts should be designed to discharge collected water a minimum of 10 feet beyond the building footprint.
- (3) Grass should not be placed within 5 feet of the foundation. Grass, if planted, should have a minimum slope of 5% away from the foundation.
- (4) Xeriscape (landscaping that eliminates the need for supplemental irrigation of plants) is recommended within 5 feet of the building foundation. Bubblers, although more efficient than sprinkler irrigation, still have a significant potential of introducing excessive water into the ground and saturating foundation soils. Bubblers are not recommended in the 10 feet buffer zone area. As an alternative, sealed bottom planter boxes may be used.
- (5) Inadequate compaction of utility trench backfill provides a conduit for water migration. All utility trenches within the building footprint and extending 10 feet beyond the footprint should be backfilled with structural fill similar to that approved for the foundations. Backfill adjacent to structures should be compacted to at least 90 percent of the maximum dry density as determined by ASTM D-1557 and the minimum slope requirements should be followed. Backfill beneath structures should be compacted to at least 95% of the maximum dry density.

- (6) Grading should be such that surface water is directed away from all cut and fill slopes and collected only in channels protected against erosion. Water should not be allowed to pond on-site.

It should be emphasized that final grading and landscaping generally occurs after construction of the structure and observation of these features is outside of normal geotechnical inspection and observation. The owner/contractor is responsible to ensure that these surface drainage and moisture control recommendations are followed throughout the life of the structure.

10.0 SOIL CORROSIVITY

Soils in the area have been shown to be moderately corrosive to concrete and metal structures. It is recommended that all concrete in contact with or within 6-inches of native soils be designed in accordance with ACI 318, Table 19.3.1.1 for Exposure Category S1 including concrete mixes of 4,000 psi compressive strength and a maximum water to cement ratio of 0.50. Buried pipes should be plastic (PVC or HDPE) instead of metal, where possible.

11.0 FOUNDATION REVIEW AND TESTING

This report has been prepared to assist in project design and construction. Variations from the conditions portrayed in the exploratory investigations may occur which are sometimes sufficient to require modifications to the design. In order to incorporate recommendations provided into actual field conditions and to confirm that the project specifications are implemented, we recommend that observation and testing be performed during construction to monitor over-excavation, grading, and preparation of soils upon which foundations elements or structural loads may be established.

12.0 LIMITATIONS

The exploratory data presented in this report were collected to provide geotechnical design recommendations for this project and subsurface site descriptions represent conditions observed at the time and at the locations explored. The investigations may not be indicative of subsurface conditions beyond the investigation locations and conditions may change with passage of time. If subsurface conditions are encountered that are significantly different than those reported herein, Landmark should be contacted immediately for the continued applicability of the recommendations. In the event changes to the project are made that differ from those presented in this report, Landmark should be made aware of the changes. Landmark will provide written verification that the recommendations and conclusions remain valid or that modifications are required.

This report has been prepared to assist in project design and construction. We respectfully request the opportunity to review the final design drawings and specifications in order to determine whether the assumptions and recommendations presented herein are applicable to the anticipated designs.

This report is not intended to be used as a bid document. Any information concerning the environmental conditions of the site is beyond the scope of this geotechnical study. This geotechnical report has been prepared to meet the specific needs of our client and may not be appropriate to satisfy the needs of other users.

Site conditions and standards of practice change, therefore, we should be notified to review and update the report and its recommendations if construction is not commenced within 3 years of the date it was issued.

LANDMARK TESTING & ENGINEERING

Kent Nelson, P.E.
Project Engineer



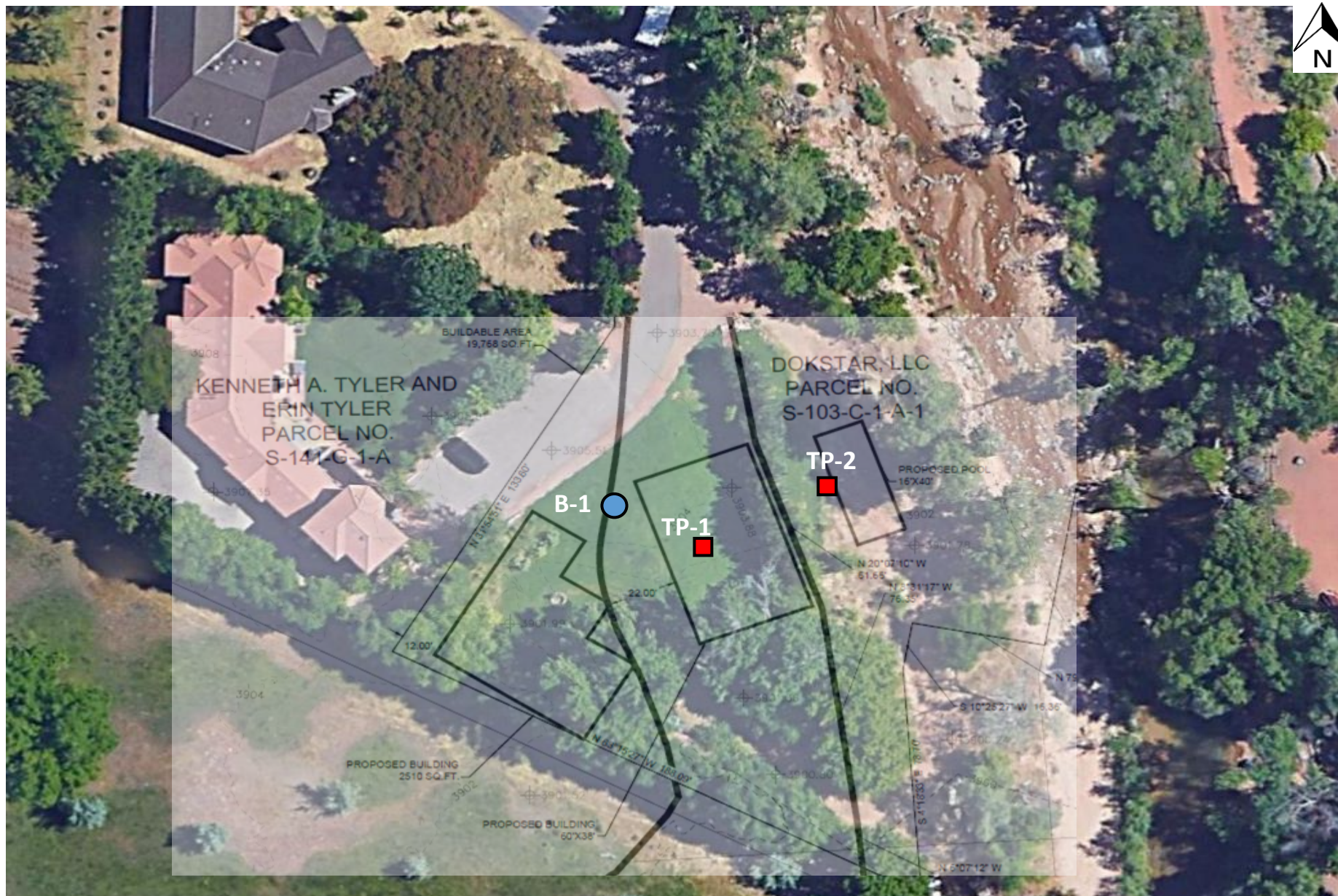
Reviewed by:

Steven Wells, P.E.
Geotechnical Manager



VICINITY MAP
PROJECT NUMBER 20950

Figure 1

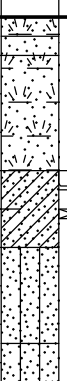


SITE MAP
PROJECT NUMBER 20950

Figure 2

TEST PIT NUMBER TP-1

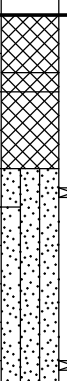
DATE STARTED 12/16/21 **COMPLETED** 12/16/21 **EXCAVATION COMPANY** Alan Lee **ELEVATION** _____
LOGGED BY Kent Nelson **CHECKED BY** Steve Wells **EXCAVATION METHOD** Rubber Tire Backhoe
NOTES _____ **AT TIME OF EXCAVATION** ---

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS		MECHANICAL GRADATION			Other Tests
						LIQUID LIMIT	PLASTICITY INDEX	GRAVEL (%)	SAND (%)	FINES (%)	
0			TOPSOIL, SILTY SAND (SM), loose, moist, brownish red Grades grayish brown Grades dark brown								
5		1 2	CLAYEY SAND (SC), medium dense, slightly moist, brownish red SILTY SAND (SM), loose to medium dense, slightly moist, light brown, alluvium Grades with smoothed and rounded gravel	93.4	16.0						Modified Proctor 124.8 pcf @ 10.1% 0.1% Swell @ 1000 psf
10											

Bottom of test pit at 10.0 feet.

TEST PIT NUMBER TP-2

DATE STARTED 12/16/21 **COMPLETED** 12/16/21 **EXCAVATION COMPANY** Alan Lee **ELEVATION** _____
LOGGED BY Kent Nelson **CHECKED BY** Steve Wells **EXCAVATION METHOD** Rubber Tire Backhoe
NOTES _____ **AT TIME OF EXCAVATION** ---

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DRY UNIT WT. (pcf)	MOISTURE CONTENT (%)	ATTERBERG LIMITS		MECHANICAL GRADATION			Other Tests
						LIQUID LIMIT	PLASTICITY INDEX	GRAVEL (%)	SAND (%)	FINES (%)	
0			Fill, SILTY SAND (SM), minor gravel, medium dense to dense, slightly moist, brown Lense of "Blue Clay" from 1 to 1.5 feet Grades gravelly								
5		1 2	SILTY SAND (SM), medium dense, slightly moist, light brown, alluvium	105.2	4.2						0.2% Collapse @ 1000 psf
10					4.1			0	69	31	

Bottom of test pit at 10.0 feet.



Landmark Testing & Engineering
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 Telephone: 435-986-0566
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PROJECT NAME Dokstar Parcel

CLIENT The Spilker Team LLC

PROJECT NUMBER 20950

PROJECT LOCATION Springdale, Utah

Figure No. 3

UNIFIED SOIL CLASSIFICATION SYSTEM

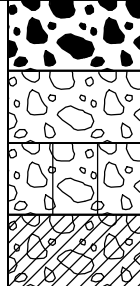
MAJOR DIVISIONS

SYMBOLS

TYPICAL NAMES

COARSE-GRAINED SOILS (More than 50% of soil Retained on No. 200 sieve size)

GRAVELS More than 1/2 of coarse fraction > No. 4 sieve size



GW

Well graded gravels or gravel-sand mixtures little or no fines.

GP

Poorly graded gravels or gravel-sand mixtures little or no fines.

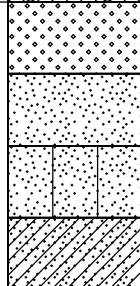
GM

Silty gravels, gravel-sand-silt mixtures

GC

Clayey gravels, gravel-sand-clay mixtures

SANDS More than 1/2 of coarse fraction < No. 4 sieve size



SW

Well graded sands or gravelly sand mixtures little or no fines.

SP

Poorly graded sands or gravelly sand mixtures little or no fines.

SM

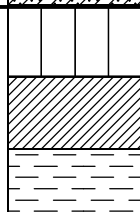
Silty sands, sand-silt mixtures

SC

Clayey sands, sand-clay mixtures

FINE-GRAINED SOILS (Less than 50% of soil Retained on No. 200 sieve size)

SILTS & CLAYS Liquid Limit < 50



ML

Inorganic silts and very fine sands, rock flour, silty fine sands or clayey silts with slight plasticity

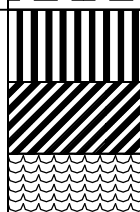
CL

Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.

OL

Organic silts and organic silty clays of low plasticity

SILTS & CLAYS Liquid Limit > 50



MH

Inorganic silts, micaceous or diatomaceous fine sand or silty soils, elastic silts

CH

Inorganic clays of high plasticity, fat clays

OH

Organic clays of medium to high plasticity, organic silty clays, organic silts

HIGHLY ORGANIC SOILS



PT

Peat and other highly organic soils

GRAIN SIZE CHART

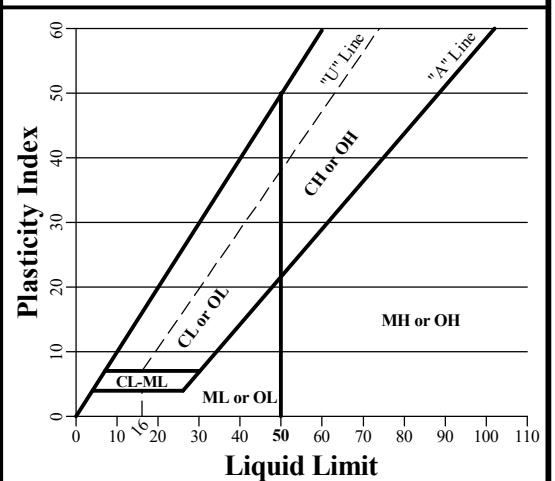
CLASSIFICATION	Range of Grain Size	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.76
	Coarse 3" to 3/4"	76.2 to 19.1
	Fine 3/4" to No. 4	19.1 to 4.76
SAND	No. 4 to No. 200	4.76 to 0.074
	Coarse No. 4 to No. 10	4.76 to 2.00
	Medium No. 10 to No. 40	2.00 to 0.42
	Fine No. 40 to No. 200	0.420 to 0.074
SILT & CLAY	Below No. 200	Below 0.074



SAMPLES

Relatively Undisturbed Sample
Block Sample
Bag Sample
Auger Cuttings
Bucket Sample
Core
No Recovery

PLASTICITY CURVE



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Telephone: 435-986-0566
Fax: 435-986-0568

PROJECT NAME Dokstar Parcel

CLIENT The Spilker Team LLC

PROJECT NUMBER 20950

PROJECT LOCATION Springdale, Utah

Figure No. 4



CONSOLIDATION REPORT

Client: The Spilker Team LLC
933 E. Rockwood Court
Washington, UT 84780

Date of Report: 12/28/2020

Reviewed By: Z. Girsberger

Lab#: 20SG6070

Project: Dokstar Parcel

Project #: 20950G

Location: Springdale

Sampled By: K. Nelson

Date: 12/16/2020

Type of Sample: SC

Tested By: J. Bracken

Date: 12/18/2020

Location of Sample: Test Pit 1 at 5'

Authorized By: Client

Date: 12/16/2020

COLLAPSE/SWELL CURVE

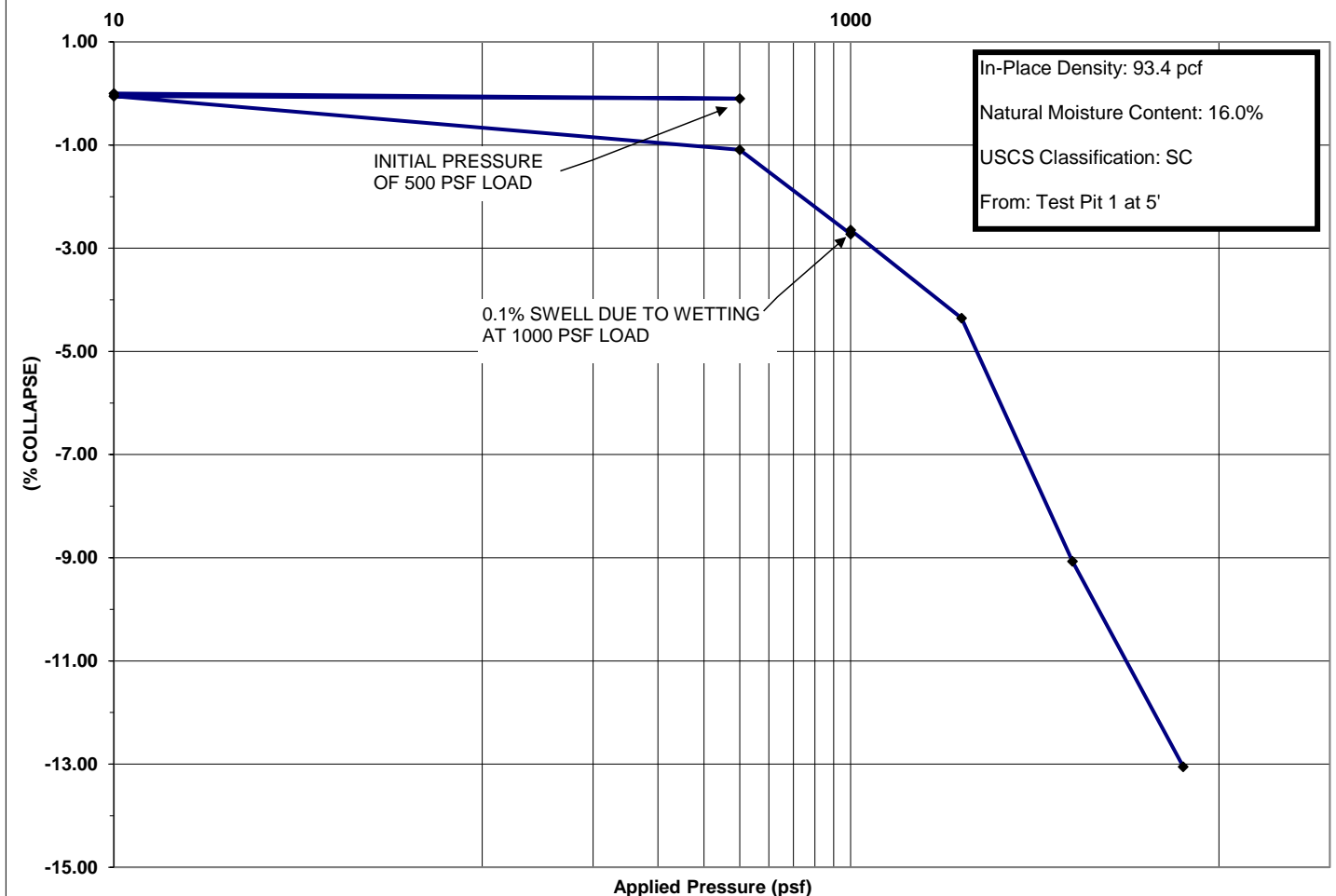


Figure 5



CONSOLIDATION REPORT

Client: The Spilker Team LLC
933 E. Rockwood Court
Washington, UT 84780

Date of Report: 12/22/2020

Reviewed By: Z. Girsberger

Lab#: 20SG6071

Project: Dokstar Parcel

Project #: 20950G

Location: Springdale

Sampled By: K. Nelson

Date: 12/16/2020

Type of Sample: SM

Tested By: Z. Girsberger

Date: 12/18/2020

Location of Sample: Test Pit 2 at 4.5'

Authorized By: Client

Date: 12/16/2020

COLLAPSE/SWELL CURVE

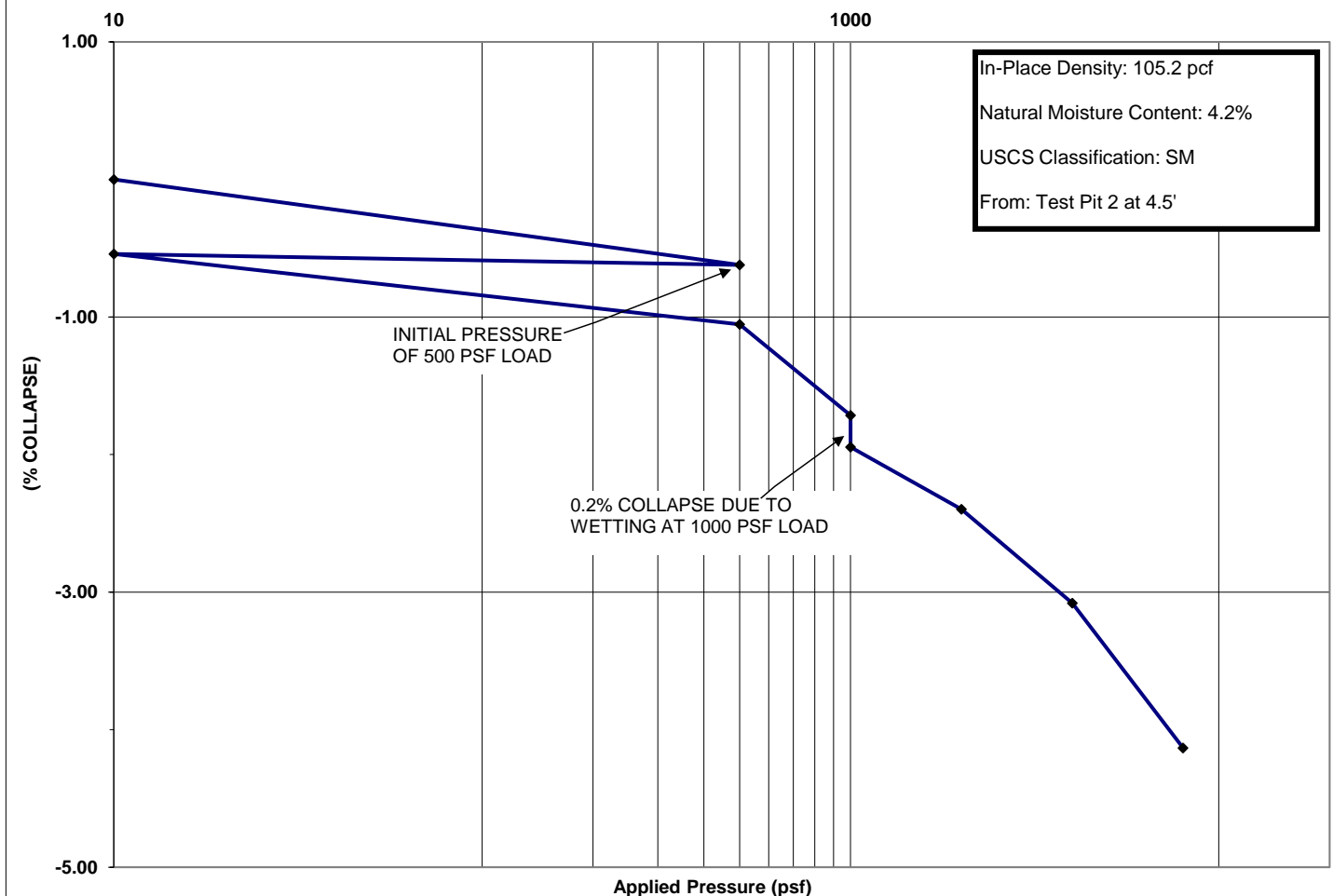


Figure 6

TOWN OF SPRINGDALE DESIGN/DEVELOPMENT REVIEW SUBMITTAL REQUIREMENTS

Classes of Applications:

Tier One Applications: Accessory structures and additions less than 500 sf, not located on a high visual impact parcel.

Tier Two Applications: 1) Accessory structures and additions larger than 500 sf on residential property or between 500 and 999 sf on commercial property, 2) new single and two family residential development, 3) any development on high visual impact parcels that is not a Tier 3 application.

Tier Three Applications: 1) Accessory structures and additions 1,000 sf or larger on commercial property, 2) All new multi-family residential development, 3) All new commercial development, 4) Any development the DCD determines to be complex or controversial and subject to Planning Commission review.

Submittal Requirements:

	Tier One	Tier Two	Tier Three	SUBMITTAL CHECKLIST
Table of Contents / Sheet Index				
		X	X	
Natural Features Map				
Reference map showing property in relation to rest of community	X(1)	X(1)	X	
North arrow and scale	X(1)	X(1)	X	
Property boundaries and dimensions	X(1)	X(1)	X	
Show topography on the property with 1' contour intervals	X(1)	X(1)	X	
Highlight all slopes of 30% or greater grade (any 1 foot or greater elevation change in any 3 and 1/3 foot horizontal direction)	X(1)	X(1)	X	
Show any significant rock outcrops or large boulders larger than 10' in diameter	X(1)	X(1)	X	
Identify any other significant topographic features	X(1)	X(1)	X	
Show any drainage running through or within 50 feet of the site	X(1)	X(1)	X	
Show the Special Flood Hazard Area, as mapped by the Flood Insurance Rate Map for Springdale	X(1)	X(1)	X	
Show the floodway, as mapped by the Flood Insurance Rate Map for Springdale	X(1)	X(1)	X	
Show any drainage improvements on or within 50 feet of the site	X(1)	X(1)	X	
Show the boundary of the Erosion Hazard Zone	X(1)	X(1)	X	
Show the location and indicate the type of existing native trees over six feet in height	X(1)	X(1)	X	
<i>(1) Required if any natural features will be disturbed with the project</i>				
Existing Development				
Include north arrow and scale	X(2)	X(2)	X	
Show all property boundaries and dimensions	X(2)	X(2)	X	
Show the footprint locations of all existing built structures on property. Label each as "To Be Demolished", "To Remain Unchanged", or "To Be Renovated / Remodeled"	X(2)	X(2)	X	
<i>Note: Structures to be demolished show in light line weight with cross hatched area. Structures to remain unchanged show in light line weight. Structures to be renovated or remodeled show in standard line weight with dashed lines.</i>				
Indicate the height and size of all existing buildings greater than 500 square feet in area	X(2)	X(2)	X	
Show the setback distanced from existing buildings to property lines	X(2)	X(2)	X	
Show the amount of existing landscape and/or natural open space on the property, as defined by section 10-18-4, in both total square feet and as a percentage of lot area	X(2)	X(2)	X	
<i>(2) Required if any existing development is proposed to be removed, renovated, or remodeled</i>				
Photographs showing viewsheds across property from valley floor / SR-9 and adjacent properties*				
	X	X	X	
<i>*Photographs must be labeled indicating from which direction they were taken</i>				
Site Plan				
Include north arrow and scale	X	X	X	
Show all property boundaries and dimensions	X	X	X	
Show the footprint locations of existing development that will remain on the property with the project	X	X	X	

Note: Structures to remain unchanged show in light line weight. Structures to be renovated or remodeled show in standard line weight with dashed lines.

Show the location and footprint of all proposed new buildings	X	X	X
Show the setback distance of each building and structure to property lines, as measured from the furthest projection of the building (including roof overhangs, exterior stairways, etc) to the property line	X	X	X
Show the distance between all buildings and structures, as measured from the furthest projection each building (including roof overhangs, exterior stairways, etc)	X	X	X
Label each building with the ASL elevation of finished building pad (include multiple measurements for terraced structures)		X	X
Show the location of special flood hazard area, floodway, and erosion hazard boundary	X(3)	X(3)	X(3)
Identify ingress / egress to property as well as any roads, streets, lanes, or access drives within or immediately adjacent to the site		X	X
Show the location and dimensions of all required parking spaces		X	X
Include a note showing the total number of parking spaces on the property			X
Show the location of all exterior mechanical equipment, heating and cooling units, propane tanks, trash receptacles, solar panels, etc. and method of screening		X	X
Show the location of nearest fire hydrant, proposed fire lanes, and fire truck turn arounds			X
Show the location and ASL elevation of an elevation benchmark which will remain undisturbed and in place during the entire course of construction		X	X
<i>(3) Show these features if they are on or within 50 feet of the property</i>			

Grading plan in conformance with the requirements of chapter 10-15B of the land use ordinance showing:

Include north arrow and scale		X	X
Show all property boundaries and dimensions		X	X
Show accurate pre-development contours in no greater than 1-foot contour intervals shown as dashed lines		X	X
Show proposed post-development contours shown as solid lines		X	X
Show all proposed new buildings, structures, and other development		X	X
Show all existing development on the property which will remain		X	X
Show the project grading limits in conformance with section 10-15B-5		X	X
Cross hatch or highlight any areas of 30% or greater natural grade		X	X
Include details about the location, height, and finished slope of all cut and fill slopes		X	X
Include engineered plans for slope stabilization if the project contains any cut or fill slopes steeper than 1.5:1 and greater than four (4) feet in height		X	X
Label each building and structure with the ASL elevation of the finished building pad elevation		X	X
Show rock ledges, boulders, and native vegetation within the grading limits that will be preserved pursuant to the section 10-15B-4(A)		X	X
Show all areas requiring revegetation as well as quantities, locations, sizes, and types of plants used to satisfy the revegetation requirements of section 10-15B-8		X	X
Provide details regarding irrigation of vegetation used to fill the revegetation requirements of 10-15B-8			X
Include a note indicating all areas outside of the grading limits will be fenced or taped off during construction to prevent accidental or incidental disturbance of these areas		X	X
Include color renderings, to scale, of any cut or fill slope over four (4) feet in height that will be visible from the valley floor or the SR-9 highway corridor			X

Landscape plan showing:

Designer's name, address, and phone number		X	X
Landscaping as required by the landsacsape ordinance shown in sufficient detail to be easily legible		X	X
Property lines, adjacent rights-of-way, building footprints, parking lots, driveways, walkways, utilities, garbage and equipment storage structures, drainage structures, and other site improvements, drawn to scale with dimensions and scale (bar and numerical) indicated		X	X
Locations and boundaries of all landscaped areas and natural open space		X	X
Plant schedules and key which includes plant names (common and botanical), sizes (e.g., height, caliper, diameter, gallons) and quantities		X	X
Plant locations and spacing corresponding to plant key		X	X

Notations and locations of all natural features retained either in landscaped areas or natural open space, including locations of rivers and streams, designated floodplain, natural vegetation, including trees and shrubs (identified by botanical and common name, height and caliper size, if applicable), grasses, large rocks and any other significant features			X
Details showing the method for preservation or protection of existing significant vegetation selected to be retained	X		X
Screening details to lessen the impacts of buildings, parking lots and parking structures, mechanical equipment, service areas, utility meters, transformers, trash receptacles, storage facilities, and similar facilities, from public view	X		X
Summary data including:			
--> The total area (in square feet and as a percentage of the site) that will be landscaped			X
--> The total area (in square feet and as a percentage of the site) that will be retained as natural open space			X
--> The percentage of landscaped area coverage from water conserving plants expected after maturity, not including tree canopies (see definition of "water conserving plants" in section 10-18-11 of this chapter)			X
Floor plan(s) including:			
ASL elevation of the finished floor in each level of the structure (For Tier 2 and Tier 3 projects)	X		X
Locations of all proposed exterior doors and windows	X	X	X
Location of all cross sections (see below, for Tier 2 and Tier 3 projects)		X	X
Total size of each level of the structure	X	X	X
<i>Note: For development in FR and VR zones this includes attached garages, covered porches, covered entryways, and covered patios. For development in all other zones this includes total area measured from face of outside wall to face of outside wall.</i>			
Building elevations from all directions showing:			
Accurate locations and configurations of all exterior walls, rooflines, doors, and windows	X	X	X
Accurate representation of the contact between all exterior walls and finished grade	X	X	X
At least two cross sections (drawn perpendicular to each other) at the tallest section(s) of the structure showing compliance with building height ordinance and identifying			
Natural grade		X	X
Finished grade (labeled as cut, fill, or uniform grade)		X	X
Building height envelope, in conformance with chapter 10-15A of the land use ordinance, drawn above the entire structure		X	X
Roof Plan			
		X	X
Color and material samples (unless the project is a single or two family exempt project)			
	X	X	X
Outdoor Lighting Plan			
Plans or drawings indicating the proposed location of lighting fixtures, height of lighting fixtures on the premises, and type of illumination devices, lamps, supports, shielding and reflectors used and installation and electrical details.	X(4)	X	X
Illustrations, such as contained in a manufacturer's catalog cuts, of all proposed lighting fixtures. The applicant must provide sufficient information regarding the light fixture, bulb wattage, and shielding mechanisms for the Planning Commission (or DCD, when applicable) to be able to determine compliance with the provisions of this chapter.	X(4)	X	X
A table showing the total amount of proposed exterior lights, by fixture type, lumens, color temperature, and lamp type.	X(4)	X	X
A calculation of the total lumen output from all outdoor fixtures on the property.	X(4)	X	X
<i>(4) only include these items if there is any new outdoor lighting proposed</i>			
Perspective drawings of all new buildings from two different perspectives, one from a front angle and one from a rear angle			
		X	X
Photo-simulations depicting the appearance of all new buildings on the site as seen from the street			
			X

Geo technical report and Geologic Hazards Investigation (if required by the Geotechnical Report)

X X

Traffic Study

X(5)

(5) If warranted per Transportation Master Plan

NOTES:

The site analysis must be compiled into one PDF document.
The elements must appear in the order and organization presented above.
Plans, elevations, and drawings must be scaled with the scale clearly shown on the plan. The PDF must be scalable in Adobe Acrobat, according to the scale shown on the plan. Some plans converted from drafting software do not allow scaling of the PDF in Adobe. Please ensure your plans are scalable in Adobe prior to submitting.
Only the information listed above should be included. Construction details are not necessary at this stage of review. Please do not include information and details not listed above.
Information must be organized in the application in the order shown above.

By signing and dating below you certify that you have included all the information as required above.

Electronic Signature

Date

Appendix 2. Development Agreement

DEVELOPMENT AGREEMENT

This Development Agreement ("Agreement") is entered into on this 11th day of August, 2010 by and between the TOWN OF SPRINGDALE, a Utah municipal corporation ("Town"), and Dokstar, LLC, a Utah limited liability company ("Dokstar"), owner of real property impacted by this Agreement.

Recitals

- A. Dokstar is the owner of two parcels of property in Springdale, identified by parcel numbers S-141-G-1-A and S-103-C-1-A-1, and generally located at the end of Humming Bird Lane (hereafter the "Properties"). A complete legal description of both Properties is attached hereto as Exhibit A.
- B. Dokstar has applied for a zone change on the Properties. The request would change the zoning on the Properties from Valley Residential (VR) to Village Commercial (VC).
- C. The purpose of the requested zone changes is to allow an existing single family residence on parcel S-141-G-1-A and a contemplated single family residence on parcel S-103-C-1-A-1 to be used commercially as vacation rentals (a type of transient lodging facility).
- D. The Springdale Planning Commission and Town Council have found that the zone change will promote the goals and objectives of the General Plan, but only if the future use on and development of the Properties is regulated by this Agreement.

Therefore, the parties make the following agreements:

AGREEMENT

1. The Town will change the zone on the Properties from Valley Residential (VR) to Village Commercial (VC).
2. Notwithstanding the change in zoning designation, the only uses allowed on the Properties will be those allowed in the Valley Residential zone and vacation rentals.
 - a. For the purposes of this Agreement, "vacation rental" means a single family residence rented as a complete structure for less than 31 days to a single association, family, or other similar group at a time.
 - b. Individual rooms in the vacation rental may not be rented separately.

Filed

3. The parties both understand and agree that a vacation rental is a type of transient lodging facility. The parties further understand and agree that transient lodging facilities are a conditional use in the Village Commercial zone.
 - a. Therefore, notwithstanding the provisions in this Development Agreement, Dokstar must apply for and be granted a conditional use permit before a vacation rental use may be established on the Properties.
 - b. Additional restrictions may be imposed on the vacation rental use through the conditional use process, consistent with the standards for granting conditional use permits established in the Town Code.
4. The Properties are surrounded by parcels currently zoned Valley Residential. The current Springdale General Plan contemplates that this surrounding area may be changed to the Village Commercial zone at some point in the future.
 - a. If the surrounding parcels (except for those in Zion National Park) are changed to the Village Commercial zone without any use limitations, the use limitations for Dokstar's Properties in Section 2 are annulled.
 - b. The Town Council may remove the use limitations by amending this Agreement if it finds that the use limitation is no longer necessary to protect the residential character of the surrounding area.
5. The parties both support the development of the Zion Canyon Trail, a ten foot wide paved pedestrian and bicycle trail running from Zion National Park to Rockville, generally along the Virgin River.
 - a. The final alignment for the Zion Canyon Trail has not yet been established. However, Dokstar commits to work with the Town to establish an easement for the trail (ten feet in width plus slope and temporary five foot construction easements on either side of the trail) to the Town if and when similar trail easements or public rights-of-way are obtained on adjacent properties that would allow the development of a continuous trail through and across the adjacent properties.
 - b. Dokstar commits to remain flexible in the trail easement location to best facilitate the development of a continuous trail network that will make feasible and logical connections with trail easements obtained on adjacent properties.
 - c. The Town commits to remain flexible in the design and location of the trail easement in order to maintain the highest amount of privacy possible and to not limit the viable use of the Properties.


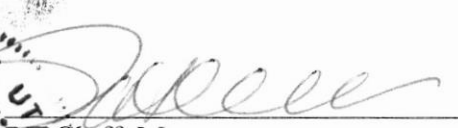

6. The parties both agree and understand that the Town requires paved access to commercial developments. If and when the Properties are used as vacation rentals, Dokstar commits to provide paved access, designed to meet minimum Town standards as set forth in the Town Code or other Town ordinances, to the Properties.
7. The parties acknowledge that the Properties are contiguous to the Cliffrose Lodge. Despite the fact that the Properties are contiguous to the Cliffrose Lodge, Dokstar may not transfer density (units per acre) from the Properties to the Cliffrose Lodge.
8. The Town has found that the requested zone change will promote the goals and objectives of the General Plan, only if conditioned as outlined in this Agreement. Therefore, should Dokstar fail to comply with the terms of this Agreement, the Town reserves the right to revert the Properties to the Valley Residential zone.
 - a. If the Town determines Dokstar has not complied with the Agreement, the Town shall inform Dokstar in writing of the alleged non-compliance and give Dokstar fifteen (15) days to remedy the situation and comply with the terms of the Agreement.
 - b. If Dokstar fails to bring the Properties into compliance after the fifteen (15) day remedy period, the Town shall revert the Properties back to the Valley Residential zone, following the process for zone changes contained in the Town Code.
9. All of the provisions of this Agreement run with the land and shall inure to the benefit of and be binding upon the successors and assigns of the parties hereof.
10. This Agreement constitutes the entire agreement between the parties hereto pertaining to the subject matter hereof. All prior and contemporaneous agreements, representations and understandings of the parties, oral or written, are hereby superseded and merged herein.
11. Any modification of, or amendment to, any provision contained in this Agreement shall be effective only if the modification or amendment is in writing, signed by both parties, and recorded in the office of the Washington County Recorder. Any oral representation or modification concerning this Agreement shall be of no force or effect.
12. The parties expressly agree that the prevailing party in any dispute (whether or not such dispute is resolved formally or informally, or by trial or alternative dispute resolution) shall be entitled to an award of all of its costs and attorneys fees.


13. The parties agree that the Fifth Judicial District Court for Washington County, Utah shall have jurisdiction to resolve all legal disputes; and the proper venue for any and all dispute resolution shall be in Washington County, Utah.
14. All claims, disputes, and other matters in question arising out of, or relating to, this Agreement or the breach of this Agreement shall first be sent to mediation. The parties must put forth reasonable efforts to resolve any disputes in mediation. The parties furthermore agree to equally share the cost of the mediator. The demand for mediation shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen. In no event shall the demand for mediation be made after institution of legal or equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations.
15. Nothing in this Agreement shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party to this Agreement, nor shall it be construed as giving any rights or benefits under this Agreement to anyone other than the parties to this Agreement.
16. Dokstar acknowledges and agrees that unless expressly stated otherwise herein, nothing in this Agreement shall be deemed to relieve Dokstar from the obligation to comply with all applicable laws and requirements of the Town. Failure of any party hereto to exercise any right hereunder shall not be deemed a waiver of such right and shall not affect the right of such party to exercise at some future date any such right or any other right it may have.
17. Nothing in this Agreement is intended to, or shall be deemed to be a waiver of the Town's governmental immunity as set forth in applicable statutory and case law.
18. Each party has participated in negotiating and drafting this Agreement and therefor no provision of this Agreement shall be construed for or against either Party based on which Party drafted any particular portion of this Agreement.
19. The parties to this Agreement each warrant that they have all of the necessary authority to execute this Agreement. The signature of the Mayor of the Town is affixed to this Agreement pursuant to an authorizing motion passed on August 11, 2010.
20. This Agreement does not create a joint venture relationship, partnership or agency relationship between the Town and Dokstar. The parties do not intend this Agreement to create any third-party beneficiary rights. The parties acknowledge that this Agreement refers to a private development and that the Town has no interest in, responsibility for, or duty to any third parties concerning any improvements to the Properties.

21. Dokstar expressly acknowledges that the law firm of Snow Jensen & Reece has heretofore represented, and will hereafter continue to represent, only the Town in all aspects of this transaction, including the negotiation and drafting of this Agreement and its incorporated Exhibits and in performing periodic legal reviews associated with the development of the Project as requested by the Town. Dokstar further expressly acknowledges that it has not relied upon any representation, counsel or legal advice from Snow Jensen & Reece or any of its attorneys in deciding whether to enter into this transaction or in evaluating this Agreement or its incorporated Exhibits, and that Dokstar has relied, and will continue to rely, solely upon the representations, counsel and legal advice of its own attorneys as deemed necessary by Dokstar.
22. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The signature pages from one or more counterparts may be removed from such counterparts and such signature pages all attached to a single instrument so that the signature of all parties may be physically attached to a single document.
23. If any provision of this Agreement is declared invalid by a court of competent jurisdiction, the parties consider and intend that this Agreement shall be deemed amended to the extent necessary to make it consistent with such decision and the remaining provisions shall not be affected and shall remain in full force and effect.

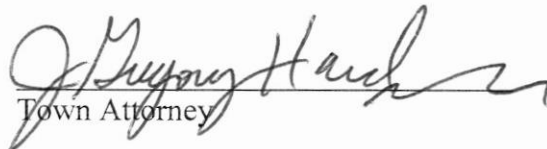
TOWN OF SPRINGDALE

DOKSTAR, LLC

 
Pat Cluff, Mayor
Attest: 
Deputy Town Clerk


Its: Managing Member

Approved as to form:


Town Attorney



STATE OF UTAH)
)
) :ss
COUNTY OF WASHINGTON)

On the 11 day of August, 2010, personally appeared before me Colin Dockstader who being duly sworn, did say that he is the managing member of Dokstar, LLC, a Utah limited liability company, and that this Development Agreement was duly authorized by the company at a lawful meeting held by authority of its operating agreement and signed in behalf of said company.


NOTARY PUBLIC

10/24/13

Springdale, Utah

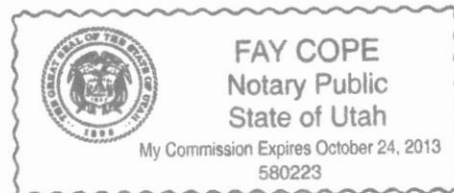


Exhibit A

Dokstar Development Agmt
8/4/10

Legal Descriptions

Account Number 0363732

Parcel Number S-141-G-1-A

Tax District 10 - Springdale Town

Situs 44 HUMMINGBIRD LN , SPRINGDALE

Acres 0.65

Legal S: 28 T: 41S R: 10W COM AT SW COR OF SE1/4 NW1/4 SEC 28, T41S R10W, RN TH N0°11'27" E ALG 1/16 SEC/L 666.78 FT; TH S89°48'33" E 608.63 FT; TH S3°06'31" E 120.00 FT TO TRUE POB; TH S31°54'51" W 133.60 FT; TH S63°15'27" E 188.09 FT; TH N4°18'33" W 78.70 FT; TH N10°25'27" E 16.36 FT; TH S79°34'33" E 42.76 FT; TH S10°25'27" W 10.82 FT; TH S4°18'33" E 110.60 FT; TH N63°15'27" W 366.86 FT; TH N1°28'07" E 138.42 FT; TH S68°31'29" E 194.80 FT TO TRUE POB. LESS: PRPTY OWNED WAYNE L & MARGOT B HAMILTON TRS, DEED REC ENTRY # 812545. TOG W/ EASEMENT

Account Number 0104185

Parcel Number S-103-C-1-A-1

Tax District 10 - Springdale Town

Situs , Adjacent riverside lot to 44 Hummingbird Lane

Acres 1.17

Legal S: 28 T: 41S R: 10W COM AT SW COR SE1/4 NW1/4 SEC 28, T41S R10W; RN TH N0°11'27" E ALG 1/16 SEC/L 666.78 FT; TH S89°48'33" E 608.63 FT TO TRUE POB; TH N21°08'40" E 50.00 FT; TH S70°21'38" E 28.13 FT; TH S70°18'48" E 147.24 FT; TH S10°25'27" W 222.28 FT; TH N79°34'33" W 42.76 FT; TH S10°25'27" W 16.36 FT; TH S4°18'33" E 78.70 FT; TH N63°15'27" W 188.09 FT; TH N31°54'51" E 133.60 FT; TH N3°06'31" W 120.00 FT TO TRUE POB. LESS: PRPTY OWNED BY WAYNE L & MARGOT B HAMILTON, TRS, DEED REC AS ENTRY # 812545.