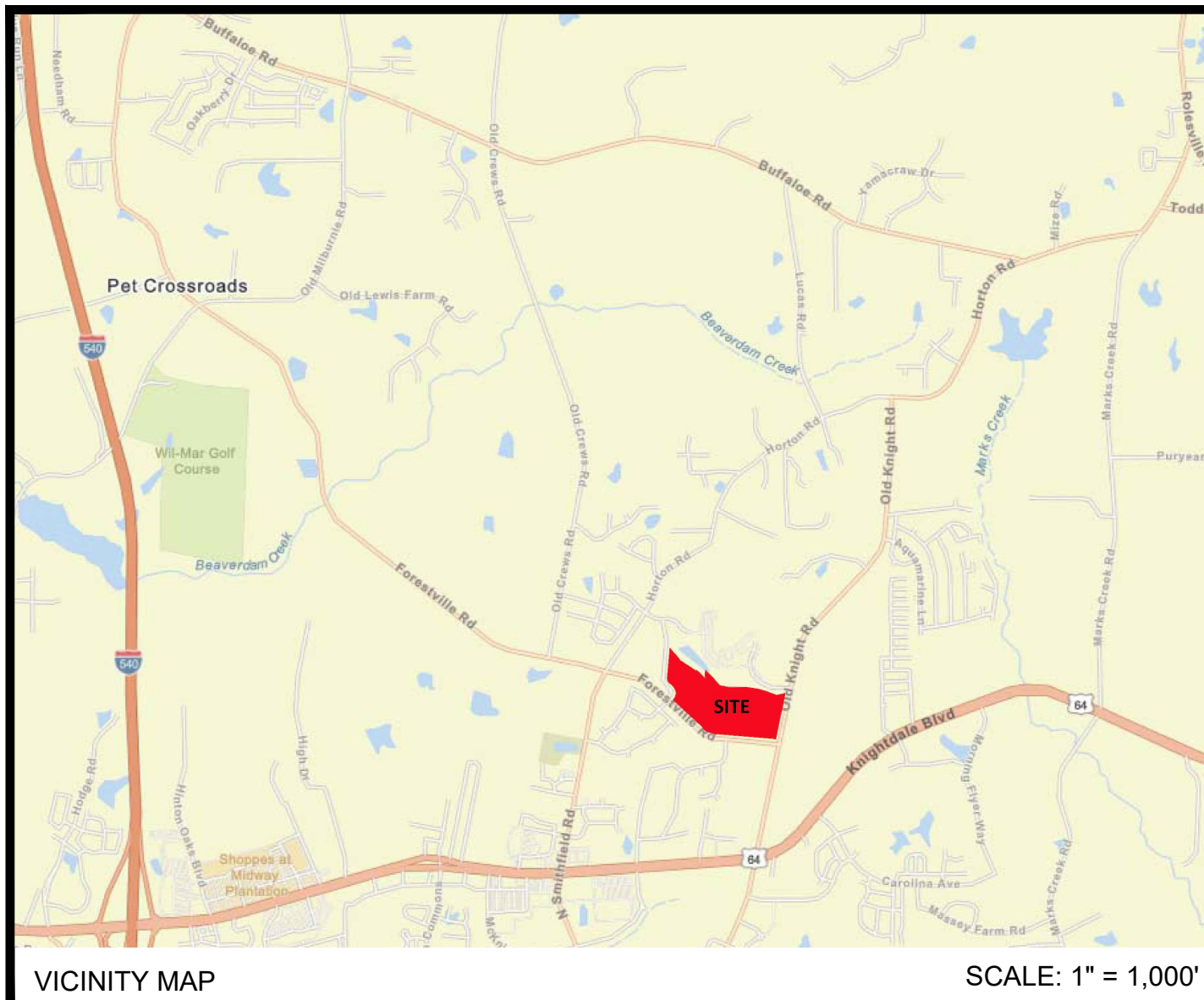


FORESTVILLE VILLAGE PUD Master Plan ZMA-8-20

LOCATED IN
KNIGHTDALE, NORTH CAROLINA



VICINITY MAP SCALE: 1" = 1,000'

INDEX OF SHEETS			
SHEET NO.	SHEET NAME	ORIGINAL DATE	REVISION DATE
C0.0	COVER SHEET	02/22/2021	03/26/2021
C1.0	BOUNDARY SURVEY	02/22/2021	03/26/2021
C1.1	EXISTING CONDITIONS/ ENVIRONMENTAL SURVEY	02/22/2021	03/26/2021
C2.0	ILLUSTRATIVE MASTER PLAN	02/22/2021	03/26/2021
C2.1	SITE PLAN	02/22/2021	03/26/2021
C2.2	PHASING PLAN	02/22/2021	03/26/2021
C3.0	TRANSPORTATION PLAN	02/22/2021	03/26/2021
C3.1	SIGNAGE PLAN	02/22/2021	03/26/2021
C4.0	UTILITY PLAN	02/22/2021	03/26/2021
C5.0	STORMWATER MANAGEMENT	02/22/2021	03/26/2021
C6.0	OPEN SPACE PLAN	02/22/2021	03/26/2021
L1.0	LANDSCAPE AND LIGHTING PLAN	02/22/2021	03/26/2021
L1.1	LANDSCAPE AND LIGHTING DETAILS	02/22/2021	03/26/2021
EX-1	FORESTVILLE VILLAGE ENTRY MONUMENT EXHIBITS	02/22/2021	03/26/2021
EX-2	FORESTVILLE VILLAGE OPEN SPACE EXHIBITS	02/22/2021	03/26/2021

SITE DATA FOR FORESTVILLE VILLAGE

TAX PARCEL ID: 1754585927, 1754492629
 LOCATION: KNIGHTDALE, NORTH CAROLINA

TOTAL SITE AREA: +/- 50.64 ACRES (PER SURVEY)
 LESS ROW DEDICATION (PROPOSED): +/- 1.11 ACRES

TOTAL DEVELOPABLE PARCELS: +/- 49.53 ACRES
 PROPOSED RESIDENTIAL PARCEL: +/- 46.50 ACRES
 FUTURE NEIGHBORHOOD RETAIL: +/- 3.03 ACRES

ZONING:
 EXISTING: RT
 PROPOSED: PUD - NMX

WATERSHED: NEUSE RIVER BASIN
 FLOODPLAIN: NO FLOODPLAIN IS LOCATED ON-SITE

TOTAL PROPOSED LOTS:
 SINGLE FAMILY: 87 LOTS *
 TOWNHOMES: 186 LOTS *

*LOT COUNTS REPRESENT CURRENT SITE PLAN LAYOUT. FINAL LOT COUNTS MAY ADJUST DURING CONSTRUCTION DOCUMENTATION AND MAY VARY UP TO 15 LOTS PER PRODUCT TYPE. TOTAL SHALL NOT EXCEED THE MAXIMUM OF 280 LOTS/UNITS.

MAXIMUM DENSITY: +/- 6.02 DU/AC (280 / 46.5) MAX.
 DENSITY: +/- 5.87 DU/AC (273 / 46.5)

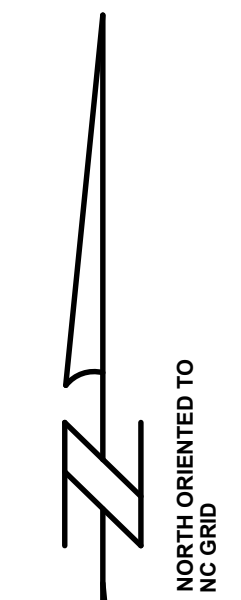
PARKING CALCULATIONS:
 REQUIRED PARKING SPACES:
 SINGLE-FAMILY HOMES: 1 SPACE PER BEDROOM, 2 MAXIMUM = 174 SPACES
 TOWNHOMES: 1 SPACE PER BEDROOM, 2 MAXIMUM = 372 SPACES
 TOTAL = 546 SPACES

PROVIDED PARKING SPACES:
 SINGLE-FAMILY HOMES: 2-CAR GARAGE WITH 2 CAR DRIVE = 348 SPACES
 TOWNHOMES: TOTAL = 598 SPACES
 *40% (+/- 75 UNITS) - 1-CAR GARAGE W/1-CAR DRIVE = 150 SPACES
 *60% (+/- 112 UNITS) - 2-CAR GARAGE W/ 2-CAR DRIVE = 448 SPACES

ON-STREET PARKING: 80 SPACES ON INTERNAL STREETS (SEE PLAN)
 AMENITY PARKING: 28 SPACES + 2 HANDICAPPED = 31 SPACES
 TOTAL = 709 SPACES

*SEE NOTE UNDER TOTAL PROPOSED LOTS TO LEFT (THIS SHEET)

RECREATIONAL OPEN SPACE:	REQUIRED	PROPOSED
TOTAL OPEN SPACE	4.60 ACRES	15.76 ACRES
ACTIVE OPEN SPACE*	2.30 ACRES	2.30 ACRES MIN.
PASSIVE OPEN SPACE:	2.30 ACRES	13.46 ACRES
*A MINIMUM OF 50% OF TOTAL REQUIRED OPEN SPACE SHALL BE ACTIVE		
CALCULATIONS BASED ON RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)		
DENSITY: 273 UNITS / 46.5 AC	= 5.87 DU/AC	
BEDROOMS:	= 770 BEDROOMS	
SINGLE-FAMILY: 87 UNITS x 3.5**	= 305 BEDROOMS	
TOWNHOMES: 180 UNITS x 2.5**	= 465 BEDROOMS	
** (PER UDO SECTION 7.3C)		
PROXIMITY ZONE OF 1/4 MILE (WITH DENSITY BETWEEN 2-6 DU/AC) = 260***		
***RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)		
NUMBER OF BEDROOMS x 260 = REQUIRED OPEN SPACE (SF)		
770 BEDROOMS x 260 = 200,200 SF / 4.60 AC		
REQUIRED OPEN SPACE = 4.60 AC		
REQUIRED ACTIVE OPEN SPACE (50% OF 4.60 AC) = 2.3 ACRES		
TREE SAVE:	REQUIRED: 4.65 AC	
PROPOSED:	4.65 AC MIN.	
LINK / NODE RATIO:	16 LINKS / 10 NODES = 1.6	
	(SEE INSET EXHIBIT ON SHEET 2.2)	
TYPICAL LOT SETBACKS:		
SINGLE FAMILY LOT	TOWNHOME UNIT	
FRONT: 10' MIN	25' MAX, 15' MIN. FACING FORESTVILLE ROAD	
SIDE: 20% OF LOT WIDTH	10' MIN. BETWEEN BUILDING (5' MIN. END UNITS)	
REAR: 30' MIN	15' MIN	
	(FROM CL OF ALLEY)	(FROM CL OF ALLEY)



ENGINEERING FIRM: ESP ASSOCIATES, INC.
 2200 GATEWAY CENTRE BLVD, SUITE 216
 MORRISVILLE, NC 27560
 PHONE: (919) 678-1070
 MOBILE: (919) 576-5454
 CONTACT: SALMAN MOAZZAM, PE

DEVELOPER: JPM SOUTH DEVELOPMENT
 7208 FALLS OF NEUSE RD, STE 101
 PHONE: (919) 218-8878
 CONTACT: BRAD WHITEHURST

TRAFFIC ENGINEER: RAMEY KEMP & ASSOCIATES
 5808 FARINGDON PLACE, STE. 100
 RALEIGH, NC 27609
 PHONE: (919) 872-5115

REVIEW AGENCY: TOWN OF KNIGHTDALE, NC
 950 STEEPLE SQUARE COURT
 KNIGHTDALE, NC 27545
 PHONE: (919) 217-2400

PROPERTY OWNERS

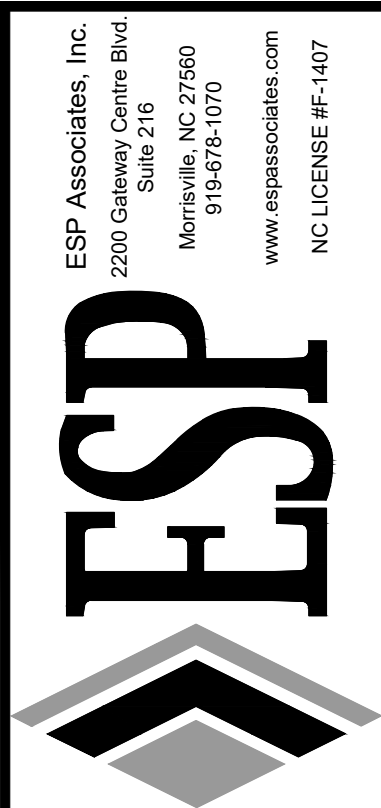
PARCEL 1:
 PIN: 1754492629
 PARCEL SIZE: 15.473 ACRES

OWNER: KNIGHTDALE, TOWN OF
 ADDRESS: 950 STEEPLE SQUARE CT.
 KNIGHTDALE, NC 27545-7655
 PHONE: (919) 217-2200

PARCEL 2:
 PIN: 1754585927
 PARCEL SIZE: 35.162 ACRES

OWNER: SUGGS, JANE P., BEASLEY, EVE C.
 ADDRESS: 1507 TRAILWOOD DR
 RALEIGH, NC 27606-3720

THIS SET IS CURRENT THROUGH SHEET DATE 03/26/2021



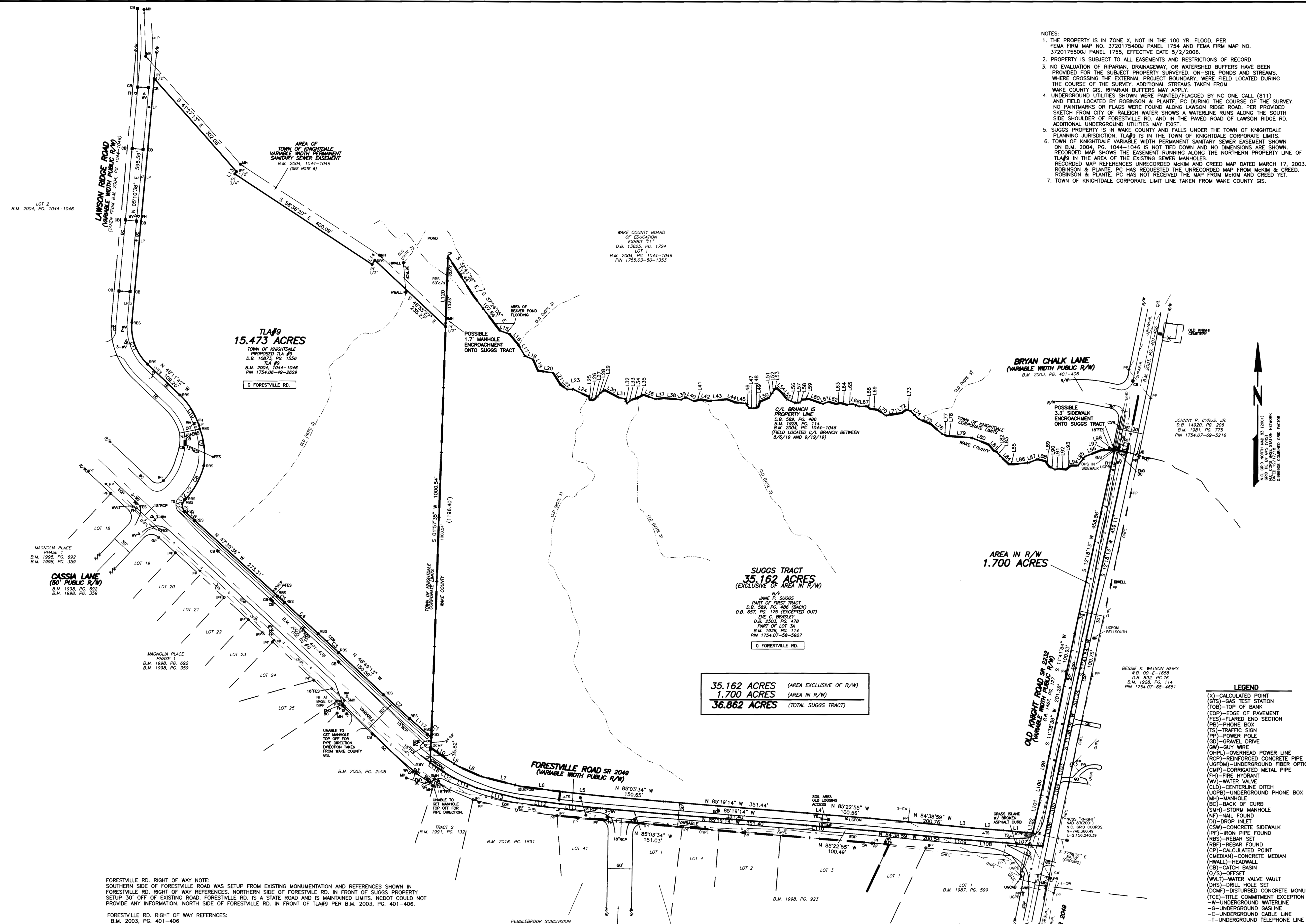
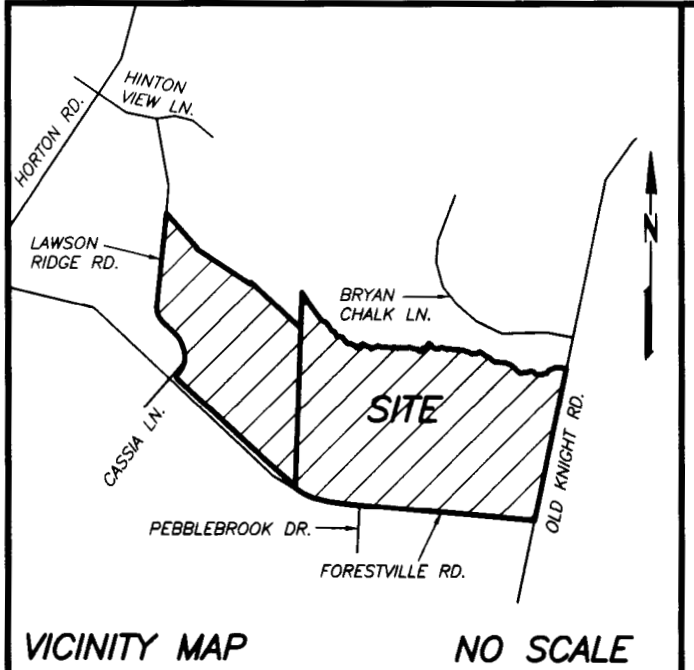
**PRELIMINARY
NOT FOR
CONSTRUCTION**

NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS
1	03/26/2021		

COVER SHEET
FORESTVILLE VILLAGE
 KNIGHTDALE, NC
 JPM SOUTH

PROJECT INFORMATION	
PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ER/SM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	C0.0

S:\P1\021 Projects\JM14.100 - Forestville Village (JPM South)_M14\Sheets\PUD_Master Plan\M14.C01\COVER.dwg, C0.0, .img



- NOTES:
- THE PROPERTY IS IN ZONE X, NOT IN THE 100 YR. FLOOD, PER FEMA FIRM MAP NO. 3720175400J PANEL 1754 AND FEMA FIRM MAP NO. 3720175500J PANEL 1755, EFFECTIVE DATE 5/2/2006.
 - PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
 - NO EVALUATION OF RIPARIAN, DRAINAGEWAY, OR WATERSHED BUFFERS HAVE BEEN PROVIDED FOR THE SUBJECT PROPERTY SURVEYED, ON-SITE PONDS AND STREAMS, WHERE CROSSING THE EXTERNAL PROJECT BOUNDARY, WERE FIELD LOCATED DURING THE COURSE OF THE SURVEY. ADDITIONAL STREAMS TAKEN FROM WAKE COUNTY GIS, RIPARIAN BUFFERS MAY APPLY.
 - UNDERGROUND UTILITIES SHOWN WERE PAINTED/FLAGGED BY NC ONE CALL (811) AND FIELD LOCATED BY ROBINSON & PLANTE, P.C. DURING THE COURSE OF THE SURVEY. NO PAINTMARKS OR FLAGS WERE FOUND ALONG LAWSON RIDGE ROAD. PER PROVIDED SKETCH FROM CITY OF RALEIGH WATER SHOWS A WATERLINE RUNS ALONG THE SOUTH SIDE SHOULDER OF FORESTVILLE RD. AND IN THE PAVED ROAD OF LAWSON RIDGE RD. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.
 - SUGGS PROPERTY IS IN WAKE COUNTY AND FALLS UNDER THE TOWN OF KNIGHTDALE PLANNING JURISDICTION. TLA#9 IS IN THE TOWN OF KNIGHTDALE CORPORATE LIMITS.
 - TOWN OF KNIGHTDALE VARIABLE WIDTH PERMANENT SANITARY SEWER EASEMENT SHOWN ON B.M. 2004, P.C. 1044-1046 IS NOT TIED DOWN AND NO DIMENSIONS ARE SHOWN. RECORDED MAP SHOWS THE EASEMENT RUNNING ALONG THE NORTHERN PROPERTY LINE OF TLA#9 IN THE AREA OF THE EXISTING SEWER MANHOLES. RECORDED MAP REFERENCES UNRECORDED MCKIM AND CREED MAP DATED MARCH 17, 2003. ROBINSON & PLANTE, P.C. HAS REQUESTED THE UNRECORDED MAP FROM MCKIM & CREED. ROBINSON & PLANTE, P.C. HAS NOT RECEIVED THE MAP FROM MCKIM AND CREED YET.
 - TOWN OF KNIGHTDALE CORPORATE LIMIT LINE TAKEN FROM WAKE COUNTY GIS.

LINE	BEARING	DISTANCE
L1	N 84°45'40" W	73.40'
L2	N 85°39'18" W	75.03'
L3	N 84°32'44" W	48.29'
L4	N 84°54'47" W	50.27'
L5	N 83°53'07" W	100.23'
L6	N 82°44'28" W	59.46'
L7	N 76°07'56" W	100.86'
L8	N 66°39'01" W	55.83'
L9	N 59°26'47" W	34.06'
L10	N 54°55'23" W	49.92'
L11	N 01°57'35" E	60.74'
L12	N 42°51'33" E	4.14'
L13	S 33°33'50" W	6.81'
L14	N 33°23'56" E	12.28'
L15	S 70°25'25" E	25.42'
L16	S 38°58'06" E	33.44'
L17	S 30°04'05" E	31.36'
L18	S 67°33'35" E	21.48'
L19	S 23°30'57" E	30.28'
L20	S 82°06'48" E	37.03'
L21	S 32°15'29" E	33.52'
L22	S 52°31'43" E	19.82'
L23	N 87°09'33" E	14.98'
L24	S 64°23'05" E	42.89'
L25	S 12°14'52" E	7.87'
L26	S 85°08'23" E	8.31'
L27	N 50°25'52" E	13.72'
L28	N 37°44'56" E	12.13'
L29	N 58°20'27" E	12.27'
L30	S 61°53'46" E	39.25'
L31	S 78°42'41" E	15.12'
L32	S 19°30'48" E	12.07'
L33	N 52°14'17" E	15.42'
L34	N 74°02'38" E	14.77'
L35	N 61°18'27" E	16.40'
L36	S 69°31'02" E	30.61'
L37	N 82°41'42" E	20.89'
L38	S 84°29'02" E	41.56'
L39	N 65°18'56" E	13.48'
L40	S 64°31'56" E	21.14'
L41	N 77°22'35" E	18.70'
L42	S 78°41'27" E	18.30'
L43	N 85°01'50" E	44.92'
L44	S 89°28'01" E	21.95'
L45	S 84°27'42" E	26.16'
L46	S 30°25'49" E	12.84'
L47	S 87°20'37" E	12.74'
L48	N 76°27'50" E	10.52'
L49	N 16°44'57" E	14.22'
L50	N 66°57'48" E	23.11'
L51	N 36°03'28" E	15.36'
L52	N 25°51'39" E	8.97'
L53	N 66°11'14" E	7.74'
L54	S 49°04'00" E	14.21'
L55	S 39°16'01" E	23.42'
L56	S 66°19'06" E	21.56'
L57	N 83°39'29" E	9.95'
L58	N 43°54'54" E	10.43'
L59	N 85°58'50" E	16.56'
L60	S 70°55'03" E	35.31'
L61	N 69°54'10" E	14.68'
L62	S 73°42'31" E	18.65'
L63	N 78°33'14" E	11.55'
L64	S 73°43'32" E	15.17'
L65	N 83°19'38" E	15.26'
L66	S 68°27'55" E	15.83'
L67	N 89°30'23" E	20.22'
L68	S 50°32'55" E	10.48'
L69	S 85°35'08" E	16.58'
L70	S 84°56'31" E	24.81'
L71	N 81°08'54" E	39.49'
L72	N 53°19'08" E	13.72'
L73	S 70°26'06" E	11.02'
L74	S 46°02'19" E	27.77'
L75	S 65°50'55" E	32.52'
L76	S 48°45'22" E	36.14'
L77	S 68°17'05" E	13.69'
L78	S 88°29'53" E	8.30'
L79	S 85°52'51" E	50.20'
L80	S 68°45'38" E	43.92'
L81	S 41°33'47" E	21.02'
L82	S 65°00'47" E	7.78'
L83	S 40°27'30" E	11.52'
L84	S 46°30'41" E	30.33'
L85	N 89°41'53" E	10.80'
L86	N 83°35'06" E	37.59'
L87	N 69°20'59" E	23.02'
L88	S 76°24'10" E	19.12'
L89	S 34°58'31" E	15.70'
L90	S 63°22'49" E	16.14'
L91	N 79°00'59" E	9.27'
L92	S 84°04'46" E	17.40'
L93	N 53°18'58" E	15.94'
L94	N 89°55'41" E	16.21'
L95	N 38°15'27" E	27.79'
L96	N 68°45'38" E	42.76'
L97	S 89°41'32" E	26.98'
L98	N 77°18'38" E	5.52'
L99	S 11°31'40" W	50.06'
L100	S 11°56'53" W	50.04'
L101	S 12°08'03" W	50.47'
L102	S 11°36'43" W	40.34'
L103	S 11°31'40" W	50.14'
L104	S 11°56'53" W	50.19'
L105	S 12°08'03" W	50.38'
L106	S 11°36'43" W	67.05'
L107	N 84°45'40" W	100.00'
L108	N 85°39'18" W	75.08'
L109	N 84°32'44" W	48.55'
L110	N 84°54'47" W	50.28'
L111	N 83°53'07" W	100.83'
L112	N 82°44'28" W	101.49'
L113	N 76°07'56" W	105.08'
L114	N 66°39'01" W	60.21'
L115	N 59°26'47" W	37.14'
L116	N 54°55'23" W	31.83'
L117	N 42°51'33" W	57.25'
L118	S 78°28'29" E	30.00'
L119	N 01°57'35" E	60.81'
L120	N 01°57'35" E	170.86'

LEGEND

- (X) - CALCULATED POINT
- (GTS) - GAS TEST STATION
- (PB) - PHONE BOX
- (EOP) - EDGE OF PAVEMENT
- (FES) - FLARED END SECTION
- (TS) - TRAFFIC SIGN
- (PP) - POWER POLE
- (GD) - GRAVEL DRIVE
- (GW) - GUY WIRE
- (OHP) - OVERHEAD POWER LINE
- (RCP) - REINFORCED CONCRETE PIPE
- (UGFM) - UNDERGROUND FIBER OPTIC MARKER
- (CMP) - CORRUGATED METAL PIPE
- (FH) - FIRE HYDRANT
- (DI) - DROP INLET
- (WV) - WATER VALVE
- (CLD) - CENTERLINE DITCH
- (UGPB) - UNDERGROUND PHONE BOX
- (MH) - MANHOLE
- (BC) - BACK OF CURB
- (SMH) - STORM MANHOLE
- (NF) - NAIL FOUND
- (D) - DROP INLET
- (CW) - CONCRETE SIDEWALK
- (IFP) - IRON PIPE FOUND
- (RBS) - REBAR SET
- (RFB) - REBAR FOUND
- (CP) - CALCULATED POINT
- (MEDIAN) - CONCRETE MEDIAN
- (HW) - HEADWALL
- (CB) - CATCH BASIN
- (OS) - OFFSET
- (WLV) - WATER VALVE VAULT
- (DHS) - DRILL HOLE SET
- (DMS) - DISTURBED CONCRETE MONUMENT
- (TCE) - TITLE COMMITMENT EXCEPTION
- (W) - UNDERGROUND WATERLINE
- (UG) - UNDERGROUND GASLINE
- (C) - UNDERGROUND CABLE LINE
- (T) - UNDERGROUND TELEPHONE LINE

CURVE TABLE

CURVE	DELTA	RADIUS	ARC	CHORD	TANGENT	CHORD BRG
C1	1°38'35"	435.57'	12.49'	6.25'	12.49'	N 49°18'12" W
C2	1°39'45"	2950.00'	85.60'	85.60'	42.80'	N 47°39'05" W
C3	0°38'29"	6050.00'	67.74'	67.74'	33.87'	N 47°08'27" W
C4	0°37'53"	10050.00'	110.75'	110.75'	55.38'	N 47°27'42" W
C5	0°07'56"	10050.00'	23.21'	23.21'	11.61'	N 47°27'40" W
C6	0°14'31"	7450.00'	31.42'	31.42'	15.73'	N 47°28'22" W
C7	90°13'34"	20.00'	31.50'	28.34'	20.08'	N 02°14'59" W
C8	28°35'03"	185.00'	92.29'	91.34'	47.13'	N 28°34'24" E
C9	28°59'41"	179.04'	90.60'	89.84'	46.29'	N 06°15'19" W
C10	31°48'45"	175.00'	97.17'	95.92'	49.87'	N 30°17'19" W
C11	51°22'20"	125.00'	112.08'	108.36'	60.12'	N 20°30'32" W

SUGGS TRACT
35.162 ACRES
(EXCLUSIVE OF R/W)

AREA IN R/W
1.700 ACRES

36.862 ACRES
(TOTAL SUGGS TRACT)

TLA#9
15.473 ACRES
TOWN OF KNIGHTDALE
PROPOSED TLA #9
D.B. 10873, P.C. 1556
B.M. 2004, 1044-1046
P.W. 1754.06-69-6029

FORESTVILLE RD. RIGHT OF WAY NOTE:
SOUTHERN SIDE OF FORESTVILLE ROAD WAS SETUP FROM EXISTING MONUMENTATION AND REFERENCES SHOWN IN FORESTVILLE RD. RIGHT OF WAY REFERENCES. NORTHERN SIDE OF FORESTVILLE RD. IN FRONT OF SUGGS PROPERTY SETUP 30' OFF OF EXISTING ROAD. FORESTVILLE RD. IS A STATE ROAD AND IS MAINTAINED LIMITS. NCDOT COULD NOT PROVIDE ANY INFORMATION. NORTH SIDE OF FORESTVILLE RD. IN FRONT OF TLA#9 PER B.M. 2003, PG. 401-406.

FORESTVILLE RD. RIGHT OF WAY REFERENCES:
B.M. 2003, PG. 401-406
B.M. 1987, PG. 599
B.M. 1977, PG. 826
B.M. 2016, PG. 1861
B.M. 1991, PG. 132
B.M. 2005, PG. 2506
B.M. 1998, PG. 692
B.M. 1998, PG. 359
B.M. 1998, PG. 923

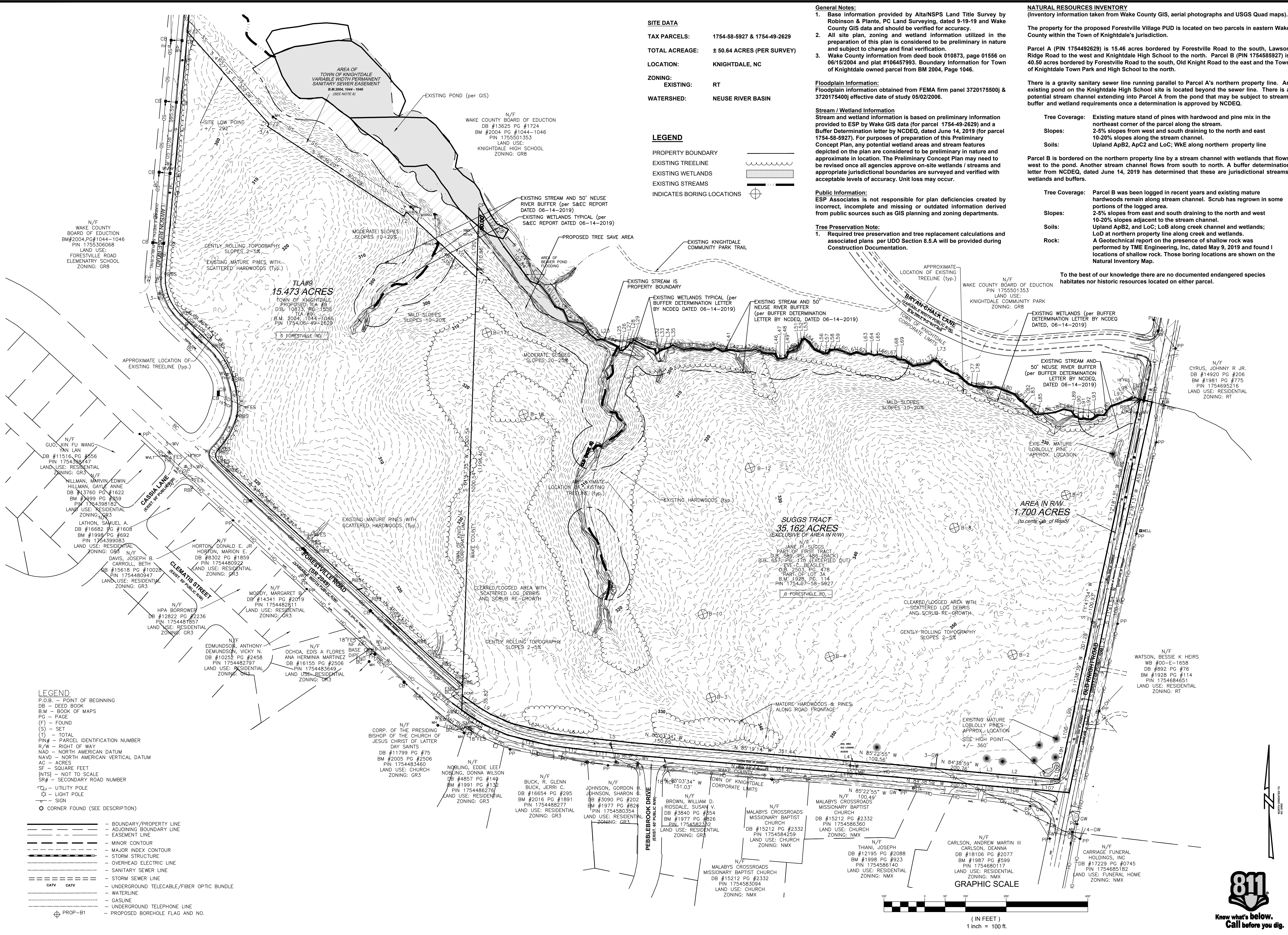
- REFERENCES:
- JOINT USE AGREEMENT FOR FORESTVILLE RD. ELEMENTARY SCHOOL AND KNIGHTDALE HIGH SCHOOL
D.B. 10895, P.C. 339
 - 30' WAKE ELECTRIC MEMBERSHIP CORPORATION EASEMENT
D.B. 2312, P.C. 83
 - 30' WAKE ELECTRIC MEMBERSHIP CORPORATION EASEMENT
D.B. 8089, P.C. 2126
D.B. 9752, P.C. 1656
D.B. 9672, P.C. 1913
 - SPECIAL USE PERMIT-THE TOWN OF KNIGHTDALE
D.B. 9445, P.C. 1831

NOTE:
MISCLOSURE WAS DISTRIBUTED BY THE COMPASS METHOD. THE DISTANCES ON THIS MAP ARE ADJUSTED HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED. ALL AREA CALCULATED BY COORDINATE COMPUTATION.

SCALE IN FEET
0 120 240 360

REVISIONS		BOUNDARY SURVEY		ROBINSON & PLANTE, P.C.	
		SUGGS TRACT AND TOWN OF KNIGHTDALE TLA#9 TRACT		LAND SURVEYING 970 TRINITY ROAD RALEIGH, NC 27607 PHONE: (919) 859-6030 FAX: (919) 859-6032	
TOWNSHIP: ST. MATTHEWS		COUNTY: WAKE		SURVEY DATE: 9-19-19	SURVEYED BY: KS
STATE: NORTH CAROLINA		ZONING: RT		SCALE: 1"=120'	DRAWN BY: HS/SEP
		PIN: SEE ABOVE		CHECKED & CLOSURE BY: SEP	FILE: OKREC

STUART E. PLANTE III
LICENSE NO. L-4432
PROFESSIONAL LAND SURVEYOR



LEGEND

P.O.B. - POINT OF BEGINNING
 DB - DEED BOOK
 B.M. - BOOK OF MAPS
 PG - PAGE
 (F) - FOUND
 (S) - SET
 (T) - TOTAL
 PIN# - PARCEL IDENTIFICATION NUMBER
 R/W - RIGHT OF WAY
 NAD - NORTH AMERICAN DATUM
 NAVD - NORTH AMERICAN VERTICAL DATUM
 AC - ACRES
 SF - SQUARE FEET
 [NTS] - NOT TO SCALE
 SR# - SECONDARY ROAD NUMBER
 C.U. - UTILITY POLE
 L.P. - LIGHT POLE
 S - SIGN
 C - CORNER FOUND (SEE DESCRIPTION)

--- BOUNDARY/PROPERTY LINE
 --- ADJOINING BOUNDARY LINE
 --- EASEMENT LINE
 --- MINOR CONTOUR
 --- MAJOR INDEX CONTOUR
 --- STORM STRUCTURE
 --- OVERHEAD ELECTRIC LINE
 --- SANITARY SEWER LINE
 --- STORM SEWER LINE
 --- UNDERGROUND TELECABLE/FIBER OPTIC BUNDLE
 --- WATERLINE
 --- GASLINE
 --- UNDERGROUND TELEPHONE LINE
 --- PROPOSED BOREHOLE FLAG AND NO.

GENERAL NOTES:

- Base information provided by Alta/NSPS Land Title Survey by Robinson & Plante, PC Land Surveying, dated 9-19-19 and Wake County GIS data and should be verified for accuracy.
- All site plan, zoning and wetland information utilized in the preparation of this plan is considered to be preliminary in nature and subject to change and final verification.
- Wake County information from deed book 010873, page 01556 on 06/15/2004 and plat #106457993. Boundary Information for Town of Knightdale owned parcel from BM 2004, Page 1046.

Floodplain Information:
 Floodplain information obtained from FEMA firm panel 3720175500J & 3720175400J effective date of study 05/02/2006.

Stream / Wetland Information
 Stream and wetland information is based on preliminary information provided to ESP by Wake GIS data (for parcel 1754-49-2629) and a Buffer Determination letter by NCEQ, dated June 14, 2019 (for parcel 1754-58-5927). For purposes of preparation of this Preliminary Concept Plan, any potential wetland areas and stream features depicted on the plan are considered to be preliminary in nature and approximate in location. The Preliminary Concept Plan may need to be revised once all agencies approve on-site wetlands / streams and appropriate jurisdictional boundaries are surveyed and verified with acceptable levels of accuracy. Unit loss may occur.

Public Information:
 ESP Associates is not responsible for plan deficiencies created by incorrect, incomplete and missing or outdated information derived from public sources such as GIS planning and zoning departments.

Tree Preservation Note:
 1. Required tree preservation and tree replacement calculations and associated plans per UDO Section 8.5.A will be provided during Construction Documentation.

LEGEND

PROPERTY BOUNDARY
 EXISTING TREELINE
 EXISTING WETLANDS
 EXISTING STREAMS
 INDICATES BORING LOCATIONS

GENERAL NOTES:

- Base information provided by Alta/NSPS Land Title Survey by Robinson & Plante, PC Land Surveying, dated 9-19-19 and Wake County GIS data and should be verified for accuracy.
- All site plan, zoning and wetland information utilized in the preparation of this plan is considered to be preliminary in nature and subject to change and final verification.
- Wake County information from deed book 010873, page 01556 on 06/15/2004 and plat #106457993. Boundary Information for Town of Knightdale owned parcel from BM 2004, Page 1046.

Floodplain Information:
 Floodplain information obtained from FEMA firm panel 3720175500J & 3720175400J effective date of study 05/02/2006.

Stream / Wetland Information
 Stream and wetland information is based on preliminary information provided to ESP by Wake GIS data (for parcel 1754-49-2629) and a Buffer Determination letter by NCEQ, dated June 14, 2019 (for parcel 1754-58-5927). For purposes of preparation of this Preliminary Concept Plan, any potential wetland areas and stream features depicted on the plan are considered to be preliminary in nature and approximate in location. The Preliminary Concept Plan may need to be revised once all agencies approve on-site wetlands / streams and appropriate jurisdictional boundaries are surveyed and verified with acceptable levels of accuracy. Unit loss may occur.

Public Information:
 ESP Associates is not responsible for plan deficiencies created by incorrect, incomplete and missing or outdated information derived from public sources such as GIS planning and zoning departments.

Tree Preservation Note:
 1. Required tree preservation and tree replacement calculations and associated plans per UDO Section 8.5.A will be provided during Construction Documentation.

NATURAL RESOURCES INVENTORY
 (Inventory information taken from Wake County GIS, aerial photographs and USGS Quad maps).

The property for the proposed Forestville Village PUD is located on two parcels in eastern Wake County within the Town of Knightdale's jurisdiction.

Parcel A (PIN 1754492629) is 15.46 acres bordered by Forestville Road to the south, Lawson Ridge Road to the west and Knightdale High School to the north. Parcel B (PIN 1754585927) is 40.50 acres bordered by Forestville Road to the south, Old Knight Road to the east and the Town of Knightdale Town Park and High School to the north.

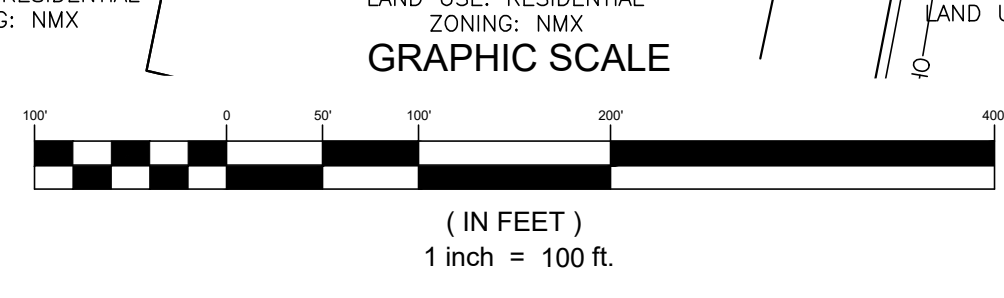
There is a gravity sanitary sewer line running parallel to Parcel A's northern property line. An existing pond on the Knightdale High School site is located beyond the sewer line. There is a potential stream channel extending into Parcel A from the pond that may be subject to stream, buffer and wetland requirements once a determination is approved by NCDEQ.


Tree Coverage: Existing mature stand of pines with hardwood and pine mix in the northeast corner of the parcel along the stream.
Slopes: 2-5% slopes from west and south draining to the north and east 10-20% slopes along the stream channel.
Soils: Upland ApB2, ApC2 and LoC; WKE along northern property line

Parcel B is bordered on the northern property line by a stream channel with wetlands that flows west to the pond. Another stream channel flows from south to north. A buffer determination letter from NCDEQ, dated June 14, 2019, has determined that these are jurisdictional streams, wetlands and buffers.

Tree Coverage: Parcel B was been logged in recent years and existing mature hardwoods remain along stream channel. Scrub has regrown in some portions of the logged area.
Slopes: 2-5% slopes from east and south draining to the north and west 10-20% slopes adjacent to the stream channel.
Soils: Upland ApB2, and LoC; LoB along creek channel and wetlands; LoB at northern property line along creek and wetlands.
Rock: A Geotechnical report on the presence of shallow rock was performed by TME Engineering, Inc, dated May 9, 2019 and found 1 locations of shallow rock. Those boring locations are shown on the Natural Inventory Map.

To the best of our knowledge there are no documented endangered species habitats nor historic resources located on either parcel.





PRELIMINARY ENVIRONMENTAL SURVEY

NOT FOR CONSTRUCTION

NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS
1	02/26/2021		

EXISTING CONDITIONS / ENVIRONMENTAL SURVEY

FORESTVILLE VILLAGE

BY

DATE

NO.

REVISIONS PER TOWN COMMENTS

REVISION

DATE

NO.

JPM SOUTH

KNIGHTDALE, NC

PROJECT INFORMATION

PROJECT MANAGER: AA


DESIGNED BY: ER/SM

DRAWN BY: ER/SM

PROJECT NUMBER: JM14.100

ORIGINAL DATE: FEB 22 2021

SHEET: **C1.1**



Know what's below.
Call before you dig.

Site Data

Total: Maximum 280 Lots
Single Family Lots: 87 Lots *
Townhomes: 186 Units *
 * Lot counts represent current site plan layout. Final lot counts may adjust during construction documentation and may vary up to 15 lots per product type. Total shall not exceed the maximum of 280 lots/units.

Maximum Density: +/- 6.02 DU/AC (280 / 46.5)
Density: +/- 5.87 DU/AC (273 / 46.5)

Parking:
Single Family
 Required: 1 space per bedroom, 2 Max.
 Proposed: 2-car garage & 2-car driveway
Townhome:
 Required: 1 space per bedroom, 2 Max.
 Proposed: 40% (+/- 75 units) - 1-car garage & 1-car driveway
 60% (+/- 112 units) - 2-car garage & 2-car driveway
Internal On-Street Parking Provided: 80 Spaces
Amenity Site: +/- 31 Space Proposed

LEGEND

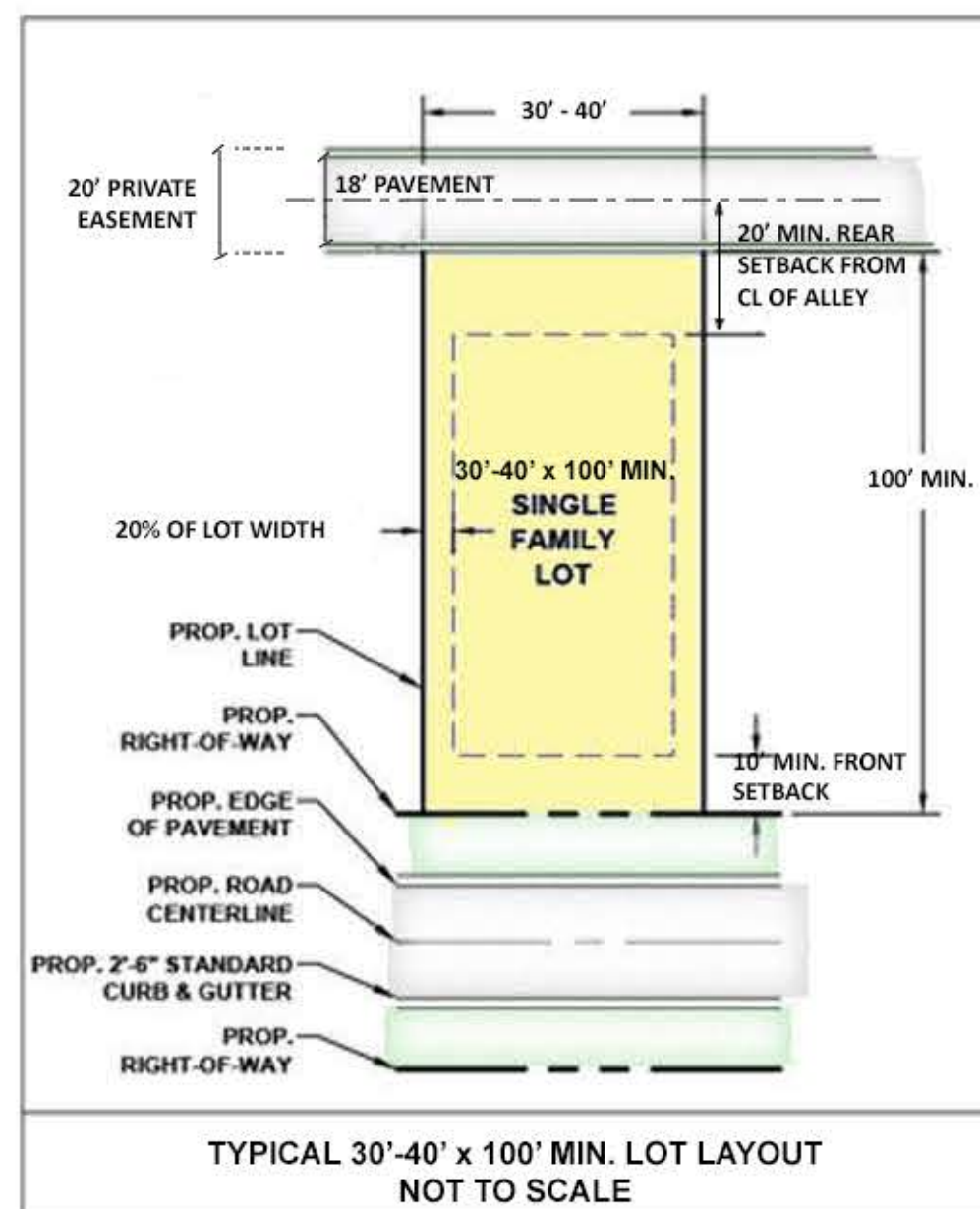
- RESIDENTIAL**
- SINGLE FAMILY LOT
- TOWNHOMES
- OPEN SPACE**
- ACTIVE
- PASSIVE
- PROPOSED STREETS
- PROPOSED SIDEWALKS
- EXISTING POND
- EXISTING TREES
- STORMWATER CONTROL MEASURES

NOTES:
 1. HOA SHALL MAINTAIN ALL AREAS OF COMMON OPEN SPACE INCLUDING LANDSCAPE MEDIANS AT ENTRANCES.
 2. * ALL SQUARE FOOTAGES AND ACREAGE SHOWN ARE APPROXIMATE. ACTUAL NUMBERS TO BE DETERMINED DURING FINAL PLAT REVIEW AND APPROVAL.
 3. **ACTIVE RECREATION USES MAY INCLUDE BUT NOT LIMITED TO: POOL AND CLUBHOUSE, PLAY AREAS, GATHERING SPACES, MULTI-USE TRAILS AND TRAIL CONNECTIONS TO COMMUNITY PARK.

ILLUSTRATIVE MASTER PLAN, LOT EXAMPLES AND CONCEPTUAL ELEVATIONS ARE PRELIMINARY. ACTUAL DESIGN SUBJECT TO CHANGE DURING THE REVIEW PROCESS.

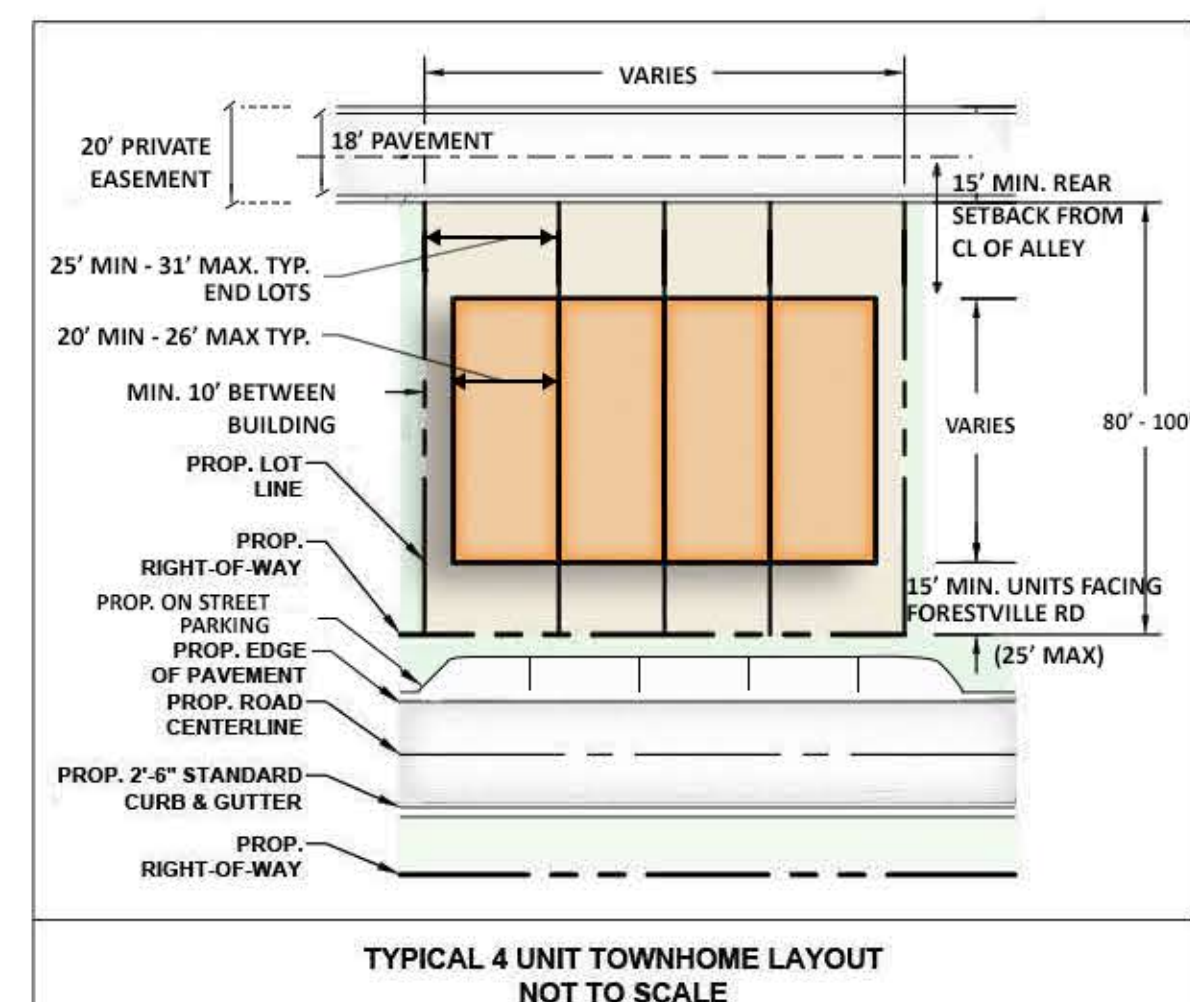


TYPICAL LOT LAYOUT - SINGLE-FAMILY

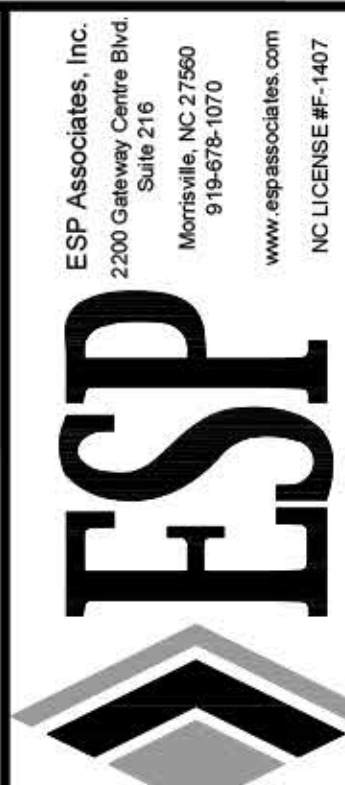
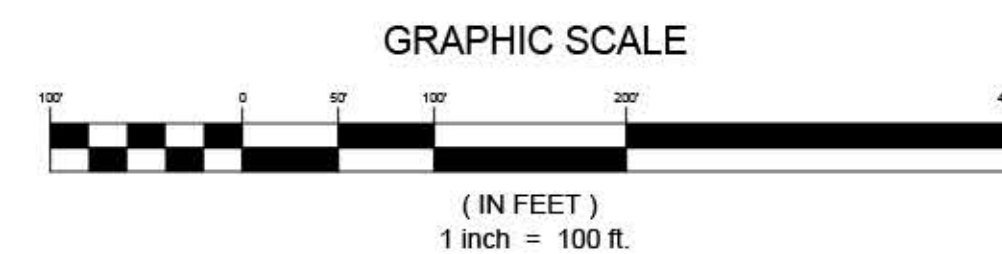


SETBACKS:
 FRONT: 10' MIN
 SIDE: 20% OF LOT WIDTH
 REAR: 20' MIN. FROM CENTERLINE OF ALLEY

TYPICAL LOT LAYOUT - TOWNHOMES



SETBACKS:
 FRONT: 15' MIN. UNITS FACING FORESTVILLE RD, 25' MAX TYPICAL
 SIDE: 10' MIN. BETWEEN BUILDING, 5' MIN. END UNITS
 REAR: 15' MIN. FROM CENTERLINE OF ALLEY



**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

NO.	DATE	REVISION	FIRST REVIEW COMMENTS
1	03/26/21		

**MASTER PLAN
 FORESTVILLE VILLAGE**
 KNIGHTDALE, NC
 JPM SOUTH

PROJECT INFORMATION

PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ERISM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	C2.0

8: P:\1021\Projects\JM14.100 - Forestville Village\JM14.100 - Forestville Village\JM14.100 - Master Plan\JM14.100 - Master Plan\C2.0.dwg, C2.0.dwg

SITE DATA FOR FORESTVILLE VILLAGE

TAX PARCEL ID: 1754585927, 1754492629
 LOCATION: KNIGHTDALE, NORTH CAROLINA
 TOTAL SITE AREA: +/- 50.64 ACRES (PER SURVEY)
 LESS ROW DEDICATION (PROPOSED): +/- 1.11 ACRES
 TOTAL DEVELOPABLE PARCELS: +/- 49.53 ACRES
 PROPOSED RESIDENTIAL PARCEL: +/- 48.50 ACRES
 FUTURE NEIGHBORHOOD RETAIL: +/- 3.03 ACRES
 ZONING: EXISTING: RT
 PROPOSED: PUD - NMX
 WATERSHED: NEUSE RIVER BASIN
 FLOODPLAIN: NO FLOODPLAIN IS LOCATED ON-SITE

TOTAL PROPOSED LOTS: MAXIMUM 280 LOTS
 SINGLE FAMILY: 87 LOTS *
 TOWNHOMES: 193 LOTS *
 *LOT COUNTS REPRESENT CURRENT SITE PLAN LAYOUT. FINAL LOT COUNTS MAY ADJUST DURING CONSTRUCTION DOCUMENTATION AND MAY VARY UP TO 15 LOTS PER PRODUCT TYPE. TOTAL SHALL NOT EXCEED THE MAXIMUM OF 280 LOTS/UNITS.

MAXIMUM DENSITY: +/- 6.02 DU/AC (280 / 46.5) MAX.
 DENSITY: +/- 5.87 DU/AC (273 / 46.5)

TYPICAL LOT SETBACKS:
 SINGLE FAMILY LOT: 10' MIN
 TOWNHOME UNIT: 25' MAX, 15' MIN. FACING FORESTVILLE ROAD
 FRONT: 20% OF LOT WIDTH
 SIDE: 15' MIN. BETWEEN BUILDING (5' MIN. END UNITS)
 REAR: 20' MIN. (FROM CL OF ALLEY)
 TOWNHOME UNIT: 15' MIN. (FROM CL OF ALLEY)

PARKING CALCULATIONS:
 REQUIRED PARKING SPACES:
 SINGLE-FAMILY HOMES: 1 SPACE PER BEDROOM, 2 MAXIMUM = 174 SPACES
 TOWNHOMES: 1 SPACE PER BEDROOM, 2 MAXIMUM = 372 SPACES
 TOTAL = 546 SPACES
 PROVIDED PARKING SPACES:
 SINGLE-FAMILY HOMES: 2-CAR GARAGE WITH 2 CAR DRIVE = 348 SPACES
 TOWNHOMES: TOTAL = 598 SPACES
 *40% (+/- 75 UNITS) - 1-CAR GARAGE W/1-CAR DRIVE = 150 SPACES
 *60% (+/- 112 UNITS) - 2-CAR GARAGE W/ 2-CAR DRIVE = 448 SPACES
 80 SPACES ON INTERNAL STREETS (SEE PLAN)
 ON-STREET PARKING AMENITY PARKING: 29 SPACES + 2 HANDICAPPED = 31 SPACES
 TOTAL = 709 SPACES

* SEE NOTE UNDER TOTAL PROPOSED LOTS TO LEFT (THIS SHEET)
RECREATIONAL OPEN SPACE:
 REQUIRED: 4.60 ACRES
 PROPOSED: 15.76 ACRES
 ACTIVE OPEN SPACE: 2.30 ACRES
 PASSIVE OPEN SPACE: 2.30 ACRES
 ** A MINIMUM OF 50% OF TOTAL REQUIRED OPEN SPACE SHALL BE ACTIVE

CALCULATIONS BASED ON RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)
 DENSITY: 273 UNITS / 46.5 AC = 5.87 DU/AC
 BEDROOMS: = 770 BEDROOMS
 SINGLE-FAMILY: 87 UNITS x 3.5" = 305 BEDROOMS
 TOWNHOMES: 188 UNITS x 2.5" = 465 BEDROOMS
 ** (PER UDO SECTION 7.3C)

PROXIMITY ZONE OF 1/4 MILE (WITH DENSITY BETWEEN 2-6 DU/AC) = 280"
 **RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)
 NUMBER OF BEDROOMS x 260 = REQUIRED OPEN SPACE (SF)
 770 BEDROOMS x 260 = 200,200 SF / 4.60 AC

REQUIRED OPEN SPACE = 4.60 AC
 REQUIRED ACTIVE OPEN SPACE (50% OF 4.60 AC) = 2.3 ACRES

GENERAL NOTES:

- BASE INFORMATION PROVIDED BY A BOUNDARY SURVEY OF SUGGS TRACT AND TOWN OF KNIGHTDALE TLA#9 TRACT BY ROBINSON AND PLANTE, P.C., LAND SURVEYING, DATED 9-19-2019 AND INFORMATION FROM WAKE COUNTY GIS DATA AND SHOULD BE VERIFIED FOR ACCURACY.
- ALL SITE PLAN, ZONING AND WETLAND INFORMATION UTILIZED IN THE PREPARATION OF THIS PLAN IS CONSIDERED TO BE PRELIMINARY IN NATURE AND SUBJECT TO CHANGE AND FINAL VERIFICATION.
- WAKE COUNTY INFORMATION FROM DEED BOOK 010873, PAGE 01556 ON 08/15/2004 AND PLAT #10451993, BOUNDARY INFORMATION FOR TOWN OF KNIGHTDALE OWNED PARCEL FROM BM 2004, PAGE 1046.

FLOODPLAIN INFORMATION:

FLOODPLAIN INFORMATION OBTAINED FROM FEMA FIRM PANEL 3720175500J & 3720175400J EFFECTIVE DATE OF STUDY 05/02/2006.

STREAM / WETLAND INFORMATION:

STREAM AND WETLAND INFORMATION IS BASED ON PRELIMINARY INFORMATION PROVIDED TO ESP BY A WETLAND SKETCH MAP BY S&EC, DATED 08-14-2019 AND WAKE GIS DATA (FOR PARCEL 175449-2629) AND A BUFFER DETERMINATION LETTER BY NCDEQ, DATED JUNE 14, 2019 (FOR PARCEL 175449-5927). FOR PURPOSES OF PREPARATION OF THIS PRELIMINARY SITE PLAN, ANY POTENTIAL WETLAND AREAS AND STREAM FEATURES DEPICTED ON THE PLAN ARE CONSIDERED TO BE PRELIMINARY IN NATURE AND APPROXIMATE IN LOCATION. THE FINAL LOT CONFIGURATION MAY NEED TO BE REVISED ONCE ALL AGENCIES APPROVE ON-SITE WETLANDS / STREAMS AND APPROPRIATE JURISDICTIONAL BOUNDARIES ARE SURVEYED AND VERIFIED WITH ACCEPTABLE LEVELS OF ACCURACY. UNIT LOSS MAY OCCUR.

TREE SAVE:
 REQUIRED: 4.65 AC
 PROPOSED: 4.65 AC MIN.
LINK / NODE RATIO: 16 LINKS / 10 NODES = 1.6
 (SEE INSET EXHIBIT ON SHEET 2.2)

ACCESS POINTS/DRIVEWAYS/STREETS

- PROPOSED PROJECT SITE ENTRANCE LOCATIONS ARE CONSIDERED PRELIMINARY IN NATURE AND WILL REQUIRE VERIFICATION AND REVIEW BY NCDOT AND TOWN OF KNIGHTDALE FOR LOCATION, SPACING AND SIGHT DISTANCE.
- ALL ROADWAYS AND STREET SYSTEMS ARE CONSIDERED TO BE PRELIMINARY AND WILL NEED TO BE VERIFIED FOR SUFFICIENCY TO SATISFY OR EXCEED MINIMUM REQUIREMENTS ESTABLISHED IN THE KNIGHTDALE UDO AND APPLICABLE STANDARDS IDENTIFIED BY NCDOT. STREET CONNECTIONS ARE CONCEPTUAL AND MAY BE SUBJECT TO CHANGE BASED ON AGENCY INPUT AND REVIEW.
- ROAD CENTERLINE RADII ARE BASED ON PRELIMINARY DESIGN DISCUSSIONS WITH THE TOWN OF KNIGHTDALE DATED XXXXXXXX.

TREE SAVE/NATURAL AREAS

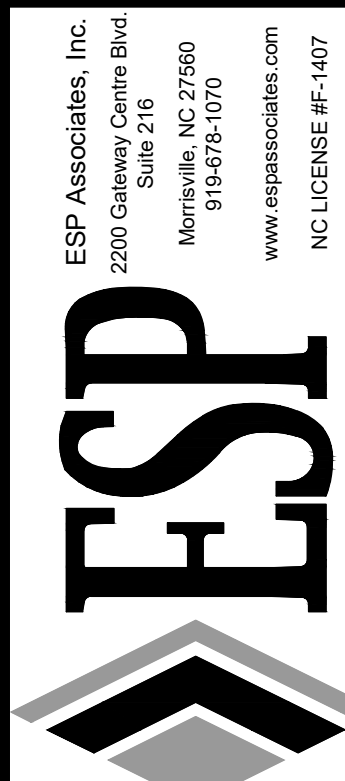
TREE SAVE AND NATURAL AREAS ARE CONCEPTUAL AND PRELIMINARY. THE EXACT LOCATIONS OF THESE AREAS MAY CHANGE AS THE CLIENT FINALIZES DECISION REGARDING FINAL LAYOUT, PRODUCT ALLOCATION AND ALL OTHER SPATIALLY DEPENDENT PROJECT COMPONENTS SUCH AS STORMWATER AREAS, WETLAND AREAS, UTILITY FEATURES, AND BUFFERS, (AS APPLICABLE) FOR THIS PROJECT ARE BETTER DEFINED.

POTENTIAL STORMWATER QUALITY AREAS

LOCATION OF PROPOSED SCM AREAS ARE CONCEPTUAL AND PRELIMINARY AND STILL NEED TO BE DETERMINED. THE EXACT SIZE AND LOCATION OF THESE AREAS WILL CHANGE AS THE CLIENT FINALIZES DECISIONS REGARDING FINAL LAYOUT, PRODUCT ALLOCATION, AND AS OTHER PROPOSED CHANGES TO THE PROJECT ARE BETTER DEFINED. LAYOUT AND UNIT COUNT SUBJECT TO CHANGE BASED ON FINAL ENGINEERING AND DESIGN OF STORMWATER AREAS.

PUBLIC INFORMATION:

ESP ASSOCIATES IS NOT RESPONSIBLE FOR PLAN DEFICIENCIES CREATED BY INCORRECT, INCOMPLETE AND MISSING OR OUTDATED INFORMATION DERIVED FROM PUBLIC SOURCES SUCH AS GIS PLANNING AND ZONING DEPARTMENTS.

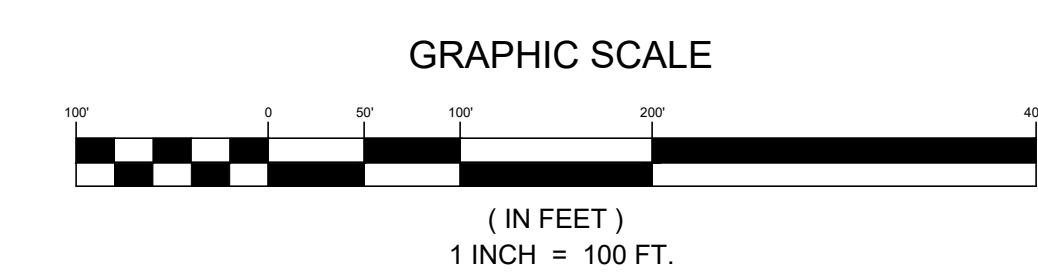
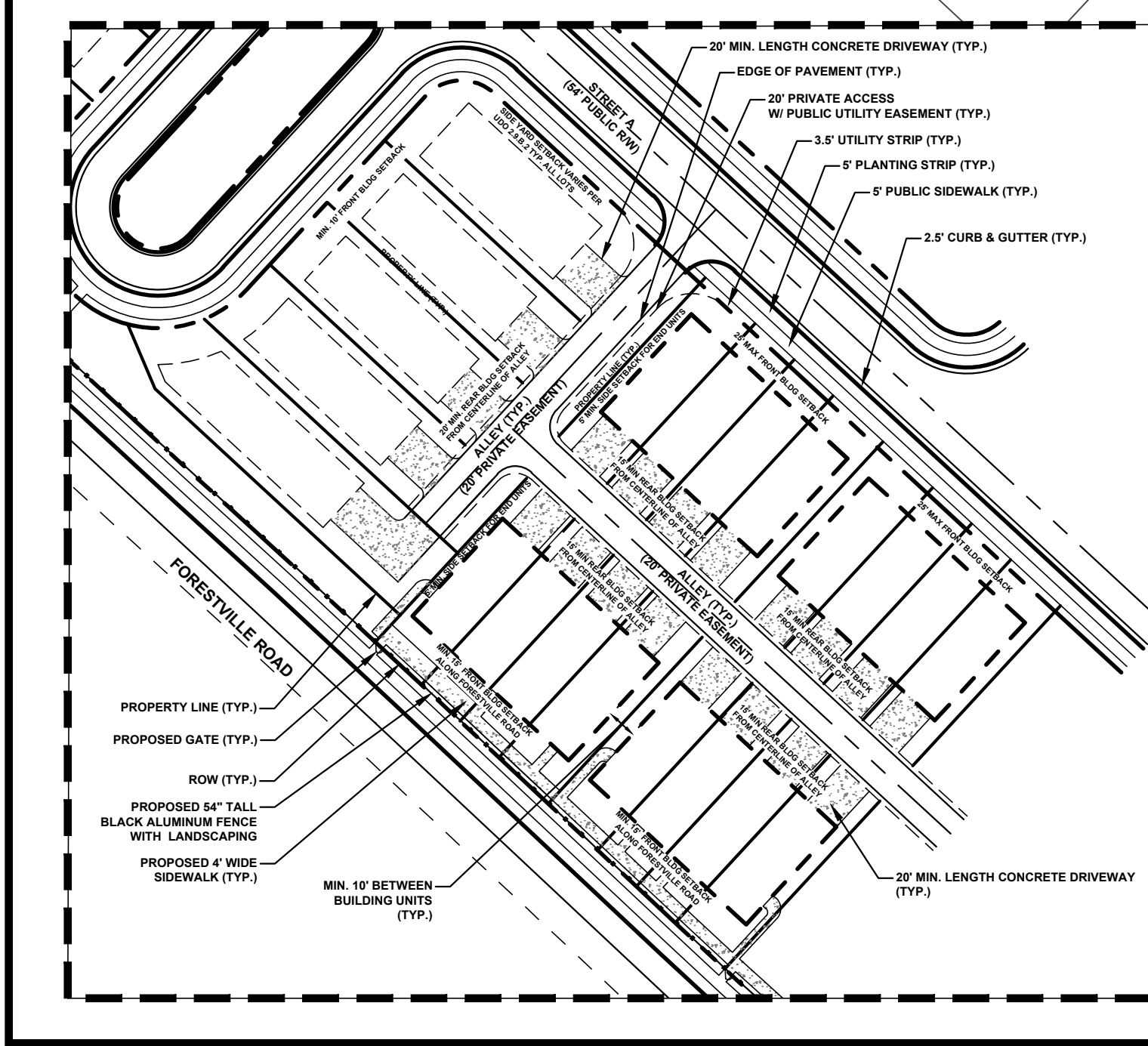
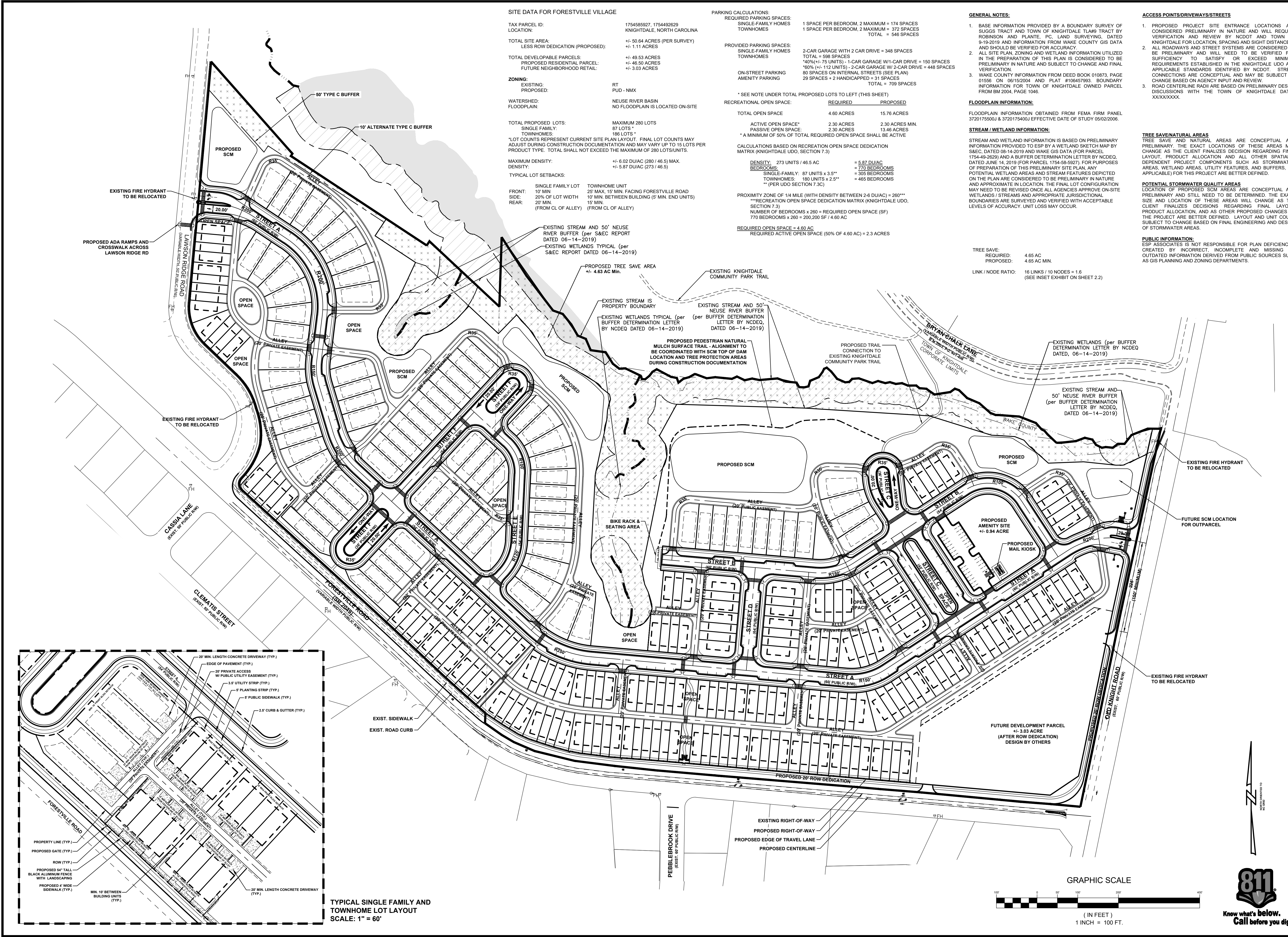


**PRELIMINARY
NOT FOR
CONSTRUCTION**

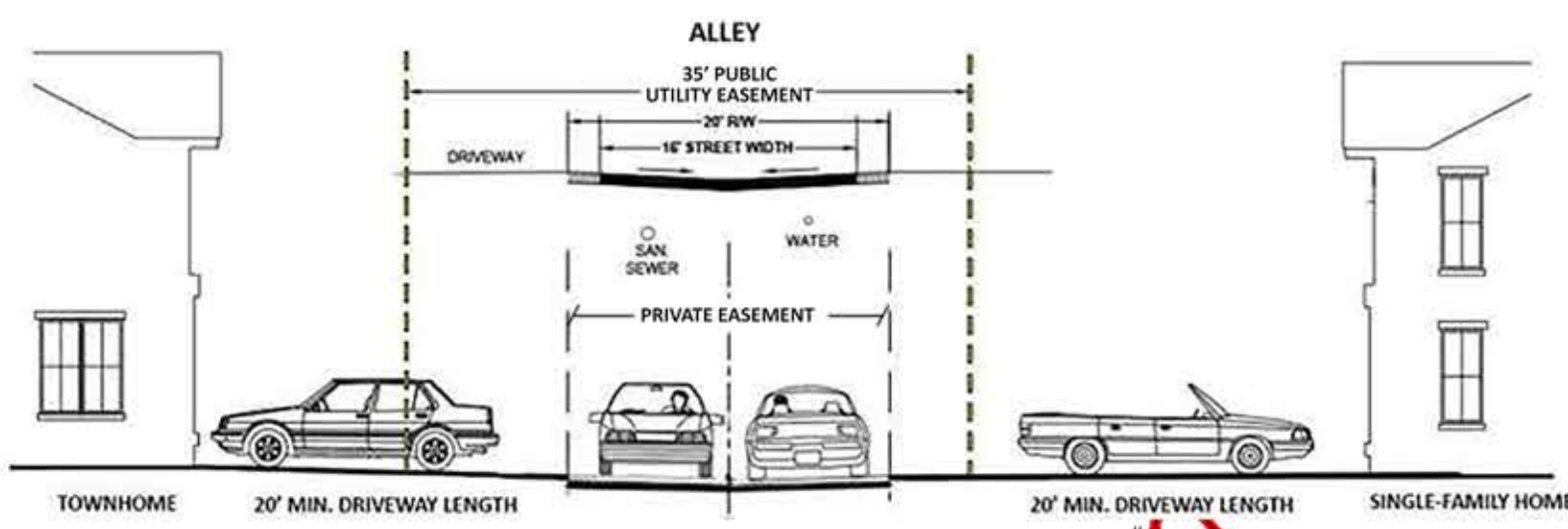
NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS
1	02/26/2021		

**SITE PLAN
FORESTVILLE VILLAGE**
 KNIGHTDALE, NC
 JPM SOUTH

PROJECT INFORMATION	
PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ER/SM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	C2.1

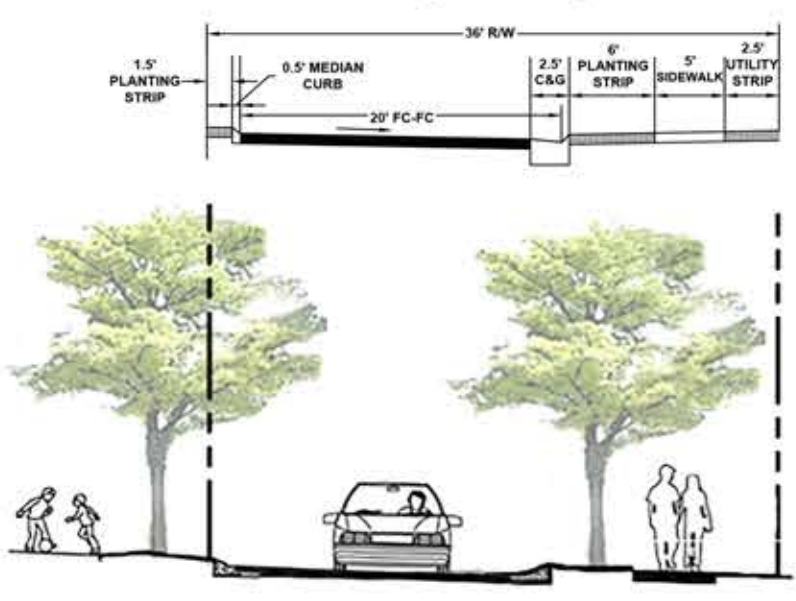


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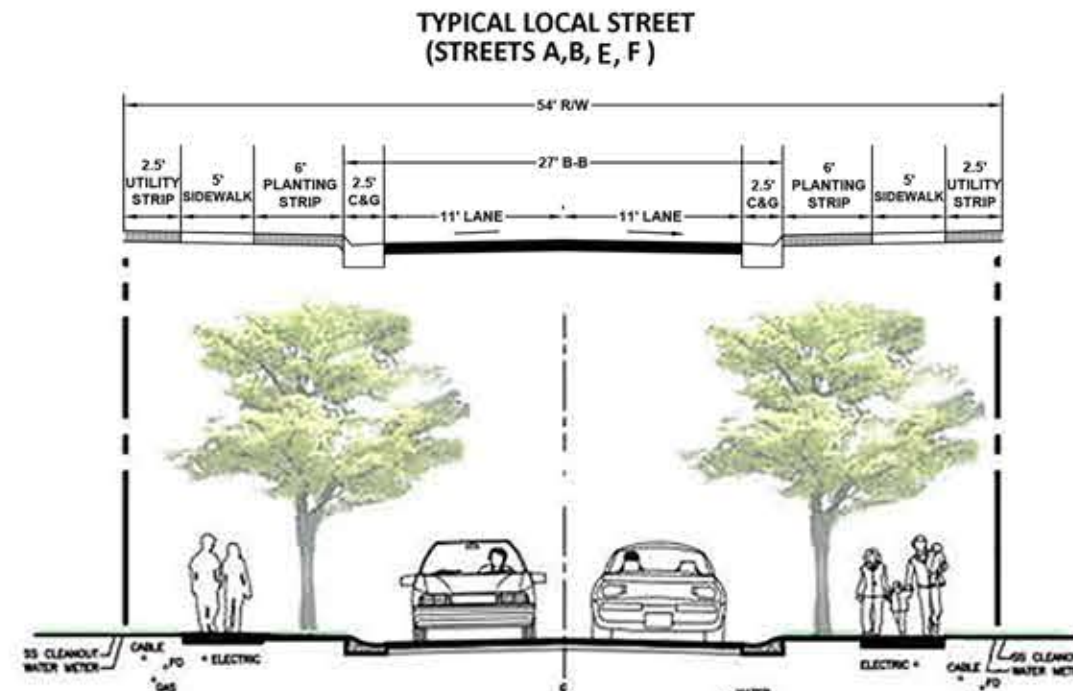
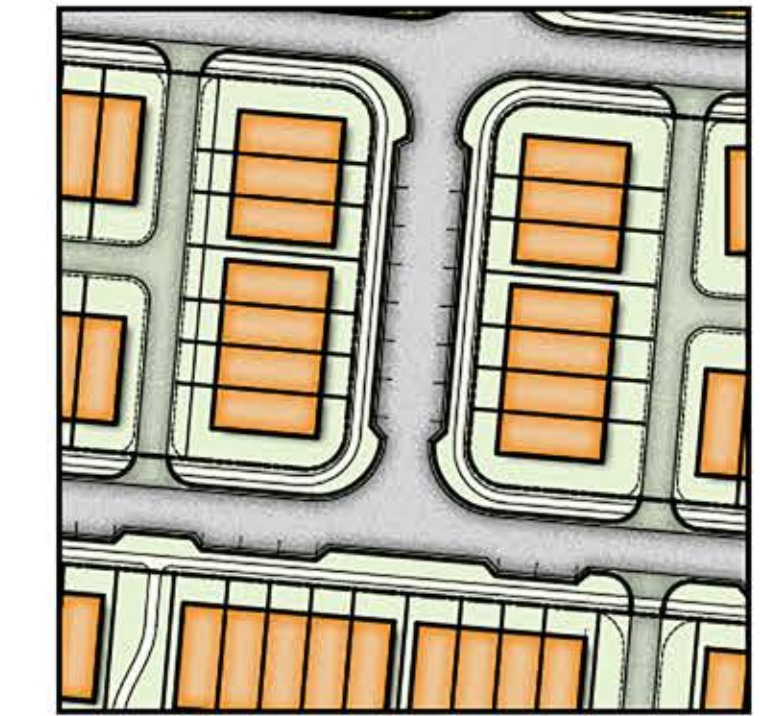


PRIVATE ALLEY - 20' EASEMENT W/ PUBLIC UTILITY EASEMENT

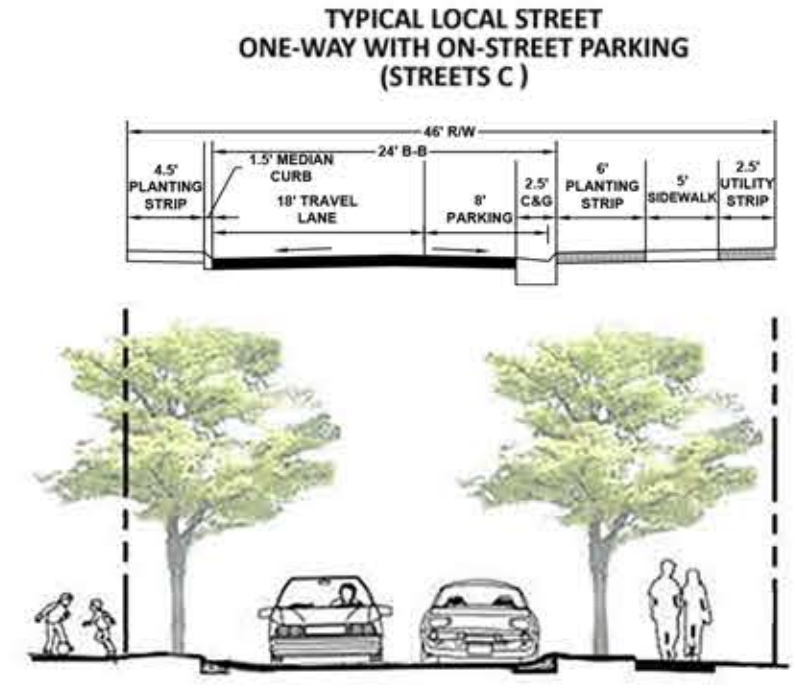
TYPICAL LOCAL STREET ONE-WAY (STREETS C AND F)



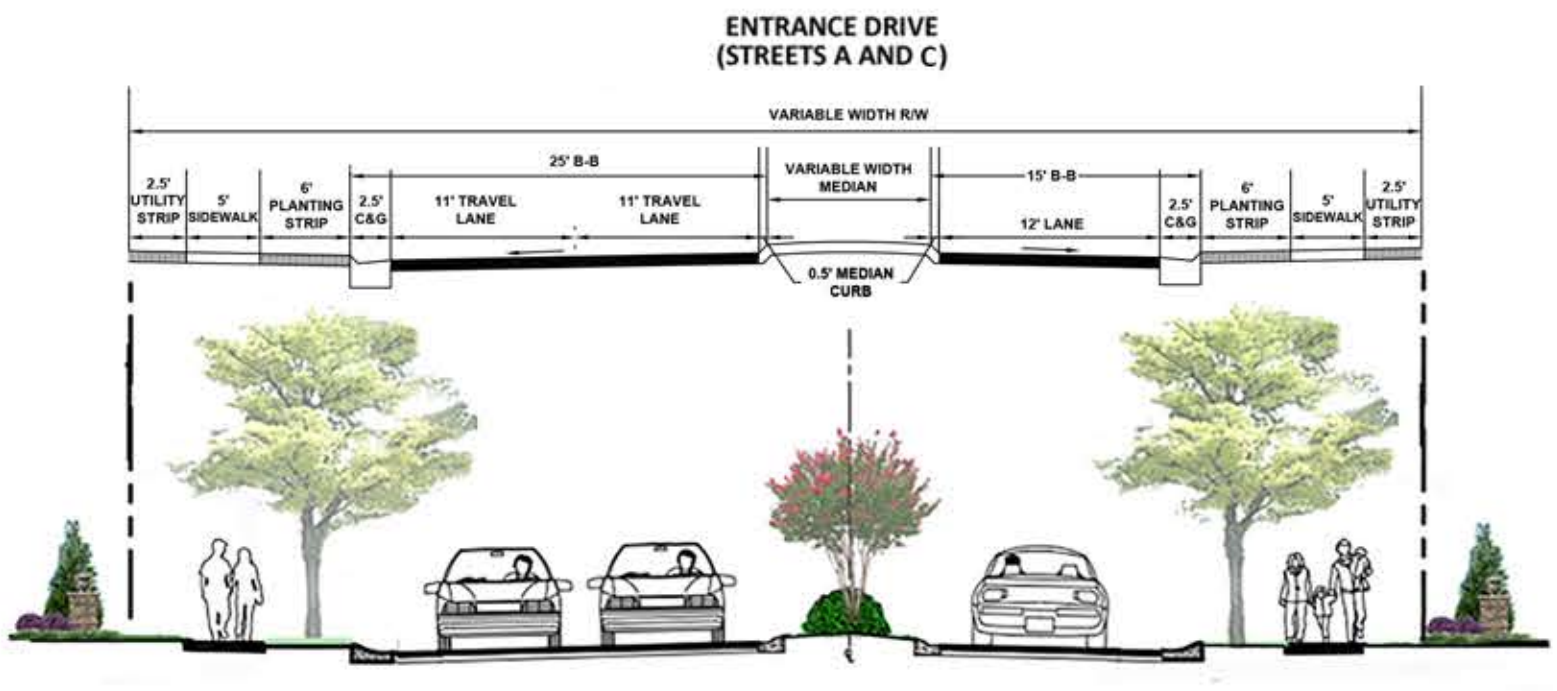
RESIDENTIAL STREET - 36' ROW NO ON-STREET PARKING



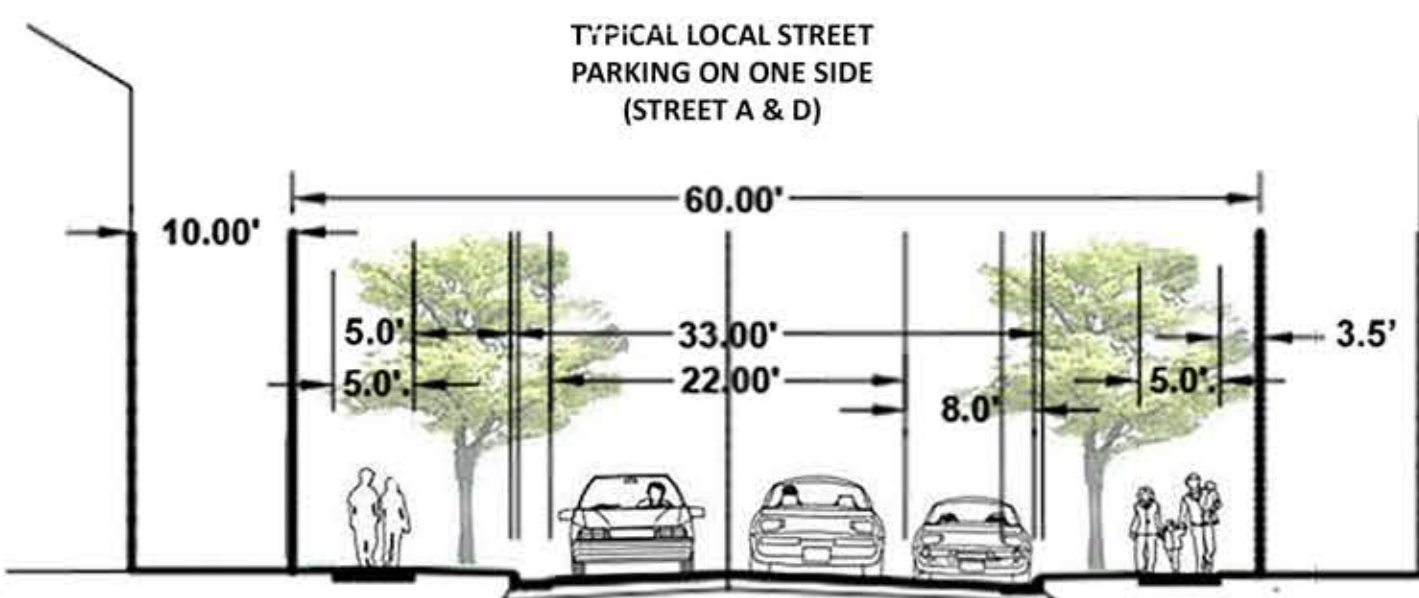
RESIDENTIAL STREET - 54' ROW



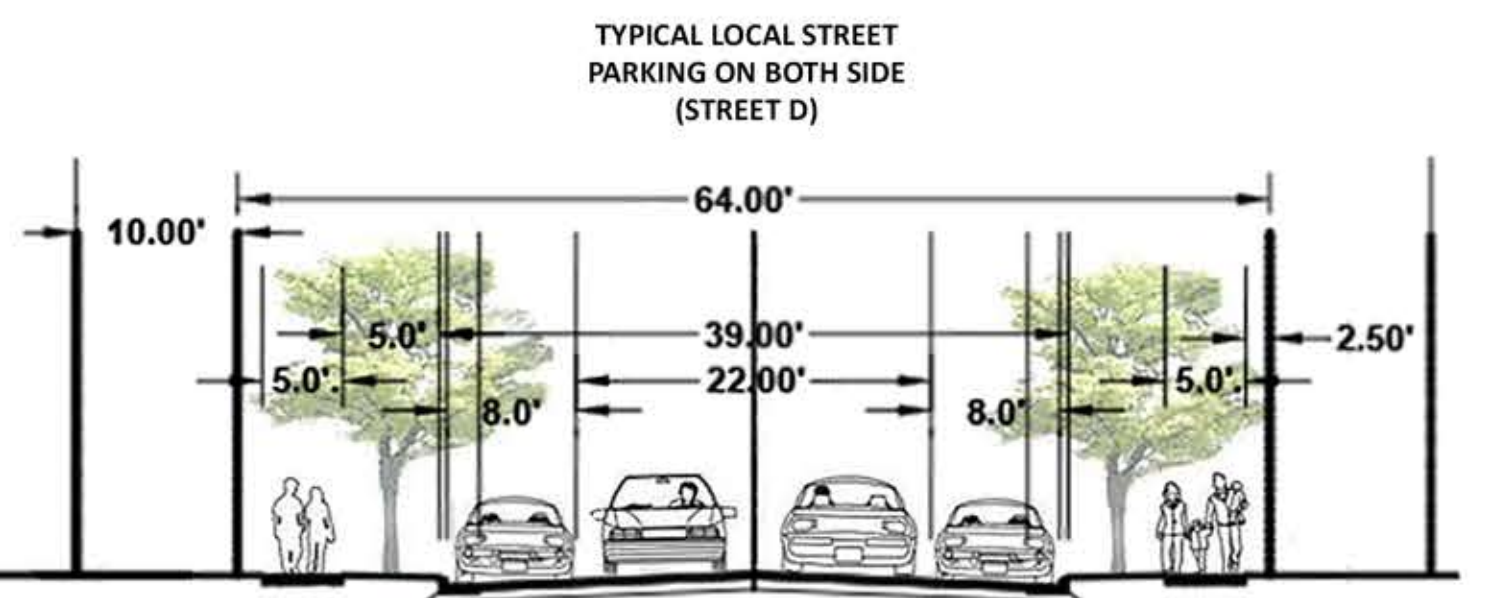
RESIDENTIAL STREET - 46' ROW WITH ON-STREET PARKING



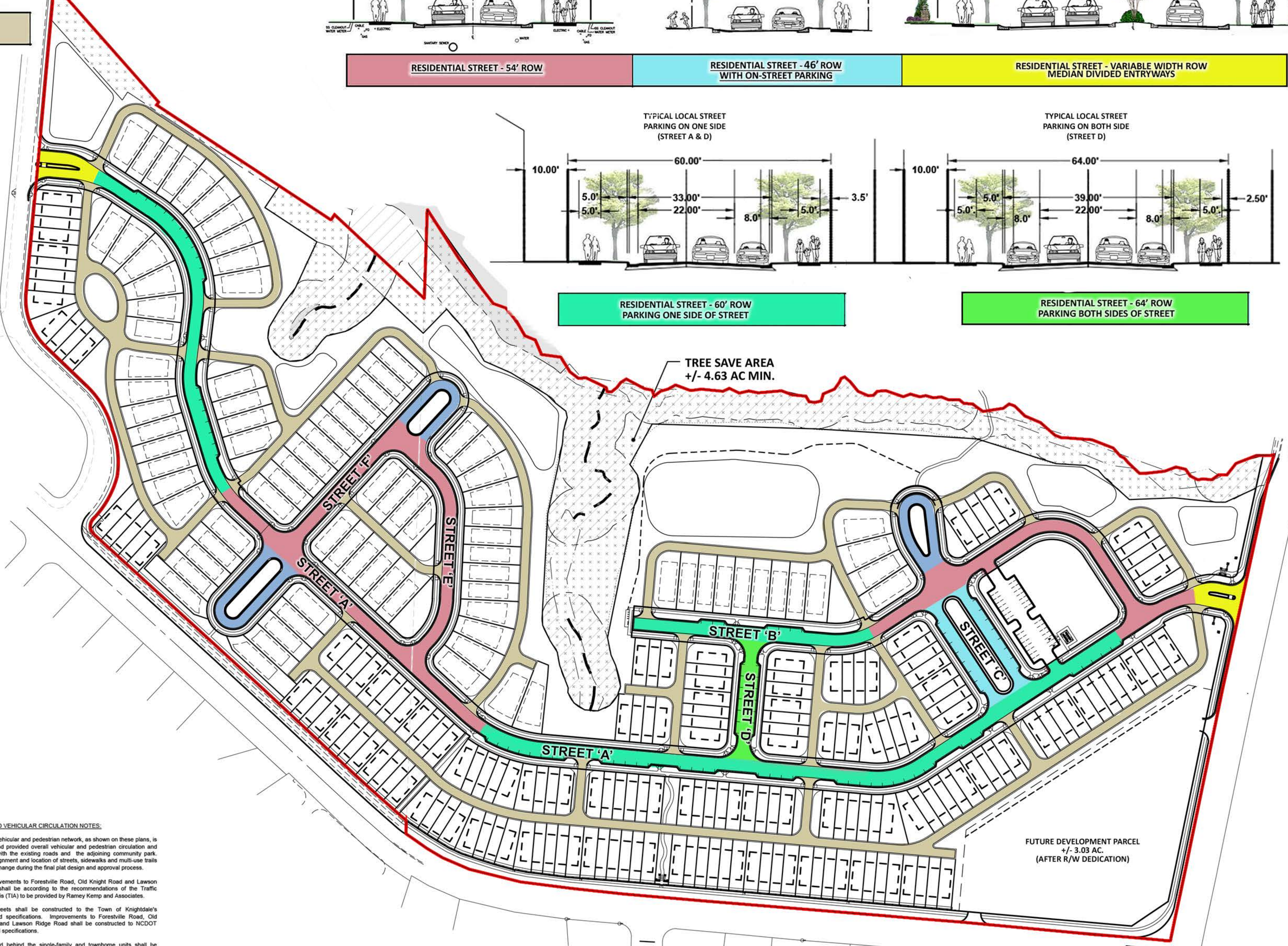
RESIDENTIAL STREET - VARIABLE WIDTH ROW MEDIAN DIVIDED ENTRYWAYS



RESIDENTIAL STREET - 60' ROW PARKING ONE SIDE OF STREET



RESIDENTIAL STREET - 64' ROW PARKING BOTH SIDES OF STREET



TRANSPORTATION AND CIRCULATION PLAN NOTES:

- The Forestville Subdivision will be served by a network of existing and proposed public streets with sidewalks. The single-family and townhomes will all be alley loaded garage units. Additional parking will be provided with on-street parking along internal streets.
- 5' wide sidewalks shall be provided along both sides of all internal streets with connections to proposed sidewalks along both Forestville Road and Old Knight Road. Additional sidewalk connections along Forestville Road shall be provided between the townhome units. A walking trail connection shall be located to provide direct access to the Knightdale Community Park.
- Off-street parking shall be provided at the amenity center and at intervals along the rear access alleys as per the requirements of the Town of Knightdale UDO.

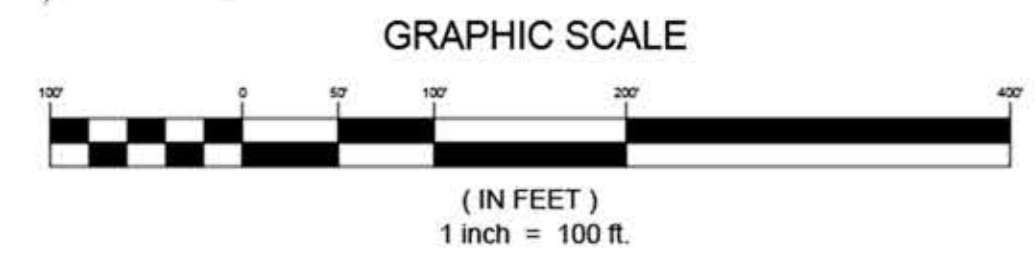
TIA RECOMMENDED IMPROVEMENTS:

- Forestville Road and Old Knight Road improvements shall include a southbound right-turn lane and a northbound left-turn lane on Old Knight Road with a minimum of 100 and 125 feet of full width storage and appropriate taper, respectively. An eastbound right-turn lane on Forestville Road with a minimum of 100 feet of full width storage and appropriate taper shall be provided. The development shall monitor for signalization and install once warranted and approved by NCDOT.
- Lawson Ridge Road and site entrance improvements shall include a full movement intersection with stop control on the westbound approach of the driveway. One (1) ingress lane and one (1) egress lane shall be provided at the side entrance.
- Forestville Road and future development parcel entrance improvements shall include a right-in / right-out intersection with stop control on the southbound approach of the driveway. One (1) ingress lane and one (1) egress lane shall be provided. A westbound right-turn lane on Forestville Road with a minimum of 50 feet of full width storage and appropriate taper shall be provided.
- Old Knight Road and future development parcel entrance improvements shall include a full movement intersection with stop control on the eastbound approach of the driveway. One (1) ingress lane and one (1) egress lane shall be provided.
- Old Knight Road and site entrance improvements shall include a full movement intersection with stop control on the eastbound approach of the driveway. One (1) ingress lane and one (1) egress lane shall be provided. A southbound right-turn lane and a northbound left-turn lane on Old Knight Road with a minimum of 50 and 100 feet of full width storage and appropriate taper, respectively, shall be constructed.

PEDESTRIAN AND VEHICULAR CIRCULATION NOTES:

- The internal vehicular and pedestrian network, as shown on these plans, is conceptual and provided overall vehicular and pedestrian circulation and connectivity with the existing roads and the adjoining community park. The actual alignment and location of streets, sidewalks and multi-use trails is subject to change during the final plat design and approval process.
- Off-site improvements to Forestville Road, Old Knight Road and Lawson Ridge Road shall be according to the recommendations of the Traffic Impact Analysis (TIA) to be provided by Ramey Kemp and Associates.
- All public streets shall be constructed to the Town of Knightdale's standards and specifications. Improvements to Forestville Road, Old Knight Road and Lawson Ridge Road shall be constructed to NCDOT standards and specifications.
- Alleys, located behind the single-family and townhome units shall be placed in a public access easement.
- All pedestrian and vehicular improvements located within common open space and amenity areas shall be maintained by the Forestville Village HOA.

ILLUSTRATIVE STREET SECTIONS ARE PRELIMINARY
ACTUAL DESIGN SUBJECT TO CHANGE DURING
THE REVIEW PROCESS.



ESP
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2300 Gateway Centre Blvd
Suite 215
Morrisville, NC 27560
919-878-1070
www.esp-associates.com
NC LICENSE #F-1407

PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISION	FIRST REVIEW COMMENTS
1	03/26/21		

TRANSPORTATION PLAN
FORESTVILLE VILLAGE
KNIGHTDALE, NC
JPM SOUTH

PROJECT INFORMATION
PROJECT MANAGER: AA
DESIGNED BY: ER
DRAWN BY: ERSM
PROJECT NUMBER: JM14.100
ORIGINAL DATE: FEB 22, 2021
SHEET: **C3.0**

S:\RFP\10201\Projects\JM14.100 - Forestville Village (JPM South)_Final\JM14-MASTER PLAN-C3.0.dwg, C3.0.dwg

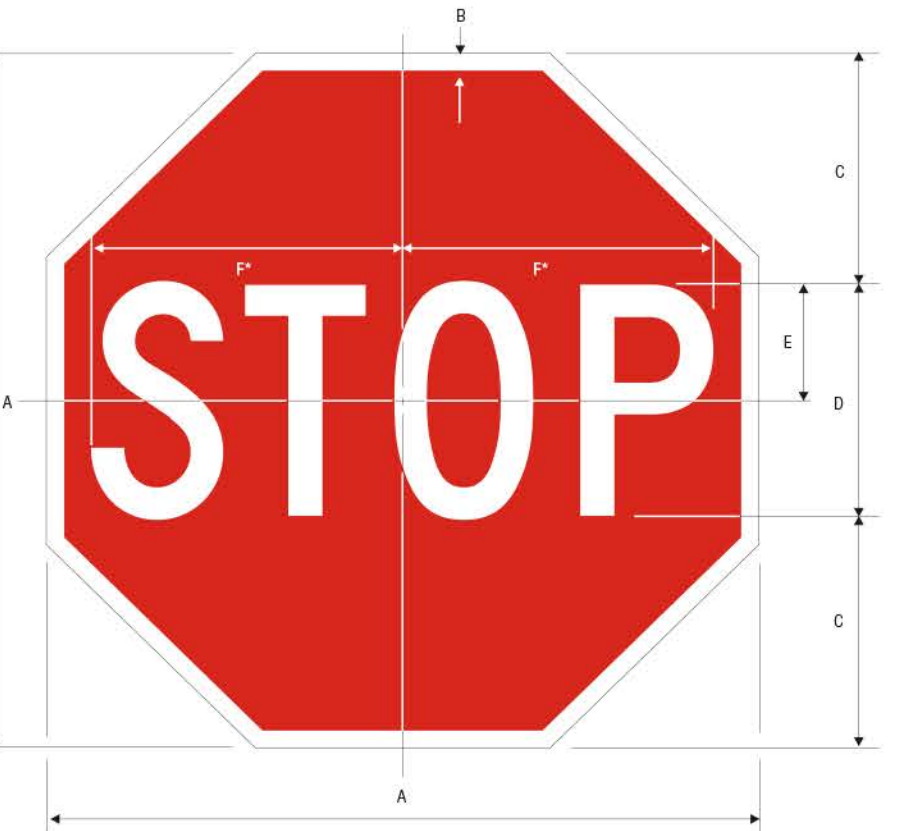


R2-1 SPEED LIMIT (ENGLISH)

*Optically space numerals about centerline

A	B	C	D	E	F	G	H	J	K	L
18	24	37.5	62.5	3	3	2	8	7.68	5.5	1.5
24	30	37.5	62.5	4	4	2	10	9.84	7.23	1.5
36	48	62.5	87.5	6	6	5	14	14.375	11	2.25
48	60	75	125	8	8	6	18	18.25	14.025	3

COLORS: LEGEND - BLACK BACKGROUND - WHITE (RETROREFLECTIVE) 1-10



R1-1 STOP

*Reduce spacing 40%

A	B	C	D	E	F
24	62.5	8	8	4	10
36	87.5	12	12	6	15
48	125	16	16	8	20

COLORS: LEGEND - WHITE (RETROREFLECTIVE) BACKGROUND - RED (RETROREFLECTIVE) 1-1



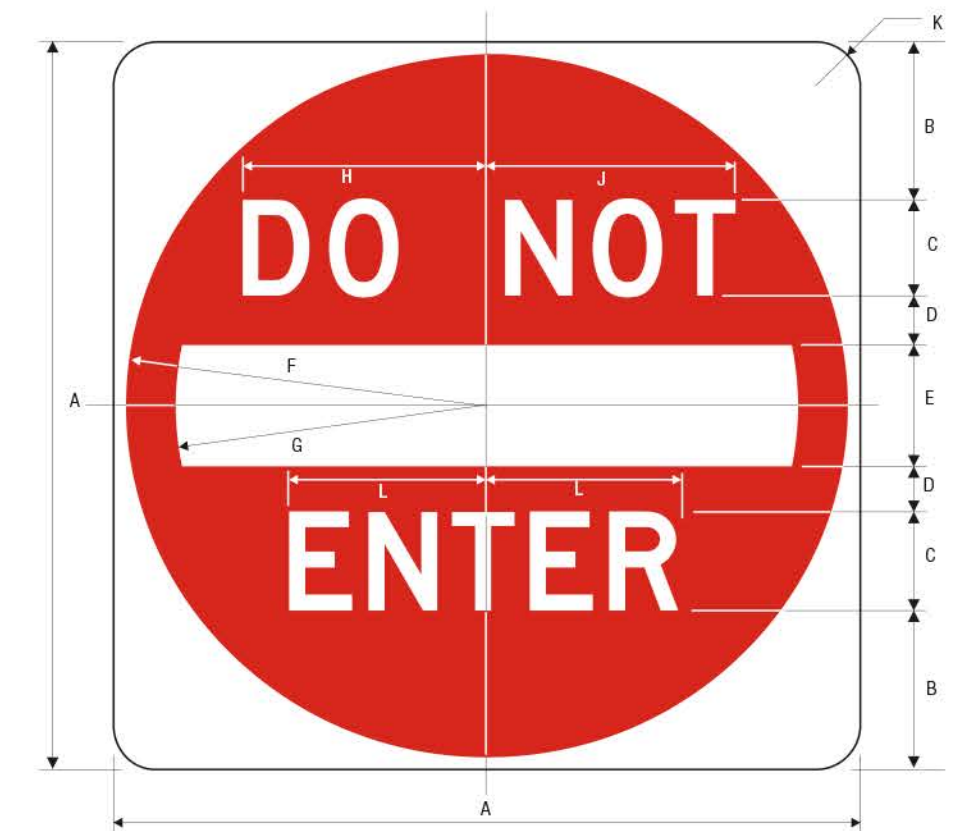
R6-2R ONE WAY

*Series 2000 Standard Alphabets
**See page 6-2 for arrow design.

A	B	C	D	E	F	G	H	J	K	L	M
12	16	37.5	37.5	2	3	15	3	3.5	3.72	3.64	3.717
18	24	37.5	62.5	2.5	5.0	15	4.5	5.5	6.244	6.24	6.044
24	30	37.5	62.5	3	6.0	15	6.0	6.0	7.063	7.485	7.295
36	48	62.5	87.5	4.75	10.0	3.25	9.5	10.5	12.369	12.249	12
48	60	75	125	6	12.0	4	12	14	15	14.571	14.81

N	P	Q	R	S
3.843	3.75	4	1.5	1.5
6.805	6	6.805	2.25	1.5
12.288	12.288	9.828	3	1.5
13.530	13.220	14.290	6	2.25
16.252	16.572	17.863	6	3

COLORS: LEGEND - BLACK BACKGROUND - WHITE (RETROREFLECTIVE) 1-87



R5-1 DO NOT ENTER

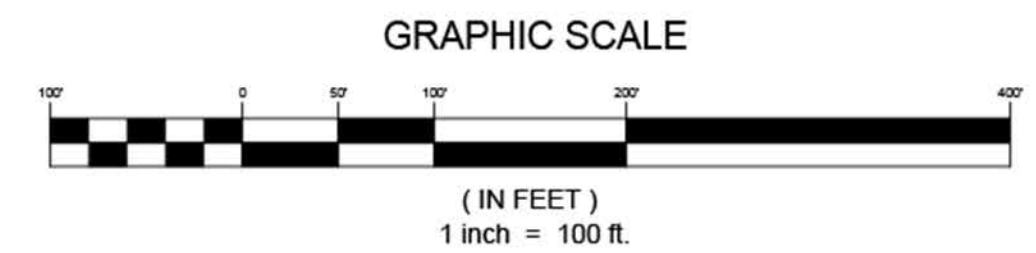
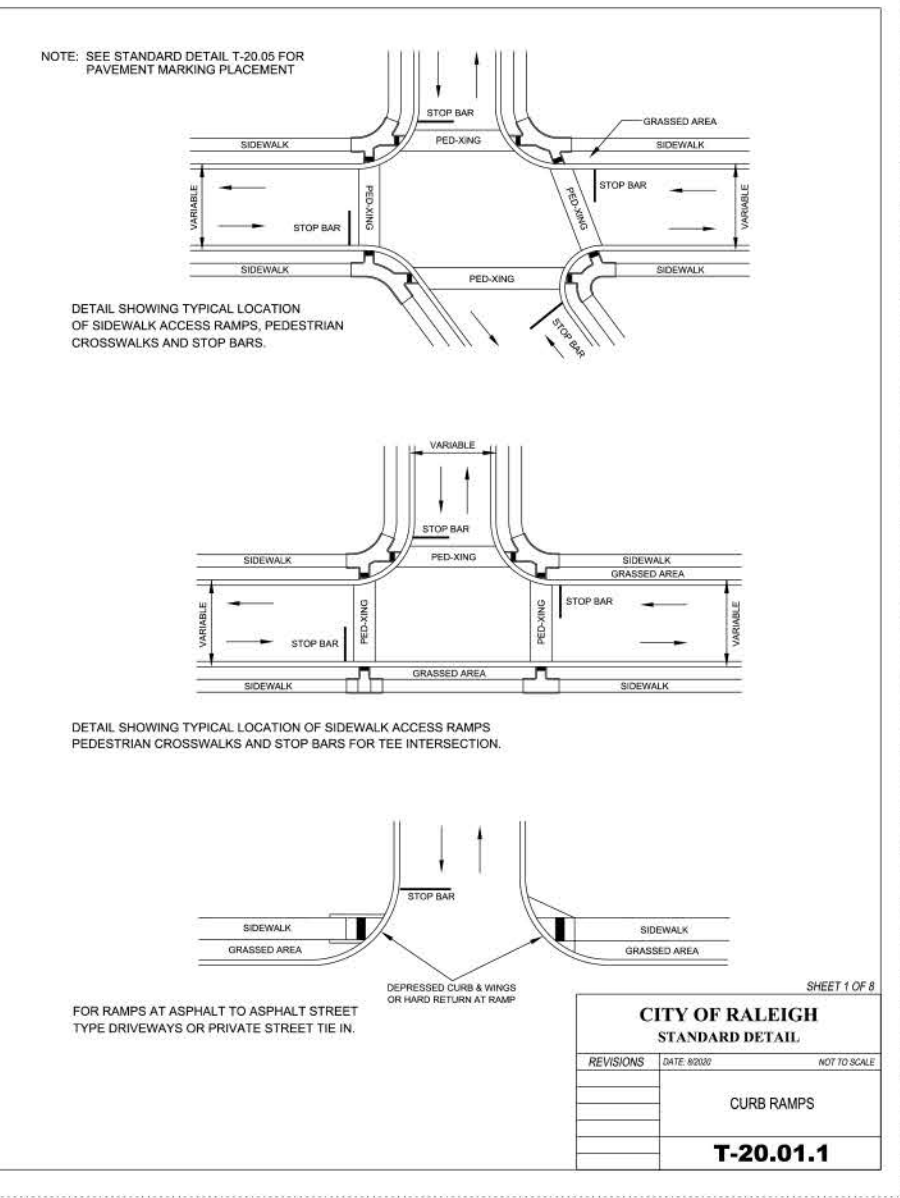
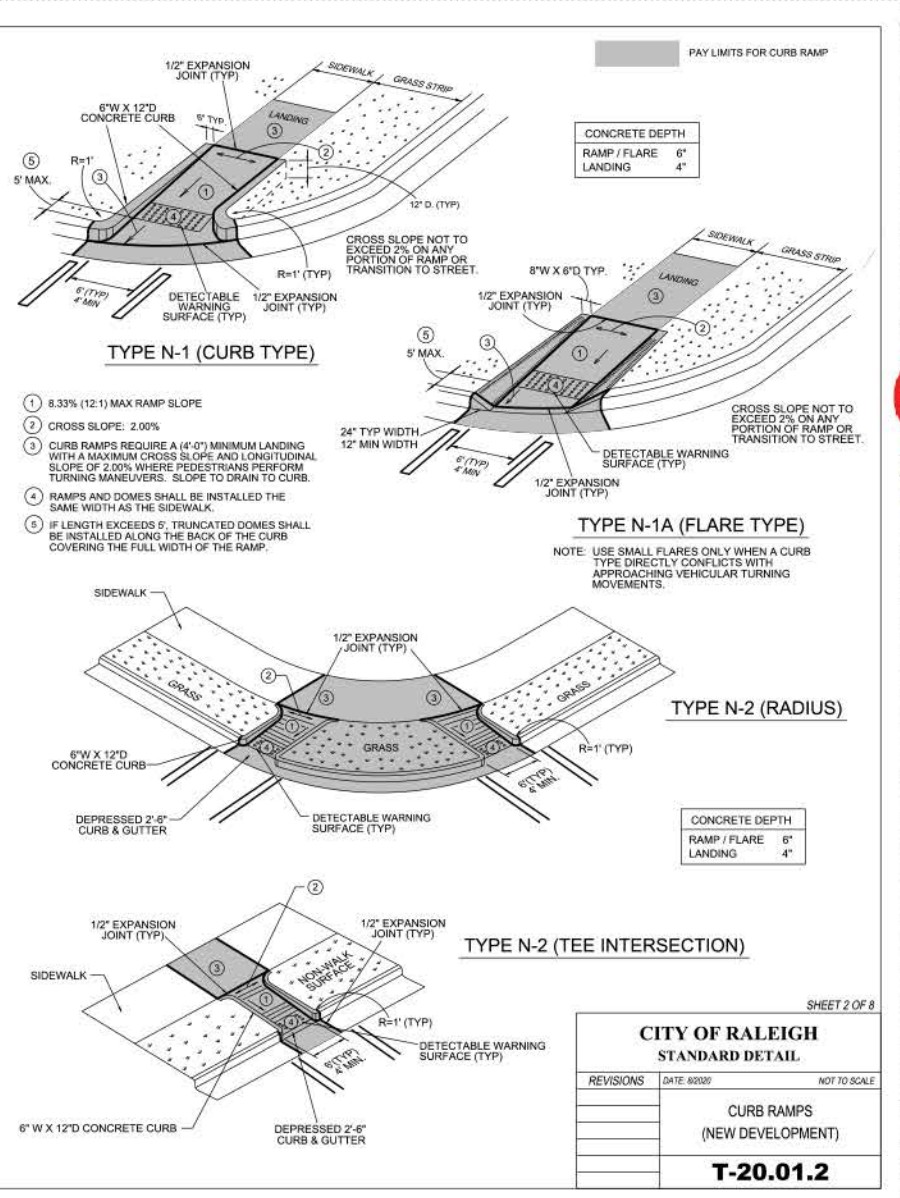
A	B	C	D	E	F	G	H	J	K	L
30	65	4.0	2	5	14.5	12.5	9.75	10	18.75	7.875
36	75	5.0	2.5	6	17.5	15	12	12.375	2.25	9.813
48	11	6.0	3	8	23.5	20	14.5	15	3	11.75

COLORS: SYMBOL - RED (RETROREFLECTIVE) LEGEND & BACKGROUND - WHITE (RETROREFLECTIVE) 1-73



R7-1 NO PARKING

COLORS: LEGEND - RED BACKGROUND - WHITE (RETROREFLECTIVE)



**PRELIMINARY
NOT FOR
CONSTRUCTION**

NO.	DATE	REVISION	FIRST REVIEW COMMENTS
1	02/26/21		

SIGNAGE PLAN
FORESTVILLE VILLAGE
KNIGHTDALE, NC
JPM SOUTH

PROJECT INFORMATION

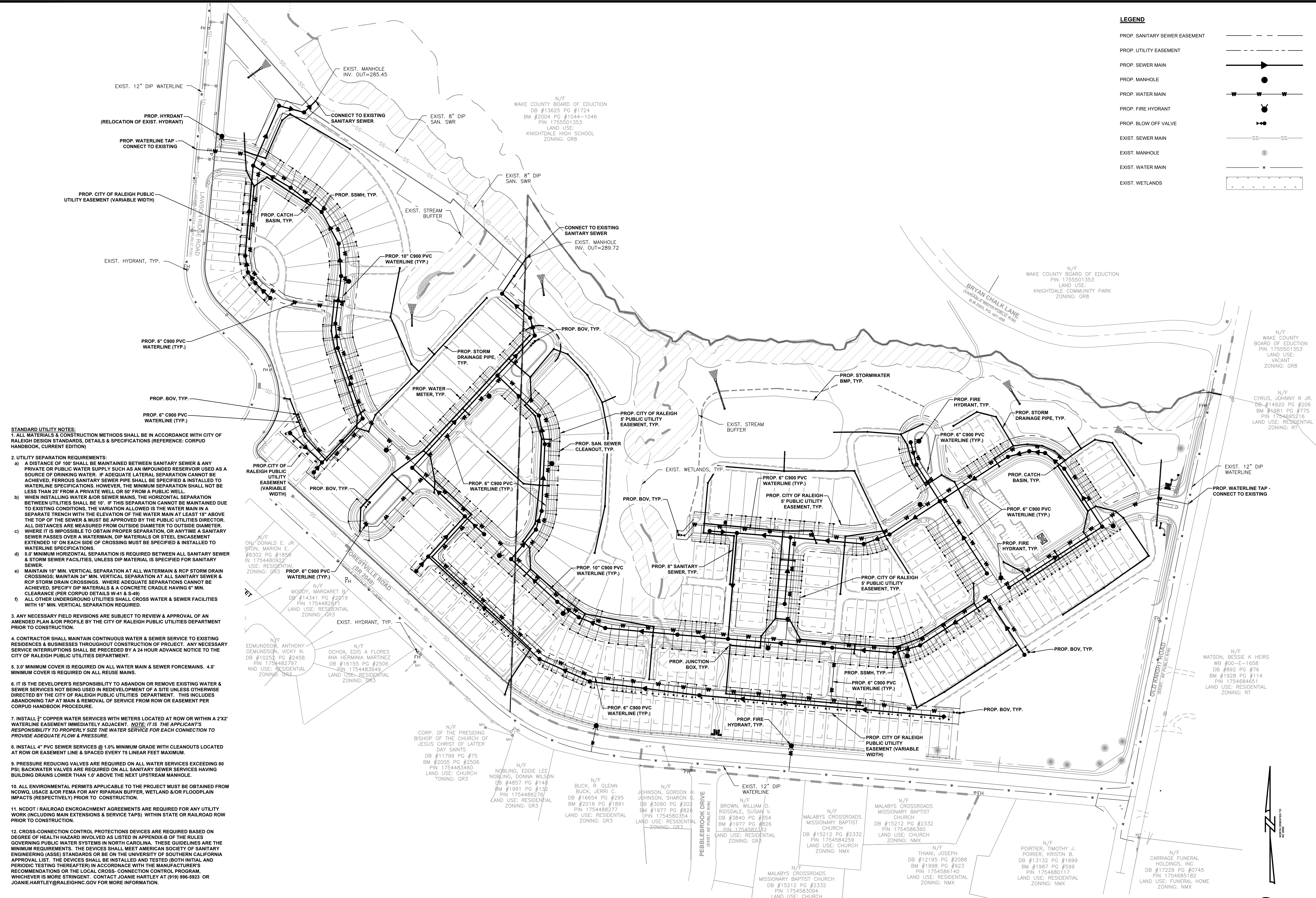
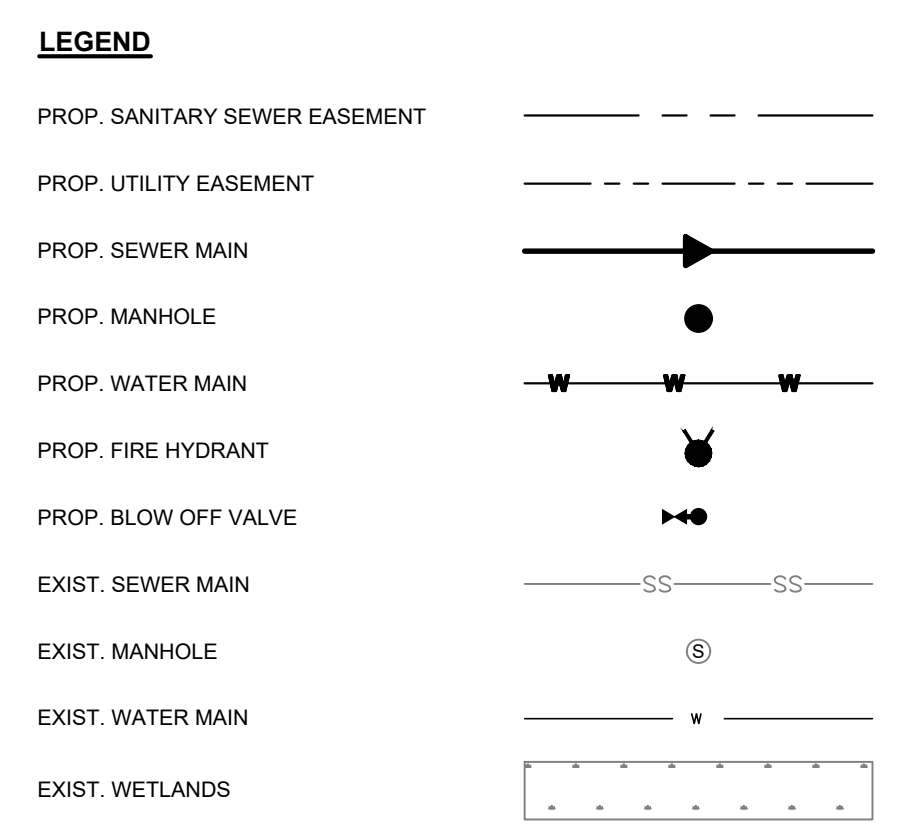
PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ER/SM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	C3.1

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NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS	PKN
1	3/2/2020			
2	3/24/2021			

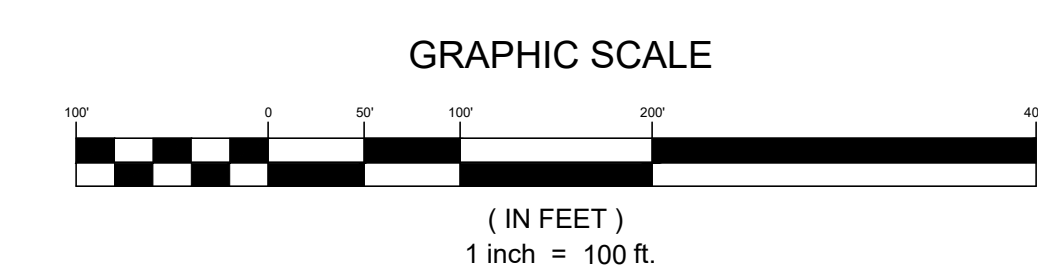
BY	COL	PKN

PROJECT INFORMATION	
PROJECT MANAGER:	AA
DESIGNED BY:	KM
DRAWN BY:	CL
PROJECT NUMBER:	HR37.401
ORIGINAL DATE:	02-10-2020
SHEET:	C4.0



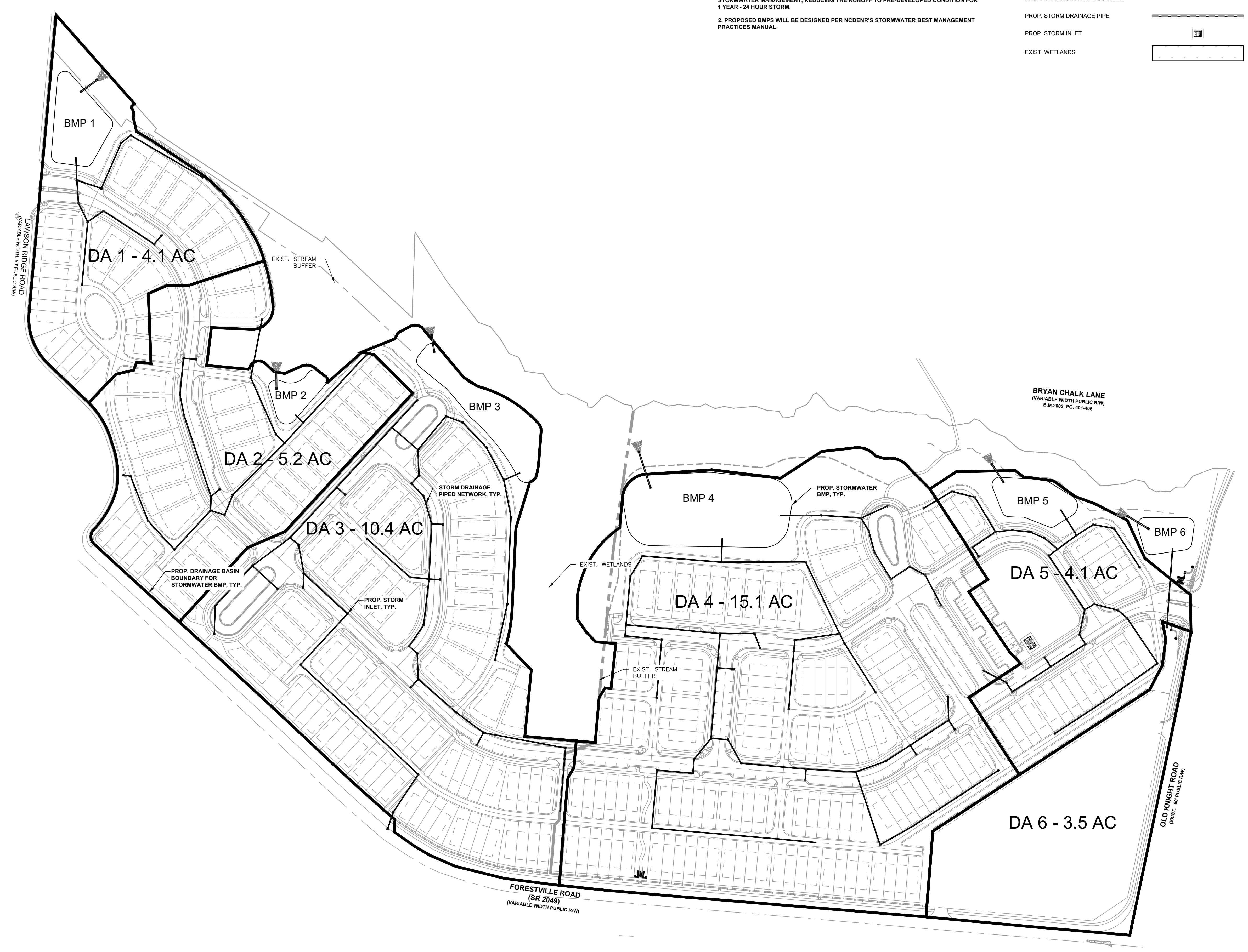
STANDARD UTILITY NOTES:

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
- UTILITY SEPARATION REQUIREMENTS:**
 - A DISTANCE OF 10' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 2' FROM A PRIVATE WELL OR 5' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER & RCP SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASUREMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - 5' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W41 & S-48)
 - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAIN & SEWER FORCEMANS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL 3" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. *NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.*
- INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWR, USACE & OR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS- CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

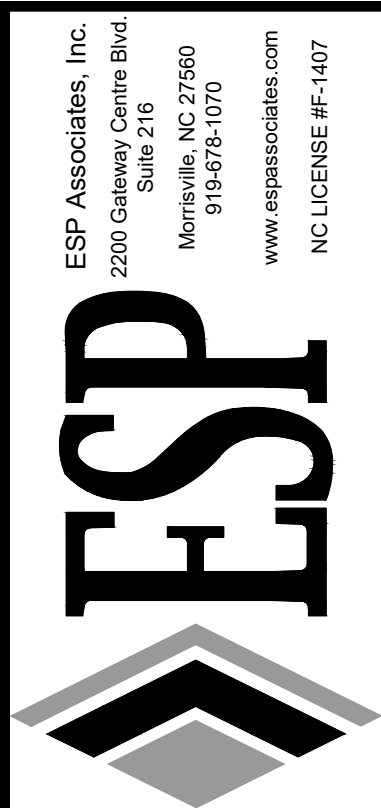
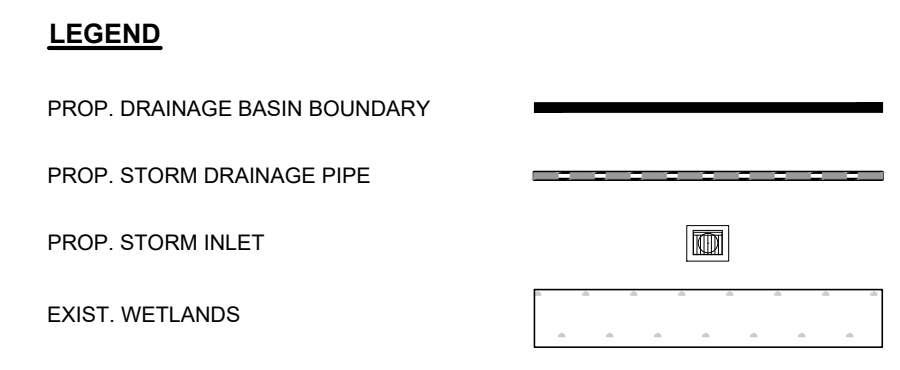


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NOTES:
 1. PROPOSED STORMWATER BMPs WILL BE DESIGNED TO PROVIDE POST CONSTRUCTION STORMWATER MANAGEMENT, REDUCING THE RUNOFF TO PRE-DEVELOPED CONDITION FOR 1 YEAR - 24 HOUR STORM.
 2. PROPOSED BMPs WILL BE DESIGNED PER NCDENR'S STORMWATER BEST MANAGEMENT PRACTICES MANUAL.



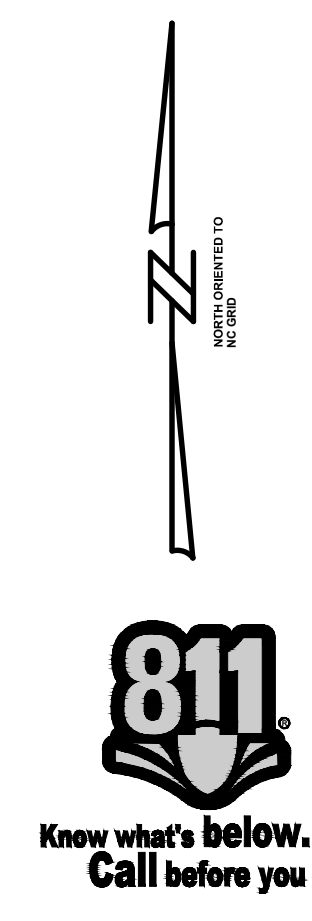
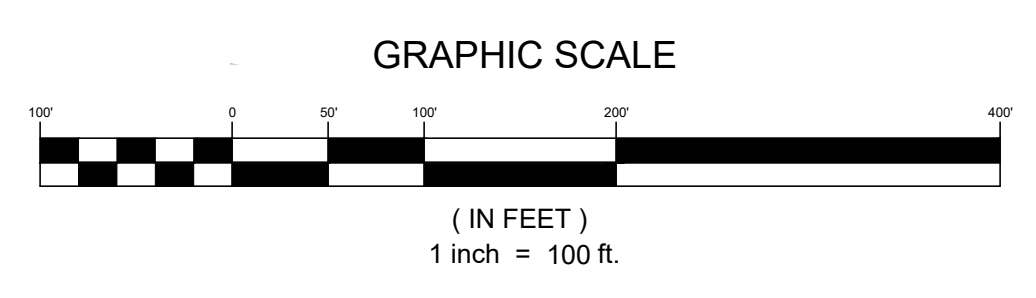
**PRELIMINARY
NOT FOR
CONSTRUCTION**

NO.	DATE	REVISION	BY	COL	PKN
	3/2/2020	REVISIONS PER TOWN COMMENTS			
	3/24/2021	REVISIONS PER TOWN COMMENTS			

STORMWATER MANAGEMENT
FORESTVILLE VILLAGE
 KNIGHTDALE, NC
 MERITAGE HOME

PROJECT INFORMATION

PROJECT MANAGER:	AA
DESIGNED BY:	KM
DRAWN BY:	SM
PROJECT NUMBER:	HR37-401
ORIGINAL DATE:	02-10-2020
SHEET:	C5.0



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- PASSIVE OPEN SPACE
- PASSIVE OPEN SPACE - NON-DISTURBED (STREAM BUFFER & WETLAND)
- PASSIVE OPEN SPACE - SCM
- ACTIVE OPEN SPACE - AMENITY CENTER
- ACTIVE OPEN SPACE

OPEN SPACE DATA FOR FORESTVILLE VILLAGE

REQUIRED ACTIVE SPACE:	2.30 ACRES
REQUIRED PASSIVE SPACE:	2.30 ACRES
REQUIRED TOTAL OPEN SPACE:	4.60 ACRES
PROPOSED ACTIVE SPACE:	+/- 2.30 ACRES MIN
PROPOSED PASSIVE SPACE:	+/- 13.46 ACRES
TOTAL OPEN SPACE PROVIDED:	+/- 15.76 ACRES
PROPOSED PASSIVE SPACE BREAKDOWN:	
WETLAND:	+/- 0.58 ACRES
STREAM BUFFER:	+/- 5.75 ACRES
SCM:	+/- 2.31 ACRES

RECREATIONAL OPEN SPACE:

	REQUIRED	PROPOSED
TOTAL OPEN SPACE	4.60 ACRES	15.76 ACRES
ACTIVE OPEN SPACE*	2.30 ACRES	2.30 ACRES MIN.
PASSIVE OPEN SPACE:	2.30 ACRES	13.46 ACRES

* A MINIMUM OF 50% OF TOTAL REQUIRED OPEN SPACE SHALL BE ACTIVE

CALCULATIONS BASED ON RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)

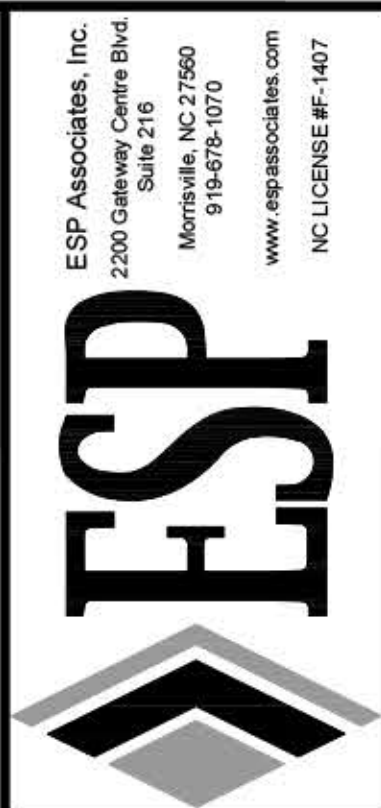
DENSITY: 273 UNITS / 46.5 AC	= 5.87 DU/AC
BEDROOMS:	= 770 BEDROOMS
SINGLE-FAMILY: 87 UNITS x 3.5**	= 305 BEDROOMS
TOWNHOMES: 180 UNITS x 2.5**	= 465 BEDROOMS

** (PER UDO SECTION 7.3C)

PROXIMITY ZONE OF 1/4 MILE (WITH DENSITY BETWEEN 2-6 DU/AC) = 260***
 ***RECREATION OPEN SPACE DEDICATION MATRIX (KNIGHTDALE UDO, SECTION 7.3)
 NUMBER OF BEDROOMS x 260 = REQUIRED OPEN SPACE (SF)
 770 BEDROOMS x 260 = 200,200 SF / 4.60 AC

REQUIRED OPEN SPACE = 4.60 AC
 REQUIRED ACTIVE OPEN SPACE (50% OF 4.60 AC) = 2.3 ACRES

TREE SAVE:
 REQUIRED: 4.65 AC
 PROPOSED: 4.65 AC MIN.



**PRELIMINARY
NOT FOR
CONSTRUCTION**

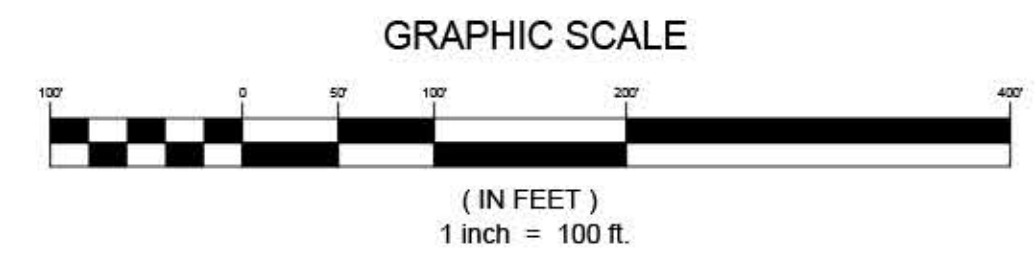
NO.	DATE	REVISION	FIRST REVIEW COMMENTS
1	03/26/21		

**OPEN SPACE PLAN
FORESTVILLE VILLAGE**

JPM SOUTH
KNIGHTDALE, NC

PROJECT INFORMATION

PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ERISM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	C6.0



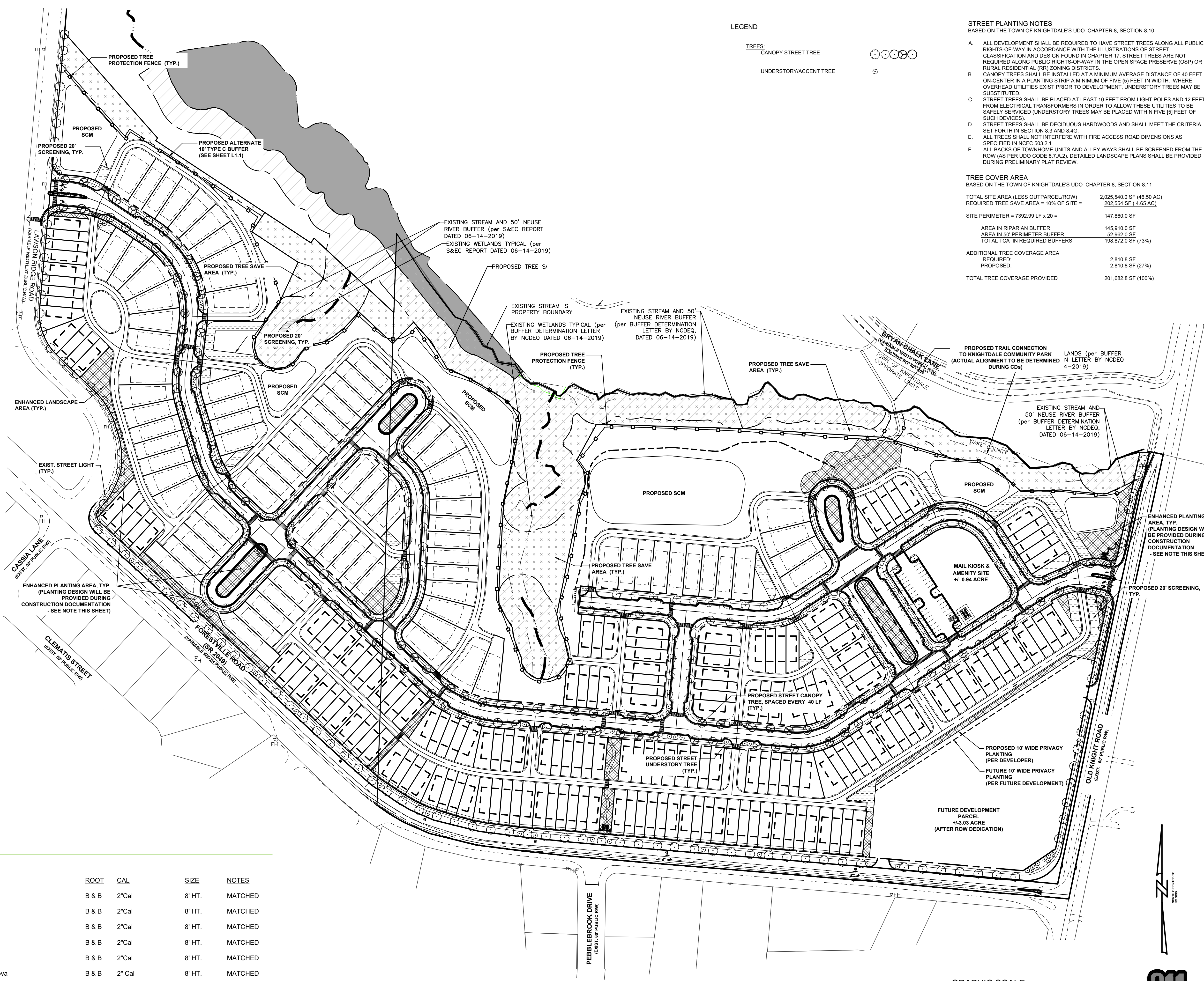
LANDSCAPE NOTES:

GENERAL LANDSCAPE NOTES:

- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- ALL LANDSCAPE WORK SHALL BE PROVIDED BY OR UNDER THE SUPERVISION OF A LICENSED NC LANDSCAPE CONTRACTOR.
- CONTRACTOR RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS PRIOR TO START OF WORK.
- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO INSTALLATION AND NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF FIELD CONDITIONS WARRANT ADJUSTMENT OF PLANT MATERIALS. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT ALL UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION. ALL UTILITY LINES SHALL BE PROTECTED DURING THE CONSTRUCTION TO AVOID DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY AND ALL UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. DAMAGED DURING CONSTRUCTION OR INSTALLATION OF PLANT MATERIAL AT CONTRACTOR'S EXPENSE.
- COORDINATE LANDSCAPE INSTALLATION WITH ANY LIGHTING / IRRIGATION CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR VERIFYING ALL SPECIFICATIONS AND INSTALLATION REQUIREMENTS OF IRRIGATION, LIGHTING, AND FENCING TO ENSURE THAT PRODUCTS ARE INSTALLED PROPERLY AND PER MANUFACTURER REQUIREMENTS AND LOCAL AGENCY CODES & RESTRICTIONS.
- ESP ASSOCIATES, INC. IS NOT RESPONSIBLE FOR INSTALLATION OR DESIGN OF LIGHTING, FENCING, OR IRRIGATION. THE INSTALLATION REQUIREMENTS AND DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES, USING FLAG MEN, AND MAINTENANCE OF TRAFFIC AS NECESSARY TO ENSURE PUBLIC SAFETY.
- ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANT MATERIALS, LABOR AND OTHER MATERIALS NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS AND DETAILS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN IN THE PLANT SCHEDULE MATCH QUANTITIES ON THE PLANS AND PRIOR TO PRICING WORK. SHOULD DISCREPANCIES OCCUR, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED PRIOR TO BIDDING.
- PLANT MATERIAL SUBSTITUTIONS TO BE APPROVED BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO ORDERING PLANT MATERIAL. SUBSTITUTIONS OF PLANT MATERIAL NOT APPROVED BY OWNER OR LANDSCAPE ARCHITECT MAY BE REJECTED.
- ALL PLANT MATERIAL SHALL MEET MINIMUM SIZE STANDARDS, INCLUDING THE MINIMUM HEIGHT, WIDTH, ROOT BALL SIZE AND NUMBER OF BRANCHES, SET FORTH IN THE LATEST EDITION OF THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) FOR THE TYPE OF TREE OR SHRUB AT THE TIME OF INSTALLATION.
- ALL SHADE/CANOPY/STREET TREES SHALL BE GRADE 'A' SPECIMENS WITH A STRAIGHT MAIN LEADER AND FULL HEAD.
- ALL PLANTS SHALL BE NURSERY GROWN UNDER THE SAME CLIMATE CONDITIONS AS THE LOCATION OF THE PROJECT FOR AT LEAST TWO YEARS BEFORE PLANTING. ALL PLANTS SHALL BE IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES, HEALTHY, VIGOROUS, AND FREE OF INSECTS, EGGS, LARVAE, DISEASES AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS OR DISFIGUREMENT. PLANT MATERIAL COLLECTED FROM NATURALIZED AREAS SHALL BE REJECTED.
- CALIPER, HEIGHT AND WIDTH SPECIFICATIONS INDICATED ON THE PLANT SCHEDULE SHALL TAKE PRECEDENCE OVER CONTAINER SIZE.
- ALL TREES OF THE SAME VARIETY SHALL MATCH IN SHAPE AND SIZE WHEN INSTALLED AS GROUPS, ROWS OR STREET TREES.
- PLANT SIZES SHOWN IN THE PLANT SCHEDULE ARE THE MINIMUM SIZES BEFORE PRUNING. ANY NECESSARY PRUNING SHALL BE PERFORMED AT THE TIME OF PLANTING. TREES AND SHRUBS OF LARGER SIZE MAY BE INSTALLED IF SIZES OF THE ROOTS OR BALLS ARE INCREASED PROPORTIONATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING PLANTS TO MEET THE MINIMUM SIZE AND SPACING FOR CODE COMPLIANCE. FAILURE TO INSTALL THE PLANT MATERIAL PER THE PLAN AND PLANT SCHEDULE MAY JEOPARDIZE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTIONS OF PLANT MATERIAL.
- ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS INDICATED IN THE PLANT SCHEDULE.
- ALL PLANTS SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING AND AFTER INSTALLATION FOR COMPLIANCE WITH REQUIREMENTS FOR NAME, VARIETY, SIZE, QUALITY AND INSTALLATION.
- AREAS DAMAGED BY ACTIVITIES OF THE LANDSCAPE CONTRACTOR SHALL BE RE-SEED/RE-PLANTED AND REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE TREE PROTECTION FENCING PER THE PLANS AND TREE PROTECTION FENCE DETAIL TO PROTECT ANY EXISTING TREES, SHRUBBERY AND PLANTING BEDS IN THE PLANTING AREA.
- CONTRACTOR SHALL OBTAIN AUTHORIZATION PRIOR TO ANY CHANGES OF PLANT LOCATIONS DUE TO UTILITIES OR OTHER CONFLICTS.
- NO WORK SHALL BE PERFORMED IN THE PUBLIC RIGHT-OF-WAY UNLESS ALL REQUIRED PERMITS ARE OBTAINED.
- ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER PEDESTRIAN OR VEHICULAR TRAFFIC FLOW.
- CONTRACTOR SHALL COORDINATE ANY PLANTING OR IRRIGATION IN ANY RIGHT-OF-WAY WITH TOWN OF KNIGHTDALE, WAKE COUNTY, NCDOT, AND ANY OTHER APPLICABLE LOCAL TRANSPORTATION DEPARTMENTS AND REGULATORY AGENCIES AND ESP IF CONDITIONS WARRANT ADJUSTMENTS TO PLANT MATERIAL AND LOCATIONS.

LIGHTING NOTE:

- LIGHTING DESIGN WILL BE COORDINATED WITH UTILITY PROVIDER DURING CONSTRUCTION DOCUMENTATION AND WILL ENSURE CONFLICTS WITH PROPOSED TREES AND UNDERGROUND/ ABOVE GROUND UTILITIES ARE AVOIDED.



LEGEND

- TREES:**
- CANOPY STREET TREE
 - UNDERSTORY/ACCENT TREE

STREET PLANTING NOTES

- BASED ON THE TOWN OF KNIGHTDALE'S UDO CHAPTER 8, SECTION 8.10
- ALL DEVELOPMENT SHALL BE REQUIRED TO HAVE STREET TREES ALONG ALL PUBLIC RIGHTS-OF-WAY IN ACCORDANCE WITH THE ILLUSTRATIONS OF STREET CLASSIFICATION AND DESIGN FOUND IN CHAPTER 17. STREET TREES ARE NOT REQUIRED ALONG PUBLIC RIGHTS-OF-WAY IN THE OPEN SPACE PRESERVE (OSP) OR RURAL RESIDENTIAL (RR) ZONING DISTRICTS.
 - CANOPY TREES SHALL BE INSTALLED AT A MINIMUM AVERAGE DISTANCE OF 40 FEET ON-CENTER IN A PLANTING STRIP A MINIMUM OF FIVE (5) FEET IN WIDTH. WHERE OVERHEAD UTILITIES EXIST PRIOR TO DEVELOPMENT, UNDERSTORY TREES MAY BE SUBSTITUTED.
 - STREET TREES SHALL BE PLACED AT LEAST 10 FEET FROM LIGHT POLES AND 12 FEET FROM ELECTRICAL TRANSFORMERS IN ORDER TO ALLOW THESE UTILITIES TO BE SAFELY SERVICED (UNDERSTORY TREES MAY BE PLACED WITHIN FIVE (5) FEET OF SUCH DEVICES).
 - STREET TREES SHALL BE DECIDUOUS HARDWOODS AND SHALL MEET THE CRITERIA SET FORTH IN SECTION 8.3 AND 8.4.5.
 - ALL TREES SHALL NOT INTERFERE WITH FIRE ACCESS ROAD DIMENSIONS AS SPECIFIED IN NCF 503.2.1
 - ALL BACKS OF TOWNHOME UNITS AND ALLEY WAYS SHALL BE SCREENED FROM THE ROW (AS PER UDO CODE 8.7.A.2). DETAILED LANDSCAPE PLANS SHALL BE PROVIDED DURING PRELIMINARY PLAT REVIEW.

TREE COVER AREA

BASED ON THE TOWN OF KNIGHTDALE'S UDO CHAPTER 8, SECTION 8.11

TOTAL SITE AREA (LESS OUTPARCEL/ROW)	2,025,540 SF (46.50 AC)
REQUIRED TREE SAVE AREA = 10% OF SITE =	202,554 SF (4.65 AC)
SITE PERIMETER = 7392.90 LF x 20' =	147,890.0 SF
AREA IN RIPARIAN BUFFER	145,910.0 SF
AREA IN 50' PERIMETER BUFFER	52,982.0 SF
TOTAL TCA IN REQUIRED BUFFERS	198,892.0 SF (73%)
ADDITIONAL TREE COVERAGE AREA REQUIRED:	2,810.8 SF
PROPOSED:	2,810.8 SF (27%)
TOTAL TREE COVERAGE PROVIDED	201,682.8 SF (100%)

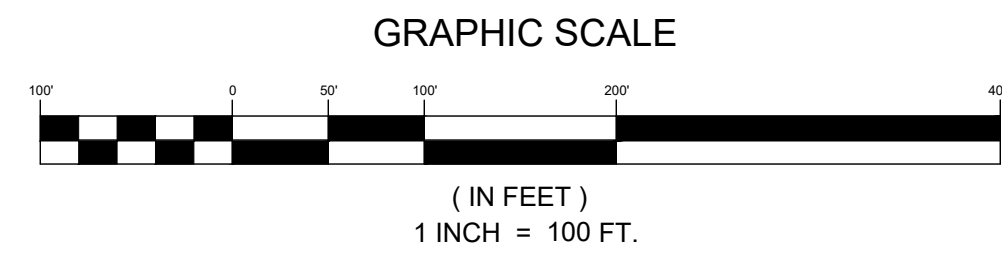
PLANT SCHEDULE

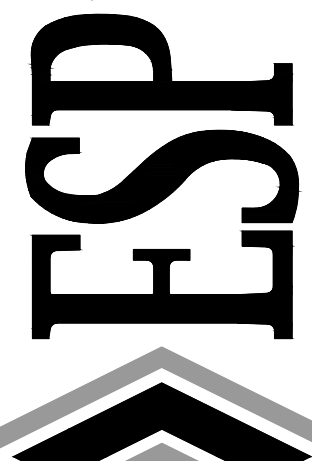
CANOPY STREET TREES

CODE	QTY	BOTANICAL NAME / COMMON NAME	ROOT	CAL	SIZE	NOTES
QURU	32	Quercus rubra / Red Oak	B & B	2"Cal	8' HT.	MATCHED
ARSA	36	Acer saccharum / Sugar Maple	B & B	2"Cal	8' HT.	MATCHED
PICH	52	Pistacia chinensis / Pistachio	B & B	2"Cal	8' HT.	MATCHED
QUAC	69	Quercus acutissima / Sawtooth Oak	B & B	2"Cal	8' HT.	MATCHED
ULPA	86	Ulmus parvifolia / Laceback Elm	B & B	2"Cal	8' HT.	MATCHED
ZEVG	68	Zelkova serrata 'Village Green' / Sawleaf Zelkova	B & B	2" Cal	8' HT.	MATCHED

UNDERSTORY STREET TREES

CODE	QTY	BOTANICAL NAME / COMMON NAME	ROOT	CAL	SIZE	NOTES
AMAR	96	Amelanchier arborea / Downy Serviceberry	B & B	1 1/4"Cal	6' HT.	3-4 Stems





**PRELIMINARY
NOT FOR
CONSTRUCTION**

NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS
1	02/26/2021		

LANDSCAPE & LIGHTING PLAN

FORESTVILLE VILLAGE

BY

NO. 1

DATE 02/26/2021

REVISION

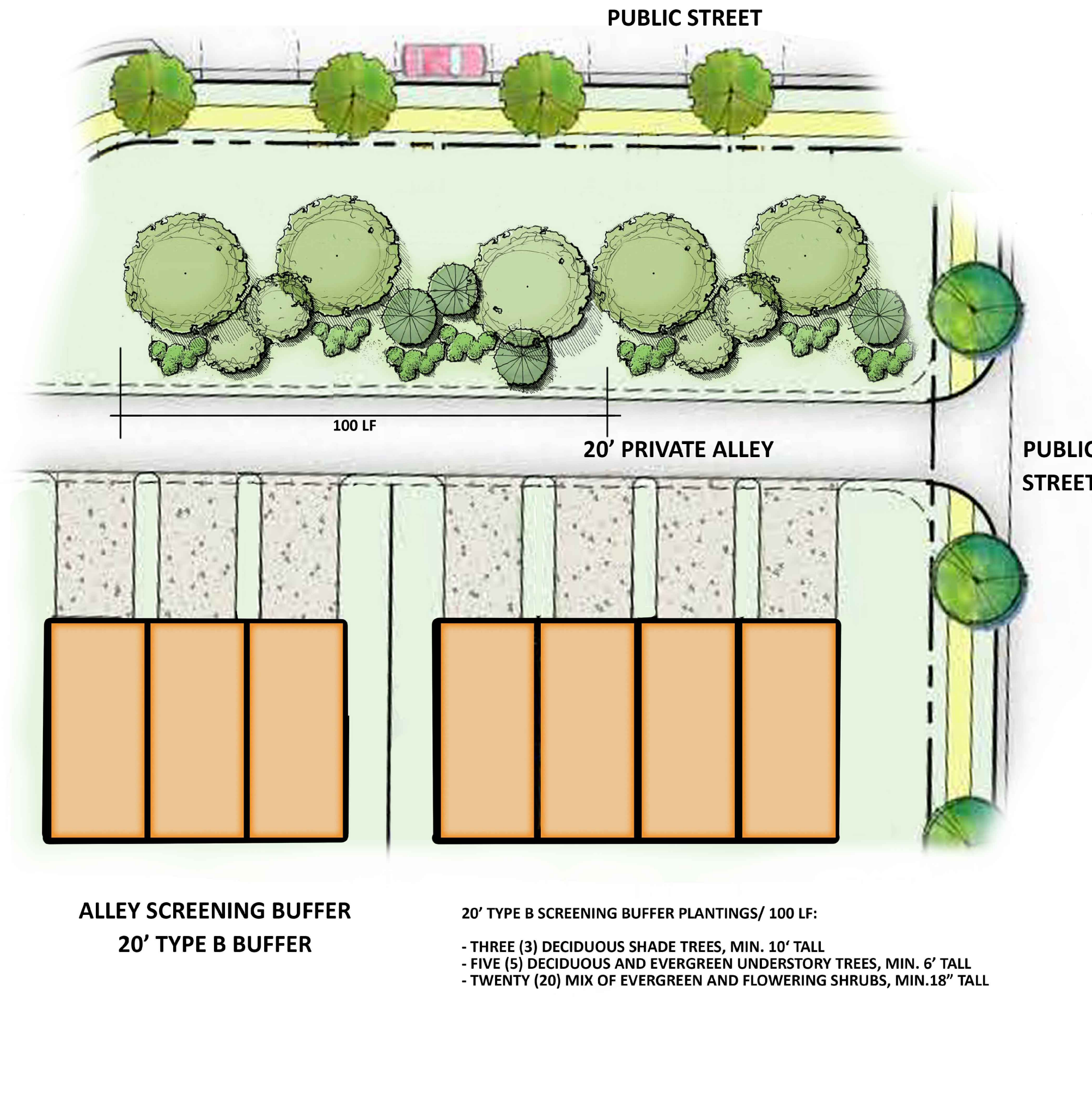
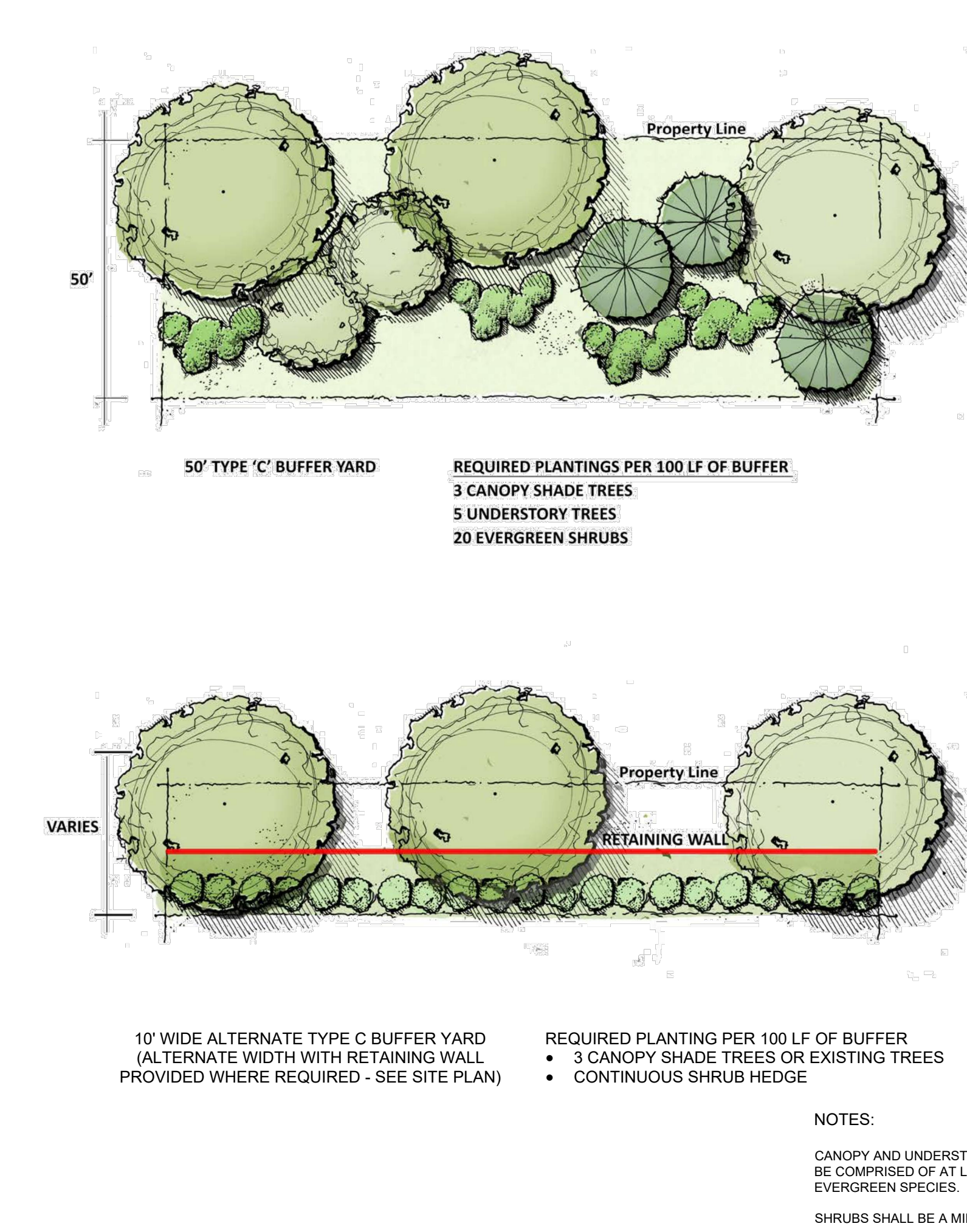
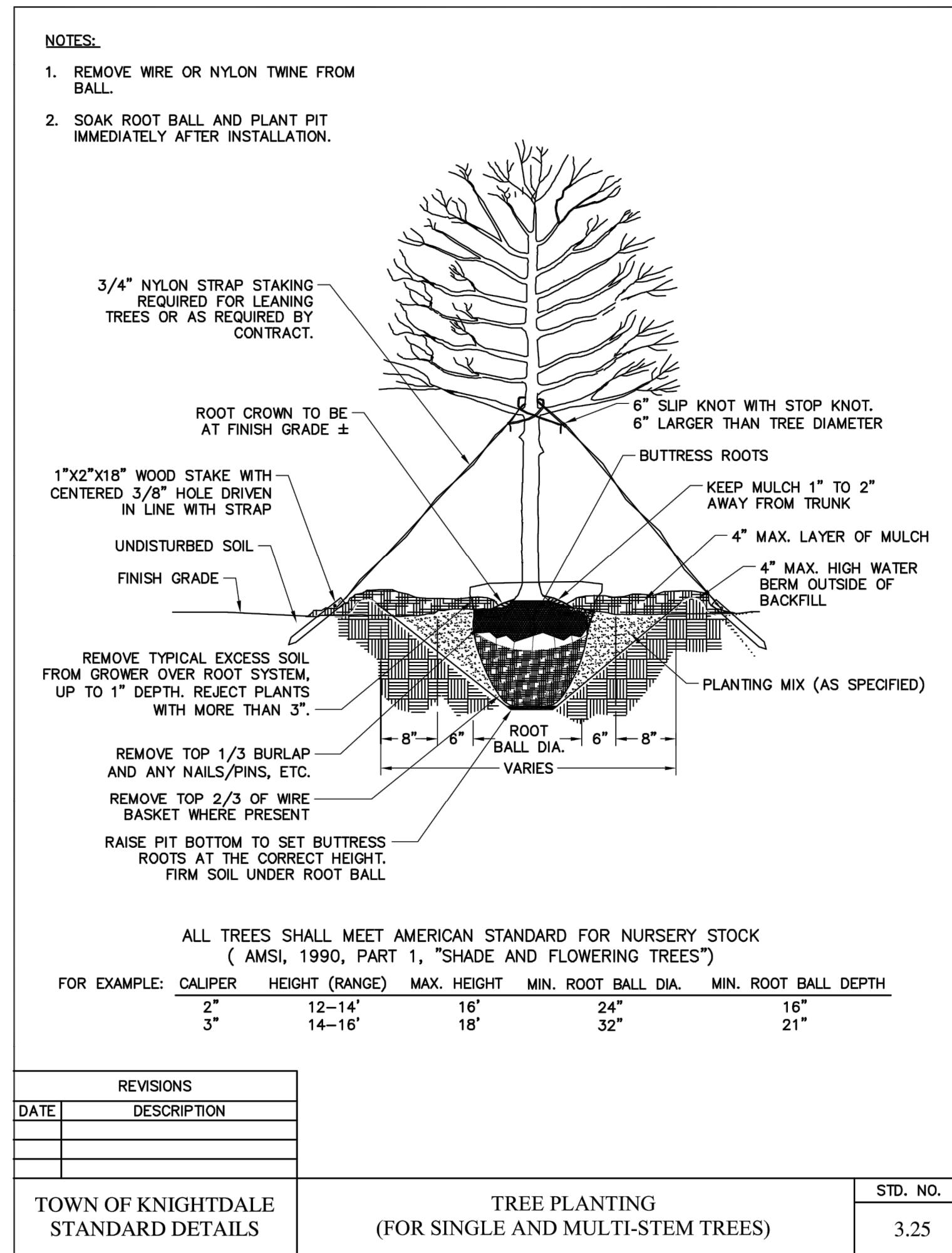
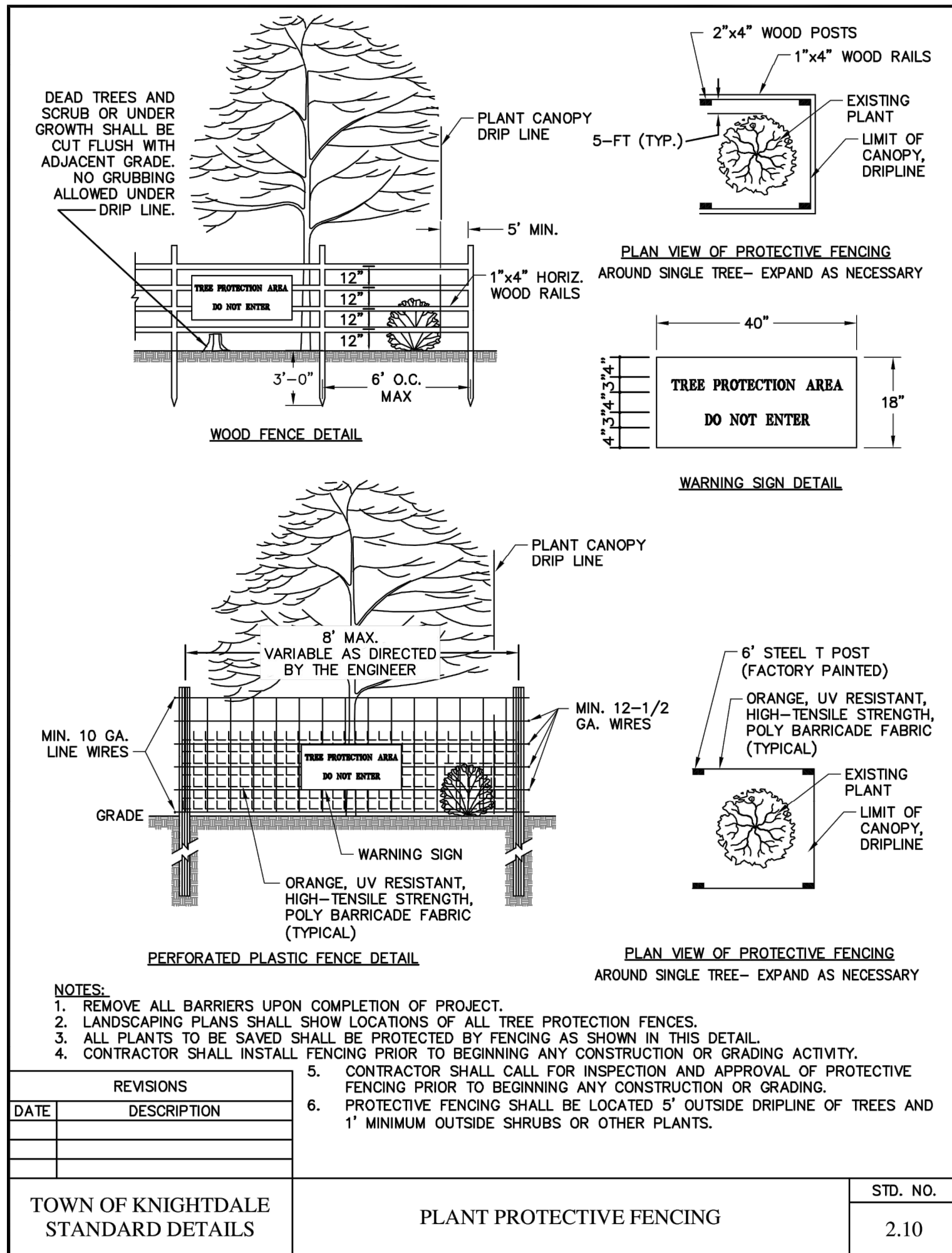
REVISIONS PER TOWN COMMENTS

KNIGHTDALE, NC

JPM SOUTH

PROJECT INFORMATION	
PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ER/SM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	L1.0

S:\9P1\0221\Projects\JM14.100 - Forestville Village (JPM South)\JM14Sheet\POD_Main\Plan\JM14.L1_0_LAND_01.dwg; LANDSCAPE & LIGHTING PLAN.dwg



NO.	DATE	REVISION	REVISIONS PER TOWN COMMENTS
1	02/26/2021		

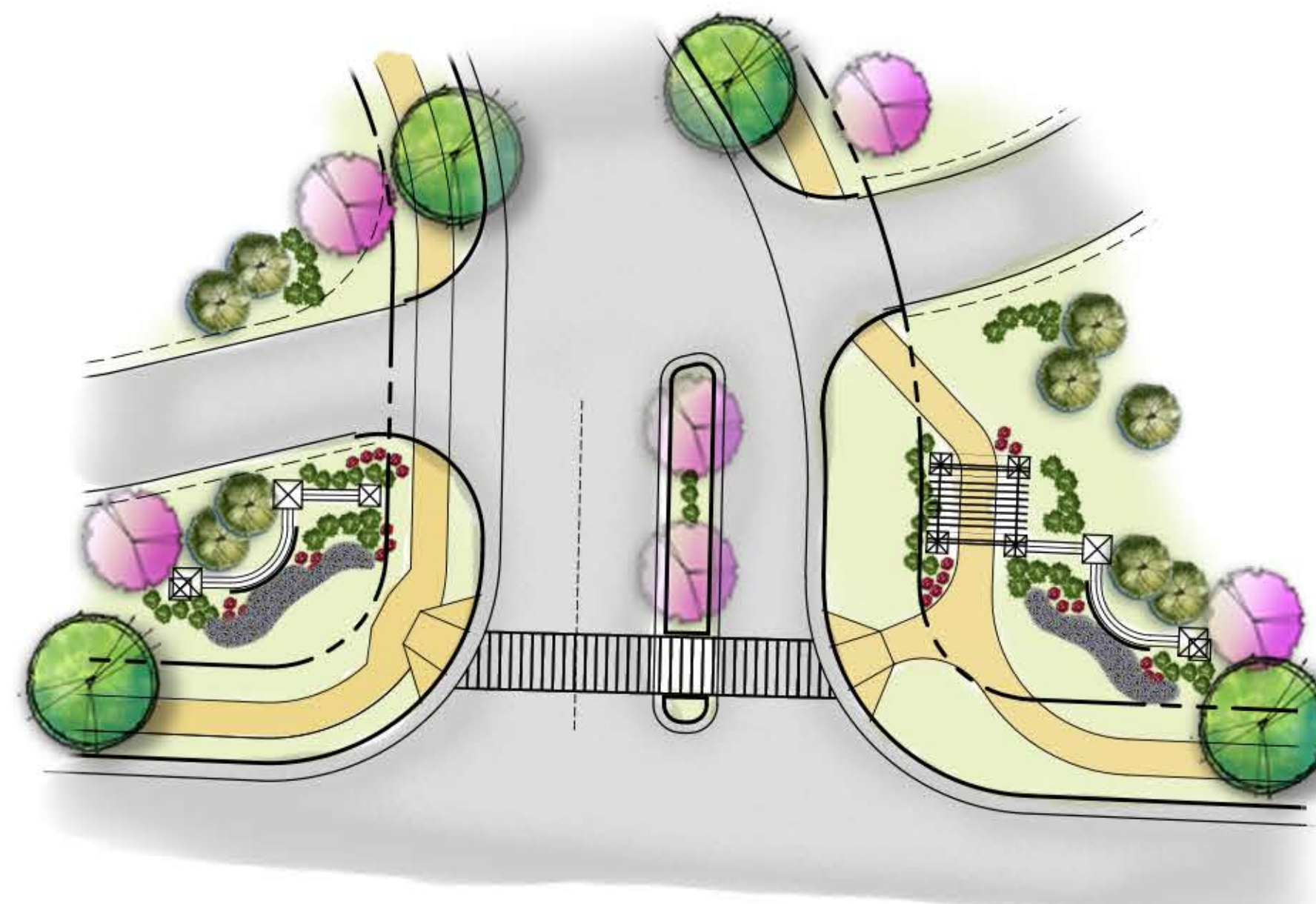
LANDSCAPE DETAILS	
FORESTVILLE VILLAGE	
KNIGHTDALE, NC	
JPM SOUTH	

PROJECT INFORMATION	
PROJECT MANAGER:	AA
DESIGNED BY:	ER
DRAWN BY:	ER/SM
PROJECT NUMBER:	JM14.100
ORIGINAL DATE:	FEB 22, 2021
SHEET:	L1.1

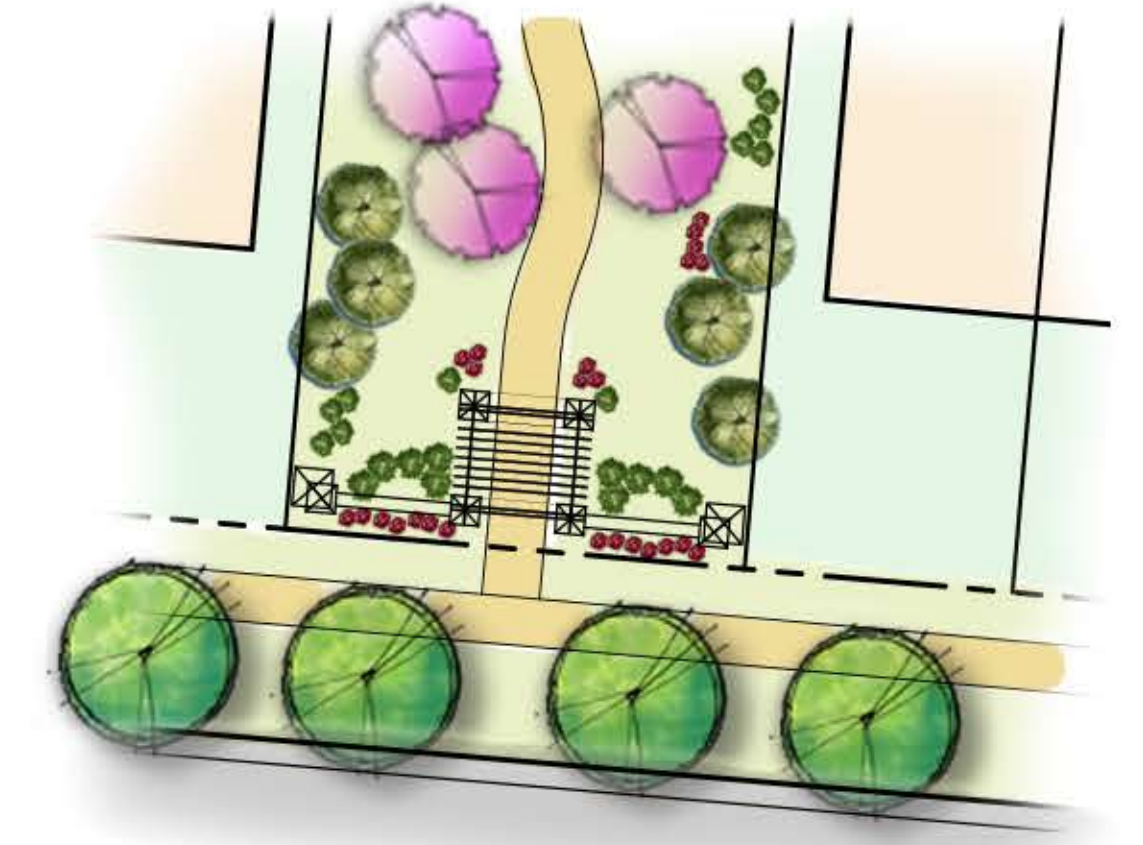




OVERALL SITE PLAN (N.T.S.)



① ENTRY MONUMENT AT MAIN ENTRANCE (N.T.S.)



② PEDESTRIAN GATEWAY (N.T.S.)

NOTE:
CONCEPTUAL HARDSCAPE AND LANDSCAPE DESIGN.
ACTUAL PLANTING PLAN TO BE PRODUCED DURING
C.D. REVIEW.

ILLUSTRATIVE RENDERINGS ARE CONCEPTUAL
ACTUAL DESIGN, LOCATION AND FEATURES
SUBJECT TO CHANGE.

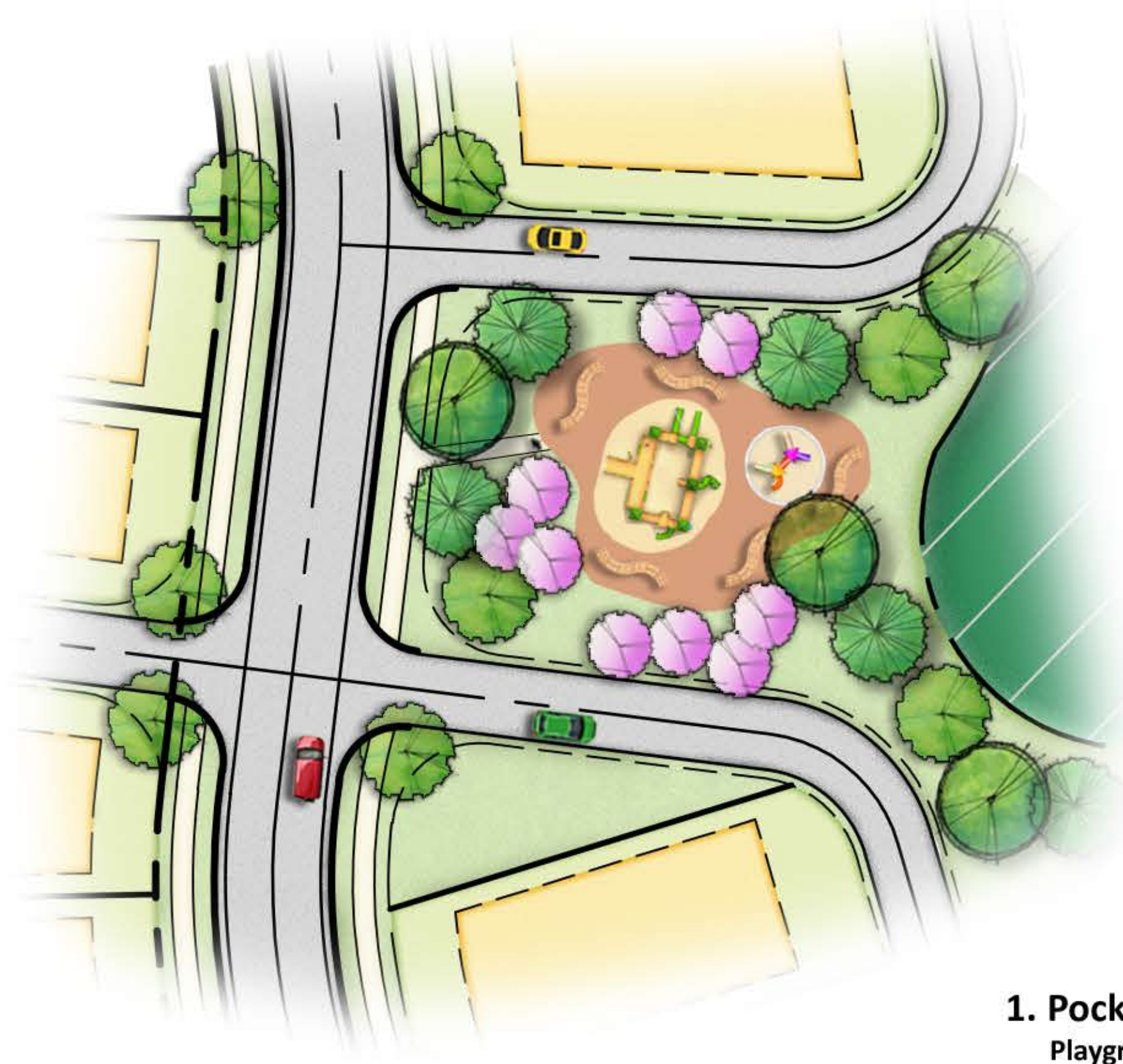


① ENTRY MONUMENT AT MAIN ENTRANCE

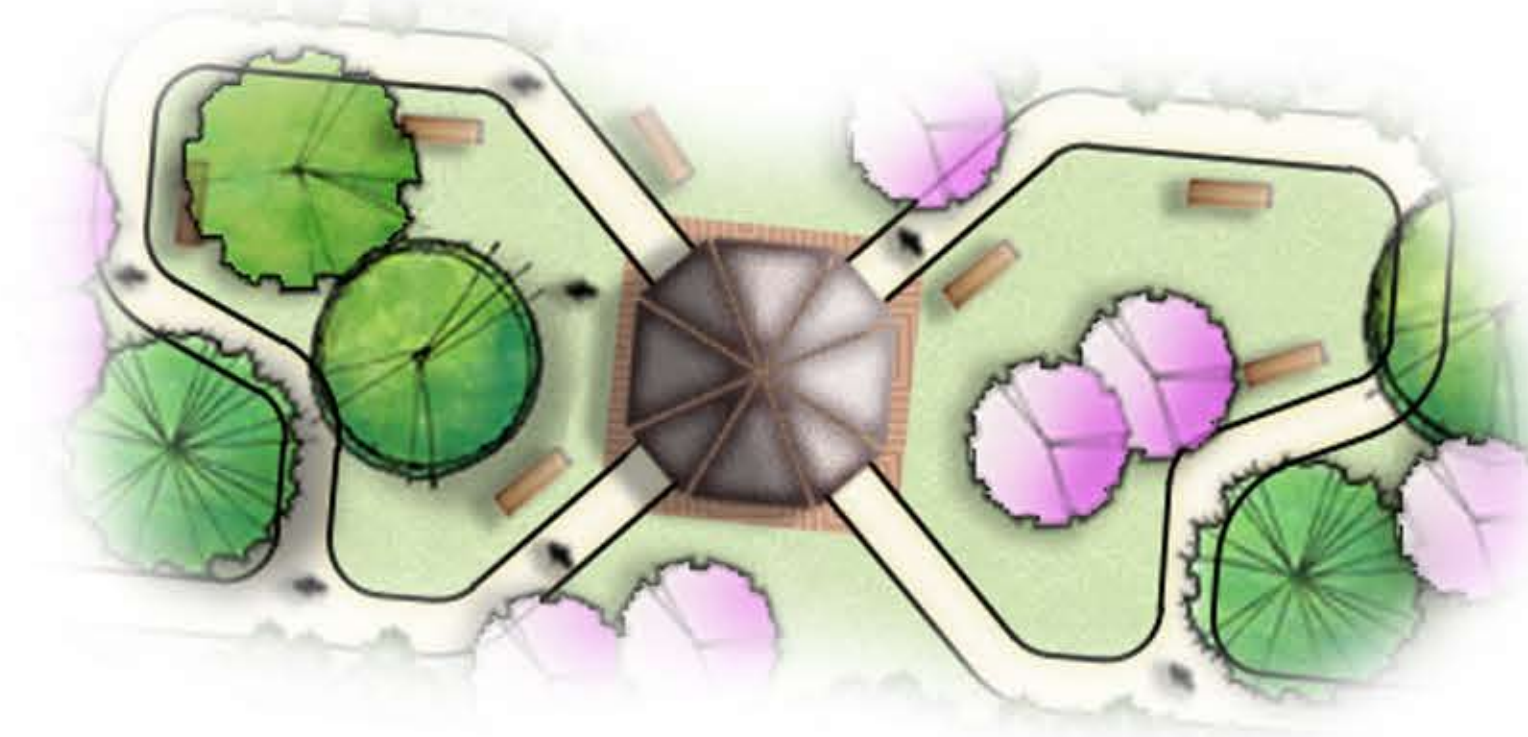


③ ELEVATION ALONG FORESTVILLE ROAD

DRAFT
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1. Pocket Park
Playground, Seating



2. Trailhead Gathering Space
Gazebo, walking path, Seating



3. Linear Park
Walking Paths, Seating

4. Amenity Center
Conceptual amenity center. Actual design to be produced during C.D. review. Amenity center will have the following committed elements:

- clubhouse
- pool
- mail kiosk,
- open play field
- playground
- gathering space
- parking

N.T.S.

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FORESTVILLE VILLAGE

Planned Unit Development

**Statement of Consistency and Design Guidelines
For Planned Development District: PUD-NMX
ZMA-8-20**

JPM South
Development



Vision Statement

JPM South Development is pleased to present the Forestville Village Planned Unit Development to the Town of Knightdale for consideration of rezoning for a Planned Development District from the current RT zoning to a Planned Unit Development with the underlying zoning designation of Neighborhood Mixed Use (PUD-NMX). Forestville Village is envisioned to be a compact, pedestrian friendly and unique subdivision located at the corner of Forestville Road and Old Knight Road. The new neighborhood will be part of an Activity Center/Neighborhood Node, as identified in the KnightdaleNext 2035 Comprehensive Plan, and will provide housing choices of single-family detached residential units and townhomes, a future development parcel at the corner of Forestville and Old Knight Roads, active and passive recreational open space, preservation of natural drainage features, and pedestrian/bike connections to adjoining schools and community parks.

Statement of Consistency: Comprehensive Plan

The **Guiding Principles of the KnightdaleNext 2035 Comprehensive Plan (adopted August, 2018)** provide the framework for the proposed zoning map amendment. The area encompassed by the proposed **Forestville Village Planned Development District** will further the goals of this **APA-NC award winning plan** by providing a compact, pedestrian friendly mixed-use development anchored by a **Neighborhood Node** parcel for future development, together with a compact and efficient development pattern of single-family attached and detached residential homes, walkable streets and a mix of uses to support anticipated town growth. The project furthers the initiatives and hierarchy of the growth and conservation priorities outlined in the **Growth Framework**, and will create an effective transition between existing lower density residential developments to the south and the municipal/institutional uses to the north.

Thoughtful consideration for the **natural environment** on-site is reflected in the Master Plan, allowing residents to **experience the natural settings** through the preservation of trees and undisturbed areas along existing streams, considerable set-asides for neighborhood parks, open spaces and amenities, and streetscape buffers along perimeter roadways. Multiple locations of both active and passive open space are located throughout the neighborhood and a pedestrian trail connection to the adjacent Knightdale Community Park and High School, together with a sidewalk connection to Forestville Road Elementary school will provide residents diverse **Park and Recreational** opportunities.

Planned roadway improvements to the existing Forestville Rd. and Old Knight Rd. along the project frontages will further the Town of Knightdale's **Transportation Plan**. These improvements will require coordination between the Town of Knightdale, NCDOT and the Developer. The internal sidewalk and roadway circulation system will allow residents the opportunity to walk/bike throughout the community and provide ease of access to the various recreational and community opportunities in close proximity to the neighborhood.

Forestville Village, with its planned mix of single-family and townhomes, will be a **Great Neighborhood**, promoting a distinct, safe and vibrant lifestyle community. **The Community Design offers a distinct brand and sense of place**, providing the Town of Knightdale residents **Expanded Home Choices** that will increase the **Economic Vitality** of the Town by providing an expanded residential and commercial tax base, while allowing the work force an opportunity to live in close proximity to businesses and employment opportunity areas in Knightdale.

Guiding Principles



**Great Neighborhoods
Expanded Home Choices**



Parks and Recreation



**Compact
Development
Patterns**



Transportation

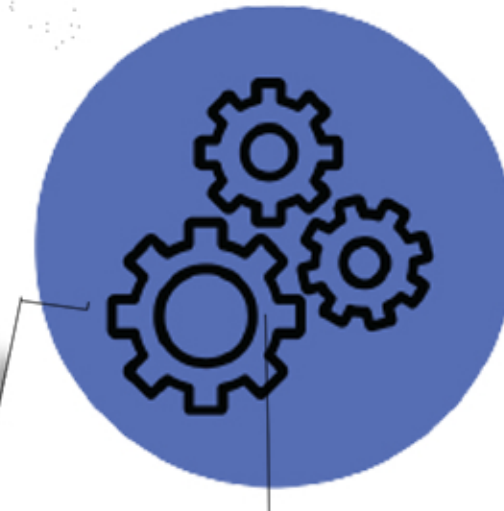


The **Guiding Principles of the KnightdaleNext 2035 Comprehensive Plan (adopted August, 2018)** provide the framework for the proposed zoning map amendment. The area encompassed by the proposed **Forestville Village Planned Development District** will further the goals of this **APA-NC award winning plan** by providing a compact, pedestrian friendly mixed-use development anchored by a **Neighborhood Node** parcel for future development, together with a compact and efficient development pattern of single-family attached and detached residential homes, walkable streets and a mix of uses to support anticipated town growth. The project furthers the initiatives and hierarchy of the growth and conservation priorities outlined in the Growth Framework, and will create an effective transition between existing lower density residential developments to the south and the municipal/institutional uses to the north.

Guiding Principles



**Community Facilities
and Services**



**Community
Design**



**Unique Activity
Centers**



Economic Vitality

**JPM South
Development**



ESP Associates, Inc.
2200 Gateway Centre Blvd., Suite 216
Morrisville, NC 27560
919.678.1070
www.espassociates.com

**Compliance with
KnightdaleNext
2035
Comprehensive
Plan**

**General
Growth
Framework**

**Forestville
Village
Rezoning**

**Statement of
Compliance**

Date: March 26, 2021

Map 1

Growth Framework

● Target Investment Area

- Includes land within the Town of Knightdale ETJ with access to sewer and water.
- New mixed-use centers would provide walk-to or bike-to destinations that meet some of residents daily needs.
- Target area should encourage active living with a network of walkable streets in a general grid pattern.

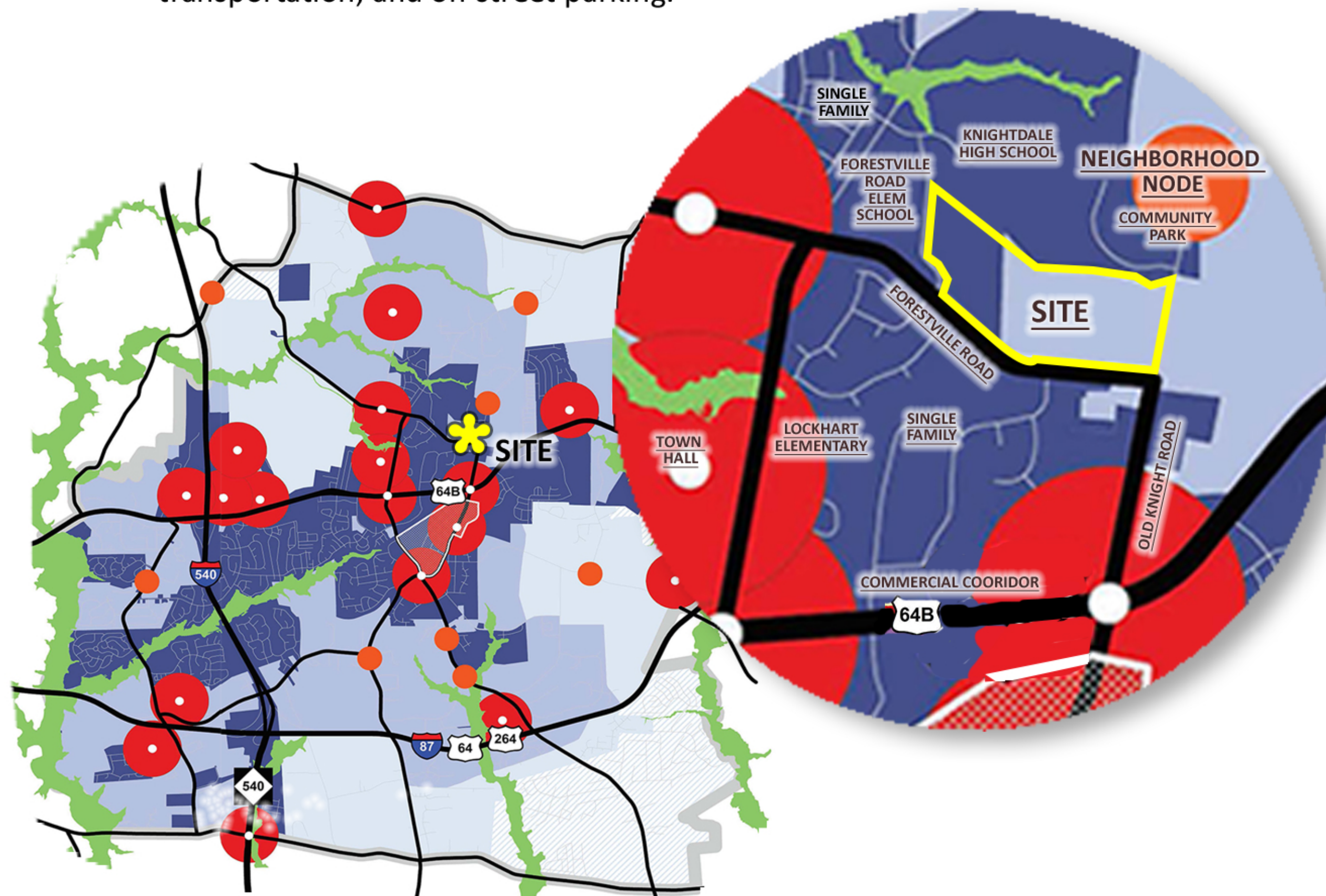
● Neighborhood Nodes

- Retail destinations close to residential neighborhoods.
- Each node should be "neighborhood-serving" and meet several daily needs for nearby residents.
- Should transition effectively between residential and non-residential uses with convenient pedestrian and bicycle access for residents.

Growth and Conservation Map

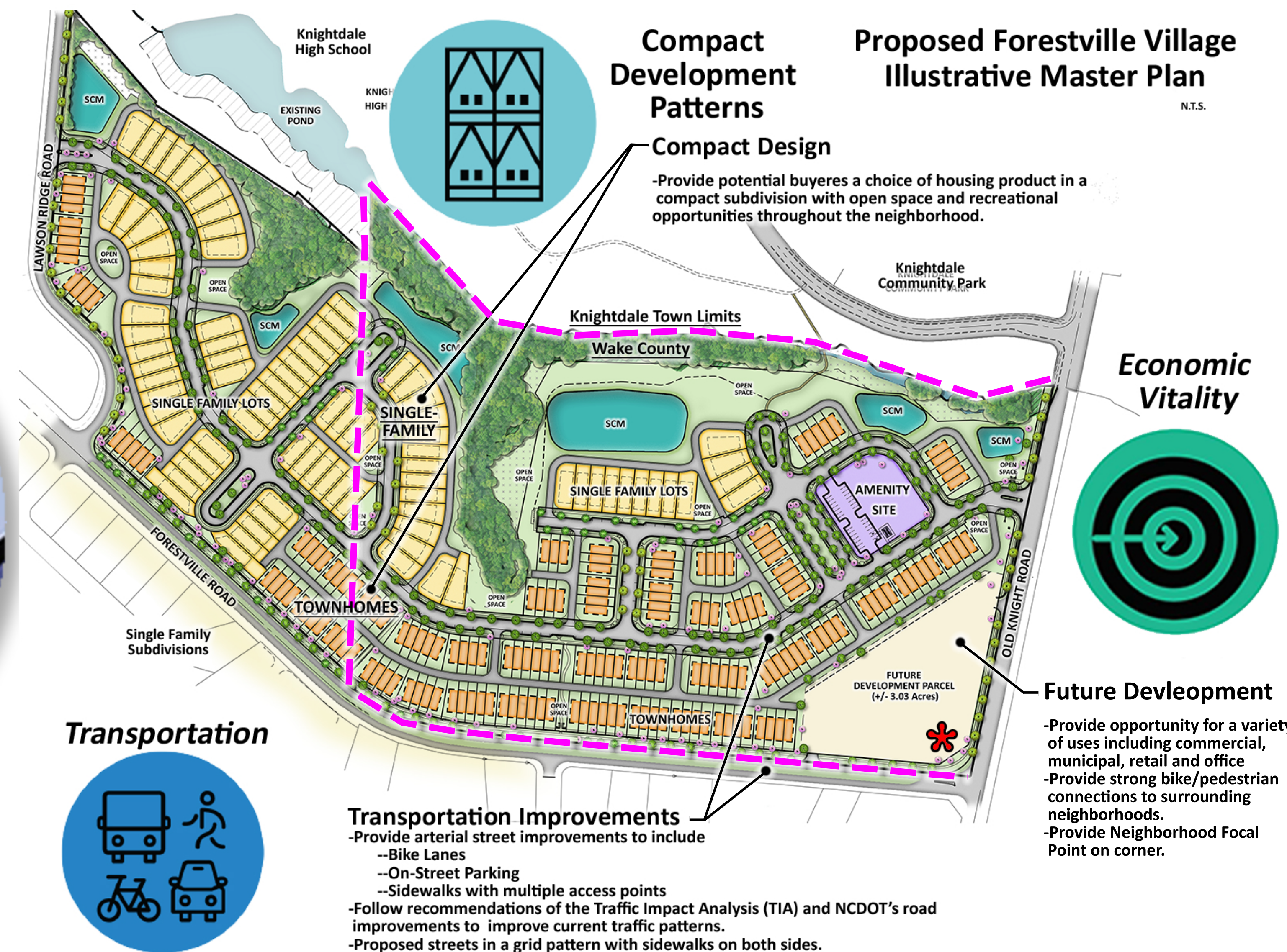
● Organizes the Community into Place Types

- Prioritizes degree of land conservation and growth.
- Supports existing and proposed Mixed-Use, Walkable Neighborhoods.
- Guide new development to be consistent with the vision of the Plan.
- Place Types are the building blocks for creating complete neighborhoods, activity centers and business corridors.
- The Neighborhood Node category provides goods and services to surrounding neighborhoods with a low-intensity and scaled to be compatible with nearby residential development.
- Multi-Family communities support higher density with a strong emphasis on preserved open space, walkable streets that encourage different modes of transportation, and on-street parking.



The proposed Forestville Village Zoning Request is in compliance with the KnightdaleNext 2030 Comprehensive Plan:

- The site is comprised of two parcels, one in the Town of Knightdale Corporate Limits and the other in a Target Investment Area. Both parcels have access to sewer and water.
- Road improvements along both Forestville Road and Old Knight Road will provide bike lanes and pedestrian sidewalks that will allow residents access to the Community Park, High School and future pedestrian trails in nearby developments. Walkable streets organized in a general grid pattern with sidewalks on both sides will provide access to both passive and active recreational opportunities within the neighborhood and a bike/pedestrian trail connection across the stream will provide direct access to the Knightdale Community Park and High School to the North.
- The requested zoning, PUD-NMX (Neighborhood Mixed Use) will allow a Neighborhood Node with the opportunity to support neighborhood uses as well as Town community needs. The Future Development Parcel area will be located at the corner of Forestville Road and Old Knight Road.
- A Compact design will allow for increased density in a compact form that provides the opportunity for the preservation of natural features on the site and to designate community open space throughout the neighborhood. Pocket parks of open space will be located throughout the community and a centrally located amenity center will provide active recreation opportunities for its residents.



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Compliance with KnightdaleNext 2035 Comprehensive Plan

General Growth Framework

Forestville Village Rezoning

Growth Framework

Date: March 26, 2021

Map 2

Statement of Consistency: Unified Development Ordinance

Forestville Village Planned Unit Development will comply with the Town of Knightdale's UDO, standards and specifications for the design and construction of the proposed development. The following are the Specific Design Guidelines for Forestville Village:

Design Guidelines

Planned Development District-PUD-NMX: Planned Unit Developments-Neighborhood Mixed Use

Forestville Village Proposed Uses and Maximum Densities

- **Residential Uses:** Maximum Density: 280 Units
 - Single Family Detached Homes (30'-40' x 100' min. Lots) 80-100 units
 - Townhomes (20'-26' x 80'- 100' interior lots) Up to 190 units
(25'-31' x 80'- 100' end lots)
- **Future Development Parcel** Up to 10,000 SF / acre

In addition to conditions of use listed in the Town of Knightdale's UDO the following uses are permitted and subject to the listed conditions:

 - Amusements (5,000 SF or less)
 - Animal Services
 - 1. No outdoor boarding or outdoor Doggie Day Care shall be permitted.
 - Banks
 - Child/Adult Day Care Center
 - Civic
 - Community Support Organizations
 - Cultural Facility
 - General Retail (under 10,000 SF per single user)
 - Government Services
 - Institutional
 - Medical Services (Doctor, Dentist, Vision)
 - 1. No after-hour urgent care
 - Office
 - Personal Services (Hair, Nail)
 - Professional Services (Tutoring, Therapy, CPA)
 - Public Safety Facility
 - Studio Services (Music, Dance, Martial Arts)
 - Neighborhood Retail/Restaurants (2,000 SF or less)
- **Restricted Uses:**

The following uses, although allowed under the zoning district NMX in the Town of Knightdale UDO, are hereby prohibited by condition of approval for the Forestville Village Planned Development District: PUD-NMX:

 - Apartments
 - Bed and Breakfasts
 - Rooming or Boarding House
 - Residential uses

- Hotel/Motel or Inn
- Pet Daycare with outdoor play and/or boarding facility
- Business requiring Drive-Thru (Banks permitted)
- Neighborhood Shopping Center
- Auto Part Sales
- Indoor Amusements, greater than 5,000 sf
- Meeting Facilities
- Indoor or Outdoor Recreation Facilities
- Crematoriums/Funeral Homes
- Vehicle Services – Maintenance/Body Work/Repair
- Bar/Tavern/Night Club
- Gas Stations/Convenience Store
- Big Box Retail
- Outdoor Amusements
- Theater, Live and/or Movie
- Manufacturing

Forestville Village Development Standards

Single Family:

	Dimensional Standards
▪ Minimum Lot Size:	30' x 100'
▪ Setbacks:	
Front:	10' min.
Side:	20% of lot width, 3' min.
Rear:	20' min. from alley centerline
▪ Minimum Driveway Length:	20' from ROW/ 1 car length min.
▪ Alley-loaded with 2-car garage	

Townhomes:

▪ Minimum Lot Size:	
End Lots:	25' x 80'
Internal Lots:	20' x 80'
▪ Setbacks:	
Front:	15' min. facing Forestville Rd, 25' max. typ. all lots
Side:	5' min. end units, 10' min. between bldgs.
Rear:	15' min. from alley centerline
▪ Minimum Driveway Length:	20' from ROW/ 1 car length min.
▪ Alley-loaded with 1 or 2-car garage	
▪ Building Height:	2-3-Stories, Max. 45'

Street Standards

All streets within the Forestville Village PUD-NMX Planned unit Development shall conform to the street sections as attached. There shall be five (5) street sections:

- Residential Street (Streets A, B, E & F) 54' ROW, 27' Back to Back, 2-Way Traffic.
- Residential Street (Street C) 40' ROW, 20' Back to Back, One-Way with Parking.
- Residential Street (Streets C & F) 36' ROW, 20' Face to Face, One-Way, No Parking.
- Residential Street (Streets A & B) 60' ROW, 33' Back to Back, 2-Way with Parking One-Side.
- Residential Street (Street D) 64' ROW, 39' Back to Back, 2-Way with Parking Both-Side.

- All Single-Family houses shall have a 2-car garage.
- All front entrances shall be raised from the finished grade (at the frontage line) a minimum of 18 inches in height and be wrapped in brick or stone on all fronts and on the sides of end units visible from the street. Sides and rears not visible from the street may be parged and painted to match the trim.
- Foundations shall be raised slabs, stem wall, or crawls 18" in height and wrapped in brick or stone on all fronts and on the sides of end units visible from the street. Sides and rears not visible from the street may be parged and painted to match the trim.
- Usable porches and stoops shall be a minimum of six (6) feet deep and extend more than 50% of the facade.
- Wall materials shall be limited to a combination of wood clapboard, cementitious fiber board, shingle/shake, drop siding, primed board, wood board and batten, brick and/or stone.
- Front facades shall be comprised of a minimum of two (2) of the listed wall materials, one of which shall be brick or stone.
- Roof Materials may be comprised of the following...standing seam metal, asphalt shingles, copper, or wood shingles.
- No vinyl siding shall be permitted. Vinyl trim and soffit are permitted.
- Principle roofs shall have a pitch between 6:12 and 12:12
- Eaves shall project 8-12".











Townhomes

Townhome buildings shall be carefully planned to ensure that each building has vertical and horizontal steps as well as thoughtfully coordinated façades, roof elements, and color packages to create interesting and varied streetscapes. The following committed conditions shall help insure diversity and quality:

- Townhomes shall include a minimum of 1,400 heated square footage.
- Townhome units may vary in width from 20' – 26' wide. A minimum of 60% of Townhome units shall be 22' wide or wider.
- Townhomes less than 22' in width may have a 1-car garage and all Townhomes 22' or wider shall have a 2-car garage.
- Townhomes may be 2-story or 3-story buildings. Up to a maximum of 40% of the townhome units may be 2-story.
- To provide privacy, all front entrances shall be raised from the finished grade (at the frontage line) a minimum of 18 inches.
- Foundations shall be raised slabs, stem walls or crawls and clad in brick or stone on front and sides with parging (painted to match trim) on rear.
- Wall materials shall be limited to a combination of wood clapboard, cementitious fiber board, shingle/shake, drop siding, primed board, wood board and batten, brick and/or stone.
- Roof Materials may be comprised of the following...standing seam metal, asphalt shingles, copper, or wood shingles.
- Front facades shall be comprised of a minimum of two (2) of the listed wall materials, one of which shall be brick or stone.
- All townhomes fronting Forestville Road will be rear load and the garages will not face Forestville Road.
- No vinyl siding shall be permitted. Vinyl trim and soffit are permitted.
- Principle roofs shall have a pitch between 6:12 and 12:12.
- Eaves shall project 8-12".
- All front entry doors shall have window inserts.
- All townhomes shall provide detailed design along all facades visible from a public right-of-way. A minimum of one (1) architectural feature from three (3) of the four (4) categories shall be utilized.
 - Entrance
 - Recessed Entry with 6" min. width door trim
 - Covered stoop (5'x5' min)
 - Usable porch a minimum of 5' deep and extending more than 50% of the facade.
 - Building Off-Set (Min. of 2 per building cluster)
 - Facade Off-set (12" min.).
 - Roof Line off-set (12" min.).
 - Facade
 - Bay Window.
 - Balcony.
 - Window Trim (4" min. width).
 - Patterned Finish (Scales, Shakes, Wainscoting, etc.)
 - Roof
 - Dormer
 - Gable
 - Cupola/Tower/Chimney





