

# APPLICATION ACCEPTANCE POLICY

BOARD OF ADJUSTMENT REQUEST FOR VARIANCE

City of Wilmington
Planning, Development and Transportation
Zoning Division

PO Box 1810 | 929 N Front St. Wilmington, NC 28402 Telephone 910.254.0900 | Fax 910.341.3264

The City of Wilmington understands that clear expectations make the application and review processes easier for both applicants and staff. The policies outlined below will enable staff to move the process along in a way that ensures that each application receives the attention it deserves. Staff desires to complete review of projects in an accurate and timely manner. Due to the volume of applications and quasi-judicial hearing schedules, working with incomplete materials detracts from the timely review of applications.

- 1. Applications are to be reviewed for completeness by staff prior to being officially accepted by the City for review. Applications that are dropped off or mailed in cannot be accepted without prior approval from the Zoning Administrator.
- Checklists for each type of request are provided with each application package. If the
  application does not contain all required items on the checklist, it will be considered
  incomplete and shall not be accepted.
- 3. Upon determination by staff that an application for a variance is complete, it will be officially accepted by the Zoning Division. Staff will complete an acceptance form and both staff and the applicant must sign the form. The application is not considered officially accepted until this form is signed by both the planner and the applicant. A copy of the signed form will be given to the applicant and a copy will be placed in the project file at the time of acceptance. Staff will not hold materials for incomplete applications.
- 4. Application fees must be paid at the time an application is submitted for acceptance.
- 5. In order to allow time to process fees, applications will not be accepted after 4:00 PM each day. On the deadline day for submittals for Board of Adjustment quasi-judicial hearings, applications will not be accepted after 1:00 PM.
- 6. For your convenience, applicants may schedule an appointment with staff or may "walkin" without an appointment. Please allow sufficient time to review the application package with staff.
- 7. If you plan to have legal representation at the quasi-judicial hearing, please notify city staff within one week prior to the hearing to ensure that the city can arrange representation as well. Failure to do so may result in the city requesting a continuance to another hearing.

The Planning Division staff looks forward to working with you during the application process. If you have questions or need further assistance, please call 254-0900.

Application No.	

#### ATTACH PLOT PLAN DESCRIBING VARIANCE REQUEST

#### PROPERTY LOCATION INFORMATION

Street address of subject property 507, 509, 515, 519, 525, & 529 S. Kerr Avenue

Tax Parcel Number of subject property R05507-002-067-000

ATTACH TAX PARCEL & OWNERSHIP INFORMATION FOR ADJACENT PROPERTIES

APPLICANT INFORMATION Name/Address/Telephone/Email	OWNER INFORMATION Name/Address/Telephone/Email
Name: Amy C. Schaefer, Lee Kaess, PLLC	Brad Avenue Flats, LLC; Attn: Sam Weldon
Address: 3414 Wrightsville Avenue	6752 Parker Farm Dr., Suite 100
Wilmington, NC 28403	Wilmington, NC 28405
Phone #:_910-399-3447	910-232-3334
Email: amy@leekaess.com	sweldon@blueridgeatlantic.com

ATTACH AGENT FORM IF THE APPLICANT IS NOT THE OWNER

DATE \$ 27 25 APPLICANT'S SIGNATURE

Application No.	
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#### CITY OF WILMINGTON STATE OF NORTH CAROLINA

#### APPLICATION FOR A VARIANCE

**PURPOSE OF VARIANCE** – A Variance is the official allowance of a variation from the dimensional requirements of the City Land Development Code or other development regulations. An applicant for a variance must demonstrate valid reasons which create a need for a Variance. These reasons cannot be strictly economic in nature but must generally involve some physical problem with the subject property which will not allow it to be developed in a reasonable manner if City development regulations are followed literally, such as a lot which is substandard in area or width.

**BOARD OF ADJUSTMENT** - The Board of Adjustment, or BOA, is the official City Board that considers requests for variances. The BOA receives sworn testimony at its quasi-judicial hearings and issues decisions on variance requests based on this testimony. It is the responsibility of each applicant for a Variance to attend the BOA meeting and present sworn testimony in support of the request.

**REASON FOR VARIANCE REQUEST** – Explain in your own words why you are requesting a Variance. Be sure to clearly indicate the problem(s) you will experience in complying with the City development regulations. (Attach additional sheets if needed.)

SEE ATTACHED			

The BOARD OF ADJUSTMENT is required to make the following four (4) findings before granting a Variance. Write a thorough response to each of these items.

- 1. Unnecessary hardship would result from the strict application of the ordinance. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property;
- 2. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from conditions that are common to the neighborhood or the general public may not be the basis for granting a variance;
- 3. The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship;
- 4. The requested variance is consistent with the spirit, purpose, and intent of the ordinance, such that public safety is secured, and substantial justice is achieved.

### INFORMATION TO APPLICANTS APPEARING BEFORE THE CITY OF WILMINGTON BOARD OF ADJUSTMENT FOR A VARIANCE

The Board of Adjustment regularly meets on the third Thursday of each month at 1:00 p.m. in City Council Chambers, 102 North 3<sup>rd</sup> Street, Wilmington, NC.

An application to the Board of Adjustment for a variance must be submitted to the City of Wilmington Zoning Division, located at 929 N Front Street, 1st Floor, thirty (30) working days prior to the meeting at which the application is to be considered. Should the applicant or his agent fail to appear for a duly scheduled quasi-judicial hearing before the Board of Adjustment without first requesting a continuance, such application for a variance may be dismissed by the Board.

An application must be accompanied by the following items - otherwise, it will not be accepted.

- Completed application form (including plot plan showing the nature of the variance request) and completed agent form, if needed. NOTE: The plot plan shall be drawn to scale and its size shall not exceed 11" x 17".
- 2) A check made payable to the City of Wilmington in the amount of \$500.00 for a variance request and for all other appeals.
- 3) A New Hanover County tax map delineating the property in question.
- 4) Within 5 business days of submitting an application, applicants shall be responsible for providing payment for adjacent property owner notification in the amount of \$0.85 per required notice. Adjacent properties are all properties abutting the site and properties immediately across the street from it. Planning staff will provide the applicant with a list of adjacent property owners and confirmation that notices were mailed.

Please contact the Zoning Division at 254-0900 if you have any guestions.

R:\Project Management\Application Forms\BOA forms and apps\Variance Forms\BOA Application Instructions 2024 /kht

### CITY OF WILMINGTON STATE OF NORTH CAROLINA

### APPLICANT'S RESPONSE TO REQUIRED ITEMS FOR CONSIDERATION FOR A VARIANCE

**Applicant/Representative**: Please write a thorough response to the following four items which are required by State law to exist in order for a variance to be granted. Please submit these responses as part of your application package.

- Unnecessary hardship would result from the strict application of the ordinance. It shall
  not be necessary to demonstrate that, in the absence of the variance, no reasonable
  use can be made of the property;
- 2. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from conditions that are common to the neighborhood or the general public may not be the basis for granting a variance;
- 3. The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship;
- 4. The requested variance is consistent with the spirit, purpose, and intent of the ordinance, such that public safety is secured, and substantial justice is achieved.

#### **APPLICANT INFORMATION:**

The date, time, location and other pertinent information concerning the Board of Adjustment meeting is enclosed. It is highly recommended that you or your representative attend the meeting. In the event that you do not attend, the item may be continued or approved in a manner other than your original request. If you plan to have legal representation at the quasi-judicial hearing, please notify city staff within one week prior to the quasi-judicial hearing to ensure that the city can arrange representation as well. Failure to do so may result in the city requesting a continuance to another quasi-judicial hearing. Absence at a meeting is implied consent for the actions that may be taken by the Board.

Should you have questions regarding the Board of Adjustment procedures or the specifics of the meeting, please contact the Planning Division at 254-0900, Monday through Friday, between the hours of 8:00 a.m. and 5:00 p.m.

#### AUTHORITY FOR APPOINTMENT OF PERSON TO ACT ON MY BEHALF

The undersigned owner,	Samuel W. Weldon, CPA BRAD AVENUE FLATS, LLC	, does hereby appoint
PARAMOUNTE ENGINE	EERING, INC. (See Below)	to act on my behalf for the purpose of
petitioning the City of W	ilmington for: a) an amendme	ent to the text regulations; b) a change to
the zoning map; c) appro-	val of a special use permit; d) a	approval of a special use district; e) street
closing, and/or f) approva	al of preliminary subdivision pl	an as applicable to the property
described in the attached	petition.	
The owner does h	ereby covenant and agree with	the City of Wilmington that said person
has the authority to do the	e following acts for and on beh	alf of the owner:
(1) To submit a p	roper petition and the required	supplemental materials;
(2) To appear at p	public meetings to give testimor	ny and make commitments on behalf of
the owner; and	d	

(3) In the case of a special use permit, to accept conditions or recommendations made for

This appointment shall continue in effect and final disposition of the petition submitted in

(4) To act on the owner's behalf without limitations with regard to any and all things

the issuance of the special use permit on the owner's property.

conjunction with this appointment.

Mike Nichols, RLA, AICP

122 Cinema Dr. Wilmington, NC 28403 (910) 791-6707

Appointee's Name, Address & Telephone: PARAMOUNTE ENGINEERING, INC.

directly or indirectly connected with or arising out of any petition.



## Attachment to Variance Application Avenue Flats, N. Kerr Avenue, Wilmington

#### **Reason for Variance Request**

#### **BACKGROUND**

BRAD Avenue Flats, LLP ("Developer") plans to develop, with support from the City of Wilmington Housing Authority, the "Avenue Flats" multi-family housing development located at 507, 509, 515, 519, 525 & 529 S. Kerr Avenue, Wilmington, NC 28401, identified as Parcel ID R05507-002-067-000 ("Property"). In total, the project area totals 6.60 acres and was rezoned by the City of Wilmington on September 9, 2024, to MD-17(CD-3-824) for the development of a 100% affordable housing project totaling 184 units and supporting amenities.

Prior to this project, the property was zoned R-10 and consisted of five (5) individual residential parcels with multiple structures dating back to the 1950's. The existing structures are in a varying degree of decline from uninhabitable to aging and damaged. The surrounding landscape is significantly overgrown and unmaintained, consisting of several man-made ponds of various sizes and dilapidated sheds and garden structures. The largest of the man-made ponds is approximately 20,000 SF and can be seen on an aerial photo dated 1956, see attached **Exhibit A** for reference. The significance of this pond will be discussed later in this narrative and is related to this request of the project applicant to the Board of Adjustments to remove a 31" DBH *Quercus virgininia* ("Live Oak") that is one (1) of seven (7) existing Specimen Trees located on the project site. The remaining six (6) Specimen Trees will be retained or relocated on the subject property and incorporated into the project design.

Specimen Trees are defined by Table 18-316.1 of the City of Wilmington Land Development Code (LDC) and Section 18-361(D)(2)-(3) of the LDC sets forth certain requirements regarding protection of the Critical Root Zone (CRZ) of any Specimen Tree. **Exhibit B** provides the location of all seven (7) Specimen Trees overlayed on the proposed site plan and illustrates how these trees are widely distributed (not clustered) and centrally located in the middle and street-front portions of the property. See the following Specimen Tree Chart for descriptions of each Specimen Tree located on the property.

Specimen Tree Chart			
Tree	Critical Root Zone	CRZ Impact	Notes
	(CRZ)	(20% Max. Allowed)	
38" Live Oak	7,088 SF	18.56%	Save tree in place.
(Tree #1 on plans)			
36" Live Oak	6,361 SF	19.39%	Save tree in place.
(Tree #2 on plans)			
48" Live Oak	11,309 SF	19.46%	Save tree in place.
(Tree #3 on plans)			
24" Live Oak	2,827 SF	14.75 %	Save tree in place.
(Tree #4 on plans)			
31" Live Oak	4,717 SF	100%	Remove tree due to
(Tree #5 on plans)			poor condition.
26" Bald Cypress	3,318 SF	100%	Save tree, relocate
(Tree #6 on plans)			on site.
48" Live Oak	11,309 SF	19.72%	Save tree in place.
(Tree #7 on plans)			

Even though the locations of the existing Specimen Trees are spread throughout property and create substantial challenges to development (as shown in Exhibit B), the applicant has prioritized tree preservation where feasible by developing a design that would preserve in place five (5) of the existing seven (7) trees with less than the allowable 20% impact to each tree's CRZ and relocating one (1) additional tree on site where a greater than 20% CRZ impact was unavoidable.

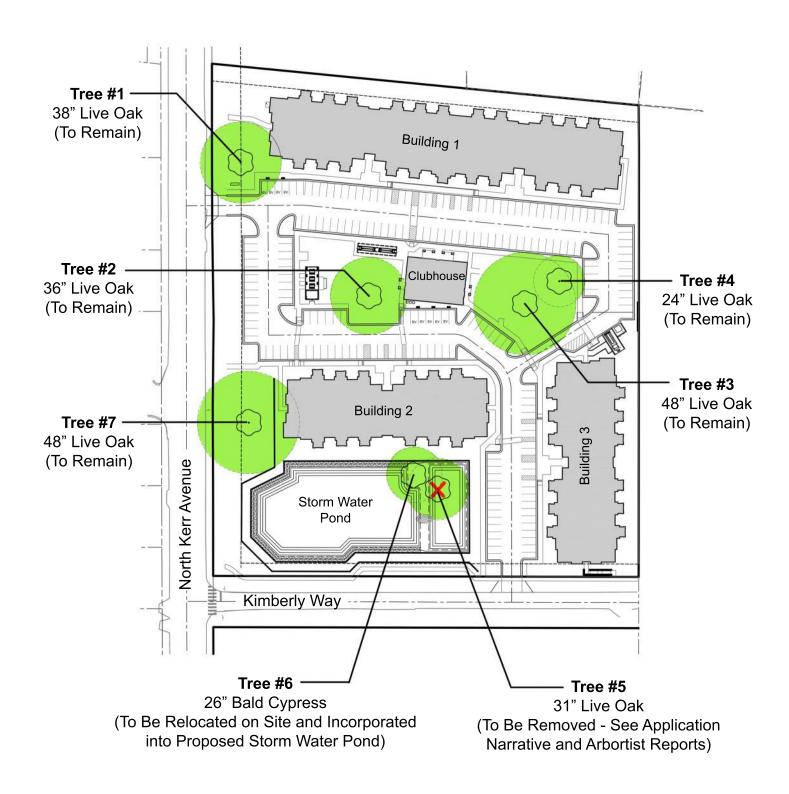
Unfortunately, one (1) of the seven (7) existing Specimen Trees is in poor condition with a significant lean and a compromised root system. The tree, a 31" Live Oak, has been evaluated by two independent arborists and their reports are provided in support of this this variance request. The tree is growing on the top edge of the sloped bank at the perimeter of the existing beforementioned 20,000 SF pond on site. As described in the arborist reports, the tree's location at the pond bank has contributed to the lack of development of anchoring roots on the pond side (downward slope side) of the tree. Additionally, there is decay pocket at the base of the tree on the pond side, which indicates there is a moderate level of internal decay in the tree trunk. Both factors may have contributed to the significant lean and instability of this tree and potential safety concern if this tree should fail. Relocation of the tree is not a viable option due to its existing growth pattern, potential instability and compromised root system. It is recommended by both arborists that this tree should be removed for these reasons. Photos of this tree are provided on **Exhibit C**.



#### **EXHIBIT B**

Avenue Flats Site Plan - Locations of Specimen Trees





#### **EXHIBIT C**

Avenue Flats Site Photos - 31" Live Oak



**Photo 1 (Above)** - View of overall tree illustrating leaning growth habit away from the existing pond. The existing pond is to the left of the tree in this photo.

Location of decay pockat base of tree trunk

Photo 3 (Right) - Close of view of tree from the bottom of bank (pond side). The location of the decay pocket described in the arborist's report is identified. This photo also emphasizes the tree's growth habit away from the existing pond and compromised anchoring roots due to steep topography at the pond bank.



Photo 2 (Above) - View of tree from the pond side, illustrating the tree location at the top of bank and growth habit. The steep slopes at pond edge have limited development of anchoring roots at this side of the tree



#### FINDINGS OF FACT – APPLICANT'S RESPONSES

1. <u>Unnecessary hardship would result from the strict application of the ordinance. It</u> shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property.

Response: The location of the seven (7) existing Specimen Trees on site significantly constrains development of this site. Regardless of this fact, the applicant has made preservation of the existing Specimen Trees a priority with the design of the project. Five (5) of the seven (7) trees will be protected in place with less than 20% impact on their CRZ's. One (1) of the seven trees conflicts with the proposed storm water pond, but it is in good health and will be saved by relocating it on site. Another one (1) of these seven (7) trees is also in conflict with the proposed storm water pond, but it is in poor health as determined by two (2) separate arborist reports and would not likely survive relocation and could become a safety hazard if it was relocated due to its unbalanced growth pattern, compromised root structure and visible decay pocket on its trunk. Given the applicant's commitment to tree preservation, as demonstrated through the design and relocation efforts described above, requiring the applicant's strict application of the ordinance by maintaining or relocating one (1) Specimen Tree that is in poor health and in conflict with the required storm water pond would create unnecessary hardship and limit the viable use of the land for the proposed affordable housing project.

2. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from conditions that are common to the neighborhood or the general public may not be the basis for granting a variance.

Response: The subject property was previously used as a commercial nursery, dating back to the historical aerial photo from 1956 (**Exhibit A**). During that time, the previous property owner created a large (20,000 SF) and deep (+/-6'-8') pond on site for irrigation purposes. That pond remains today and is a man-made topographic condition that is unique and particular to this property. The applicant seeks removal of a 31" Live Oak that is growing on the bank of this man-made pond. As described in the arborist reports, this 31" Live Oak is in poor condition with visible trunk decay and a significant lean away from the sloped bank of the adjacent pond. The tree's location at the top of the bank has also contributed to the lack of anchoring roots developing on the pond (downhill) side of the trunk, which can be a

factor in the overall tree's stability and unlikely success to be relocated elsewhere on site.

3. The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship.

Response: The hardship is not created through the actions of the applicant or property owner. The Developer did not dig the existing man-made pond or plant the 31" Live Oak in a location that would eventually compromise its health and create a potentially unsafe condition given the significant leaning of the tree and its damaged root system on the backside of the tree. The pond and its surrounding topography were created for commercial nursery use nearly 70 years ago.

4. The requested variance is consistent with the spirit, purpose, and intent of the ordinance, such that public safety is secured, and substantial justice is achieved.

Response: The spirit, purpose, and intent of the ordinance is to protect Specimen Trees in the city and preserve existing tree canopies to the maximum extent feasible, while balancing the need for responsible development. The applicant has demonstrated through the design of the project in a manner to avoid or minimize impacts to CRZ's under the 20% allowable threshold, and through protection or relocation of six (6) of the existing seven (7) Specimen Trees on site. One tree, a 31" Live Oak, has been reviewed on site by two separate, independent arborists, which have provided reports that the tree is not in good health and not a candidate for relocation. Granting this variance will allow for the development of much-needed affordable housing (this project is 100% affordable with 184 units), while preserving as much of the existing tree canopy as feasible. The removal of the 31" Live Oak is reasonable given its poor health and potential safety hazard should the tree fall; and it is necessary to facility a project that will serve the community with affordable housing stock.

#### SUMMARY

There are seven (7) specimen trees on the subject property that are subject to the city's tree ordinance. The applicant has made every reasonable effort to design the site for affordable housing in a manner that provides all the required elements of that specific type of project, while also preserving as many trees as feasible. This is illustrated through the way the buildings and parking lots were oriented to save as many trees as possible. Unfortunately, one (1) of the seven (7) Specimen Trees (a 31" Live Oak) is not in good health and has a severe structural lean, which is due in part to its growing location adjacent to the steep slopes of the existing man-made pond on site. Additionally, the existing location of this 31" Live Oak is also in conflict with the proposed storm water pond, which must be in this same general area as the existing tree for drainage outfall reasons. The decision to remove the tree is not taken lightly, in fact, there is one other Specimen Tree in this same location (26" Bald Cypress) that will be relocated and saved on site. However, the poor health and structural instability of the 31" Live Oak does not make it a viable candidate for relocation due to its health and potential safety concerns that the tree may not be stable upon relocation due to its compromised root system and unbalanced growth pattern.

The request to remove the 31" Live Oak is consistent with the ordinance given its poor condition and unlikely success of surviving a relocation. The request for removal is also reasonable, considering the public benefit of project and tree preservation efforts of the applicant to maintain six (6) of seven (7) Specimen Trees on the property.





Bartlett Tree Experts Everett Jones – Representative 2725 Old Wrightsboro Rd Suite 5C Wilmington, NC 28405

Prepared August 4th, 2025

Blue Ridge Atlantic ATTN: Michael Beckley 6752 Parker Farm Drive, Suite 100 Wilmington, NC, 28405 Everett Jones Arborist Representative ISA Certified Arborist #so-10692A ISA Tree Risk Assessment Qualified

#### Introduction:

This report concerns the structural and biological condition of a mature, 31" DBH Live Oak located at the back of <u>529 S Kerr Street in Wilmington</u>, NC, adjacent to a stormwater retention pond. The tree exhibits several structural deficiencies and site-specific limitations that diminish its suitability for long-term preservation.

#### Site and Structural Conditions:

- Lean and Root Plate Distribution:

The tree exhibits a pronounced lean directed away from the adjacent retention pond. A large portion of the root system lies on the pond side, where the grade drops sharply. The remainder of the root mass is perched on an elevated slope, resulting in an asymmetrical root plate. This uneven distribution reduces the tree's anchorage potential and increases the likelihood of partial or total root failure under environmental loading, particularly during storm events.

- Canopy Architecture and Load Distribution:

The canopy is significantly imbalanced, with a heavy concentration of live growth on the leaning side. This asymmetric crown places additional mechanical stress on an already compromised root system. Several large-diameter scaffold branches in the lower canopy are dead, likely due to prolonged shading from unmanaged vegetation competition, leading to increased potential for limb drop.

- Species Consideration:

Live Oaks are broadly recognized for their structural integrity and resilience in coastal environments. However, individual performance is site-specific. In this case, the tree's structural configuration, root distribution, and canopy imbalance collectively diminish its stability and increase its likelihood of failure.

#### Structural Observations:

In its current state, the tree poses an elevated likelihood of failure due to a combination of root instability, wind exposure, and mechanical loading from an uneven canopy compared to a natural Live Oak structure. The likelihood of failure is estimated to increase substantially with the removal or relocation of adjacent trees, as this will expose the subject tree to prevailing winds for which it has not structurally acclimated.



Bartlett Tree Experts Everett Jones – Representative 2725 Old Wrightsboro Rd Suite 5C Wilmington, NC 28405

Prepared August 4th, 2025

#### **Relocation Option:**

Relocation of this tree is not advised due to both its structural liabilities and the stress such a process would impose on a root system already at mechanical disadvantage. If the tree were to be re-located, the likelihood of canopy decline and/or windthrow would increase exponentially.

#### **Recommendations:**

- Not recommended for retention:

Based on observed conditions and projected site modifications, this tree is not recommended for preservation. Its structural liabilities potentially pose an unacceptable long-term risk, particularly when weighed against the number of other mature trees on-site that present with more favorable architecture, root development, and retention potential.

- Interim Safety Zone (If Retained):

Should the tree be retained temporarily, a controlled exclusion zone with a radius exceeding the height of the tree should be established and maintained. This is to protect personnel or equipment from potential failure of major branches, stem, or entire tree.

#### Conclusion:

Although Quercus virginiana is generally a high-performing species in urban and coastal conditions, I would not consider this specific specimen as a viable candidate for retention. The combination of a compromised root plate, structural lean, heavy canopy bias, and future exposure to wind loads presents a increasing hazard. I would recommend instead prioritizing the preservation of structurally sound, well-situated canopy trees elsewhere on the property. Although the tree canopy is not in decline at this time, this does not imply that the tree is structurally sound or suitable for retention.

If you have any questions about this report, please contact me.

- Everett Jones

The owner/client also understands and acknowledges that the consultation of survey and tree condition verification, are not intended to provide a Tree Risk Assessment as defined by industry standards. The owner/client should not infer that any information contained in, or absent from, the accompanying inspection, report, or deliverable material is meant to declare a tree or group of trees to be "safe" or the risk of failure mitigated in any way.





July 24th, 2025

Mike Nichols Paramounte Engineering, Inc. 910.791.6707 122 Cinema Dr Wilmington NC, 28403

#### Tree Assessments of the Wilmington Site at S Kerr Ave.

#### Dear Mike,

DRG conducted tree health assessments on three Specimen trees located on Parcel #R05507-002-067-000 off Kerr Avenue in Wilmington, NC on July 23, 2025. The purpose of the assessment was to perform tree health assessments on select trees for the purpose of obtaining data requisite for compliance with the City of Wilmington Code of Ordinances Article 5. Site Development Requirements, Section 18-316 Tree Preservation. Based on discussions with Paramounte Engineering, DRG understands that the proposed development action may impact the root systems of these trees. The following report details DRG's assessment of each Specimen tree and provides recommendations related to relocation and remain in place actions.

Site Location: S Kerr Ave at Kimberly Way, Wilmington, NC 28403.



#### A: Southern Live Oak (Quercus virginiana)

DBH: 48in Height: 32ft Crown Spread: 76ft Overall Condition: Fair Status: Specimen Tree

#### **Defects:**

- co-dominant branches with included bark: these branches are poorly attached and tend to fail more often than other branches.
- Missing or decaying wood: Several locations with decay pockets on main leads and trunk.
- **Fruiting bodies:** located on main stem implying internal decay.



A: Weakly attached Branches

 Dead / dying parts: dead branches throughout canopy as well as a large dead and broken lead, center canopy.

#### Synopsis:

Overall, the oak tree is in a fair condition, there are issues regarding internal decay, weakly attached lateral branches and large dead and broken leads. However, the foliage of the canopy is still rather full with little dieback which indicates a healthy root system and functioning cambium layer able to transport vital water and nutrients through the system to support itself. As per the discussion with the client, Paramounte is expecting the development to cause a root zone loss of approximately 47% if the tree were to be remain at its location. Anticipating a loss of 47% it is expected the oak will respond with moderate dieback in the canopy.

If the Oak were to be removed from site, we can assume a root zone loss of greater than 50%. In the case of relocation, it is expected the tree will have drastic dieback in the canopy and potential loss of life given the trees approximate age and its overall condition. In addition, given the weak attachment of large lateral limbs there is a moderate chance these branches will break off during the moving process without adequate supports.



A: Missing and Decaying Wood

#### Recommendations:

DRG does not recommend the removal and relocation of this tree as it poses too many risk factors to the overall well-being of the tree, with little guarantee the tree will survive. Given the approximate loss of 47% of its root system if it were to remain on site, DRG recommends proper pruning of the roots using an Airspade system to excavate the roots without causing unnecessary damage and making clean cuts to the roots that are to be removed. DRG recommends general pruning of the canopy to remove all dead and broken branches, as well as thinning the canopy of some of its live branches to compensate for the anticipated root loss. Lastly, DRG recommends soil amendments and fertilization after the work has been completed to reduce stress. This can include a fertilizer with nitrogen, phosphorus and potassium and an additional application of mycorrhizal inoculant, Mycorrhizal fungi are a type of fungi that form a mutualistic relationship with the roots of trees and plants. They colonize the root system and extend their hyphae into the soil aiding in nutrient uptake.

#### B: Bald Cypress (Taxodium distichum)

DBH: 26in Height: 47ft

Crown spread: 41ft Overall Condition: Good Status: Specimen Tree

#### Defects:

- **Dead and dying branches:** some dead and broken branches located in the lower half of the canopy
- Trunk condition: Sap sucker damage located on main stem
- Root Problems: minor girdling roots at root flair

#### Synopsis

The Bald cypress is in good condition with minor defects. There are some small dead and broken branches found in the lower half of the canopy however, this is common in similar trees and does not indicate other issues. The trunk does have sapsucker damage nonetheless this damage is negligible and rarely causes significant decline in similar trees. Lastly there are minor girdling roots at the base of the tree which currently does not pose a risk to the health of the tree.

#### Recommendations:

As per the conversation with Paramounte this site will undergo changes to the topography to fill the lowland pond with roughly 6-8ft of fill and will be compacted in order to install parking spaces for the projected housing development. After review of the specimen tree DRG recommends and agree that this tree is a good candidate for removal and relocation. If the tree would remain on site the compaction of the roots and change in moisture levels in the soil could cause significant decline in the trees health and potential death.



B: Bald Cypress (*Taxodium distichum*)



B: Sapsucker Damage



DRG recommends relocating this specimen to a site that is similar in soil type with adequate moisture. If it were to be planted in dry sandy soils this may cause the tree to become shocked and will likely die due to the drastic change of its microclimate and soil type. With relocation or root pruning of any kind DRG recommends proper root pruning with an Air-spade system and clean cuts to the roots that are to be removed. As well as after care with soil amendments and fertilization as mentioned above.

#### C: Southern Live Oak (Quercus virginiana)

DBH: 31in Height: 40ft Crown Spread: 44ft Overall Condition: Poor Status: Specimen Tree

#### **Defects:**

- Missing / Decaying wood: There is a decay pocket at the base of the tree
  on the backside of the lean closest to the pond.
- Tree architect: there is a significant lean to the oak
- Root problems: The root system is damaged on the backside of the tree towards the pond

#### Synopsis:

The oak located near the pond is in a fair condition with several issues. There is a decay pocket located at the base on the backside of the tree which indicates moderate internal decay. The tree also has a damaged root system and lacks anchoring roots on the backside of the tree (pond side). Also the overall architect of the tree is unbalanced with a significant lean, the lean in general does not necessarily indicate a defect as it could be a phototropic growth pattern however, along with the decay and damaged root system on the backside of the tree this could compromise the structural integrity of the tree and opens it up to the possibility of failure.

#### Recommendations:

Similar to the Bald Cypress this tree will be adjacent to changes in grading, north of the oak a lowland pond will be filled roughly 6-8ft to make space for a parking lot, additionally on the southern side excavation will occur to install a retention basin. Given these factors if the tree were to remain on site it is likely to experience moderate to severe dieback. Conversely relocating this tree would pose other risks to the health of the tree, based on the condition of the tree relocating is not advisable as the lack of a healthy root system may cause the tree to not be able to re-anchor itself in the new location and would be susceptible to failure and a safety concern to the public. DRG recommends the removal of this tree due to its poor health condition and safety concerns.



C: Southern Live Oak (*Quercus virginiana*) (Backside)



C: Decay Pocket (backside)

In conclusion, DRG has carefully evaluated the health and structural integrity of the three Specimen trees on Parcel #R05507-002-067-000 to inform tree preservation decisions in accordance with the City of Wilmington's Code of Ordinances. The 48-inch Southern Live Oak, while in fair condition with internal decay and weak lateral limbs, is not a viable candidate for relocation due to high risk of mortality and structural failure; however, with targeted root and canopy pruning, soil amendments, and careful preservation efforts, it may remain on-site with anticipated moderate canopy dieback. The 26-inch Bald Cypress is in good overall condition and, due to site grading impacts, is a suitable candidate for relocation if moved to a location with similar moisture and soil conditions, following best practices for root pruning and aftercare. The 31-inch Southern Live Oak near the pond shows signs of structural instability, root loss, and internal decay, this specimen is in poor condition and is not a good candidate for relocation. Additionally, due to its location with regards to the proposed plans this tree is a safety concern and should be removed.

Thank you for the opportunity to assist with the tree assessments at the Wilmington site. We appreciate Paramounte Engineering's commitment to responsible site development and tree preservation. Should you have any questions regarding the findings or recommendations in this report, please don't hesitate to reach out.



#### Sincerely,

### Riley Eddins

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