

**Town of Boone
Public Hearing
5:30 PM, Jan. 6, 2016
Council Chambers, 1500 Blowing Rock Road**

I. (5:30 PM) Call to Order.

II. (5:30 PM) Council Matters.

1. () Case 20150697 - Todd Rice has filed a Conditional District Zoning Map Amendment Petition for property owned by MET Holdings, LLC to rezone two properties at 475 Blowing Rock Road from B2 Neighborhood Business to B3 General Business with a site specific development plan for a mixed-use building consisting of 24 efficiency apartments (Use 1.14 Multi-Family Dwelling in Mixed Use up to 30 bedrooms), and 2,658 square feet of retail (Use 11.14 Retail Store up to 5,000 sq. ft.).
2. () Case 20150896 - Appendix B Revised Plant List - Text Amendment a request to modify the UDO to revise Appendix B, Guide for Landscaping and to replace the old plant list with an updated, native plant focused plant list and include a Guide for Pruning Standards.

III. Adjournment.

Conditional District Map Amendment
Project Data Form

Town of Boone Planning & Inspections Department
680 W. King Street, Suite C ♦ Boone, North Carolina 28607
Phone (828) 268-6960 ♦ Fax (828) 268-6961
www.townofboone.net

Official Use Only	
Project Name/Number:	DEC 11 2015
Permit Name/Number:	

It is recommended that applicants schedule a meeting with Planning & Inspections Staff prior to application submittal.

A. ADDITIONAL APPLICATION INFORMATION

Application is For: ☒ Conditional District Map Amendment ☐ Conditional District Map Amendment Modification

Hearing Date Requested¹:

B. DEVELOPMENT INFORMATION

Project Name: Rice Mixed Use

Project Description: Mixed Use Building with approximately 4,000 SF of retail/commercial space and 24 1-bedroom apartments

Existing Zoning District(s): B-2 Proposed Zoning District(s): B-3

Existing Land Use(s): Office Proposed Land Use(s)²: Commercial/Multifamily Uses 1.14, 11.14

Adjacent Land Use(s): N: Commercial E: Multifamily

W: Blowing Rock Road S: Multifamily

Are there any existing variances granted to the property? ☐ Yes ☒ No ☐ Unknown

If yes, describe: N/A

Are any variances being requested with this project?³ ☐ Yes ☒ No

If yes, describe: N/A

Total Land Area: +/- 0.69 Total Disturbed Area: +/- 0.69

Number of Proposed Phases: N/A

Describe Phasing (if proposed): N/A

If requesting vesting greater than 2 years (per UDO Section 4.14), list amount requested (up to 3 additional years). N/A

For modifications, list original case # and date granted: N/A

Each applicant must provide the meeting date for which they wish their request to appear. Each completed application must have published meeting deadlines.

Please see UDO Article 15 for specific details on permissible uses.

Each request for a Variance must be submitted on a separate Zoning Permit Application along with the appropriate fee.

Communication: Case 20150697 - Todd Rice has filed a Conditional District Zoning Map Amendment

D. DETAILED DESCRIPTION OF PROJECT

Mixed Use Building with approximately 4,000 SF of retail/commercial space and 24 1-bedroom apartments

E. PROJECT MANAGER DESIGNATION

A project manager is responsible for the activities listed in UDO Section 4.19. Single-family and two-family projects involving less than ½ acre of land disturbing activity or commercial site improvements that involve no more than 2,500 square feet of land disturbing activity are exempt from this requirement.

Name: Todd Rice Company: Blue Ride Realty & Investments
 Address: 2237 Hwy 105 South Boone, NC 28607 License #: N/A
 Phone Number: 828-263-8711 Email Address: trice@brrri.net

F. DESIGN PROFESSIONAL INFORMATION**Engineer:**

Name: Jason Gaston, P.E. Company: Valor Engineering, PLLC
 Address: 215 Boone Hts. Dr. Ste. 107 Boone, NC License #: 035233
 Phone Number: 828-262-9807 Email Address: jason@valorengineering.com

Architect:

Name: Brent Davis, AIA Company: Brent Davis Architecture, Inc.
 Address: 189 Sally St, Boone, NC 28607 License #: 4921
 Phone Number: 828-265-4848 Email Address: bda.arch@yahoo.com

G. APPLICANT SIGNATURE: By signing this form you are certifying that this application and any attached information is accurate. Failure to provide accurate information or failure to provide any requested information may result in delays to permit processing.

Todd Rice

Applicant¹ (Print)

Applicant Signature

9/25/15

Date

Marty Rice

Property Owner (Print)



Property Owner Signature

9/25/15

Date

Official Use Only

Project File Name:

Rice Mixed Use - Conditional District Rezoning

Permit Number:

20150697

Project Name/Number:

Date:

9-25-15

Fee:

\$ 500.00

Receipt Number:

540508

Method of Payment:

CK# 2229

Paid By:

Valor Engineering

S:\FORMS\Forms_2015\ZoningPermitApplication_05/2015.doc

documentation confirming that the applicant has a legally sufficient interest in the property proposed for development to use it in the manner requested, or is the duly appointed agent of such a person must be submitted along with this application. Execution by property owner of this declaration signifies that the applicant is authorized to proceed.

Communication: Case 20150697 - Todd Rice has filed a Conditional District Zoning Map Amendment

Conditional District Map Amendment

Project Data Form

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680 W. King Street, Suite C ♦ Boone, North Carolina 28607
Phone (828) 268-6960 ♦ Fax (828) 268-6961
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Official Use Only

Project Name/Number:

20150697

Permit Name/Number:

Rice Mixed Use-Conditional District Rezoning

It is recommended that applicants schedule a meeting with Planning & Inspections Staff prior to application submittal.

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Are there any existing variances granted to the property? ☐ Yes ☒ No ☐ Unknown

If yes, describe: N/A

Are any variances being requested with this project?³ ☒ Yes ☐ No

If yes, describe: Vary from Section 14.08.04.D from 150' to 35'

Total Land Area: +/- 0.69 Total Disturbed Area: +/- 0.69

Number of Proposed Phases: N/A

Describe Phasing (if proposed): N/A

If requesting vesting greater than 2 years (per UDO Section 4.14), list amount requested (up to 3 additional years). N/A

For modifications, list original case # and date granted: N/A

An applicant must provide the meeting date for which they wish their request to appear. Each completed application must have published meeting deadlines.

Use see UDO Article 15 for specific details on permissible uses

A request for a Variance must be submitted on a separate Zoning Permit Application along with the appropriate fee

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C. DOCUMENTS REQUIRED FOR SUB 7AL

- ☐ Completed Application (see UDO Article 4 & Appendix A)
- ☐ Application Fee
- ☐ 7 complete sets of development site plans
- ☐ One (1) reduced copy of development site plans (11X17)
- ☐ Two (2) sets of copies of building elevations
- ☐ Digital copy of plans (if available)
- ☐ Deed(s) of all property included in the request
- ☐ A written metes & bounds legal description with accompanying survey map is required for a request that would rezone only a portion of a tax parcel or requests for multiple zoning districts

D. PROPERTY OWNER SIGNATURE:

By signing this form you are certifying that this application and any attached information are accurate. Failure to provide accurate information or failure to provide any requested information may result in delays to permit processing.

Mary Rice
Property Owner (Print)

Mary Rice
Property Owner Signature

9/25/15
Date

Official Use Only

Public Hearing Meeting Date: 1-6-16

PC Meeting Date: 1-11-16

TC Meeting Date: 1-21-16

Date of APO Mailed Notification: 12-21-15

Date of Posted Notification: 12-22-15

Project Approved: ☐ Yes ☐ No

Date Order Recorded: _____

Order Recordation Information: Book: _____ Page: _____
S:\FORMS\Forms_2015\ConditionalDistrictZoningMapAmendmentProjectDataForm_062015.doc

PROJECT DIRECTORY

DEVELOPER/OWNER
MET HOLDINGS, LLC
481 KILARNEY WAY
BOONE, NC 28607
(828) 263-8711
CONTACT: MR. TODD RICE

CIVIL ENGINEER
VALOR ENGINEERING, PLLC
215 BOONE HEIGHTS DR., SUITE 107
BOONE, NC 28607
(828) 262-9807
CONTACT: MR. JASON GASTON, P.E.

ARCHITECT
BRENT DAVIS ARCHITECTURE, INC.
189 SALLY STREET
BOONE, NC 28307
(828) 265-4848
CONTACT: MR. BRENT DAVIS, AIA

SURVEYOR
APPALACHIAN PROFESSIONAL LAND
SURVEYORS AND CONSULTANTS
1480 U.S. HIGHWAY 421 SOUTH
BOONE, NC 28607
(828) 264-0290
CONTACT: MR. DONALD MCNEIL

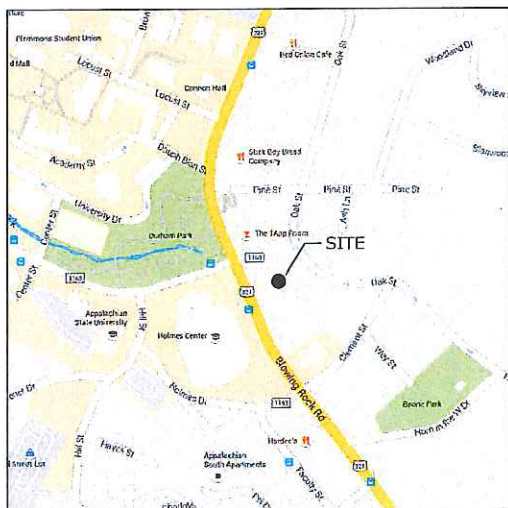
TOWN OF BOONE PLANNING & INSPECTIONS
567 WEST KING STREET
BOONE, NC 28607
(828) 268-6200
CONTACT: MRS. JANE SHOOK

CONDITIONAL DISTRICT REZONING PLANS FOR:

University Overlook

A Mixed Use Development

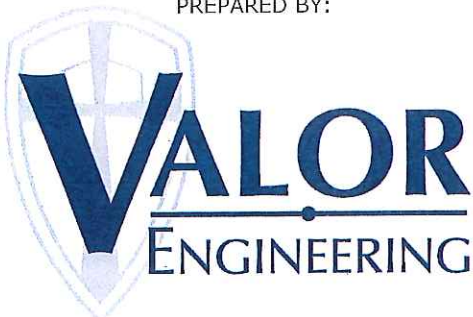
475 BLOWING ROCK ROAD
BOONE, WATAUGA COUNTY, NC 28607
ZONED: B-2
PROPOSED ZONING: B-3
PARCELS #: 2910-06-9403-000, 2910-06-9325-000



VICINITY MAP
NOT TO SCALE

24 HR CONTACT: MR. JASON GASTON, P.E.
(828) 262-9807

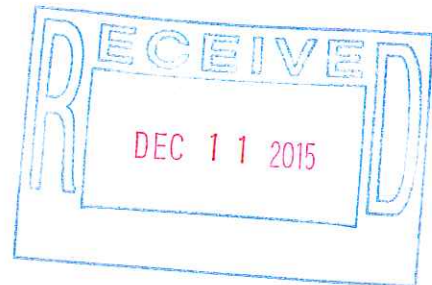
PREPARED BY:



215 Boone Heights Drive Suite 107
Boone, NC 28607
828-262-9807
October 19, 2015
047-001

SHEET INDEX

G-1	COVER SHEET
V-1	SURVEY
CDR-1	PRELIMINARY SITE PLAN
CDR-2	PRELIMINARY GRADING & DRAINAGE PLAN
CDR-3	PRELIMINARY UTILITY PLAN
CDR-4	PRELIMINARY LANDSCAPE PLAN
SP1	PRELIMINARY LIGHTING PLAN



UTILITY PROVIDERS

NEW RIVER LIGHT AND POWER
COMPANY
WINKLER'S CREEK RD.
P.O. BOX 1130
BOONE, NC 28607
(828) 264-3671
CONTACT: MR. PHILIP HIATT

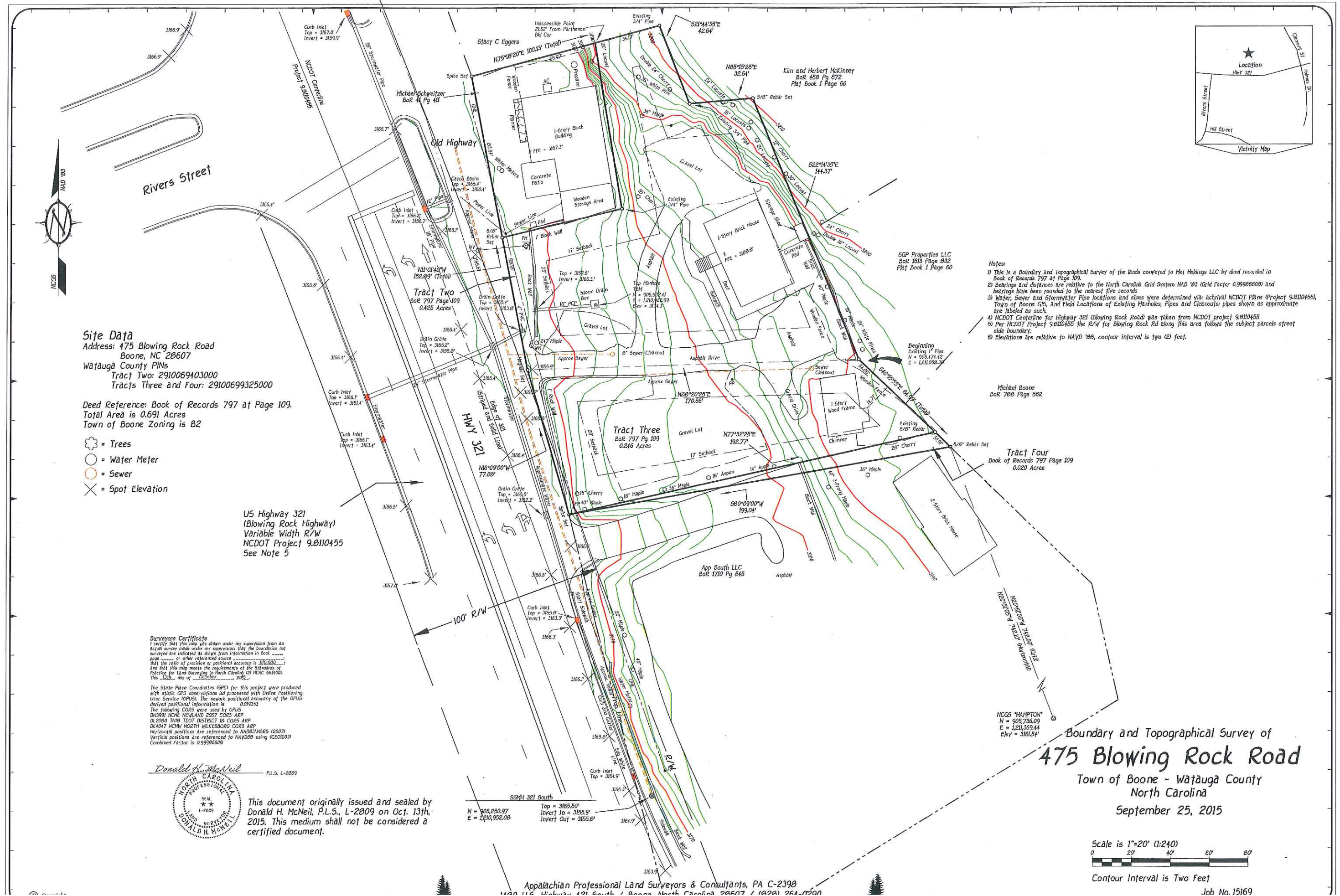
AT&T
1047 HARPER AVE.
LENOIR, NC 28645
(828) 754-0532
CONTACT: MR. DAVID MOORE

FRONTIER NATURAL GAS
1927 NORTH BRIDGE ST.
ELKIN, NC 28621
(336) 366-7245
CONTACT: MR. ERNIE MCGUIRE

TOWN OF BOONE PUBLIC UTILITIES
321 EAST KING ST.
BOONE, NC 28607
(828) 268-6250
CONTACT: MR. JACK HARMON

REVISIONS:			
NO.	DESCRIPTION:	BY:	DATE:
1	CDR TOWN COMMENTS	JEG	12/07/15





Site Data
Address: 475 Blowing Rock Road
Boone, NC 28607
Watauga County PINs
Tract Two: 2910069403000
Tracts Three and Four: 29100699325000

Deed Reference: Book of Records 797 at Page 109.
Total Area is 0.691 Acres
Town of Boone Zoning is B2

- ☼ = Trees
- = Water Meter
- = Sewer
- × = Spot Elevation

US Highway 321
(Blowing Rock Highway)
Variable Width R/W
NCDOT Project 9.8110455
See Note 5

Surveyors Certificate
I certify that this map was drawn under my supervision from an actual survey made under my supervision that the boundaries not surveyed are indicated as shown from information in Book _____ page _____ or other referenced source.
that the ratio of precision or positional accuracy is 1:10,000.
And that this map meets the requirements of the Standards of Practice for Land Surveying in North Carolina (2013 NCAC 36.1600).
This _____ day of _____, 2015.

The State Plane Coordinates (SPC) for this project were produced with static GPS observations and processed with Online Positioning User Service (OPUS). The report positional accuracy of the OPUS derived positional information is 0.009353.
The following COES were used by OPUS:
DH3991 NCN NEWLAND 2007 COES ARP
DL2060 THIN TROT DISTRICT 10 COES ARP
DK4047 NCN NORTH WILKESBORO COES ARP
Horizontal positions are referenced to NAD83/USRS (2007).
Vertical positions are referenced to NAVD83 using (GEOID03).
Combined Factor is 0.99996608.

Donald H. McNeil
P.L.S. L-2809



This document originally issued and sealed by Donald H. McNeil, P.L.S., L-2809 on Oct. 13th, 2015. This medium shall not be considered a certified document.

N = 906,250.97
E = 1,210,952.08
Top = 3165.50'
Invert In = 3155.8'
Invert Out = 3155.8'

Appalachian Professional Land Surveyors & Consultants, PA C-2398
1120 U.S. Highway 321 South / Boone, North Carolina 28607 / (828) 261-0500

- Notes:**
- 1) This is a Boundary and Topographical Survey of the lands conveyed to Met Holdings LLC by deed recorded in Book of Records 797 at Page 109.
 - 2) Bearings and distances are relative to the North Carolina Grid System NAD '83 (Grid Factor 0.99996608) and bearings have been rounded to the nearest five seconds.
 - 3) Water, Sewer and Stormwater Pipe locations and sizes were determined via archival NCDOT Plans (Project 9.8110455), Town of Boone GIS, and Field Locations of Existing Manholes, Pipes and Cleanouts pipes shown as approximate are labeled as such.
 - 4) NCDOT Centerline for Highway 321 (Blowing Rock Road) was taken from NCDOT project 9.8110455.
 - 5) Per NCDOT Project 9.8110455 the R/W for Blowing Rock Rd along this area follows the subject parcels street side boundary.
 - 6) Elevations are relative to NAVD '88, contour interval is two (2) feet.

Michael Boone
BoR 788 Page 562

Tract Four
Book of Records 797 Page 109
0.020 Acres

Boundary and Topographical Survey of
475 Blowing Rock Road
Town of Boone - Watauga County
North Carolina
September 25, 2015

Scale is 1"=20' (1:240)
0 20' 40' 60' 80'
Contour Interval is Two Feet

Job No. 15169

PARKING CALCULATIONS	
(24) EFFICIENCY APARTMENTS (USE 1.14)	2,658 SF OF RETAIL (USE 11.14)
PROPOSED MIXED-USE MULTIFAMILY PARKING	N/A
MIN. REQUIRED PARKING =	1 SPACE / BEDROOM
MAX. ALLOWABLE PARKING =	24
RESIDENTIAL BEDROOMS =	5 SPACES (50%)
MIXED-USE MULTIFAMILY COMPACT SPACES PROVIDED =	5 SPACES
MIXED-USE MULTIFAMILY STANDARD SPACES PROVIDED =	12 SPACES
ADDITIONAL COMPACT SPACES =	22 SPACES
TOTAL MULTIFAMILY PARKING PROVIDED =	28 SPACES
PROPOSED RETAIL PARKING	5/1,000 SF
MAX. ALLOWABLE PARKING =	N/A
MIN. REQUIRED PARKING =	0 SPACES
RETAIL COMPACT SPACES PROVIDED =	6 SPACES
RETAIL STANDARD SPACES PROVIDED =	6 SPACES
TOTAL COMMERCIAL PARKING PROVIDED =	12 SPACES
TOTAL PARKING PROVIDED =	28 SPACES
PROPOSED MOTORCYCLE PARKING	1 / 40 VEHICLE SPACES
REQUIRED MOTORCYCLE PARKING =	1 SPACE
TOTAL MOTORCYCLE PARKING PROVIDED =	1 SPACE
PROPOSED MULTIFAMILY BICYCLE PARKING	2, OR 1 PER 20 UNITS
SHORT-TERM BICYCLE PARKING REQUIRED:	2 SPACES
TOTAL SHORT-TERM BICYCLE PARKING PROVIDED:	3 SPACES
LONG TERM BICYCLE PARKING REQUIREMENT:	1 PER 4 UNITS
LONG-TERM BICYCLE PARKING REQUIRED:	6 SPACES
TOTAL LONG-TERM BICYCLE PARKING PROVIDED:	9 SPACES
PROPOSED COMMERCIAL BICYCLE PARKING	2, OR 1 PER 5,000 SF
SHORT-TERM BICYCLE PARKING REQUIRED:	2 SPACES
TOTAL SHORT-TERM BICYCLE PARKING PROVIDED:	2 SPACES
LONG-TERM BICYCLE PARKING REQUIREMENT:	2, OR 1 PER 12,000 SF
BICYCLE PARKING REQUIRED:	2 SPACES
TOTAL SHORT-TERM BICYCLE PARKING PROVIDED:	2 SPACES
TOTAL SHORT TERM BICYCLE PARKING PROVIDED:	5 SPACES
TOTAL SHORT TERM BICYCLE PARKING PROVIDED:	11 SPACES
TOTAL BICYCLE PARKING PROVIDED:	16 SPACES
PROPOSED COMMERCIAL/RETAIL LOADING SPACES	1 / 5,000 SF
MIN REQUIRED LOADING SPACES =	1 SPACE (12' X 25')
LOADING SPACES REQUIRED =	1 SPACE (12' X 25')

LEGEND	
	PROPOSED CONCRETE
	PARKING COUNT
	PROPOSED TRAFFIC SIGN
	PAINTED TRAFFIC ARROWS
	PROPERTY LINE
	ADJACENT PROPERTY LINE
	RECREATION AREA
	PROPOSED WALL

Land Use Intensity Calculations (B-3)							
	Acres	Max Footprint (30% fp)	Ratio	Min OSR	Ratio	Min LSR	Ratio
Zoned B-3	0.691	0.300	9,028	0.710	21,367	0.270	8,125
PROPOSED:		4,025			26,069		14,038
							1,866
							1,947

BUILDING HEIGHT INFORMATION (B-3)	
PRIMARY BUILDING HEIGHT:	44'
SECONDARY BUILDING HEIGHT:	67'
PROPOSED BUILDING HEIGHT (MEAN GRADE):	51'
REQUIRED ADDITIONAL SETBACK FOR HEIGHT OVER PRIMARY:	7'
IN ALL NONRESIDENTIAL ZONES AND THE R-3 ZONE, ALL STRUCTURES LOCATED WITHIN 100 FEET OF AN R-1 ZONED PROPERTY SHALL NOT EXCEED THIRTY-FIVE FEET (35') IN HEIGHT. DISTANCE FROM R-1 ZONED PROPERTY TO STRUCTURE:	
	140'

WICKINNEY, KM WICKINNEY, HERBERT
BR 458, PG 572
Zoned: R-2
Use: Single Family

SGP PROPERTIES LLC
BR 1813, PG 832
Zoned: R-2
Use: Single Family

APP SOUTH, LLC
BR 1710, PG 545
Zoned: B-2
Use: Multifamily

PROPOSED PICNIC TABLE (TYP.)

PROPOSED SECURITY FENCE (GUARD)

SCHWEITZER, MICHAEL THEODORE
BR 041, PG 411
Zoned: B-2
Use: Commercial

GENERAL NOTES:

1. ALL PROPOSED DIMENSIONS USED TO SHOW THE GEOMETRIC LAYOUT OF THE PROPOSED PARKING LOT ARE SHOWN AT THE FACE OF CURB. ALL PROPOSED DIMENSIONS USED TO SHOW THE GEOMETRIC LAYOUT OF THE PROPOSED BUILDING LOCATION ARE GIVEN AT THE OUTSIDE FACE OF THE BUILDING CORNERS. ALL CURB RADII ARE GIVEN AT THE FACE OF CURB.
2. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE SURVEY SHOWN ON THE PLANS BEFORE PROCEEDING WITH ANY NEW CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CORRECT HORIZONTAL AND VERTICAL ALIGNMENT OF ALL TIES BETWEEN PROPOSED AND EXISTING PAVEMENTS, CURB AND GUTTER, SIDEWALKS, WALLS, AND UTILITIES.

SITE NOTES:

1. TRACT IS ZONED B-2. PROPOSED ZONING IS B-3.
2. SEE ARCHITECTURAL PLANS FOR BUILDING FLOOR PLAN DIMENSIONS, DOOR LOCATIONS, AND OTHER ARCHITECTURAL DETAILS.
3. NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED ON THE SITE.
4. HIGH INTENSITY LIGHTING FACILITIES SHALL BE SO ARRANGED THAT THE SOURCE OF ANY LIGHT IS CONCEALED FROM THE PUBLIC VIEW AND DOES NOT INTERFERE WITH TRAFFIC. (SEE PHOTOMETRICS PLAN IN ARCH. PLANS).
5. ALL BUFFERS, TREE SHADE AREAS, AND UNDISTURBED AREAS SHALL BE CLEARLY IDENTIFIED BY FLAGGING AND/OR FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
6. NO OUTSIDE STORAGE IS PROPOSED. THIS INCLUDES SUPPLIES, VEHICLE, EQUIPMENT, PRODUCTS, ETC.
7. SIGNS (LOCATION, NUMBER, AND SIZE) ARE NOT APPROVED UNDER THIS DEVELOPMENT PERMIT. A SEPARATE PERMIT IS REQUIRED FOR ON-SITE SIGNAGE.
8. ALL PAVEMENT MARKING WITHIN R/W SHALL BE CONSTRUCTED ACCORDING TO TOWN OF BOONE SPECIFICATIONS.
9. ALL CONSTRUCTION RELATED PERMITS DURING THE CONSTRUCTION PHASE OF THIS PROJECT ARE THE RESPONSIBILITY OF THE OWNER, HOWEVER A CONTRACTOR/DEVELOPER CAN DO PERMITTING WITH AGENT AUTHORIZATION.
10. CONSTRUCTION TRAILERS ARE TO BE PERMITTED THROUGH THE JOINT DIVISION OF PLANNING & INSPECTIONS.
11. ALL EROSION, SEDIMENT CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY GRADING.
12. THE JURISDICTION ACCEPTS NO RESPONSIBILITY FOR THE AMERICANS WITH DISABILITIES ACT (ADA), EXCEPT FOR NOTIFICATION REQUIREMENT, THE OWNER/DEVELOPER IS SOLELY RESPONSIBLE FOR COMPLIANCE FOR SAID ACT.
13. 24 HOUR CONTACT: JASON GASTON, P.E., 770-722-9178

PROJECT:

**University
Overlook**
A Commercial & Multifamily
Development

ADDRESS:

475 Blowing Rock Road
Boone, NC 28607

DEVELOPER:



2277 Hwy. 105 South
Boone, NC 28607

CONTACT:

Mr. Todd Rice

ENGINEER:



215 Boone Heights Drive, Ste. 107
Boone, NC 28607
828-262-9807
www.valorengineering.com

SEAL:



REVISIONS

1 CDR TOWN COMMENTS 12/07/15

PROJECT MANAGER:

JEG

DRAWING BY:

JEG

JURISDICTION:

TOWN OF BOONE

DATE:

10/19/15

SHEET TITLE:

PRELIMINARY SITE PLAN

SHEET NUMBER:

CDR-1

SCALE:

1" = 10'

10 5 0 10 20

SCALE IN FEET

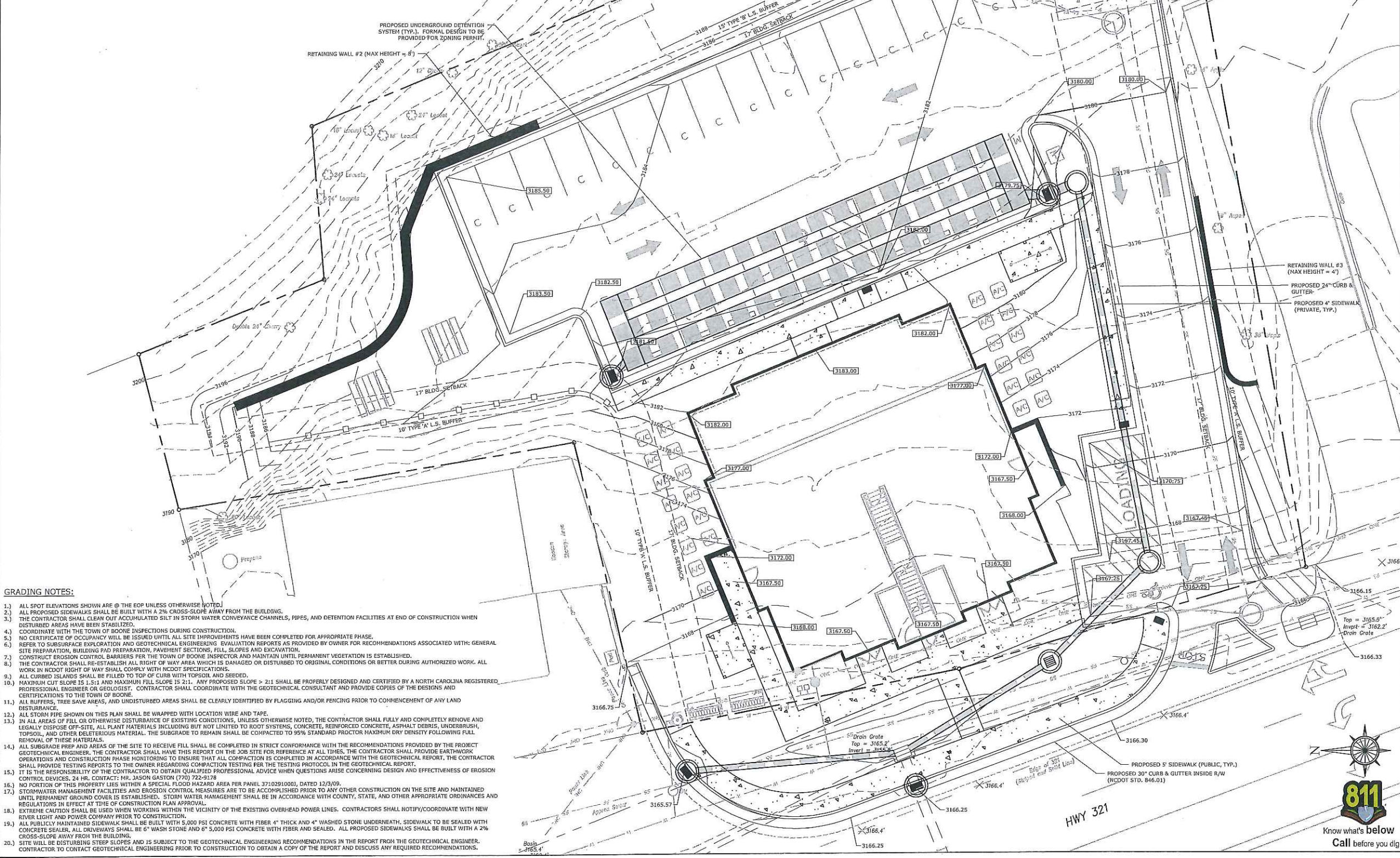
FILE NUMBER:

054-001



Table with 2 columns: Item, Quantity. Rows include: EARTHWORK CALCULATIONS, REQ'D CUT, REQ'D FILL, ADDITIONAL CUT FROM PAVEMENT BASE, ADDITIONAL CUT FROM FOUNDATION, ADDITIONAL CUT FROM DETENTION SYSTEM, BALANCE, EARTHWORK NOTES.

Table with 2 columns: Symbol, Description. Rows include: CONCRETE SIDEWALK AND PAVING, EXISTING SPOT ELEVATION, PROPOSED SPOT ELEVATION, PROPOSED WALL, EXISTING CONTOURS, PROPOSED CONTOURS.



PROJECT:
University Overlook
A Commercial & Multifamily Development
ADDRESS:
475 Blowing Rock Road
Boone, NC 28607

DEVELOPER:
BLUE RIDGE PROFESSIONAL PROPERTY SERVICES
2277 Hwy. 105 South
Boone, NC 28607
CONTACT: Mr. Todd Rice

ENGINEER:
VALOR ENGINEERING
215 Boone Heights Drive, Ste. 107
Boone, NC 28607
828-262-9807
www.valorengineering.com

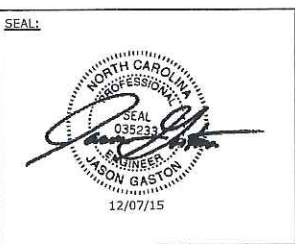


Table with 2 columns: REVISIONS, DATE. Row 1: 1 CDR TOWN COMMENTS, 12/07/15.

PROJECT MANAGER: JEG
DRAWING BY: JEG
JURISDICTION: TOWN OF BOONE
DATE: 10/19/15
SHEET TITLE:

PRELIMINARY GRADING & DRAINAGE PLAN
SHEET NUMBER: CDR-2
SCALE: 1" = 10'
FILE NUMBER: 054-001

TOWN OF BOONE WATER LINES - GENERAL NOTES:

- 1.) ANY EXISTING WATER METER(S) TO BE REMOVED BY THE CONTRACTOR MUST BE RETURNED TO THE TOWN OF BOONE. THE EXISTING WATER SERVICE TAP LINES MUST BE REMOVED AND/OR DISCONNECTED FROM THE WATER MAINS BY THE TOWN OF BOONE.
- 2.) CONCRETE BLOCKING (3000 PSI) TO BE PLACED AT ALL BENDS OR AS REQUIRED.
- 3.) STANDARD DEPTH OF COVER TO BE THREE (3) FEET EXCEPT AT VALVE OR HYDRANT LOCATIONS OR OTHER SPECIAL SITUATIONS. COVER IS BASED ON ELEVATION BELOW EDGE OF PAVEMENT OR AS INDICATED ON THE PLANS.
- 4.) PROVIDE CONCRETE PADS (30" X 30" X 6") AT ALL VALVE BOXES.
- 5.) EXTENSIONS FOR VALVE BOXES, WHEN REQUIRED, ARE TO BE 8" SOIL PIPE.
- 6.) ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO THE STANDARD DETAILS OF THE NC DEPARTMENT OF TRANSPORTATION.
- 7.) PAVEMENT CUTS ARE TO BE REPLACED IMMEDIATELY AFTER BACKFILLING OF INITIAL CUT EITHER WITH PERMANENT REPLACEMENT OR A TEMPORARY REPLACEMENT OF 1-1/2" OF 1-2 OR 4" OF H-BINDER.
- 8.) REPAIRS TO MAIN BREAKS:
 - A. BELL CLAMPS WILL NOT BE ALLOWED, EXCEPT IN SPECIAL SITUATIONS AND AS DIRECTED BY THE DIRECTOR OF PUBLIC UTILITIES.
 - B. SOLID SLEEVES TO BE USED FOR CONNECTING SPIGOT ENDS SHALL BE OF THE LONG PATTERN TYPE.
- 9.) IN ANY INSTANCE WHERE IT WILL BE NECESSARY TO HAVE THE WATER SHUT OFF ON EXISTING MAINS IN ORDER TO MAKE A TIE-IN, THE WORK MUST BE DONE UNDER THE DIRECT SUPERVISION OF THE DIRECTOR OF PUBLIC UTILITIES, AND AT THE TIME LEAST INCONVENIENT TO THE WATER CUSTOMERS INVOLVED.
- 10.) WHEN A WATER MAIN CROSSES AN EXISTING SEWER MAIN, THE CONTRACTOR IS TO REPLACE THE SEWER PIPE SPANNING THE DITCH WITH DUCTILE PIPE WHEN THE FOLLOWING CONDITIONS OCCUR:
 - A. ANYTIME A WATER MAIN IS INSTALLED UNDER A SEWER MAIN.
 - B. WHEN A WATER MAIN IS OVER A SEWER MAIN AND THE VERTICAL DISTANCE BETWEEN THE TWO MAINS IS 18" OR LESS.
- 11.) WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 10 (TEN) FEET HORIZONTAL SEPARATION FROM SEWER LINES, WHERE THIS IS NOT POSSIBLE, AS DETERMINED BY THE DIRECTOR OF PUBLIC UTILITIES, BOTH THE WATER LINE AND THE SEWER LINE SHALL BE DUCTILE IRON PIPE.
- 12.) WATER LINES SHALL BE DISINFECTED AND HYDROSTATICALLY TESTED IN ACCORDANCE WITH ALL STATE AND TOWN OF BOONE REQUIREMENTS.
- 13.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATER METER INSTALLATIONS. ALL WATER METERS SHALL BE INVENUS TOUCHREAD AND SHALL BE INSTALLED 18-INCHES FROM THE METER FACE TO THE TOP OF THE METER BOX. WATER METER BOXES SHALL BE DEVEY BRASSERS CAST IRON AND SHALL BE OBTAINED BY THE CONTRACTOR THROUGH A DISTRIBUTOR.
- 14.) MEGA LUG MJ GLANDS AND THRUST BLOCKING MUST BE INSTALLED ON ALL MJ FITTINGS. THREAD ROD SHALL BE USED ON ALL FIRE HYDRANT ASSEMBLIES.
- 15.) ALL FIRE HYDRANTS SHALL BE KENNEDY GUARDIAN K-81, H&H MODEL 129, OR HUELLER SUPER CENTURION.

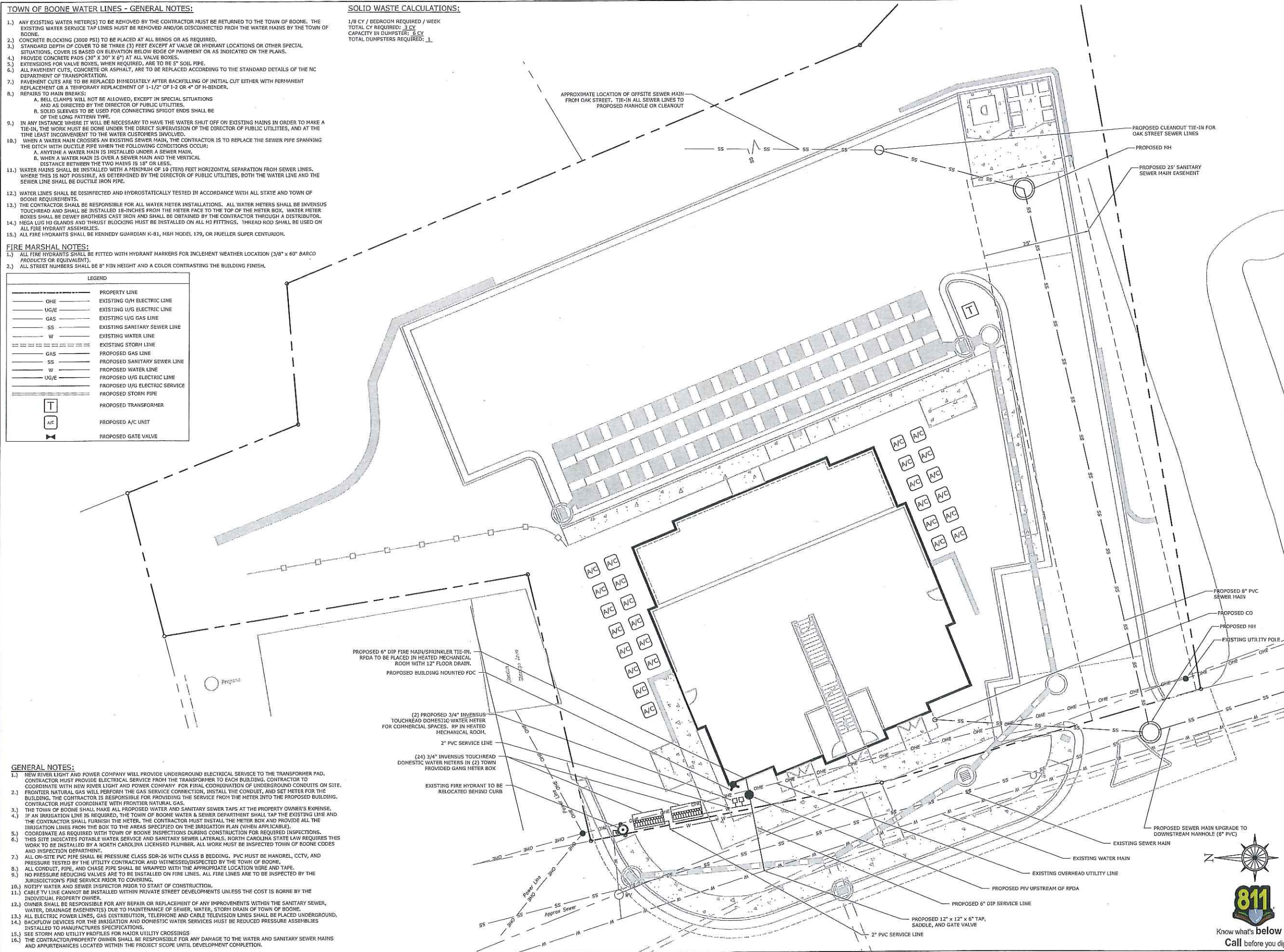
FIRE MARSHAL NOTES:

- 1.) ALL FIRE HYDRANTS SHALL BE FITTED WITH HYDRANT MARKERS FOR INCLEMENT WEATHER LOCATION (3/8" x 60" BARCO PRODUCTS OR EQUIVALENT).
- 2.) ALL STREET NUMBERS SHALL BE 8" MIN HEIGHT AND A COLOR CONTRASTING THE BUILDING FINISH.

LEGEND	
---	PROPERTY LINE
---	EXISTING O/H ELECTRIC LINE
---	EXISTING U/G ELECTRIC LINE
---	EXISTING U/G GAS LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING WATER LINE
---	EXISTING STORM LINE
---	PROPOSED GAS LINE
---	PROPOSED SANITARY SEWER LINE
---	PROPOSED WATER LINE
---	PROPOSED U/G ELECTRIC LINE
---	PROPOSED U/G ELECTRIC SERVICE
---	PROPOSED STORM PIPE
T	PROPOSED TRANSFORMER
A/C	PROPOSED A/C UNIT
+	PROPOSED GATE VALVE

SOLID WASTE CALCULATIONS:

1/8 CY / BEDROOM REQUIRED / WEEK
 TOTAL CY REQUIRED: 3 CY
 CAPACITY IN DUMPSTER: 6 CY
 TOTAL DUMPSTERS REQUIRED: 1



GENERAL NOTES:

- 1.) NEW RIVER LIGHT AND POWER COMPANY WILL PROVIDE UNDERGROUND ELECTRICAL SERVICE TO THE TRANSFORMER PAD. CONTRACTOR MUST PROVIDE ELECTRICAL SERVICE FROM THE TRANSFORMER TO EACH BUILDING. CONTRACTOR TO COORDINATE WITH NEW RIVER LIGHT AND POWER COMPANY FOR FINAL COORDINATION OF UNDERGROUND CONDUITS ON SITE.
- 2.) FRONTIER NATURAL GAS WILL PERFORM THE GAS SERVICE CONNECTION, INSTALL THE CONDUIT, AND SET METER FOR THE BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SERVICE FROM THE METER INTO THE PROPOSED BUILDING. CONTRACTOR MUST COORDINATE WITH FRONTIER NATURAL GAS.
- 3.) THE TOWN OF BOONE SHALL MAKE ALL PROPOSED WATER AND SANITARY SEWER TAPS AT THE PROPERTY OWNER'S EXPENSE.
- 4.) IF AN IRRIGATION LINE IS REQUIRED, THE TOWN OF BOONE WATER & SEWER DEPARTMENT SHALL TAP THE EXISTING LINE AND THE CONTRACTOR SHALL FURNISH THE METER. THE CONTRACTOR MUST INSTALL THE METER BOX AND PROVIDE ALL THE IRRIGATION LINES FROM THE BOX TO THE AREAS SPECIFIED ON THE IRRIGATION PLAN (WHEN APPLICABLE).
- 5.) COORDINATE AS REQUIRED WITH TOWN OF BOONE INSPECTIONS DURING CONSTRUCTION FOR REQUIRED INSPECTIONS.
- 6.) THIS SITE INDICATES POTABLE WATER SERVICE AND SANITARY SEWER LATERALS. NORTH CAROLINA STATE LAW REQUIRES THIS WORK TO BE INSTALLED BY A NORTH CAROLINA LICENSED PLUMBER. ALL WORK MUST BE INSPECTED TOWN OF BOONE CODES AND INSPECTION DEPARTMENT.
- 7.) ALL ON-SITE PVC PIPE SHALL BE PRESSURE CLASS SDR-26 WITH CLASS B BEDDING. PVC MUST BE HANDREEL, CCTV, AND PRESSURE TESTED BY THE UTILITY CONTRACTOR AND WITNESSED/INSPECTED BY THE TOWN OF BOONE.
- 8.) ALL CONDUIT, PIPE, AND CHASE PIPE SHALL BE WRAPPED WITH THE APPROPRIATE LOCATION WIRE AND TAPE.
- 9.) NO PRESSURE REDUCING VALVES ARE TO BE INSTALLED ON FIRE LINES. ALL FIRE LINES ARE TO BE INSPECTED BY THE JURISDICTION'S FIRE SERVICE PRIOR TO COVERING.
- 10.) NOTIFY WATER AND SEWER INSPECTOR PRIOR TO START OF CONSTRUCTION.
- 11.) CABLE TV LINE CANNOT BE INSTALLED WITHIN PRIVATE STREET DEVELOPMENTS UNLESS THE COST IS BORNE BY THE INDIVIDUAL PROPERTY OWNER.
- 12.) OWNER SHALL BE RESPONSIBLE FOR ANY REPAIR OR REPLACEMENT OF ANY IMPROVEMENTS WITHIN THE SANITARY SEWER, WATER, DRAINAGE EASEMENT(S) DUE TO MAINTENANCE OF SEWER, WATER, STORM DRAIN OF TOWN OF BOONE.
- 13.) ALL ELECTRIC POWER LINES, GAS DISTRIBUTION, TELEPHONE AND CABLE TELEVISION LINES SHALL BE PLACED UNDERGROUND.
- 14.) BACKFLOW DEVICES FOR THE IRRIGATION AND DOMESTIC WATER SERVICES MUST BE REDUCED PRESSURE ASSEMBLIES INSTALLED TO MANUFACTURER'S SPECIFICATIONS.
- 15.) SEE STORM AND UTILITY PROFILES FOR MAJOR UTILITY CROSSINGS.
- 16.) THE CONTRACTOR/PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE WATER AND SANITARY SEWER MAINS AND APPURTENANCES LOCATED WITHIN THE PROJECT SCOPE UNTIL DEVELOPMENT COMPLETION.

PROJECT:

University Overlook
 A Commercial & Multifamily Development

ADDRESS:

475 Blowing Rock Road
 Boone, NC 28607

DEVELOPER:



2277 Hwy. 105 South
 Boone, NC 28607

CONTACT:

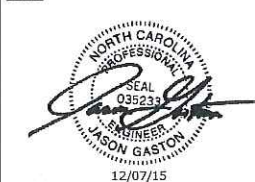
Mr. Todd Rice

ENGINEER:



215 Boone Heights Drive, Ste. 107
 Boone, NC 28607
 828-262-9807
 www.valorengineering.com

SEAL:



REVISIONS

REVISIONS	DATE
1 CDR TOWN COMMENTS	12/07/15

PROJECT MANAGER:

JEG

DRAWING BY:

JEG

JURISDICTION:

TOWN OF BOONE

DATE:

10/19/15

SHEET TITLE:

PRELIMINARY UTILITY PLAN

SHEET NUMBER:

CDR-3

SCALE:

1" = 10'



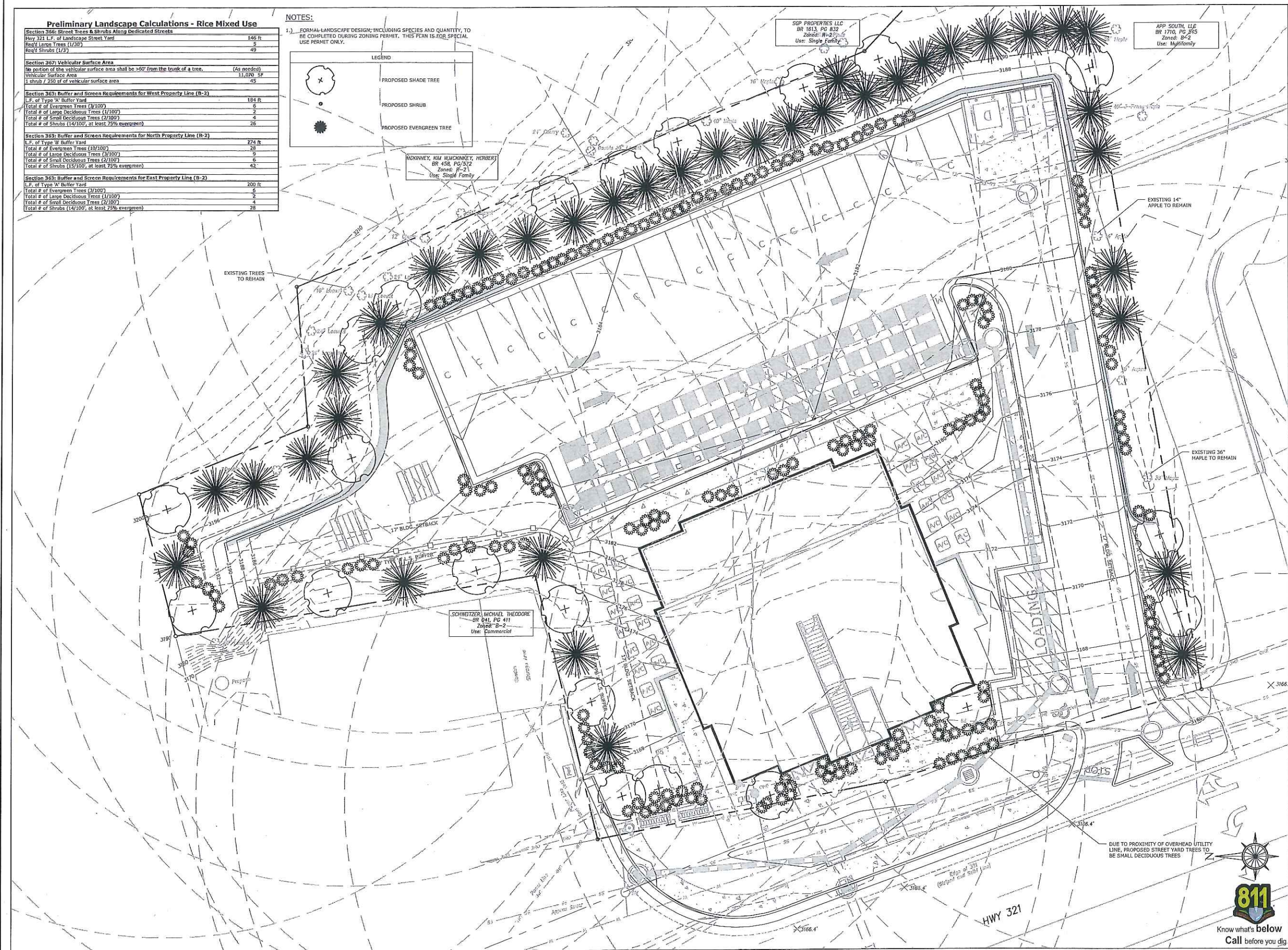
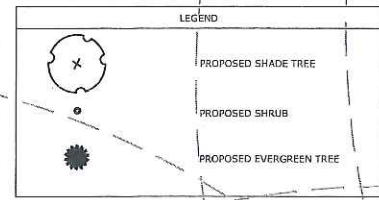
FILE NUMBER:

054-001

Preliminary Landscape Calculations - Rice Mixed Use	
Section 366: Street Trees & Shrubs Along Dedicated Streets	
Hwy 321 L.F. of Landscape Street Yard	146 ft
Rowd Large Trees (1/30)	5
Rowd Shrubs (1/3)	49
Section 267: Vehicular Surface Area	
16' portion of the vehicular surface area shall be >50' from the trunk of a tree. (As needed)	
Vehicular Surface Area	11,070 SF
1 shrub / 250 sf of vehicular surface area	45
Section 363: Buffer and Screen Requirements for West Property Line (B-2)	
L.F. of Type 'A' Buffer Yard	184 ft
Total # of Evergreen Trees (9/100)	6
Total # of Large Deciduous Trees (1/100)	2
Total # of Small Deciduous Trees (2/100)	4
Total # of Shrubs (14/100, at least 75% evergreen)	26
Section 363: Buffer and Screen Requirements for North Property Line (B-2)	
L.F. of Type 'B' Buffer Yard	274 ft
Total # of Evergreen Trees (10/100)	28
Total # of Large Deciduous Trees (3/100)	9
Total # of Small Deciduous Trees (2/100)	6
Total # of Shrubs (15/100, at least 75% evergreen)	42
Section 363: Buffer and Screen Requirements for East Property Line (B-2)	
L.F. of Type 'A' Buffer Yard	200 ft
Total # of Evergreen Trees (3/100)	6
Total # of Large Deciduous Trees (1/100)	2
Total # of Small Deciduous Trees (2/100)	4
Total # of Shrubs (14/100, at least 75% evergreen)	28

NOTES:

1.) FORMAL LANDSCAPE DESIGN, INCLUDING SPECIES AND QUANTITY, TO BE COMPLETED DURING ZONING PERMIT. THIS PLAN IS FOR SPECIAL USE PERMIT ONLY.



PROJECT:

University Overlook

A Commercial & Multifamily
Development

ADDRESS:

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2277 Hwy. 105 South
Boone, NC 28607

CONTACT:

Mr. Todd Rice

ENGINEER:



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Boone, NC 28607
828-262-9807
www.valorengineering.com

SEAL:



REVISIONS

DATE

1 CDR TOWN COMMENTS 12/07/15

PROJECT MANAGER: JEG

DRAWING BY: JEG

JURISDICTION: TOWN OF BOONE

DATE: 10/19/15

SHEET TITLE:

PRELIMINARY LANDSCAPE PLAN

SHEET NUMBER: CDR-4

SCALE: 1" = 10'
10 5 0 10 20
SCALE IN FEET

FILE NUMBER: 054-001



2905-D Queen City Dr.
Charlotte, NC 28208
P: (704) 399-3943 F: (704) 394-5648
www.allied-engineers.com

SEAL:



PROJECT NAME:
BRI MIXED USE - SITE LIGHTING

LOCATION:
Boone, North Carolina

SHEET TITLE:
SITE PHOTOMETRIC PLAN

PROJECT NO:

054-001

DRAWN BY:

BDW

CAD NO:

15287

CHECKED BY:

BDW

SCALE:

As Noted

DATE:

Oct 19, 2015

REVISIONS:



CASE 20150697 UNIVERSITY OVERLOOK CONDITIONAL DISTRICT ZONING MAP AMENDMENT

Request

Todd Rice has filed a Conditional District Zoning Map Amendment Petition for property owned by MET Holdings, LLC to rezone two properties at 475 Blowing Rock Road from B2 Neighborhood Business to B3 General Business with a site specific development plan for a mixed-use building consisting of 24 efficiency apartments (Use 1.14 Multi-Family Dwelling in Mixed Use (up to 30 bedrooms) and 2,658 square feet of retail (Use 11.14 Retail Store up to 5,000 ft²).

Analysis

Address: 475 Blowing Rock Road

Watauga County PINs: 2910069403000, 2910069325000

Lot size: 4,799 square feet

Jurisdiction: Corporate limits

Access: Blowing Rock Road; The applicant is proposing to eliminate the open full access driveway into the area and restrict access to a right-in and right-out driveway.

Vesting: 2 years

SFHA: No

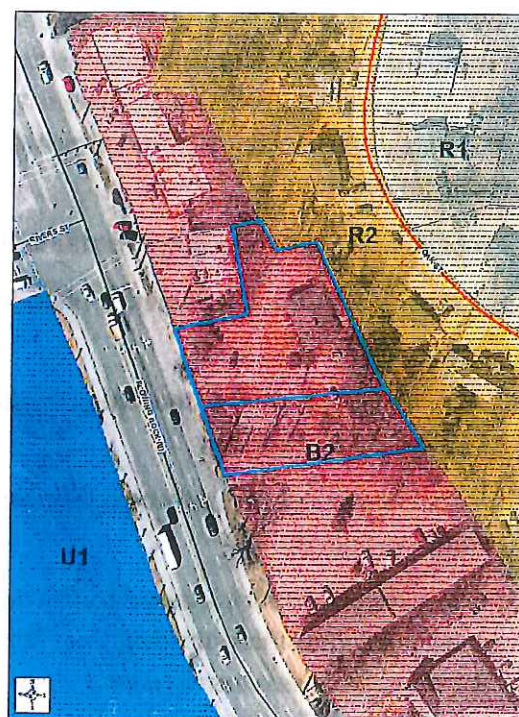
Watershed District: No

Corridor District: Yes

NCD: No

Viewshed: No

Current Zoning: B2 Neighborhood Business



The B2 Neighborhood Business District is intended to provide for the development of low-density commercial and services that are accessible by pedestrians and cyclists from surrounding neighborhoods, which serve the day to day convenience needs of surrounding neighborhoods, and are of such nature as to be in harmony with the neighborhoods they serve. Appropriate residential uses are allowed in this district, normally as part of mixed-use developments. The regulations for this district are designed and intended to create a comfortable, healthy, safe, aesthetically pleasing, and pleasant environment for all appropriate uses.

Proposed Zoning: Conditional District B3 General Business

The B3 General Business District is established to provide a wide range of consumer goods, convenience goods and personal services for the community and surrounding region. Appropriate residential uses are allowed in this district, normally as part of mixed-use developments. The regulations for this district are designed and intended to create a comfortable, healthy, safe, aesthetically pleasing, and pleasant environment for all appropriate uses.

Zoning & Use of Adjacent Properties		
	Adjacent Zoning	Adjacent Land Use
North	B2 Neighborhood Business; R2 Two-Family Residential	Restaurant; Single-Family Dwelling
East	R2 Two-Family Residential	Single-Family Dwelling, Multi-Family Dwelling, Single-Family Dwelling with Accessory Apartment
South	B2 Neighborhood Business	Multi-Family Dwelling (Apartment Complex)
West	U1 University	University uses (Convocation Center)

Current Use: Office

Proposed Use: Use 1.14 Multi-Family Dwelling (up to 30 bedrooms)

Use 11.14 Retail Store up to 5,000 ft²

Use 11.14 Retail Store up to 5,000 ft² is allowed by right in the B3 General Business District. Use 1.14 is permitted in the B3 General Business District by right subject to the supplemental requirements set forth in UDO Section 15.11 Multi-Family in Mixed Uses. For this use in the location, specifically Subsection 15.11.04(A)(1) which regulates mixed use buildings located in the B3 General Business zoning district and the Corridor District applies as follows:

- a. Each building shall fully consist of street level commercial uses (i.e. retail, office, and/or restaurant).

Staff Comment: The applicant has demonstrated compliance with the requirement as noted on the site plans, sheet CDR-1.

- b. A minimum of 60% of the street level building façade facing the Corridor shall be comprised of transparent, non-reflective windows.

Staff Comment: The applicant has demonstrated compliance with the requirement as noted on the proposed building elevations.

- c. Surface parking shall be located to the side or most preferably to the rear, and in no case shall parking extend beyond the front building line. Structured parking is permitted but shall be located to the rear or under street level commercial uses.

Staff Comment: The applicant has demonstrated compliance with this requirement as shown on the site plan where all of the parking is to the rear of the structure with the exception of one handicap accessible space which is located to the side of the building.

- d. Building facades may be no further than 10' from the street right-of-way line, except where necessary to preserve existing significant or historic trees which shall be preserved, if practical, or to provide landscaped courtyards, landscaped greenspace, plazas, pocket parks, other pedestrian oriented amenities, in which case the maximum setback shall not exceed 20' or there would be interference with public utilities, or the placement of stormwater facilities and no reasonable alternative to that placement exists.

Staff Comment: The applicant has demonstrated compliance with this requirement. The building is 15.5' at the greatest from the street right-of-way. In the areas in which the setbacks exceed the maximum 10', the areas are landscaped and contain sidewalks as shown on Sheet CDR-4 to provide landscaped greenspace.

- e. Interior setbacks for all mixed use buildings shall be a minimum of 10' except where abutting a residential zoning district, in which case the interior setback shall at a minimum equal the required interior setback in the abutting residential district.

Staff Comment: The applicant has demonstrated compliance with this requirement.

- f. Pedestrian weather protection such as awnings or canopies are encouraged along the public street provided they do not encroach into the roadway, but if they invade the space above a Town sidewalk, may be placed only in accordance with an encroachment agreement authorized by the Town Council.

Staff Comment: As proposed, the applicant is proposing a canopy in the front of the building, though it will not encroach into the public right-of-way.

Transitional Zone: Yes, the development as proposed triggers the requirements in UDO Subsection 6.02.02. Transitional zones are regulated by UDO Subsection 6.02.02 and attach to each R-1, R-1A, RR,R-2, and R-A district without regard to the current uses in that district. Transitional zones are established for the purpose of creating special protections for residents of protected districts from the potential adverse impacts of certain potentially incompatible nearby development, based upon the legislative finding that the general requirements of this ordinance have not been sufficient to protect the residents of such protected districts from the adverse consequences of such developments and that the variety of circumstances which may need to be ameliorated in the face of such development are not amenable to a "one size fits all" approach. Due to the proximity of the proposed development to the R1 district a special use permit is required. The Board of Adjustment may deny the special use permit application if the requirements of this section are not met, or it may place reasonable conditions on the development, in addition to such conditions as may otherwise be reasonably imposed, specifically designed to mitigate the potential impacts.

In addition to all other requirements of this ordinance which pertain to the proposed development, including but not limited to those relating to the location and placement of structures, the type and quantity of landscape buffering, the type and location of lighting, and the size of setbacks, in order to meet the requirements of this section, the applicant must also show that the planned development will effectively and to the greatest degree reasonably possible, mitigate the impacts of the proposed development upon the protected district, including:

- a. noise impacts;
- b. light impacts; and
- c. any other predictable negative effect, including: negative visual effects; negative traffic effects; and negative health effects.

Because of the variable topography and characteristics of particular tracts of land within the Town's zoning jurisdiction, the solutions incorporated into the development plan by the applicant must be tailored to specifically address the characteristics of the particular location in relation to the protected district. Only if an applicant can demonstrate beyond a reasonable doubt that the normal requirements of the ordinance are themselves sufficient to protect the protected district may the

application be approved without additional measures being incorporated into the site specific development plan.

Proposed Building Height: The applicants have demonstrated general compliance with the requirements for building height within the B3 General Business Zoning District and for the proposed uses as set forth in UDO Section 16.08 Building Height Requirements.

Building Setbacks: The applicant has demonstrated general compliance with the requirements for building setbacks within the B3 General Business Zoning District as set forth in UDO Section 16.06 Building Setback Requirements.

Parking: The applicant has demonstrated general compliance with UDO Article 24 Parking in regards to vehicle parking, with the respect that they have not exceeded the maximum parking allowed for the development.

Vehicle: Per UDO Subsection 24.01.03, retail uses are limited to a maximum of 5 spaces per 1,000 ft² of gross floor area. As proposed the applicant would be limited to the maximum of 13 spaces for the commercial area. The applicant is providing 6 parking spaces for the retail portion of the development.

Per UDO Subsection 24.01.03, Mixed Use Multi-Family is limited to a maximum of 1 space per 1 bedroom dwelling unit. The applicant is proposing to have 24 efficiency apartments which would require a maximum of 24 parking spaces. The applicant is providing 22 parking spaces for the multi-family portion of the development.

Bicycle: The applicant has demonstrated general compliance with the requirements for bicycle parking as set forth in UDO Section 24.09 Bicycle Parking.

Motorcycle: The applicant is providing one motorcycle parking space, meeting the requirements for motorcycle parking as set forth in UDO Section 24.10 Motorcycle Parking.

COMMERCIAL APPEARANCE: The applicant has not submitted elevations which contain enough detail for Staff to do a complete review for compliance with UDO Article 25 Community Appearance Standards. This information will be required during review for the Zoning Permit.

LANDSCAPE STANDARDS: The applicant has not submitted plans which contain enough detail for Staff to do a complete review for compliance with UDO Article 31 Landscape Standards. This information will be required during review for the Zoning Permit.

Grading/Erosion Control/Stormwater (Chris Grubb, Environmental Planner)

I have reviewed the plans with a received date of October 26, 2015, for the above referenced project. The following issues will need to be addressed:

1. Proposed disturbance in the NE area of the property takes place in steep (30%-50%) and very steep (>50%) slope areas as well as in a moderate hazard area. A report from a geologist and geo-technical engineer would need to be submitted in accordance with section 19.03 of the UDO.
2. Stormwater encroachment agreement to connect to NCDOT's stormwater system is needed.
3. Retaining walls exceeding five feet (5') in height must be designed by an engineer in accordance with UDO Section 19.02.08.

Public Works:**Services Division (Todd Moody, Facilities Maintenance Superintendent)**

The Public Services Department has reviewed the above referenced plan and has no comment.

Utilities Division (Mike Trivette, Utility Services Technician)

The Public Works Department has conducted a plan review for the proposed project located on 475 Blowing Rock Rd. The materials reviewed by this department are dated 10/19/15 and approved with the following conditions.

1. The engineer on this project is in process of reconfiguring meter boxes at the request of the Public Works Department.

Fire Department (Michael Teague, Assistant Fire Chief)

A review of the re-submitted site plan drawings was conducted. Following is the results of these reviews: approved as resubmitted on 12/1/2015.

Public Utilities (Mike Trivette, Utility Services Technician)

The Public Works Department has conducted a plan review for the proposed project located on 475 Blowing Rock Rd. The materials reviewed by this department are dated 10/19/15 and approved with the following conditions.

1. The engineer on this project is in process of reconfiguring meter boxes at the request of the Public Works Department.

CONFORMITY TO ADOPTED PLANS**COMPREHENSIVE PLAN UPDATE****1.1 Overall Objectives for the Boone Comprehensive Plan (p. 15):**

The following objectives, which have not been listed in any particular order of importance, are deliberately broad in scope and less specific than either a policy statement or an implementation action.

Economic Development: Acknowledge the area's natural beauty, university, and medical center presence as the Town's greatest assets for economic development and jobs creation. Treat them accordingly.

Community Appearance and Community Character: Blend the built environment with the natural, scenic, and historic character of a High Country small town. Especially discourage commercial strip development, cluttered signage, and "cheap" apartment buildings.

Open Space: Integrate open space and greenways into the urban fabric of the Town. Preserve the countryside by discouraging suburban sprawl. Avoid development in floodplains, on ridgetops, and on steep slopes.

Environmental Quality: Address and monitor growth factors and activities that contribute to water, air, light, and noise pollution.

Trees: Conserve existing trees and plant new trees, especially hardwoods.

Automobile Transportation: Maximize the efficiency of existing facilities, but not at the expense town and neighborhood character and livability. Build or expand transportation facilities and parking areas as needed, but with care. Work to reduce auto dependency, use, and congestion.

Bikeways: Implement the planned system of bikeways as a legitimate transportation alternative. Unify with greenways and other pedestrian facilities where possible.

Mass Transit: Enhance and support the mass transit system as an effective alternative to the congestion created by the individual automobile.

Pedestrian Movement: Encourage a system of sidewalks, paths, crosswalks and compact development patterns which make it easy to get around Boone on foot.

Infrastructure: Engage in long range planning for water and sewer systems, stormwater runoff, natural gas, and other utility systems. Place overhead utilities underground whenever feasible.

Public Safety: Maintain a high level of policing and fire protection and plan the expansion of public safety services to coincide with projected population increases and identified needs.

Energy and Waste: Reduce waste generation, and the consumption of energy and water. Develop area recycling programs to the fullest. Encourage an anti-litter consciousness among residents and visitors.

University: Emphasize cooperative planning among the Town, County, and University.

Downtown: Support and enhance the cultural and historic significance of downtown Boone, and affirm its appealing, pedestrian orientation.

Recreation: Strive for additional public recreation facilities, especially sports fields, greenways and indoor recreation centers.

Neighborhoods: Ensure the livability of neighborhoods, especially through land use and traffic planning.

Public Involvement: Encourage active public involvement and volunteerism to expand the effectiveness of community planning and action.

1.2

Growth Strategy Map (p. 17): The property is located within Primary Growth Area. The Primary Growth Area is that portion of the urban growth area where urban level of facilities are already in place or can be provided most cost effectively. This is the area where near term growth and development is to be especially encouraged.

Staff has reviewed land use and comprehensive plan policies, and listed those policies which in staff's opinion have a bearing on the request. The Commission and Council should review these policies carefully. Each member may make his or her own interpretation as to the relevance of each and which carry the most weight thereby shaping their overall recommendation.

2.1 THE ECONOMY

2.1.1 Economic Development

- A. The Town shall protect and enhance a high quality of life, image, cultural amenities, and natural beauty as the most effective, long term component of an economic development strategy.
- B. New and expanding industries and businesses shall be encouraged which: 1) diversify the local economy, 2) train and use a skilled labor force and 3) increase area residents' incomes.
- D. Economic development efforts shall encourage the revitalization and reuse of currently unused or underutilized structures, sites and infrastructure in appropriately located areas.
- F. New firms and expanding businesses that complement the natural resources and beauty of the region shall be especially recruited and encouraged.

2.1.2 Commercial Development

- D. Office and institutional development may be encouraged as a transitional land use between residential areas and higher intensity commercial activities.

2.2 INFRASTRUCTURE

2.2.2 Utilities

- B. Water and sewer services shall be concentrated within the limits of a geographically defined Urban Growth Area. The Primary Growth Area shall receive first priority for the provision or enhancement of water and sewer services.
- E. The Town shall employ incentives to encourage a concentration of intense urban type development within the Urban Growth Area.

2.3 THE COMMUNITY

- A. Urban type development within the Urban Growth Area shall meet appropriate Town standards.
- B. Properly planned, mixed use developments that promote efficient provision of public services shall be encouraged within the Urban Growth Area.

2.3.2 Community Character

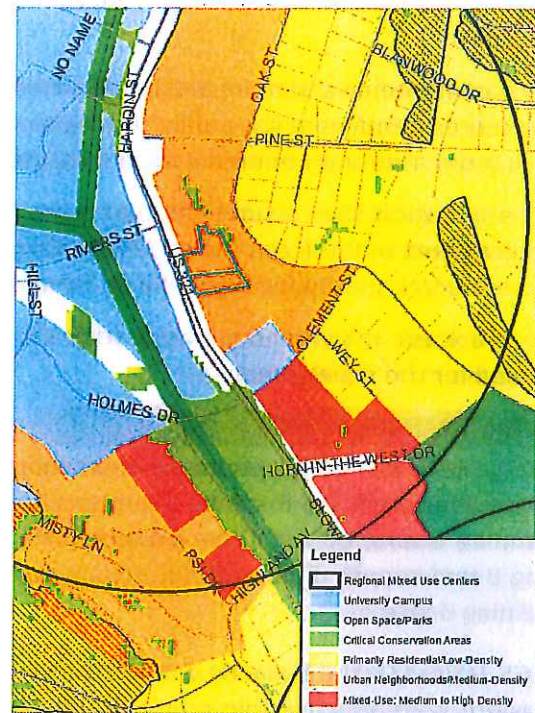
- E. New development, redevelopment and rehabilitation of structures and sites shall occur in a manner which is consistent with the neighborhood and architectural context of the immediate area, and supportive, whenever possible, of Boone's original community character as a High Country small town.

2.3.3 Housing and Neighborhoods

- E. Factors in determining preferred locations for high density residential development shall include: close proximity to the university, employment or shopping centers; access to major thoroughfares and the transit system; the availability of public services and facilities; and compatibility with adjacent land uses.
- H. The overall housing unit density for proposed infill residential development or redevelopment should be compatible with the average density of existing areas.

BOONE 2030 LAND USE PLAN

These properties are located within the G-2 Urban Neighborhood sector and within a Regional Center on the Framework Plan as found in the Boone 2030 Land Use Plan.



The G-2 Urban Neighborhood area makes up the largest sector on the properties. The G-2 sector contains denser, mixed-use development at the scale of neighborhood centers, indicated by 1/4 mile circles (equivalent to a 5-minute walk), and suburban, residential development at the scale of walkable "traditional neighborhoods". This type of residential development creates an identifiable center organized around a small public square or green, often with some civic facilities or a building such as a church or a small store. Local, slow-speed streets form a connected network, with larger collector streets. Paths form pedestrian connections linking sidewalks to internal parks and preserved open space along the boundaries of the neighborhood. This pattern of development can be more environmentally sensitive to its context and can provide improved public health benefits for citizens through its capacity for safe walking and cycling.

G-2 lands are typically close to thoroughfares and at key cross-road locations. For Boone, the G-2 sector specifically includes areas that are already developed with neighborhood-serving retail and service uses or at key cross-roads where future development of this type is likely to occur, such as around the intersection of NC 105 and Poplar Grove Road, or the intersection of Boone Heights Drive and State Farm Road. The G-2 designation is also used in areas where a mixture of higher density residential types (e.g., small lot single family houses, townhomes, apartment or condominium buildings, or mixed-use buildings) are already occurring or would be appropriate to transition between higher intensity commercial uses and existing lower density neighborhoods,

and take advantage of proximity to existing centers of commerce, education, or employment such as the university, downtown, the hospital, the industrial park, and the Hardin Park Elementary School/NC 194 corridor.

Appropriate Land Uses/Development Types:

- Traditional neighborhood developments
- Single-family and multi-family residential
- Neighborhood mixed-use centers
- Neighborhood-scale commercial uses (retail and office)
- Civic uses
- Light industrial uses

Regional Mixed Use Centers are mixed-use activity centers with employment and commercial uses that attract people from beyond the immediate neighborhoods and from surrounding communities. These centers are appropriate for commercial and employment development as well as the area's highest density housing.

Conclusion

Please see the applicant's attached exhibits. Staff has reviewed the application as presented for compliance with UDO standards. If approved, Staff recommends the following conditions:

1. Where there is a conflict between the application information and the plans (dated received December 11, 2015), the plans shall control. Insignificant deviations may be permitted to comply with the requirements of the UDO.
2. Any commitments and representations concerning the proposed project made by the applicant or its (his or her) representatives at the public hearing shall also become a condition of the permit, and a basis for a stop work order and/or permit revocation if violated.
3. The application shall submit the necessary applications, plans, details and specifications which meet the requirements of the Town Code, UDO, Building Code and any other applicable plans for review and approval necessary to issue Zoning and Building Permits.
4. The applicant is required to work with the Public Works Department to reconfigure the meter system needed for the development.

PLANNING BOARD REPORT

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Per NCGS 160A-383, the Planning Board shall advise and comment on whether the proposed zoning amendment is consistent with all applicable officially adopted plans, and provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the officially adopted plans shall not preclude consideration or approval of the proposed amendment by the Town Council.

First motion and vote: The proposed amendment to the Town's zoning map ☐ is OR ☐ is not consistent with the Town's comprehensive plan and other applicable adopted plans of the Town which relate to this application because:

Second Motion and Vote: The Planning Commission recommends ☐ approval ☐ denial for the following reasons:

TOWN COUNCIL ACTION

Per NCGS 160A-383, zoning regulations shall be made in accordance with a comprehensive plan. Prior to adopting or rejecting any zoning amendment, the governing board shall adopt a statement describing whether its action is consistent with an adopted comprehensive plan and explaining why the board considers the action taken to be reasonable and in the public interest.

ACTION TAKEN

First motion and vote: The proposed amendment to the Town's zoning map ☐ is ☐ is not consistent with the Town's Comprehensive plan and other applicable adopted plans of the Town which relate to this application because:

Second Motion and Vote: I move to ☐ approve ☐ deny the proposed amendment to the Town's zoning map and believe ☐ approval ☐ denial is reasonable and in the public interest because:

Zoning/Planning Permit Application

Town of Boone Planning & Inspections Department
680 W. King Street, Suite C ♦ Boone, North Carolina 28607
Phone (828) 268-6960 ♦ Fax (828) 268-6961
www.townofboone.net

PERMIT IS FOR (CHOOSE ONE):

- ☐ Single Family or Duplex (Residential)
- ☐ Commercial
- ☐ Board of Adjustment Hearing (other than Appeals)
- ☒ Planning/Other

A. CONTACT INFORMATION

Applicant: TOWN OF BOONE Company: _____
Address: _____
Phone Number: _____ Email Address: _____
Property Owner: _____ Company: _____
Address: _____
Phone Number: _____ Email Address: _____

B. PROPERTY INFORMATION

Watauga County Parcel Identification Number(s): _____
Address/Location: _____
Project Name: _____

C. PERMIT SUBCATEGORIES

Additional Forms Needed

Zoning Permits

- | | |
|---|---|
| ☐ Accessory Building | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Addition/Expansion including decks and patios | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Change of Occupancy | *Commercial Project Data Form |
| ☐ Land Disturbance (not associated with the construction of a bldg.) | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Manufactured Home Set-up in Park | *Manufactured Home in Park Form |
| ☐ New Building Construction | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Renovation/Remodel | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Accessory Use (as listed in UDO Subsection 15.07.01) | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Temporary Use (as listed in UDO Subsection 15.07.02) | *Zoning Project Data Form (Residential or Commercial) |
| ☐ Sign | *Sign Project Data Form (Zoning) |
| ☐ Pavement Sealant | *Pavement Sealant Project Data Form |
| ☐ Major Subdivision Zoning Permit | *Commercial Project Data Form |

Board of Adjustment Hearings

- | | |
|--|---|
| ☐ Special Use Permit/Modification | *Special Use Permit Form |
| ☐ Variance | *Variance Form |
| ☐ Major Subdivision Preliminary Plat Approval | *Major Subdivision Preliminary Plat Approval Form |

Planning/Other

- | | |
|---|--|
| ☐ Exempt Division of Land | *Subdivision Exemption Project Data Form |
| ☐ Minor Subdivision (Preliminary and Final Plat) | *Minor Subdivision Project Data Form |
| ☐ Major Subdivision (Final Plat) | *Major Subdivision Final Plat Project Data Form |
| ☒ UDO Text Amendment | *Text Amendment Project Data Form |
| ☐ General Use Zoning Map Amendment | *General Use Map Zoning Map Amendment Project Data Form |
| ☐ Conditional District Zoning Map Amendment | *Conditional District Zoning Map Amendment Project Data Form |
| ☐ Voluntary Annexation | *Annexation Petition (Satellite or Contiguous) |
| ☐ UDO Text Interpretation | *UDO Interpretation Data Form |

D. DETAILED DESCRIPTION OF PROJECT**E. PROJECT MANAGER DESIGNATION**

A project manager is responsible for the activities listed in UDO Section 4.19. Single-family and two-family projects involving less than ½ acre of land disturbing activity or commercial site improvements that involve no more than 2,500 square feet of land disturbing activity are exempt from this requirement.

Name: _____ Company: _____
Address: _____ License #: _____
Phone Number: _____ Email Address: _____

F. DESIGN PROFESSIONAL INFORMATION**Engineer:**

Name: _____ Company: _____
Address: _____ License #: _____
Phone Number: _____ Email Address: _____

Architect:

Name: _____ Company: _____
Address: _____ License #: _____
Phone Number: _____ Email Address: _____

G. APPLICANT SIGNATURE: By signing this form you are certifying that this application and any attached information is accurate.
Failure to provide accurate information or failure to provide any requested information may result in delays to permit processing.

Brian Johnson
Applicant¹ (Print)

Brian Johnson
Applicant Signature

12-29-15
Date

Property Owner (Print)

Property Owner Signature

Date

Official Use Only

Project File Name:

APPENDIX B REVISED PLANT LIST : TEXT AMENDMENT

Permit Number:

20150894

Project Name/Number:

Date:

12-29-15

Fee:

Receipt Number:

Method of Payment:

Paid By:

S:\FORMS\Forms_2015\ZoningPermitApplication_052015.doc

Documentation confirming that the applicant has a legally sufficient interest in the property proposed for development to use it in the manner requested, or is the duly appointed agent of such a person must be submitted along with this application. Execution by property owner of this application signifies that the applicant is authorized to proceed.

Communication: Case 20150896 - Appendix B Revised Plant List - Text Amendment a request to modify

UDO Text Amendment Project Data Form

Town of Boone Planning & Inspections Department
680 W. King Street, Suite C ♦ Boone, North Carolina 28607
Phone (828) 268-6960 ♦ Fax (828) 268-6961

www.townofboone.net

Official Use Only

Project Name/Number:

APPENDIX B REVISED PLANT LIST : TEXT AMENDMENT

Permit Name/Number:

20150896

A. TEXT INFORMATION

Amendment is to:

Article(s): APPENDIX B

Section(s):

Brief Description of Amendment (Attach Proposed Text):

REVISIONS TO APPENDIX B, GUIDE FOR LANDSCAPING TO
REPLACE OLD PLANT LIST WITH UPDATED & NATIVE PLANT LIST
AND TO INCLUDE GUIDE FOR PRUNING STANDARDS

Reason for Change:

PLANT LIST HAS NOT BEEN UPDATED IN OVER 10 YEARS,
ADD NATIVE PLANT MATERIAL, REMOVE INVASIVE, EXOTIC PLANT
MATERIAL.

Official Use Only

Public Hearing Meeting Date: JANUARY 6, 2016

PC Meeting Date: JANUARY 11, 2016

TC Meeting Date: JANUARY 21, 2016

Text Approved: ☐ Yes ☐ No

Date UDO Updated:



CASE 20150896 APPENDIX B REVISED PLANT LIST TEXT AMENDMENT

Request

This text amendment request is to update the Appendix B plant list that has not been updated in over 10 years. The new proposed plant list is focused on native plant material and has been revised utilizing numerous recommended native plant lists including recommendations from N.C. State University and the Watauga County Cooperative Extension office. The list has also been revised utilizing the NCDOT invasive, exotic plant list. The format of the plant list has been changed to a table format to help better select plant material based on certain site conditions for better survivability.

Appendix B6 has been added to provide a guide for pruning standards. The pruning standards are industry standards and are part of the town's adopted Urban Forest Management Plan. The pruning guidelines provide guidance on correct pruning practices and coincide with the ordinance requirements of UDO Section 31.12.04, Prohibited Pruning.

ANALYSIS

The text below in ~~red strikethrough~~ is the current **Appendix B5 Plant List** (pages 1-7) text proposed to be deleted. The blue underline is the new **Appendix B5 Plant List** (pages 8-14) text and added **Appendix B6 Tree Pruning Guidelines** (pages 15-47) section for consideration. Please note, text amendments will now contain the case number and effective date in italicized font at the end of the section in which the text was modified.

NOTE: The entire Appendix B Plant List section is being removed and replaced with new re-formatted section.

~~B5 — Plant List~~

~~Large Trees — Evergreen~~

Scientific Name	Common Name
Abies balsamea	Balsam Fir *
Abies concolor	White Fir *
Abies fraseri	Fraser Fir *
Cedrus atlantica	Atlas Cedar
Cedrus deodara	Deodar Cedar
Cedrus libani	Cedar of Lebanon
Cladrastis kentukea	American Yellowwood *
Cryptomeria japonica	Japanese Cryptomeria
Cupressoparis leylandii	Leyland Cypress
Cupressus bakeri	Baker's Cypress *
Ilex opaca	American Holly *
Juniperus virginiana	Eastern Red Cedar *
Magnolia grandiflora	Southern Magnolia *
Picea abies	Norway Spruce
Picea glauca	White Spruce *
Picea orientalis	Oriental Spruce
Picea pungens	Colorado Spruce *
Pinus aristata	Bristlecone Pine *

Pinus banksiana	Jack Pine *
Pinus echinata	Shortleaf Pine *
Pinus strobes	White Pine *
Pinus sylvestris	Scotch Pine
Pinus virginiana	Virginia Pine *
Pseudotsuga menziesii	Douglas Fir *
Thuja occidentaus	Northern White Cedar *
Tsuga Canadensis	Eastern Hemlock *
Tsuga caroliniana	Carolina Hemlock *
Large Trees - Deciduous	
Acer platanoides	Norway Maple
Acer rubrum	Red Maple *
Acer saccharinum	Silver Maple *
Acer saccharum	Sugar Maple *
Aesculus glabra	Ohio Buckeye *
Aesculus flava	Yellow Buckeye *
Betula alleghaniensis	Yellow Birch *
Betula lenta	Sweet Birch *
Betula papyrifera	Canoe Birch *
Betula nigra	River Birch *
Betula pendula	European White Birch
Betula platyphylla	Japanese White Birch
Betula populifolia	Gray Birch *
Carya cordiformis	Bitternut Hickory *
Carya glabra	Pignut Hickory *
Carya illinoensis	Pecan *
Carya laciniosa	Shellbark Hickory *
Carya ovata	Shagbark Hickory *
Catalpa bignonioides	Southern Catalpa *
Celtis laevigata	Sugar Hackberry *
Celtis occidentalis	Common Hackberry *
Cladrastis lutea	Yellowwood *
Diospyros virginiana	Persimmon *
Fagus grandifolia	American Beech *
Fraxinus americana	White Ash *
Fraxinus nigra	Black Ash *
Fraxinus pennsylvanica	Green Ash *
Ginkgo biloba	Maidenhair Tree
Gleditsia triacanthos inermis	Thornless Honeylocust *
Gymnocladus dioica	Kentucky Coffee Tree *
Juglans cinerea	Butternut *
Juglans nigra	Black Walnut *
Liquidambar styraciflua	Sweetgum *
Liriodendron tulipifera	Tulip Poplar *

Magnolia acuminata	Cucumber Tree *
Magnolia macrophylla	Big Leaf Magnolia *
Metasequoia glyptostroboides	Dawn Redwood *
Nyssa sylvatica	Black Gum *
Platanus occidentalis	Sycamore *
Populus angustifolia	Balsam Cottonwood *
Populus deltoids	Eastern Cottonwood *
Populus tremuloides	Quaking Aspen *
Prunus serotina	Black Cherry *
Quercus alba	White Oak *
Quercus coccinea	Scarlet Oak *
Quercus imbricaria	Shingle Oak *
Quercus falcate	Southern Red Oak *
Quercus muehlenbergii	Chinkapin Oak *
Quercus michauxii	Swamp chestnut *
Quercus phellos	Willow Oak *
Quercus palustris	Pin Oak *
Quercus rubra	Red Oak *
Quercus stellata	Post Oak *
Quercus velutina	Black Oak *
Taxodium distichum	Bald Cypress *
Tilia americana	Basswood *
Ulmus americana	American Elm *
Zelkova serrata	Japanese Zelkova

~~Small Trees—Evergreen~~

Cupressus arizonica	Arizona Cypress *
Ilex x attenuate	Hybrid Holly *
Ilex x attenuate 'Fosteri'	Foster Hybrid Holly *
Ilex Montana	Big Leaf Holly *
Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly *
Juniperus virginiana	Eastern Red Cedar *

~~Small Trees—Deciduous~~

Acer buergerianum	Trident Maple
Acer ginnala	Amur Maple
Acer griseum	Paperbark Maple
Acer leucoderme	Chalk Maple *
Acer palmatum	Japanese Maple
Acer palmatum dissectum	Laceleaf Japanese Maple
Acer pensylvanicum	Striped Maple *
Aesculus pavia	Red Buckeye *
Aesculus sylvatica	Painted Buckeye *
Alnus serrulata	Alder *
Amelanchier arborea	Serviceberry *
Aralia spinosa	Devil's Walking Stick *

<i>Asimina triloba</i>	Pawpaw *
<i>Carpinus caroliniana</i>	Ironwood *
<i>Celtis tenuifolia</i>	Dwarf Hackberry *
<i>Cercis Canadensis</i>	Redbud *
<i>Chionanthus virginicus</i>	Fringetree *
<i>Cladrastis kentukea</i>	Yellowwood *
<i>Cornus alternifolia</i>	Pagoda Dogwood *
<i>Cornus amomum</i>	Silky Dogwood *
<i>Cornus florida</i>	Flowering Dogwood *
<i>Cotinus obovatus</i>	American Smoke Tree *
<i>Crataegus mollis</i>	Downy Hawthorn *
<i>Crataegus marshallii</i>	Parsley Hawthorn *
<i>Diospyros virginiana</i>	Eastern Persimmon *
<i>Halesia diptera</i>	Silverbell *
<i>Hamamelis virginiana</i>	Witchhazel *
<i>Ilex deciduas</i>	Possumhaw *
<i>Magnolia fraseri</i>	Mountain Magnolia *
<i>Malus coronaria</i>	Sweet Crabapple *
<i>Ostrya virginiana</i>	Ironwood *
<i>Oxydendrum arboreum</i>	Sourwood *
<i>Rhus copallina</i>	Winged Sumac *
<i>Sassafras albidum</i>	Sassafras *
<i>Sorbus americana</i>	American Mountain Ash *
<i>Vaccinium arboreum</i>	Sparkleberry *
Shrubs – Deciduous	
<i>Abelia x grandiflora</i>	Glossy Abelia
<i>Azalea kaempferi</i>	Kaempferi Azalea
<i>Azalea hybrida</i>	Satsuki Azalea
<i>Azalea obtusum</i>	Kurume Azalea
<i>Berberis julianae</i>	Wintergreen Barberry
<i>Berberis thunbergii</i>	Japanese Barberry
<i>Berberis verruculosa</i>	Warty Barberry
<i>Buxus microphylla 'Koreana'</i>	Korean Boxwood
<i>Buxus sempervirens 'Suffrutocosa'</i>	Dwarf Boxwood
<i>Chamaecyparis obtusa 'Nana Gracilis'</i>	Dwarf Hinoki Cypress
<i>Cotoneaster horizontalis</i>	Rockspray Cotoneaster
<i>Cotoneaster dammeri</i>	Bearberry Cotoneaster
<i>Cotoneaster divaricatus</i>	Spreading Cotoneaster
<i>Cotoneaster horizontalis</i>	Rockspray Cotoneaster
<i>Euonymus alatus</i>	Winged Euonymus
<i>Euonymus fortunei</i>	Wintercreeper Euonymus
<i>Hypericum patulum</i>	St. Johnswort *
<i>Hypericum frondosum</i>	Golden St Johnswort *
<i>Hypericum prolificum</i>	Shrubby St. Johnswort *

<i>Ilex aquifolium</i>	English Holly
<i>Ilex cornuta</i>	Chinese Holly
<i>Ilex cornuta</i> 'Burford'	Burford Holly
<i>Ilex cornuta</i> 'Carissa'	Carissa Holly
<i>Ilex cornuta</i> 'Rotunda'	Dwarf Horned Holly
<i>Ilex crenata</i>	Japanese Holly
<i>Ilex crenata</i> 'Helleri'	Heller Japanese Holly
<i>Ilex crenata</i> 'Kingsville'	Kingsville Japanese Holly
<i>Ilex crenata</i> 'Repandens'	Repanden Japanese Holly
<i>Ilex crenata</i> 'Stokes'	Stokes Japanese Holly
<i>Ilex crenata</i> 'Tiny Tim'	Japanese Holly
<i>Ilex glabra</i>	Inkberry *
<i>Ilex pernyi</i>	Perny Holly
<i>Juniperus chinensis</i>	Chinese Juniper
<i>Juniperus communis</i>	Common Juniper
<i>Juniperus conferta</i>	Shore Juniper
<i>Juniperus davurica</i> 'Expansa'	Parsons Juniper
<i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juniperus procumbens</i>	Japanese Garden Juniper
<i>Juniperus Sabina</i> 'Tamariscifolia'	Tamarix Juniper
<i>Kalmia latifolia</i>	Mountain Laurel *
<i>Kalmia polifolia</i>	Bog Laurel *
<i>Leucothoe axillaries</i>	Doghobble *
<i>Leucothoe populifolia</i>	Florida Leucothoe *
<i>Magnolia virginiana</i>	Sweet Bay *
<i>Osmanthus heterophyllus</i> 'Rotundifolius'	Curleyleaf Tea Olive
<i>Ostrya virginiana</i>	Ironwood *
<i>Oxydendrum arboretum</i>	Sourwood *
<i>Pinus mugo</i> 'Compacta'	Mugo Pine
<i>Prunus laurocerasus</i> 'Otto Luyken'	Otto Laurel
<i>Rhododendron catawbiense</i>	R. Catawba *
<i>Rhododendron maximum</i>	Rosebay Rhododendron *
<i>Rhododendron minus</i>	Carolina Rhododendron *
<i>Rhus aromatica</i>	Fragrant Sumac *
<i>Rhus copallinum</i>	Winged Sumac *
<i>Rhus glabra</i>	Smooth Sumac *
<i>Taxus x media</i>	Intermediate Yew
<i>Thuja orientalis</i>	Oriental Arborvitae
<i>Viburnum rhytidophyllum</i>	Leatherleaf Viburnum
Shrubs – Evergreen	
<i>Azalea hybrida</i> 'Exbury'	Exbury Hybrid Azalea
<i>Buddleja davidii</i>	Butterfly Bush
<i>Callicarpa americana</i>	American Beautyberry *
<i>Calycanthus floridus</i>	Sweetshrub *

Chaenomeles speciosa	Common Flowering quince
Clethra alnifolia	Sweet Pepperbush *
Cytisus scoparius	Scotch Broom
Deutzia scabra	Pride of Rochester
Elaeagnus umbellata	Autumn Elaeagnus
Euonymus alata	Winged Euonymus
Euonymus americanus	Hearts-a-Burstin *
Forsythia x intermedia	Border Forsythia
Fothergilla major	Withalder *
Gaylussacia dumosa	Dwarf Huckleberry *
Hibiscus syriacus	Rose of Sharon
Hydrangea arborescens	Wild Hydrangea *
Hydrangea quercifolia	Oakleaf Hydrangea *
Lindera benzoin	Spicebush *
Lonicera fragrantissima	Winter Honeysuckle
Magnolia stellata	Star Magnolia
Malus sargentii	Sargent Crab Apple
Neviusia alabamensis	Snowwreath *
Rhododendron arborescens	Sweet Azalea *
Rhododendron austrinum	Yellow Azalea *
Rhododendron calendulaceum	Flame Azalea *
Rhododendron canadense	Rhodora *
Rhododendron canescens	Piedmont Azalea *
Rhododendron cumberlandense	Cumber Land *
Rhododendron periclymenoides	Pinxter Bloom *
Rhododendron prunifolium	Plumleaf *
Rhododendron viscosum	Swamp Azalea *
Rosa palustris	Swamp Rose *
Spiraea prunifolia	Bridalwreath Spirea
Spiraea x vanhouttei	Vanhoutte Spirea
Syringa vulgaris	Common Lilac
Styrax americana	American Snowbell *
Viburnum dentatum	Arrowwood *
Viburnum x juddii	Judd Viburnum
Viburnum macrocephalum 'Sterile'	Chinese Snowball
Viburnum plicatum tomentosum	Doublefile Viburnum
Vitex agnus-castus	Chaste Tree
Wet Land Plants	
Cornus amomum	Silky Dogwood *
Salix candida	Sage willow *
Salix discolor	Pussy Willow *
Salix exigua	Coyote Willow *
Salix herbacea	Snowbed Willow *
Salix lucida	Shinning Willow *

Salix nigra	Black Willow *
Salix sericea	Silky Willow *
Stewartia ovata	Mountain Stewartia *

Vines

Gelsemium sempervirens	Yellow Jasmine *
Lonicera ciliosa	Orange Honeysuckle *
Lonicera dioica	Wild Honeysuckle *
Lonicera hirsuta	Hairy Honeysuckle *
Lonicera involucrata	Bearberry Honeysuckle *
Lonicera sempervirens	Trumpet Honeysuckle *
Parthenocissus quinquefolia	Virginia Creeper *
Wisteria frutescens	American Wisteria *

Ground Covers Evergreen

Antennaria plantaginifolia	Pussytoes *
Galax urceolata	Galax *
Hexastylis arifolia	Heartleaf *
Lycopodium flabelliforme	Running Cedar *
Mitchella repens	Partridgeberry *
Senecio aureus	Butterweed *
Smilax pumila	Dwarf Smilax *

Ground Cover Deciduous

Asarum canadense	Wild Ginger *
Chrysogonum virginianum	Southern Green and Gold *
Hepatica americana	Liverleaf *
Pachysandra procumbens	Allegheny Spurge *
Tiarella cordifolia var. collina	Foamflower *
Uvularia sessilifolia	Strawlily *

* denotes native plant

Grasses

Andropogon gerardii	Big Bluestem
Andropogon glomeratus	Bushy Bluestem
Andropogon virginicus	Broomsedge
Miscanthus sinensis	Adagio
Miscanthus sinensis	Gracillimus
Miscanthus sinensis	Morning Light
Muhlenbergia	Capillaris
Panicum virgatum	Switch Grass
Panicum virgatum	North Wind
Panicum virgatum	Heavy Metal
Pennisetum orientale	Tall Tails

B5 Plant List

LARGE DECIDUOUS TREES (40'+)		SHADE TOLERANT	XERISCAPING COMPATIBLE (DROUGHT TOLERANT)	SALT TOLERANT	STREET TREE	NATIVE	BLOOMING		
Scientific Name	Common Name								
Trees <25' mature height can be planted under power lines									
Trees 25'-40' mature height can be planted at least 20' from power lines									
Other species may be allowed with staff approval									
Acer platanoides	Norway Maple				X				
Acer rubrum	Red Maple	X	X		X	X			
Acer saccharum	Sugar Maple	X	X		X	X			
Aesculus glabra	Ohio Buckeye	X				X	X		
Aesculus flava	Yellow Buckeye	X				X	X		
Betula alleghaniensis	Yellow Birch	X				X			
Betula lenta	Sweet Birch					X			
Betula papyrifera	Canoe Birch	X				X			
Betula nigra	River Birch	X	X		X	X			
Betula pendula	European White Birch				X				
Betula populifolia	Gray Birch			X		X			
Carya cordiformis	Bitternut Hickory	X				X			
Carya glabra	Pignut Hickory	X				X			
Carya illinoensis	Pecan	X				X	X		
Carya laciniosa	Shellbark Hickory	X				X			
Carya ovata	Shagbark Hickory	X		X		X			
Celtis occidentalis	Common Hackberry		X			X	X		
Cladrastis lutea	Yellowwood					X	X		
Fagus grandiflora	American Beech	X				X			
Fraxinus americana	White Ash		X	X		X	X		
Fraxinus nigra	Black Ash		X			X	X		
Fraxinus pennsylvanica	Green Ash		X	X		X			
Ginkgo biloba	Maidenhair Tree		X		X				
Gleditsia triacanthos	Thornless Honeylocust		X	X	X		X		
Gymnocladus dioica	Kentucky Coffee Tree	X	X	X		X	X		
Juglans cinerea	Butternut					X			
Juglans nigra	Black Walnut					X			
Liriodendron tulipifera	Tulip Poplar	X	X		X	X	X		
Magnolia acuminata	Cucumber Tree					X	X		
Magnolia macrophylla	Big Leaf Magnolia					X	X		
Nyssa sylvatica	Black Gum					X	X		
Platanus occidentalis	Sycamore	X				X	X		
Populus angustifolia	Balsam Cottonwood					X	X		

2.2

SMALL - MEDIUM DECIDUOUS TREES (up to 25')		SHADE TOLERANT	XERISCAPING COMPATIBLE (DROUGHT TOLERANT)	SALT TOLERANT	STREET TREE	NATIVE	BLOOMING		
Trees <25' mature height can be planted under power lines									
Trees 25'-40' mature height can be planted at least 20' from power lines									
Other species may be allowed with staff approval									
Scientific Name	Common Name								
Acer buergeranum	Trident Maple	x	x	x	x				
Acer campestre	Hedge Maple	x	x	x					
Acer ginnala	Amur Maple	x	x	x	x				
Acer griseum	Paperbark Maple				x				
Acer leucoderme	Chalk Maple				x				
Acer palmatum	Japanese Maple	x			x				
Acer pensylvanicum	Striped Maple								
Aesculus pavia	Red Buckeye								
Alnus serrulata	Alder						x		
Amelanchier arborea	Serviceberry		x	x	x	x	x		
Aralia spinosa	Devil's Walking Stick					x			
Asimina triloba	PawPaw					x			
Carpinus caroliniana	Ironwood		x			x			
Celtis tenuifolia	Dwarf Hackberry						x		
Cercis canadensis	Redbud	x	x		x	x	x		
Chionanthus virginicus	Fringetree	x	x	x	x	x	x		
Cornus spp.	Dogwood	x	x		x	x	x		
Cotinus obovatus	American Smoke Tree		x	x			x		
Crataegus spp.	Hawthorn		x	x	x	x	x		
Diospyros virginiana	Persimmon	x	x			x			
Halesia carolina	Carolina Silverbell				x	x	x		
Hamamelis virginiana	Witchhazel								
Ilex decidua	Possumhaw								
Magnolia fraseri	Mountain Magnolia		x				x		
Malus spp.	Crabapple		x		x		x		
Ostrya virginiana	Ironwood					x			
Oxydendrum arboretum	Sourwood	x			x	x	x		
Prunus cerasifera	Purple-leaf Plum		x	x	x		x		
Prunus spp.	Cherry		x		x		x		
Rhus copallina	Winged Sumac						x		
Sorbus americana	American Mountain Ash				x				
Vaccinium arboretum	Sparkleberry						x		

[illegible]

DECIDUOUS SHRUBS		SHADE TOLERANT	XERISCAPING COMPATIBLE (DROUGHT TOLERANT)	SALT TOLERANT		NATIVE	BLOOMING		
Other species may be allowed with staff approval									
Scientific Name	Common Name								
Azalea hybrid ‘Exbury”	Exbury Hybrid Azalea					X	X		
Calicarpa americana	American Beautyberry	X	X			X	X		
Calycanthus floridus	Sweetshrub	X				X	X		
Chaenomeles speciosa	Common Flowering Quince		X				X		
Clethra alnifolia	Sweet Pepperbush	X		X		X	X		
Euonymus americanus	Hearts-a-burstin					X			
Forsythia x intermedia	Border Forsythia		X	X			X		
Fothergilla major	Witchalder	X	X			X	X		
Gaylussacia dumosa	Dwarf Huckleberry	X				X	X		
Hibiscus syriacus	Rose of Sharon	X	X	X			X		
Hydrangea arborescens	Wild Hydrangea	X				X	X		
Hydrangea quercifolia	Oakleaf Hydrangea	X				X	X		
Ilex verticillata	Winterberry			X		X			
Itea virginica	Virginia Sweetspire					X	X		
Lindera benzoin	Spicebush	X				X	X		
Lonicera fragrantissima	Winter Honeysuckle								
Magnolia stellata	Star Magnolia		X				X		
Neviusia alabamensis	Snowwreath						X		
Physocarpus opulifolius	Ninebark	X				X	X		
Rhododendron arborescens	Sweet Azalea					X	X		
Rhododendron austrinum	Yellow Azalea					X	X		
Rhododendron calendulaceum	Flame Azalea	X				X	X		
Rhododendron canadense	Rhodora	X				X	X		
Rhododendron periclymenoides	Pinxter Bloom	X				X	X		
Rhododendron viscosum	Swamp Azalea	X				X	X		
Rosa palustris	Swamp Rose	X				X	X		
Spirea prunifolia	Bridalwreath Spirea	X	X	X		X	X		
Spirea x bumalda spp.	Spirea		X	X			X		
Spirea x vanhouttei	Vanhoutte Spirea		X	X			X		
Syringa vulgaris	Common Lilac		X				X		
Styrax americana	American Snowbell	X				X	X		
Viburnum spp.	Viburnum	X	X	X		X	X		

EVERGREEN SHRUBS		SHADE TOLERANT	XERISCAPING COMPATIBLE (DROUGHT TOLERANT)	SALT TOLERANT		NATIVE	BLOOMING		
Other species may be allowed with staff approval									
Scientific Name	Common Name								
Abelia x grandiflora	Glossy Abelia		x	x			x		
Azalea kaempferi	Kaempferi Azalea	x					x		
Azalea hybrida	Satsuki Azalea	x					x		
Azalea obtusum	Kurume Azalea	x				x	x		
Buxus microphylla ‘Koreana’	Korean Boxwood	x		x					
Buxus sempervirens ‘Suffrutocosa	Dwarf Boxwood	x	x						
Chamaecyparis obtuse ‘Nana Gracilis’	Dwarf Hinoki Cypress	x							
Cotoneaster horizontalis	Rockspray Cotoneaster		x	x					
Cotoneaster dammeri	Bearberry Cotoneaster		x	x					
Cotoneaster divaricatus	Spreading Cotoneaster		x	x					
Ilex aquifolium	English Holly	x							
Ilex crenata spp.	Japanese Holly		x						
Ilex glabra	Inkberry	x	x	x		x			
Ilex pernyi	Perny Holly		x						
Juniperus chinensis	Chinese Juniper		x	x					
Juniperus communis	Common Juniper		x	x					
Juniperus conferta	Shore Juniper		x	x					
Juniperus davurica ‘Expansa’	Parsons Juniper		x	x					
Juniperus horizontalis	Creeping Juniper		x	x					
Juniperus procumbens	Japanese Garden Juniper		x	x					
Juniperus Sabina ‘Tamariscifolia’	Tamarix Juniper		x						
Kalmia latifolia	Mountain Laurel	x	x				x		
Kalmia polifolia	Bog Laurel	x				x			
Leucothoe axillaries	Doghobble	x	x	x		x	x		
Leucothoe populifolia	Florida Leucothoe	x	x			x	x		
Magnolia virginiana	Sweetbay	x	x			x	x		
Pieris japonica	Pieris	x				x	x		
Pinus Mugo ‘Compacta’	Mugo Pine			x					
Rhododendron catawbiense	R. Catawba	x				x	x		
Rhododendron maximum	Rosebay Rhododendron	x				x	x		
Rhododendron minus	Carolina Rhododendron	x				x	x		
Rhododendron spp.	Rhododendron spp.	x				x	x		
Taxus x media	Intermediate Yew			x					
Thuja orientalis	Oriental Arborvitae								
Viburnum rhytidophyllum	Leatherleaf Viburnum						x		

GROUND COVERS

Other species may be allowed with staff approval

Scientific Name	Common Name
<i>Asarum canadense</i>	Wild Ginger
<i>Antennaria plantaginifolia</i>	Pussy's Toes
<i>Chrysoqonum virginianum</i>	Green and Gold
<i>Coreopsis auriculata</i>	Mouse-Eared Coreopsis
<i>Fragaria virginiana</i>	Wild Strawberry
<i>Baultheria procumbens</i>	Wintergreen
<i>Hexastylis arifolia</i>	Little Brown Jugs
<i>Iris cristata</i>	Dwarf Crested Iris
<i>Mitchella repens</i>	Partridge Berry
<i>Pachysandra procumbens</i>	Allegheny Spurge
<i>Phacelia bipinnatifida</i>	Phacelia
<i>Phlox amoena</i>	Chalice Phlox
<i>Phlox divaricata</i>	Wild Blue Phlox
<i>Phlox stolonifera</i>	Creeping Phlox
<i>Pityopsis graminifolia</i>	Golden Aster
<i>Polystichum acrostichoides</i>	Christmas Fern
<i>Shortia galacifolia</i>	Oconee Bells
<i>Sisyrinchium mucronatum</i>	Blue-Eyed Grass
<i>Tiarella cordifolia</i>	Foamflower
<i>Xanthorhiza simplicissima</i>	Yellow-root

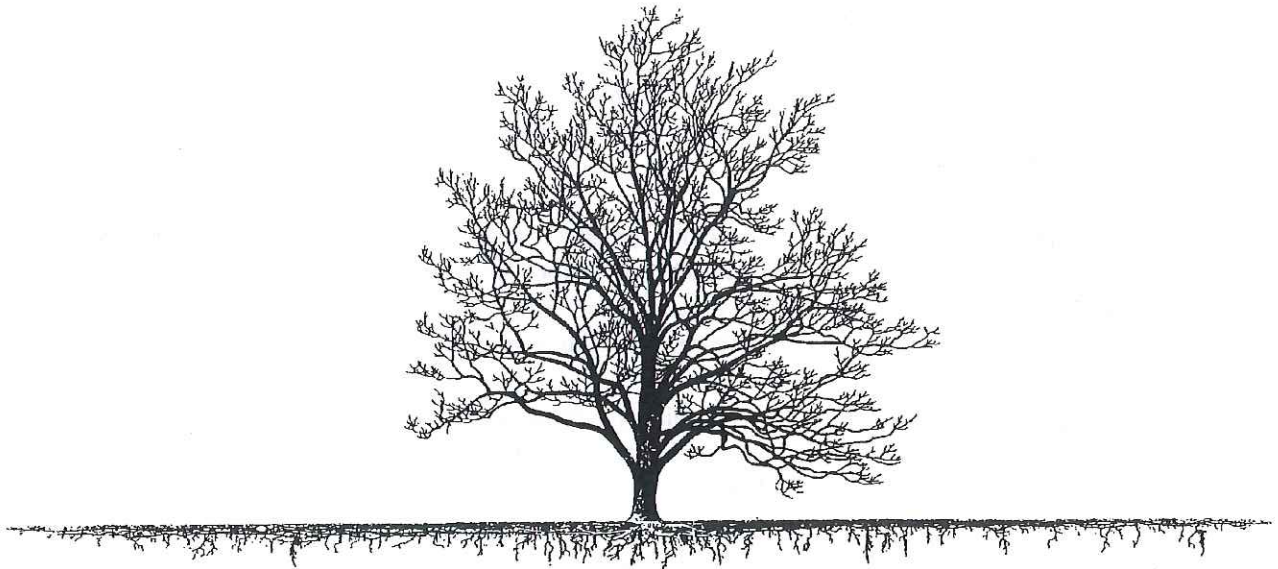
GRASSES & SEDGES

Other species may be allowed with staff approval

Scientific Name	Common Name
<i>Andropogon gerardii</i>	Big Bluestem
<i>Andropogon virginicus</i>	Broomsedge
<i>Carex pennsylvanica</i>	Pennsylvania sedge
<i>Carex plantaginea</i>	Plantain-leaved sedge
<i>Chasmanthium latifolium</i>	River Oats
<i>Danthonia compressa</i>	Oats Grass
<i>Elymus bystrix</i>	Bottle Brush
<i>Panicum virgatum</i>	Switch Grass
<i>Schizachyrium scoparium</i>	Little Bluestem
<i>Sorghastrum nutans</i>	Indian Grass
<i>Tripsacum dactyloides</i>	Eastern Gamma Grass

The text below is a new section (B6) added at the end of Appendix B

B6 Tree Pruning Guidelines



Introduction

Pruning consists of *selectively* removing branches (living and dead) from woody plants, ranging from pinching off a bud at the end of a twig to removing large limbs.

Proper pruning benefits trees, shrubs, and vines, and the associates of woody plants (including humans). Pruning branches can be one of the most beneficial or the most damaging practices arborists do to trees.

A basic principle of pruning is that the removal of any live stems, branches, twigs, and buds affects growth of the plant. Proper pruning prevents and corrects defective form that could result in branch or stem failure. Thus, knowledge of plant biology is essential for the correct methods of pruning.

Most tree species evolved in competitive forest communities. Consequently, trees developed efficient branching systems to capture the energy of available light for photosynthesis.

Woody plants also evolved the ability to get rid of inefficient energy resources by *shedding* shaded branches (cladaptosis). A branch is naturally shed from its base. As natural shedding occurs, the wood tissue around the branch core within the stem protects against decay. Limb removal cuts imitate natural branch shedding (natural target pruning).

Many people equate woody plant pruning to amputation, but there should be no fear of wise and careful use of pruning equipment. A properly pruned tree, shrub, or vine is a combination of art, science, and skill.

In the arboriculture industry, the current standard approved by the ISA and the NAA is *The American National Standards Institute* (ANSI) A300 issued in 19

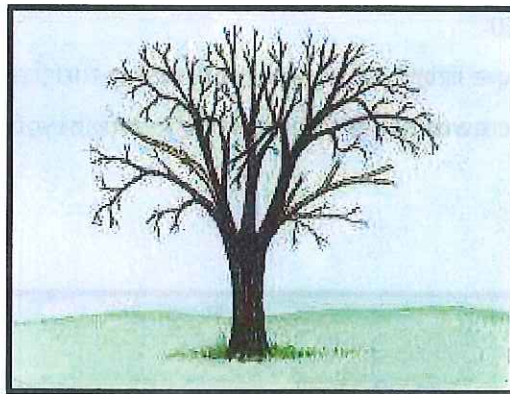
Reasons for Pruning

The first rule in pruning is **do not cut without a reason**. Too often arborists tend to over prune to meet client expectations. Proper pruning is an effort to *direct* new growth rather than 'control' growth.

Most pruning cuts are of a *preventive* or a *corrective* nature to be beneficial to woody plant health.

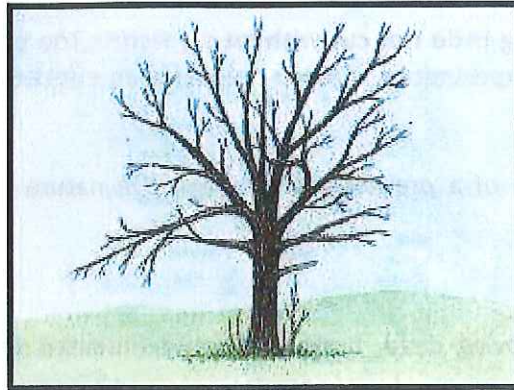
Health

- *Sanitation* by removing dead, broken, decayed, diseased or insect-infested wood (crown cleaning).
- *Thinning* to improve penetration of light and air, and to reduce wind resistance and potential storm damage.
- Reduction of the number of poorly attached *epicormic branches*.
- *Girdling root* removal.
- Correct and/or redirect *structural growth* that may cause future problems (weak crotches, branches growing out of proportion, etc.).



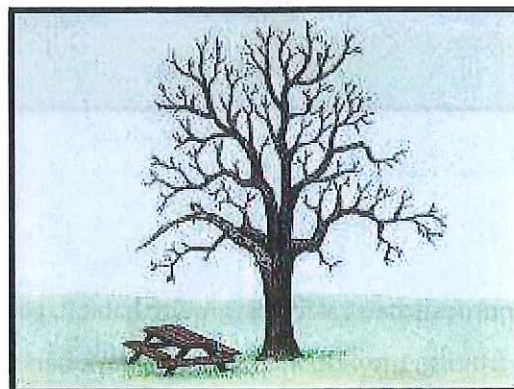
Appearance

- Shape for aesthetic purpose, natural forms, growth habit (training).
- Influence flowering, fruiting, promotion of shoots, canes, bark color.
- Direct new growth and/or correct improper prior pruning (crown restoration).



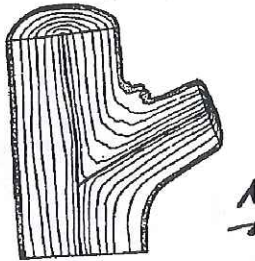
Convenience or Safety of Property and People

- Correct or modify storm-damaged, neglected, or poorly pruned woody plants.
- Identify and remove potential hazard limbs, stems, and deadwood (hazard reduction pruning).
- Line clearance (directional pruning).
- Raise or lower obstructive canopies over or near roads, sidewalks, playgrounds, buildings, pools, satellite dishes, etc. by removing interfering limbs (crown reduction and/or crown raising).
- Provide access to more light for understory plants and turf (crown thinning).
- Vista pruning (alter crowns to allow views of something beyond tree screens).



Pruning Methods and Techniques

Branch Attachment to Stems



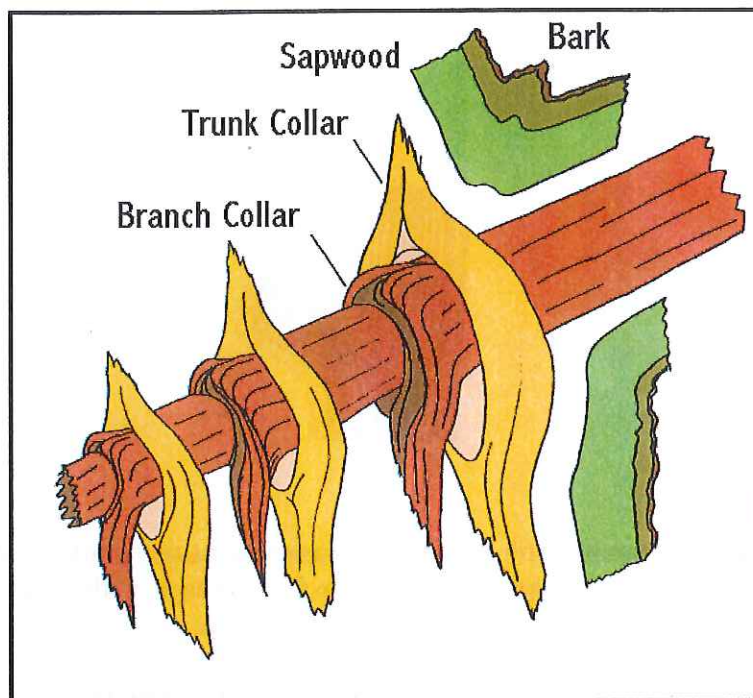
New branch tissues generated by the vascular cambium usually start growth before trunk tissues. As current-year branch tissue develops from branch ends toward the trunk, it turns abruptly downward at the branch base to form a *collar*.

Trunk branch tissues grow later and form a trunk collar over the branch collar (trunk collars and branch collars are collectively called the *branch collar*).

The collar is where wood and bark of the branch and the trunk come together, like an overlapping tissue 'switching zone'. All true branches on woody plants have branch collars.

The *branch bark ridge* (BBR) is raised bark developing in the branch crotch and shows the angle of the branch core in the tree.

If a branch dies or is removed, the trunk collar continues to grow over the thin belt of branch tissue below the collar junction. The wood core of the branch is walled off (compartmentalized) in the trunk.



Proper Pruning Cuts (Natural Target Pruning)

Location of *branch bark ridges* and *branch collars* determines the location of a pruning cut. Cuts must be made *outside* of the branch bark ridge, angling away from the trunk outward as close as possible to the collar.

- There is no set or standard angle for a proper collar cut.
- The proper angle depends on the shape of the collar.
- Conifers often have flat collars where a straight cut close to the collar is correct.
- Sometimes the angle of the cut will necessitate an *upstroke* cut with a handsaw or chainsaw.

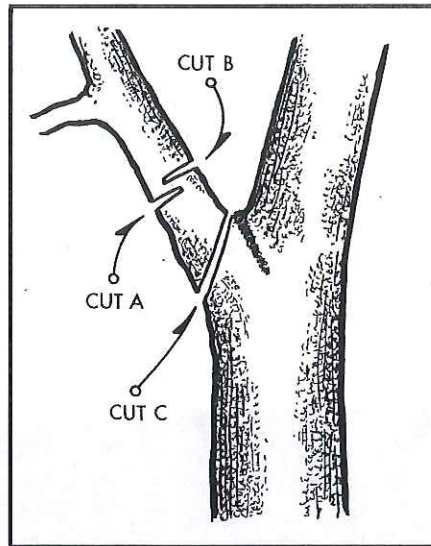
Do not cut into the collar to stimulate callus production and rapid closure. Although closure is desirable for appearance, such a cut promotes decay and future hazards. Never put a pruning tool behind the branch bark ridge.

Whether a branch collar is obvious or not, the position of the final or finish cut should:

- Minimize the branch stub that is an entryway for decay fungi.
- Retain the natural decay protection present in the branch core. The intact branch collar is the first line of defense in preventing decay within the trunk.
- Minimize the overall size of the pruning wound and direct damage to the stem.

Always **stub cut** the branch first. Limbs that cannot be controlled must be removed using at least **three** cuts. Roping of limbs may be necessary to prevent damage to other parts of the tree if they cannot be controlled by hand.

1. The first cut (Cut A) **undercuts** the limb one or two feet out from the parent branch or trunk. A properly made undercut will eliminate the chance of the branch 'peeling' or tearing bark as it is removed.
2. The second cut (Cut B) is the **top cut** which is usually made slightly further out on the limb than the undercut. This allows the limb to drop smoothly when the weight is released.
3. The third cut (Cut C) or **finish cut** is to remove the stub.



Each finish cut should be made carefully, outside of the branch bark ridge and the evident collar, leaving a smooth surface with no jagged edges or torn bark.

There are some situations where the cambium dies back beneath a branch collar after a correct cut:

- The trunk collar did not join the branch collar directly below the branch. Sunken spots under branches are a sign of this condition.
- Winter cuts may result in undercollar dieback.
- Problem tends to increase with size of branches removed.

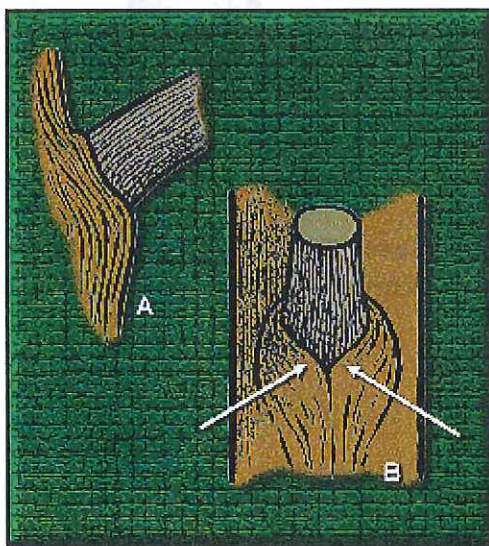
Callus and Woundwood

Callus is undifferentiated meristematic tissue that forms at wound margins from the cambium.

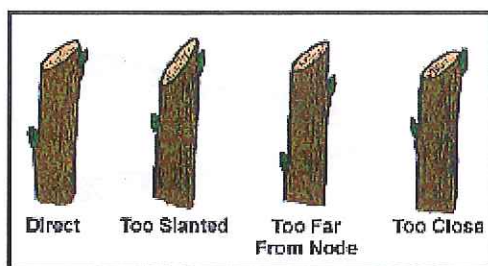
Callus differentiates into *woundwood* over time. Woundwood is 'new wood' and has the different cell components of periderm, cambium, phloem, and xylem.

A *complete* ring of callus and subsequent woundwood will develop around and eventually over proper cuts. Woundwood forms only to the sides of improper cuts (flush cuts), which means the collar and branch protection zone is damaged and the trunk is wounded.

A proper pruning cut results in a smaller wound area, and more rapid callus and woundwood movement over the wound. Cuts on dead limbs that have trunk collars moving up the dead branch wood must also be made just outside of the evident collar.



- Appropriate only for small woody plants or one- to two-year-old branches (twigs, branchlets) on trees.
- Cut back to a bud (lateral bud) or lateral branchlet, slanting at a 45° angle above the bud *node* on alternately arranged branches and stems.
- Two or more buds at a node (opposite, whorled) require a *transverse* cut just above the bud tips or a 45° angle cut, removing one of the buds and leaving the other(s) to elongate in a desired direction.
- Cut 1/8" higher above the bud tips when pruning in cold weather to prevent winter injury to the bud (tissue around a winter cut is more vulnerable to desiccation).



- Leaving a majority of *inward* facing buds produces growth towards center.
- Leaving a majority of *outward* facing buds results in more open growth.

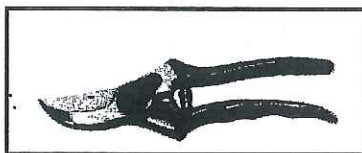
Pruning Tools

Use **well-sharpened** tools for both your safety and to help reduce tearing of wood and cambial tissues. Wear specified protective equipment.

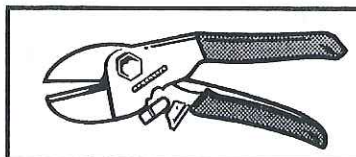
Pruning Shears

Hand shears, secateurs, hand pruners, one-hand shears:

- Remove branches, stems up to 1/2" diameter.
- By-pass (hook and blade, scissors, drop-forge, curve blade): make closer cuts than anvil-type.



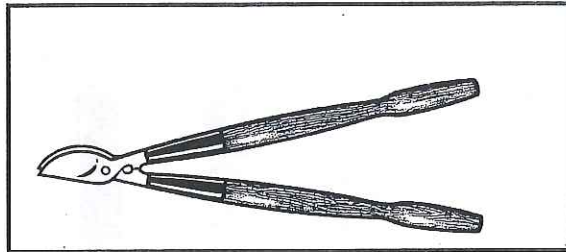
- Anvil (straight-blade): good for only soft-tissued wood; will crush harder wood (inappropriate per A300 standards).



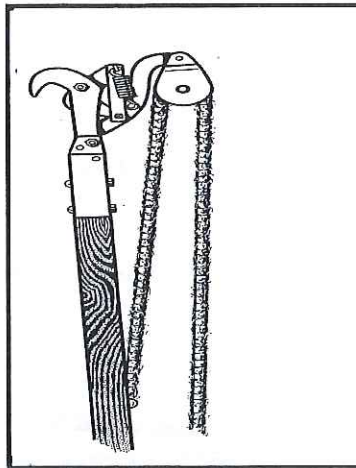
Lopping shears

Two-hand shears:

- Remove branches, stems up to 1-3/4" diameter.
- Most useful in rejuvenation.
- By-pass, hook and blade, etc.
- Anvil, straight-blade.
- Ratcheting.

**Pole Pruners**

- Wood and insulated poles (round and squared).
- Cut like by-pass shears.
- Important to keep blade side in toward the cut.



Cut at the outer side of the branch bark ridge at a slightly outward angle so as not to injure or remove the branch collar. Hook the pruner head around the limb to be cut with the blade side against the lateral branch or stem to remain. The arborist must be in a safe working position and the pruner handle positioned so the blade will not jam in the wood. You should not cut off a limb directly above yourself if there is any chance that it could fall and hit you.

Change your working position before completing the cut; place the hook so you have a straight pull on the rope and the lever arm can move far enough to complete the cut. An experienced tree surgeon can give a limb a flip with the side of the pruner head, just as the cut is completed, so that the limb will fall in the desired direction.

Saws

Pole saws:

- Hook cast onto pole-head.
- Wood poles (round and squared).
- Insulated poles (foam core).
- Difficult to make clean, accurate cuts.



Fine-tooth saw blades (more points per inch):

- On folding, rigid, and grip handles.
- *Needlepoint* teeth.
- Razor-tooth, Japanese, or *tri-edge*-style teeth (*Fanno™* 1311, *Felco™*, *Corona™*); narrow, curved blades facilitate getting into tight spots.



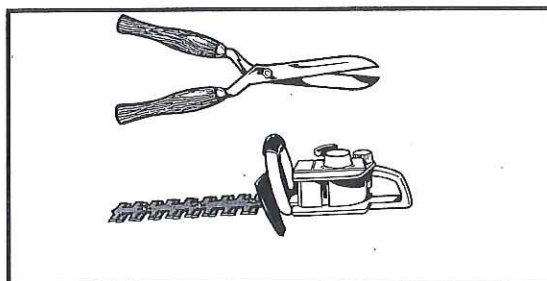
Arborist saws cut on the *pull* stroke:

- Davey-issue speed saw.
- Raker and gullet saws.
- Needle-tooth saws *Fanno™* series.
- Scabbards, blade lengths.
- Pole saw blades now available with tri-edge teeth.

Hedge Shears

Clippers/trimmers:

- Manual (sometimes called 'pruning' shears)



- Powered (electric, gasoline)
- Cut off growth 'in line' with no regard for node locations or branch bark ridges.
- Provide time and labor savings at expense of overall plant health.
- Dull blades compound problems and make you work harder!

Crown Thinning and Cleaning

A proper thinning cut removes a branch at its point of attachment, or back to a lateral branch large enough to assume a terminal role.

Learn to foresee the need for removing live branches while they are small. Avoid large cuts. Direction can be influenced by removal of short portions of growth or even by removal of individual buds.

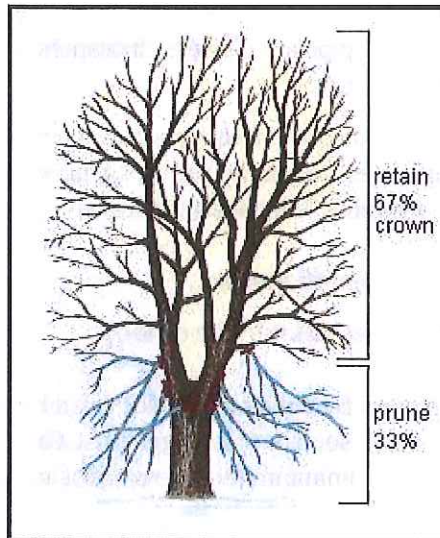
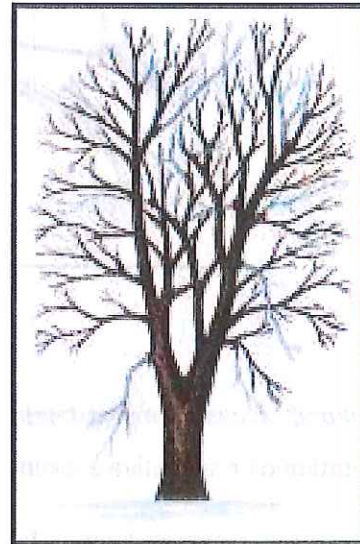
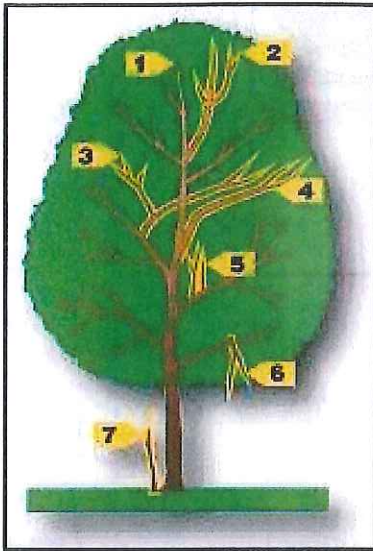
Thinning of lower branches can 'raise' a limb. If, after crown raising, the remaining leaf material is insufficient for limb size, consider complete removal. The client's opinion is important.

Never perform excessive thinning, which is stressful, especially on thin-barked or young trees prone to sunscald.

Avoid removing more than 1/4 of the live branches on a tree. Older or overmature trees should have an absolute minimum of living branches removed.

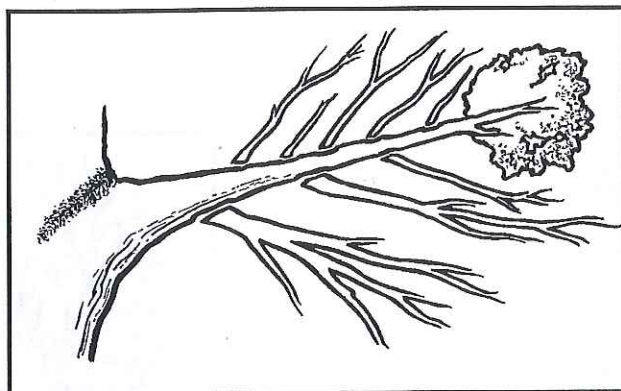
Always avoid 'skinning' or 'hollowing' out the center of a tree's canopy. The majority of thinning cuts should be made along the outer crown. Proper thinning requires a good deal of limb-walking and deft use of a pole-pruner when and where aerial lifts are not used.

When thinning laterals from a limb, maintain well-spaced inner branches to achieve more distribution of foliage along the branch.



Caution must be taken to avoid creating an effect known as *lion-tailing*:

- Caused by removing all of the inner laterals and foliage.
- Displaces foliar weight to the ends of the branches.
- May result in sunburned bark tissue, renewed and excessive epicormic branches, weakened branch structure and breakage.
- Wind whippage.



Lion-tailing

Removal of Diseased or Insect-Infested Branches

Sanitation or 'eradivative' pruning (crown cleaning):

- Cut out diseased limbs back to collars, appropriate lateral branches, or a scaffold branch at least one foot below infected portion.
- Disinfect tools *during or after* pruning diseased branches with bleach solution (1 part bleach to 10 parts water) or Lysol.
- Do not use any form of alcohol to sterilize pruning tools *during* the work. Use alcohol to disinfect auger-bits, injection tees, or pruning tools *after* the job, especially plants with wetwood or fireblight bacterial infections.

Removal of Weak, Rubbing, or Competing Stems

Remove, if possible, but avoid large holes in the canopy.

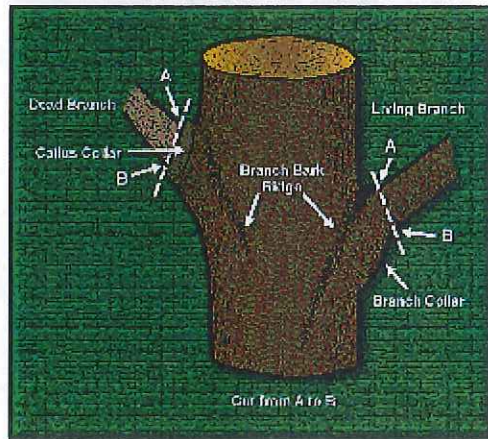
The life of large limbs, weakened by decay or cracks, can often be extended by "shortening" or weight removal using highly selective thinning cuts. Cabling and/or rigid bracing may be required to secure limbs or codominant stems if removal is not possible.

Deadwood Removal

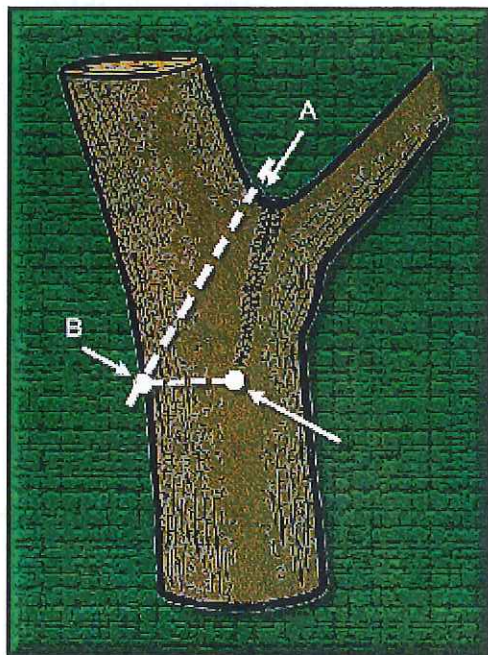
Sanitation and hazard reduction pruning:

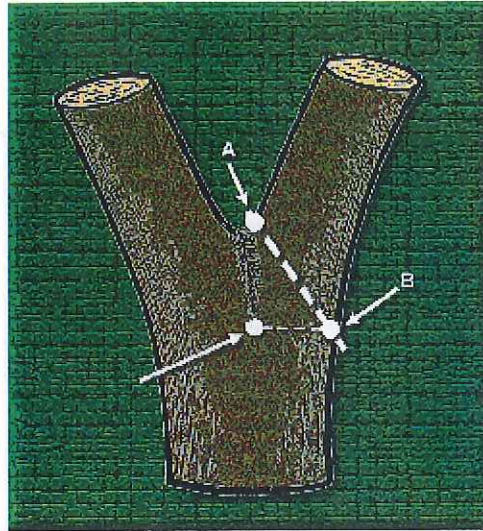
- Dead branches and stubs are an energy source (cellulose, glucose).
- Decay fungi.
- Boring insects.

Again, do not remove the branch collar around dead branches. Cut as close as possible to the collar of good wood surrounding the branch base.



Locate Target Points





Codominant Stem or Branch Removal

Always *stub cut* the stem to be removed, and then make the *finish cut* with care. Some defect (discoloration) will develop in the remnant stem 'core' in the main stem:

- Usually not attached like a true branch with protective collar.
- Barrier zone should develop and confine defect if correct cut is performed.

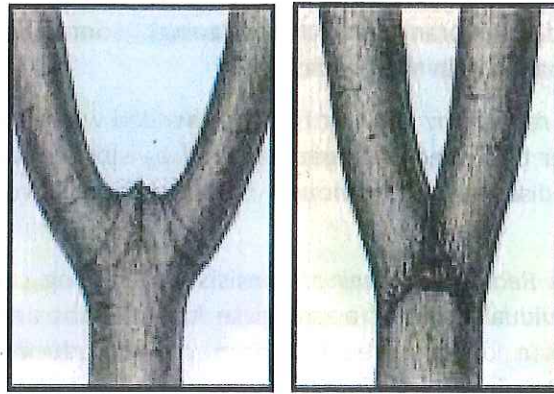
Never remove both stems!

When the bark plates on the stem bark ridge turn upward, the union of the stems is usually *strong*.

When the bark between the stems turns inward, the union of the stems is *weak*.

It is the *union* of the stems or upright branches more than the *angle* that determines whether attachment is weak or strong.

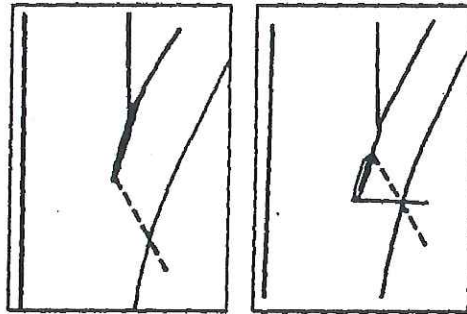
The stems have *included bark* squeezed or embedded *between* them.



Remedies:

To *remove*, stub cut the stem first and then cut where the dotted line is with care; avoid cutting into the remaining stem.

If the saw cannot complete this cut, tap a small wedge into the kerf and cut the remainder of the wood with a flat chisel and mallet.



To *strengthen* stem on older trees, a cable can be attached; place at a point approximately two-thirds of the distance from the crotch to the ends of the stems.

When a cable is used to strengthen stems, the cable and hardware must be checked regularly. When the risk of stem fracture becomes high, the weaker stem should be removed.

Davey Residential Operations employs four general classes of pruning. Classes 1, 2, and 3 are classified as maintenance pruning, which is recommended when the primary objective is to maintain or improve tree health and structure, including hazard reduction pruning:

- Class #1 - *Fine Pruning*: consists of the removal of dead, dying, diseased, interfering, objectionable, and weak branches (crown cleaning), as well as selective thinning to lessen wind resistance. Some deadwood up to ½ inch in diameter may remain within the main leaf area where it is not practical to remove such. Girdling roots will be monitored and removed where possible.

- Class #2 - *Medium Pruning*: consists of the removal of dead, dying, diseased, interfering, objectionable, and weak branches (crown cleaning). Some deadwood up to one inch in diameter may remain within the leaf canopy.
- Class #3 - *Hazard reduction*: pruning is recommended when the primary objective is to reduce the danger to a specific target, caused by visibly defined hazards in a tree, by removing dead, diseased, or obviously weak branches two inches in diameter or greater.
- Class #4 - *Crown Reduction Pruning*: consists of reducing canopy tops, sides, under branches, or individual limbs at appropriate lateral limbs and stems for purposes of clearance of storm damage repair. Some crown reduction pruning incorporates hazard reduction pruning.

Epicormic Branches

Epicormic branches may be needed to fill in the canopy where trees have been excessively thinned or storm damage has occurred (crown restoration).

Epicormic branches (shoots, watersprouts, suckers) arise from two types of "buds":

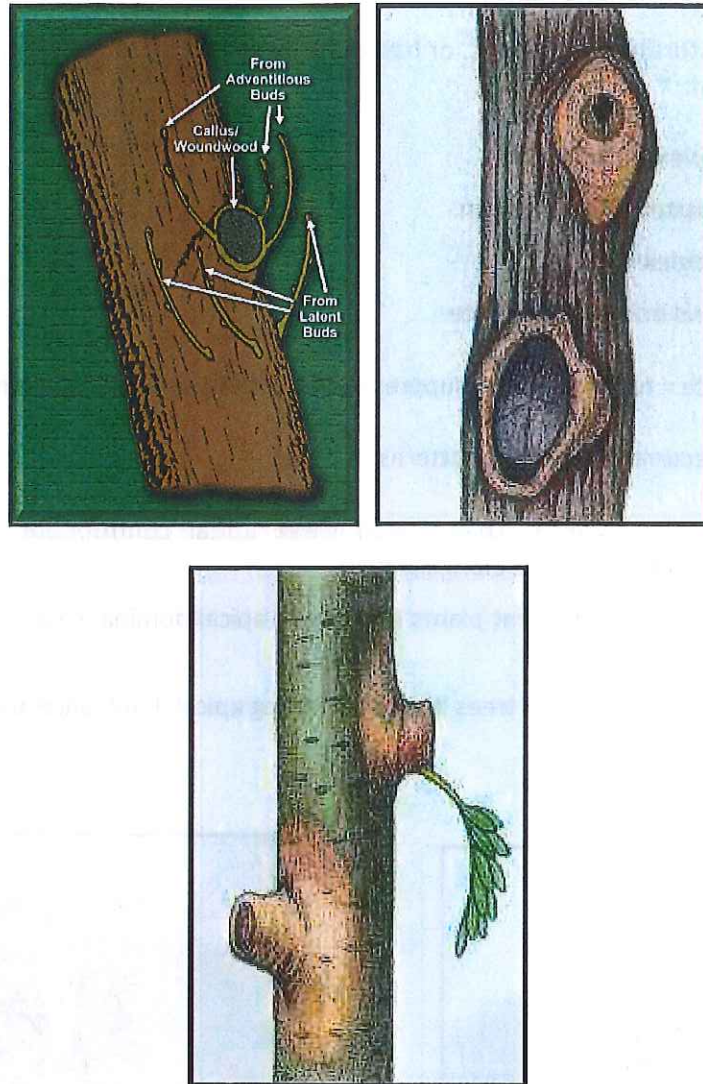
- Adventitious buds.
- Latent (dormant) buds or meristematic points.

Adventitious epicormics come from meristematic tissue generated anew by the cambium. Most adventitious buds develop from callus tissues moving over a wound, or from root tissue.

Latent (dormant) buds or *meristematic points* are formed at an earlier time in the life of a woody plant but do not 'release' or grow. Latent buds are 'carried along' in rays in the cambial zone year after year, as the tree increases girth, and are usually released upon injury or stress. Epicormic sprouts from latent meristematic points are often found in the vicinity of pruning cuts, usually below the wound.

Epicormic branches are *stimulated* on a much larger scale by winter or early spring pruning rather than by late spring-summer pruning (desirable in shrub renewal or rejuvenation).

A *watersprout* is an epicormic branch growing from branch and stem parts, or above a graft union.



A *sucker* is an epicormic branch growing from root tissue or below a graft union.

Apical Dominance and Control

Woody plant natural shapes, forms, or habits are governed by species' inherent (genetic) determination of:

- Leaf and flower bud locations.
- Bud-break patterns along stems.
- Branching angles.
- How buds and branches elongate.

Apical dominance = terminal bud(s) suppress lateral buds along an elongating shoot

Excurrent and *decurent* branching patterns:

- Decurrent woody plants have overall weak apical control, but strong apical dominance while shoots are elongating.
- Random-branching excurrent plants have weak apical dominance and overall strong apical control.
- Whorl-branching excurrent trees have both strong apical dominance and control.



Decurrent



Excurrent

Plant growth regulators are substances that enhance or alter the growth and development process of a plant. In most cases, these chemicals either increase or decrease normal growth, flowering, and/or fruiting of plants.

Selective growth control and/or branch release by natural growth regulators:

- Auxins
- Absciscic acid (ABA)
- Cytokinins
- Gibberellins (gibberellic acid = GA)
- Ethylene

Branch terminals – auxin source

Roots – cytokinin source

Low auxin = axillary bud release,
High cytokinin = energy storage
 drain

High auxin = bud suppression,
Low cytokinin initiate new roots

Plant growth regulators are substances that enhance or alter the growth and development process of a plant. In most cases, these chemicals either increase or decrease normal growth, flowering, and/or fruiting of plants.

Utility arborists use synthetic growth regulators to *control* the growth of trees and other vegetation beneath utility lines. Growth *inhibitors* can be:

- Sprayed on the foliage.
- Painted on pruning wounds.
- Banded on the bark.
- Soil applied.
- Injected into trees.

Antigibberellins are growth regulators that counter the effects of naturally occurring *cell-elongation* hormones (gibberellin). Ideal formulations are being sought that would minimize phytotoxicity while reducing utilities' pruning expenses.

Another use of growth inhibitors is to suppress epicormic branch production on trees:

- Not yet widely used by arborists.
- Must be applied annually.
- Client concern over the use of chemicals.
- Applicator safety concerns.
- Epicormic branch growth can be minimized with proper cuts.
- Retarded woundwood development.

Painting of Cuts

Proper cuts negate the "need" for wound dressings. Wound dressings will not *prevent* decay; wound dressings have been evaluated to often *promote* wood decay or cause cambium damage.

Cuts or wounds in certain species during the growing season may attract insects that carry diseases or allow fungus invasion. Native oaks or elms and European elms should be pruned during dormant periods in regions where wilt disease conditions are known to exist.

If pruned in summer, pruning wounds on wilt-susceptible oaks and elms should be treated with the current wound dressing recommended by The Davey Institute.

Pruning Phenology

The ideal or optimal times to prune most woody plants are:

- Late in the dormant season.
- After leaves are fully formed and expanded.

Client concerns with excessive *sap flow* (birches, maples):

- Avoid pruning during height of sap flow (just before growing season) if possible.
- Sap flow may be unsightly but does not cause definite injury.
- Prune immediately after leaves are fully expanded if client cannot be convinced.

Avoid pruning birches after leaf expansion, as the wounds may be attractive to boring insects.

Dead, broken, or weak limbs may be removed at any time with little effect, except in wilt-susceptible oaks and elms.

Pruning before the spring leaf bud-break period can enhance stimulated growth and rapid wound closure. Pruning during the period after leaf expansion will result in suppressed growth and maximum 'dwarfing'.

Avoid pruning those woody plants undergoing bud break and early leaf expansion, especially in the period where bark 'slips' (cambial development of ungnified wood).

Flowering can be reduced or enhanced by pruning at the appropriate time of the year. Woody plants that bloom on current season's growth ('summer-flowering' such as crapemyrtle or butterfly-bush) are best pruned to enhance flowering:

- During the dormant season.
- Just prior to or immediately after leaf expansion.
- In late summer (post-bloom).

Plants that bloom on last season's wood ('spring-flowering') should be pruned *just after bloom*.

- Fruit trees are often pruned during the dormant season to enhance structure and distribute fruiting wood, and after bloom to thin fruit-load.

Pruning Selection

Ideal pruning technique begins with planting the right tree in the right place (PHC selection).

Maintaining tree size or allowing for limited crown growth is possible with a regular pruning schedule begun early in the tree's life.

- Consider the extent of mature branches and crown.
- Select good stock with proper growth form.
- Imagine how form will continue to develop; there is no way to turn a large tree back into a small tree.
- Don't expect to improve form with future prunings.

Avoid obtaining saplings with included bark; the stem union becomes weaker rather than stronger as the plant grows. Failure of one or both stems of the fork frequently occurs when the tree is mature, especially during snow and ice storms (loading events).

Structural Pruning

Structural pruning principles are used when training young woody plants or working with a tree that has not been pruned in many years. Properly trained shrubs and young trees will develop into structurally strong plants that should require little corrective pruning as they mature.

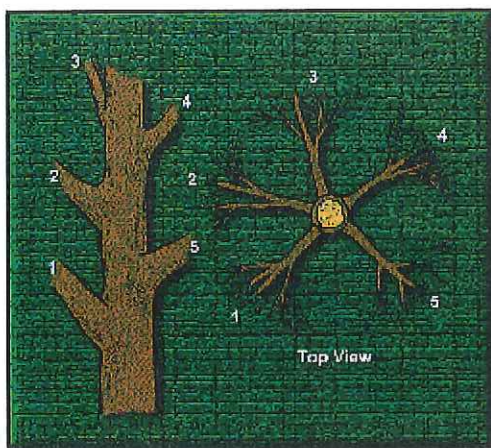
Trees that will be large at maturity should have a sturdy, tapered trunk, with well-spaced branches smaller in diameter than the trunk.

If two branches develop from apical buds at the tip of the same stem, they will form *codominant* branches or, eventually, codominant stems. Each codominant branch is a direct extension of the stem. It is best if one is removed when the tree is young.

Branches with narrow angles of attachment and codominant branches may tend to break if there is *included bark* that gets enclosed inside the crotch as the two branches develop girth and length.

The relative *size* of a branch in relation to the trunk is usually more important for strength of branch attachment than is the *angle* of attachment. Scaffold branches' diameters should not be more than 1/2 the stem or trunk diameter.

Select main branches to give *radial distribution*. Discourage branches growing directly over another unless spaced well apart.



On large-growing trees, except whorl-branching conifers, branches that are more than 1/3 the diameter of the trunk in size should be well spaced along the trunk (at least 18 inches apart).

Maintain one-half the foliage on branches arising in the lower 2/3 of younger trees.

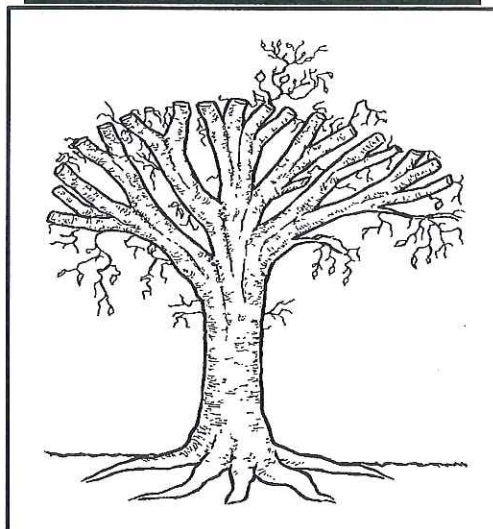
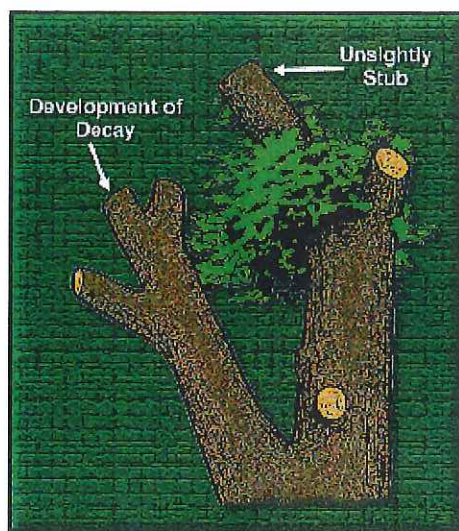
- Increases trunk taper.
- More uniformly distributes weight and wind stress along the trunk. This rule of thumb also holds true for an individual limb:
- Leave lower and inside branches along the limb.
- Limb can develop taper and strength.
- Stress and weight can be evenly distributed along the length.

The height of the lowest scaffold branch will depend on the intended function of the tree: screen an unsightly view, provide a windbreak, shade a patio, installed as a walkway or street tree.

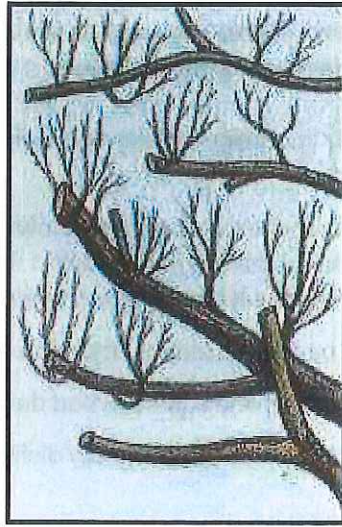
Pruning at Planting

For years, the conventional wisdom was that trees should be severely pruned at time of transplant to compensate for root loss and to "balance" the crown with the root system (especially bareroot trees). This practice has since been discovered to prolong *transplant shock*.

- Transplant pruning should be limited to removal of dead, broken, diseased, or interfering branches.
- Leave small shoots along the trunk for later removal.
- Protect the trunk from 'sunburn'.
- Aid in development of proper trunk taper.
- Leave as many terminal buds as possible.
- Stimulate root growth triggered by hormones in these buds.

Topping, Tipping, and Roundover

Topping: cutting vertical branches and stems back to inadequate nodes (heading) or to internodes (stubbing)



Tipping: heading side or horizontal branches to stubs or weak laterals.



Roundover: topping + tipping.

Many people have the misconception that cutting or heading the main branches of a tree back to stubs to 'reduce the height' is the proper way to prune.

Apparently, a short tree is thought to be safer and healthier than a tall tree regardless of how the result is attained. Heading back to stubs or inadequate laterals permanently disfigures and weakens a tree. Topping is one of the worst things humans do to trees.

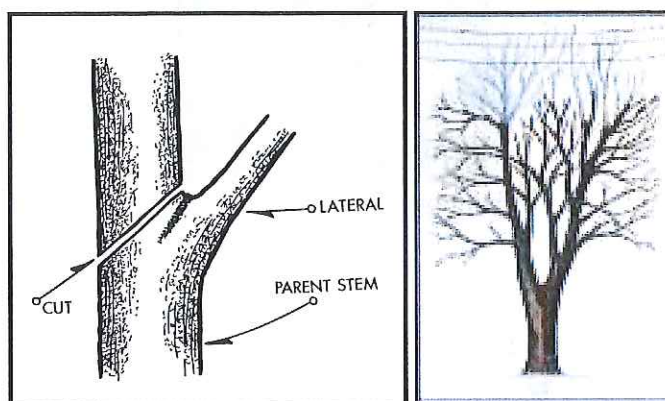
The International Society of Arboriculture (ISA) and the National Arborist Association (NAA) consider heading-back to stubs an unacceptable arboricultural practice. Modern pruning standards do not include heading-back as any sort of a recommended technique.

- Topping removes a major portion of a tree's leaves that are necessary for the production of carbohydrates.
- Stimulation of epicormic branches at or just below an internodal stub cut causes a topped tree to grow back to its original height faster and denser than a properly pruned tree. The sprouts are weakly attached and easily broken off in storms.
- Bark within the canopy can become scalded by sudden exposure to direct sunlight.
- Stubs attract wood-boring insects and sustain wood decay organisms.
- Topping, tipping, and roundover cuts permanently disfigure a tree.

Crown Reduction, Restoration, and Raising

If the height or width of a tree has to be reduced because of storm damage or interference with structures or utility lines, it is performed correctly by a method called *crown reduction* or *drop-crotch* pruning (NAA Class IV Crown Reduction). This procedure involves the removal of a main leader, scaffold, or branch at its point of attachment with a lateral branch large enough to assume a terminal or leader role.

The final cut should begin or end somewhat *parallel* to the remaining lateral branch and offset slightly above the branch bark ridge (without cutting into the bark ridge). The remaining lateral branch must be at least one-half to one-third the diameter of the branch or leader that is being removed.



If a tree has been topped previously and now has epicormic sprouts, *crown restoration* can improve its structure and appearance. Decayed, rotting stubs and tipped branches are cut back to appropriate laterals or entirely removed. One to three sprouts on main branch stubs are retained to become permanent branches and reform a more natural appearing crown. Selected epicormic branches may need to be thinned to a lateral to control length and ensure adequate attachment for the size of the sprout. Restoration usually requires several prunings over a number of years.

Trees in urban and landscape settings may need to have lower limbs removed. *Crown raising* or elevating removes the lower branches of a tree in order to provide clearance for buildings, vehicles, pedestrians, and vistas. Excessive removal of lower limbs should be avoided so that the development of trunk taper is not affected and structural stability is maintained.

Definitions of Arboricultural Terms

Anvil-Type Pruning Tool – Pruning tool that has a straight sharp blade that cuts against a flat metal cutting surface (see *hook and blade-type pruning tool*).

Arborist – A professional who possesses the technical competence through experience and related training to provide for or supervise the management of trees and other woody plants in the residential, commercial, and public landscape.

Boundary Reaction Zone – A separating boundary between wood present at the time of wounding and wood that continues to form after wounding.

Branch – A secondary shoot or stem arising from one of the main axes (i.e. trunk or leader) of a tree or woody plant.

Branch Collar – Trunk tissue that forms around the base of a branch between the main stem and the branch or a branch and a lateral. As a branch decreases in vigor or begins to die, the branch collar becomes more pronounced.

Branch Bark Ridge – Raised area of bark in the branch crotch that marks where the branch wood and trunk wood meet.

Callus – Undifferentiated tissue formed by the cambium layer around a wound.

Cambium – Dividing layer of cells that forms sapwood (xylem) to the inside and bark (phloem) to the outside.

Climbing Spurs – Sharp, pointed devices affixed to the climber's leg used to assist in climbing trees (also known as *gaffs, hooks, spurs, spikes, climbers*).

Closure – The process of woundwood covering a cut or other tree injury.

Crotch – The angle formed at the attachment between a branch and another branch, leader, or trunk of a woody plant.

Crown – The leaves and branches of a tree or shrub; the upper portion of a tree from the lowest branch on the trunk to the top.

Crown Cleaning – The removal of dead, dying, diseased, crowded, weakly attached, low-vigor branches, and watersprouts from a tree's crown.

Crown Raising – The removal of the lower branches of a tree in order to provide clearance.

Crown Reduction – The reduction of the top, sides, or individual limbs by the means of removal of the leader or longest portion of a limb to a lateral no less than one-third of the total diameter of the original limb removing no more than one-quarter of the leaf surface.

Crown Thinning – The selective removal of branches to increase light penetration and air movement, and to reduce weight.

Cut – The exposed wood area resulting from the removal of a branch or portion thereof.

Decay – Degradation of woody tissue caused by biological organisms.

Espalier Pruning – A combination of cutting and training branches that are oriented in one plane, formally or informally arranged, and usually supported on a wall, fence, or trellis. The patterns can be simple or complex, but the cutting and training is precise. Ties should be replaced every few years to prevent girdling the branches at the attachment site.

Facility – Equipment or structure used to deliver or provide protection for the delivery of an essential service such as electricity.

Girdling Roots – Roots located above or below ground whose circular growth around the base of the trunk or over individual roots applies pressure to the bark area, ultimately restricting sap flow and trunk/root growth. Frequently results in reduced vitality or stability of the plant.

Heading – Cutting a currently growing or one-year-old shoot back to a bud, or cutting an older branch or stem back to a stub or lateral branch not sufficiently large enough to assume the terminal role. Heading should rarely be used on mature trees.

Heartwood – The inactive xylem (wood) toward the center of a stem or root that provides structural support.

Hook and Blade Pruning Tool – A hand pruner that has a curved, sharpened blade that overlaps a supporting hook (in contrast to an *anvil-type pruning tool*).

Horizontal Plane (palms) – An imaginary level line that begins at the base of live frond petioles.

Lateral – A branch or twig growing from a parent branch or stem.

Leader – A dominant upright stem, usually the main trunk. There can be several leaders in one tree.

Limb – Same as *Branch*, but larger and more prominent.

Lopping – See *Heading*.

Mycellum – Growth mass of fungus tissue found under bark or in rotted wood.

Obstructing – To hinder, block, close off, or be in the way of; to hinder or retard a desired effect or shape.

Parent Branch or Stem – The tree trunk or a large limb from which lateral branches grow.

Petiole – The stalk of a leaf.

Phloem – Inner bark tissue through which primarily carbohydrates and other organic compounds move from regions of high concentration to low.

Pollarding – Pollarding is a training system used on some large-growing deciduous trees that are severely headed annually or every few years to hold them to modest size or to give them and the landscape a formal appearance. Pollarding is not synonymous with topping, lopping, or stubbing. Pollarding is severely heading some and removing other vigorous water sprouts back to a definite head or knob of latent buds at the branch ends.

Precut or Precutting – The two-step process to remove a branch before the finished cut is made so as to prevent splitting or bark tearing into the parent stem. The branch is first undercut, and then cut from the top before the final cut.

Pruning – Removal of plant parts.

Qualified Line Clearance Tree Trimmer – A tree worker who, through related training and on-the-job experience, is familiar with the techniques in line clearance and has demonstrated his/her ability in the performance of the special techniques involved. This qualified person may or may not be currently employed by a line clearance contractor.

Qualified Line Clearance Tree Trimmer Trainee – Any worker undergoing line-clearance tree trimming training, who, in the course of such training, is familiar with the techniques in line clearance and has demonstrated his/her ability in the performance of the special techniques involved. Such trainees shall be under the direct supervision of qualified personnel.

Qualified Person or Personnel – Workers who, through related training or on-the-job experience, or both, are familiar with the techniques and hazards of arboriculture work including training, trimming, maintaining, repairing, or removing trees, and the equipment used in such operations.

Qualified Tree Worker, Person, or Personnel – A person who, through related training and on-the-job experience, is familiar with the hazards of pruning, trimming, repairing, maintaining, or removing trees and with the equipment used in such operations and has demonstrated ability in the performance of the special techniques involved.

Qualified Tree Worker Trainee – Any worker undergoing on-the-job training who, in the course of such training, is familiar with the hazards of pruning, trimming, repairing, maintaining, or removing trees, with the equipment used in such operations and has demonstrated ability in the performance of the special techniques involved. Such trainees shall be under the direct supervision of qualified personnel.

Remote/Rural – Areas associated with very little human activity, land improvement, or development.

Sapwood – The active xylem (wood) that stores water and carbohydrates, and transports water and nutrients; a wood layer of variable thickness found immediately inside the cambium, comprised of water-conducting vessels or tracheids and living plant cells.

Shall – As used in this standard, denotes a mandatory requirement.

Should – As used in this standard, denotes an advisory recommendation.

Stub – An undesirable short length of a branch remaining after a break or incorrect pruning cut is made.

Stubbing – See *Heading*.

Target – A person, structure, or object that could sustain damage from the failure of a tree or portion of a tree.

Terminal Role – Branch that assumes the dominant vertical position on the top of a tree.

Thinning – The removal of a lateral branch at its point of origin or the shortening of a branch or stem by cutting to a lateral large enough to assume the terminal role.

Throwline – A small, lightweight line with a weighted end used to position a climber's rope in a tree.

Topping – See *Heading*.

Tracing – Shaping a wound by removing loose bark from in and around a wound.

Urban/Residential – Locations normally associated with human activity such as populated areas including public and private property.

Utility – An entity that delivers a public service such as electricity or communication.

Utility Space – The physical area occupied by the utility's facilities and the additional space required ensuring its operation.

Wound – An opening that is created any time the tree's protective bark covering is penetrated, cut, or removed, injuring or destroying living tissue. Pruning a live branch creates a wound, even when the cut is properly made.

Woundwood – Differentiated woody tissue that forms after the initial callus has formed around the margins of a wound. Wounds are closed primarily by woundwood.

Xylem – Wood tissue; active xylem is called *sapwood* and inactive xylem is called *heartwood*.

Young Tree – A tree young in age or a newly installed tree.

(20150896-01212016)

UDO Subsection 9.02.01(B)(1) Statement

Approved as to form this 19th day of November 2015.

Town Attorney

PROCEDURE

Planning Commission Consideration of Proposed Amendments:

In accordance with UDO Section 9.05, at its next meeting following the public hearing, the Commission shall review the proposed amendment and shall submit a written recommendation to the Council. The Commission shall specifically advise and comment on whether the proposed amendment is consistent with the Comprehensive Plan, the Boone 2030 Land Use Plan and other officially adopted plans that are applicable and whether the Commission recommends adoption of the proposed amendment. In its report to the Council, the Commission may comment, as it deems appropriate, on any other matter related to the proposed amendment.

Additional testimony not presented at the public hearing may be considered by the Commission upon favorable vote of the majority of its members present.

No member of the Commission shall participate in the discussion or vote on any recommendations regarding any amendment where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member.

Council Action on Amendments:

In accordance with UDO Section 9.06, at any meeting following the receipt of the recommendation from the Commission or after thirty (30) days following referral of the proposed amendment to the Commission if the Commission fails to make a recommendation, the Council may proceed with its

consideration of the proposed amendment. The Council must take action, however, no later than sixty (60) days after the Commission adopts a recommendation.

A comment by the Commission that a proposed amendment is inconsistent with the comprehensive plan shall not preclude consideration or approval of the proposed amendment by the Council, and the Council is not bound by any other recommendation of the Planning Commission, including a recommendation that the proposed amendment be rejected.

Additional testimony not presented at the public hearing may be considered by the Council upon favorable vote of the majority of its members present.

When adopting or rejecting any zoning amendment, the Council shall adopt a statement describing whether its action is consistent with the Comprehensive Plan, the Boone 2030 Land Use Plan and other officially adopted plan that is applicable and explaining why the Council considers the action taken to be reasonable and in the public interest. That statement is not subject to judicial review.

In accordance with UDO Section 9.07, when deciding whether to adopt a proposed amendment to this Ordinance, the central issue before the Council is whether the proposed amendment advances the public health, safety, or welfare. All other issues are irrelevant, and all information related to other issues at the public hearing may be declared irrelevant by the Mayor and be excluded.

CONFORMITY TO ADOPTED PLANS

COMPREHENSIVE PLAN UPDATE

1.1 Overall Objectives for the Boone Comprehensive Plan (p. 15):

The following objectives, which have not been listed in any particular order of importance, are deliberately broad in scope and less specific than either a policy statement or an implementation action.

Economic Development: Acknowledge the area's natural beauty, university, and medical center presence as the Town's greatest assets for economic development and jobs creation. Treat them accordingly.

Community Appearance and Community Character: Blend the built environment with the natural, scenic, and historic character of a High Country small town. Especially discourage commercial strip development, cluttered signage, and "cheap" apartment buildings.

Open Space: Integrate open space and greenways into the urban fabric of the Town. Preserve the countryside by discouraging suburban sprawl. Avoid development in floodplains, on ridgetops, and on steep slopes.

Environmental Quality: Address and monitor growth factors and activities that contribute to water, air, light, and noise pollution.

University: Emphasize cooperative planning among the Town, County, and University.

Neighborhoods: Ensure the livability of neighborhoods, especially through land use and traffic planning.

Public Involvement: Encourage active public involvement and volunteerism to expand the effectiveness of community planning and action.

Comprehensive Plan Policies: Staff has reviewed land use and comprehensive plan policies, and listed those policies which in staff's opinion have a bearing on the request. The Commission and Council should review these policies carefully. Each member may make his or her own interpretation as to the relevance of each and which carry the most weight thereby shaping their overall recommendation.

COMPREHENSIVE PLAN POLICIES

2.1.1 Economic Development

- A. The Town shall protect and enhance a high quality of life, image, cultural amenities, and natural beauty as the most effective, long term component of an economic development strategy.
- E. The Town shall encourage a public service and regulatory environment conducive to business recruitment and expansion, while at the same time enhancing the area's physical and human resources.

2.3.1 Community Appearance

- A. Measures to improve the effectiveness of grading, landscaping and buffering standards for new and Existing developments shall be encouraged.

BOONE 2030 LAND USE PLAN

5: Infrastructure & Sustainability

Page 48. Implement the Recommendations of the Urban Forestry Master Management Plan

Page 49. (2.) Improved Tree Planting/Protection Legislation and Policies: The Town should review and improve ordinances, guidelines, and policies regarding tree planting and tree and forest protection, and create or enact new legislation and policies as needed. These policies will serve as an official statement by the Town regarding the importance and value of trees in the community. **Action: Improve Town tree planting/protection legislation by reviewing and amending, as needed, the Boone unified Development Ordinance, and Section 99 of the Town Code.**

PLANNING BOARD REPORT

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Per NCGS 160A-383, the Planning Board shall advise and comment on whether the proposed zoning amendment is consistent with all applicable officially adopted plans, and provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the officially adopted plans shall not preclude consideration or approval of the proposed amendment by the Town Council.

PLANNING BOARD RECOMMENDATIONS

First motion and vote: The proposed amendment to the Town's zoning ordinance ☐is OR ☐is not consistent with the Town's comprehensive plan and other applicable adopted plans of the Town which relate to this application because:

Second Motion and Vote: The Planning Commission recommends ☐approval ☐denial for the following reasons:

TOWN COUNCIL ACTION

Per NCGS 160A-383, zoning regulations shall be made in accordance with a comprehensive plan. Prior to adopting or rejecting any zoning amendment, the governing board shall adopt a statement describing whether its action is consistent with an adopted comprehensive plan and explaining why the board considers the action taken to be reasonable and in the public interest.

ACTION TAKEN

First motion and vote: The proposed amendment to the Town's zoning ordinance ☐is ☐is not consistent with the Town's Comprehensive plan and other applicable adopted plans of the Town which relate to this application because:

Second Motion and Vote: I move to ☐approve ☐deny the proposed amendment to the Town's zoning ordinance and believe ☐approval ☐denial is reasonable and in the public interest because:
