

Town of Laurel Park Planning Board

Date of Meeting: July 9, 2024 **Time of Meeting:** 3:00 pm

Location: Town Hall, 441 White Pine Drive, Laurel Park NC 28739

Please click the link below to join the webinar: https://us02web.zoom.us/j/87381728405

or Telephone: +1 305 224 1968 US

- 1. Call to Order
- 2. Approval of the Agenda
- 3. Approval of the Minutes
 - a. June 11, 2024
- 4. Old Business
 - a. 130 Birchwood Dr. Landscaping for SBA Cellular Tower Modifications (page 2)
- 5. New Business
 - a. 57 Tudor Crescent Court (Lot 13) Site Plan Review (page 12)
- 6. Adjourn



TOWN OF LAUREL PARK AGENDA ITEM SUMMARY

Title of Item: Landscaping Plan Review - 130 Birchwood Dr. SBA Cell Tower Modifications

Presenter: Cara R. Reeves- Zoning Administrator

Attachment(s): Yes/No

Conceptual Buffer Landscape PlanLandscaping Calculations Worksheet

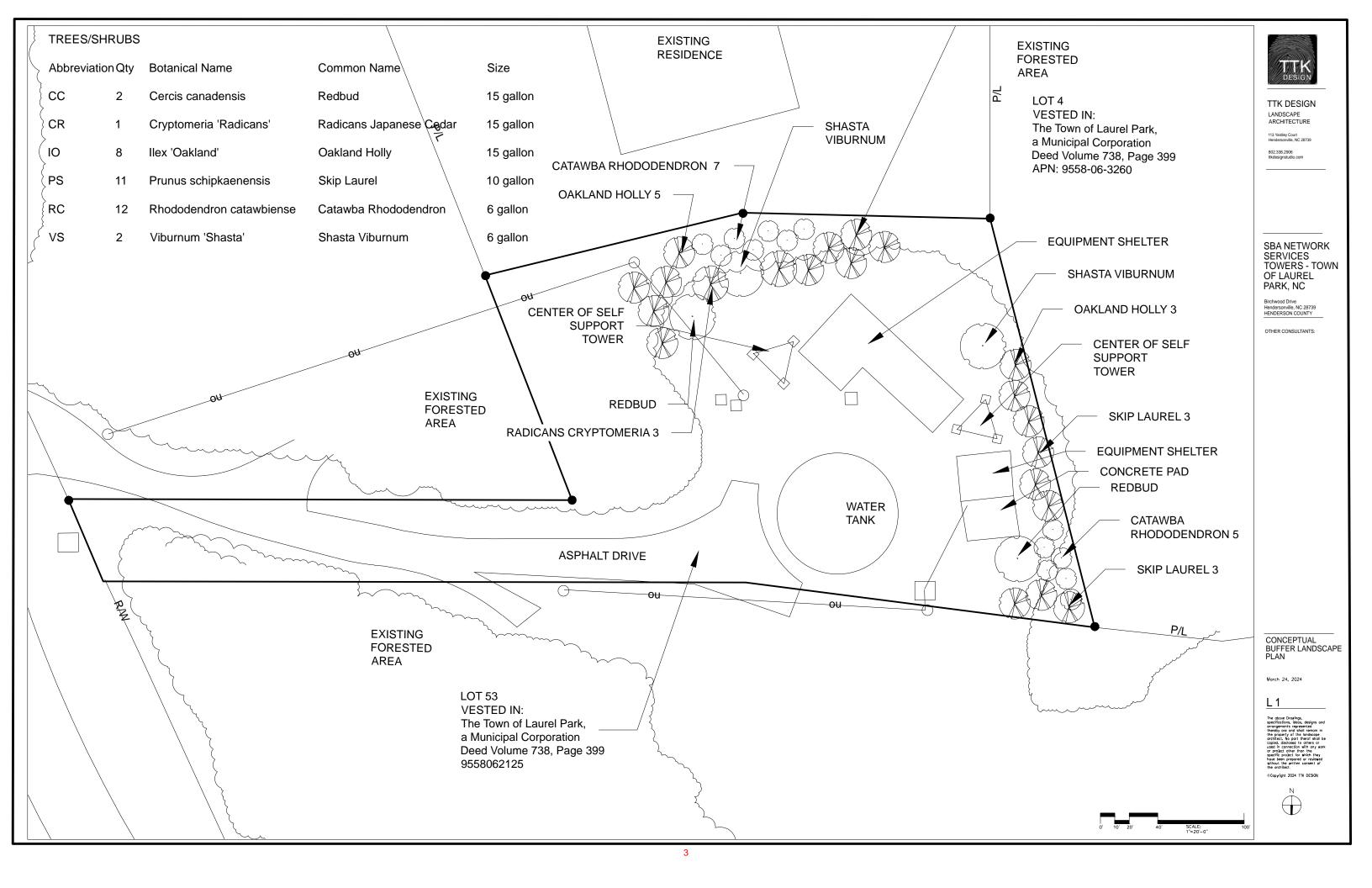
• UDO Language for Perimeter Buffers

Summary of Item: SBA Communications Corporation is proposing to make modifications to an existing cellular tower located at 130 Birchwood Dr. This site is in the R-30 zoning district and identifies as a steep slope at 15%. Proposed modifications include adding new concrete foundations pads (30 square feet total), adding three (3) 20-foot long micropiles, and modifying/reinforcing various hardware items located on the tower.

At the December 12th and February 13th Planning Board meetings, SBA was asked to come back before the Board with drawings of the enclosure as well as information regarding sound abatement, including the location and types of proposed landscaping.

Suggested Action Requested: Please review and discuss the requested location and types of landscaping.

Suggested Motion: Motion to approve/deny the Landscape Plan as presented.



Laurel Park Landscaping Calculations Worksheet

Page 4 of 7 - Perimeter Buffer Landscaping

These standards are applied to all forms of development. Perimeter buffers are required along side and rear lot lines between different uses in accordance with UDO Section 7.4.9. Lot lines adjacent to streets are subject to the streetscape buffer requirements (page 5 of this worksheet).

To complete this sheet, provide answers within the grey boxes. Requirements will appear within yellow boxes.

Zoning of the Subject Site:

From Page 2 of this worksheet:	R-30
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Zoning on Adjacent Lots:

In some cases, a side or rear lot line may abut more than one adjacent lot, and the adjacent lots have differing zoning district designations. If this is the case, please leave that cell blank and work with Town staff to determine the type of perimeter buffer required for that lot line.

Zoning district designation of the lot(s) abutting the rear lot line of the lot or site:	R-30
Zoning district designation of the lot(s) abutting one side lot line of the lot or site (Referred to in subsequent rows on this sheet as Lot Side "A"):	R-30
Zoning district designation of the lot(s) abutting the other side lot line of the lot or site (Referred to in subsequent rows on this sheet as Lot Side "B"):	R-30

T

See UDO Section 7.4.9 for details about the different perimeter buffer types.

Type of Perimeter Buffer along Rear Lot Line:	Α
Type of Perimeter Buffer along Side Lot Line "A":	Α
Type of Permitter Buffer along Side Lot Line "B":	Α
Length of Rear Lot Line:	
in feet - round up if distance has a decimal or fraction	105
Length of Side Lot Line "A":	
in feet - round up if distance has a decimal or fraction	58
Length of Side Lot Line "B":	
in feet - round up if distance has a decimal or fraction	127

NOTE: In cases where a lot line abuts two or more different zoning districts, the length calculation should be performed for each segment individually

Required Plantings Along REAR Lot Line

(be sure to maintain compliance with maximum on-center spacing rules)

Canopy Trees:	3
Understory Trees:	5

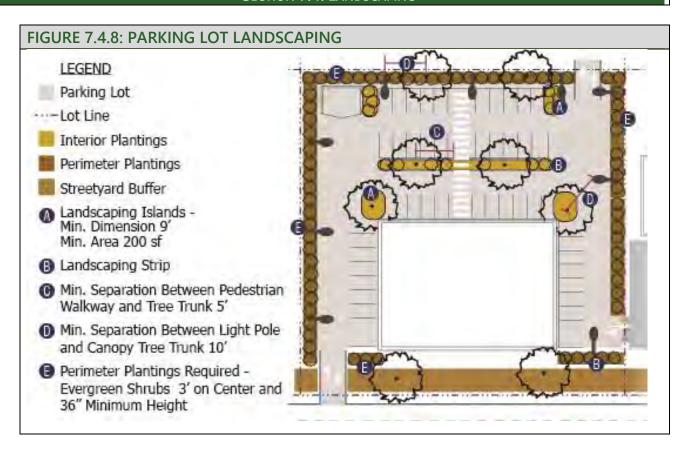
(understory trees in type C buffers must be 75% evergreen)

Shrubs:	16
(the UDO specifies a minimum % evergreen based on type of buffer)	
Required Plantings Along "SIDE A" Lot Line	
(be sure to maintain compliance with maximum on-center spacing rules)	
Canopy Trees:	2
Understory Trees:	3
(understory trees in type C buffers must be 75% evergreen)	
Shrubs:	9
(the UDO specifies a minimum % evergreen based on type of buffer)	
Required Plantings Along <u>"SIDE B"</u> Lot Line	
(be sure to maintain compliance with maximum on-center spacing rules)	
Canopy Trees:	3
Understory Trees:	6
(understory trees in type C buffers must be 75% evergreen)	
Shrubs:	19

(the UDO specifies a minimum % evergreen based on type of buffer)



SECTION 7.4: LANDSCAPING



7.4.9: PERIMETER BUFFERS

A: PURPOSE AND INTENT

These standards are proposed to eliminate or minimize potential nuisances, such as dirt, litter, noise, glare of lights, signs, and unsightly buildings or parking areas through physical and visual separation between land uses in separate zoning districts.

B: APPLICABILITY

- 1: All development shall comply with the perimeter buffer standards in this section.
- 2: Development shall provide perimeter buffers along the side and rear lot lines in accordance with Table 7.4.9:G: Buffer Application.
- **3:** Lot lines abutting street rights-of-way shall comply with the standards in Section 7.4.10: Streetscape Buffers.

C: BUFFERS DISTINGUISHED

Table 7.4.9:F: Perimeter Buffer Configuration, establishes the standards for perimeter buffers, including the minimum requirements for each of the following buffer types:

- 1: Type A, Intermittent Buffer;
- 2: Type B, Semi-Opaque Buffer; and
- **3:** Type C, Opaque Buffer.

D: BUFFER DETERMINATION

1: The lot or site being developed is the one responsible for providing the required perimeter buffer, which shall be located solely upon the lot or site being developed.

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SECTION 7.4: LANDSCAPING

- **2:** Landscaping material located on an adjacent lot may not be credited towards these perimeter buffer requirements.
- 3: The type of perimeter buffer required is based upon the zoning district designation of the land being developed as well as the zoning district designation of the abutting lots (see Table 7.4.9:G: Buffer Application).

E: BUFFER LOCATION

- 1: Perimeter buffers required by this section shall be located along the outer perimeter of the lot and shall extend to the connecting lot lines.
- 2: In cases where the lot line is within a drainage swale, the perimeter buffer shall extend to the edge of the swale instead of the lot line.
- **3:** A perimeter buffer may be located along shared access easements between parcels in non-residential developments.

F: PERIMETER BUFFER CONFIGURATION

The following table sets out the minimum requirements for perimeter buffers.

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Unified Development Ordinance

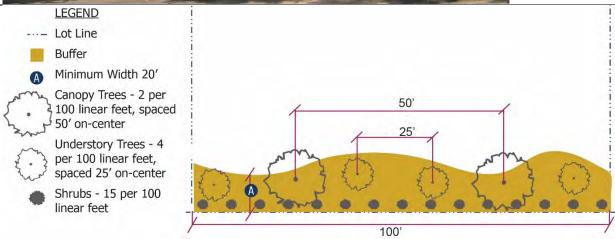
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SECTION 7.4: LANDSCAPING

TABLE 7.4.9:F: PERIMETER BUFFER CONFIGURATION



Objective:: The Type A Intermittent perimeter buffer functions as an intermittent visual screen from the ground to a height of five feet. It is intended to partially block visibility between different uses but not totally obstruct visual contact from one use to another. The image to the left shows an approximation of this buffer type at maturity.



Buffer Configuration	Planting Requirement
Buffer width (feet)	20
Required canopy trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	2 / 50
Required understory trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	4 / 25 /1/
Shrubs per every 100 linear feet (#) / Maximum on-center spacing (feet) /2/	15 / None /1/
Minimum evergreen shrub percentage (%)	60

NOTES:

/1/ Grouping of trees or shrubs is permitted provided there is no un-vegetated portion of the buffer exceeding 20 feet in length.

/2/ In the event a fence or wall is provided, shrubs shall be planted between the fence or wall and the lot line. Shrubs shall be no closer than 3 feet to the lot line.

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SECTION 7.4: LANDSCAPING

TABLE 7.4.9:F: PERIMETER BUFFER CONFIGURATION

Buffer Type: Type B: Semi Opaque



Objective: The Type B Semi-Opaque perimeter buffer functions as a partially opaque screen from the ground to a height of six feet. This type of buffer prevents visual contact between uses but not total obstruction from one use to another. The buffer creates a sense of visual separation but provides only minor acoustic separation. The image to the left shows an approximation of this buffer type at maturity.

LEGEND

---- Lot Line

Buffer

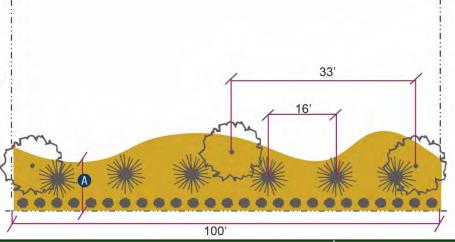
Minimum Width 30'

Canopy Trees - 3 per
100 linear feet, spaced
33' on-center

Understory Trees - 6
per 100 linear feet,
spaced 16' on-center,
min. 75% evergreen

Shrubs - 25 per 100

linear feet, spaced 3' max. on-center



Buffer Configuration	Planting Requirement
Minimum buffer width (feet) /1/ /2/	30
Required canopy trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	3 33
Required understory trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	6 16 /3/
Shrubs per every 100 linear feet (#) / Maximum on-center spacing (feet) /4/	25 4 /3/
Minimum evergreen shrub percentage (%)	75

NOTES:

- /1/ Provision of a semi-opaque fence or wall allows the buffer width to be reduced by 5 feet.
- /2/ Provision of a fully opaque fence, wall, or berm allows the buffer width to be reduced by 10 feet.
- /3/ Grouping of trees or shrubs is permitted within 20 feet of the edge of a street right-of-way provided there is no unvegetated portion of the buffer exceeding 10 feet in length.
- /4/ In the event a fence or wall is provided, shrubs shall be planted between the fence or wall and the lot line. Shrubs shall be no closer than 3 feet to the lot line.

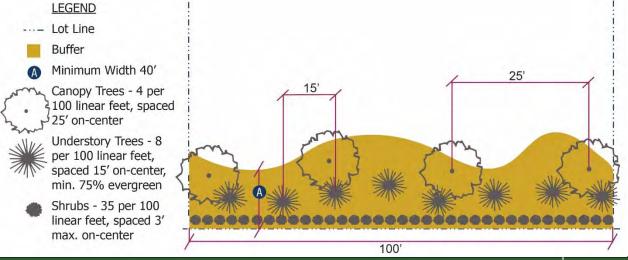
Town of Laurel Park Effective Date: 8.18.21

SECTION 7.4: LANDSCAPING

TABLE 7.4.9:F: PERIMETER BUFFER CONFIGURATION



Objective: The Type C
Opaque perimeter
buffer functions as a
fully opaque screen
from the ground to a
height of eight feet.
This type of buffer
provides a strong
sense of visual and
acoustic separation
between uses. The
image to the left
shows an
approximation of this
buffer type at maturity.



Buffer Configuration	Planting Requirement
Minimum buffer width (feet) /1/ /2/	40
Required canopy trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	4/25
Required understory trees per every 100 linear feet (#) / Maximum on-center spacing (feet)	8 / 15
Minimum evergreen understory tree percentage (%)	75
Shrubs per every 100 linear feet (#) / Maximum on-center spacing (feet) /3/	35 / 3
Minimum evergreen shrub percentage (%)	100

NOTES:

- /1/ Provision of a semi-opaque fence or wall allows the buffer width to be reduced by 5 feet.
- /2/ Provision of a fully opaque fence, wall, or berm allows the buffer width to be reduced by 10 feet.
- /3/ In the event a fence or wall is provided, shrubs shall be planted between the fence or wall and the lot line. Shrubs shall be no closer than 3 feet to the lot line.

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Last Amended: 8.15.23

SECTION 7.4: LANDSCAPING

G: BUFFER APPLICATION

Table 7.4.9:G: Buffer Application, specifies the type of perimeter buffer that development shall provide between it and adjacent land, based on the zoning district of the development site and the zoning district designation of the adjacent land. The buffer type is indicated by a letter corresponding to one of the three buffer types described in Table 7.4.9:G: Buffer Application.

	TABLE	7.4.9.G: BU	FFER APPLI	CATION		
ZONING DISTRICT OF	Zoning	ZONING DISTRICT OF LAND ADJACENT TO PROPOSED DEVELOPMENT /1/ /2/ /3/				
DEVELOPING LAND	R-30, R-20	OI	ММ	TC	I-1	PD
R-30, R-20	А	None	None	А	А	None
OI	С	None	А	Α	None	None
MM	C	В	None	В	None	Α
TC	С	В	В	None	None	В
I-1	С	С	С	В	None	Α
PD	C	С	С	В	Α	Α

NOTES:

/1/ A type C perimeter buffer shall not be required when the lot line abuts unbuildable land within a riparian buffer, the special flood hazard area, a Town-designated tree-save area, or other Town-designated conservation area where existing vegetation will not be removed.

/2/ Lot lines abutting public street rights-of-way shall be subject to the standards in Section 7.4.10: Streetscape Buffers.

/3/ A Type A buffer shall be provided along all lot lines bordering the Town's jurisdiction.

(AMENDED 05.17.22 UDOTA1-22)

H: EXEMPTIONS

Developments consisting of multiple lots that are planned and developed as a single, unified, or consolidated project may be configured so that perimeter buffers are only located around the perimeter of the entire development instead of between lots within the development.

I: CREDIT TOWARDS REQUIRED LANDSCAPING AREAS

Perimeter buffer landscaping may be credited towards the perimeter parking lot landscaping and streetscape buffer requirements in this Ordinance in cases where it meets the locational requirements of this section and is also located within an adjacent perimeter parking lot landscaping or streetscape buffer's designated area.

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TOWN OF LAUREL PARK AGENDA ITEM SUMMARY

Title of Item: Preliminary Site Plan Review – 57 Tudor Crescent Court (Lot 13)

Presenter: Cara R. Reeves- Zoning Administrator

Attachment(s): Yes/No

- Zoning Compliance Permit Application
- Site Plan
- Pre-Development Slope Investigation
- Stormwater Management Plan
- Aerial showing Tree Canopy
- Septic Maps
- Home Elevations

Summary of Item:

Applicant Eric Hall with Brown Haven Homes is proposing to build a single-family residential dwelling located at 57 Tudor Crescent Court (Lot 13). The lot is located within the ETJ R-30 zoning district, comprised of 1.05 acres, and has an estimated slope of 20% making it a Steep Slope. The parcel is identified as PIN 9548-45-9201.

The Laurel Park Unified Development Ordinance (UDO) section 2.6.3: Dimensional Standards for the R-30 zone indicates that lots with steep slopes (15% to 25%) require a minimum street setback of 40 feet. The side and rear setbacks are 35 feet.

The applicant has consulted with Aaron Black of Riverview Consulting, LLC who conducted a pre-development investigation. The predevelopment investigation suggests that the site is suitable for the placement of a residential home and the storm water management plan is adequate for the runoff from the home's gutters as provided. This report has been reviewed and approved by the Town Engineer.

The stormwater plan provided includes tree preservation areas and stormwater control measures, including gutter downspouts and pipes leading to 3 infiltration/French drains and a natural vegetated trough area.

Suggested Action: Staff requests Planning Board review the attachments and criteria.

Suggested Motion: Motion to approve/deny the Site Plan as presented.

2024-17

ZONING COMPLIANCE PERMIT APPLICATION FORM

Town of Laurel Park • 441 White Pine Drive • Laurel Park, NC 28739 • P. 828-693-4840 • F. 828-696-4948

APPLICATION PAGE 1 OF 6

APPLICATION LAST UPDATED: 9.1.2021



1. THINGS TO KNOW ABOUT THE ZONING COMPLIANCE PERMIT PROCEDURE

1. The zoning compliance permit review procedure is described in Section 6.3.22 of the Laurel Park Unified Development Ordinance.

2. A zoning compliance permit is issued prior to or along with a building permit for most forms of development,

including single-family homes.

3. Henderson County will not issue a building permit for development that does not have an approved zoning compliance permit.

4. Zoning compliance permits are required for decks, patios, fences, walls, signs, temporary uses, and open-air

uses that don't require a building permit.

5. Lots with steep or very steep slopes require pre-development investigation report and must provide a stormwater management plan prepared by a licensed professional.

6. Most forms of development, including new single-family homes, must provide perimeter landscaping buffers,

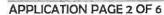
streetscape landscaping, and site landscaping as described in Chapter 7 of the UDO.

7. Tree retention or replacement as necessary is required to ensure 25% of the lot or site is covered by tree canopy in accordance with Chapter 3 of the UDO.

8. Additional development on a site with an existing building may require the site to be brought into partial or full compliance with all UDO requirements as described in Section 5.6, Nonconforming Sites.

2.	GENERAL APPLICANT INFORMATION
A.	Parcel Information
1.	Street Address: 57 Tudor Crescont Ct.
2.	Parcel Identification Number: 9548-45-9201
3.	Lot Area/Acreage: 1,05 dicre
4.	Zoning District Classification: White
5.	Overlay Zoning District(s) (if applicable):
6.	Current Use of the Lot or Site:
7.	Please identify any prior approvals from the Town of Laurel Park (like a variance, special use permit, or site plan) associated with this development (if any) and the approximate date of the approval (attach additional sheets if necessary): Site plan, Soils work
В. І	Primary Point of Contact Information
1.	Primary Point of Contact Name: ERICHALL, Brown Haven Homes
	Mailing Address: 219 Wierrimon Aut #121 Ashwille NC 28801
	Phone: 828-545-3365
4.	Email: bwonsc. a brownhavenhomes, com,
5.	Fax:
6.	Relationship to Landowner: builder, Superintendent

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☑ Yes

□ No

APPLICATION LAST UPDATED: 9.1.2021



3. DESCRIPTION OF SITE CONDITIONS
(Please complete each of the following)
Landscaping Requirements
(the Town's zoning may be reviewed on the County's Online GIS/Mapping page at https://www.hendersoncountync.gov/gis/page/welcome-gomaps-henderson-countys-online-gis-mapping-system)
a. What is the zoning of the lot to the north? If there is a street bordering the lot to the north, please list its name: CITIC , Lot #14 ETTIC 30 b. What is the zoning of the lot to the south? If there is a street bordering the lot to the south, please list
its name: Citics, 41 Tudor Lane
c. What is the zoning of the lot to the east? If there is a street bordering the lot the east, please list its name: Citics, Lot 12, VCs there is a Street Tudor Crescent Ct.
d. What is, the zoning of the lot to the west? If there is a street bordering the lot to the west, please list its name: 01405, Lot 17, Ly Tudor LA ETTR 30
 Tree Canopy Cover a. Approximate amount of the lot or site covered by tree canopy at the time of this application:
☐ More than 25% covered by tree canopy ☐ Less than 25% covered by tree canopy
b. Does the proposed development include tree removal? □ Yes □ No
c. If tree removal is proposed as part of this development, how much of the lot or site will be covered by tree canopy after development is complete?
☐ More than 25% covered by tree canopy ☐ Less than 25% covered by tree canopy
The Town may require an applicant to provide an aerial photo, tree survey, or other evidence documenting the amount of tree cover in place at the time of this application.
3. Geologic Hazards, Steep Slopes, or Very Steep Slopes
a. Does the lot or site include any geologic hazards or steep slopes? ☐ Yes ☐ No ☐ Don't know
b. If yes, what is the slope of the steepest part of the site? (see UDO Sec. 10.2.9 for how to determine slope)
☐ 15% or less ☐ 15% to 25% ☐ More than 25%
4. Utilities
a. Does the development require new potable water or sewage treatment to be provided? — Yes — No
b. If yes, how will these services be provided?
☐ City of Hendersonville public water/sewer ☐ On-site well/septic system ☐ Don't know
c. If the site is to be served by a new well or septic system, have you obtained Health Department approval?

(if yes, please attach approval to this application form) #6SS-2024-6150

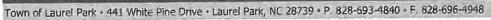
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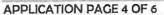
APPLICATION PAGE 3 OF 6

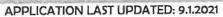
APPLICATION LAST UPDATED: 9.1.2021



-						
4.	DESCRIPTION OF THIS	REQUEST				
	lease complete the following,					
1.	Please identify the type of d application. Please select al	evelopment proposed that is the subject that apply:	of this zoning compliance permit			
	Principal Structure	☐ Accessory Structure	☐ Sign			
	☐ Temporary Structure	☐ Temporary Use	☐ Fence/Wall			
	□ Other	If "Other" please describe below (a	ttach additional sheets if necessary)			
N	CW Single Family Hor	ns				
2.	All applicants for a zoning co	ompliance permit must attach a site sketo	ch or plot plan that identifies each of the			
	Lot lines					
	 Principal structures, 	including driveways				
	 Accessory structures 	(garages, sheds, play structures, etc.)				
	 Additions, expansion 	ns, or other alterations to existing princip	al or accessory structures			
		d that do not have structures				
	 Site features like str 	eams, lakes, ponds, wetlands, rock outcr	ops, and similar aspects			
	Required setbacks					
	 Encroachments of structures into setbacks (if proposed) Potable water wells, septic tanks, septic drain fields/lines, and reserve or back up drain field location Tree save areas or areas where existing tree canopy will be maintained during and after development 					
	landscaping, etc.)	그는 이상 그렇게 하면 하면 하면 하는 것으로 들어 보면 되었다. 그리는 목에서 아니는 그들은 이번 사람들이 아이들이 있다면 그렇게 되었다. 그는				
	demonstrate compli	dentified by the applicant or required by ance with the applicable requirements				
din	nensions and distances if not	drawn to scale.	drawn to scale but should include verified			
pro	cases where proposed develop ovides the details listed above order to comply with these re	pment is subject to an approved site pla , applications materials used for the prior quirements.	n or other development approval that r approval may be substituted or modified			
3.	Please Complete this Portion	if you are Proposing a New Single-Fa	mily Home			
	the Town's single-family res	idential design guidelines (this information en this application must include elevation	single-family home in an area subject to on should be identified on the subdivision as, plans, or other details that shows how O. Survey, Setman, plans, God			
4.	Please Complete this Portion	if you are Proposing a New Accessory	Use or Structure			
	If this zoning compliance permit is associated with a new accessory use or structure, please provide the following details:					
	a. Size of principal structure (square feet):					
	b. Size of accessory structure (square feet):					
	c. Is the accessory use located entirely within the principal structure? ☐ Yes ☐ No					

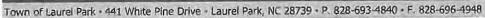


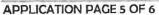






5.	If this zoning compliance permit is associated with a temporary use or structure, please provide the following details:					
	a. Please provide a description	of the temporary use or structure (attac	th additional sheets if needed):			
	b. Anticipated Date of Setup:					
	c. Anticipated Date of Commen	cement:				
	d. Anticipated Date of Cessation	1:				
	e. Anticipated Date of Removal and Site Restoration:					
	f. Duration (in days) from Setup	until Removal:				
	g. Will temporary signage be in					
	If yes, please identify the sig					
	h. Has this temporary use or str Yes No If yes, from when to when?	ructure been established on this lot or s Don't Know	ite already this year?			
	please provide the following detail	pplication is associated with a new sign ls: ign proposed (check all that apply)	or changes to an existing sign,			
	□ Wall Sign	☐ Parapet Sign	☐ Marquee Sign			
	☐ Awning Sign	☐ Projecting/Suspended Sign	☐ Electronic Display Sign			
	☐ Monument Sign	☐ Window/Door Sign	□ Pylon Sign			
	□ Post & Arm Sign	☐ Incideptal Sign	☐ Canopy Sign			
	☐ A-Frame Sign	☐ Şubdivision Sign	☐ Temporary Sign			
	b. Is the proposed signage: [cement, please attach photos of to be replaced			
	c. Is the structure supporting t	he signage: New Existing	Nonconforming supports may require replacement			
	d. Please attach detailed drawings and information describing the following for each type of sign proposed:					
	The number of signs on the site					
	 The proposed sign face area in square feet (including if the sign is single-sided or 2-sided) The copy height in inches 					
	 The height of the tallest portion of the sign or supporting structure 					
	If the sign will be illuminated, and if so the method of illumination					









7.	Please Complete this Portion if you are Proposing a New Fence or Wall	
	If this zoning compliance permit application is associated with a new fence or wall, please provide following details:	the
	a. Proposed fence or wall height (in feet) in the following locations:	
	Front Yard (if applicable) Side Yard (if applicable) Rear Yard (if applicable)	
	b. Please identify the materials to be used in the fence or wall (including gates, supports, & horizonembers)	ontal
	SUBMITTAL CHECKLIST	
(P	lease ensure your application includes 1 paper copy and 1 digital (pdf) copy of all of the following)	
1.	Zoning compliance permit application form	
2.	Application fee \$\int \SO.OO\$	
3.	Notes from pre-application conference (if conducted)	
4.	Notes from neighborhood information meeting (if conducted)	Ø
5.	Slope investigation (if site has slopes or geologic hazards) Pre - Development	
6.	Stormwater management plan (if required)	4
7.	Aerial photo, tree survey, or evidence of tree cover (if requested by the Town)	
8.	Copies of any required County approvals for utility service Septic	U
9.	Soil erosion and sedimentation control plan (if disturbing more than one acre)	X
10.	Site sketch or plot plan	9
11.	Copies of prior related approvals (variance, special use permit, site plan, etc.), as appropriate	
12.	Copies of an approved fee-in-lieu requests and the appropriate fee	X
13.	Copies of any approved performance guarantee (if appropriate)	X
14.	Copies of vested rights certificate (if requested by applicant)	X
15.	Notes and details related to an administrative adjustment, if requested	7
16.	Elevations of buildings subject to design standards or guidelines	
17.	Detailed drawings and information for each type of permanent sign proposed	X

18. Any additional information determined to be necessary by the Town

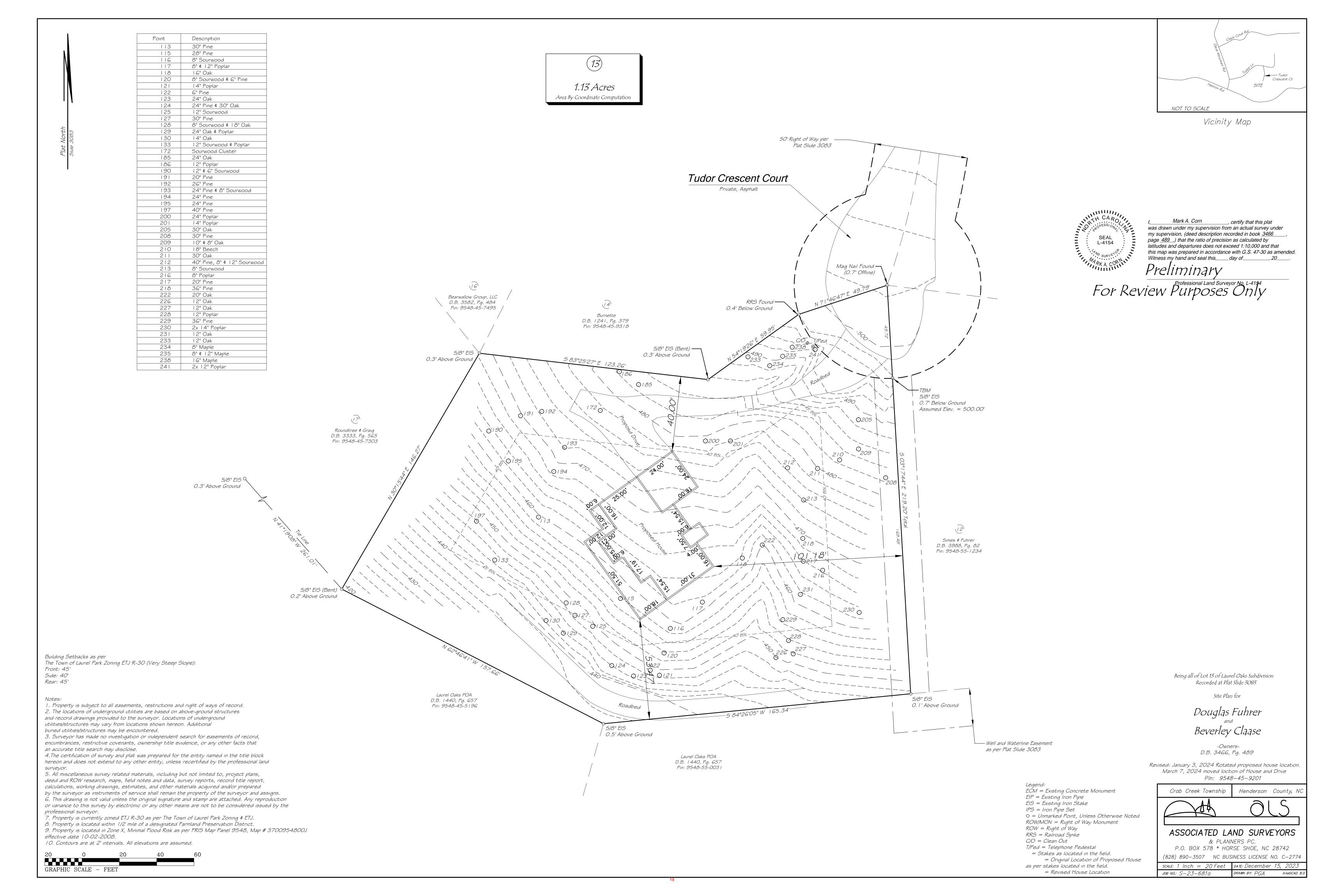








6. APPLICANT SIGNATURE
I certify that the information provided in these application materials is complete and accurate to the best of my knowledge. I hereby authorize Town officials to enter the subject property for the purposes of determining compliance.
If there are multiple land owners or applicants, a signature is required for each
Land Owner or Authorized Signature: Zonglan Filshoce Date: 2-21-24
Land Owner or Authorized Signature:
Date:
Land Owner or Authorized Signature:
Date:
OFFICE USE ONLY
Project #: 2024 - 12
Associated Project #:
Received By:
Filing Date:
Accepted as Complete By:
Complete Date:
Decision:
Decision By:
Decision Date:
Pre-application Conference Date (if conducted):
Notes/Comments:



January 27, 2022

Douglas Fuhrer

RE: 57 Tudor Crescent Ct. - Site Evaluation

Riverview Consulting LLC.

Dear Mr. Fuhrer,

Per your request, the site located at 57 Tudor Crescent Ct., Hendersonville, NC was evaluated on 1/27/2022, to determine the feasibility of constructing a home at this steep slope lot. Care must be taken when installing the foundation of this home as significant site work is required to construct upon this lot. If constructed appropriately, it is my opinion that this site is suitable for the placement of a residential home. In review of the master zoning site plan, a 1000G septic tank is sufficient for a 3BR home, and the storm water management plan is adequate for the runoff from the home's gutters as provided in the following calculations based on analysis.

Per Laurel Park UDO Section 3.1.5: Sites with slopes or geologic hazards, Investigation documents shall include an analysis and conclusion about the likelihood of landslide hazards or soil instability because of utilization of typical stormwater dispersal measures such as disconnected downspouts, level spreaders, or similar techniques for disbursing stormwater across a development site.

Except on sites where landslide hazards or soil instability may result from stormwater dispersal, development subject to the standards in this section shall incorporate stormwater control measures that effectively disperse stormwater that falls on or flows through the development site in accordance with the standards in this section.

Calculations for Storm Management:

- Building Utilization Area BUA is 8.14% (24% Max)
- 3,550 Sqft roof area; downcomers connected to 4" infiltration (French) drains (one 4" drain Calculated @ 3" per hour rain will handle 6,130 Sqft) (497 GPH based on LTAR 0.45)
- The LTAR (Long-Term Acceptance Rate) for the designated property determined through a soil study is (LTAR 0.45) for water absorption rate over 24hrs.

For one acre (43,560 square feet) receiving 1 inch of rainfall (27,154 gallons), with an LTAR indicating that 0.45 of the water is absorbed, the calculated Gallons Per Hour (GPH) absorbed would be approximately 509 gallons. This value represents how many gallons of water can be absorbed per hour by the soil present.

Calculating the Runoff

Using the Rational Method formula: $Q=C\times I\times AQ=C\times I\times A$

Where:

• QQ = Peak discharge (ft³/s, cubic feet per second)

- CC = Runoff coefficient (0.60, assumed for the geographical area)
- II = Rainfall intensity (3 inches/hour)
- AA = Area in acres (3,550 Sqft calculated as approximately 0.0815 acres)

Calculation of Peak Discharge

- Q= $0.60\times3\times0.0815=0.1467 \text{ ft}^3/\text{s Q}=0.60\times3\times0.0815=0.1467 \text{ ft}^3/\text{s}$
- The calculated peak discharge with the structure's footprint and a rainfall intensity of 3 inches per hour, is approximately 0.147 ft³/s.

Design Considerations for French Drains

With this peak discharge figure, the setup of French drains will be effective, assuming each drain can handle about 0.25 to 0.50 ft³/s under optimal conditions. It's essential to ensure that the drains are well-spaced and adequately constructed to handle this flow rate.

Flow Capacity Calculation of a 4" French Drain Perforated Pipe in Gravel

• To determine the flow capacity of a 4" French drain perforated pipe in gravel with specific dimensions and LTAR, the following calculation process is used.

Step 1: Calculate the Cross-Sectional Area of the French Drain (formula: $A=W\times D$)

Given:

- Width of typical french drain (W) = 18 in
- Depth of typical french drain (D) = 24 in
- Cross-sectional area result = 432 sq in

Step 2: Determine the Flow Rate (*flow rate* (*Q*) *is calculated using the formula:* $Q=LTAR\times A$)

Given:

- Long-Term Acceptance Rate (LTAR) = 0.45
- Flow Rate: Q=0.45×432 sq in=194.4 in³/minute

Step 3: Convert Flow Rate to Gallons per Minute (conversion factor: 1 cu in = 0.004329 gallons)

- Therefore, Q gallons = Q cubic inches × 0.004329
- $Q_{gallons} = 194.4 \times 0.004329 = 0.8417 \text{ minute}$
- The resultant flow capacity of a 4" French drain perforated pipe in gravel in a typical 18" wide x 24" deep French drain with an LTAR of .45 is approximately 0.84 gallons per minute.

Conclusion:

Based on the above-provided analysis through calculations and in consideration of Laurel Park UDO, Section 3.1.5.A.4, no further studies are required as the property is suitable for storm water dispersal and is determined to be safe for development.

The scope of this evaluation is limited to the iteras listed above. No opinion is offered, and none should be

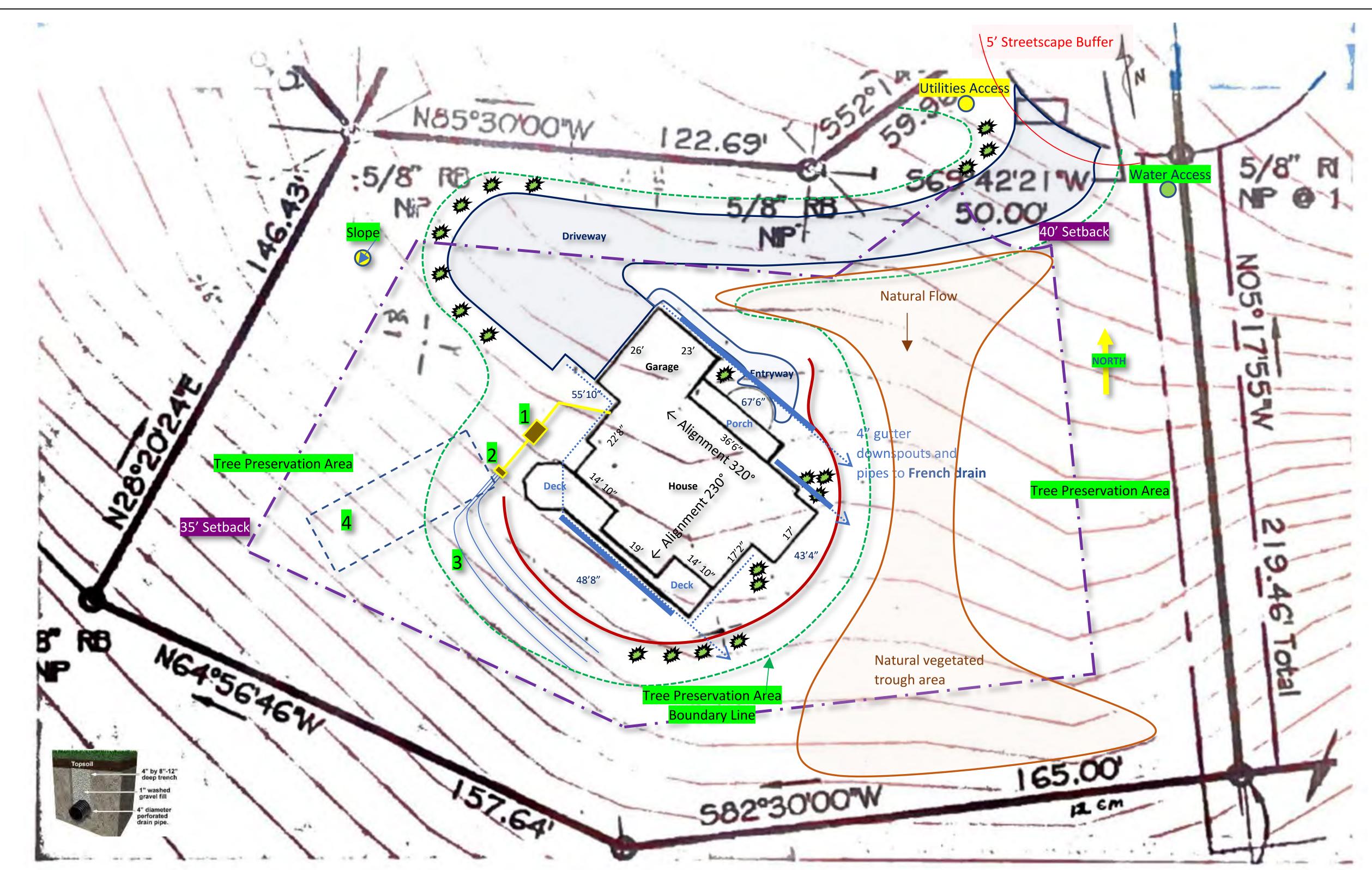
inferred, regarding other aspects of this lot. Riverview Consulting makes no claims pertaining to the subsurface conditions or their ability to support required loads. Those conditions can be further evaluated if required. This evaluation is based upon presently known and available facts, data, and information. To the extent that additional data, facts, or information is found or developed after issuance of this report, Riverview Consulting reserves the right to amend, alter, or change the report as needed to reflect the additional details, different facts, data, or information.

Regards,

Aaron Black, P.E.

NC License# 044050 Riverview Consulting, LLC 803-378-2641





Owner Info:

Douglas R Fuhrer

Phone: **505-417-4287**

Property Location:

57 Tudor Crescent Ct. Hendersonville 28739; Laurel Oaks Subdivision LO13 SEII PLSLD-3038

Proposed Septic System:

- 1.) 1,000-gal Septic Tank
- 2.) Distro Box
- 3.) Drain Field
- 4.) Alternate

Storm Management: BUA is 8.26% (24% Max) 3,780 sqft roof area; downcomers to three 4" infiltration (French) drains (one 4" drain Calc'd@3"per hour rain will handle 6,130 sqft

House Dimensions New Construction
Heated/Finished 2,618 sqft
Walkout Basement/2-car Garage/4-bdrm

Front: 67'6" Rear: 48'8"

Right: 55'10" Left: 43'4" Property PIN: **9548459201**

Layout Source: NC OneMap overlayed with property plat on file with Henderson County (Slide 3038)

Scale **1:419**

REVISIONS TIT



Riverview Consulting LLC.

Stormwater Management Plan
57 Tudor Crescent Ct.
Hendersonville, NC 28739

DRAWING # S-00

DATE: 4/4/2022

22 SHEET 1 OF 1

GoMaps



July 3, 2024



COLLECTOR

Local Roads

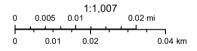
FREEWAY

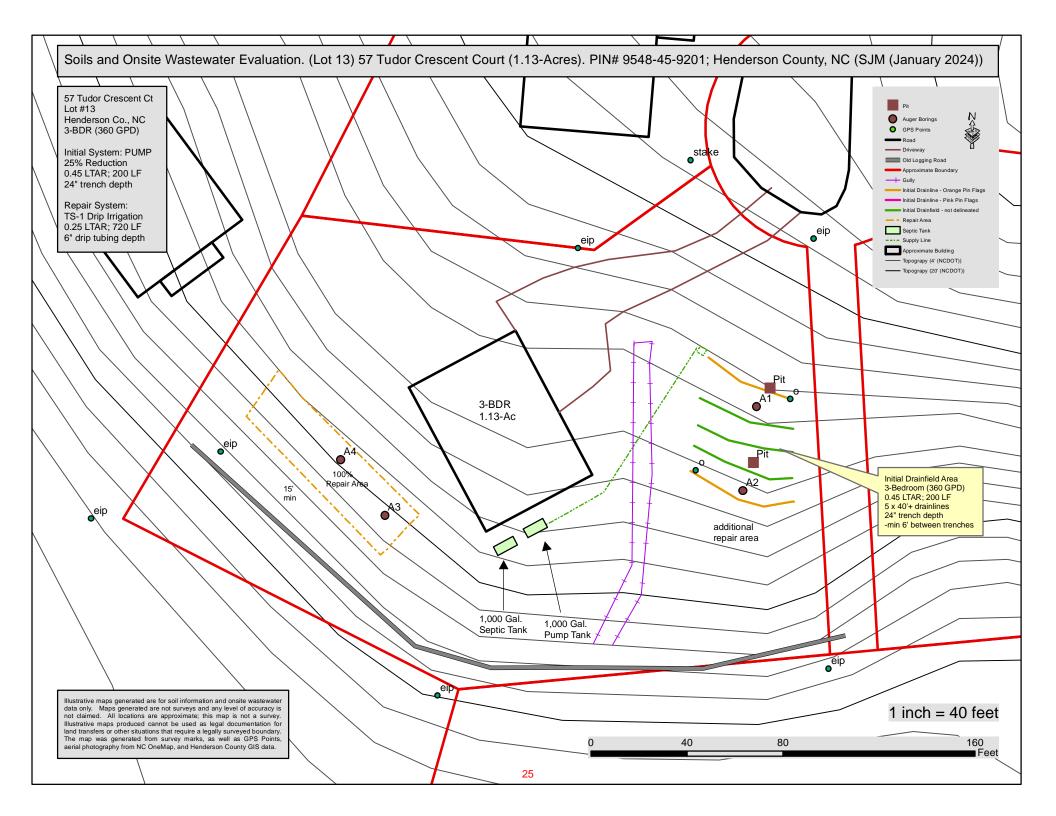
INTERSTATE

BOULEVARD

THIS IS NOT A SURVEY.

All information or data provided, whether subscribed, purchased or otherwise distributed, whether in hard copy or digital media, shall be at the user's own risk. Henderson County makes no warranties or guarantees, including the warranties of merchantability or of fitness for a particular purpose. Map data is not appropriate for, and is not to be used as, a geodetic, legal, or engineering base system. The data is not intended as a substitute for surveyed locations such as can be determined by a registered Public Land Surveyor, and does not meet the minimum accuracy standards of a Land Information System/Geographic Information System Survey in North Carolina (21 NCAC 56.1608).





Site Evaluation Package - Site Map

BAZAN WONSON PM Printed Name IVYLOG

USE A STRAIGHT EDGE TO DRAW ALL ITEMS BELOW, NUMBER EACH ITEM ON

DRAWING, & SCAN FORM IN ON THE GLASS AND IN COLOR! Wall Highlight Colors **General Information** 1. Locate and Note North on Sketch **Sub Walls** Measure from Property Line to House Corners 3. Driveway & Walkway Sketch 4. Note Grade Elevations at each Foundation Corner *Top of wall will be marked as Zero. Shots below top of wall will be a negative number & shots above top of wall will be a positive number. Positive number = cutting dirt. 5. Garage Common Wall Shots (This helps determine the amount of possible fill/reinforcement.) 6. Elevation of Street Entrance 7. Benchmark/Top of Wall (Outside of Clearing Limits) Mark Benchmark with plastic cap, nail, & Red Brown Haven Ribbon 8. Elevation of Tallest Deck Post. **Utility Locations** Note: ALWAYS Place in the Least Visible Location Possible.

- 9. Locate Power Source
- Overhead
- Underground

10. Power Meter Base Location on Home As Far away from driveway as possible & NO visibility from entry!

- 11. Propane Tank
- /12. Well or Water Meter Location & Water Lines
- 13. Air Conditioning Unit Location As Far away from driveway as possible & NO visibility from entry!

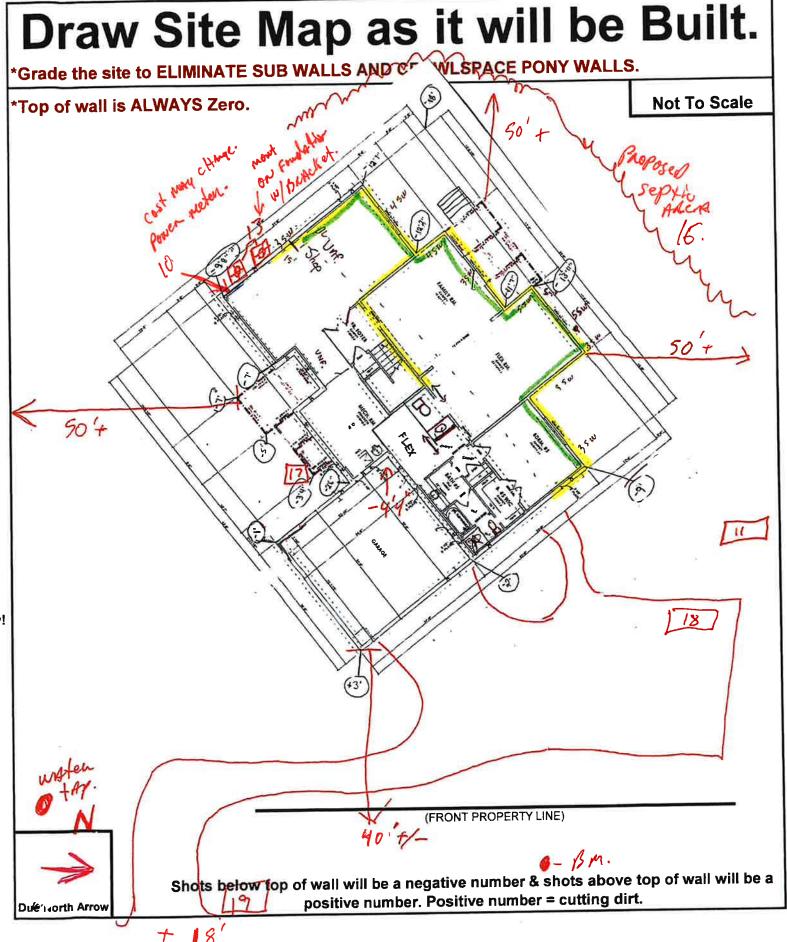
Home Specific Notes

- 14. Foundation Access Door Location if on Crawl Space
- 15. Locate all Existing Structures & Field Conditions ie. pond, stream, obstructions
- 16. Locate required erosion control fencing & type of fencing
- 17. Any Special Drainage Needed ie. Box Drains, Surge Stone and Ditches, Roll out Matting
- 18. Dumpster Location
- 19. Porta Potty Location

Process:

Step 1: Take all necessary shots to create plan

Step 2: Design and draw the plan





IVYLOG

SQUARE FOOTAGES	
Area of 1st Floor	2,112
Area of Finished Bonus	224 S
Area of Finished Terrace - Multi	1,522
Conditioned Area	3,858
Area of Deck - Rear	223 9
Area of Porch - Front	139 S
Area of Rear Porch	277 S
Area of Rear Vaulted Porch	203 S
Porches & Decks	842 9
Area of Garage	572 9
Unconditioned Area	572 S
Area of Unfinished Terrace	503 S
Unfinished Area	503 S

SITE CONDITIONS MAY VARY

FRONT PERSPECTIVE VIEW



REAR PERSPECTIVE VIEW

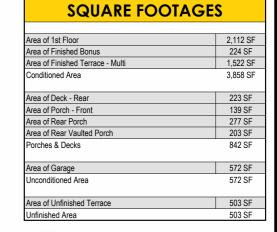
BrownHaven

FUHRER, DOUGLAS

9

SELECTION PLANS





SITE CONDITIONS MAY VARY

FRONT ELEVATION

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



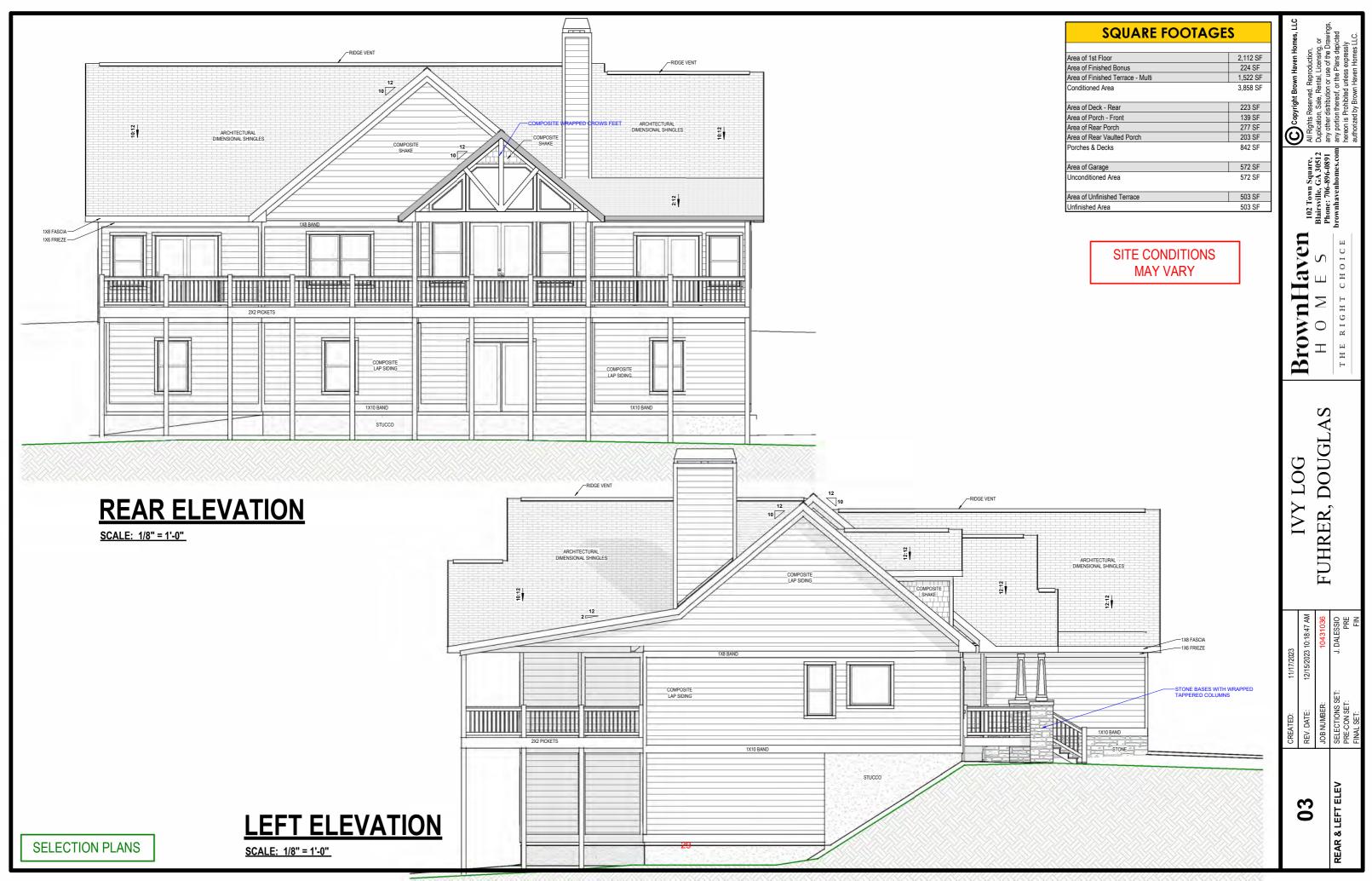
RIGHT ELEVATION

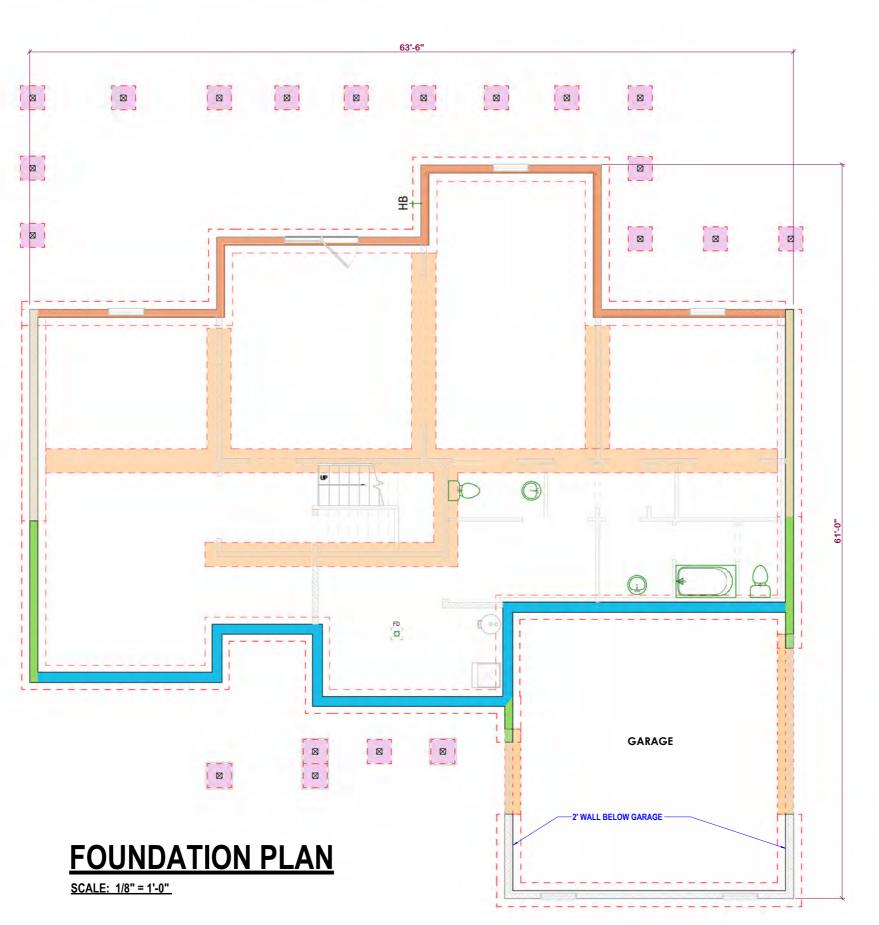
SCALE: 1/8" = 1'-0"

SELECTION PLANS

BrownHaven FUHRER, DOUGLAS

FRONT & RIGHT ELEV





SQUARE FOOTAGES Area of 1st Floor 224 SF 1,522 SF Area of Finished Bonus Area of Finished Terrace - Multi 3,858 SF Area of Deck - Rear 223 SF 139 SF Area of Porch - Front 277 SF 203 SF Area of Rear Porch Area of Rear Vaulted Porch Porches & Decks 842 SF 572 SF Unconditioned Area 572 SF 503 SF 503 SF Area of Unfinished Terrace Unfinished Area

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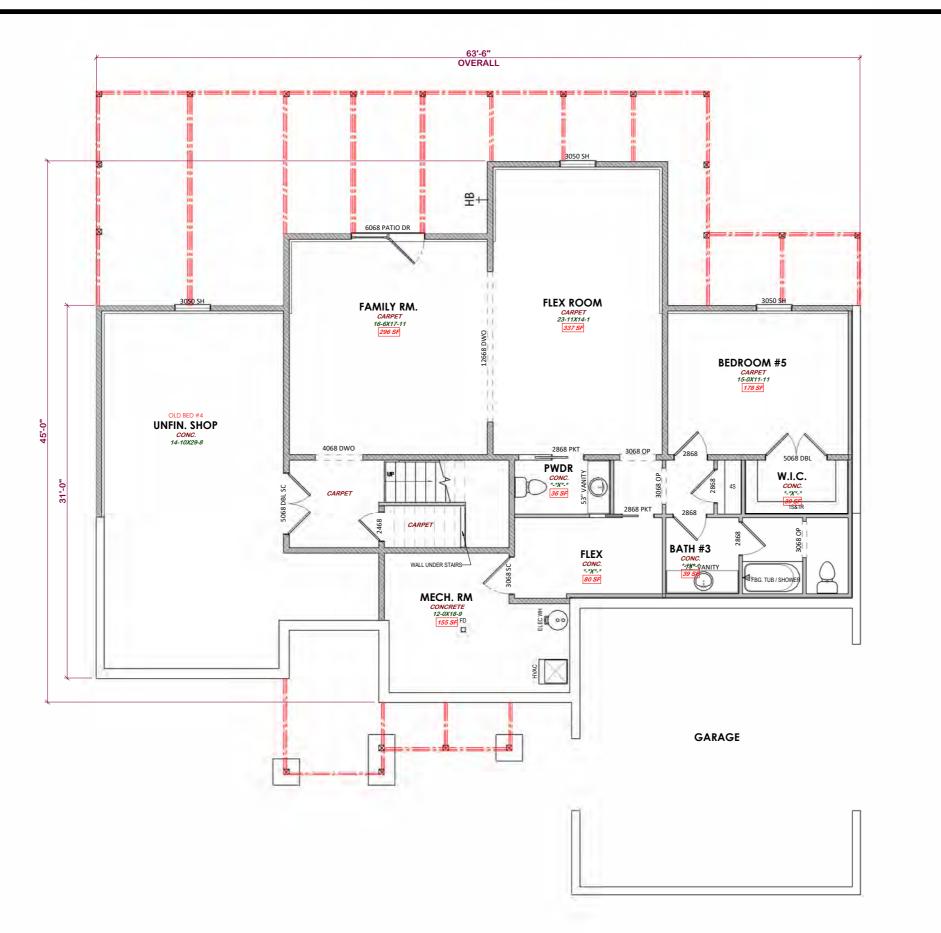
CREATED: 11/17/2/
REV. DATE: 12/16/20
JOB NUMBER:
SELECTIONS SET:
PREC-CON SET:
FINAL SET:

04

FOUNDATION PLAN

30

SELECTION PLANS



TERRACE LEVEL PLAN

SELECTION PLANS

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

SQUARE FOOTAGES Area of 1st Floor Area of Finished Bonus 224 SF 1,522 SF Area of Finished Terrace - Multi 3,858 SF 223 SF Area of Deck - Rear Area of Porch - Front 139 SF Area of Rear Porch 277 SF 203 SF Area of Rear Vaulted Porch 842 SF Porches & Decks 572 SF 572 SF Unconditioned Area

503 SF 503 SF Area of Unfinished Terrace Unfinished Area

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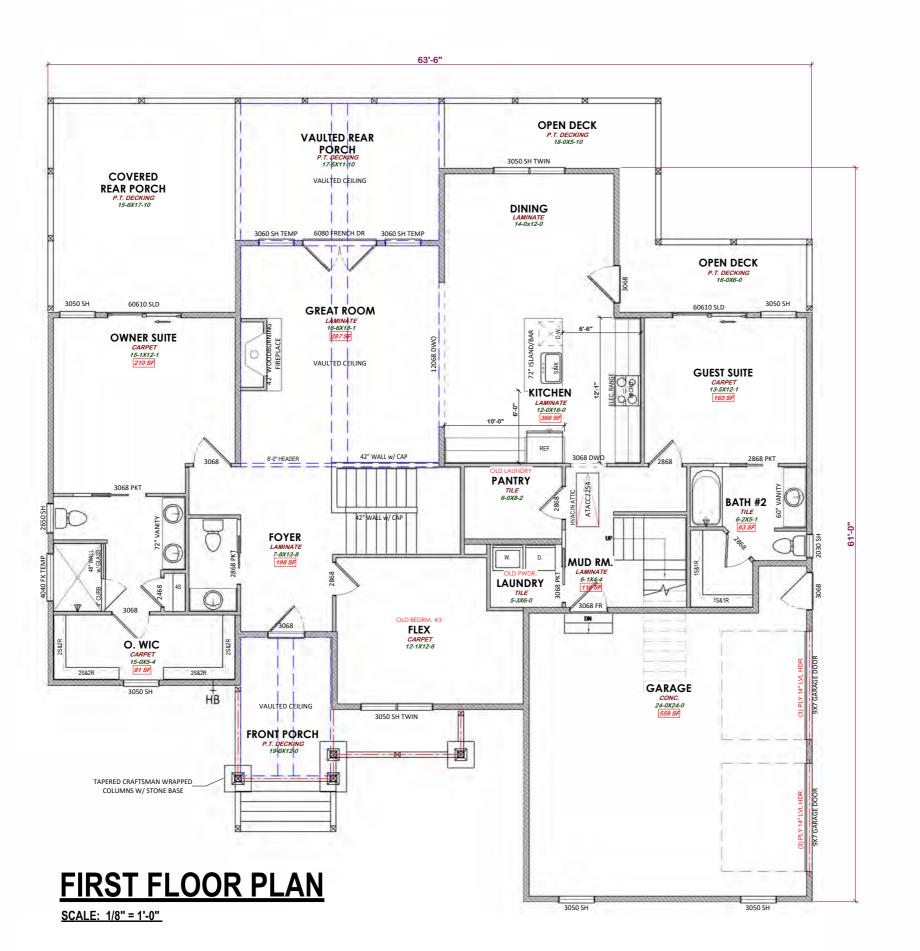
05

WALL LEGEND

2X4 WALL

2X4 FUTURE WALL

TERRACE PLAN



SQUARE FOOTAGES Area of 1st Floor Area of Finished Bonus 224 SF 1,522 SF Area of Finished Terrace - Multi Conditioned Area 3,858 SF 223 SF Area of Deck - Rear Area of Porch - Front 139 SF Area of Rear Porch 277 SF 203 SF Area of Rear Vaulted Porch Porches & Decks 842 SF 572 SF Area of Garage 572 SF Unconditioned Area 503 SF Area of Unfinished Terrace Unfinished Area

503 SF BrownHaven

> FUHRER, DOUGLAS LOG

RIGHT

90

WALL LEGEND

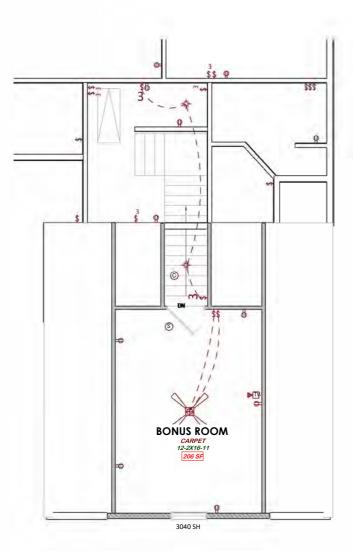
2X4 FUTURE WALL

2X4 WALL

FIRST FLOOR PLAN

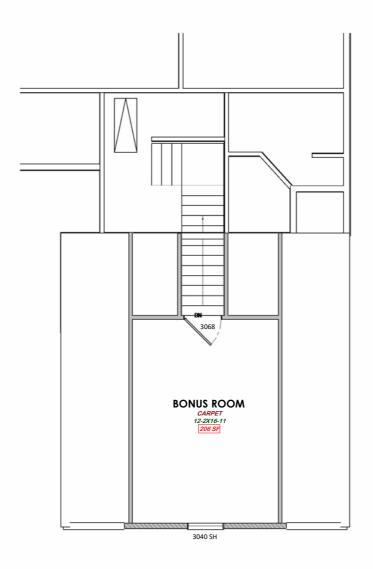
32

SELECTION PLANS



ELECTRICAL SECOND FLOOR

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



SECOND FLOOR

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

SQUARE FOOTAGES		
Area of Finished Bonus	224 SF	
Area of Finished Terrace - Multi	1,522 SF	
Conditioned Area	3,858 SF	
Area of Deck - Rear	223 SF	
Area of Porch - Front	139 SF	
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Area of Rear Vaulted Porch	203 SF	
Porches & Decks	842 SF	
Area of Garage	572 SF	
Unconditioned Area	572 SF	
Area of Unfinished Terrace	503 SF	
Unfinished Area	503 SF	

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FUHRER, DOUGLAS

07

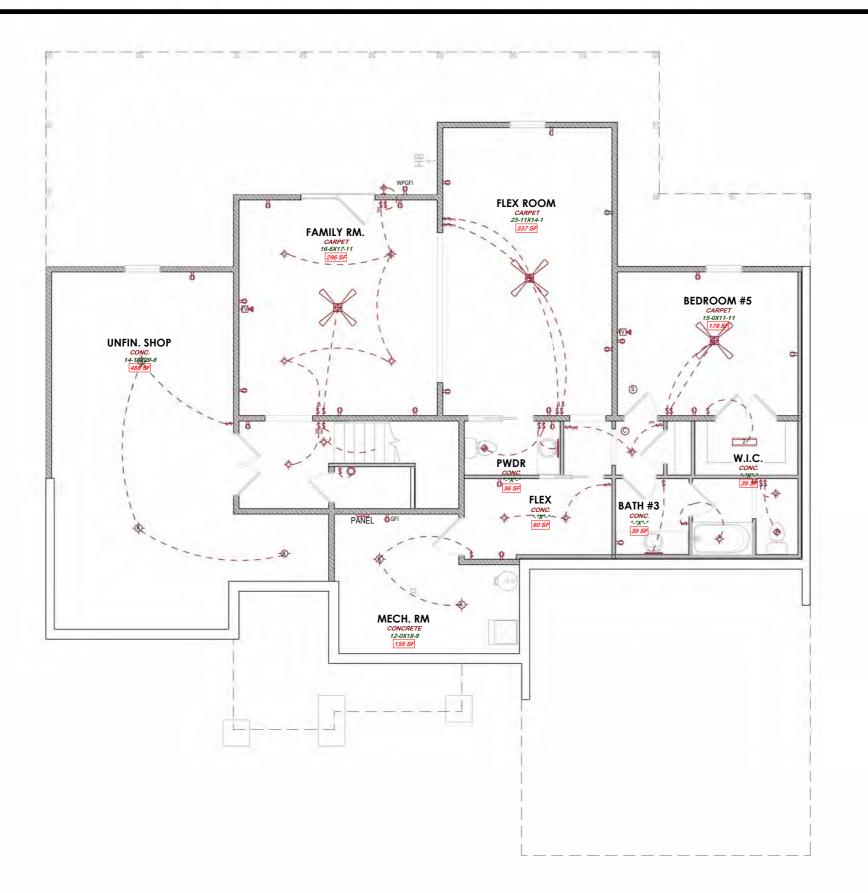
BONUS ROOM

WALL LEGEND

2X4 WALL

2X4 FUTURE WALL

SELECTION PLANS

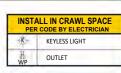


ELECTRICAL TERRACE LEVEL

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

SQUARE FOOTAGES		
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Unfinished Area	503	

1	SINGLE POLE SWITCH	DB	DOOR BELL BUTTON	
1/3	3-WAY SWITCH	CHIME	DOOR BELL CHIME	
34	4-WAY SWITCH	GD	GARAGE DR BUTTON	
D	DIMMER SWITCH	GDO	GARAGE DR OPENER	
220	220 VOLT OUTLET	WPGFI	WEATHERPROOF OUTLET	
В	DUPLEX OUTLET	B	CEILING OUTLET	
₩ _{GEI}	GROUND FAULT OUTLET	CLG	FLOOR OUTLET	
(S)	SMOKE DETECTOR	FLR	NETWORK OUTLET	
(Ĉ)	CARBON MONOXIDE	DATA	TELEPHONE OUTLET	
τΨ	DETECTOR TELEVISION OUTLET	PH	GARBAGE DISPOSAL	
DEC.	SERVICE PANEL	-57	ACCENT LIGHT	
PANEL	SERVICE METER	ACCENT	SINGLE SCONCE	
M		-02		
	WALL MOUNT LIGHT	STR	STAIR RISER LIGHT	
FLOOD	FLOOD LIGHT	*	BATH FAN ONLY	
DOD.	VANITY LIGHT (PER SELECTIONS)	IJA	BATH FAN & LIGHT COMBO	
UC	UNDER CAB. LIGHT	(K)-	KEYLESS LIGHT	
Ö	FLUSH MOUNT LIGHT	HANGING	HANGING LIGHT	
PNDT	HANGING PENDANT	MINI	MINIATURE PUCK LIGHT	
PNDI	LIGHT RECESSED 5" LED	(2)	RECESSED EYEBALL	
+0+	CAN LIGHT	EB	LIGHT	
	2' OR 4' WRAP LED	(○FR	7" ROUND LED	
CF	CEILING FAN		LIGHT w/ FAN ROUGH	
Lic	LIGHTED CEILING FAN	LCF ROUGH	LIGHT & FAN ROUGH	



	NSTALL @ ATTIC SPACE PER CODE BY ELECTRICIAL	
<u>K</u>)-	KEYLESS LIGHT	
WP	OUTLET	

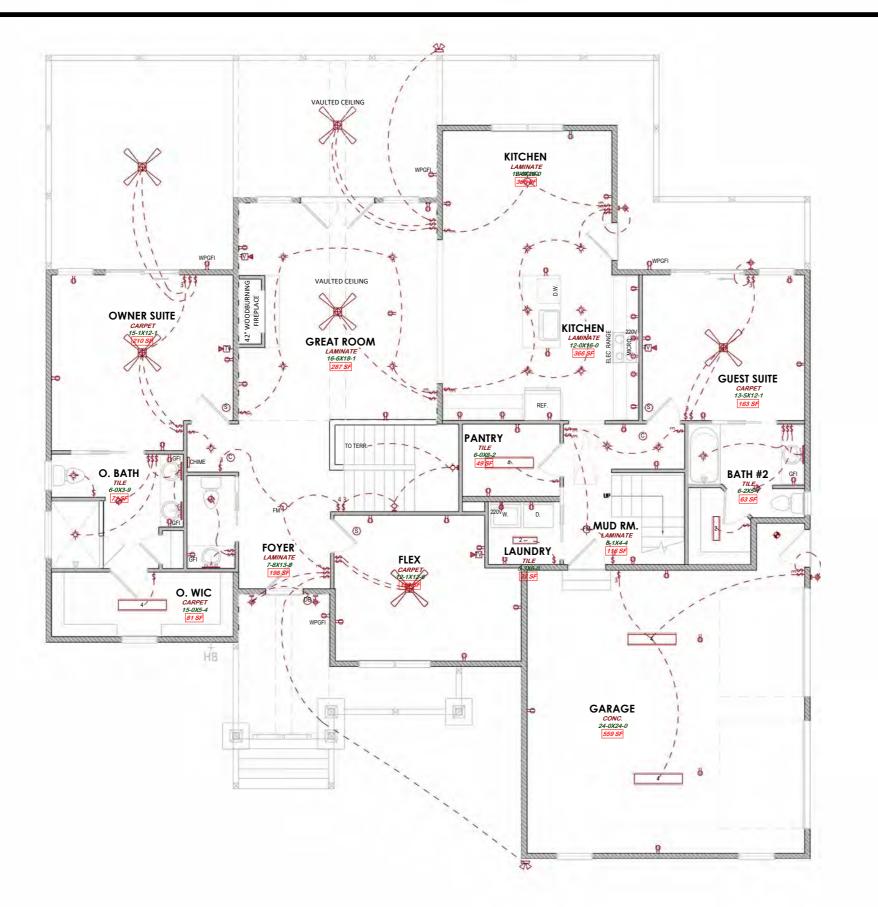


SELECTION PLANS

BrownHaven

FUHRER, DOUGLAS

60



ELECTRICAL FIRST FLOOR

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

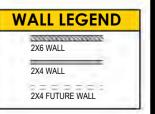
SELECTION PLANS

SQUARE FOOTAGES Area of Finished Bonus 224 SF 1,522 SF Area of Finished Terrace - Multi 3,858 SF 223 SF Area of Deck - Rear 139 SF Area of Porch - Front Area of Rear Porch 277 SF Area of Rear Vaulted Porch 203 SF Porches & Decks 842 SF 572 SF 572 SF 503 SF 503 SF Area of Unfinished Terrace

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220	220 VOLT OUTLET	WPGFI	WEATHERPROOF OUTLET
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₩ _{GFI}	GROUND FAULT OUTLET	CLG	FLOOR OUTLET
(S)	SMOKE DETECTOR	FLR DATA	NETWORK OUTLET
(Ĉ)	CARBON MONOXIDE DETECTOR	DATA A PH	TELEPHONE OUTLET
τŪ	TELEVISION OUTLET	(D)	GARBAGE DISPOSAL
PANFI	SERVICE PANEL	ACCENT	ACCENT LIGHT
-	SERVICE METER	ACCENT	SINGLE SCONCE
M	WALL MOUNT LIGHT	STR	STAIR RISER LIGHT
易	FLOOD LIGHT	SIR	BATH FAN ONLY
FLOOD	VANITY LIGHT	100	BATH FAN & LIGHT COMBO
ÜC	(PER SELECTIONS) UNDER CAB. LIGHT	-(K)-	KEYLESS LIGHT
Ö	FLUSH MOUNT LIGHT	Qcus	HANGING LIGHT
4	HANGING PENDANT	HANGING	MINIATURE PUCK LIGHT
PNDT	RECESSED 5" LED	MINI	RECESSED EYEBALL
4	2' OR 4' WRAP LED	EB ©FR	7" ROUND LED
	CTILING FAN		LIGHT w/ FAN
CF	CEILING FAN LIGHTED CEILING FAN	LCF ROUGH	ROUGH LIGHT & FAN ROUGH

INSTALL IN CRAWL SPACE PER CODE BY ELECTRICIAN	
K	KEYLESS LIGHT
H	OUTLET

INSTALL @ ATTIC SPACE PER CODE BY ELECTRICIAN		
K)-	KEYLESS LIGHT	
WP	OUTLET	



35

CREATED: 11/17/2023

REV. DATE: 12/15/2023 10:18:5

JOB NUMBER: 10431
STEECTIONS SET: J. DALES

10

FUHRER, DOUGLAS

BrownHaven