



Administrative Approval Action

Case File / Name: SUB-0077-2020
Thornton Road Townes

City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

LOCATION: This 15.29 acres zoned R-10 CU (Z-53-19) is located on the south side of Thornton Road and to the east of the intersection of Thornton Road and Thornton Commons Drive, at 5510 Thornton Road. It is outside the city limits.

REQUEST: This is a townhome subdivision consisting of 110 residential town house lots and 8 HOA/Common area lots.

One variance associated with this project was approved by the Board of Adjustment:

BOA-0026-2021 - a variance to UDO section 8.3.3.A. and UDO section 8.3.3.C. in order to permit a recombination of three properties into three reconfigured parcels resulting in one newly configured parcel which does not have frontage on a public street and will also contain two existing principal detached single-unit dwelling structures on a single lot; and one newly configured parcel which will continue to maintain two existing principal detached single-unit dwelling structures on a single lot for properties totaling 26.75-acres split-zoned R-4 and R-10 Conditional Use located at 5512, 5514 and 5524 Thornton Road

**DESIGN
ADJUSTMENT(S)/
ALTERNATES, ETC:** N/A

FINDINGS: City Administration finds that this request, with the below conditions of approval being met, conforms to the Unified Development Ordinance. This approval is based on a preliminary plan dated February 14, 2022 by ESP Associates.

CONDITIONS OF APPROVAL and NEXT STEPS:

This document must be applied to the second sheet of all future submittals except for final plats. This is a preliminary plan and as such no permits have been issued with this approval. To obtain permits and/or completion of the project, the following steps are required:

☒ **SITE PERMITTING REVIEW** - For land disturbance of 12,000 square feet or greater, public or private infrastructure, shared stormwater devices, etc. Site Permitting Review may be submitted upon receipt of this signed approval document.

The following items are required prior to approval of Site Permitting Review plans:

General

1. Demonstrate compliance with Raleigh Street Design Manual B-20.01. by providing Bike Rack Placement detail in an inset. Please review the following link for standard detail dimensions: <https://cityofraleigh0drupal.blob.core.usgovcloudapi.net/drupal-prod/COR16/B-20.01.p>
2. Add lighting plan and photometric chart demonstrating compliance to UDO Section 7.4.2., as well as documenting that all proposed outdoor lights will be greater than 20" from the base of any required shade trees (7.1.7 G1)



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3. Approval of and recordation of the Recombination of the off site parcels to establishing the parent tract for this town house subdivision. (see BOA approval case # BOA-0026-2021)

Public Utilities

4. A Water Model in compliance with the City of Raleigh Public Utilities Department Handbook shall be submitted by the Project Engineer for review and approval prior to concurrent approval.
5. A Downstream Sewer Capacity Study in compliance with the City of Raleigh Public Utilities Department Handbook shall be submitted by the Project Engineer for review and approval.

Stormwater

6. A surety equal to of the cost of clearing, grubbing and reseeding a site, shall be paid to the City (UDO 9.4.4).
7. A nitrogen offset payment must be made to a qualifying mitigation bank (UDO 9.2.2.B).
8. A stormwater control plan with a stormwater operations and maintenance manual and budget shall be approved (UDO 9.2).

Urban Forestry

9. Tree protection fence must be inspected by Urban Forestry staff prior to the issuance of a grading permit.
10. Submit a final tree conservation plan that includes metes and bounds descriptions of all tree conservation areas and tree protection fencing as required (UDO 9.1.5).

☒ **LEGAL DOCUMENTS** - Email to legaldocumentreview@raleighnc.gov. Legal documents must be approved, executed, and recorded prior to or in conjunction with the recorded plat on which the associated easements are shown. Copies of recorded documents must be returned to the City within one business day of recording to avoid withholding of further permit issuance.

<input checked="" type="checkbox"/>	Utility Placement Easement Required
<input checked="" type="checkbox"/>	Public Access Easement Required

<input checked="" type="checkbox"/>	Slope Easement Required
<input checked="" type="checkbox"/>	Stormwater Maintenance Covenant Required

☒ **RECORDED MAP(S)** - Submit plat to record new property lines, easements, tree conservation areas, etc.). Plats may be submitted for review when the Site Permitting Review plans, if required, have been deemed ready for mylar signature.

The following items must be approved prior to recording the plat:

General

1. Provide documentation indicating a Property Owner's Association has been established for the subject development.



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2. A demolition permit shall be issued and this building permit number shown on all maps for recording.
3. Street names for this development shall be approved by the Raleigh GIS Division and by Wake County.

Engineering

4. A 5' utility placement easement and associated deed of easement shall be approved by the City and the location of the easement shall be shown on the map approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of these documents must be provided to the Development Services Department within one day from authorization of lot recordation. If recorded copies of the documents are not provided, further recordings and building permit issuance will be withheld.
5. A 20 foot wide Public Access deed of easement to connect to Neuse Forest Road shall be approved by City staff, and the location of the easement shall be shown on the map approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the plat. A recorded copy of this document shall be provided to the Development Services Department within one day from authorization of lot recordation. If a recorded copy of this document is not provided, further recordings and building permit issuance will be withheld.
6. The required right of way for proposed and/or existing streets shall be dedicated to the City of Raleigh and shown on the map approved for recordation.
7. A Slope easement deed of easement shall be approved by City staff and the location of the easement shall be shown on a plat approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of these documents must be provided to the Development Services Department within one day from authorization of lot recording. If a recorded copy of the document is not provided, further recordings and building permit issuance will be withheld.
8. A public infrastructure surety is provided to the City of Raleigh Development Services – Development Engineering program (UDO 8.1.3).
9. A public infrastructure surety for 40 street trees shall be provided to City of Raleigh Transportation – Development Engineering Division (UDO 8.1.3) in the amount of 100% of the improvement cost for the NCDOT portion and 125% of the improvement cost for the City of Raleigh infrastructure.

Public Utilities

10. Infrastructure Construction Plans (concurrent submittal) must be approved by the City of Raleigh Public Utilities Department for all public water, public sewer and/or private sewer extensions.
11. A Petition for Annexation into the City limits shall be submitted in accordance with City Council policy for extension of utility service to properties currently outside of the City limits. This voluntary annexation in no way obligates the City to extend utility services to the property.



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Stormwater

12. A payment equal to twenty-four percent (24%) of the estimated cost of constructing all stormwater control facilities shown on the development plans shall be paid by the developer to the City stormwater facility replacement fund (UDO 9.2.2.G.3).
13. The maximum allocated impervious area for all applicable lots in the subdivision should be identified on all maps for recording.
14. All stormwater control measures and means of transporting stormwater runoff to and from any nitrogen and stormwater runoff control measures shall be shown on all plats for recording as private drainage easements (UDO 9.2).
15. A surety equal to 125% of the cost of the construction of a stormwater device shall be paid to the Engineering Services Department (UDO 9.2.2.D.1.d).
16. The City form document entitled Declaration of Maintenance Covenant and Grant of Protection Easement for Stormwater Control Facilities shall be approved by the City and recorded with the county register of deeds office (UDO 9.2.2.G).

Urban Forestry

17. A tree conservation plat shall be recorded with metes and bounds showing the designated tree conservation areas (UDO 9.1). This development proposes 1.59 acres of tree conservation area.

☒ **BUILDING PERMITS** - For buildings and structures shown on the approved plans. Commercial building permit plans must include the signed, approved Site Permitting Review plans attached, if applicable. Permit sets may be reviewed prior to the recordation of required plats, but cannot be approved.

The following items must be approved prior to the issuance of building permits:

General

1. Comply with all conditions of Z-53-19

Public Utilities

2. A plat must be recorded at the Wake County Register of Deeds office for all utility easement dedications.

Urban Forestry

3. A tree impact permit must be obtained for the approved streetscape tree installation in the right of way. This development proposes 36 street trees along Thornton Ridge Drive, and 8 street trees along Thornton Road.



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The following are required prior to issuance of building occupancy permit:

General

1. Final inspection of all tree conservation areas and right of way street trees by Urban Forestry Staff

EXPIRATION DATES: If significant construction has not taken place on a project after preliminary subdivision approval, that approval may "sunset" and be declared void, requiring re-approval before permits may be issued. To avoid allowing this preliminary approval to "sunset", the following must take place by the following dates:

3-Year Sunset Date: June 22, 2025

Record at least ½ of the land area approved.

5-Year Sunset Date: June 22, 2027

Record entire subdivision.

I hereby certify this administrative decision.

Signed: _____

Development Services Dir/Designee

Date: 02/23/2022

Staff Coordinator: Michael Walters

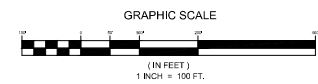




PROJECT INFORMATION	
PROJECT MANAGER:	ER
DESIGNED BY:	ER
DRAWN BY:	LB
PROJECT NUMBER:	HR29.10
ORIGINAL DATE:	06-04-20
SHEET:	
C-1.1	



NET SITE ACREAGE :	= 15.23 AC (663,504 SF)	
REQUIRED AMENITY AREA :	10.0% = +/- 1.52 AC (66,350 SF)	
PROPOSED AMENITY AREA :	10.0% = +/- 1.52 AC (66,368 SF)	
	TOTAL	ADA ACCESSIBLE
AMENITY AREA #1:	= 0.607 SF	= 0.598 SF (53%)
AMENITY AREA #2:	= 0.616 SF	= 0.616 SF (64%)
AMENITY AREA #3:	= 0.268 SF	= 0.123 SF (31%)
AMENITY AREA #4:	= 0.977 SF	= 0.120 SF (35%)
AMENITY AREA #5:	= 0.430 SF	= 0.265 SF (45%)
AMENITY AREA #6:	= 0.616 SF	= 0.616 SF (64%)
AMENITY AREA #7:	= 2.927 SF	= 0.140 SF (51%)
AMENITY AREA #8:	= 14.473 SF	= 0.706 SF (51%)
AMENITY AREA #9:	= 12.842 SF	= 0.728 SF (57%)
TOTAL PROPOSED AMENITY	= 1.52 AC	= 0.86 AC (57%)

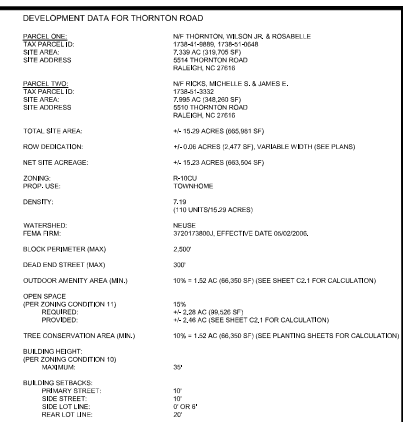


— NORTH ORIENTED TO
NC GRID NAD 83

PROJECT INFORMATION	
PROJECT MANAGER:	ER
DESIGNED BY:	ER
DRAWN BY:	LB
PROJECT NUMBER:	HR23.100
ORIGINAL DATE:	05-04-2021

SHEET:

C-2.1

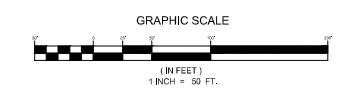


# OF UNITS	TOTAL BEDROOMS
8 4-UNIT BUILDING	32 (3 BEDROOM UNITS)
6 5-UNIT BUILDING	30 (3 BEDROOM UNITS)
8 6-UNIT BUILDING	48 (3 BEDROOM UNITS)

VEHICULAR PARKING:
REQUIRED SPACES: 2 SPACES / 3 BEDROOM
110 X 2 = 220 SPACES
PROVIDED SPACES: 230 (INCLUDES 1 ADA VAN SPACE AND
4 REGULAR SPACES AT MAIL HOUSE)
BICYCLE PARKING:
REQUIRED SPACES: 1 SPACE / 20 UNITS
110 UNITS / 20 = 5.5 SPACES

THE MAXIMUM DENSITY SHALL BE 7.5 DWELLING UNITS PER ACRE NOT TO EXCEED A TOTAL OF 114 DWELLING UNITS.
NO INDIVIDUAL BUILDING SHALL CONTAIN MORE THAN SIX (6) DWELLING UNITS.
A CONSTRUCTION ENTRANCE SHALL BE PROVIDED FROM THORNTON ROAD FOR ALL CONSTRUCTION TRAFFIC. NO CONSTRUCTION TRAFFIC SHALL BE PERMITTED TO USE THE PRIVATE DRIVEWAYS OR THE STREET STUBS AT NEUSE FOREST ROAD, NEUSE FARM ROAD

- [illegible]



SITE PLAN - WEST SHEET 3 OF 7

THORNTON ROAD TOWNES

TERRAMOR HOMES

RALEIGH, NC

PROJECT INFORMATION

PROJECT MANAGER: ER

DESIGNED BY: ER

DRAWN BY: LB

PROJECT NUMBER: H202.100

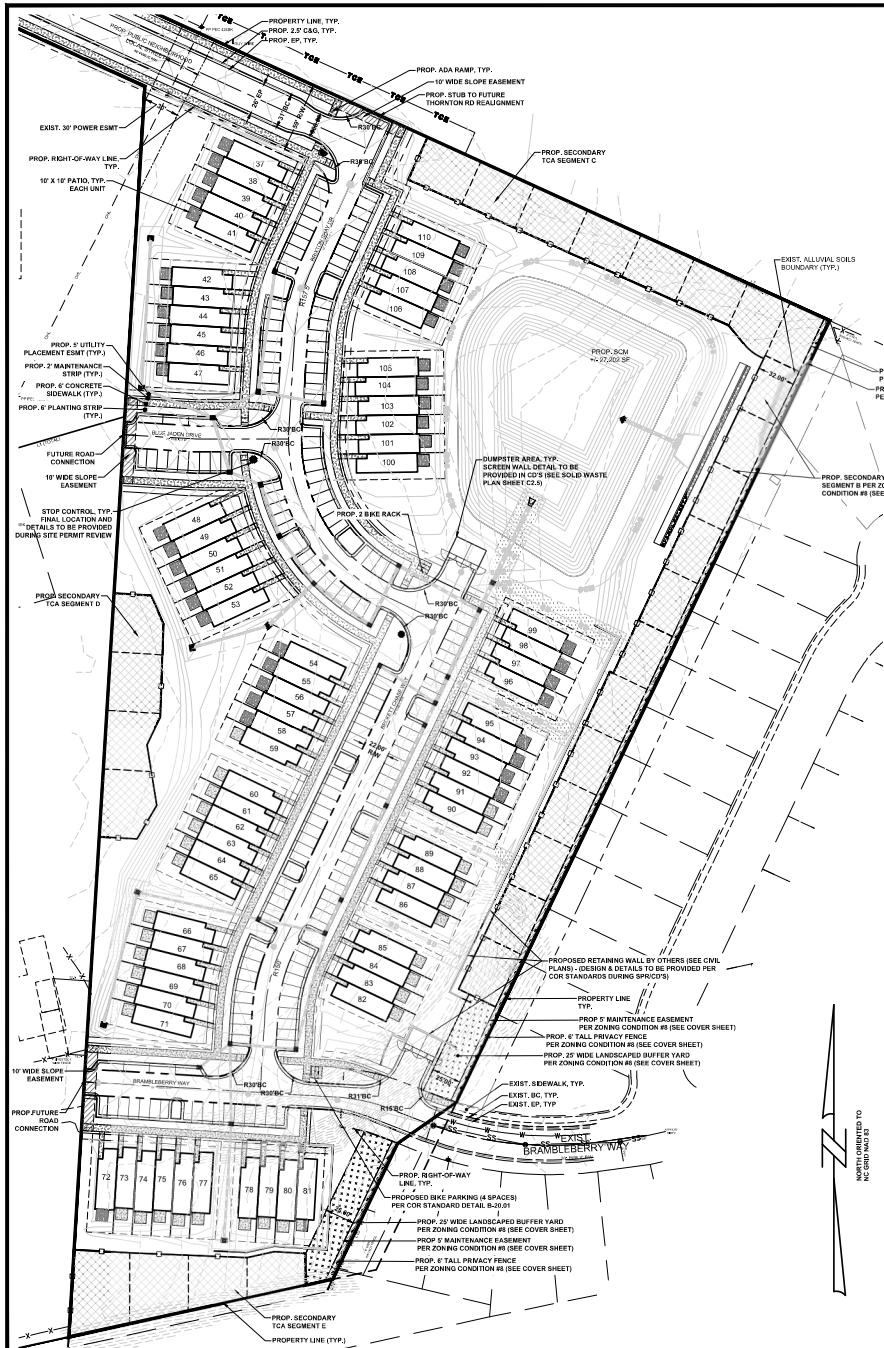
ORIGINAL DATE: 06/24/2001

SHEET: C-2.2

NO.	DATE	BY	REVISION
1	06/24/2001	ER	FIRST COMMENTS REVIEW
2	06/24/2001	ER	SECOND COMMENTS REVIEW
3	10/26/2001	ER	THIRD COMMENTS REVIEW
4	11/24/2001	ER	FOURTH COMMENTS REVIEW
5	03-14-2002		FIFTH COMMENTS REVIEW

PRELIMINARY
NOT FOR
CONSTRUCTION

ESP Associates, Inc.
2200 Galleria Centre Blvd.
Charlotte, NC 28208
Phone: 704-537-2000
Fax: 704-537-1070
www.espassociates.com
A/C LICENSE #C-107



NORTH ORIENTED TO
N.C. GRID MAP 82

DEVELOPMENT DATA FOR THORNTON ROAD

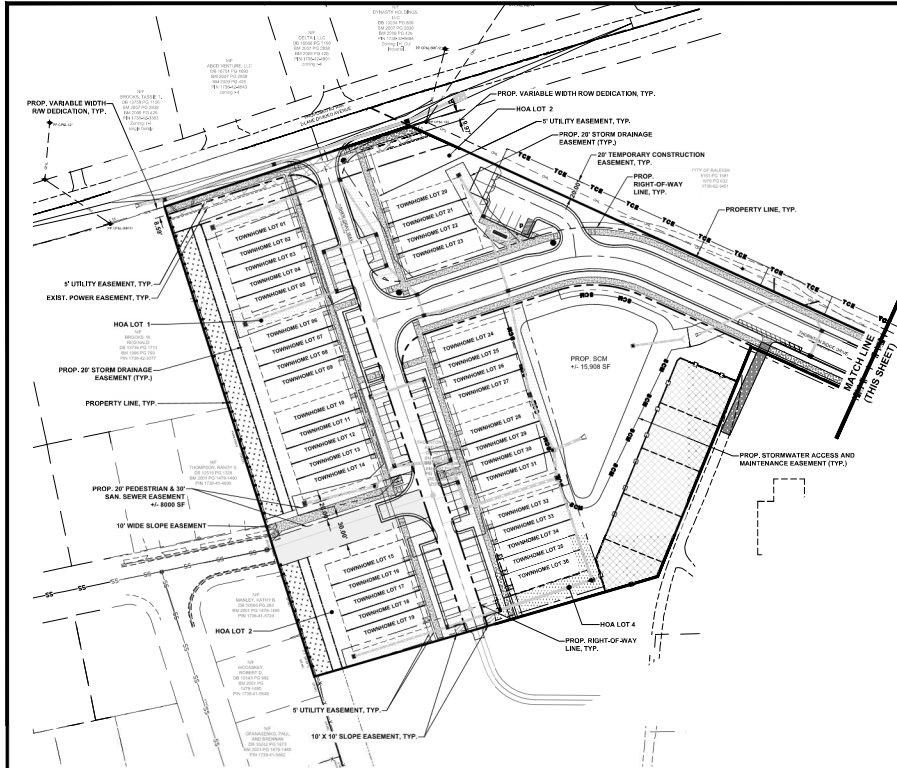
PARCEL ONE:	NP THORNTON, WILSON, JR. & ROSABELLE
TAX PARCEL ID:	1706-4-1889, 1706-4-12648
SITE AREA:	2.39 AC (215,725 SF)
SITE ADDRESS:	5514 THORNTON ROAD RALEIGH, NC 27616
PARCEL TWO:	NP RICKS, MICHELLE S. & JAMES E.
TAX PARCEL ID:	1706-4-1332
SITE AREA:	2.86 AC (248,260 SF)
SITE ADDRESS:	5510 THORNTON ROAD RALEIGH, NC 27616
TOTAL SITE AREA:	~15.29 ACRES (665,981 SF)
ROW DEDICATION:	~0.69 ACRES (2,477 SF) VARIABLE WIDTH (SEE PLANS)
NET SITE ACREAGE:	~14.63 ACRES (643,504 SF)
ZONING:	R4-OCU TOWNHOME
DENSITY:	7.19 (110 UNITS/15.29 ACRES)
WATERSHED:	NEUSE
FEMA FIRM:	372017380L, EFFECTIVE DATE 05/20/2006
BLOCK PERIMETER (MAX):	2,007
DEAD END STREET (MAX):	307
OUTDOOR AMENITY AREA (MIN):	10% = 152 AC (66,350 SF) (SEE SHEET C2.1 FOR CALCULATION)
OPEN SPACE:	10%
(PER ZONING CONDITION 11)	~2.29 AC (99,028 SF)
REQUIRED:	~2.49 AC (SEE SHEET C2.1 FOR CALCULATION)
PROVIDED:	
TREE CONSERVATION AREA (MIN):	10% = 152 AC (66,350 SF) (SEE PLANTING SHEETS FOR CALCULATION)
BUILDING HEIGHT:	
(PER ZONING CONDITION 10)	
MAXIMUM:	35
BUILDING SETBACKS:	
FRONT SETBACK:	15'
SIDE STREET:	10' OR 5'
REAR LOT LINE:	20'

# OF UNITS	TOTAL BEDROOMS
8	40 UNIT BUILDING 32 (3 BEDROOM UNITS)
8	54 UNIT BUILDING 30 (3 BEDROOM UNITS)
8	64 UNIT BUILDING 40 (3 BEDROOM UNITS)

VEHICULAR PARKING:	REQUIRED SPACES: 2 SPACES / 3 BEDROOM
	110 UNITS / 30 = 3.67 SPACES
	PROVIDED SPACES: 238 (INCLUDES 1 ADA VAN SPACE AND 4 ANGULAR SPACES AT RAMP HEAD)
BICYCLE PARKING:	REQUIRED SPACES: 1 SPACE / 20 UNITS
	110 UNITS / 20 = 5.5 SPACES
	PROVIDED SPACES: 12 SPACES

2.5X-10 THORNTON ROAD
APPROVED ZONING CONDITIONS
10/06/2020

- THE MAXIMUM DENSITY SHALL BE 7.5 DWELLING UNITS PER ACRE NOT TO EXCEED A TOTAL OF 114 DWELLING UNITS.
- NO INDIVIDUAL BUILDING SHALL CONTAIN MORE THAN SIX (6) DWELLING UNITS.
- A CONSTRUCTION ENTRANCE SHALL BE PROVIDED FROM THORNTON ROAD FOR ALL CONSTRUCTION TRAFFIC. NO CONSTRUCTION TRAFFIC SHALL BE PERMITTED TO USE THE PRIVATE DRIVEWAYS OR THE STREET STUBS AT NEUSE FOREST ROAD, NEUSE FARM ROAD OR BRAMBLEBERRY WAY.
- THE FOLLOWING USES SHALL BE PROHIBITED:
RESIDENTIAL:
BOARDINGHOUSE, CONGREGATE CARE, BED AND BREAKFAST, HOSPITALITY HOUSE, REST HOME, CONTINUING CARE RETIREMENT COMMUNITY, HOMESTEAD AND SPECIAL CARE FACILITY.
NON-RESIDENTIAL:
TELECOMMUNICATION TOWER, DAY CARE, CEMETERY, OUTDOOR SPORTS OR ENTERTAINMENT FACILITY (>50 SEATS AND/OR >250 SEATS).
- THE APARTMENT BUILDING TYPE SHALL BE PROHIBITED.
- RUNOFF LIMITATION FOR DEVELOPMENT ON THE PROPERTY AS DEFINED BY UDC SEC. 8.2.2.E.1 SHALL BE MET FOR THE 75-YEAR STORMWATER ADDITION TO THE TWO-YEAR AND TEN-YEAR STORMS. TOTAL VOLUME OF POST DEVELOPMENT SITE RUNOFF FORWARD EXISTING PARK AT PERRY CREEK AND CASTLEBURY SUBDIVISIONS SHALL BE REDUCED FROM THE PRE-DEVELOPED CONDITION.
- A TWENTY (20) FOOT WIDE LANDSCAPE BUFFER YARD SHALL BE PROVIDED ALONG THE COMMON PROPERTY LINE BETWEEN THE SUBJECT PROPERTY AND THE FOLLOWING PROPERTIES: 5200 THORNTON RD, PN 1736-4-2077 (DB 10106, PG 1711), 5008 NEUSE FOREST RD, PN 1704-1-889 (DB 12518, PG 1026), 8112 NEUSE TOWN DR, PN 1704-1-4724 (DB 10906, PG 283), AND THE ENTIRE PORTION OF 8808 NEUSE TOWN DR, PN 1704-1-468 (DB 10106, PG 1026) THAT ADJACENT THE SUBJECT PROPERTY.
• THE LANDSCAPE BUFFER YARD SHALL EXCLUDE AREAS REQUIRED FOR PROPOSED STREET RIGHT-OF-WAYS, ASSESSMENTS, EASEMENTS, AND UTILITY EASEMENTS AND SHALL NOT CONTAIN AREAS THAT ARE DESIGNATED AS TREE CONSERVATION AREAS (TCAL).
• A SIX (6) FOOT SOLID PRIVACY FENCE, CONSTRUCTED OF WOOD OR VINYL, SHALL BE PROVIDED ALONG THE COMMON PROPERTY LINE ADJACENT TO THE PARCELS NOTED ABOVE.
• THE BUFFER YARD SHALL PROVIDE A MINIMUM OF FOUR (4) SHADE TREES AND FOUR (4) UNDERSTORY TREES PER ACRE 100 LINEAR FEET OF LANDSCAPE BUFFER. EXISTING HEALTHY TREES LOCATED WITHIN THE BUFFER YARD MAY BE USED TO MEET THE LANDSCAPE REQUIREMENTS SUBJECT TO APPROVAL OF THE CITY OF RALEIGH PLANNING AND DEVELOPMENT STAFF.
• ALONG THE COMMON PROPERTY LINE WITH THE PROPERTY LOCATED AT 5500 THORNTON RD, PN 1736-4-2077 (DB 10106, PG 1711), THE LANDSCAPE BUFFER SHALL ALSO INCLUDE FORTY (40) EVERGREEN SHRUBS (MIN. MATURE HEIGHT OF 7.5 FEET 100 LINEAR FEET OF COMMON PROPERTY LINE, EXISTING HEALTHY SHRUBS MIN. HEIGHT OF 7.5 FEET) LOCATED WITHIN THE BUFFER YARD MAY BE USED TO MEET THE SHRUB PLANTING REQUIREMENT SUBJECT TO APPROVAL OF PLANNING AND DEVELOPMENT STAFF.
- A FIVE (5) FOOT WIDE MAINTENANCE EASEMENT SHALL BE PROVIDED ALONG THE COMMON PROPERTY LINE, EXCLUSIVE OF AREAS REQUIRED FOR STREET RIGHT-OF-WAY, SLOPE EASEMENTS AND UTILITY EASEMENTS, BETWEEN THE SUBJECT PROPERTY AND THE FOLLOWING PROPERTIES: 500 BRAMBLEBERRY WAY, PN 1736-4-474 (DB 17105, PG 1700), 5915 BRAMBLEBERRY WAY, PN 1736-4-4607 (DB 16927, PG 1716), 6505 BOYSENBERRY LN, PN 1736-4-4571 (DB 17271, PG 1695), 6505 BOYSENBERRY LN, PN 1736-4-4138 (DB 16553, PG 1695), 6513 BOYSENBERRY LN, PN 1736-4-4281 (DB 17355, PG 1151), 6517 BOYSENBERRY LN, PN 1736-4-4288 (DB 17428, PG 1035), 6521 BOYSENBERRY LN, PN 1736-4-4290 (DB 17397, PG 1048), 6523 BOYSENBERRY LN, PN 1736-4-4292 (DB 16553, PG 1695), 6525 BOYSENBERRY LN, PN 1736-4-4294 (DB 16553, PG 1695), 6527 BOYSENBERRY LN, PN 1736-4-4296 (DB 16553, PG 1695), 6529 BOYSENBERRY LN, PN 1736-4-4298 (DB 16553, PG 1695), 6531 BOYSENBERRY LN, PN 1736-4-4299 (DB 16553, PG 1695), 6533 BOYSENBERRY LN, PN 1736-4-4300 (DB 16553, PG 1695), 6535 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(DB 16553, PG 1695), 6571 BOYSENBERRY LN, PN 1736-4-4319 (DB 16553, PG 1695), 6573 BOYSENBERRY LN, PN 1736-4-4320 (DB 16553, PG 1695), 6575 BOYSENBERRY LN, PN 1736-4-4321 (DB 16553, PG 1695), 6577 BOYSENBERRY LN, PN 1736-4-4322 (DB 16553, PG 1695), 6579 BOYSENBERRY LN, PN 1736-4-4323 (DB 16553, PG 1695), 6581 BOYSENBERRY LN, PN 1736-4-4324 (DB 16553, PG 1695), 6583 BOYSENBERRY LN, PN 1736-4-4325 (DB 16553, PG 1695), 6585 BOYSENBERRY LN, PN 1736-4-4326 (DB 16553, PG 1695), 6587 BOYSENBERRY LN, PN 1736-4-4327 (DB 16553, PG 1695), 6589 BOYSENBERRY LN, PN 1736-4-4328 (DB 16553, PG 1695), 6591 BOYSENBERRY LN, PN 1736-4-4329 (DB 16553, PG 1695), 6593 BOYSENBERRY LN, PN 1736-4-4330 (DB 16553, PG 1695), 6595 BOYSENBERRY LN, PN 1736-4-4331 (DB 16553, PG 1695), 6597 BOYSENBERRY LN, PN 1736-4-4332 (DB 16553, PG 1695), 6599 BOYSENBERRY LN, PN 1736-4-4333 (DB 16553, PG 1695), 6601 BOYSENBERRY LN, PN 1736-4-4334 (DB 16553, PG 1695), 6603 BOYSENBERRY LN, PN 1736-4-4335 (DB 16553, PG 1695), 6605 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LOT LAYOUT (WEST)

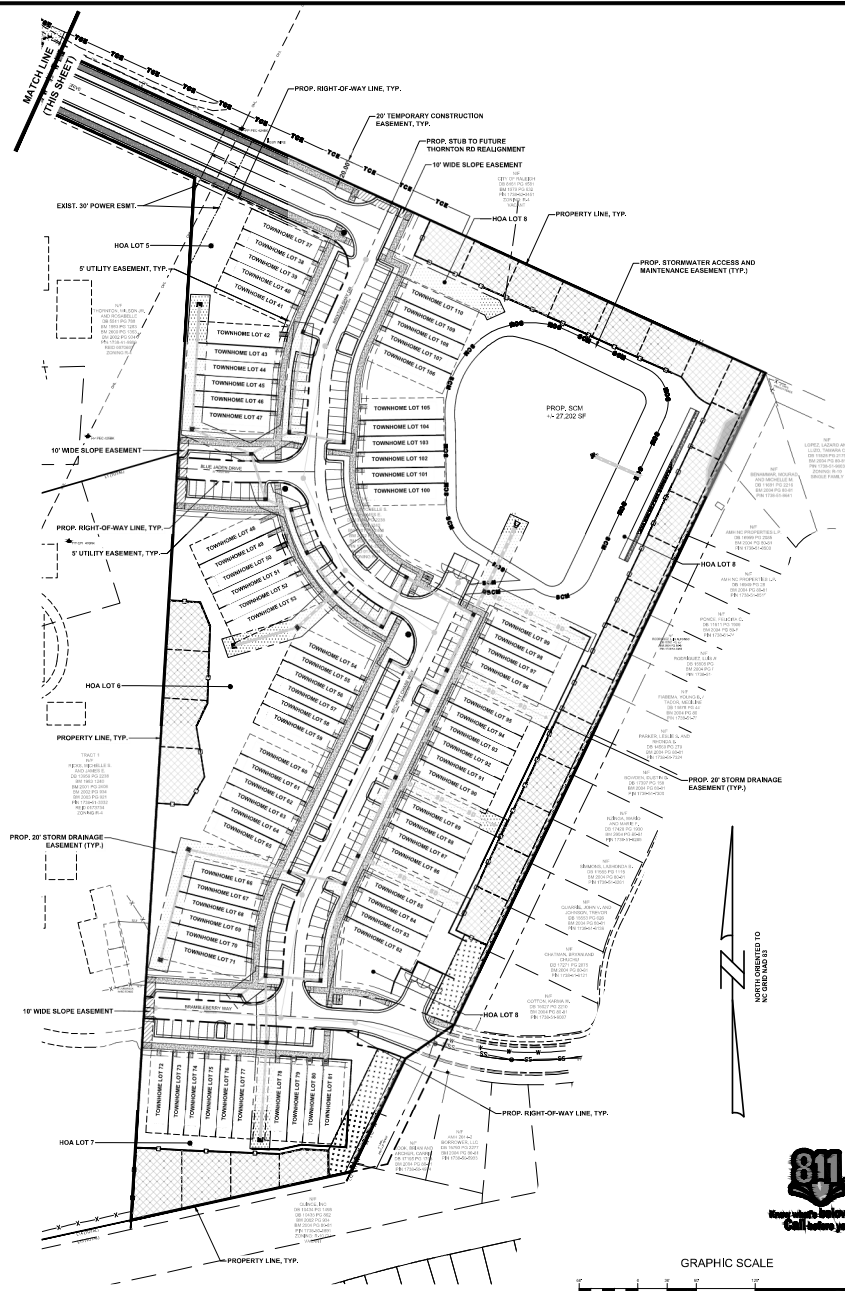
APPROVED RECOMBINATION LOT LAYOUT PER BOA-0026-2021 (N.T.S.)

NOTE: LOT LAYOUT REFERENCED BELOW WAS APPROVED AS BOA-0026-2021. REFER TO CASE AND FINDINGS FOR FURTHER INFORMATION REGARDING FINAL LOT LAYOUT AND PHASED CONSTRUCTION APPROACH. ADDITIONAL INFORMATION WILL BE PROVIDED DURING CD'S AND FINAL PLAT.

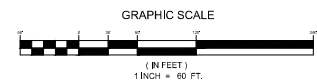


PROPOSED LOT LAYOUT SUMMARY

TOTAL SITE AREA	±15.29 ACRES (665,981 SF)
ROW DEDICATION	±0.86 ACRES (2,477 SF)
NET SITE AREA	±15.23 ACRES (663,504 SF)
PROPOSED RESIDENTIAL LOTS	110 LOTS
PROPOSED HOA/COMMUNITY LOTS	98 LOTS
TOTAL PROPOSED LOTS	118 LOTS



LOT LAYOUT (EAST)



ESP Associates, Inc.
2001 W. Main Street
Suite 200
Mooresville, NC 28055
www.ESPAssociates.com
NC LICENSE #P-4007

ESP

PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	DATE	REVISION	BY	CHKD	APP'D
1	08/04/2021	FIRST COMMENTS REVIEW	ER		
2	08/24/2021	SECOND COMMENTS REVIEW	ER		
3	10/06/2021	THIRD COMMENTS REVIEW	ER		
4	10/26/2021	FOURTH COMMENTS REVIEW	ER		
5	09-14-2022	FIFTH COMMENTS REVIEW	ER		

**PROPOSED LOT LAYOUT
SHEET 7 OF 7**

THORNTON ROAD TOWNES

TERAMOR HOMES

RALEIGH, NC

PROJECT INFORMATION

PROJECT MANAGER:	ER
DESIGNED BY:	ER
DRAWN BY:	LD
PROJECT NUMBER:	14025-10
ORIGINAL DATE:	06/04/2021

SHEET: **C-2.6**

SEPARATION REQUIREMENTS

HORIZONTAL SEPARATIONS FOR PARALLEL PIPELINES

1. WATER SYSTEM PIPING AND WASTEWATER SYSTEM PIPING SHALL HAVE A MINIMUM HORIZONTAL SEPARATION DISTANCE OF 10 FEET. IN SITUATIONS WHERE OBSTACLES OR BARRIERS PREVENT A 10-FOOT LATERAL SEPARATION, NCDOT STANDARDS MAY ALLOW A MINIMUM OF 6 FEET. THE WATER MAIN SHALL BE IN A SEPARATE TRENCH WITH THE EL ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR 8 FEET. THE WATER MAIN TO BE IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
2. WATER SYSTEM PIPING AND STORMWATER SYSTEM PIPING SHALL HAVE A MINIMUM HORIZONTAL SEPARATION DISTANCE OF 3 FEET.
3. WASTEWATER SYSTEM PIPING AND STORMWATER SYSTEM PIPING SHALL HAVE A MINIMUM SEPARATION DISTANCE OF 3 FEET.
4. THE MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL PIPELINES OF ANY TYPE, INCLUDING THE SAME TYPE, SHALL BE 3 FEET IF THE DIFFERENCE IN PIPELINE ELEVATIONS IS GREATER THAN 24 INCHES. IF THE VERTICAL DIFFERENCE BETWEEN THE PARALLEL PIPELINES EXCEEDS 24 INCHES, THE HORIZONTAL SEPARATION DISTANCE SHALL BE DETERMINED ON A CASE BY CASE BASIS BY THE DIRECTOR OF ENGINEERING. THE CRITICAL FACTOR IS BEING ABLE TO LOCATE THE DEEPER PIPELINE FOR REPAIRS AND NOT DISTURBING THE SHALLOWER PIPELINE. VERTICAL SEPARATIONS FOR PIPELINE CROSSINGS OR WHEN HORIZONTAL SEPARATIONS CANNOT BE MET.

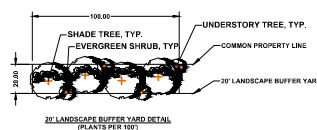
VERTICAL SEPARATIONS

1. WATER MAINS SHALL CROSS SANITARY SEWER MAINS AT AN APPROXIMATE 90 DEGREE ANGLE.
2. WATER SYSTEM PIPING AND WASTEWATER SYSTEM PIPING SHALL HAVE A MINIMUM VERTICAL SEPARATION DISTANCE OF 12 INCHES, WITH THE WATER PIPING BEING ABOVE THE WASTEWATER PIPING, WHERE A WATER MAIN AND A SANITARY SEWER CROSS AND THE VERTICAL SEPARATION IS LESS THAN 18 INCHES, OR WHERE THE WATER MAIN PASSES UNDER THE SANITARY SEWER, THE ENTIRE LENGTH OF THE SANITARY SEWER LINE SHALL BE DUCTILE IRON PIPE. TRANSITIONS OF PIPE MATERIAL SHALL NOT OCCUR BETWEEN MANHOLES OR SAND ANY OTHER JUNCTIONS, EXCEPT AT TRIPLE DRAIN MANHOLES.
3. WATER SYSTEM PIPING AND STORMWATER SYSTEM PIPING SHALL HAVE A MINIMUM VERTICAL SEPARATION DISTANCE OF 12 INCHES.
4. WASTEWATER SYSTEM PIPING AND STORMWATER SYSTEM PIPING SHALL HAVE A MINIMUM VERTICAL SEPARATION DISTANCE OF 12 INCHES, WITH THE STORMWATER PIPING BEING ABOVE THE WASTEWATER PIPING. WATER MAINS AND STORM SEWER MAINS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18 INCHES WHEN HORIZONTAL SEPARATION IS LESS THAN 3 FEET.
5. WATER LINES THAT CROSS AND RUN BENEATH STORM DRAINAGE PIPES THAT ARE GREATER THAN OR EQUAL TO 42" DIAMETER (SINGLE PIPE OR 16" OR GREATER MULTIPLE PIPES) AND/OR STREAMS OR CREEKS SHALL BE INSTALLED AS RESTRAINED JOINT PIPE AND ENCLOSED IN CASING PIPE. INSTALLATION MAY BE BY BORE AND JACK OR EXCAVATION AT DISCRETION OF DIRECTOR OF ENGINEERING.
6. FOR CROSSINGS WHERE REQUIRED MINIMUM SEPARATIONS CANNOT BE MAINTAINED, OR WHERE SEWER IS OVER WATER IN ADDITION TO THE PERSONS PIPE REQUIREMENTS, THE VOID SPACE BETWEEN THE PIPE CROSSINGS SHALL BE BACKFILLED WITH 100% CONCRETE OR EQUIVALENT (LOWEST FILL THAT MEETS OR EXCEEDS NCDOT SPECIFICATIONS).

ADDITIONAL HORIZONTAL SEPARATIONS FOR WASTEWATER SYSTEM PIPING

1. 50 FEET FROM ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE, INCLUDING WELLS, W-1 WATERS, OR CLASS B OR CLASS B IMPROVED RESERVOIRS USED AS A SOURCE OF DRINKING WATER, AN ABSOLUTE MINIMUM SEPARATION OF 25 FEET FROM PRIVATE WELLS AND 50 FEET FROM SOURCES OF PUBLIC WATER SUPPLY SHALL BE MAINTAINED, WITH NO EXCEPTIONS.
2. 50 FEET FROM ANY WATERS (FROM NORMAL HIGH WATER) CLASSIFIED WS-1, WS-2, B, SA, OR W, HOW OR SB.
3. 25 FEET FROM ANY OTHER STREAM, LAKE, OR IMPONDMENT

STEEL CASING PIPE SIZE (INCHES)		
NOMINAL CASING PIPE SIZE (INCHES)	ROAD AND RAIL CROSSING	
	OUTSIDE DIAMETER	WALL THICKNESS
2 AND UNDER	6.625	0.250
4	6.625	0.250
6	12.75	0.250
8	16	0.250
10	20	0.250
12	24	0.250
14	28	0.312
16	36	0.312
18	36	0.375
20	42	0.375
24	42	0.500



NOTE:

- BUFFERS SHALL BE MAINTAINED BY HOA.
- BUFFER LAYOUT IS FOR ILLUSTRATIVE PURPOSE ONLY, ACTUAL LAYOUT MAY VARY.