

# MAILMAN POST

## MASTER PLAN

TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

ZMA-10-22

ST. MATTHEW'S TOWNSHIP

PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919-866-4951 FAX 919-866-4951 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE	DESCRIPTION
09/06/2022	

DRAWN BY  
331

DESIGNED BY  
E. ANGE

CHECKED BY  
B. BLACKMON

SCALE  
NTS

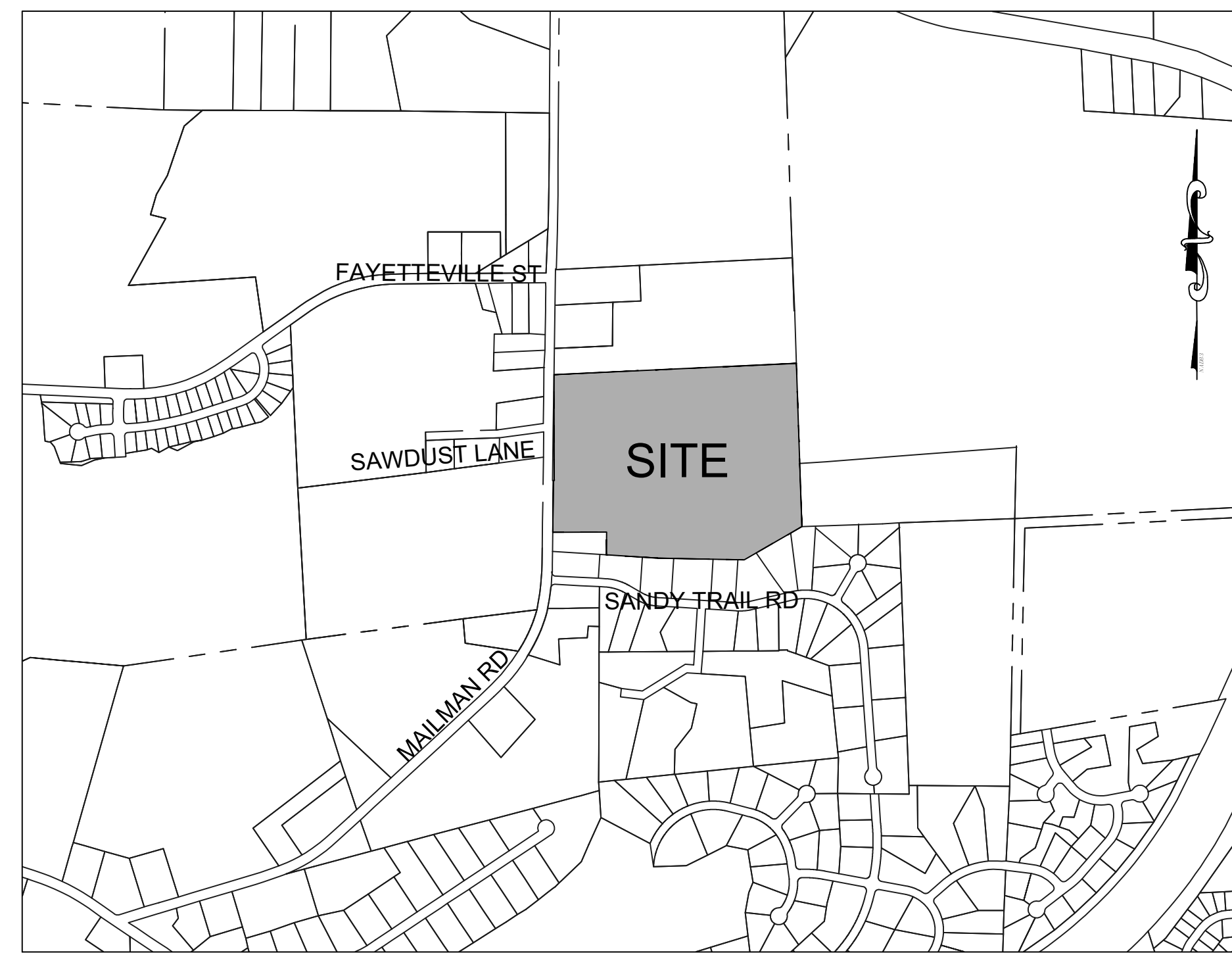
**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652

JOB NO.  
49750

SHEET NO.  
C0.0

### SITE DATA

PROJECT:	MAILMAN POST	
ENGINEER:	TIMMONS GROUP 5410 TRINITY ROAD, SUITE 102 RALEIGH, NC 27607 PHONE: 919-866-4509 FAX: 919-859-5663 BETH BLACKMON, PE EMAIL: BETH.BLACKMON@TIMMONS.COM	
DEVELOPER:	EF ONE, LLC CRAIG DUERR 6801 WINDING RIDGE RD ZEBULON, NC 17579 PHONE: 919-601-6962 EMAIL: LANDALTERNATIVESNC@GMAIL.COM	
PROPERTY LOCATION:	417 MAILMAN ROAD KNIGHTDALE, NC 27545	
PIN:	1763-08-8851, 1763-08-3716, 1763-09-5280, 1763-09-5560, 1753-98-9828, 1753-98-9764	
EXISTING ZONING:	RT & GR8	
PROPOSED ZONING:	GR3 PUD	
TOWNSHIP:	ST. MATTHEWS	
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL	
TOTAL DEVELOPED TRACT AREA:	35.85 ACRES	
AVERAGE LOT SIZES:	9,837 SF (FRONT LOADED SINGLE FAMILY LOTS) 3,252 SF (REAR LOADED SINGLE FAMILY LOTS) 1,600 SF (REAR LOADED TOWNHOMES)	
TOTAL PROPOSED UNITS:	143 TOTAL 33 FRONT LOAD + 88 REAR LOAD SINGLE FAMILY + 22 TOWNHOMES	
PROPOSED DENSITY:	3.98 DU/A	
TOTAL OPEN SPACE:	11 ACRES (6.70 PASSIVE + 2.83 ACTIVE + 1.47 COMMON)	
TOTAL ON STREET PARKING:	55 SPACES	
CONNECTIVITY INDEX:	1.53	
TREE SAVE:	105,606 SF	
SETBACKS:		
FRONT LOAD SINGLE FAMILY FRONT: 10' DRIVEWAY LENGTH: 25' REAR: 20' SIDE: 5	REAR LOAD SINGLE FAMILY FRONT: 10' DRIVEWAY LENGTH: 20' REAR: 20' SIDE: 3	REAR LOAD TOWNHOME FRONT: 10' DRIVEWAY LENGTH: 20' REAR: 20' BUILDING SEPARATION: 10



VICINITY MAP

Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C2.0	PRELIMINARY SITE PLAN
C2.1	OPEN SPACE PLAN
C3.0	PRELIMINARY UTILITY PLAN
C3.1	OFF SITE PRELIMINARY UTILITIES
C4.0	PRELIMINARY STORMWATER MANAGEMENT PLAN
C5.0	PRELIMINARY LIGHTING PLAN
C6.0	LANDSCAPE PLAN
C7.0	SIGNS AND MARKINGS PLAN

### OWNERS OF RECORD

GIOVANNI MORTARINO TRUSTEE  
2830 CHARLEMAGNE DR  
VIRGINIA BEACH, VA 23451

POPE, JASON RICHARD POPE, MARKIE S  
417 MAILMAN RD  
KNIGHTDALE, NC 27545

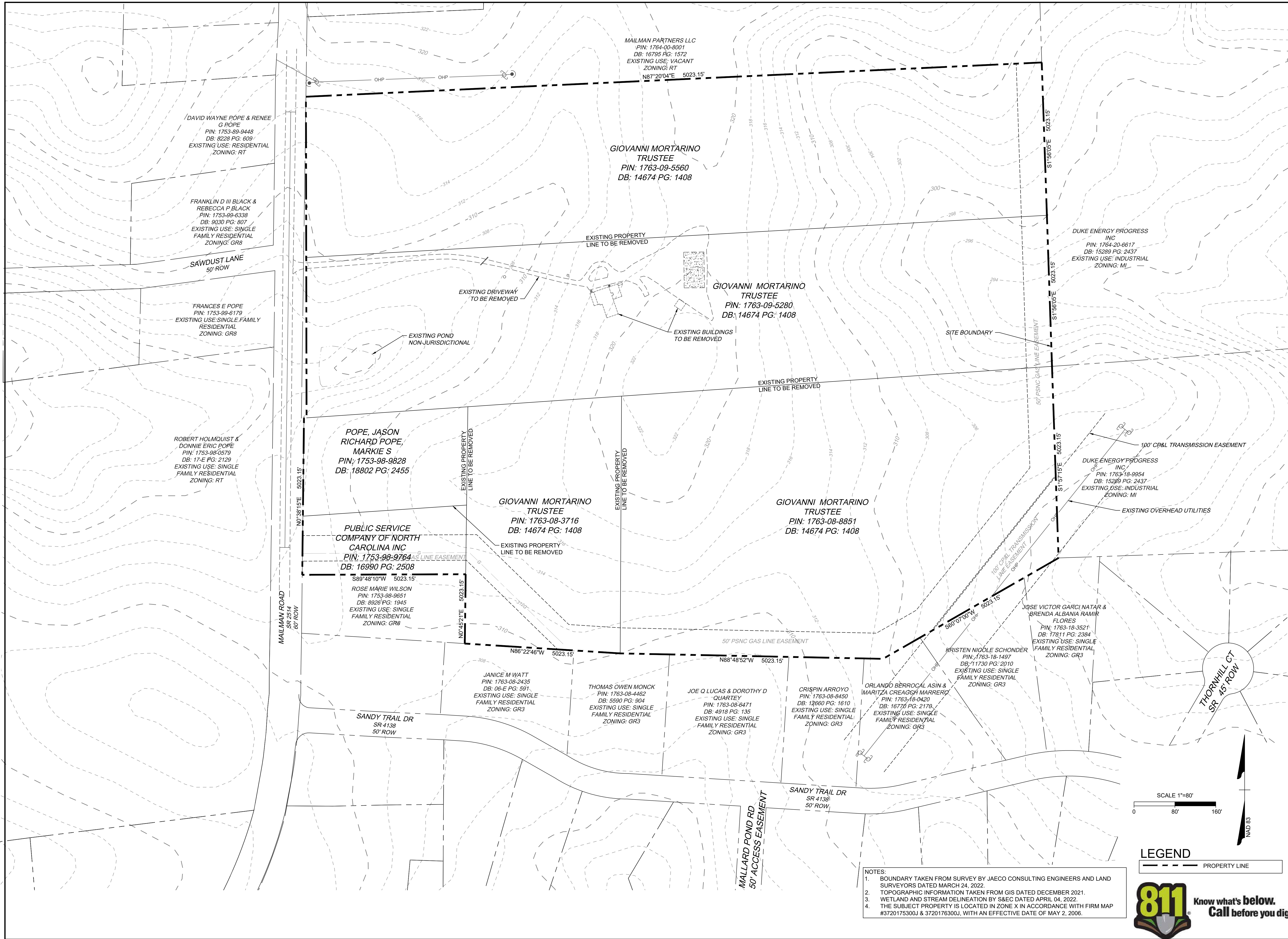
PUBLIC SERVICE COMPANY OF NORTH CAROLINA  
INC. SCANA LAND DEPT  
220 OPERATION WAY  
CAYCE, SC 29003

CONSTRUCTION DRAWING APPROVAL  
REQUIRED FOR DEVELOPMENT



Know what's below.  
Call before you dig.

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.



PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE  
09/06/2022

DRAWN BY  
331

DESIGNED BY  
E. ANGE

CHECKED BY  
B. BLACKMON

SCALE  
1" = 80'

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

**MAILMAN POST**  
MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

**EXISTING CONDITIONS**

JOB NO.  
49750

SHEET NO.  
C1.0

NOTES:

- BOUNDARY TAKEN FROM SURVEY BY JAECO CONSULTING ENGINEERS AND LAND SURVEYORS DATED MARCH 24, 2022.
- TOPOGRAPHIC INFORMATION TAKEN FROM GIS DATED DECEMBER 2021.
- WETLAND AND STREAM DELINEATION BY S&EC DATED APRIL 04, 2022.
- THE SUBJECT PROPERTY IS LOCATED IN ZONE X IN ACCORDANCE WITH FIRM MAP #3720175300J & 3720176300J, WITH AN EFFECTIVE DATE OF MAY 2, 2006.

SCALE 1"=80'

LEGEND  
--- PROPERTY LINE

**811** Know what's below.  
Call before you dig.

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

SCALE 1"=80'

**LEGEND**

- PROPERTY LINE
- - - PROPOSED RIGHT OF WAY
- - - PROPOSED LOT LINE
- - - BUILDING SETBACK
- ▭ ACTIVE OPEN SPACE
- ▭ PASSIVE OPEN SPACE
- ▭ COMMON AREA
- ▭ PHASE LINE

**USPS NOTE**

CLUSTER MAILBOXES TO BE LOCATED WITHIN NEIGHBORHOOD ACTIVE OS 1. KIOSK LOCATION SHALL BE APPROVED BY USPS PRIOR TO SUBDIVISION APPROVAL. IF TEMPORARY LOCATIONS ARE REQUIRED, APPROVAL OF LOCATIONS SHALL BE RECEIVED FROM USPS. MAIL KIOSK WILL HAVE ADA COMPLIANT RAMPS AND PARKING SPACES.

**STREET TABLE**

STREET	ROW	LENGTH (LF)
ROAD A	64	1507
ROAD B	54	315
ROAD C	54	571
ROAD D	54	483
ROAD E	54	267
ROAD F	54	483
ROAD G	32	1974
ROAD H	54	1063
ROAD I	32	426
ROAD J	54	491
ALLEY K	20	839
ALLEY L	20	450
ALLEY M	20	278
ALLEY N	20	355
ALLEY O	20	455
<b>TOTAL W/ ALLEYS</b>		<b>9957</b>
<b>TOTAL W/O ALLEYS</b>		<b>7580</b>

**SITE DATA**

**DEVELOPER:**  
 EFO ONE, LLC  
 6801 WINDING RIDGE ROAD  
 ZEBULON, NC 27597  
 CRAIG DUERR  
 919-601-6962

**ENGINEER:**  
 TIMMONS GROUP  
 BETH BLACKMON, PE  
 5410 TRINITY ROAD, STE 102  
 RALEIGH, NC 27607  
 PHONE: 919-866-4509

**OWNER ON RECORD:**  
 GIOVANNI MORTARINO TRUSTEE  
 2830 CHARLEMAGNE DR  
 VIRGINIA BEACH, VA 23451

**POPE, JASON RICHARD POPE, MARKIE S**  
 417 MAILMAN RD  
 KNIGHTDALE, NC 27545

**PUBLIC SERVICE COMPANY OF NORTH CAROLINA**  
 INC. SCANA LAND DEPT  
 220 OPERATION WAY  
 CAYCE, SC 29003

**PIN # = 1763-08-8851, 1763-08-3716,  
 1763-09-5280, 1763-09-5560, 1753-98-9828, &  
 1753-98-9764  
 DB 14674 PG 1408; DB 18802 PG 2455; DB 16990  
 PG 2508  
 FIRM MAP# = 3720175300J & 3720176300J EFF  
 05/02/2006**

**TOTAL EXISTING TRACT = 35.9 acres**  
 EXISTING ZONING = RT & GR8  
 PROPOSED ZONING = GR3 PUD

**TOTAL PROPOSED NUMBER OF LOTS = 143**  
 PROPOSED DENSITY = 3.98 du/a

**FRONT LOADED SINGLE FAMILY LOTS = 33**  
 MINIMUM LOT SIZE REQUIRED: 8,200 sq.ft.  
 AVERAGE LOT SIZE PROVIDED: 9,837 sq.ft.  
 MINIMUM LOT WIDTH: 80'  
 FRONT SETBACK: 10'  
 DRIVEWAY LENGTH: 25'  
 SIDE SETBACK: 5'  
 CORNER SIDE SETBACK: 10'  
 REAR SETBACK: 20'

**REAR LOADED SINGLE FAMILY LOTS = 88**  
 MINIMUM LOT SIZE REQUIRED: 2,700 sq.ft.  
 AVERAGE LOT SIZE PROVIDED: 2,814 sq.ft.  
 MINIMUM LOT WIDTH: 30'  
 FRONT SETBACK: 10'  
 DRIVEWAY LENGTH: 20'  
 SIDE SETBACK: 3'  
 CORNER SIDE SETBACK: 10'  
 REAR SETBACK: 20'

**REAR LOADED TOWNHOME LOTS = 22**  
 MINIMUM LOT SIZE REQUIRED: 1,600 sq.ft.  
 AVERAGE LOT SIZE PROVIDED: 1,600 sq.ft.  
 MINIMUM LOT WIDTH: 20'  
 FRONT SETBACK: 10'  
 BUILDING SEPARATION: 10'  
 DRIVEWAY LENGTH: 20'

**GENERAL SITE NOTES**

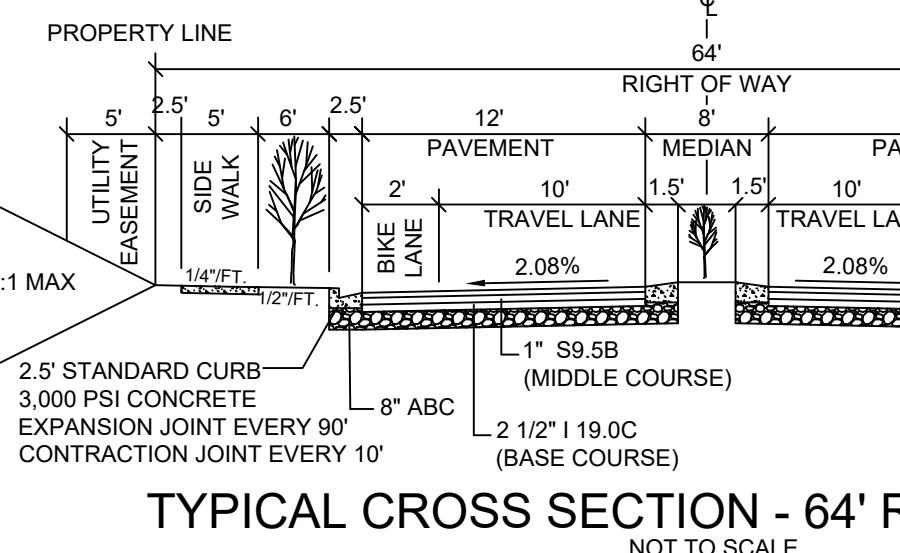
- ALL CONSTRUCTION SHALL CONFORM TO TOWN OF KNIGHTDALE AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
- ROADS AND DRIVEWAYS SHALL COMPLY WITH NCDOT AND TOWN OF KNIGHTDALE STANDARDS.
- SIGN PERMITS SHALL BE REQUIRED FOR ANY ENTRANCE SIGNAGE. PERMITS SHALL BE REQUIRED PRIOR TO FABRICATION OR INSTALLATION OF SIGNS. SIGNAGE SHALL BE RESTRICTED TO AN ON-SITE LOCATION.
- THE WATER AND SEWER SYSTEMS SHALL COMPLY WITH CITY OF RALEIGH STANDARDS.
- ALL DESIGN AND CONSTRUCTION METHODS SHALL COMPLY WITH THE TOWN OF KNIGHTDALE'S SEDIMENTATION AND EROSION CONTROL REGULATIONS. AN EROSION CONTROL PLAN SHALL BE APPROVED BY THE TOWN OF KNIGHTDALE PRIOR TO ANY GRADING.
- CONSTRUCTION DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE TOWN OF KNIGHTDALE AND CITY OF RALEIGH PRIOR TO CONSTRUCTION.
- ALL STREETS WITHIN THE SUBDIVISION WILL HAVE A POSTED SPEED LIMIT OF 25 MPH.
- RESTRICTIVE COVENANTS SHALL BE APPROVED AND RECORDED PRIOR TO RECORDING OF FINAL PLAT.
- STORMWATER CONTROL MEASURES SHALL BE CONTAINED IN AND ACCESSED VIA OPEN SPACE MAINTAINED AND OWNED BY THE HOMEOWNERS ASSOCIATION. A MAINTENANCE PLAN MUST BE DEVELOPED TO ADDRESS THE STORMWATER CONTROL MEASURES.
- PRIVATE STORM DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOA.
- SUBDIVISION LOTS MUST BE LOTS OF RECORD PRIOR TO RECEIVING A BUILDING PERMIT.
- PER UDO SEC 10.5.H.2, ALL UTILITIES SHALL BE PLACED UNDERGROUND.

**GENERAL SITE MODIFICATIONS**  
 9.3.B OF THE UDO PROHIBITS MASS GRADING ON ALL FRONT-LOADED LOTS 60' OR GREATER IN WIDTH. ALL REAR LOADED UNITS INCLUDED IN THIS PUD ARE EXEMPT FROM THIS REQUIREMENT BY RIGHT, DUE TO THEIR NARROW LOT WIDTH. THE SINGLE FAMILY LOTS NOT EXEMPT, INCLUDE LESS THAN 25% OF THE TOTAL NUMBER OF LOTS. THESE LOTS WERE ENLARGED IN SIZE AT THE SPECIFIC REQUEST OF KNIGHTDALE PLANNING STAFF AND ARE LOCATED AROUND THE PROPERTY BORDER. AN EXCEPTION TO THE UDO REQUIREMENTS IS REQUESTED TO ALLOW FOR THE ENTIRE DEVELOPMENT TO BE ELIGIBLE FOR MASS GRADING, RATHER THAN ONLY PORTIONS OF THE DEVELOPMENT. MASS GRADING IS WARRANTED FOR PERIMETER LOT AREAS TO BE ABLE TO CREATE AN ENHANCED STREETScape. TO AVOID STANDING WATER, AND MOST IMPORTANTLY TO ALLOW THE SEWER DEPTHS TO BE SHALLOW ENOUGH TO PRECLUDE THE NEED FOR THE CITY OF RALEIGH TO OPERATE A PUMP STATION ON-SITE. THE EXCEPTION TO THE MASS GRADING IS REQUESTED BASED ON THE INTEGRATED DESIGN AND SURFACE WATER DRAINAGE MODIFICATION STANDARDS.

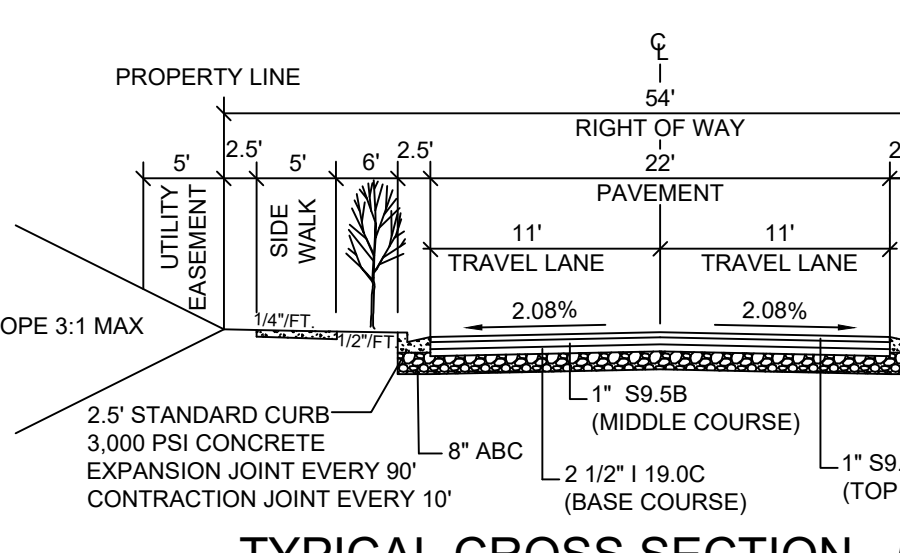
**DISTRIBUTION OF USES**  
 TABLE 11.1.B IN THE KNIGHTDALE UDO REQUIRES A MIN. 10% / MAX 40% DUPLEX / TOWNHOME, MIN. 5% / MAX. 40% MULTIFAMILY, AND MIN 15% / MAX 60% SINGLE FAMILY. AN EXCEPTION TO THESE REQUIREMENTS IS REQUESTED TO EXCLUDE THE REQUIREMENT FOR MULTIFAMILY USE. THE PROPOSED USE MIX IS 5% TOWNHOMES AND 95% SINGLE FAMILY. THE DEVELOPMENT IS LOCATED AT THE EDGE OF KNIGHTDALE'S JURISDICTION WITH PREDOMINATELY EXISTING SINGLE FAMILY USES. THE EXCEPTION TO THE DISTRIBUTION OF USES IS REQUESTED BASED ON THE INTEGRATED DESIGN AND PLACE MAKING MODIFICATION STANDARDS. THE PUD SHALL BE DEVELOPED IN SUCH A WAY TO BE HARMONIOUS WITH THE SURROUNDINGS.

**GASLINE ENCROACHMENT**  
 IF DOMINION ENERGY WILL NOT SUPPORT A GASLINE ENCROACHMENT AT THE END OF THE 64' RIGHT-OF-WAY, ON THE EAST OF THE SITE, AT THE TIME OF PERMITTING, THEN THE DEVELOPER SHALL PAY THE TOWN OF KNIGHTDALE A FEE IN LIEU OF THE REMAINING ROAD COMPLETION IN AN AMOUNT MUTUALLY AGREED UPON BY THE DEVELOPER AND THE TOWN OF KNIGHTDALE PER SECTION 10.3.A. OF THE UDO.

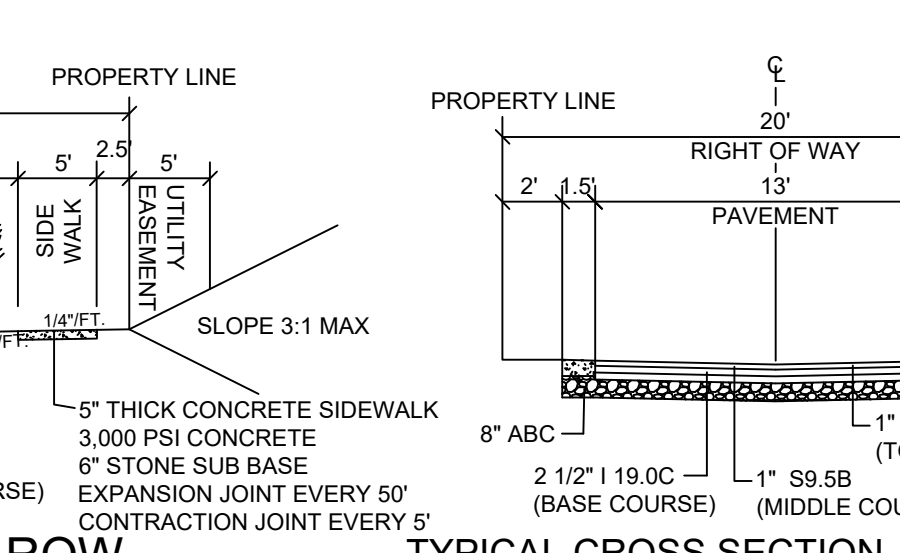
**TRANSPORTATION NETWORK**  
 AN EXCEPTION TO SECTION 10.4.B OF THE UDO, TO ALLOW A 32' PUBLIC RIGHT OF WAY STREET SECTION, A MODIFIED ONE WAY LOCAL STREET, TO SERVE HOMES FRONTING ON OPEN SPACE AREAS IS REQUESTED. CREATING BENEFICIAL COMMON OPEN SPACE IS THE MODIFICATION STANDARD BASIS FOR THIS REQUESTED EXCEPTION. REDUCING THE SIZE OF RIGHT OF WAYS INCREASES THE USABLE OPEN SPACE. PEDESTRIAN CONNECTIVITY WITH A SIDEWALK ALONG THE FRONT OF THESE HOMES WILL STILL BE PROVIDED. SECTION 11.3.B.1 OF THE UDO REQUIRES THAT ANY DEVELOPMENT THAT EMBRACES ONLY 1 SIDE OF AN EXISTING OR PLANNED ARTERIAL OR COLLECTOR WILL ONLY BE REQUIRED TO DEDICATE ADDITIONAL TIV FOR THAT PORTION OF THE STREET WITH WHICH THE DEVELOPMENT HAS FRONTAGE. DEDICATION OF 15' RW IS IDENTIFIED ON THE MASTER PLAN TO ACCOMMODATE HALF THE ULTIMATE RIGHT-OF-WAY ALONG MAILMAN ROAD FOR A 2-LANE URBAN AVENUE SECTION SUBJECT TO THE TRAFFIC IMPACT ANALYSIS FINDINGS ON ACCEPTABLE LEVELS OF SERVICE.



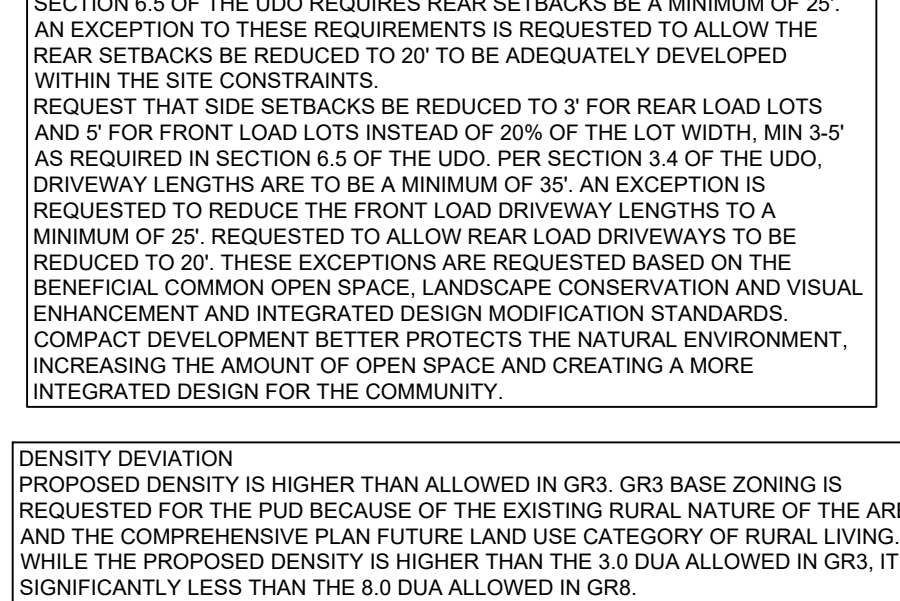
**TYPICAL CROSS SECTION - 64' ROW W/ MEDIAN**



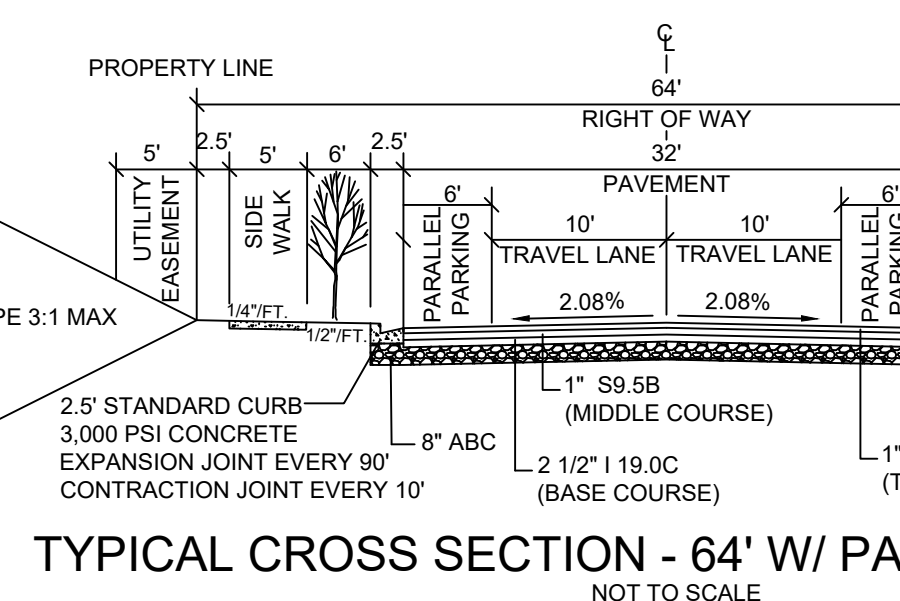
**TYPICAL CROSS SECTION - 54' ROW**



**TYPICAL CROSS SECTION - REAR ALLEY**



**TYPICAL CROSS SECTION - 64' W/ PARALLEL PARKING**



**TYPICAL CROSS SECTION - 32' ROW (ONE WAY)**

PRELIMINARY DO NOT USE FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
 5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
 TEL 919-866-4951 | FAX 919-833-8124 | www.timmons.com

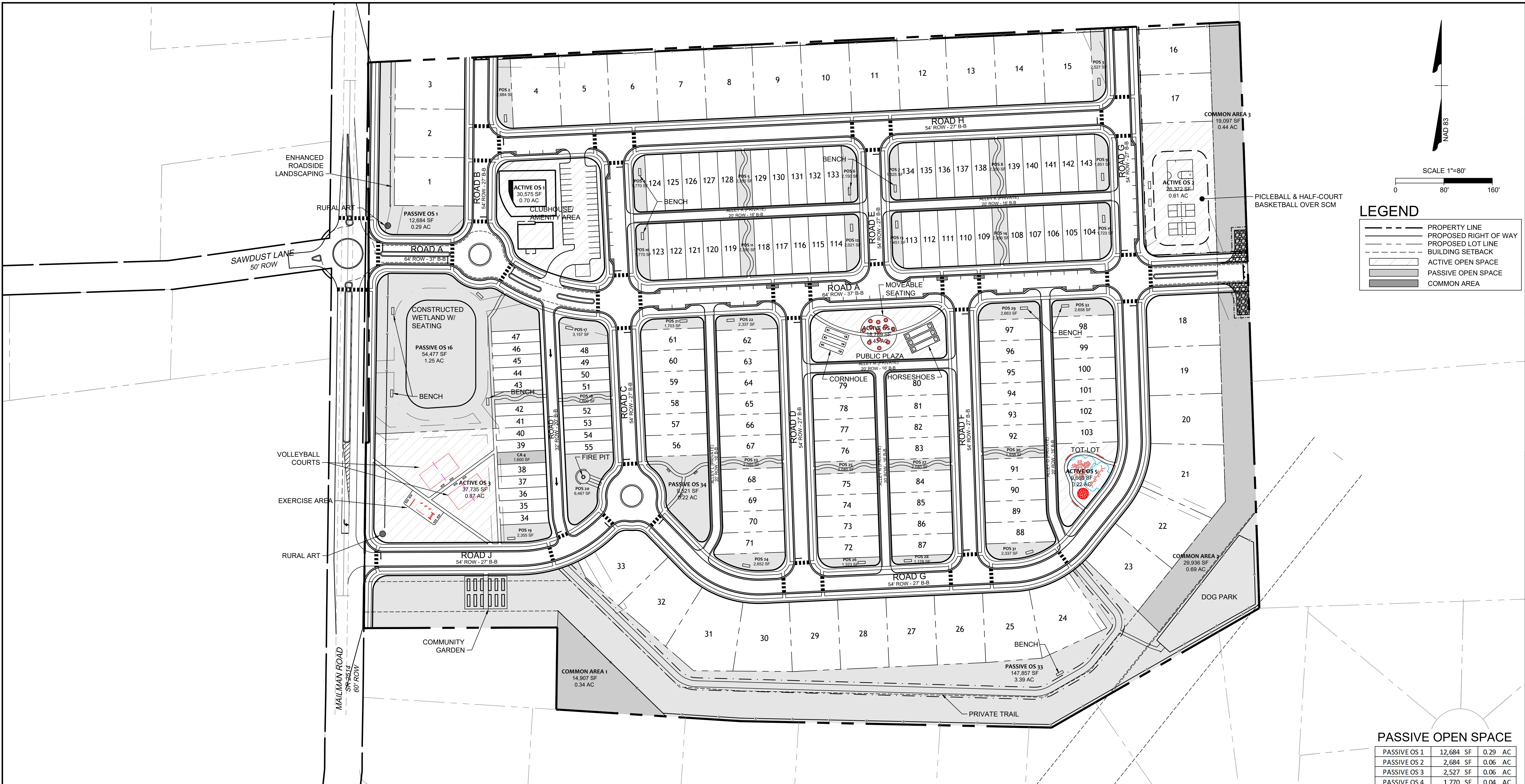
YOUR VISION ACHIEVED THROUGH OURS.

DATE: 09/06/2022  
 DRAWN BY: 331  
 DESIGNED BY: E. ANGE  
 CHECKED BY: B. BLACKMON  
 SCALE: 1" = 80'

**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652  
 MAILMAN POST  
 MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
 PRELIMINARY SITE PLAN

JOB NO. 49750  
 SHEET NO. C2.0

PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION



PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

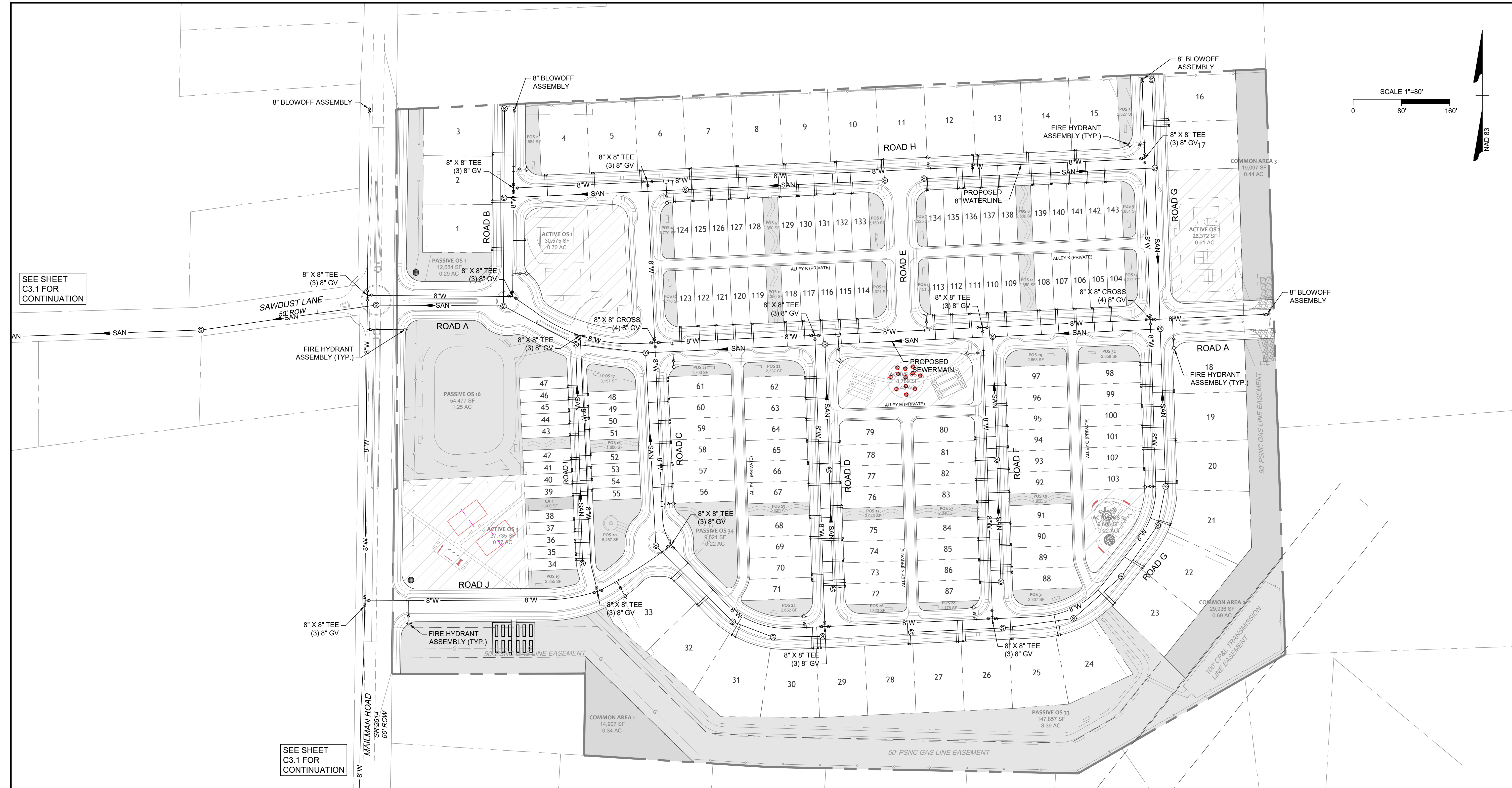
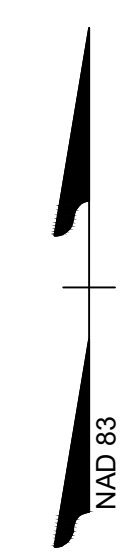
YOUR VISION ACHIEVED THROUGH OURS.

DATE  
09/06/2022  
DRAWN BY  
331  
DESIGNED BY  
E. ANGE  
CHECKED BY  
B. BLACKMON  
SCALE  
1" = 80'

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
MAILMAN POST  
MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
PRELIMINARY UTILITY PLAN

JOB NO.  
49750  
SHEET NO.  
C3.0

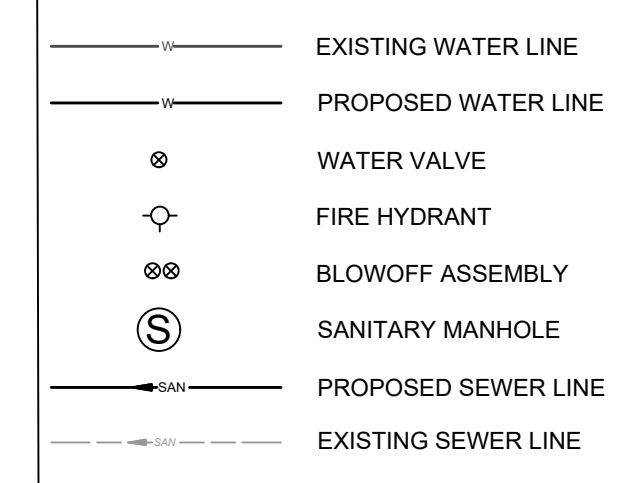
SCALE 1"=80'  
0 80' 160'



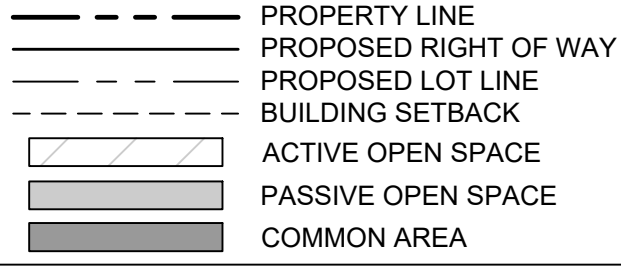
- CORPUD'S STANDARD UTILITY NOTES**
- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
  - UTILITY SEPARATION REQUIREMENTS:
    - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE 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 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
    - WHEN INSTALLING WATER &/OR 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
    - 5.0' 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 18" 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 W-41 & S-49)
    - 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
  - DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.
  - 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 MAINS & SEWER FORCEMAINS. 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 3/4" COPPER\* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' 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 NCDWQ, USACE &/OR FEMA FOR 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
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT STEPHEN CAVERLEY AT (919) 966-2334 OR STEPHEN.CAVERLEY@RALEIGHNC.GOV FOR MORE INFORMATION
- 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. A CERTIFICATE OF COMPLIANCE SHALL ALSO BE OBTAINED FOR EACH DEVICE PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION

**UTILITY LEGEND**

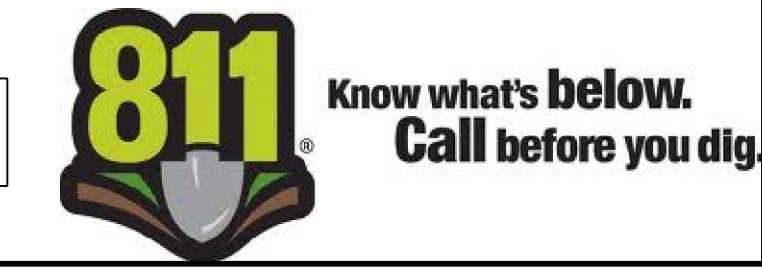


**LEGEND**



CONSTRUCTION DRAWING APPROVAL IS  
REQUIRED FOR PROJECT DEVELOPMENT.

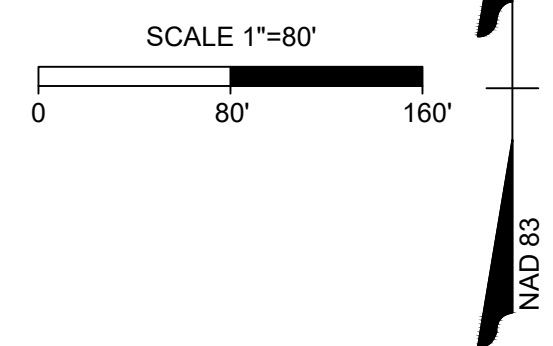
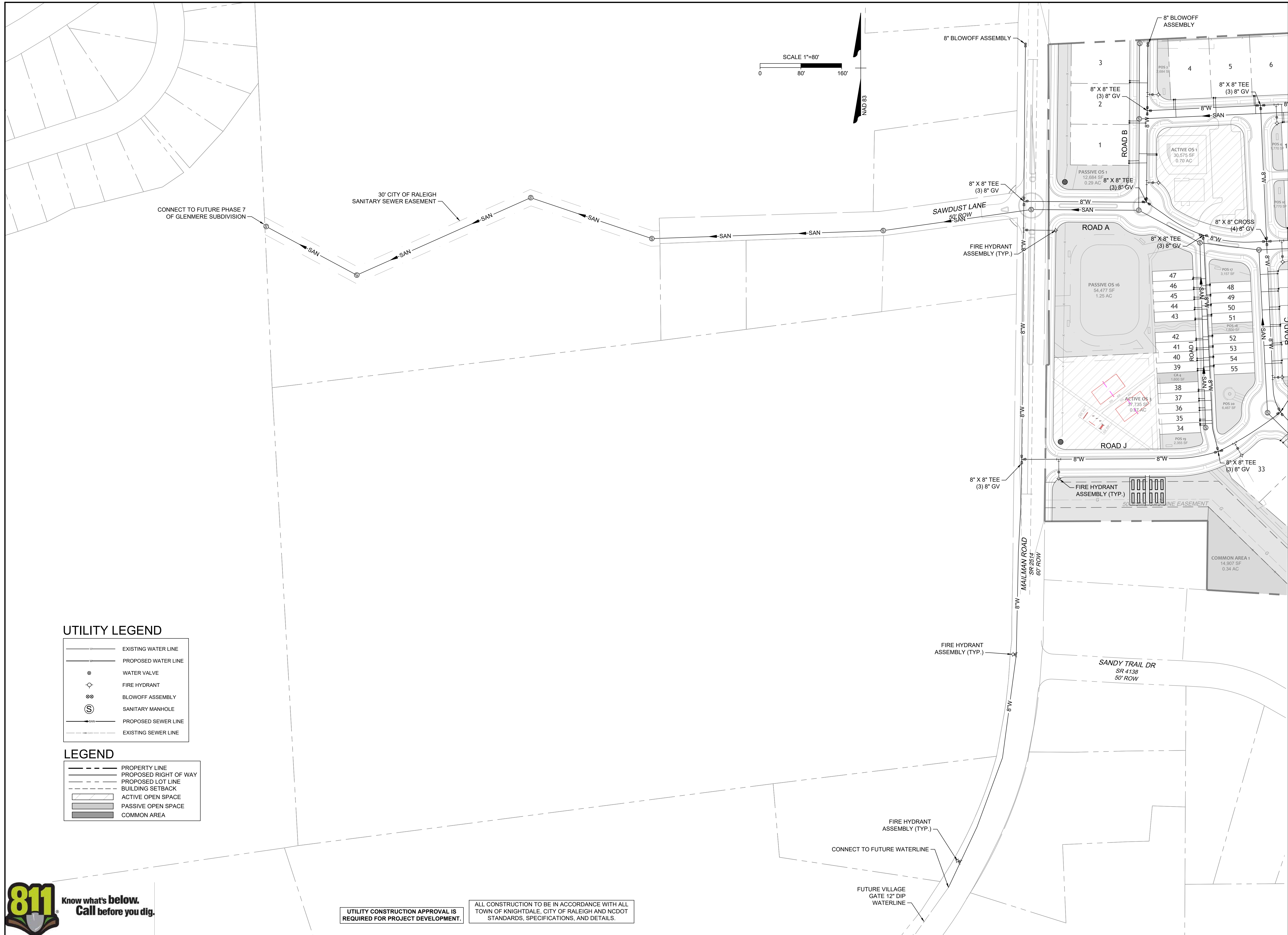
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE, CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.



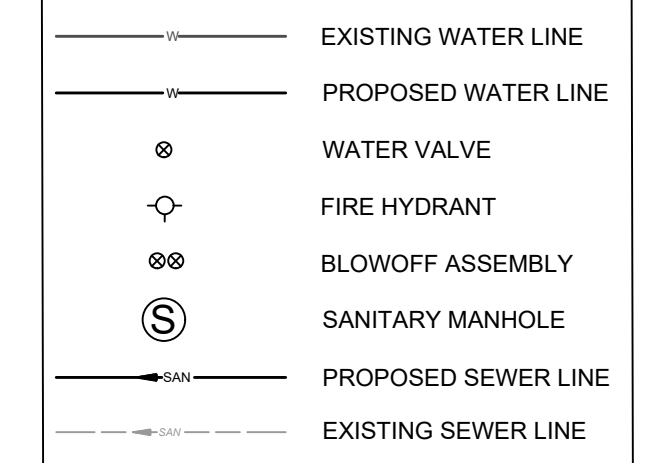
SEE SHEET  
C3.1 FOR  
CONTINUATION

SEE SHEET  
C3.1 FOR  
CONTINUATION

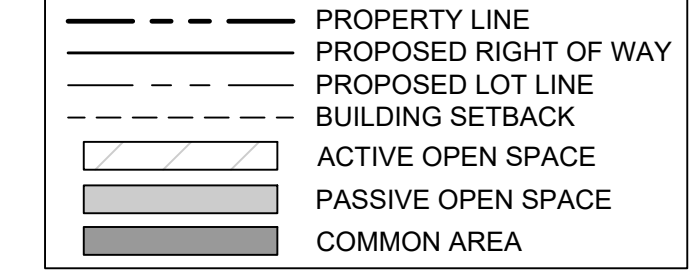
These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.



**UTILITY LEGEND**



**LEGEND**



UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR PROJECT DEVELOPMENT.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE, CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.



PRELIMINARY DO NOT USE FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
 5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
 TEL 919.866.4951 FAX 919.863.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE
	09/06/2022

DRAWN BY  
331

DESIGNED BY  
E. ANGE

CHECKED BY  
B. BLACKMON

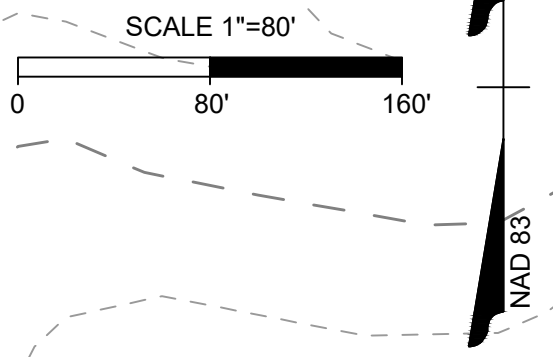
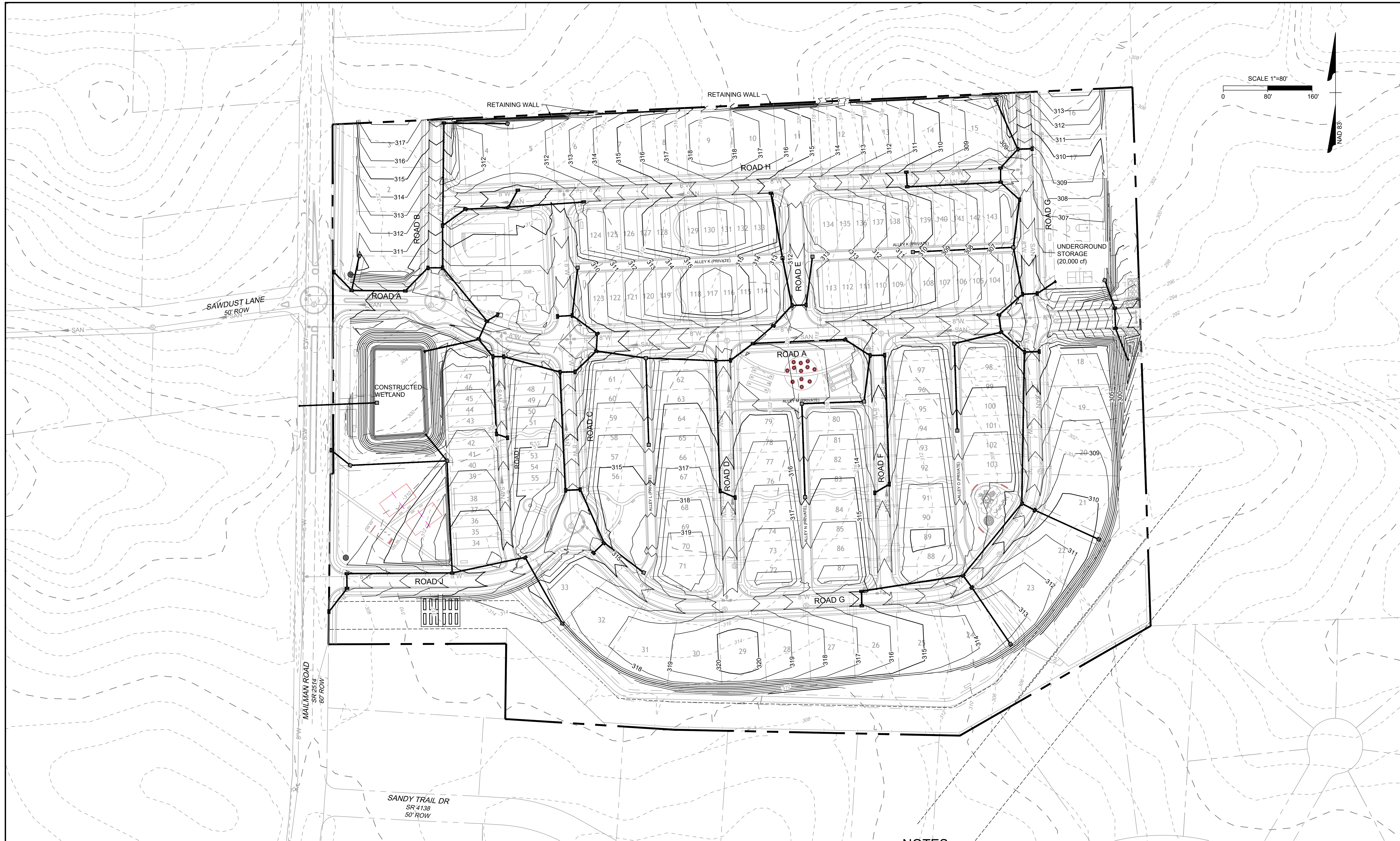
SCALE  
1" = 80'

**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652

**MAILMAN POST**  
 MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**OFF SITE PRELIMINARY UTILITIES**

JOB NO.	49750
SHEET NO.	C3.1

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.



PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.9511 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE  
09/06/2022

DRAWN BY  
331

DESIGNED BY  
E. ANGE

CHECKED BY  
B. BLACKMON

SCALE  
1" = 80'

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

**MAILMAN POST**

MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

**PRELIMINARY STORMWATER MANAGEMENT PLAN**

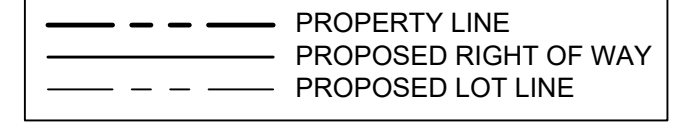
JOB NO.  
49750

SHEET NO.  
C4.0

**NOTES**

1. THE STORM DRAINAGE LAYOUT IS CONCEPTUAL AND SUBJECT TO CHANGE. APPROVAL BY TOWN STAFF IS REQUIRED.
2. THE STORM DRAINAGE SYSTEM SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH TOWN OF KNIGHTDALE UDO AND ENGINEERING STANDARDS & SPECIFICATIONS.
3. THE STORMWATER PLAN SHALL PROVIDE FOR ADEQUATE NITROGEN REDUCTION AND ATTENUATION OF STORMWATER RUNOFF.
4. FENCINGS AND LANDSCAPING FOR ALL PROPOSED STORMWATER CONTROL MEASURES SHALL MEET TOWN OF KNIGHTDALE REQUIREMENTS FOR EACH TYPE OF MEASURE PROPOSED.
5. STORMWATER CONTROL MEASURES SHALL BE LOCATED IN OPEN SPACE AREAS DEDICATED TO AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION (HOA).
6. A MAINTENANCE PLAN ALONG WITH A MEMORANDUM OF AGREEMENT MUST BE DEVELOPED FOR ALL STORMWATER CONTROL MEASURES (SCMS) INSTALLED TO ACHIEVE NITROGEN LOADING AND/OR FLOW ATTENUATING REQUIREMENTS AS PART OF THIS PROJECT. THIS MAINTENANCE PLAN IS REQUIRED TO BE RECORDED AT THE WAKE COUNTY REGISTER OF DEEDS PRIOR TO PLAT RECORDATION. PROOF OF SAID RECORDING WILL BE REQUIRED AT THE TIME OF PLAT RECORDATION.
7. MAINTENANCE AND ACCESS EASEMENTS ARE REQUIRED FOR ALL SCMS.
8. AT THE CONCLUSION OF THE PROJECT ALL SCMS INSTALLED ON-SITE MUST BE CERTIFIED BY A DESIGN PROFESSIONAL AND THE TOWN OF KNIGHTDALE ENGINEERING DEPT. MUST RECEIVE ALL AS-BUILT DRAWINGS PRIOR TO RECEIVING THE CERTIFICATE OF OCCUPANCY.

**LEGEND**



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE AND NCDOT STANDARDS, SPECIFICATIONS, AND DETAILS.



These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.

PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

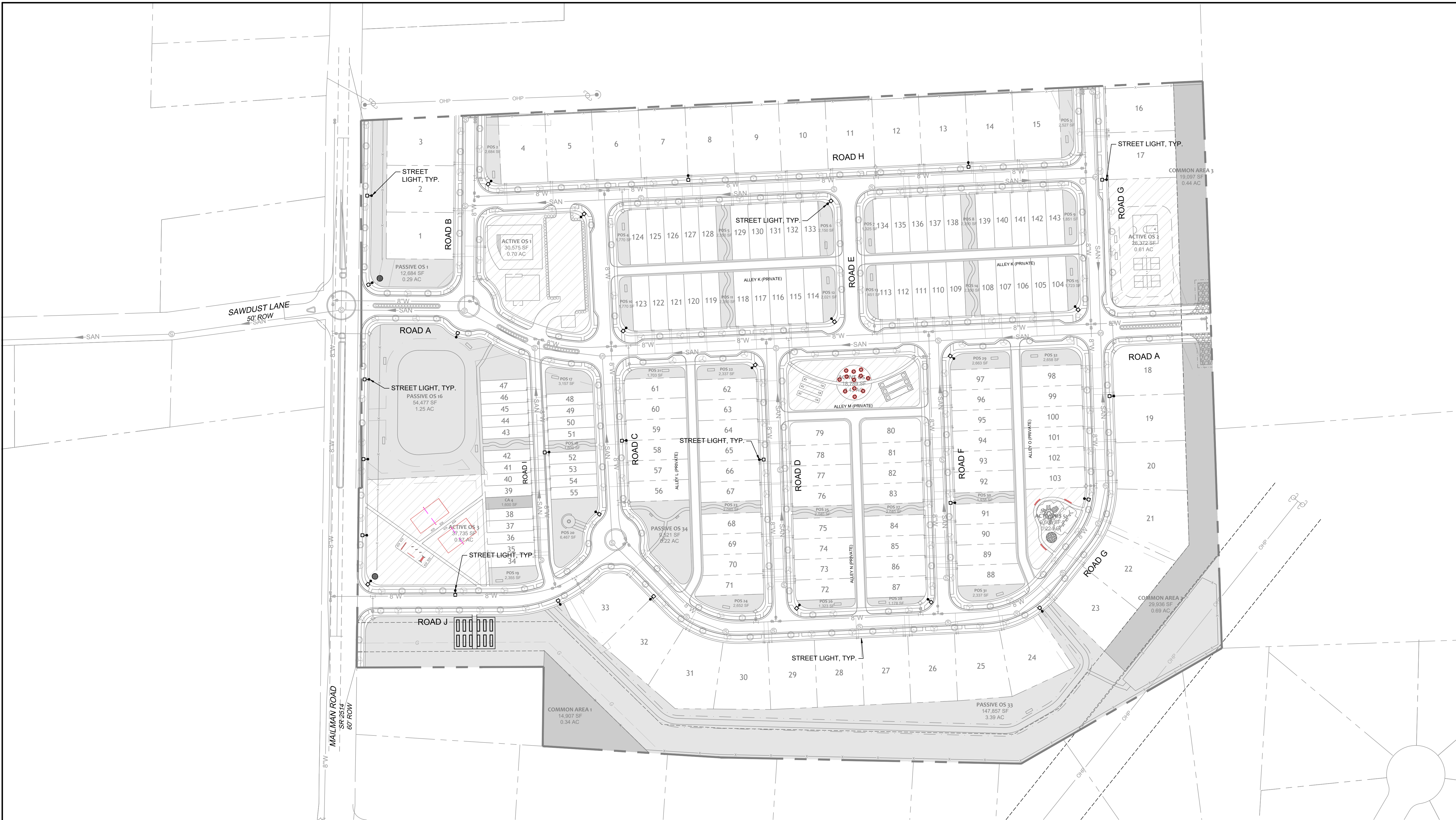
THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE  
09/06/2022  
DRAWN BY  
331  
DESIGNED BY  
E. ANGE  
CHECKED BY  
B. BLACKMON  
SCALE  
1" = 80'

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
MAILMAN POST  
MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
PRELIMINARY LIGHTING PLAN

JOB NO.  
49750  
SHEET NO.  
C5.0



- NOTES**
1. ALL FIXTURES SHALL HAVE A FULL CUTOFF CLASSIFICATION OR BE FULLY SHIELDED.
  2. ALL POLE-MOUNTED FIXTURES CANNOT EXCEED 37' IN HEIGHT.
  3. ALL STREET LIGHT POLES SHALL BE FIBERGLASS WITH A FULLY SHIELDED, ARM-MOUNTED LED FIXTURE.
  4. AVERAGE SPACING FOR INTERNAL STREETS SHALL BE 250' APART AND 150' ALONG MAILMAN RD.
  5. BUG RATING CANNOT EXCEED B1 U1 G2 FOR LOCAL STREETS AND B2 U2 G3 ON MAILMAN.
  6. POLES SHALL BE PLACED ON ALTERNATIVE SIDES OF THE STREET.
  7. LIGHTING FOR THE AMENITY CENTER PARKING LOT SHALL NOT EXCEED A BUG RATING OF B3 U0 G4.

**Outdoor Lighting**  
**Roadway LED**

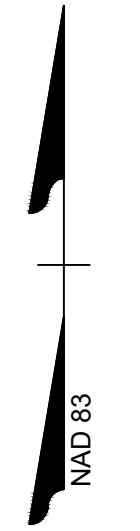
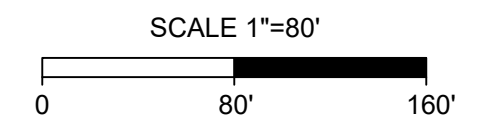
The Roadway LED is a pole-mounted and great for streets, roads, parking lots, and parking lots. This energy-efficient luminaire delivers the light where it is needed while increasing visibility and reducing light to adjoining properties. Choose the luminaire height, mounting height, and color to meet your needs. Available with one to four fixtures per pole. Depending on the luminaire combination selected.

LED (CFL) mounting heights: 50 | 70 | 110 | 150 | 200 | 280 watts

Mounting heights: 15, 20, 25, 30, 35

Colors: Black, Gray, Green

Poles: Style A, C, Road



**LEGEND**

- PROPERTY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

**LIGHTING LEGEND**

- LED STREET LIGHTS (7,000 LUMENS LED 75 ROADWAY LIGHT) ALUMINUM POLE - HEIGHT 30'



These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.



PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION

THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.9511 FAX 919.853.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

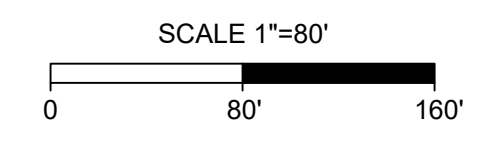
REVISION DESCRIPTION	DATE
	09/06/2022
	331
	E. ANGE
	B. BLACKMON
	SCALE 1" = 80'

# TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

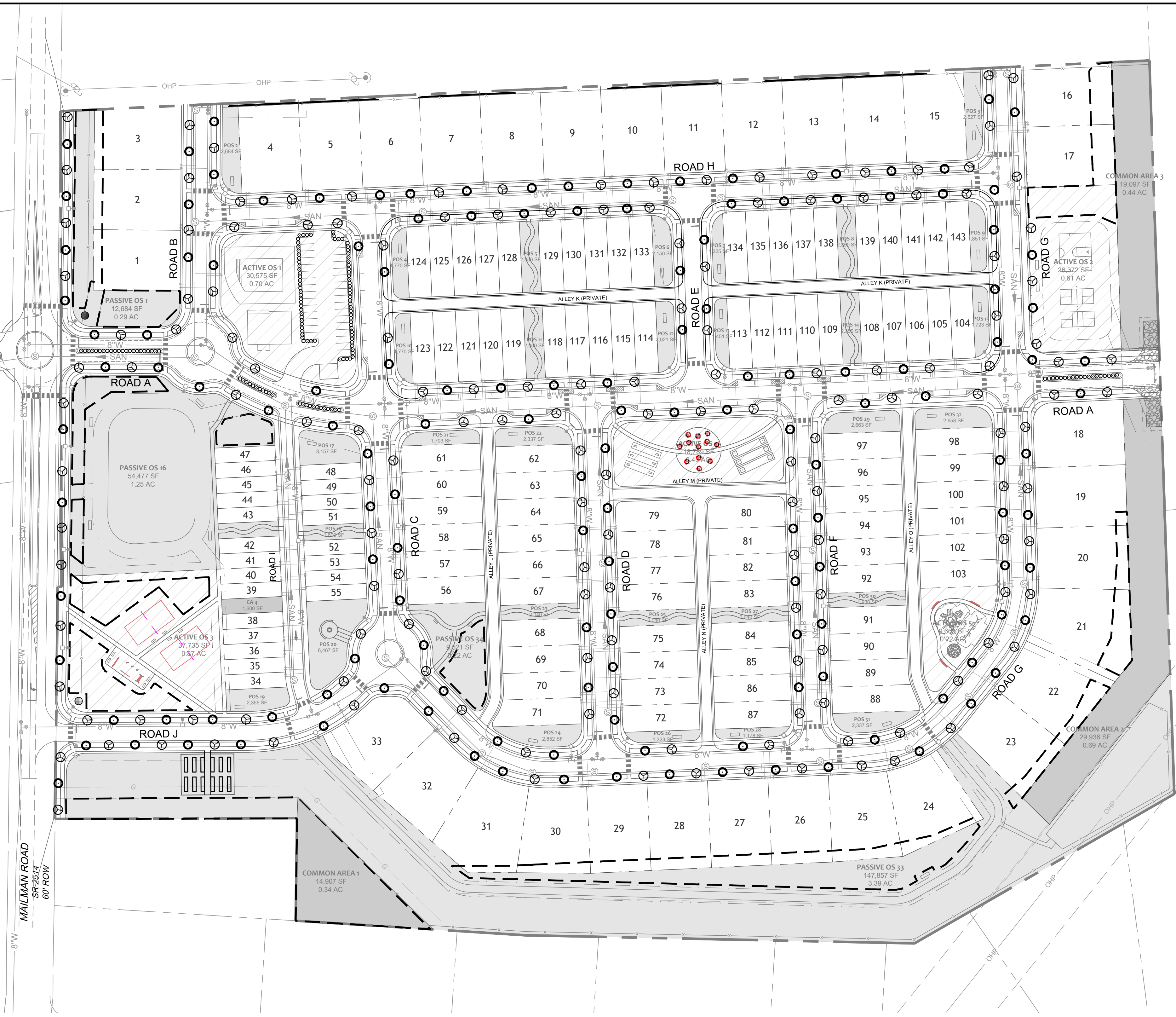
**MAILMAN POST**  
MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
**LANDSCAPE PLAN**

JOB NO.  
49750  
SHEET NO.  
C6.0



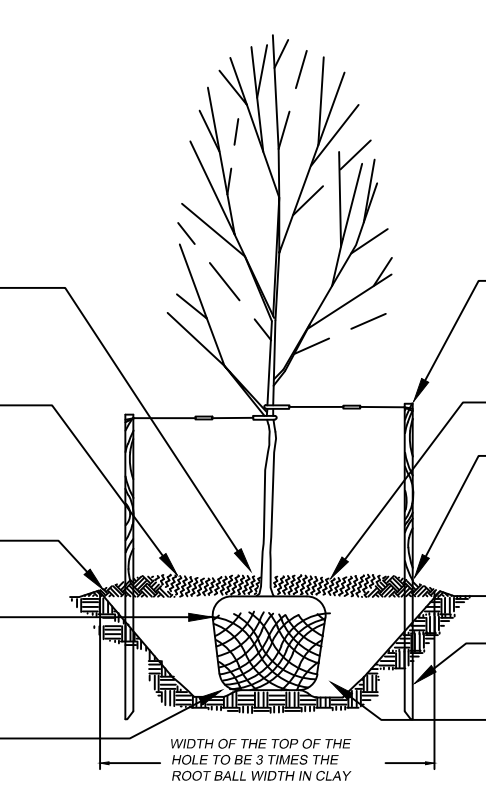
### LEGEND

	PROPERTY LINE
	TREE SAVE AREA
	ACTIVE OPEN SPACE
	PASSIVE OPEN SPACE
	COMMON AREA



BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	TYPE	REMARKS
ACER SACCHARUM	SUGAR MAPLE	2.5" CAL, 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
ULMUS PARVIFOLIA	LACEBARK ELM	2.5" CAL, 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
QUERCUS ACUTISSIMA	SAWTOOTH OAK	2.5" CAL, 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
PISTACIA CHINENSIS	CHINESE PISTACHIO	2.5" CAL, 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.
ACER SACCHARUM	SUGAR MAPLE	2.5" CAL, 12' MIN.	B&B	STREET TREES	SINGLE STRAIGHT LEADER. FULL & HEAVY.

**CANOPY SAVE DATA**  
CANOPY SAVE REQUIRED: 100,460 SF  
CANOPY SAVE PROVIDED: 105,606 SF



TYPICAL TREE PLANTING

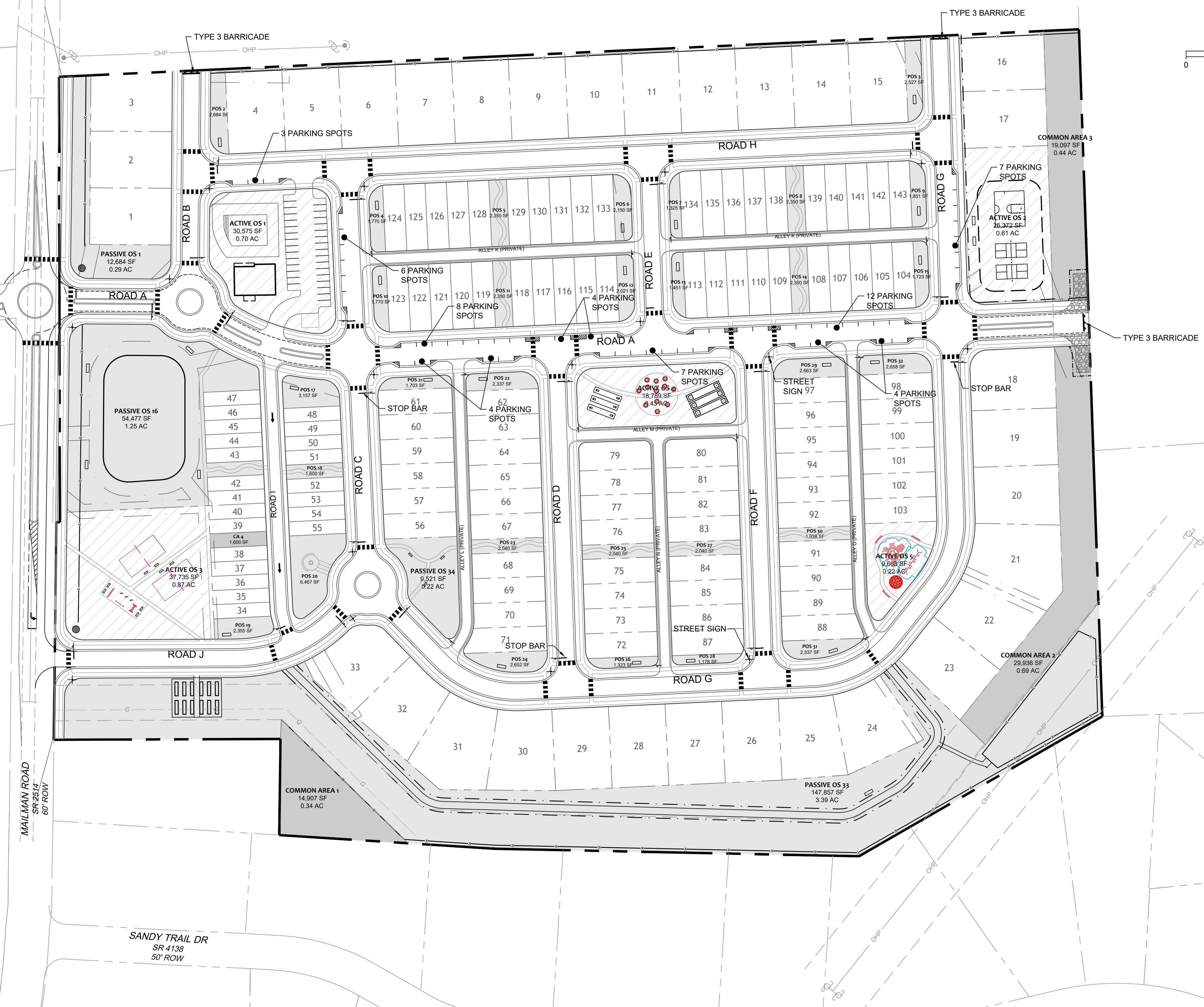
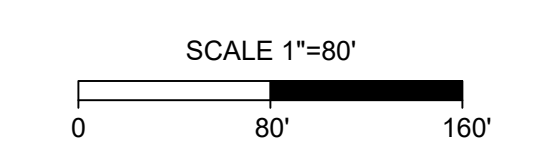
- DO NOT WRAP TRUNK. MARK THE NORTH SIDE OF THE TREE IN THE NURSERY AND LOCATE TO THE NORTH IN THE FIELD.
- TRUNK FLARE AND TOP OF ROOT BALL SHOULD BE AT GRADE IN WELL DRAINED SOIL. UP TO 4 INCHES TO OR ABOVE GRADE IN POORLY DRAINED SOILS.
- WIDTH OF PLANTING HOLE IS 3 TIMES ROOT BALL DIAMETER IN HOLES COMPACTED OR CLAY SOIL. 3 TIMES WIDER IN ALL OTHERS.
- DIG WIDE PLANTING HOLE WITH TAPERED SIDES.
- CUT BURLAP, ROPE, WIRE BASKET AWAY FROM TOP AND SIDES OF ROOT BALL.
- SET BALL ON UNDISTURBED SOIL MOUND TO PREVENT SETTLING.
- IF PLANTING HOLES ARE DIG WITH A LARGER AUGER, BREAKING DOWN THE SOIL WITH A SHOVEL CAN EVENLY MIX CLAY AND CREATE THE PREFERRED SLOPING SIDES.
- DO NOT STAKE TREES EXCEPT WHERE SPECIFIED BY LANDSCAPE ARCHITECT. IF STAKING IS NECESSARY, USE TWO OPPOSITE STAKES WITH SEPARATE FLEXIBLE TIES. REMOVE STAKING AT END OF FIRST GROWING SEASON.
- 3" (3 CM) FINE STRAW MULCH. DO NOT PLACE MULCH IN CONTACT WITH TRUNK.
- 4" (10 CM) LAYERED BED OF SOIL TO DIRECT WATER INTO ROOT BALL. SPECIALLY FORMULATED TOP OF ROOT BALL IS RAISED ABOVE GRADE.
- BEFORE PLANTING, ADD 3/4" (2-10 CM) OF WELL-COMPOSTED LEAVES, RECYCLED YARD WASTE OR OTHER COMPOST AND TILL INTO TOP 1/2" (1 CM) OF PREPARED SOIL. ADD COMPOST AT 20-35% BY VOLUME TO BACKFILL.
- EXTEND STAKES INTO UNDISTURBED SOIL. 4" (10 CM) DEEPER THAN ROOT BALL. FOR LOWERED PLANTING HOLES AS NEEDED WITH POOR DRAINAGE.
- PACK BACKFILL SOIL AROUND BASE OF ROOT BALL TO STABILIZE. ALLOW REST OF BACKFILL TO SETTLE NATURALLY OR TAMP LIGHTLY.

### NOTES

- STREET TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY.
- STREET TREES SHALL BE PLANTED BY EACH BUILDER PRIOR TO RECEIVING C.O. FOR HOUSE.
- ALL LANDSCAPING SHOULD BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE'S UDO.
- ALL PLANT MATERIALS TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.
- CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
- SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
- ALL NEW TREES TO HAVE A 5" DIAMETER SHREDDED HARDWOOD MULCH RING AT 4" DEEP UNLESS OTHERWISE NOTED OR LOCATED IN A PLANT BED PER SITE PLAN.
- LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIALS FOR A ONE YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
- AREAS DAMAGED BY LANDSCAPE CONTRACTOR TO BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
- ALL ABOVE GROUND UTILITIES MUST BE SCREENED.



PRELIMINARY DO NOT  
USE FOR  
CONSTRUCTION



THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102 | Raleigh, NC 27607  
TEL 919.866.4951 | FAX 919.866.9824 | www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE  
09/06/2022  
DRAWN BY  
331  
DESIGNED BY  
E. ANGE  
CHECKED BY  
B. BLACKMON  
SCALE  
1" = 80'

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
MAILMAN POST  
MAILMAN ROAD, KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA  
SIGNS AND MARKINGS PLAN

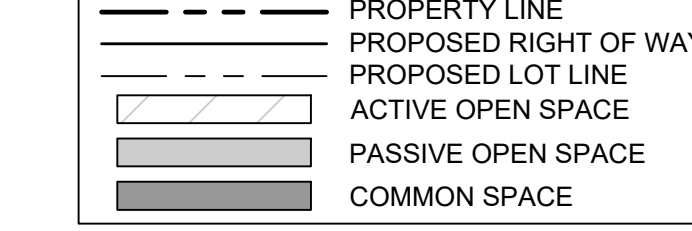
JOB NO.  
49750  
SHEET NO.  
C7.0

**SIGN LEGEND**

- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
 

SIGN	MUTCD STD.	SIZE
STOP	R1-1	30"x30"
25 MPH	R2-1	24"x30"
ROAD CLOSED	R11-2	48"x30"
STREET NAME	D3-1	VARIES"x12"
PEDESTRIAN CROSSING	W11-2	30"
PEDESTRIAN CROSSING	W16-7P	30"
- ALL SIGNS SHALL BE MOUNTED WITH 7-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LB. GALV. STEEL U-CHANNEL POST SET IN 3-FT DEEP x 12-IN DIA. CONCRETE FOOTINGS.
- ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE AND/OR NCDOT PRIOR TO SIGN INSTALLATION.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY THE TOWN OF KNIGHTDALE, THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ALL NCDOT STANDARDS AND SPECIFICATIONS.
- THE TOWN OF KNIGHTDALE REQUIRES ALL REGULATORY PAVEMENT MARKINGS TO BE HI-VIS THERMOPLASTIC, EXCEPT FOR PARKING SPACE STRIPING WHICH MAY BE WHITE PAINT, PER DETAIL 4.06.

**LEGEND**



These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced in whole or in part and shall not be used for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the express written consent of TIMMONS GROUP.