ALLEN PARK SUBDIVISION

CONSTRUCTION DOCUMENTS - PHASE III

TOWN OF KNIGHTDALE, WAKE COUNTY, NORTH CAROLINA

ZMA-#-##

ORDINANCE# 21-04-21-003

SITE DATA

PROJECT:	ALLEN PARK SUBDIVISION - PHASE III
ENGINEER:	TIMMONS GROUP 5410 TRINITY ROAD, SUITE 102 RALEIGH, NC 27607 PHONE: 919-866-4509 FAX: 919-859-5663 MIKE ZACCARDO, PE EMAIL: MIKE.ZACCARDO@TIMMONS.COM
DEVELOPER:	NATELLI COMMUNITIES 1903 N. HARRISON AVE CARY, NC 27513 PHONE: 919-868-3102 BRIAN MASSENGILL EMAIL: BRIAN@NATELLI.COM
PROPERTY LOCATION:	2300 OLD MILBURNIE ROAD WAKE COUNTY, NORTH CAROLINA
PINS:	1745-43-7184, 1745-54-5662, 1745-34-9869, PORTIONS OF 1745-54-6015
EXISTING ZONING:	GR-8 PUD (APPROVED ON 4/21/21)
TOWNSHIP:	ST. MATTHEW'S
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL
TOTAL PROPOSED UNITS:	209 TOTAL ~~113 SINGLE FAMILY PH 2~~ 100 SINGLE FAMILY PH 3 ~~91 TOWNHOMES PH 2~~ 0 TOWNHOMES PH 3
SETBACKS:	FRONT LOAD DETACHED FRONT: 10' DRIVEWAY LENGTH: 20' REAR: 20' SIDE: 5' CORNER: 10' REAR LOAD DETACHED FRONT: 10' REAR: 20' DRIVEWAY LENGTH: 20' SIDE: 3' CORNER: 10' REAR LOAD TOWNHOME FRONT: 10' DRIVEWAY LENGTH: 20' REAR: 20' BUILDING SEPARATION: 10' CORNER: 10'
DENSITY:	OVERALL SITE PROPOSED DENSITY = 4.17 DU/A
CONNECTIVITY INDEX:	OVERALL SITE NODES = 50 OVERALL SITE LINKS = 73 73 / 50 = 1.46
OPEN SPACE:	OPEN SPACE AREA PROVIDED: 5.56 AC ACTIVE OPEN SPACE AREA PROVIDED: 0 AC
TREE COVER AREA:	DEVELOPMENT PERIMETER = 15,165 LF TREE COVER AREA = 15,165 LF * 20 LF = 303,280 SF NEUSE RIVER BUFFER AREA = 465,991 SF SHOD OVERLAY AREA = 137,319 SF TREE COVERAGE PROVIDED = 603,310 SF

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # _____

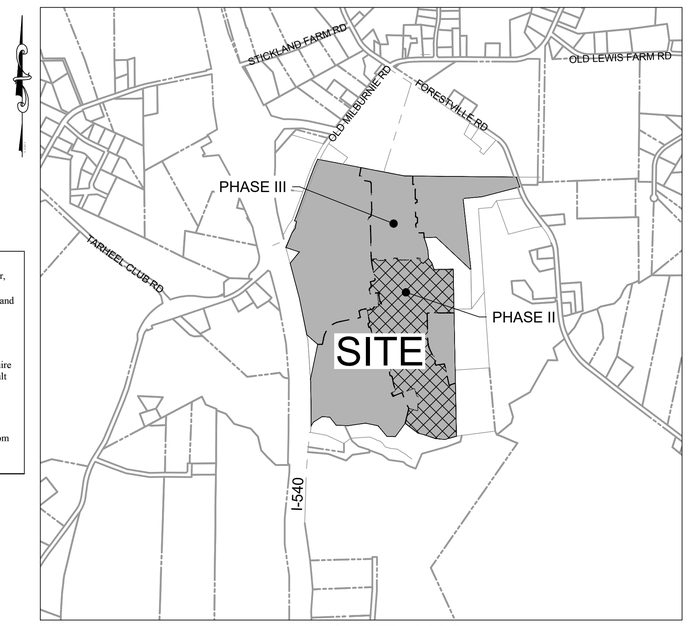
811 Know what's below. Call before you dig.

ATTENTION CONTRACTORS

The ***Construction Contractor*** responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for ***contacting*** the ***Public Works Department*** at ***(919) 996-2409***, and the ***Public Utilities Department*** at ***(919) 996-4540*** at least ***twenty four hours*** prior to beginning any of their construction.

Failure to notify both ***City Departments*** in advance of beginning construction, will result in the issuance of ***monetary fines***, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for ***Inspection***, ***Install a Downstream Plug***, have ***Permitted Plans*** on the ***Jobsite***, or any other ***Violation*** of ***City of Raleigh Standards*** will result in a ***Fine and Possible Exclusion*** from future work in the ***City of Raleigh***.



VICINITY MAP

SCALE 1"=1,000'

0 1,000' 2,000'

EROSION AND SEDIMENT CONTROL

Approved Plan

DATE : _____

Permit No. SEC-____-____

Town of Knightdale

Sedimentation & Erosion Control

(919)-217-2250

Town Inspector Signature

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

PUBLIC INFRASTRUCTURE QUANTITIES TABLE - PHASE III

Sewer			Concrete/Asphalt		
PHASE 3			**PHASE 3**		
Manholes	18	EA	Private Streets	1,119	LF
8" Public Sanitary Sewer	3,748	LF	Public Streets	4,612	LF
Sewer Services	97	EA	Public 5' Sidewalk	9,119	LF
Water			30" Curb & Gutter	9,883	LF
PHASE 3			**Site Data**		
12" Public Water main	1,821	LF	**PHASE 3**		
8" Public Water main	2,787	LF	Number of Lots	100	
6" Public Water main	55	LF	GPD Usage Water	48,000	
Water Stubs	97	EA	GPD Usage Sewer	7,500	
Fire Hydrant Assemblies	12	EA	Calculation for GPD Water (per Unit)	480	
12" Gate Valves	11	EA	Calculation for GPD Sewer (per Unit)	75	
8" Gate Valves	11	EA			
6" Gate Valves	1	EA			
12" X 12" Tees	1	EA			
12" X 8" Tees	2	EA			
12" X 6" Tees	1	EA			
8" X 8" Tees	1	EA			
8" X 6" Tees	0	EA			
12" X 12" Cross	0	EA			
12" X 8" Cross	1	EA			
8" X 8" Cross	1	EA			
12" Blow Off Assemblies	2	EA			
8" Blow Off Assemblies	1	EA			
6" Blow Off Assemblies	1	EA			
8" Water Reducers	0	EA			
6" Water Reducers	0	EA			

PIPE SPECIFICATIONS

WATER:
A) 12", 8", AND 6" CLASS 350 DUCTILE IRON PIPE
SANITARY SEWER:
B) 8" SDR 35 PVC FOR PIPES SHALLOWER THAN 12', 8" SDR 26 PVC FOR PIPES BETWEEN 12' AND 20' DEEP, 8" CLASS 250 DUCTILE IRON PIPE FOR PIPES DEEPER THAN 20'

Natelli Communities

THOUGHTFUL PLANNING
TIMELESS DESIGN
ATTENTION TO DETAIL

OWNER OF RECORD

ALLEN PARK LLC
MICHAEL J NATELLI
506 MAIN ST STE 300
GAITHERSBURG MD 20878-5768

CONSTRUCTION DRAWING APPROVAL REQUIRED FOR DEVELOPMENT

SURVEY NOTE

BOUNDARY TAKEN FROM SURVEY BY KCI ASSOCIATES, DATED JANUARY 16, 2020, CERTIFIED BY JAMES M. GELLENTHIN, PLS

a. **Town Approved Standards Shall Control.** In the event of a conflict or inconsistency between these construction drawings and the Town of Knightdale's Approved Standards for this project, the Approved Standards shall control. Town of Knightdale Approved Standards shall mean all development documents necessary for approval for the Property including, but not limited to, any special use permit, subdivision plan, site plan, subdivision plat(s), phasing schedule, Development Agreement, Utility Allocation Agreement, Annexation Agreement, the Town of Knightdale Standard Specification and Details Manual and applicable provisions of the North Carolina State Building Code.

b. **Professional Design Engineer Certification.** These improvements shall be constructed in accordance with the following drawings and with the Standard Specifications of the Town of Knightdale.

I, _____, PE, certify that the Standard Specifications of the Town of Knightdale have been thoroughly checked and found to be applicable to this project. All exceptions to the applicable Town standards have been previously approved by the Town of Knightdale and said exceptions are shown on Sheet(s) _____ of these drawings.

Seal By: _____, PE
Date: _____

Sheet List Table

Sheet Number	Sheet Title
C0.0	COVER
C0.1	PROJECT NOTES
C1.0	OVERALL EXISTING CONDITIONS
C1.1	EXISTING CONDITIONS - SHEET 1 OF 3
C1.2	EXISTING CONDITIONS - SHEET 2 OF 3
C1.3	EXISTING CONDITIONS - SHEET 3 OF 3
C1.4	OVERALL ENVIRONMENTAL SURVEY
C1.5	ENVIRONMENTAL SURVEY - SHEET 1 OF 3
C1.6	ENVIRONMENTAL SURVEY - SHEET 2 OF 3
C1.7	ENVIRONMENTAL SURVEY - SHEET 3 OF 3
C2.0	OVERALL SITE PLAN
C2.1	SITE PLAN - SHEET 1 OF 3
C2.2	SITE PLAN - SHEET 2 OF 3
C2.3	SITE PLAN - SHEET 3 OF 3
C2.4	SIGNAGE AND MARKING PLAN - SHEET 1 OF 3
C2.5	SIGNAGE AND MARKING PLAN - SHEET 2 OF 3
C2.6	SIGNAGE AND MARKING PLAN - SHEET 3 OF 3
C3.0	OVERALL UTILTIY PLAN
C3.1	UTILITY PLAN- SHEET 1 OF 3
C3.2	UTILITY PLAN- SHEET 2 OF 3
C3.3	UTILITY PLAN- SHEET 3 OF 3
C3.4	SANITARY SEWER SCHEDULE
C4.0	OVERALL GRADING AND DRAINAGE PLAN
C4.1	GRADING AND DRAINAGE PLAN - SHEET 1 OF 3
C4.2	GRADING AND DRAINAGE PLAN - SHEET 2 OF 3
C4.3	GRADING AND DRAINAGE PLAN - SHEET 3 OF 3
C4.4	STORM SEWER SCHEDULE
C4.5	STORM SEWER SCHEDULE
C5.1	NICHOLS RIDGE DRIVE PLAN & PROFILE
C5.2	LAMPLIGHTER DRIVE PLAN & PROFILE
C5.3	NICHOLS VIEW COURT PLAN & PROFILE
C5.4	EDGEPARK DRIVE PLAN & PROFILE - SHEET 1 OF 2
C5.5	EDGEPARK DRIVE PLAN & PROFILE - SHEET 2 OF 2
C5.6	SILVER LAUREL LANE PLAN & PROFILE
C5.7	CHERRY VALE LANE PLAN & PROFILE
C5.8	GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 1 OF 4
C5.9	GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 2 OF 4
C5.10	GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 3 OF 4
C5.11	GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 4 OF 4
C5.12	ESWORTHY COURT PLAN & PROFILE
C5.13	CENTRAL PARK DRIVE PLAN & PROFILE
C5.14	FLINT HILL LANE PLAN & PROFILE
C5.15	HEATHER HALL LANE PLAN & PROFILE
C5.16	PLEASANT GATE PLAN & PROFILE
C5.17	POTTING SHED LANE PLAN & PROFILE
C5.18	CHARTWELL LANE PLAN & PROFILE
C5.19	FLOWER GATE PLAN & PROFILE
C5.20	ALLEY A PLAN & PROFILE
C5.21	ALLEY J PLAN & PROFILE
C5.22	ALLEY K PLAN & PROFILE
C5.23	ALLEY M PLAN & PROFILE
C5.24	ALLEY N PLAN & PROFILE
C5.25	STORM OUTFALL PROFILES
C5.26	STORM OUTFALL PROFILES
C5.27	SEWER OUTFALL1 PLAN & PROFILE
C5.28	SEWER OUTFALL 2 PLAN & PROFILE
C6.1	SCM 3 PLAN & PROFILE
C6.2	SCM PLANTING PLAN & DETAILS
C6.3	SCM NOTES & DETAILS
C7.0	OVERALL LANDSCAPING PLAN
C7.1	LANDSCAPING PLAN - SHEET 1 OF 3
C7.2	LANDSCAPING PLAN - SHEET 2 OF 3
C7.3	LANDSCAPING PLAN - SHEET 3 OF 3
C7.4	LANDSCAPING NOTES AND DETIALS
C8.0	OVERALL LIGHTING PLAN
C8.1	LIGHTING PLAN - SHEET 1 OF 3
C8.2	LIGHTING PLAN - SHEET 2 OF 3
C8.3	LIGHTING PLAN - SHEET 3 OF 3
C9.1	SITE DETAILS - SHEET 1 OF 3
C9.2	SITE DETAILS - SHEET 2 OF 3
C9.3	SITE DETAILS - SHEET 3 OF 3
C9.4	WATER & SEWER DETAILS - SHEET 1 OF 2
C9.5	WATER & SEWER DETAILS - SHEET 2 OF 2
C9.6	STORM DETAILS

Sheet List Table

Sheet Number	Sheet Title
EC0.0	COVER
EC1.0	OVERALL EXISTING CONDITIONS
EC2.0	OVERALL EROSION CONTROL PLAN- STAGE 1
EC2.01	CONSTRUCTION SEQUENCE AND NOTES
EC2.1	STAGE 1 EROSION CONTROL PLAN (SHEET 1 OF 3)
EC2.2	STAGE 1 EROSION CONTROL PLAN (SHEET 2 OF 3)
EC2.3	STAGE 1 EROSION CONTROL PLAN (SHEET 3 OF 3)
EC2.4	STAGE 1 DRAINAGE MAP
EC3.0	OVERALL EROSION CONTROL PLAN- STAGE 2
EC3.1	STAGE 2 EROSION CONTROL PLAN (SHEET 1 OF 3)
EC3.2	STAGE 2 EROSION CONTROL PLAN (SHEET 2 OF 3)
EC3.3	STAGE 2 EROSION CONTROL PLAN (SHEET 3 OF 3)
EC3.4	STAGE 2 DRAINAGE AREA
EC4.0	OVERALL EROSION CONTROL PLAN-STAGE 3
EC4.1	STAGE 3 EROSION CONTROL PLAN (SHEET 1 OF 3)
EC4.2	STAGE 3 EROSION CONTROL PLAN (SHEET 2 OF 3)
EC4.3	STAGE 3 EROSION CONTROL PLAN (SHEET 3 OF 3)
EC4.4	STAGE 3 DRAINAGE AREA
EC5.0	NOTES & DETAILS (SHEET 1 OF 4)
EC5.1	NOTES & DETAILS (SHEET 2 OF 4)
EC5.2	NOTES & DETAILS (SHEET 3 OF 4)
EC5.3	NOTES & DETAILS (SHEET 4 OF 4)

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION

DATE

DATE 07/11/2024

DRAWN BY 331

DESIGNED BY 331

CHECKED BY A. STONE

SCALE N/A

JOB NO. 44529

SHEET NO. C0.0

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

COVER

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GENERAL NOTES

1. BOUNDARY SURVEY TAKEN FROM KCI ASSOCIATES, DATED JANUARY 16, 2020, CERTIFIED BY JAMES. M GELLENTHIN, PLS.
2. TOPOGRAPHY IS FROM SURVEY BY TAYLOR LAND ON 11/1/2021.
3. THE CONTRACTOR SHALL CONTACT NC ONE CALL CENTER PRIOR TO ANY DIGGING.
4. ALL PUBLIC WATER IMPROVEMENTS SHALL CONFORM TO ALL WAKE COUNTY PUBLIC UTILITIES DEPT. AND NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DEPARTMENT OF ENVIRONMENTAL HEALTH PUBLIC WATER SUPPLY STANDARDS AND SPECIFICATIONS. ALL SANITARY SEWER IMPROVEMENTS SHALL CONFORM TO ALL WAKE COUNTY PUBLIC UTILITIES DEPT. AND NCDENR DWQ STANDARDS AND SPECIFICATIONS.
5. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY CONFLICT BEFORE PERFORMING WORK IN THE AFFECTED AREA.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
7. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE PIPES ARE BEING PLACED, DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL GOVERNMENTAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS AT THE SOLE COST OF THE CONTRACTOR.
9. WORK BEING PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED IN THE AREA BY OTHER CONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.

ZONING CONDITIONS

1. TOWNHOMES SHALL BE TWO-STORY HOMES WITH A MINIMUM WIDTH OF 22' WIDE AND HAVE A MINIMUM HEATED AREA OF 1,500 SQUARE FEET.
2. NEO TRADITIONAL SINGLE FAMILY DETACHED HOMES SHALL BE REAR LOADED TWO-STORY HOMES BUILT ON LOTS LESS THAN 60 FEET WIDE WITH A MINIMUM HEATED AREA OF 1,500 SQUARE FEET.
3. SINGLE FAMILY RANCH DETACHED HOMES SHALL BE BUILT ON LOTS TYPICALLY 60 FEET WIDE, BUT UP TO 20 HOMES MAY BE BUILT ON LOTS THAT ARE AT LEAST 55 FEET WIDE, WITH A MINIMUM HEATED AREA OF 1,480 SQUARE FEET, AND NO MORE THAN 25% OF THE RANCH HOMES MAY BE LESS THAN 1,500 SQUARE FEET.
4. TRADITIONAL SINGLE FAMILY DETACHED HOMES SHALL BE TWO-STORY HOMES BUILT ON LOTS AT LEAST 60 FEET WIDE WITH A MINIMUM HEATED AREA OF 2,100 SQUARE FEET. NO MORE THAN 10% OF THE TRADITIONAL SINGLE FAMILY DETACHED HOMES MAY BE HOMES LESS THAN 35' WIDE.
5. ALL HOMES WILL EITHER CONSIST OF A SINGLE MATERIAL OF BRICK OR STONE OR WILL HAVE A COMBINATION OF 2 OR MORE OF THE FOLLOWING MATERIALS ON THE FRONT FACADE (NOT INCLUDING FOUNDATIONS): STONE, BRICK, LAP SIDING, FIBER CEMENT SIDING, SHAKES, OR BOARD AND BATTEN SIDING, WITH SIDE AND REAR FACADES OF FIBER CEMENT SIDING. WHEN 2 MATERIALS ARE USED, THE MATERIALS SHALL BE DIFFERENT BUT COMPLIMENTARY COLORS. VINYL MAY ONLY BE USED OF SOFFITS, FASCIA, AND CORNER BOUNDS.
6. ALL SINGLE FAMILY DETACHED HOMES WILL HAVE FRONT PORCHES WITH A MINIMUM DEPTH OF 5 FEET. TOWNHOMES WILL HAVE FRONT PORCHES WITH A MINIMUM DEPTH OF 3 FEET.
7. ALL TRADITIONAL SINGLE FAMILY DETACHED HOMES WILL HAVE A REAR PATIO OR DECKS A MINIMUM OF 10' X 10'. ALL SINGLE FAMILY RANCHED DETACHED HOMES WILL HAVE A MINIMUM 6' X 10' COVERED PATIO.
8. MAIN ROOF PITCHES (EXCLUDING PORCHES) FRONTING THE STREET WILL BE AT LEAST 7:12, WITH THE EXCEPTION OF RANCH HOMES IN WHICH 6:12 SHALL BE ALLOWED.
9. FOR EVERY 30 FEET (OR FRACTION) OF CONTINUOUS SIDE ELEVATION (CALCULATED ON A PER FLOOR BASIS), THERE SHALL BE ONE WINDOW OR DOOR ADDED TO THE SIDE ELEVATIONS. ANY SIDING BREAK ON THE SIDE OF THE HOME, SUCH AS A FIREPLACE, SIDE PORCH, OR WALL OFFSETS MAY BE USED AS AN ALTERNATE TO WINDOWS.
10. THERE SHALL BE A MINIMUM 12 INCH OVERHANG ON EVERY GABLE END FOR EVERY HOME.
11. GARAGES ON ALL NEO TRADITIONAL SINGLE FAMILY DETACHED HOMES AND TOWNHOMES SHALL BE ALLEY FED.
12. ALL FRONT LOADED GARAGE DOORS SHALL HAVE GLASS WINDOWS AND CARRIAGE STYLE HARDWARE.
13. ALL SINGLE FAMILY DETACHED HOMES SHALL BE RAISED FROM THE FINISHED GRADE A MINIMUM OF 18" AND SHALL HAVE STEM WALL OR RAISED SLAB FOUNDATIONS THAT SHALL BE COVERED ON ALL SIDES WITH BRICK OR STONE. AREAS UNDER PORCHES MAY BE ENCLOSED WITH LATTICE.
14. ALL SINGLE FAMILY ATTACHED HOMES SHALL BE RAISED FROM THE FINISHED GRADE A MINIMUM OF 18" AND SHALL HAVE STEM WALL OR RAISED SLAB FOUNDATIONS THAT SHALL BE COVERED ON ALL SIDES WITH BRICK OR STONE. AREAS UNDER PORCHES MAY BE ENCLOSED WITH LATTICE.
15. ANY SINGLE FAMILY HOMES WITH A CRAWL SPACE SHALL BE WRAPPED IN BRICK, OR STONE ON ALL SIDES.
16. ALL HOMES SHALL HAVE FRONT DOOR GLASS INSERTS.
17. GARAGES FOR LOTS THAT ARE TYPICALLY AT LEAST 60 FEET WIDE, THOUGH SOME MAY BE 55 FEET WIDE, WILL NOT PROTRUDE MORE THAN SIX (6) FEET FROM THE FRONT PORCH OR STOOP AND ALL GARAGE DOORS SHALL HAVE WINDOW INSERTS AND HARDWARE.
18. GARAGE DOORS FOR THE FRONT LOAD SINGLE FAMILY DETACHED HOMES SHALL BE DOUBLE GARAGE DOORS. THE WIDTH OF THE FRONT FACADE OF THE GARAGE SHALL NOT EXCEED 60% OF THE CORRESPONDING FRONT FACADE'S TOTAL WIDTH. A DECORATIVE TRELLIS ABOVE THE GARAGE DOOR WILL BE INCLUDED ON ALL SINGLE FAMILY RANCH HOMES.

UDO EXCEPTIONS

TRANSPORTATION NETWORK
AN EXCEPTION TO NOT CONSTRUCT THE FUTURE FORESTVILLE ROAD COLLECTOR IS REQUESTED. THE COLLECTOR CROSSES THIS DEVELOPMENT FOR ONLY A SMALL PORTION OF THE FUTURE ROAD.

AN EXCEPTION 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.

AN EXCEPTION TO ALLOW AN 84' PUBLIC RIGHT OF WAY STREET SECTION, A MODIFIED URBAN AVENUE SECTION FROM THE STANDARDS IN THE UDO, WITH A SMALLER MEDIAN TO PROVIDE AN ENHANCED ACCESS TO THE SECONDARY AMENITY AREA.

SECTION 6.2 OF THE KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE STATES THAT LOTS LESS THAN 60' ARE EXEMPT FROM THE RESIDENTIAL CLEARING AND GRADING REQUIREMENTS OF THAT SECTION. THE PROPOSED DEVELOPMENT WILL HAVE A MAXIMUM LOT WIDTH OF 55'. LIMITED EXEMPTIONS TO THE CLEARING AND GRADING REQUIREMENTS PRESENTED IN SECTION 6.2 OF THE UDO ARE REQUESTED FOR PROPOSED LOTS THAT ARE 60' WIDE OR WIDER.

SECTION 2.7 OF THE KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE REQUIRES THAT ANY LOT LESS THAN 80' IN WIDTH BE ACCESSED VIA AN ALLEY OR REAR LANE ACCESS. ADDITIONALLY, THE UDO REQUIRES THAT SIDE SETBACKS BE A MINIMUM OF 20% OF THE LOT WIDTH (TO A MINIMUM OF 6 FEET), AND DRIVEWAY LENGTH BE A MINIMUM OF 35'. IT IS PROPOSED THAT THE MINIMUM LOT WIDTH STANDARD BE REDUCED TO 55', SIDE SETBACKS BE REDUCED TO A MINIMUM OF 3 FEET, AND DRIVEWAY LENGTHS BE REDUCED TO A MINIMUM OF 20 FEET IN ORDER TO BE ADEQUATELY DEVELOPED WITHIN THE SITE'S CONSTRAINTS.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE N/A

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA
PROJECT NOTES

JOB NO. 44529
SHEET NO. C0.1

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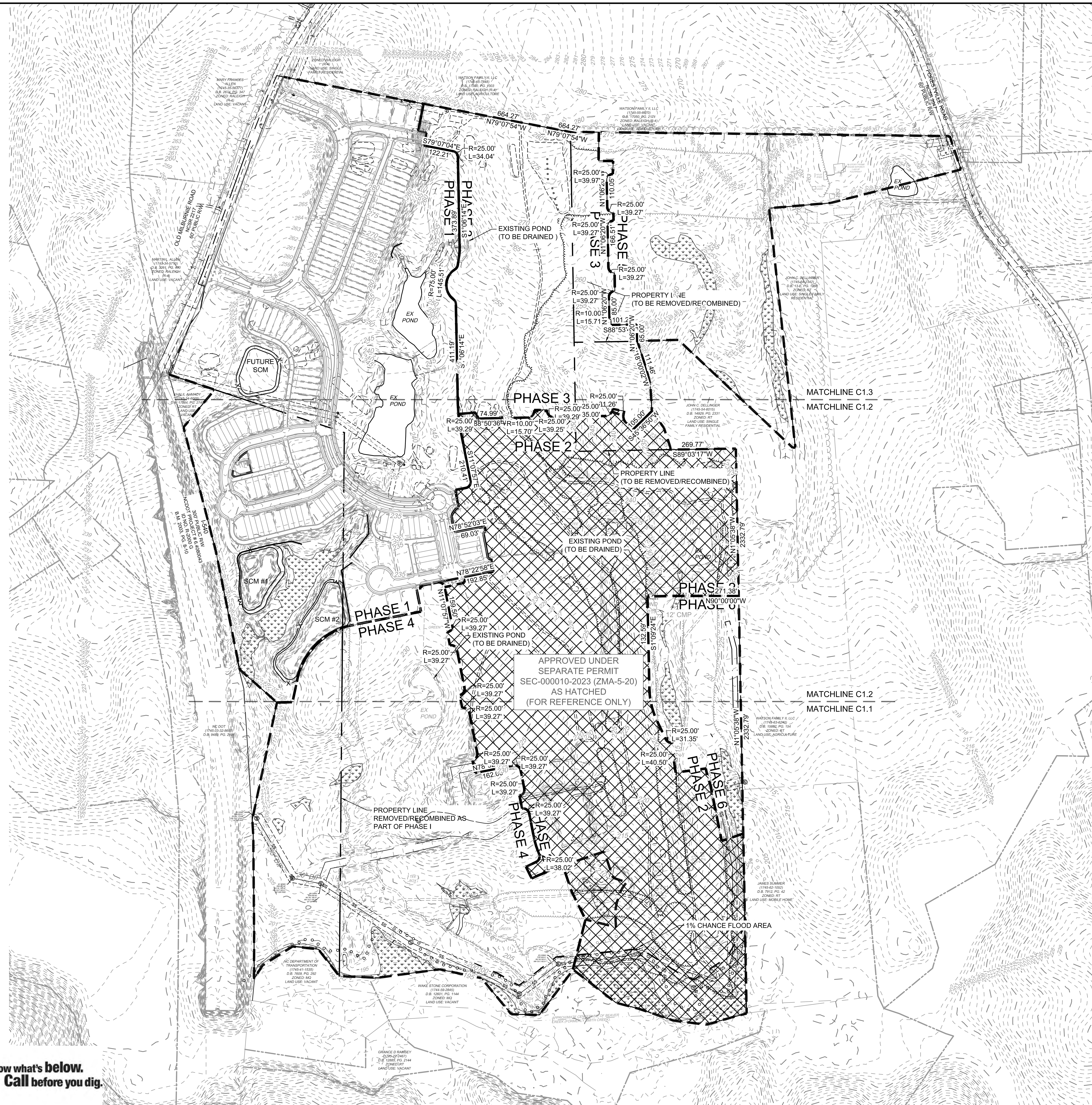

LEGEND

- PROPERTY LINE
- 1% CHANCE FLOOD LINE
- NEUSE STREAM BUFFER
- WETLANDS

NOTES:
1. BOUNDARY TAKEN FROM SURVEY FROM KCI ASSOCIATES DATED JANUARY 16, 2020.
2. TOPOGRAPHIC INFORMATION BY TAYLOR LAND DATED NOVEMBER 1, 2021
3. WETLAND AND STREAM DELINEATION BY SOIL & ENVIRONMENTAL CONSULTANTS, PA DATED DECEMBER 03, 2020.
4. THE SUBJECT PROPERTY IS LOCATED IN ZONE X & AE IN ACCORDANCE WITH FIRM MAP #3720174500K, WITH AN EFFECTIVE DATE OF JULY 19, 2022.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: ______________________ DATE: __________
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: ______________________ DATE: __________
ADMINISTRATOR

LEGEND

- IPF - IRON PIPE FOUND
- IRF - IRON ROD FOUND
- IPS - IRON PIPE SET
- CP - COMPUTED EASEMENT POINT
- CMF - CONCRETE MONUMENT
- MNF - MAG NAIL FOUND
- CP - COMPUTED POINT
- CSF - COTTON SPINDLE FOUND
- BFP BACKFLOW PREVENTER
- VW WATER VAULT
- VT TELEPHONE VAULT
- TC TRAFFIC CONTROL BOX
- VP POWER VAULT
- VU UTILITY VAULT
- WF - WETLAND FLAG
- RCP - REINFORCED CONCRETE PIPE
- CMP - CORRUGATED METAL PIPE
- VCP - VITRIFIED CLAY PIPE
- DIP - DUCTILE IRON PIPE
- HDPE - HIGH DENSITY POLYETHYLENE PIPE
- FES - FLARED END SECTION
- MKF - FIBER OPTIC MARKER
- MKG - GAS MARKER
- TVP - TELEVISION PEDESTAL
- SIGP - SIGNAL POLE
- HVAC - HEATING, VENTILATION AND AIR CONDITIONING
- LSA -LANDSCAPED AREA
- R / W - RIGHT-OF-WAY
- P / L - PROPERTY LINE
- C / L - CENTERLINE
- NTS - NOT TO SCALE
- GV - GAS VALVE
- CB - CATCH BASIN
- GI - GRATE INLET
- YI - YARD INLET
- CI - CURB INLET
- EP - EDGE OF PAVING
- TBC - TOP BACK OF CURB
- CCR - CHATHAM COUNTY RECORD
- WCR - WAKE COUNTY RECORDS
- DB - DEED BOOK
- PB - PLAT BOOK
- PG - PAGE
- SF - SQUARE FEET
- (XXXX) - SITE ADDRESS
- MH DRAINAGE
- MH SANITARY
- MH ELECTRIC
- MH TELEPHONE
- MH WATER
- STORM INLET
- ELECTRIC BOX
- TELEPHONE PEDESTAL
- CABLE TV PEDESTAL
- SIGN
- ELECTRIC METER
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- YARD LIGHT
- GROUND LAMP
- SPRINKLER BOX
- SPRINKLER HEAD
- SPRINKLER VALVE
- GAS TEST LOCATION
- GAS METER
- GAS VALVE
- FLAG POLE
- TREE
- BOLLARD
- BOREHOLE
- AC UNIT
- MAILBOX
- CLEAN OUT
- GUY
- HC HANDICAP PARKING
- WELL
- MONITORING WELL
- ROOF DRAIN
- WATER SPIGOT
- DEED LINE
- LINE NOT SURVEYED
- STORM LINE
- SAN SANITARY LINE
- W PAINTED WATER LINE
- WETLAND BUFFER ZONE
- PAINTED STORM LINE
- CREEK TOP OF BANK
- 50' CREEK BUFFER
- FLOODWAY
- FEMA 100-YEAR FLOODPLAIN

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

S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-C1.0-EXIS.dwg | Plotted by Jeremy Edens

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE **RALEIGH OFFICE**
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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE	07/11/2024
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	A. STONE
SCALE	1"=200'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL EXISTING CONDTIONS

JOB NO. 44529

SHEET NO. C1.0

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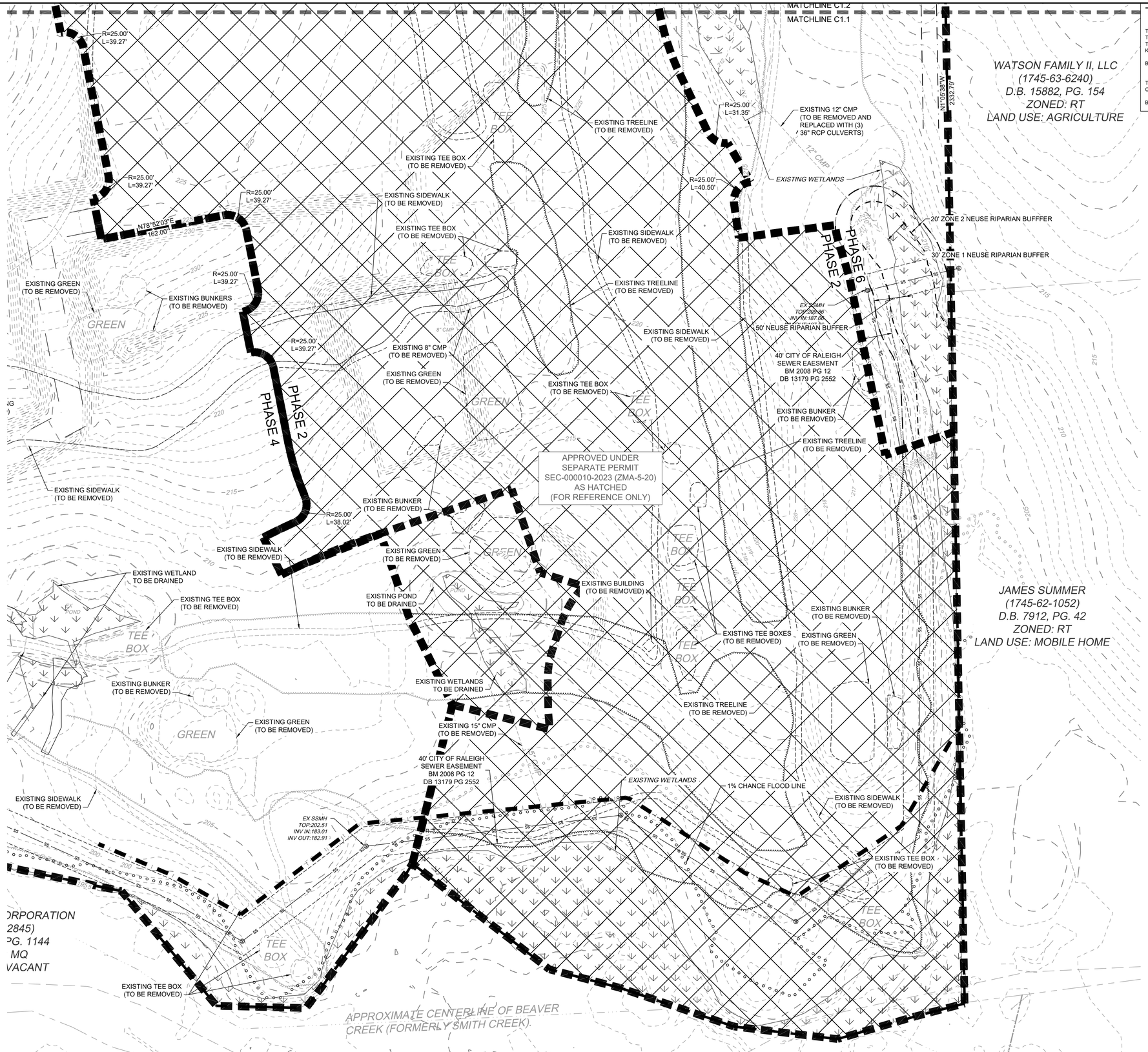

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=60'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

EXISTING CONDTIONS - SHEET 1 OF 3

JOB NO. 44529
SHEET NO. C1.1

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TOWN CERTIFICATION

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BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

EXISTING CONDTIONS - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C1.2

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APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

MATCHLINE C1.3
MATCHLINE C1.2

MATCHLINE C1.2
MATCHLINE C1.1

JOHN C. DELLINGER
(1745-54-6015)
D.B. 14929, PG. 2331
ZONED: RT
LAND USE: SINGLE FAMILY RESIDENTIAL

PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 6

EXISTING BUNKER (TO BE REMOVED)
EXISTING BUNKER (REMOVED IN PHASE 1)
EXISTING GREEN (TO BE REMOVED)
EXISTING GREEN (REMOVED IN PHASE 1)
EXISTING TREELINE (TO BE REMOVED)
EXISTING TEE BOX (TO BE REMOVED)
EXISTING TEE BOX (REMOVED IN PHASE 1)
EXISTING SIDEWALK (TO BE REMOVED)
PROPERTY LINE (TO BE REMOVED/RECOMBINED)
50' NEUSE RIPARIAN BUFFER
30' PUBLIC SANITARY SEWER EASEMENT
EXISTING POND (TO BE DRAINED)
EXISTING 12" CMP (TO BE REMOVED)
30' ZONE 1
20' ZONE 2
12" CMP
CMP
EX POND
GREEN
TEE BOX
ALLEY 1 50' PRIVATE ROW
FLINT HILL LANE 54' PUBLIC ROW - 27 B-B

R=25.00' L=39.29'
R=25.00' L=39.25'
R=10.00' L=15.70'
R=25.00' L=31.26'
R=25.00' L=35.00'
74.99' S88°50'36"W
105.00' S45°36'50"W
269.77' S89°03'17"W
S11°01'57"E 210.41'
N78°52'03"E 69.03'
N78°22'58"E 192.85'
N11°07'02"W 159.50'
N11°07'02"W 157.50'
R=25.00' L=39.27'
S10°09'24"E 132.59'
N11°05'38"W 2332.79'
271.38' N90°00'00"W

SCALE 1"=60'
0 60' 120'

MAG 63

LEGEND
PROPERTY LINE
1% CHANCE FLOOD AREA
NEUSE STREAM BUFFER
WETLANDS

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

S:\331\44529-WL_MAR\DWG\Sheet\CD\Phase III\44529-331-C1.0-EXIS.dwg | Plotted by Jeremy Edens

LAND USE: AGRICULTURE

EXISTING GAS TANKS (TO BE REMOVED)

EXISTING BUILDING (TO BE REMOVED)

EXISTING DI (TO BE REMOVED)

664.27'
N79°07'54"W

EXISTING GREEN (TO BE REMOVED)

EXISTING BUNKER (TO BE REMOVED)

664.27'
N79°07'54"W

WATSON FAMILY II, LLC
(1745-55-6670)
D.B. 17050, PG. 2171
ZONED: RALEIGH (R-4)
LAND USE: VACANT
LAND USE: AGRICULTURE

PHASE 1
PHASE 3

GAS TANKS

DI

NICHOLS VIEW COURT
54' PUBLIC ROW - 27' B-B

GREEN

S79°07'04"E
122.21'

R=25.00'
L=34.04'

TEE BOX

EXISTING BUNKER (TO BE REMOVED)

EXISTING TEE BOX (TO BE REMOVED)

EXISTING DRIVING RANGE (TO BE REMOVED)

50' NEUSE RIPARIAN BUFFER

50' NEUSE RIPARIAN BUFFER

PHASE 1

PHASE 3

S17°06'14"E
373.89'

EXISTING POND (TO BE DRAINED)

EXISTING WETLANDS (TYP)

NICHOLS VIEW COURT
54' PUBLIC ROW - 27' B-B

R=75.00'
L=45.51'

EX POND

EXISTING SIDEWALK (TO BE REMOVED)

S17°06'14"E
411.19'

EXISTING 8" PVC

EXISTING 8" CMP

EXISTING TREELINE (TO BE REMOVED)

EX POND

EXISTING BUNKER (TO BE REMOVED)

R=25.00'
L=39.29'

74.99'
S88°50'36"W

R=10.00'
L=15.70'

R=25.00'
L=39.25'

PHASE 3
PHASE 2

R=25.00'
L=39.29'

R=25.00'
L=35.00'

105.00'
S42°36'58"W

R=25.00'
L=31.26'

MATCHLINE C1.3
MATCHLINE C1.2

JOHN C. DELLINGER
(1745-54-6015)
D.B. 14929, PG. 2331
ZONED: RT
LAND USE: SINGLE FAMILY RESIDENTIAL

PHASE 3

PHASE 5

50' NEUSE R

R=25.00'
L=39.97'

N17°08'20"W
110.05'

R=25.00'
L=39.27'

EXISTING TREELINE (TO BE REMOVED)

R=25.00'
L=39.27'

N17°08'20"W
165.51'

PHASE 5
PHASE 3

R=25.00'
L=39.27'

EXISTING WETLANDS

R=25.00'
L=39.27'

PROPERTY LINE (TO BE REMOVED/RECOMBINED)

N1°06'20"W
85.00'

R=10.00'
L=15.71'

101.22'
S88°53'40"W

N1°06'20"W
65.00'

50' N

N18°20'02"E
11.46'

NAD 83

SCALE 1"=60'
0 60' 120'

LEGEND
- PROPERTY LINE
- 1% CHANCE FLOOD AREA
- NEUSE STREAM BUFFER
- WETLANDS

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

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=60'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

EXISTING CONDITIONS - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C1.3

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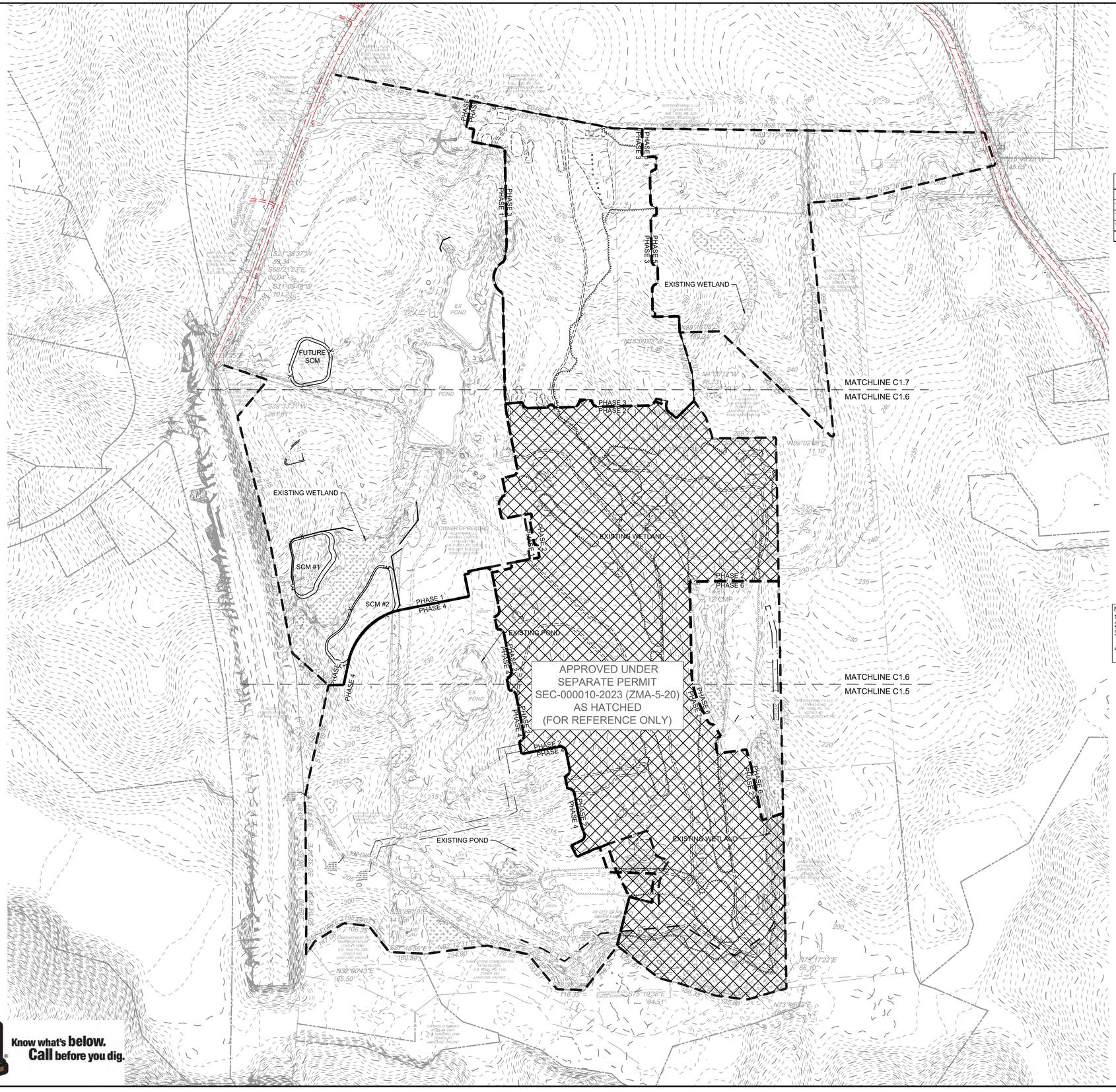
S:\331\44529-WL_MAP\DWGS\Sheet\02\Phase III\44529-331-C1.0-EXIS.dwg | Plotted by Jeremy Edens



Tree Preservation			
	Total Tree Inches	Applicable Tree Inches	Number of Trees Required for Replacement
Tier 1	2499	0	0
Tier 2	7135	4558	381
Tier 3	12919	6469	540
Total	22553	11027	921

NAD 83

SCALE 1"=200'

0 200' 400'

LEGEND

- PROPERTY LINE
- 1% CHANCE FLOOD AREA
- NEUSE STREAM BUFFER
- WETLANDS

NOTES:
1. BOUNDARY TAKEN FROM SURVEY BY TIMMONS GROUP DATED JANUARY 8, 2021.
2. TOPOGRAPHIC INFORMATION TAKEN FROM GIS DATED SEPTEMBER 2020.
3. WETLAND AND STREAM DELINEATION BY SOIL & ENVIRONMENTAL CONSULTANTS, PA DATED DECEMBER 03, 2020.
4. THE SUBJECT PROPERTY IS LOCATED IN ZONE X & AE IN ACCORDANCE WITH FIRM MAP #3720174500J, WITH AN EFFECTIVE DATE OF MAY 2, 2006.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

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- WCR - WAKE COUNTY RECORDS
- DB - DEED BOOK
- PB - PLAT BOOK
- PG - PAGE
- SF - SQUARE FEET
- XXXX - SITE ADDRESS
- MH DRAINAGE
- MH SANITARY
- MH ELECTRIC
- MH TELEPHONE
- MH WATER
- STORM INLET
- ELECTRIC BOX
- TELEPHONE PEDESTAL
- CABLE TV PEDESTAL
- SIGN
- ELECTRIC METER
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- YARD LIGHT
- GROUND LAMP
- SPRINKLER BOX
- SPRINKLER HEAD
- SPRINKLER VALVE
- GAS TEST LOCATION
- GAS METER
- GAS VALVE
- FLAG POLE
- TREE
- BOLLARD
- BOREHOLE
- AC UNIT
- MAILBOX
- CLEAN OUT
- GUY
- HC HANDICAP PARKING
- WELL
- MONITORING WELL
- ROOF DRAIN
- WATER SPIGOT
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- LINE NOT SURVEYED
- STORM LINE
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- PAINTED STORM LINE
- CREEK TOP OF BANK
- 50' CREEK BUFFER
- FLOODWAY
- FEMA 100-YEAR FLOODPLAIN

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=200'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL ENVIRONMENTAL SURVEY

JOB NO. 44529

SHEET NO. C1.4

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MATCHLINE C1.6
MATCHLINE C1.5

WATSON FAMILY II, LLC
(1745-63-6240)
D.B. 15882, PG. 154
ZONED: RT
LAND USE: AGRICULTURE

EXISTING WETLANDS
EXISTING WETLAND
50' NEUSE RIPARIAN BUFFER
60' NEUSE RIPARIAN BUFFER
EX 30"RM
TOP:200.65
INV IN:187.60
INV OUT:187.56

APPROVED UNDER
SEPARATE PERMIT
SEC-000010-2023
(ZMA-5-20) AS HATCHED
(FOR REFERENCE ONLY)

EXISTING POND
EXISTING WETLAND
EXISTING POND
EXISTING WETLANDS

40' CITY OF RALEIGH
SEWER EASEMENT
BM 2008 PG 2
DB 13179 PG 552

EX SSMH
TOP:202.51
INV IN:183.01
INV OUT:182.91
N31°01'13"E
13.73'

EXISTING WETLANDS
100 YEAR FLOODPLAIN

N75°17'22"E
66.10'

WAKE STONE CORPORATION
(1744-59-2845)
D.B. 12601, PG. 1144
ZONED: MQ
LAND USE: VACANT

APPROXIMATE CENTERLINE OF BEAVER
CREEK (FORMERLY SMITH CREEK).

S75°19'38"E
94.51'

JAMES SUMMER
(1745-62-1052)
D.B. 7912, PG. 42
ZONED: RT
LAND USE: MOBILE HOME

SCALE 1"=60'
0 60' 120'
NAD 83

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

LEGEND

- PROPERTY LINE
- 1% CHANCE FLOOD AREA
- NEUSE STREAM BUFFER
- WETLANDS
- EX TREE TO BE REMOVED
- EX TREE TO REMAIN

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

ENVIRONMENTAL SURVEY - SHEET 1 OF 3

JOB NO. 44529
SHEET NO. C1.5

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MATCHLINE C1.7
MATCHLINE C1.6

PHASE 3
PHASE 2

JOHN C. DELLINGER
(1745-54-6015)
D.B. 14929, PG. 2331
ZONED: RT
LAND USE: SINGLE FAMILY RESIDENTIAL

N18°44'45"W 84.73'
N18°28'46"W 84.59'
N3°47'01"W 10.19'
S89°13'31"W 269.27'
N89°02'08"E 11.10'

50' NEUSE RIPARIAN BUFFER

EXISTING WETLAND

EXISTING POND

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

OWNER OF RECORD
ALLEN PARK LLC
MICHAEL J NATELLI
(1745-43-7184)
D.B. 018861, PG. 02614
M.B. 2021, PG. 2326
ZONED: GR-8 PUD

PHASE 2
PHASE 6

MATCHLINE C1.6
MATCHLINE C1.5

SCALE 1"=60'
0 60' 120'
NAD 83

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

LEGEND

- PROPERTY LINE
- 1% CHANCE FLOOD AREA
- NEUSE STREAM BUFFER
- WETLANDS
- EX TREE TO BE REMOVED
- EX TREE TO REMAIN

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

ENVIRONMENTAL SURVEY - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C1.6

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S:\331\44529-WL_MAR\DWG\Sheet CD\Phase III\44529-331-C1.4-ENVR-SURV.dwg | Plotted by Jeremy Edens

ZONED: RAL -(R-4)
LAND USE: AGRICULTURE

WATSON FAMILY II, LLC
(1745-55-6670)
D.B. 17050, PG. 2171
ZONED: RALEIGH (R-4)
LAND USE: VACANT
LAND USE: AGRICULTURE

CLUB HOUSE
GAZEBO
GREEN
TEE BOX
DRIVING RANGE
BARN
EX POND

50' NEUSE RIPARIAN BUFFER
EXISTING WETLANDS (TYP)
EXISTING WETLAND
PHASE 1
PHASE 3
PHASE 5
PHASE 2

N89°07'05"W 1569.12'
N89°21'24"W
N88°16'06"E 168.27'
N18°00'02"W 111.46'
N4°00'12"W 76.73'

MATCHLINE C1.7
MATCHLINE C1.6

JOHN C. DELLINGER
(1745-54-6015)
D.B. 14929, PG. 2331
ZONED: RT
LAND USE: SINGLE

SCALE 1"=60'
0 60' 120'
NAD 83

TOWN CERTIFICATION

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

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

ENVIRONMENTAL SURVEY - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C1.7

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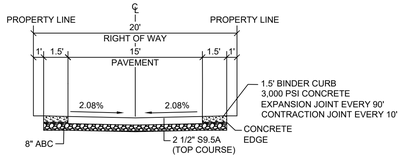
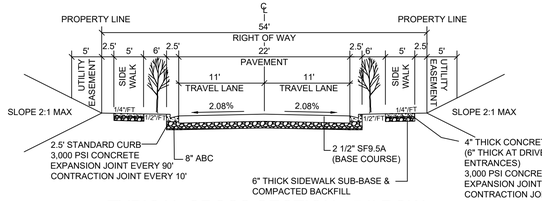
EASEMENT LEGEND

PRIVATE EASEMENTS:	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS:	
CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT



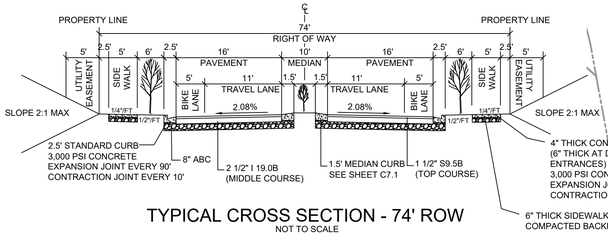
TYPICAL CROSS SECTION - REAR ALLEY

NOT TO SCALE



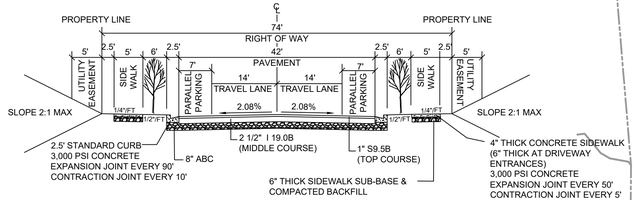
TYPICAL CROSS SECTION - 54' ROW

NOT TO SCALE



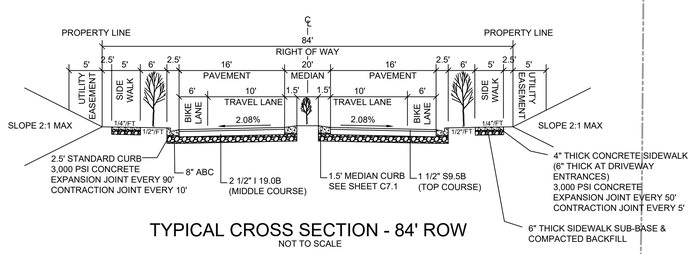
TYPICAL CROSS SECTION - 74' ROW

NOT TO SCALE



TYPICAL CROSS SECTION - 74' ROW W/ PARALLEL PARKING

NOT TO SCALE



TYPICAL CROSS SECTION - 84' ROW

NOT TO SCALE

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EASEMENT LEGEND

PRIVATE EASEMENTS:	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS:	
CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

LEGEND

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

TOWN CERTIFICATION

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BY: _____ DATE: _____
ADMINISTRATOR

COMMON AREA TABLE		
COMMON AREA 6	264,024 SF	6.06 AC
TOTAL	264,024 SF	6.06 AC

ACTIVE OPEN SPACE TABLE		
ACTIVE OPEN SPACE 6	8,400 SF	0.19 AC
ACTIVE OPEN SPACE 7	34,570 SF	0.79 AC
ACTIVE OPEN SPACE 8	110,968 SF	2.55 AC
TOTAL	153,938 SF	3.53 AC

PASSIVE OPEN SPACE TABLE		
PASSIVE OPEN SPACE 3	113,244 SF	2.60 AC
PASSIVE OPEN SPACE 5	468,010 SF	10.74 AC
TOTAL	581,254 SF	13.34 AC

ALLEY	OWNERSHIP	LENGTH (LF)
ALLEY A	PRIVATE	1,119
ALLEY F	PRIVATE	37
ALLEY J	PRIVATE	663
ALLEY K	PRIVATE	507
ALLEY M	PRIVATE	775
ALLEY N	PRIVATE	411

STREET NAME	STREET TYPE	OWNERSHIP	LENGTH (LF)
NICHOLS RIDGE DRIVE	74' ROW	PUBLIC	610
CENTRAL PARK DRIVE	74' ROW	PUBLIC	117
LAMPLIGHTER DRIVE	74' ROW	PUBLIC	751
NICHOLS VIEW COURT	54' ROW	PUBLIC	785
EDGEPARK DRIVE	74' ROW	PUBLIC	880
SILVER LAUREL DRIVE	54' ROW	PUBLIC	1,088
CHERRY VALE LANE	54' ROW	PUBLIC	1,073
GLEN HOLLOW DRIVE	54' ROW	PUBLIC	2,896
ESWORTHY COURT	54' ROW	PUBLIC	250
CENTRAL PARK DRIVE	54' ROW	PUBLIC	637
FLINT HILL LANE	54' ROW	PUBLIC	614
HEATHER HALL LANE	54' ROW	PUBLIC	801
PLEASANT GATE	54' ROW	PUBLIC	755
PLOTTING SHED LANE	54' ROW	PUBLIC	839
CHARTWELL LANE	54' ROW	PUBLIC	453
HOLLY LEAF LANE	54' ROW	PUBLIC	52
EDGEPARK DRIVE	54' ROW	PUBLIC	570
HALSIP WAY	32' ROW	PUBLIC	52
FLOWER GATE	54' ROW	PUBLIC	367

USPS NOTE

CLUSTER MAILBOXES TO BE LOCATED WITHIN NEIGHBORHOOD OPEN SPACE 3. 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.

GENERAL SITE NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF KNIGHTDALE AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
2. ROADS AND DRIVEWAYS SHALL COMPLY WITH NCDOT AND TOWN OF KNIGHTDALE STANDARDS.
3. WHERE DRAINAGE STRUCTURES ARE SHOWN WITHIN A LABELED STREET OR ALLEY, THE RIGHT OF WAY MAY ACT AS THE DRAINAGE EASEMENT.
4. 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.
5. THE WATER AND SEWER SYSTEMS SHALL COMPLY WITH CITY OF RALEIGH STANDARDS.
6. ALL DESIGN AND CONSTRUCTION METHODS SHALL COMPLY WITH WAKE COUNTY'S SEDIMENTATION AND EROSION CONTROL REGULATIONS. AN EROSION CONTROL PLAN SHALL BE APPROVED BY WAKE COUNTY PRIOR TO ANY GRADING.
7. CONSTRUCTION DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE TOWN OF KNIGHTDALE AND CITY OF RALEIGH PRIOR TO CONSTRUCTION.
8. ALL STREETS WITHIN THE SUBDIVISION WILL HAVE A POSTED SPEED LIMIT OF 25 MPH.
9. RESTRICTIVE COVENANTS SHALL BE APPROVED AND RECORDED PRIOR TO RECORDING OF FINAL PLAT.
10. STORMWATER CONTROL MEASURES SHALL BE CONTAINED IN AND ACCESSED VIA OPEN SPACE MAINTAINED AND OWNED BY THE HOMEOWNER'S ASSOCIATION. A MAINTENANCE PLAN MUST BE DEVELOPED TO ADDRESS THE STORMWATER CONTROL MEASURES.
11. PRIVATE STORM DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOA.
12. SUBDIVISION LOTS MUST BE LOTS OF RECORD PRIOR TO RECEIVING A BUILDING PERMIT.
13. PER UDO CH 17.3.G.2, ALL UTILITIES SHALL BE PLACED UNDERGROUND - INCLUDING EXISTING POLES ON OLD MILBURNIE RD & FORESTVILLE RD.

SITE DATA

DEVELOPER:
BRIAN MASSENGILL
NATELLI COMMUNITIES
1903 N. HARRISON AVE
CARY, NC 27513
BRIAN@NATELLI.COM
PHONE: 919-868-3102

ENGINEER:
TIMMONS GROUP
MIKE ZACCARDO, PE
5410 TRINITY ROAD, STE. 102
RALEIGH, NC 27607
PHONE: 919-532-3281

OWNER OF RECORD:
WILMAR II LLC, MARTIN ALLEN FAMILY LLC
2300 OLD MILBURNIE RD
KNIGHTDALE, NC 27604

EVERETT NICHOLS JR
6208 BATTLEFORD DR
RALEIGH, NC 27612

JOHN CHARLES DELLINGER
6030 FORESTVILLE RD
RALEIGH, NC 27604

PIN #S = 1745-43-7184, 1745-34-9869, 1745-54-5662, PORTION OF 1745-54-6015
DB = 18861 PG = 2614; DB = 18861 PG = 2614
DB = 18820 PG = 214; PORTION OF DB = 14929 PG = 2331

FIRM MAP# = 3720174500K EFFECTIVE 07/19/2022

TOTAL EXISTING TRACT = 72.83 ACRES
EXISTING ZONING = RT
PROPOSED ZONING = GR8 PUD

PROPOSED NUMBER OF LOTS = 100
47 60' SF
53 35' SF
0 22' TH

PROPOSED DENSITY = 4.17 DU/A

MINIMUM PROVIDED LOT WIDTH = 22'
MINIMUM LOT SIZE PROVIDED = 2,089 SQ.FT.
AVERAGE LOT SIZE PROVIDED = 5,164 SQ.FT.

OPEN SPACE REQUIRED: 23.9 ACRES
ACTIVE OPEN SPACE REQUIRED: 11.5 ACRES
TOTAL LENGTH OF PUBLIC ROADS = 27,258 LF
TOTAL LENGTH OF PRIVATE ROADS = 9,749 LF

SETBACKS:

FRONT LOAD DETACHED	REAR LOAD DETACHED
FRONT: 10'	FRONT: 10'
DRIVEWAY LENGTH: 20'	REAR: 20'
REAR: 20'	DRIVEWAY LENGTH: 20'
SIDE: 5'	SIDE: 3'
CORNER: 10'	CORNER: 10'

REAR LOAD TOWNHOME
FRONT: 10'
DRIVEWAY LENGTH: 20'
REAR: 20'
BUILDING SEPARATION: 10'
CORNER: 10'

A HOMEOWNER'S ASSOCIATION (HOA) WILL OWN AND MAINTAIN ALL OPEN SPACE PARCELS AND WILL BE RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING REQUIRED BY TOWN OF KNIGHTDALE UNIFIED DEVELOPMENT ORDINANCE (UDO).

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=200'
JOB NO.: 44529
SHEET NO.: C2.0

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

OVERALL SITE PLAN

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

LEGEND

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

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ADMINISTRATOR

SCALE 1"=60'
0 60' 120'

NAD 83

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

MATCHLINE C2.2
MATCHLINE C2.1

STA 18+24.54 LAMPLIGHTER DRIVE
STA 17+79.33 PLEASANT GATE
STA 16+80.26 ALLEY M - CHARTWELL LANE
STA 18+95.32 POTTING SHED LANE
STA 19+54.54 ALLEY M - CHARTWELL LANE
STA 20+42.34 LAMPLIGHTER DRIVE
STA 20+98.54 POTTING SHED LANE
STA 15+97.87 POTTING SHED LANE
STA 10+00.00 FLOWER GATE
STA 13+19.84 POTTING SHED LANE
STA 30+00.07 GLEN HOLLOW DRIVE
STA 35+24.83 GLEN HOLLOW DRIVE
STA 13+66.72 FLOWER GATE
STA 38+01.46 GLEN HOLLOW DRIVE
STA 24+07.69 HARTWELL LANE

84' PUBLIC ROW - 57' B-B
LAMPLIGHTER DRIVE CONTRA
PHASE 4
PHASE 2
PHASE 3
PHASE 6

VARIABLE WIDTH TOKDE
18" BINDER CURB (TYP)
30" STANDARD CURB & GUTTER (TYP)
20' PSDE
10' PAME
13.61' PSDE
30' TEMPORARY CORSSE
30' CORSSE
30' SCME
5' CONCRETE SIDEWALK (TYP)
30' TOKGE (TYP.)
VAR. WIDTH TOKDE
QUARRY OVERLAY DISTRICT
RETAINING WALL 1, DESIGNED, PERMITTED, & RAILING REQUIREMENT ASSESSMENT BY OTHERS
PROPOSED 10' WIDE GREENWAY TRAIL
EXISTING 40' CORSSE
EXISTING 30' CORSSE
EXISTING WETLANDS
1% CHANCE FLOOD LINE
QUARRY OVERLAY
SCM #3
20' SCME
PROJECT BOUNDARY

ACTIVE OPEN SPACE 8
34,570 SF
0.79 AC

ACTIVE OPEN SPACE 8
110,968 SF
2.55 AC

COMMON AREA 7
13,965 SF
0.32 AC

ACTIVE OPEN SPACE 5
468,010 SF
10.74 AC

APPROXIMATE CENTERLINE OF BEAVER CREEK (FORMERLY SMITH CREEK).

EASEMENT LEGEND

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KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

SITE PLAN - SHEET 1 OF 3

JOB NO. 44529
SHEET NO. C2.1

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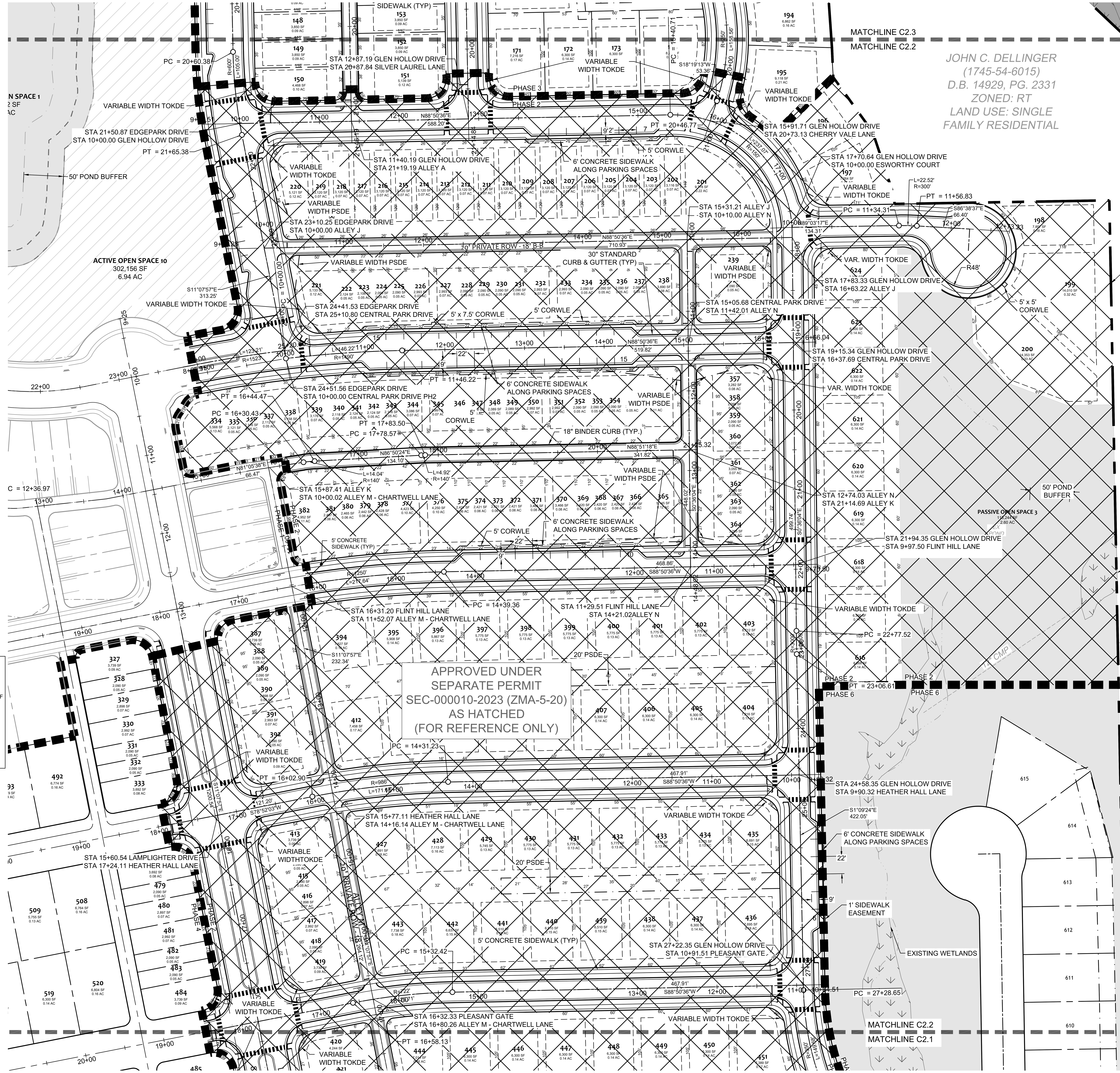

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ADMINISTRATOR

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- PROPERTY LINE
- PROPOSED RIGHT OF WAY
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- ACTIVE OPEN SPACE
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 053562 ALLISON R. STONE

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KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SITE PLAN - SHEET 2 OF 3

JOB NO.	44529
SHEET NO.	C2.2

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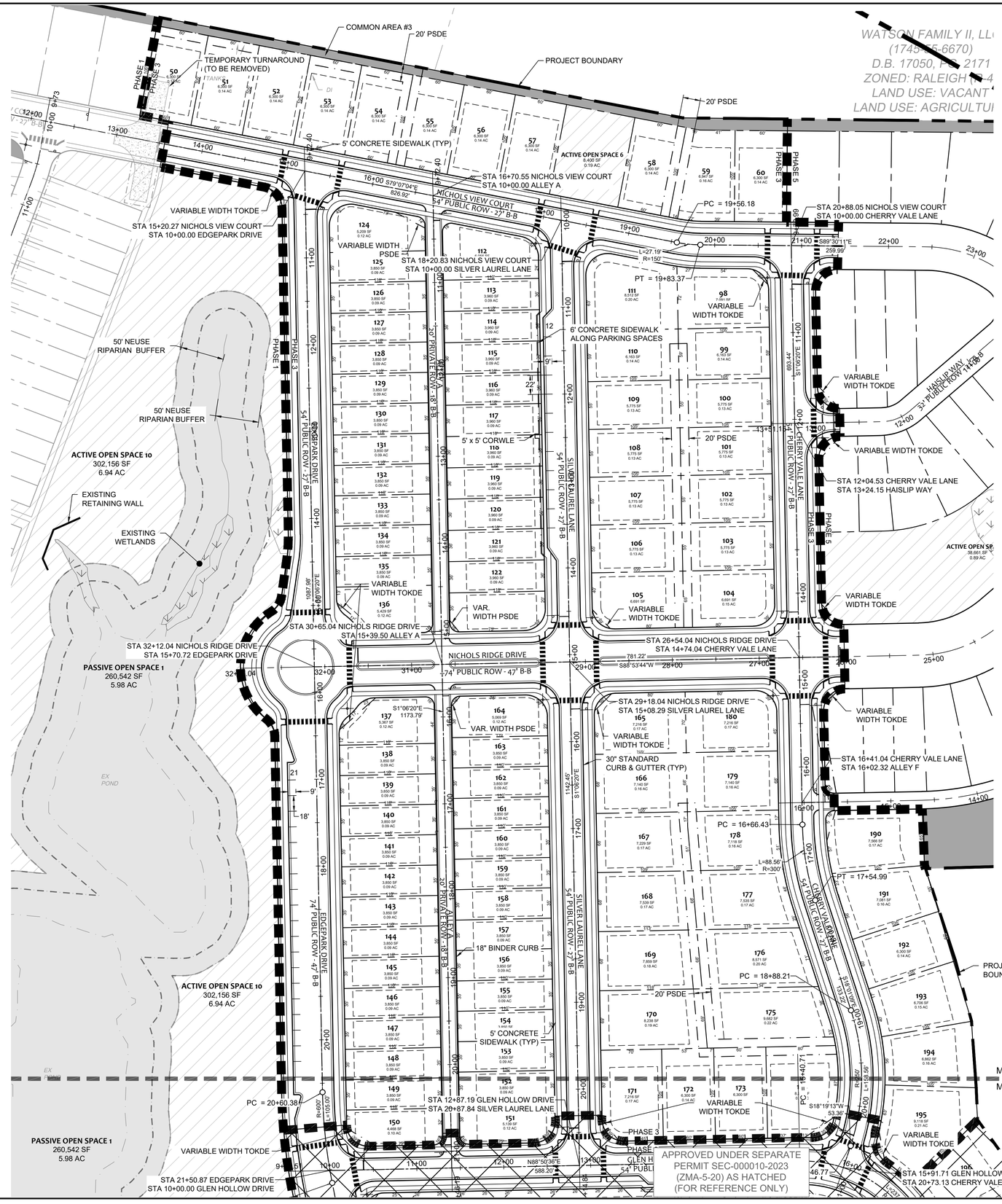

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SCME	ACCESS & MAINTENANCE EASEMENT
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CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT TOWN
TOKDE	OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT TOWN
TOKGE	OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

SCALE 1"=60'
0 60' 120'

LEGEND

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

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

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

S:\...\331\44529-WIL_MAR\CWG\Sheet\CD\Phase III\44529-331-C2.0-SITE.dwg | Plotted by Jeremy Edens

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION

DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=60'
JOB NO.: 44529
SHEET NO.: C2.3

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SITE PLAN - SHEET 3 OF 3

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BY: _____ DATE: _____
ADMINISTRATOR

SCALE 1"=60'
0 60' 120'
NAD 83

Pavement Marking Symbols - English

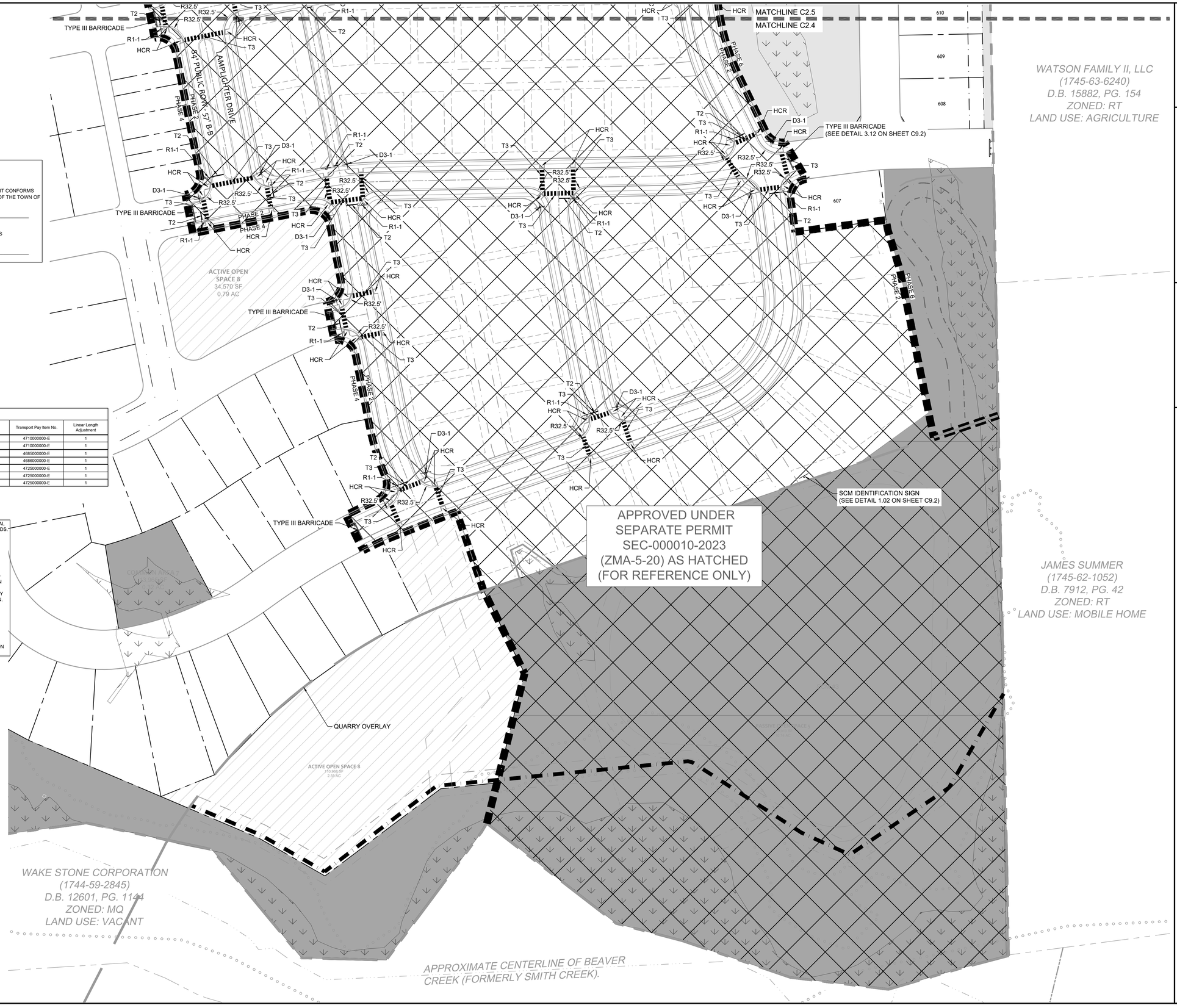
Symbol	Description	Material	Transport Pay Item No.	Linear Length Adjustment
T2	WHITE STOPBAR (24", 120 MIL)	Thermo	4710000000-E	1
T3	WHITE CROSSWALK LINE (24", 120 MIL)	Thermo	4710000000-E	1
TA	WHITE EDGELINE (4", 90 MIL)	Thermo	4685000000-E	1
TE	WHITE SOLID LANE LINE (4", 120 MIL)	Thermo	4686000000-E	1
UA	LEFT TURN ARROW (90 MIL)	Thermo	4725000000-E	1
UB	RIGHT TURN ARROW (90 MIL)	Thermo	4725000000-E	1
UF	COMBO. LEFT/RIGHT ARROW (90 MIL)	Thermo	4725000000-E	1

SIGN LEGEND

1. 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"
ROAD CLOSED	R11-2	48"x30"
STREET NAME	D3-1	VARIES"x12"
SPEED LIMIT	R2-1	24"X30"
DO NOT ENTER	R5-1	30X30"
ONE WAY	R6-1R	36X12"

2. 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 FOOTING.
3. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE AND/OR NCDOT PRIOR TO SIGN INSTALLATION.
4. 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.
5. THE TOWN OF KNIGHTDALE REQUIRES ALL REGULATORY PAVEMENT MARKINGS TO BE HI-VIS THERMOPLASTIC, EXCEPT FOR PARKING SPACE STRIPING WHICH MAY BE WHITE PAINT.
6. SEE STANDARD DETAIL 3.16 FOR PROPER PLACEMENT OF STREET SIGN ON SHEET C7.1



NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SIGNAGE AND MARKING PLAN - SHEET 1 OF 3

JOB NO. 44529
SHEET NO. C2.4

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SIGN LEGEND

1. 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"
ROAD CLOSED	R11-2	48"x30"
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3. ALL SIGNAGE SHALL BE FIELD STAKED AND THE LOCATIONS APPROVED BY THE TOWN OF KNIGHTDALE AND/OR NCDOT PRIOR TO SIGN INSTALLATION.
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6. SEE STANDARD DETAIL 3.16 FOR PROPER PLACEMENT OF STREET SIGN ON SHEET C7.1

Pavement Marking Symbols - English

Symbol	Description	Material	Transport Pay Item No.	Linear Length Adjustment
T2	WHITE STOPBAR (24", 120 MIL)	Thermo	4710000000-E	1
T3	WHITE CROSSWALK LINE (24", 120 MIL)	Thermo	4710000000-E	1
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TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

SCALE 1"=60'
0 60' 120'

LEGEND

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

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

MATCHLINE C2.6
MATCHLINE C2.5

JOHN C. DELLINGER
(1745-54-6015)
D.B. 14929, PG. 2331
ZONED: RT
LAND USE: SINGLE FAMILY RESIDENTIAL

ACTIVE OPEN SPACE 10
302,756 SF
6.94 AC

PASSIVE OPEN SPACE 3
1.38 AC
ZONED

5 PARKING SPACES

20' PRIVATE ROW - 18' B-B

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 6

TYPE III BARRICADE

20' PRIVATE ALLEY W - 18' B-B

MATCHLINE C2.5
MATCHLINE C2.4

S:\33\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-C2.7-SIGN.dwg | Plotted by Jeremy Edens

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SIGNAGE AND MARKING PLAN - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C2.5

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Pavement Marking Symbols - English

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

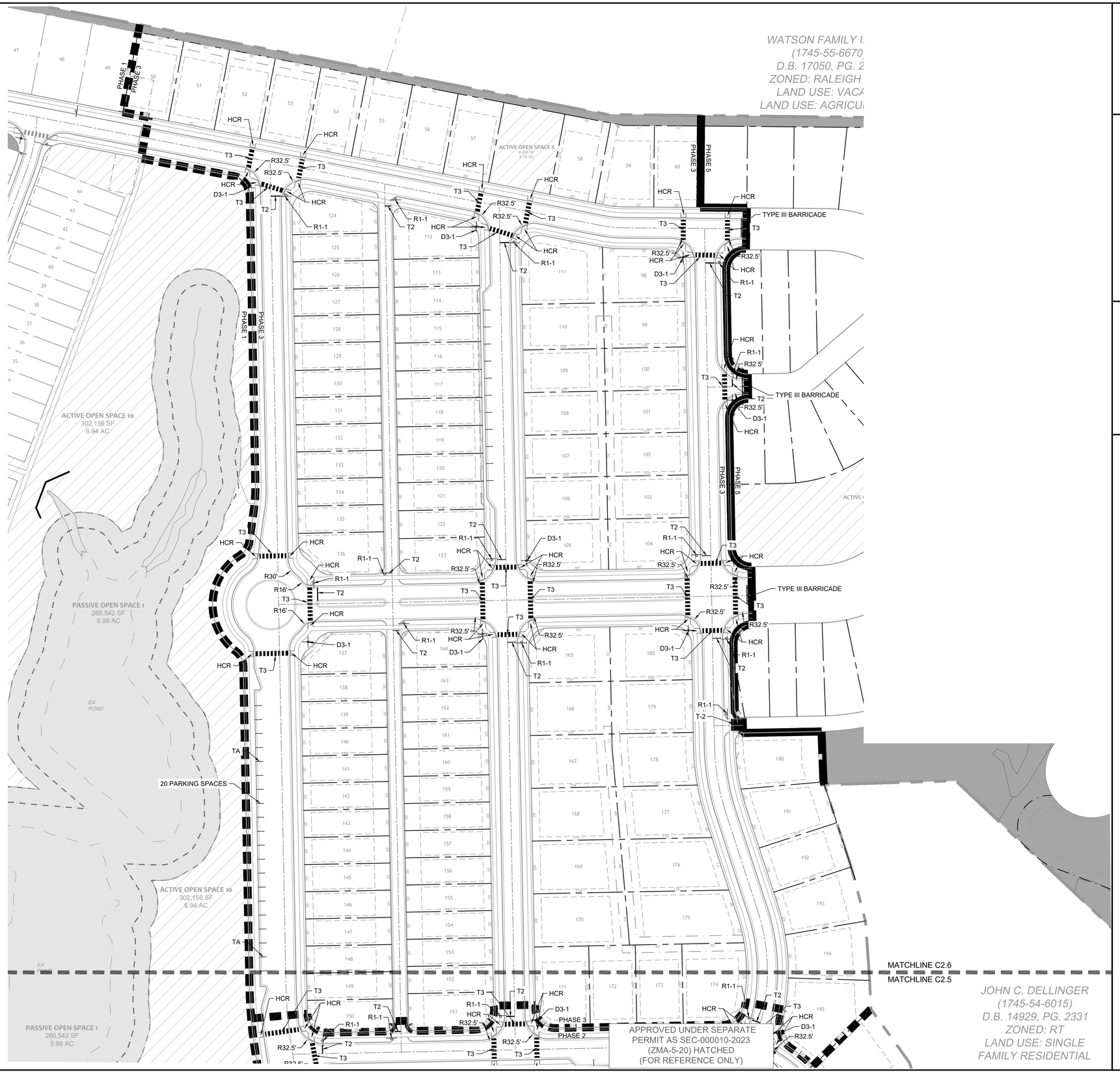
NAD 83

SCALE 1"=60'
0 60' 120'

LEGEND

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

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



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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

REVISION DESCRIPTION	DATE

DATE	07/11/2024
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	A. STONE
SCALE	1"=60'
JOB NO.	44529
SHEET NO.	C2.6

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SIGNAGE AND MARKING PLAN - SHEET 3 OF 3

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UTILITY LEGEND

- EXISTING WATER LINE
- PROPOSED WATER LINE
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF ASSEMBLY
- SANITARY MANHOLE
- PROPOSED SEWER LINE
- EXISTING SEWER LINE

NAD 83

SCALE 1"=200'

0 200' 400'

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- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

EASEMENT LEGEND

PRIVATE EASEMENTS:

PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT

PUBLIC EASEMENTS:

CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # _____

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

UTILITY NOTES

1. ALL UTILITY DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES (CORDPU) STANDARDS AND SPECIFICATIONS. UTILITY DESIGN SHALL ALSO MEET FIRE FLOW REQUIREMENTS OF NCFC.
2. UTILITY SIZES AND LOCATIONS ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO CHANGE BASED ON FINAL DESIGN AND CONSTRUCTION DRAWING APPROVAL. THIS SHALL INCLUDE BUT NOT LIMITED TO FIRE HYDRANT LOCATIONS.
3. ANY EXISTING WATER AND SEWER LINES TO BE USED AS PART OF THE FINAL DESIGN OF THE PROJECT, SHALL BE LOCATED BY SURVEY, TESTED BY A LICENSED CONTRACTOR AND APPROVED BY THE CITY OF RALEIGH INSPECTOR PRIOR TO SUBMITTAL OF CONSTRUCTION DRAWINGS.
4. AS PART OF CONSTRUCTION DRAWING SUBMITTAL, FIRE FLOW CALCULATIONS SHALL BE PROVIDED SHOWING COMPLIANCE WITH NCFC. PROJECT MAY BE DEVELOPED IN PHASES AND ALL PHASES SHALL BE REQUIRED TO MEET THE MINIMUM REQUIRED FIRE FLOWS PER OCCUPANCY PROPOSED IN EACH PHASE.
5. AN APPROVED WATER SUPPLY FOR FIRE SUPPRESSION (TEMPORARY OR PERMANENT) SHALL BE PROVIDED AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
6. UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR THIS PROJECT, PLANS TO BE PREPARED BY NC PROFESSIONAL ENGINEER.
7. RIGHT OF WAY AND/OR EASEMENT DEDICATION PLAT IS REQUIRED FOR THIS PROJECT (PRIOR TO CITY ACCEPTANCE OF UTILITIES).
8. ALL NECESSARY WETLAND, RIPARIAN BUFFER AND FLOODPLAIN PERMITS FROM USACE, NCDWQ & FEMA SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
9. PROJECT SHALL EXTEND PUBLIC WATER MAINS ALONG ALL INTERIOR AND ABUTTING RIGHT OF WAYS OF DEVELOPMENT.
10. FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT EVERY INTERSECTION AND AT 500' (RESIDENTIAL) MAX INTERVALS ALONG SITE FRONTAGE.
11. ALL MAINS UP TO 12 INCHES IN SIZE SHALL BE DESIGNED WITH A BLOW-OFF ASSEMBLY THE SAME SIZE AS THE DIAMETER OF THE PIPE.
12. ALL WATER MAINS SHALL BE PRESSURE CLASS OR THICKNESS CLASS DUCTILE IRON PIPE DESIGNED IN ACCORDANCE WITH AWWA STANDARD C-150.
13. PROJECT SHALL EXTEND PUBLIC GRAVITY SEWER TO PERIPHERY OF DEVELOPMENT BASED ON NATURAL TOPOGRAPHY.
14. ALL CITY OF RALEIGH SANITARY SEWER EASEMENTS SHALL BE A MINIMUM OF 30 FEET.
15. THE SANITARY SEWER DESIGN SHALL BE EVALUATED DURING THE CONSTRUCTION DRAWING REVIEW TO ENSURE ADJACENT PROPERTIES HAVE ACCESS TO SANITARY SEWER WHERE FEASIBLE AND IN COMPLIANCE WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT STANDARDS AND SPECIFICATIONS.
16. ALL OFF-SITE EASEMENTS SHALL BE ACQUIRED BY THE DEVELOPER. THESE OFF-SITE EASEMENTS SHALL BE RECORDED BY MAP AND BY DEED OF EASEMENT PRIOR TO CONSTRUCTION APPROVAL. THE EASEMENTS SHALL BE DEDICATED TO THE CITY OF RALEIGH AND ENTITLED "CITY OF RALEIGH SANITARY SEWER EASEMENT".
17. MAINTAIN APPROPRIATE COVER AND SEPARATION ON UTILITIES AND LABEL IN PROFILES; ANY UTILITY CROSSINGS ARE SUBJECT TO MINIMUM REQUIREMENTS.
18. CONSTRUCTION APPROVAL WILL BE REQUIRED FOR ANY EXTENSIONS OF PUBLIC WATER OR SEWER MAINS.
19. PLAT RECORDATION REQUIRED AFTER CONSTRUCTION APPROVAL PRIOR TO BUILDING PERMIT.
20. DOT ENCROACHMENT AGREEMENT REQUIRED.
21. PRIVATE WATER SERVICES SIZED ¾" - 2" SHOULD BE TYPE "K" SOFT COPPER AND IN ACCORDANCE WITH PU HANDBOOK, APP. B, STANDARD WATER DETAIL W-23 AND W-25. IF WATER METERS CANNOT BE LOCATED WITHIN THE RIGHT-OF-WAY THEY MUST BE WITHIN RECORDED "CITY OF RALEIGH WATER MAIN EASEMENTS."

CORPUD STANDARD UTILITY NOTES:

STANDARD UTILITY NOTES (AS APPLICABLE):

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
   a) 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
   b) 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
   c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS
   d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
   e) 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)
   f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED
3. 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
4. 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
5. 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
6. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
7. 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
8. INSTALL ¾" 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*
9. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
10. 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
11. 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
12. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION
13. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-4516 OR FOG@RALEIGHNC.GOV FOR MORE INFORMATION
14. 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 FROM THE RW CROSS-CONNECTION COORDINATOR FOR EACH DEVICE PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-5923 OR CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION
15. **NOTICE** FOR PROJECTS WITH REPLACED OR OVERSIZED MAINS: IF THE CITY'S REIMBURSEMENT FOR AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT PROJECT IS $250,000 OR GREATER - *THE PROJECT MUST BE PUBLICLY BID*

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.

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=200'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL UTILITY PLAN

JOB NO. 44529
SHEET NO. C3.0

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S:\331\44529-WIL_MAR\DWG\Sheet\C0\Phase III\44529-331-C3.0-UTIL.dwg | Plotted by Jeremy Edens

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

SCALE 1"=60'
0 60' 120'

NAD 83

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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City of Raleigh Public Utilities Department Permit # _____

UTILITY LEGEND

- EXISTING WATER LINE
- PROPOSED WATER LINE
- WATER VALVE
- FIRE HYDRANT
- BLOW OFF ASSEMBLY
- SANITARY MANHOLE
- PROPOSED SEWER LINE
- EXISTING SEWER LINE

LEGEND

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

UTILITY CONSTRUCTION APPROVAL IS REQUIRED FOR PROJECT DEVELOPMENT.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

EASEMENT LEGEND

PRIVATE EASEMENTS:	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS:	
CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) AS HATCHED (FOR REFERENCE ONLY)

MATCHLINE C3.2
MATCHLINE C3.1

APPROXIMATE CENTERLINE OF BEAVER CREEK (FORMERLY SMITH CREEK).

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

UTILITY PLAN - SHEET 1 OF 3

JOB NO. 44529
SHEET NO. C3.1

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TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
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LEGEND

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

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BY: _____ DATE: _____
ADMINISTRATOR

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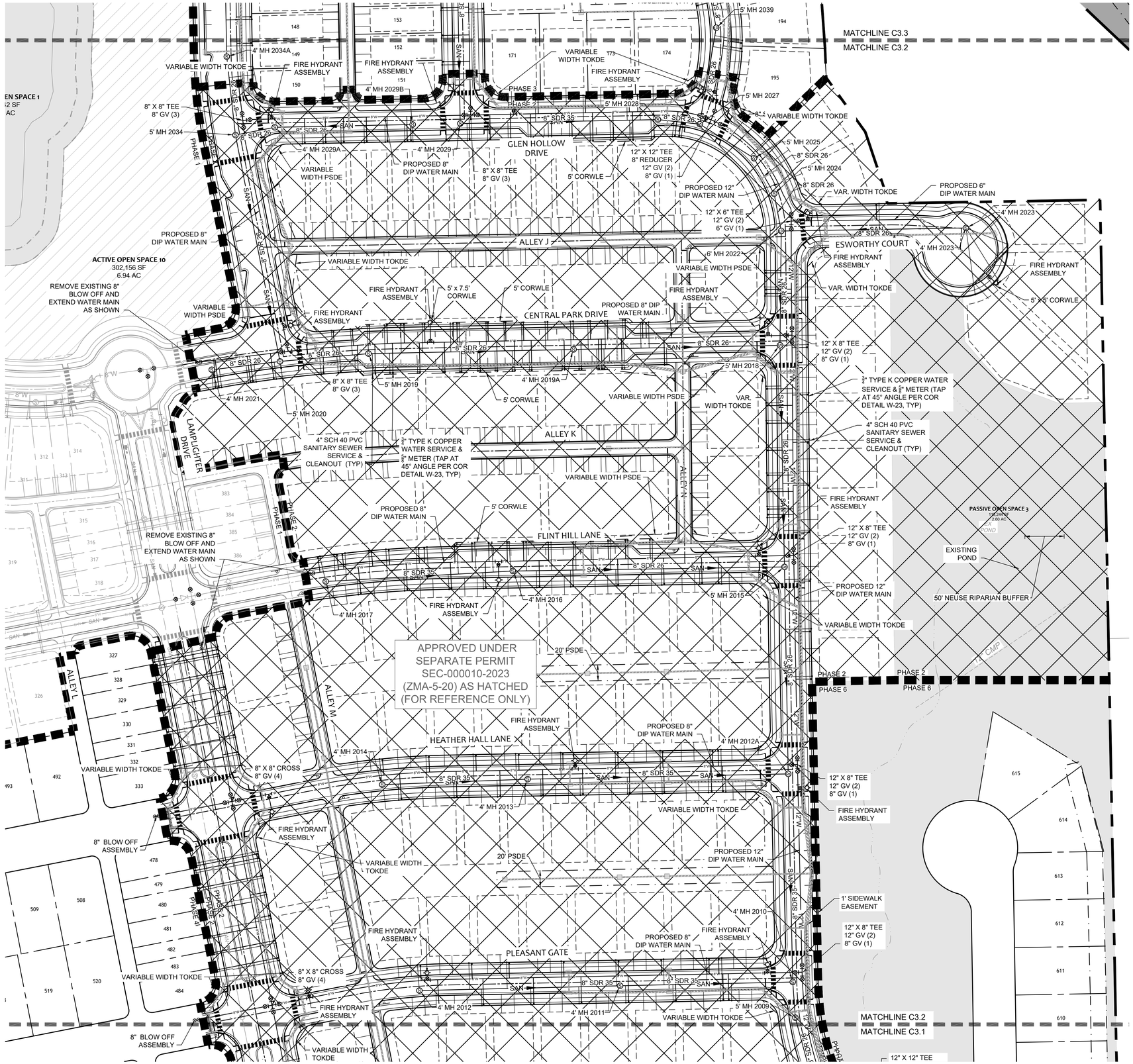
- BLOW OFF ASSEMBLY
- SANITARY MANHOLE
- PROPOSED SEWER LINE
- EXISTING SEWER LINE

NAD 83

SCALE 1"=60'
0 60' 120'

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

S:\...\31\44529-WL_MAR.DWG\Sheet\CD\Phase III\44529-331-C3.0-UTIL.dwg | Plotted by Jeremy Edens



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DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

UTILITY PLAN - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C3.2

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LEGEND

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DEVELOPMENT SERVICES ENGINEER

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ADMINISTRATOR

UTILITY LEGEND

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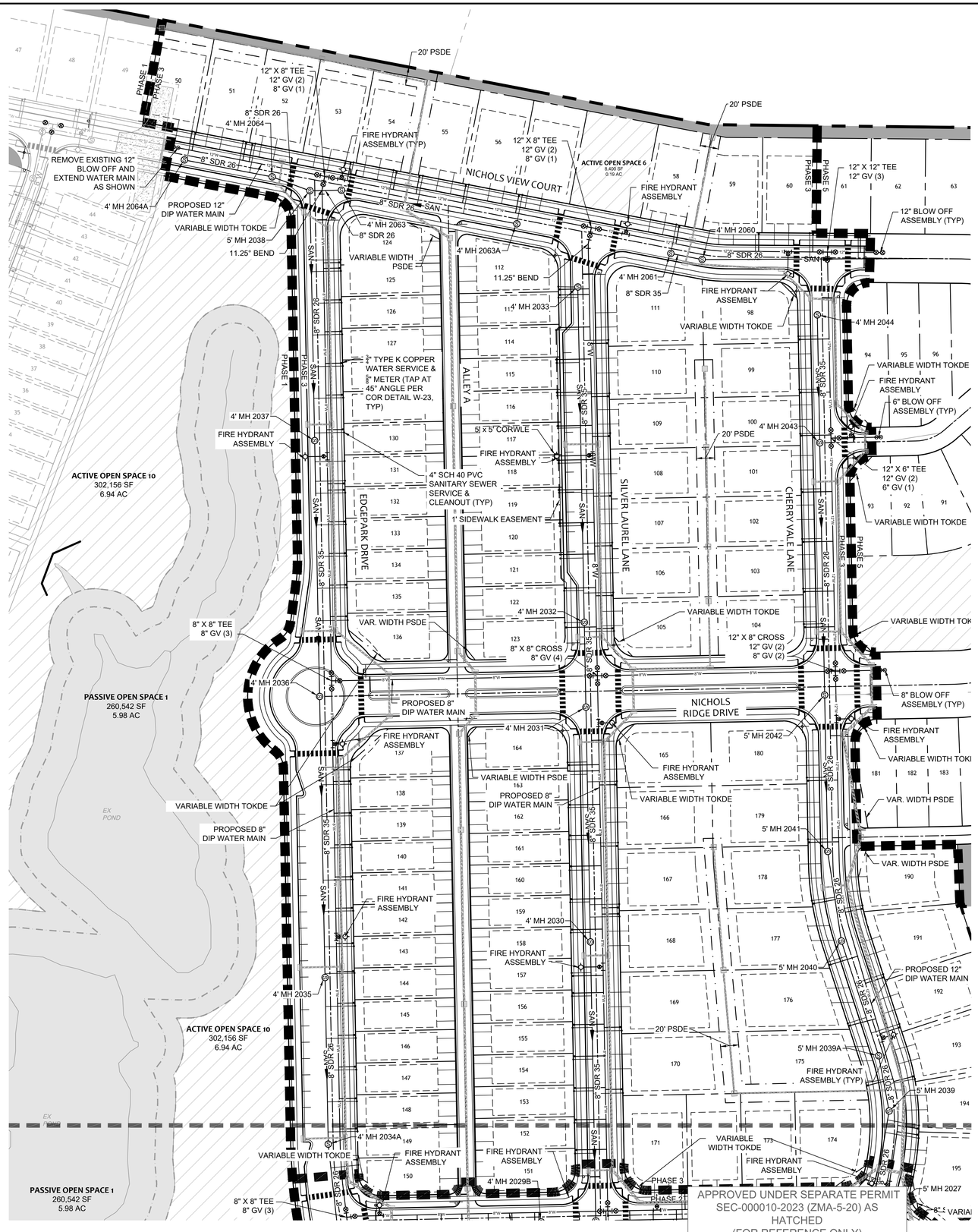
- BLOW OFF ASSEMBLY
- SANITARY MANHOLE
- PROPOSED SEWER LINE
- EXISTING SEWER LINE

NAD 83

SCALE 1"=60'
0 60' 120'

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



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ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

UTILITY PLAN - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C3.3

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SANITARY SEWER SCHEDULE						
STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
4' MH 1002A	7.34'	206.25	199.11' (8" SDR 35) 4' MH 1021	198.91' (8" SDR 35)	85' @ 0.87%	6' MH 1002
4' MH 1021	11.40'	213.02	201.82' (8" SDR 35) 4' MH 1024 201.82' (8" SDR 35) 4' MH 1022	201.62' (8" SDR 35)	271' @ 0.[illegible]	[illegible] 1002A
4' MH 1022	10.71'	213.71	203.20' (8" SDR 35) 4' MH 1023	203.00' (8" SDR 35)		[illegible] 1021
4' MH 1023	9.15'	217.05		207.90' [illegible]		[illegible] 22
4' MH 1024	11.05'	214.35	203.50' (8" SDR 35) 4' MH 1026 203.50' (8" SDR 35) 4' MH [illegible]	[illegible]		
4' MH 1025	9.87'	213.77	204.10' (8" SDR [illegible]	[illegible]		
4' MH 1026	11.92'	217.40	205.[illegible]	[illegible]		
4' MH 1029A	12.27'	21[illegible]	[illegible]	[illegible]		
4' MH 2004	[illegible]	[illegible]	[illegible]	[illegible]		
4' MH [illegible]	[illegible]	[illegible]	[illegible]	[illegible]		4' MH 1025
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] @ 0.53%	4' MH 2005
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] 35)	45' @ 1.09% 5' MH 2009
[illegible]	[illegible]	[illegible]	[illegible]	209.40' (8" SDR 35)	219' @ 0.55%	4' MH 2010
[illegible]	[illegible]	[illegible]	[illegible]	214.48' (8" SDR 35)	254' @ 1.92%	4' MH 2011
[illegible]	[illegible]	[illegible]	[illegible] DR 26) 5' MH 2015 (8" SDR 35) 4' MH 2013	211.00' (8" SDR 35)	264' @ 1.06%	4' MH 2010
4' [illegible]	[illegible]	[illegible]	214.40' (8" SDR 35) 4' MH 2014	214.20' (8" SDR 35)	330' @ 0.91%	4' MH 2012A
4' MH [illegible]	[illegible]	226.05		219.20' (8" SDR 35)	184' @ 2.60%	4' MH 2013
4' MH [illegible]	11.42'	233.70	224.70' (8" SDR 35) 4' MH 2017	222.30' (8" SDR 26)	344' @ 2.15%	5' MH 2015
4' MH 2017	6.02'	235.47		229.47' (8" SDR 35)	237' @ 2.01%	4' MH 2016
4' MH 2019A	11.98'	236.38	224.60' (8" SDR 26) 5' MH 2019	224.40' (8" SDR 26)	262' @ 1.95%	5' MH 2018
4' MH 2021	6.55'	239.75		233.20' (8" SDR 26)	87' @ 2.91%	5' MH 2020
4' MH 2023	5.34'	235.00		229.68' (8" SDR 26)	234' @ 0.52%	6' MH 2022

SANITARY SEWER SCHEDULE						
STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
4' MH 2029	12.07'	239.25	227.40' (8" SDR 35) 4' MH 2030	227.20' (8" SDR 35)	250' @ 1.72%	5' MH 2028
4' MH 2029A	11.85'	242.85	231.20' (8" SDR 26) 4' MH 2029B	231.00' (8" SDR 26)	51' @ 1.67%	[illegible] MH 2034
4' MH 2029B	6.83'	240.15		233.33' (8" SDR 26)		[illegible] 2029A
5' MH 1029	17.35'	220.79	204.20' (8" SDR 26) 5' MH 2003	203.46' (8" SDR [illegible]		[illegible] 1028
5' MH 2003	18.17'	223.17	205.20' (8" SDR 26) 5' MH 2009A 205.20' (8" Ductile Iron) 5' MH 2000	[illegible]		[illegible]
5' MH 2009	12.82'	220.12	207.50' (8" SDR 35) 4' MH [illegible]	[illegible]		[illegible]
5' MH 2009A	14.62'	221.29	206.87' (8" SDR [illegible]	[illegible]		[illegible]
5' MH 2015	13.14'	227.82	[illegible]	[illegible]		[illegible]
5' MH 2018	14.[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
5' MH [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible] %	[illegible] 2019A
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5' MH 2019
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	48' @ 1.04%	6' MH 2022
[illegible]	[illegible]	[illegible]	[illegible]	[illegible] DR 26)	52' @ 0.48%	5' MH 2024
[illegible]	[illegible]	[illegible]	[illegible]	222.10' (8" SDR 26)	81' @ 0.80%	5' MH 2025
5' [illegible]	[illegible]	[illegible]	[illegible] MH 2029	222.70' (8" SDR 26)	53' @ 0.75%	5' MH 2027
5' MH [illegible]	[illegible]	[illegible]	[illegible] (8" SDR 26) 4' MH 2034A [illegible] (8" SDR 26) 4' MH 2029A	229.95' (8" SDR 26)	292' @ 0.54%	5' MH 2020
6' MH 10[illegible]	[illegible]	[illegible]	198.17' (8" SDR 35) 4' MH 1002A	186.83' (8" PC 250 DIP)	89' @ 1.70%	EX MH
6' MH 1026	[illegible]	213.25	200.80' (8" SDR 26) 5' MH 1029	190.60' (8" PC 250 DIP)	37' @ 1.71%	EX MH 4
6' MH 2022	14.03'	234.11	220.30' (8" SDR 26) 5' MH 2024 228.46' (8" SDR 26) 4' MH 2023	220.10' (8" SDR 26)	145' @ 0.55%	5' MH 2018
EX MH	19.60'	202.51	185.31' (8" PC 250 DIP) 6' MH 1002 183.01' (30" Ductile Iron) EX MH 3	182.91' (30" Ductile Iron)	203' @ 0.50%	EX MH 2
EX MH 4	24.30'	209.86	187.66' (30" Ductile Iron) 198 189.96' (8" PC 250 DIP) 6' MH 1028	187.56' (30" Ductile Iron)	122' @ 0.50%	199

SANITARY SEWER SCHEDULE						
STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
4' MH 2030	10.64'	245.82	235.40' (8" SDR 35) 4' MH 2031	235.20' (8" SDR 35)	308' @ 2.53%	4' MH 2029
4' MH 2031	10.84'	254.02	243.40' (8" SDR 35) 4' MH 2032	243.20' (8" SDR 35)	259' @ 3.01%	4' MH 2030
4' MH 2032	9.72'	253.60	244.10' (8" SDR 35) 4' MH 2033	243.90' (8" SDR 35)	94' @ 0.53%	4' MH 2031
4' MH 2033	10.14'	274.48		264.36' (8" SDR 35)	371' @ 5.47%	4' MH 2032
4' MH 2034A	11.36'	245.16	234.00' (8" SDR 26) 4' MH 2035	233.80' (8" SDR 26)	100' @ 1.35%	5' MH 2034
4' MH 2035	11.77'	247.85	236.30' (8" SDR 35) 4' MH 2036	236.10' (8" SDR 26)	184' @ 1.14%	4' MH 2034A
4' MH 2036	10.93'	251.83	241.10' (8" SDR 35) 4' MH 2037	240.90' (8" SDR 35)	311' @ 1.48%	4' MH 2035
4' MH 2037	9.46'	260.76	251.52' (8" SDR 26) 5' MH 2038	251.32' (8" SDR 35)	283' @ 3.61%	4' MH 2036
4' MH 2043	10.42'	263.79	253.60' (8" SDR 35) 4' MH 2044	253.40' (8" SDR 26)	279' @ 3.95%	5' MH 2042
4' MH 2044	9.23'	268.51		259.30' (8" SDR 35)	141' @ 4.03%	4' MH 2043
4' MH 2060	10.82'	274.20	263.60' (8" SDR 35) 4' MH 2061	263.40' (8" SDR 26)	246' @ 2.56%	4' MH 2059A
4' MH 2061	9.88'	275.26		265.40' (8" SDR 35)	35' @ 5.11%	4' MH 2060
4' MH 2063	11.26'	274.46	263.40" (8" SDR 26) 4' MH 2063A	263.20' (8" SDR 26)	35' @ 0.97%	5' MH 2038
4' MH 2063A	11.15'	275.63		264.50' (8" SDR 26)	197' @ 0.56%	4' MH 2063
4' MH 2064	11.74'	275.74	264.20' (8" SDR 26) 4' MH 2064A	264.00' (8" SDR 26)	44' @ 2.56%	5' MH 2038
4' MH 2064A	10.63'	277.61		267.00' (8" SDR 26)	99' @ 2.83%	4' MH 2064
5' MH 2038	12.05'	274.69	262.86' (8" SDR 26) 4' MH 2064 262.86' (8" SDR 26) 4' MH 2063	262.66' (8" SDR 26)	276' @ 4.03%	4' MH 2037
5' MH 2039	12.65'	235.63	223.20' (8" SDR 26) 5' MH 2039A	223.00' (8" SDR 26)	124' @ 0.57%	5' MH 2027
5' MH 2039A	12.13'	238.93	227.00' (8" SDR 26) 5' MH 2040	226.80' (8" SDR 26)	62' @ 5.79%	5' MH 2039
5' MH 2040	7.78'	245.84	238.28' (8" SDR 26) 5' MH 2041	238.08' (8" SDR 26)	133' @ 8.32%	5' MH 2039A
5' MH 2041	12.19'	250.97	239.00' (8" SDR 26) 5' MH 2042	238.80' (8" SDR 26)	100' @ 0.52%	5' MH 2040
5' MH 2042	18.44'	258.32	240.10' (8" SDR 26) 5' MH 2045 242.40' (8" SDR 26) 4' MH 2043	239.90' (8" SDR 26)	173' @ 0.52%	5' MH 2041

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # _____

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SANITARY SEWER SCHEDULE

JOB NO. 44529

SHEET NO. C3.4

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EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

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. FENCING 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.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

GRADING AND STORMWATER PLAN NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE STANDARDS AND SPECIFICATIONS.
2. ALL PERMITS SHALL BE OBTAINED FROM THE TOWN OF KNIGHTDALE, WAKE COUNTY, NCDOT, NCDEQ-DWR, AND USACE AS APPLICABLE PRIOR TO BEGINNING CONSTRUCTION. A COPY OF ALL PERMITS SHALL BE SUBMITTED TO THE TOWN OF KNIGHTDALE FOR THEIR RECORDS.
3. SCMS SHALL BE DESIGNED TO CONTROL AND TREAT THE DIFFERENCE IN STORMWATER RUNOFF VOLUME LEAVING THE PROJECT SITE BETWEEN THE PRE- AND POST- DEVELOPMENT CONDITIONS FOR, AT A MINIMUM, THE 1-YEAR, 24-HOUR STORM.
4. SCMS SHALL BE DESIGNED TO HAVE A MINIMUM OF 85% AVERAGE ANNUAL REMOVAL FOR TOTAL SUSPENDED SOLIDS.
5. ALL SCMS ASSOCIATED WITH THIS PROJECT WILL REQUIRE MAINTENANCE EASEMENTS AND AN OPERATION AND MAINTENANCE AGREEMENT TO BE NOTED ON THE FINAL PLAT. ALL OF THESE ITEMS WILL NEED TO BE RECORDED WITH THE COUNTY REGISTER OF DEEDS.

NOTE:
RETAINING WALLS AND ASSOCIATED DRAINAGE TO BE DESIGNED BY OTHERS. CONTRACTOR SHALL COORDINATE DESIGN AND SUBMIT SEALED PLAN FOR REVIEW AND APPROVAL BY THE TOWN INSPECTIONS DEPARTMENT.

LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- FENCE
- PROPOSED DRAIN EASEMENT
- PROPOSED PERIMETER BUFFER
- 100-YR FLOODPLAIN
- WETLANDS
- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

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

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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DESIGNED BY: 331
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SCALE: 1"=200'
JOB NO.: 44529
SHEET NO.: C4.0

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL GRADING AND DRAINAGE PLAN

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LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- FENCE
- PROPOSED DRAIN EASEMENT
- PROPOSED PERIMETER BUFFER
- 100-YR FLOODPLAIN
- WETLANDS
- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

SCALE 1"=60'
0 60' 120'
NAD 83

EASEMENT LEGEND

PRIVATE EASEMENTS:

PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT

PUBLIC EASEMENTS:

CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

GRADING AND DRAINAGE PLAN - SHEET 1 OF 3

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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SCALE	1"=60'
JOB NO.	44529
SHEET NO.	C4.1

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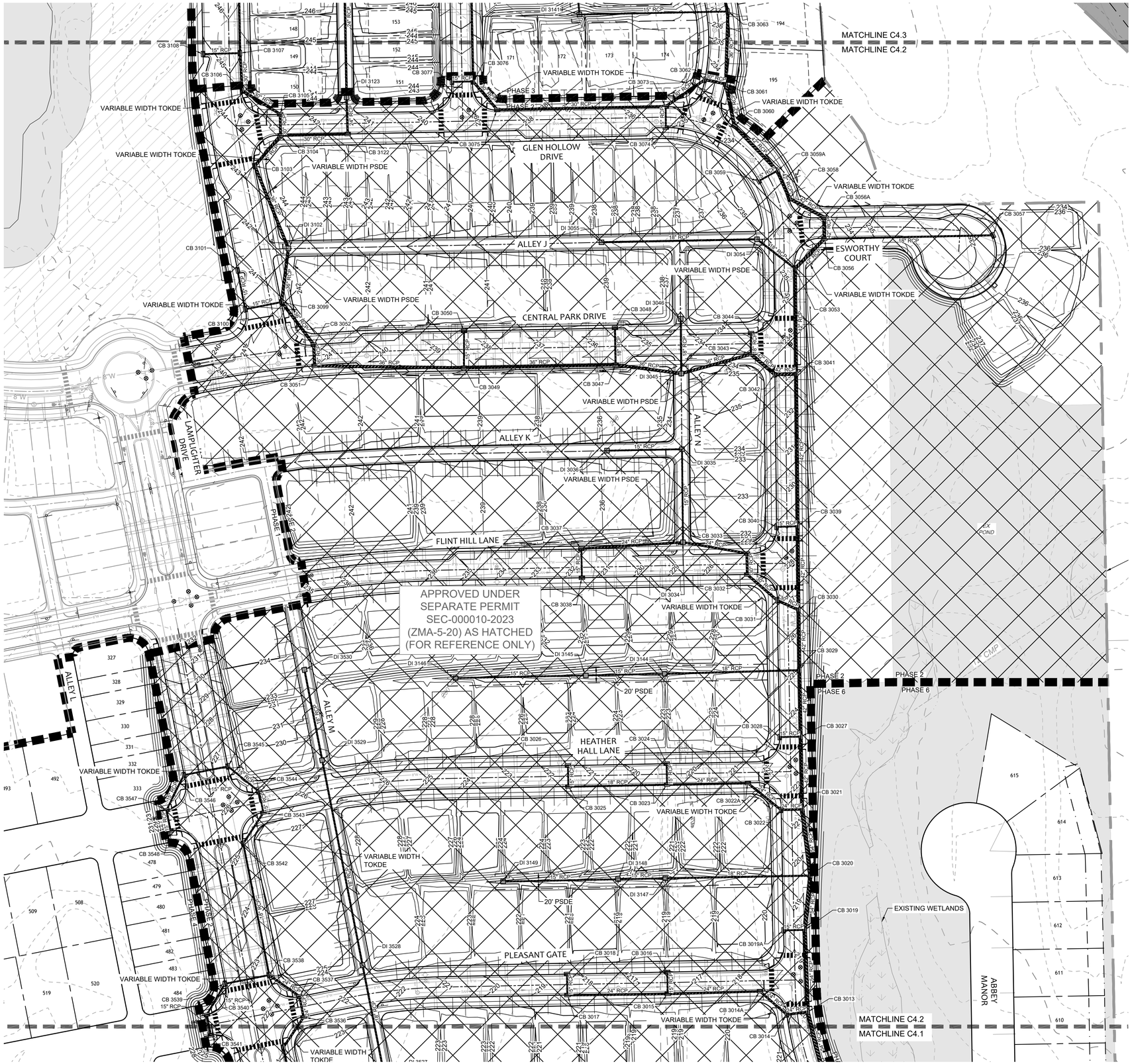

EASEMENT LEGEND

PRIVATE EASEMENTS:	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS:	
CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

SCALE 1"=60'
0 60' 120'

LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- FENCE
- PROPOSED DRAIN EASEMENT
- PROPOSED PERIMETER BUFFER
- 100-YR FLOODPLAIN
- WETLANDS
- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

NAD 83

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ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

GRADING AND DRAINAGE PLAN - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C4.2

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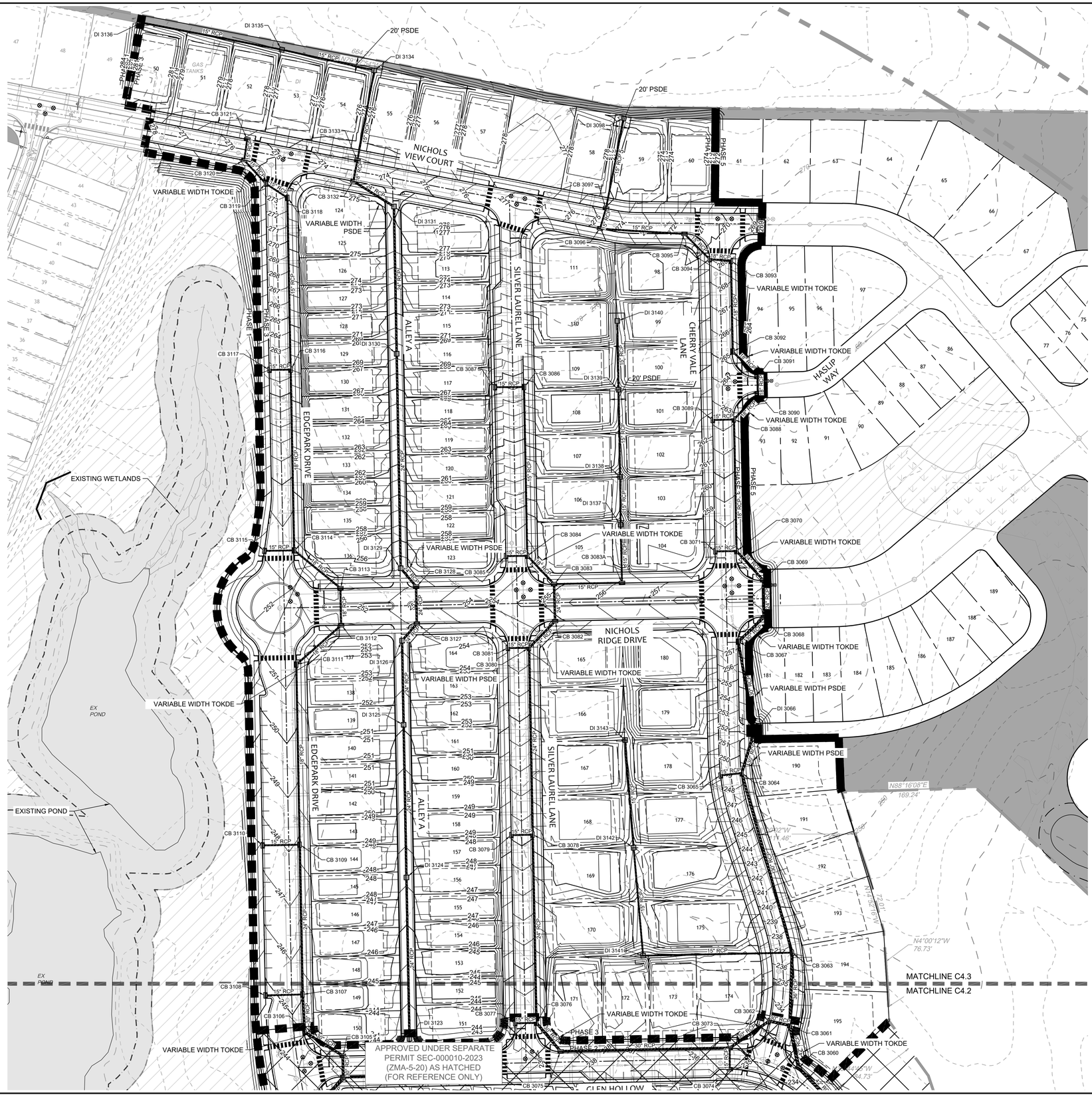

EASEMENT LEGEND

PRIVATE EASEMENTS:	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS:	
CORSSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- FENCE
- PROPOSED DRAIN EASEMENT
- PROPOSED PERIMETER BUFFER
- 100-YR FLOODPLAIN
- WETLANDS
- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

NAD 83

SCALE 1"=60'
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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

GRADING AND DRAINAGE PLAN - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C4.3

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STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3001	12.77'	217.87	205.10' (54" RCP) CB 3003	205.10' (54" RCP)	145' @ 0.60%	MH 3000A
CB 3003	13.90'	219.46	205.75' (54" RCP) CB 3005	205.75' (54" RCP)	99' @ 0.66%	CB 3001
CB 3004	11.96'	220.88	209.02' (15" RCP) DI 3153	208.92' (15" RCP)	27' @ 0.48%	CB 3005
CB 3005	15.02'	220.88	206.32' (54" RCP) CB 3007 208.79' (15" RCP) CB 3004	206.32' (54" RCP)	88' @ 0.65%	CB 3003
CB 3007	15.92'	222.98	207.06' (54" RCP) CB 3008	207.06' (54" RCP)	123' @ 0.60%	CB 3005
CB 3008	15.56'	223.09	207.73' (54" RCP) CB 3009	207.53' (5	@ 1.00%	CB 3007
CB 3009	15.42'	223.35	207.93' (54" RCP) CB 3010 210.33' (24" RCP) CB		0.60%	CB 3008
CB 3010	15.64'	223.34	208.17'		50%	CB 3009
CB 3011	13.05'				%	CB 3010
CB 3012						CB 3011
CB 3013						CB 3011
CB 3014						CB 3013
CB 3014A						B 3014
CB 3015	4.5					B 3014A
CB 3016	3.63'				@ 0.71%	CB 3015
CB 3017	5.86'			RCP)	127' @ 0.51%	CB 3015
CB 3018	5.12'			213.79' (15" RCP)	27' @ 0.74%	CB 3017
CB 3019	9.56'	21	(RCP) CB 3020 (15" RCP) CB 3019A	210.00' (54" RCP)	104' @ 0.60%	CB 3013
CB 3019A	6.94'	219.09		212.15' (15" RCP)	27' @ 0.56%	CB 3019
CB 3020	10.05'	220.11	210.43' (54" RCP) CB 3021 211.64' (18" RCP) DI 3147	210.43' (54" RCP)	69' @ 0.62%	CB 3019
CB 3021	11.23'	221.70	211.94' (42" RCP) CB 3027 213.44' (24" RCP) CB 3022	210.94' (54" RCP)	84' @ 0.60%	CB 3020
CB 3022	7.80'	221.70	213.90' (24" RCP) CB 3022A	213.90' (24" RCP)	27' @ 1.70%	CB 3021

STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3022A	7.45'	221.63	214.90' (24" RCP) CB 3023	214.18' (24" RCP)	54' @ 0.52%	CB 3022
CB 3023	4.53'	220.03	216.00' (18" RCP) CB 3025 216.25' (15" RCP) CB 3024	215.50' (24" RCP)	102' @ 0.59%	CB 3022A
CB 3024	3.63'	220.03		216.40' (15" RCP)	27' @ 0.56%	CB 3023
CB 3025	5.14'	221.84	216.95' (15" RCP) CB 3026	216.70' (18" RCP)	6%	CB 3023
CB 3026	4.93'	221.84		217.10' (		CB 3025
CB 3027	10.67'	223.65	213.35' (42" RCP) CB 30 215.60' (15" RCP) C			CB 3021
CB 3028	7.75'	223.65				CB 3027
CB 3029	10.39'					B 3027
CB 30						3029
CB 3031						30
CB 3032						1
CB 3033						
CB 3037						3034
CB 3038	9				94%	CB 3037
CB 3039	10.9			RCP)	106' @ 1.51%	CB 3030
CB 3040	7.25'			222.00' (15" RCP)	27' @ 3.89%	CB 3039
CB 3041	11.63'		(RCP) CB 3042 (42" RCP) CB 3053	222.10' (42" RCP)	193' @ 1.76%	CB 3039
CB 3042	9.69'	233.33	223.64' (42" RCP) CB 3043	223.64' (42" RCP)	27' @ 0.51%	CB 3041
CB 3043	9.51'	233.35	224.40' (36" RCP) DI 3045 225.90' (18" RCP) CB 3044	223.84' (42" RCP)	39' @ 0.51%	CB 3042
CB 3044	9.16'	233.33		226.17' (18" RCP)	27' @ 1.00%	CB 3043
CB 3047	9.24'	236.08	226.84' (36" RCP) CB 3049 228.30' (18" RCP) CB 3048	226.84' (36" RCP)	84' @ 1.82%	DI 3045
CB 3048	7.58'	236.08		228.50' (18" RCP)	47' @ 0.43%	CB 3047

STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3049	9.78'	238.91	229.13' (36" RCP) CB 3051 230.88' (15" RCP) CB 3050	229.13' (36" RCP)	192' @ 1.19%	CB 3047
CB 3050	7.88'	238.90		231.02' (15" RCP)	47' @ 0.30%	CB 3049
CB 3051	10.12'	241.52	231.40' (36" RCP) CB 3052	231.40' (36" RCP)	189' @ 1.20%	CB 3049
CB 3052	9.90'	241.50	231.60' (36" RCP) CB 3099	231.60' (36" RCP)	27' @ 0.74%	CB 3051
CB 3053	12.30'	235.10	222.80' (42" RCP) CB 3056 226.70' (18" RCP) DI 3054	222.80' (42" RC	@ 0.52%	CB 3041
CB 3056	10.21'	233.31	223.10' (42" RCP) CB 3056A 225.10' (18" RCP) CB		57%	CB 3053
CB 3056A	10.44'	233.31	223.25' (		%	CB 3056
CB 3057	6.70'	234.7				CB 3056
CB 3058	10					CB 3056A
CB 3059	7.					CB 3059A
CB 3059A	9.87					CB 3058
CB 3060	10.26'					3059A
CB 3061	9.68'					060
CB 3062	8.76'	23			76	CB 3061
CB 3073	8.57'	235.			)	60' @ 2.42% CB 3062
CB 3074	7.12'	235.62				228.50' (15" RCP) 27' @ 0.74% CB 3073
CB 3075	8.92'	238.82			) CB 3076	229.90' (30" RCP) 213' @ 1.34% CB 3073
CB 3099	9.33'	241.08	2.00' (36" RCP) DI 3102 233.75' (15" RCP) CB 3100			232.00' (36" RCP) 67' @ 0.59% CB 3052
CB 3100	6.63'	240.68	234.05' (15" RCP) CB 3101			234.05' (15" RCP) 47' @ 0.64% CB 3099
CB 3101	6.89'	241.19				234.30' (15" RCP) 50' @ 0.50% CB 3100
CB 3103	9.93'	243.43	233.50' (36" RCP) CB 3104			233.50' (36" RCP) 113' @ 0.53% DI 3102
CB 3104	9.20'	242.95	234.25' (30" RCP) CB 3122 234.25' (30" RCP) CB 3105			233.75' (36" RCP) 51' @ 0.49% CB 3103

STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3105	8.74'	242.95	234.40' (30" RCP) CB 3106	234.40' (30" RCP)	27' @ 0.56%	CB 3104
CB 3122	6.97'	241.67	235.20' (24" RCP) DI 3123	234.70' (30" RCP)	85' @ 0.53%	CB 3104
DI 3034	7.39'	229.39	222.75' (15" RCP) DI 3035 222.00' (24" RCP) CB 3037	222.00' (24" RCP)	82' @ 3.35%	CB 3033
DI 3035	5.26'	232.26	227.00' (15" RCP) DI 3036	227.00' (	3.60%	DI 3034
DI 3036	5.06'	233.96			0%	DI 3035
DI 3045	9.18'	234.49	225.31' (36 226.		%	CB 3043
DI 3046	7.76'	23				DI 3045
DI 3054						CB 3053
DI 3055						DI 3054
DI 3102						B 3099
DI 3144						3029
DI 3145	3.5					44
DI 3146	3.37					3145
DI 3147	3.14'				48%	CB 3020
DI 3148	3.69'				60' @ 0.50%	DI 3147
DI 3149	3.44'	2		6.33' (15" RCP)	145' @ 2.10%	DI 3148
DI 3150	4.14'	21	DI 3151	211.39' (18" RCP)	97' @ 0.49%	CB 3012
DI 3151	3.35'	215.	(15" RCP) DI 3152	212.09' (15" RCP)	120' @ 0.50%	DI 3150
DI 3152	3.60'	216.28		212.87' (15" RCP)	136' @ 0.50%	DI 3151
DI 3153	3.54'	213.01	209.76' (15" RCP) DI 3154	209.66' (15" RCP)	129' @ 0.50%	CB 3004
DI 3154	3.51'	215.37		212.05' (15" RCP)	76' @ 3.01%	DI 3153
FES 3000	???'	205.46	200.50' (54" RCP) MH 3000A			

STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3063	11.48'	237.03	226.05' (30" RCP) CB 3064 227.30' (15" RCP) DI 3141	225.55' (36" RCP)	92' @ 0.71%	CB 3061
CB 3064	8.52'	249.27	240.75' (30" RCP) DI 3066 242.00' (15" RCP) CB 3065	240.75' (30" RCP)	235' @ 6.25%	CB 3063
CB 3065	9.07'	249.27		242.20' (15" RCP)	27' @ 0.74%	CB 3064
CB 3067	9.56'	257.71	248.15' (30" RCP) CB 3068	248.15' (30" RCP)	115' @ 4.49%	DI 3066
CB 3068	10.98'	259.38	248.90' (24" RCP) CB 3069	248.40' (30" RCP)	45' @ 0.56%	CB 3067
CB 3069	10.19'	259.39	249.20' (24" RCP) CB 3070	249.20' (24" RCP)	47' @ 0.64%	CB 3068
CB 3070	8.18'	257.83	250.15' (18" RCP) CB 3088 250.40' (15" RCP) CB 3071	249.65' (24" RCP)	50' @ 0.91%	CB 3069
CB 3071	7.22'	257.82		250.60' (15" RCP)	27' @ 0.74%	CB 3070
CB 3076	8.57'	238.72	230.65' (24" RCP) CB 3078 231.40' (15" RCP) CB 3077	230.15' (30" RCP)	47' @ 0.53%	CB 3075
CB 3077	6.85'	238.45		231.60' (15" RCP)	27' @ 0.74%	CB 3076
CB 3078	8.20'	245.65	237.45' (24" RCP) CB 3080 238.20' (15" RCP) CB 3079	237.45' (24" RCP)	237' @ 2.86%	CB 3076
CB 3079	7.15'	245.65		238.50' (15" RCP)	27' @ 1.11%	CB 3078
CB 3080	8.67'	253.17	244.50' (24" RCP) CB 3082 246.85' (15" RCP) CB 3081	244.50' (24" RCP)	236' @ 2.99%	CB 3078
CB 3081	6.02'	253.17		247.15' (15" RCP)	27' @ 1.11%	CB 3080
CB 3082	10.30'	255.30	245.00' (24" RCP) CB 3083	245.00' (24" RCP)	47' @ 1.07%	CB 3080
CB 3083	9.79'	255.29	246.25' (15" RCP) CB 3083A 246.00' (18" RCP) CB 3084	245.50' (24" RCP)	47' @ 1.06%	CB 3082
CB 3083A	9.25'	256.60	247.53' (15" RCP) DI 3137	247.53' (15" RCP)	86' @ 1.49%	CB 3083
CB 3084	7.05'	253.80	247.00' (15" RCP) CB 3086 247.00' (15" RCP) CB 3085	246.75' (18" RCP)	49' @ 1.53%	CB 3083
CB 3085	8.49'	253.79		247.30' (15" RCP)	27' @ 1.11%	CB 3084
CB 3086	6.84'	264.39	257.55' (15" RCP) CB 3087	257.55' (15" RCP)	213' @ 4.95%	CB 3084
CB 3087	6.75'	264.60		257.85' (15" RCP)	37' @ 0.81%	CB 3086
CB 3088	7.79'	262.69	254.95' (18" RCP) CB 3090 255.20' (15" RCP) CB 3089	254.90' (18" RCP)	166' @ 2.86%	CB 3070
CB 3089	7.27'	262.67		255.40' (15" RCP)	27' @ 0.74%	CB 3088
CB 3090	7.61'	263.41	255.80' (18" RCP) CB 3091	255.80' (18" RCP)	44' @ 1.91%	CB 3088

STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3091	7.16'	263.41	256.25' (18" RCP) CB 3092	256.25' (18" RCP)	21' @ 2.14%	CB 3090
CB 3092	7.05'	265.55	258.50' (18" RCP) CB 3093	258.50' (18" RCP)	45' @ 5.04%	CB 3091
CB 3093	7.75'	269.37	261.80' (18" RCP) CB 3094	261.80' (18" RCP)	114' @ 2.89%	CB 3092
CB 3094	7.01'	269.01	262.25' (15" RCP) CB 3095	262.00' (18" RCP)	27' @ 0.74%	CB 3093
CB 3095	8.31'	271.87	263.75' (15" RCP) CB 3096	263.75' (15" RCP)	45' @ 3.35%	CB 3094
CB 3096	7.39'	275.04	267.65' (15" RCP) CB 3097	267.65' (15" RCP)	107' @ 3.65%	CB 3095
CB 3097	7.11'	274.96	267.85' (15" RCP) DI 3098	267.85' (15" RCP)	27' @ 0.74%	CB 3096
CB 3106	9.85'	244.86	235.20' (30" RCP) CB 3107	235.20' (30" RCP)	56' @ 1.42%	CB 3105
CB 3107	9.77'	245.58	236.60' (24" RCP) CB 3109 237.35' (15" RCP) CB 3108	236.10' (30" RCP)	48' @ 1.89%	CB 3106
CB 3108	7.17'	245.17		238.00' (15" RCP)	47' @ 1.38%	CB 3107
CB 3109	9.59'	248.34	239.25' (18" RCP) CB 3111 239.50' (15" RCP) CB 3110	238.75' (24" RCP)	189' @ 1.14%	CB 3107
CB 3110	8.06'	247.96		239.90' (15" RCP)	47' @ 0.85%	CB 3109
CB 3111	7.79'	251.60	243.81' (18" RCP) CB 3112	243.81' (18" RCP)	227' @ 2.01%	CB 3109
CB 3112	6.93'	251.34	244.41' (18" RCP) CB 3113	244.41' (18" RCP)	75' @ 0.80%	CB 3111
CB 3113	6.53'	251.41	244.88' (18" RCP) CB 3114	244.88' (18" RCP)	47' @ 1.00%	CB 3112
CB 3114	7.36'	253.74	246.38' (18" RCP) CB 3116 246.63' (15" RCP) CB 3115	246.38' (18" RCP)	75' @ 1.99%	CB 3113
CB 3115	8.55'	253.56		247.01' (15" RCP)	38' @ 1.01%	CB 3114
CB 3116	7.17'	262.01	255.09' (15" RCP) CB 3118 255.09' (15" RCP) CB 3117	254.84' (18" RCP)	228' @ 3.71%	CB 3114
CB 3117	6.16'	261.53		255.37' (15" RCP)	27' @ 1.04%	CB 3116
CB 3118	7.42'	273.38	265.96' (15" RCP) CB 3119	265.96' (15" RCP)	217' @ 5.01%	CB 3116
CB 3119	6.63'	273.83	267.20' (15" RCP) CB 3120	267.20' (15" RCP)	33' @ 3.80%	CB 3118
CB 3120	7.40'	275.90	268.50' (15" RCP) CB 3121	268.50' (15" RCP)	40' @ 3.23%	CB 3119
CB 3121	7.12'	275.92		268.80' (15" RCP)	27' @ 1.11%	CB 3120
CB 3127	9.74'	252.64	242.90' (24" RCP) CB 3128	242.90' (24" RCP)	28' @ 0.67%	DI 3126

VELOCITY DISSIPATION PAD (VDP) DESIGN

OUTLET NAME	PIPE DIA.	PIPE SLOPE	Q10	V10	ZONE	PAD DIMENSIONS			STONE SIZING		
						LENGTH	WIDTH	DEPTH	D50	Dmax	CLASS
	(in)	(ft/ft)	(cfs)	(fps)		(ft)	(ft)	(in)	(in)	(in)	(NCDOT)
FES 3000	54	0.0234	72.97	15.29	5	45	14	36	14	23	2
FES 3500	42	0.0054	28.67	7.15	2	21	11	18	8	12	B
RISER 3	30	0.0055	30.5	7.08	2	15	8	18	8	12	B

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

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE 07/11/2024

DRAWN BY 331

DESIGNED BY 331

CHECKED BY A. STONE

SCALE N/A

JOB NO. 44529

SHEET NO. C4.4

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
STORM SEWER SCHEDULE

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STORM DRAINAGE TABLE (STRM 3000)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3128	9.35'	252.65	243.30' (24" RCP) DI 3129	243.30' (24" RCP)	47' @ 0.85%	CB 3127
CB 3132	8.03'	273.93	266.40' (18" RCP) CB 3133	265.90' (24" RCP)	60' @ 0.50%	DI 3131
CB 3133	7.59'	273.94	266.75' (15" RCP) DI 3134	266.54' (18" RCP)	27' @ 0.52%	CB 3132
DI 3066	9.84'	252.65	243.00' (30" RCP) CB 3067	243.00' (30" RCP)	55' @ 4.09%	CB 3064
DI 3098	3.31'	273.22		269.91' (15" RCP)	115' @ 1.78%	CB 3097
DI 3123	6.64'	242.09	235.45' (24" RCP) DI 3124	235.45' (24" RCP)	47' @ 0.54%	CB 3122
DI 3124	7.47'	246.22	238.76' (24" RCP) DI 3125	238.75' (24" RCP)	204' @ 1.62%	DI 3123
DI 3125	7.95'	250.13	242.18' (24" RCP) DI 3126	242.18' (24" RCP)	193' @ 1.78%	DI 3124
DI 3126	9.68'	252.39	242.71' (24" RCP) CB 3127	242.71' (24" RCP)	106' @ 0.50%	DI 3125
DI 3129	8.46'	253.16	244.70' (24" RCP) DI 3130	244.70' (24" RCP)	30' @ 4.65%	CB 3128
DI 3130	8.31'	267.31	259.00' (24" RCP) DI 3131	259.00' (24" RCP)	271' @ 5.29%	DI 3129
DI 3131	9.25'	274.85	265.60' (24" RCP) CB 3132	265.60' (24" RCP)	186' @ 3.55%	DI 3130
DI 3134	3.65'	272.27	268.90' (15" RCP) DI 3135	268.80' (15" RCP)	115' @ 1.78%	CB 3133
DI 3135	1.44'	273.25	269.60' (15" RCP) DI 3136	269.50' (15" RCP)	119' @ 0.50%	DI 3134
DI 3136	4.92'	279.92		275.00' (15" RCP)	180' @ 3.00%	DI 3135
DI 3137	4.88'	252.69	248.00' (15" RCP) DI 3138	248.00' (15" RCP)	73' @ 0.64%	CB 3083A
DI 3138	3.73'	256.04	252.50' (15" RCP) DI 3139	252.50' (15" RCP)	60' @ 7.47%	DI 3137
DI 3139	4.70'	262.46	257.95' (15" RCP) DI 3140	257.95' (15" RCP)	110' @ 4.95%	DI 3138
DI 3140	3.14'	265.63		262.68' (15" RCP)	87' @ 5.45%	DI 3139
DI 3141	3.96'	233.81	230.03' (15" RCP) DI 3142	230.03' (15" RCP)	188' @ 1.45%	CB 3063
DI 3142	4.47'	242.98	238.70' (15" RCP) DI 3143	238.70' (15" RCP)	137' @ 6.34%	DI 3141
DI 3143	4.32'	247.86		243.73' (15" RCP)	136' @ 3.69%	DI 3142

STORM DRAINAGE TABLE (STRM 3500)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3502	9.29'	213.89	204.60' (36" RCP) CB 3503	204.60' (36" RCP)	128' @ 0.52%	DI 3501
CB 3503	6.74'	212.04	205.80' (30" RCP) CB 3504	205.30' (36" RCP)	130' @ 0.54%	CB 3502
CB 3504	6.04'	212.04	206.00' (30" RCP) CB 3512 206.50' (24" RCP) CB 3505	206.00' (30" RCP)	27' @ 0.75%	CB 3503
CB 3505	5.45'	212.25	206.80' (24" RCP) CB 3506 206.80' (15" RCP) DI 3510	206.[illegible]	[illegible]%	CB 3504
CB 3506	6.69'	213.98	207.79' (18" RCP) [illegible]			CB 3505
CB 3507	5.98'	214.08	208.[illegible]			CB 3506
CB 3508	4.99'	[illegible]				CB 3507
CB 3509	[illegible]					CB 3508
CB 3512	[illegible]					3504
CB 3513	[illegible]					512
CB 3514	[illegible]					[illegible]
CB 3515	7[illegible]					[illegible]
CB 3516	8.25'	[illegible]			[illegible]%	CB 3515
CB 3517	6.98'	[illegible]			27' @ 0.74%	CB 3516
CB 3518	8.36'	[illegible]			6.30' (30" RCP)	52' @ 0.68%	CB 3516
CB 3519	7.97'	2[illegible]	[illegible] CB 3520	208.50' (30" RCP)	27' @ 0.74%	CB 3518
CB 3520	9.46'	21[illegible]	[illegible]' (30" RCP) CB 3521	208.71' (30" RCP)	48' @ 0.44%	CB 3519
CB 3521	10.73'	219.83	209.10' (30" RCP) CB 3523 212.50' (15" RCP) CB 3522	209.10' (30" RCP)	78' @ 0.50%	CB 3520
CB 3522	9.12'	219.82		212.70' (15" RCP)	27' @ 0.74%	CB 3521
CB 3523	11.97'	221.47	213.00' (24" RCP) DI 3526 210.00' (24" RCP) CB 3531 210.50' (18" RCP) CB 3524	209.50' (30" RCP)	75' @ 0.53%	CB 3521

STORM DRAINAGE TABLE (STRM 3500)

STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 3524	5.44'	217.81	212.80' (15" RCP) CB 3525	212.55' (18" RCP)	265' @ 0.77%	CB 3523
CB 3525	4.81'	217.81		213.00' (15" RCP)	27' @ 0.74%	CB 3524
CB 3531	11.99'	222.39	210.40' (24" RCP) CB 3532 216.52' (15" RCP) CB 3549	210.40' (24" RCP)	62' @ 0.65%	CB 3523
CB 3532	11.10'	221.77	210.70' (24" RCP) CB 3533	210.67' (24" RCP)	45' @ 0.61%	CB 3531
CB 3533	9.52'	220.72	211.20' (24" RCP) CB 3535 211.95' (15" RCP) CB 3534	211.20' (24" [illegible]	[illegible]%	CB 3532
CB 3534	5.32'	220.72				CB 3533
CB 3535	7.82'	221.52	213.70' (24" [illegible]			CB 3533
CB 3536	7.58'	221.58	[illegible]			CB 3535
CB 3537	7.3[illegible]	[illegible]	[illegible]			CB 3536
CB 3538	[illegible]	[illegible]	[illegible]			3537
CB 3539	[illegible]	[illegible]	[illegible]			538
CB 3540	3.[illegible]	[illegible]	[illegible]			39
CB 3541	3.12'	[illegible]	[illegible]			[illegible]
CB 3542	7.24'	[illegible]	[illegible]			3538
CB 3543	7.07'	[illegible]	[illegible]			CB 3542
CB 3544	6.62'	2[illegible]	[illegible]		27' @ 0.74%	CB 3543
CB 3545	7.25'	22[illegible]	[illegible]		[illegible]% (15" RCP)	51' @ 1.57%	CB 3544
CB 3546	7.08'	227.[illegible]	[illegible] 3547		220.10' (15" RCP)	57' @ 0.61%	CB 3545
CB 3547	5.42'	225.59	[illegible] (15" RCP) CB 3548		220.35' (15" RCP)	49' @ 0.51%	CB 3546
CB 3548	5.27'	225.59			220.50' (15" RCP)	27' @ 0.56%	CB 3547

STORM DRAINAGE TABLE (STRM 350[illegible])

STRUCTURE UP	HEIGHT	TOP	INV IN	[illegible]	ET PIPE	STRUCTURE DOWN
CB 3549	5.49'	222.40	217.10' (1[illegible]		.50%	CB 3531
CB 3550	5.29'	222.4[illegible]			4%	CB 3549
DI 3501	7.[illegible]	[illegible]			%	FES 3500
DI 351[illegible]	[illegible]	[illegible]				CB 3505
DI 3511	[illegible]	[illegible]				DI 3510
DI 3526	[illegible]	[illegible]				CB 3523
DI 3527	[illegible]	[illegible]				DI 3526
DI 3528	[illegible]	[illegible]				3527
DI 3529	7.[illegible]	[illegible]				DI 3528
DI 3530	6.9[illegible]	[illegible]			17' @ 3.81%	DI 3529
FES 3500	???'	[illegible]				

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE N/A

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA
STORM SEWER SCHEDULE

JOB NO. 44529
SHEET NO. C4.5

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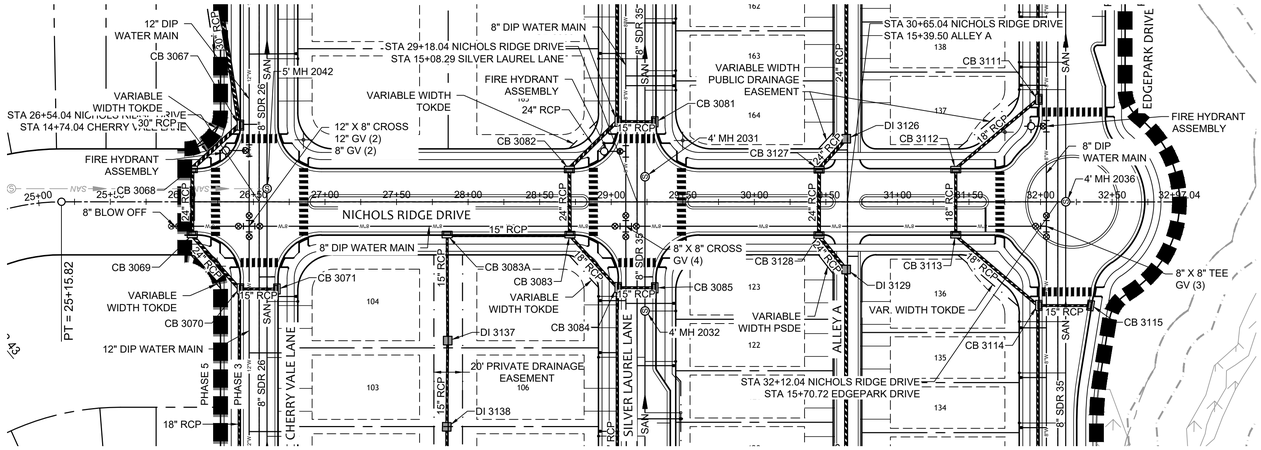
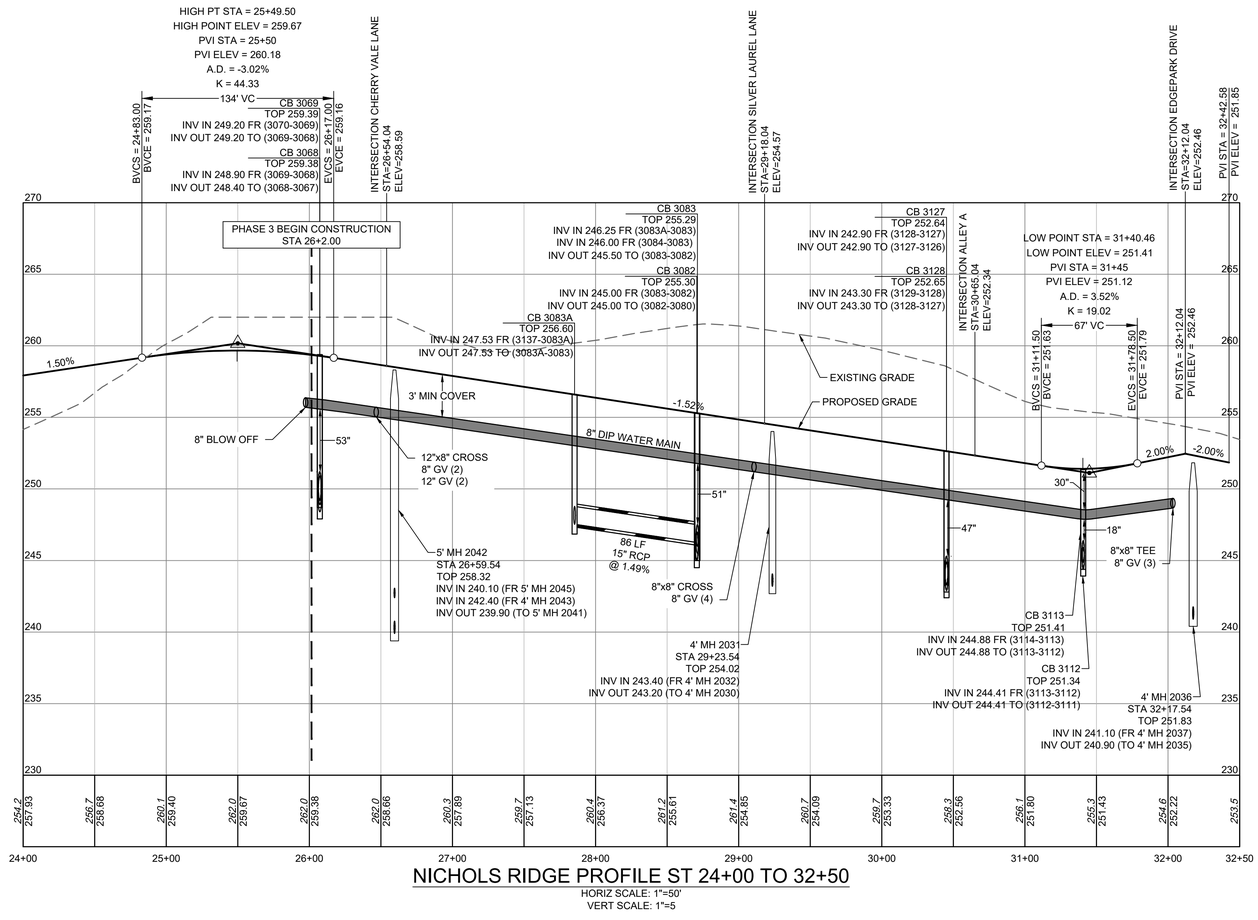
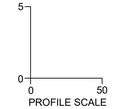
S:\331\44529-WL_MAR\DWG\Sheet\CD\Phase III\44529-331-C4.0-GRAD.dwg | Plotted by Jeremy Edens





NICHOLS RIDGE PROFILE ST 24+00 TO 32+50

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



KEYMAP
1"=1000' SCALE

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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City of Raleigh Public Utilities Department Permit # _____

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

SCALE 1"=50'
0 50' 100'

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

UTILITY NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
2. MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:
   WATER AND SANITARY SEWER MAINS - 10 FT.
   WATER AND STORM SEWER MAINS - 5 FT.
   SANITARY SEWER AND STORM SEWER MAINS - 5 FT.
   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
3. MINIMUM UTILITY VERTICAL SEPARATION DISTANCES:
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   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

NICHOLS RIDGE DRIVE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.1

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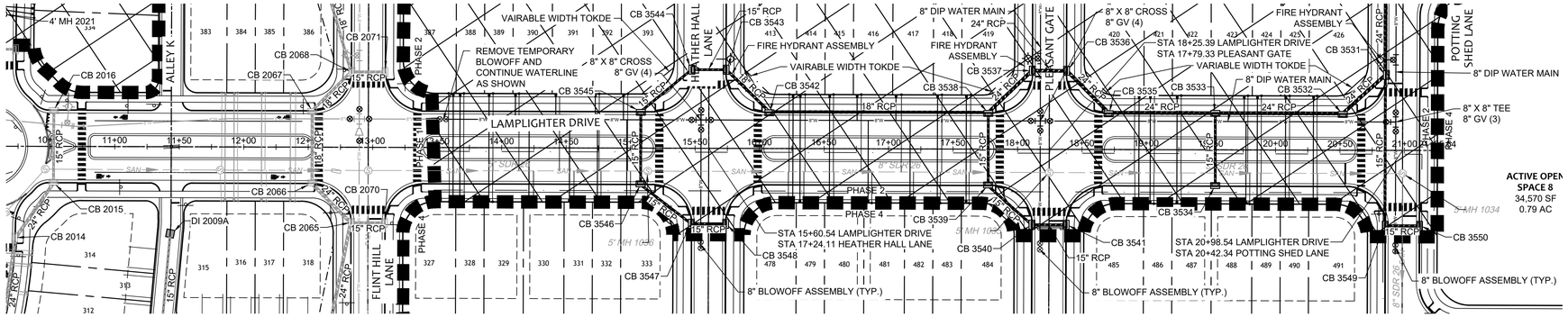
S:\331\44529-WL_MAR\DWG\Sheet\(20)\Phase III\44529-331-CX0-PROF-ROAD-B.dwg | Plotted by Jeremy Edens



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City of Raleigh Public Utilities Department Permit # _____

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
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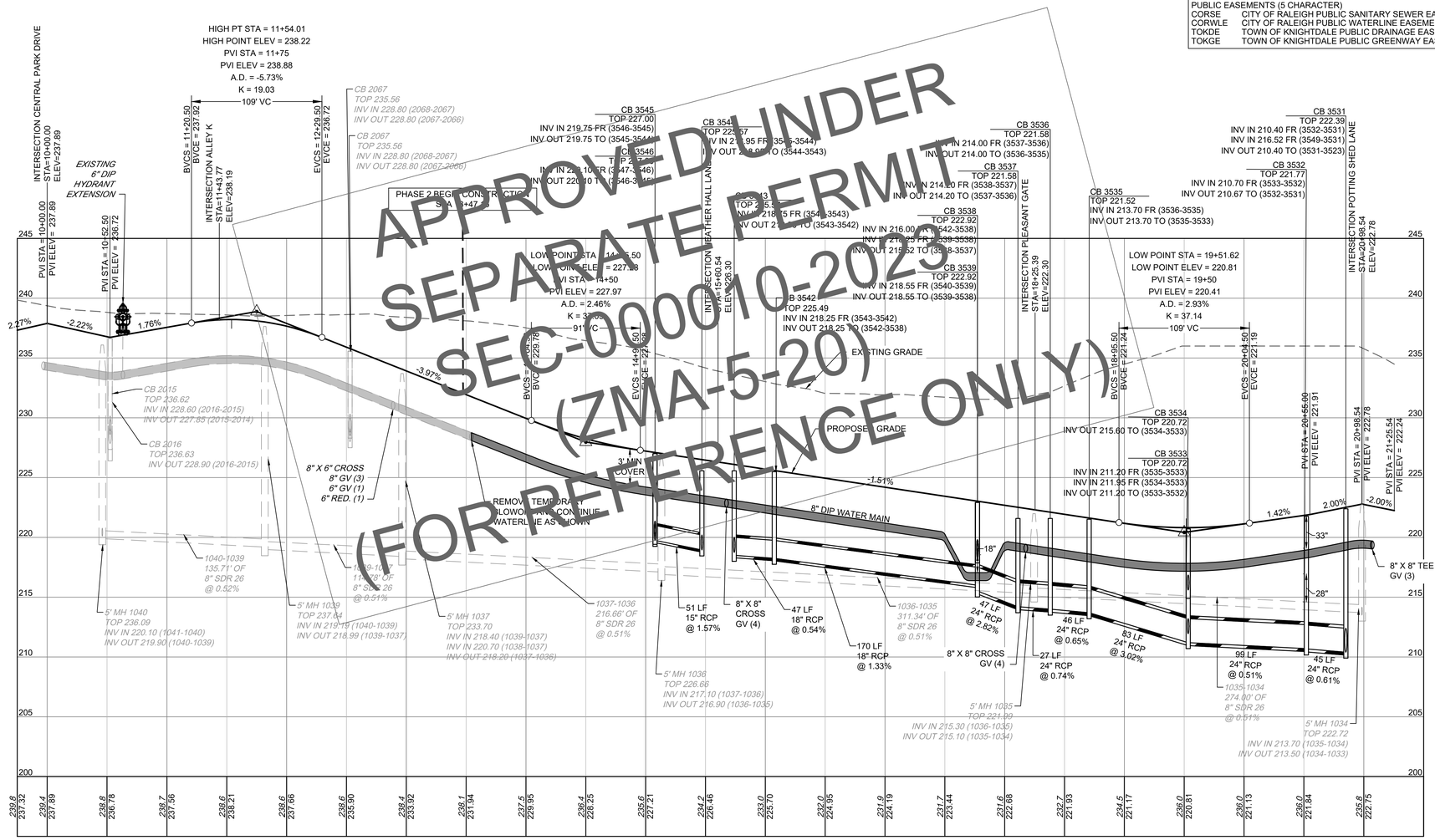
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY



LAMPLIGHTER DRIVE PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

PROFILE SCALE
5
0
0
50

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

UTILITY NOTES:

1. **ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH WAKE COUNTY STANDARDS AND SPECIFICATIONS.**
2. **MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 10 FT. WATER AND STORM SEWER MAINS - 5 FT. SANITARY SEWER AND STORM SEWER MAINS - 5 FT. GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.**
3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 18 IN. WATER AND STORM SEWER MAINS - 18 IN. SANITARY SEWER AND STORM SEWER MAINS - 24 IN.**

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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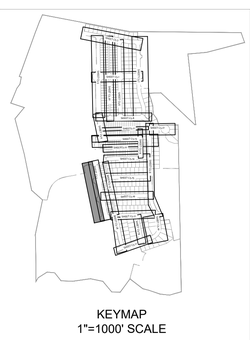
City of Raleigh Development Approval _____

Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

LAMPLIGHTER DRIVE PLAN & PROFILE

JOB NO. 44529

SHEET NO. C5.2

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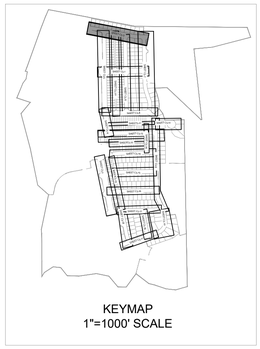
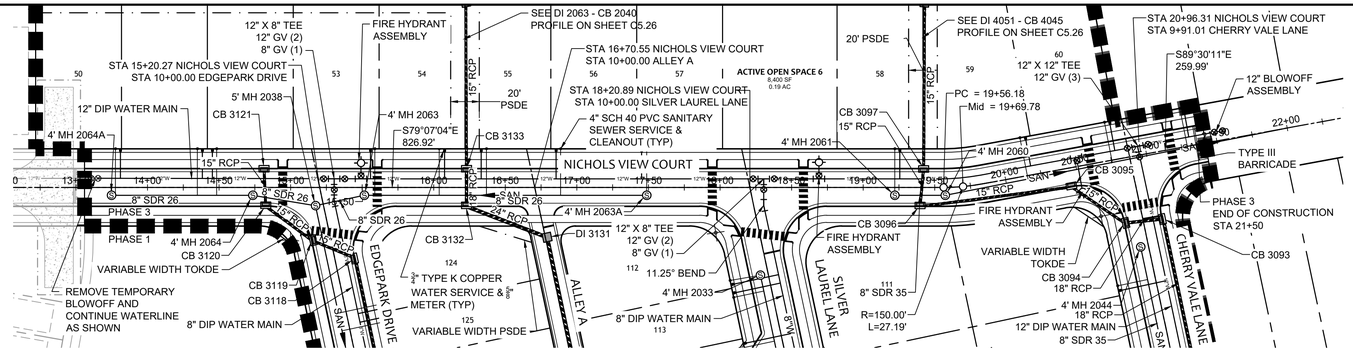
S:\331\44529-WIL_MAR\CWG\Sheet\CD\Phase III\44529_331-CX-0-PROF-ROAD-D.dwg | Plotted by Jeremy Edens





Water and Sewer Permits (If applicable)

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
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CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

SCALE 1"=50'
0 50' 100'

NAD 83
GRID NORTH

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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City of Raleigh Development Approval _____

Raleigh Water Review Officer

UTILITY NOTES:

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2. **MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:**
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   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
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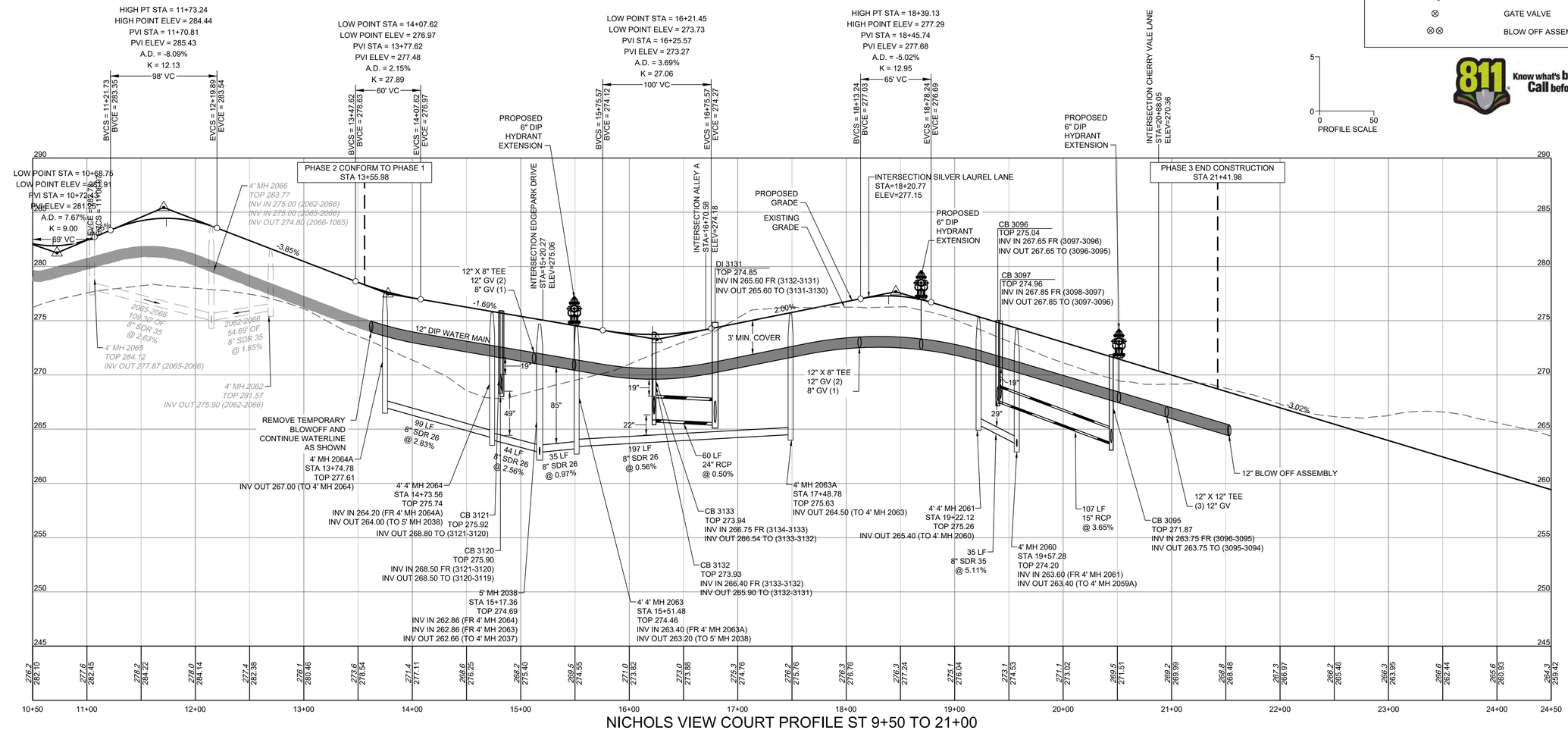
   WATER AND SANITARY SEWER MAINS - 18 IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.
4. **CLASS 1 STRUCTURAL MATERIAL REQUIRED FROM EXISTING GROUND TO SPRING LINE OF PROPOSED PIPE IN FILL CONDITIONS (TYP).**

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

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



NICHOLS VIEW COURT PROFILE ST 9+50 TO 21+00

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

5
0
0 50
PROFILE SCALE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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FOR REVIEW ONLY: NOT FOR CONSTRUCTION

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

NICHOLS VIEW COURT PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.3

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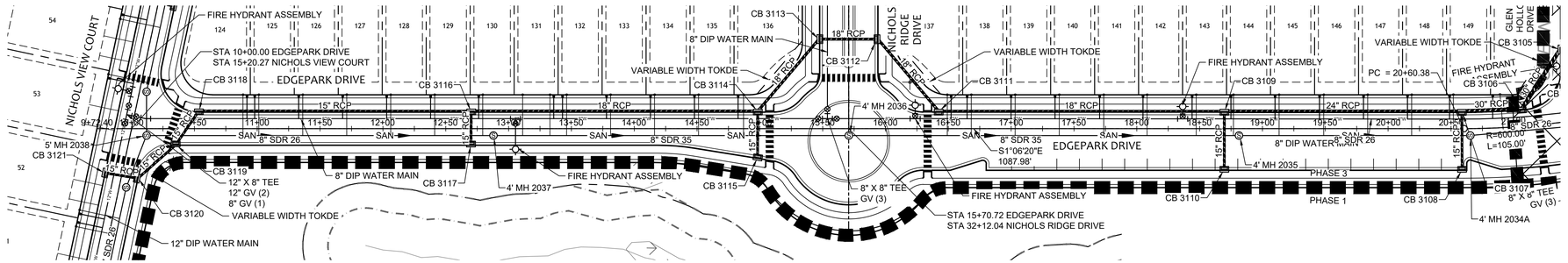
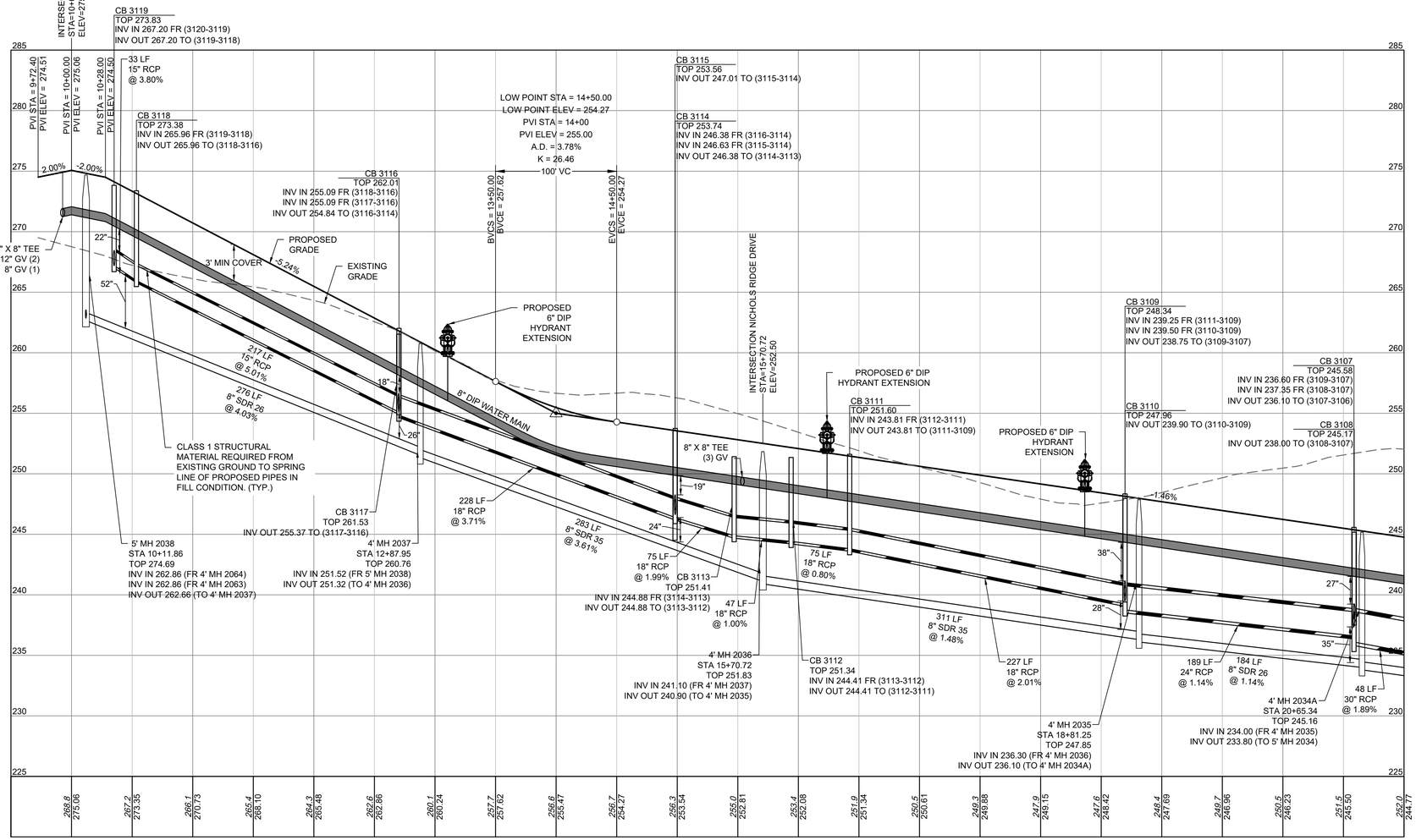
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX0-PROF-ROAD-E.dwg | Plotted by Jeremy Edens



NAD 83



EDGEPARK DRIVE PROFILE ST 9+50 TO 21+00

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

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DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

EASEMENT LEGEND

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SCALE 1"=50'
0 50' 100'

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   SANITARY SEWER AND STORM SEWER MAINS - 5 FT.
   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
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   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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City of Raleigh Development Approval _____

Raleigh Water Review Officer

5
0
0 50
PROFILE SCALE

KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

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DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

EDGEPARK DRIVE PLAN & PROFILE - SHEET 1 OF 2

JOB NO. 44529
SHEET NO. C5.4

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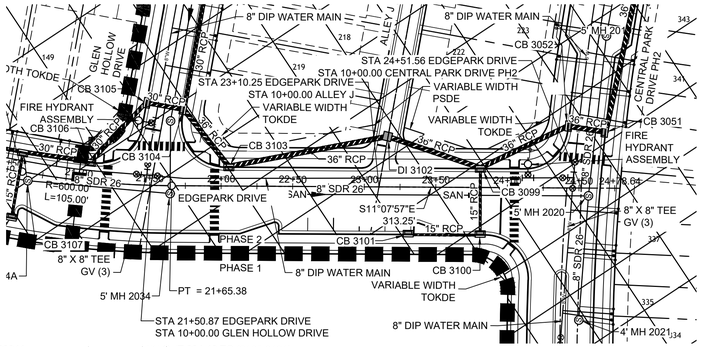
S:\33\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX(0-PROF-ROAD-F.dwg | Plotted by Jeremy Edens



EDGEPARK DRIVE PROFILE ST 21+00 TO 25+00

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA 5-20) (FOR REFERENCE ONLY)

5
0
0 50
PROFILE SCALE

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

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TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

SCALE 1"=50'
0 50' 100'

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

UTILITY NOTES:

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3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 18 IN. WATER AND STORM SEWER MAINS - 18 IN. SANITARY SEWER AND STORM SEWER MAINS - 24 IN.**

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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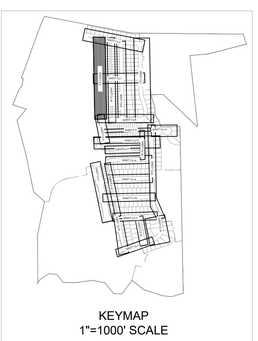
City of Raleigh Development Approval _____

Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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

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TIMMONS GROUP

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

EDGEPARK DRIVE PLAN & PROFILE - SHEET 2 OF 2

JOB NO. 44529
SHEET NO. C5.5

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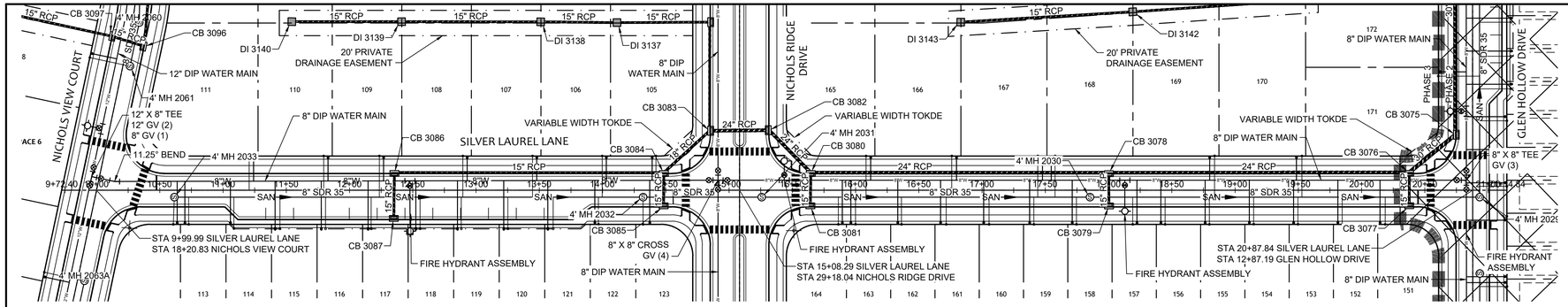

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PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

NAD 83

SCALE 1"=50'
0 50' 100'

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

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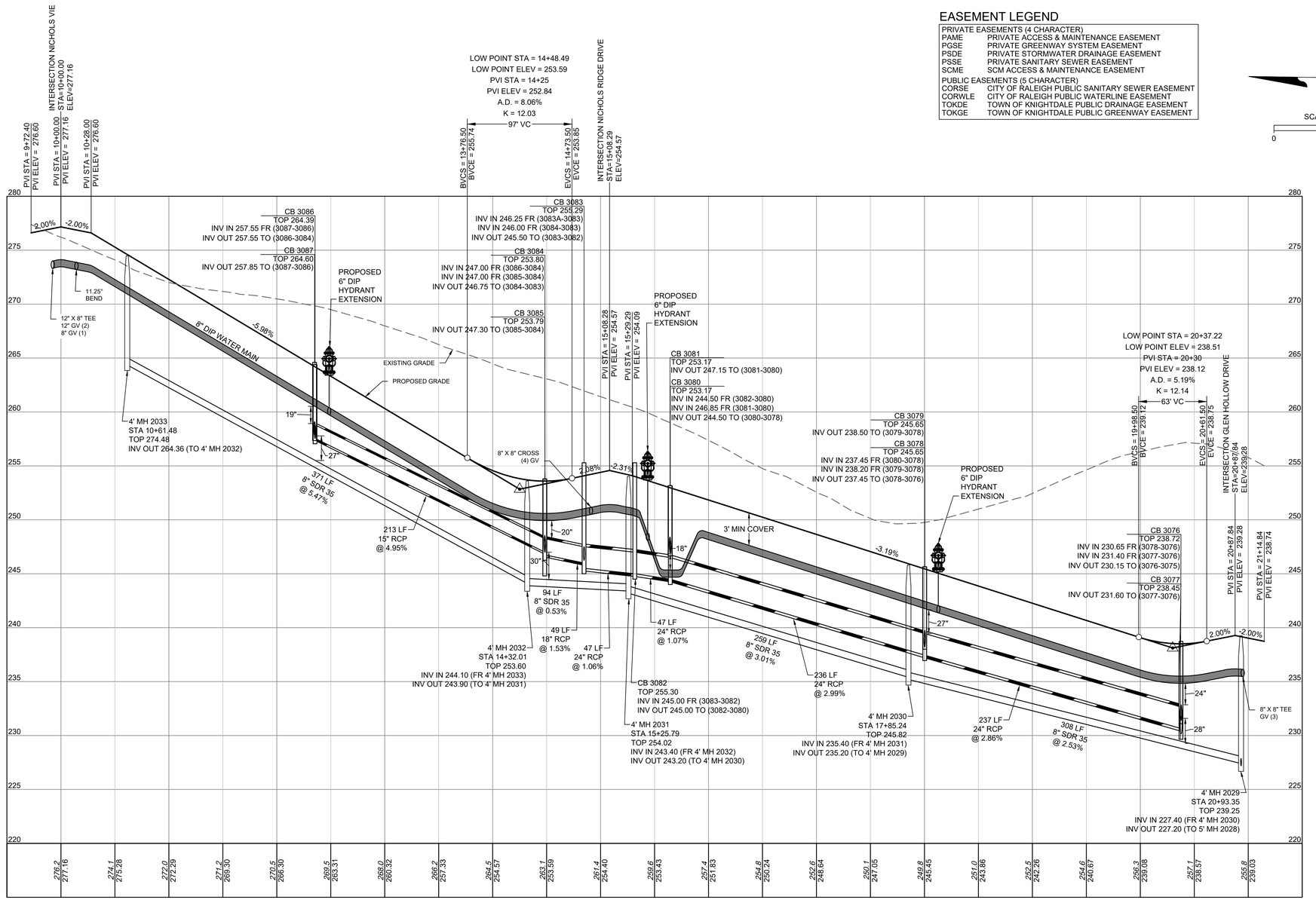

SILVER LAUREL LANE PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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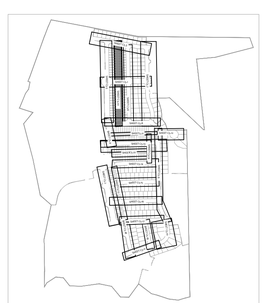
City of Raleigh Development Approval _____

Raleigh Water Review Officer

5
0 50
PROFILE SCALE



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
SILVER LAUREL LANE PROFILE

JOB NO. 44529
SHEET NO. C5.6

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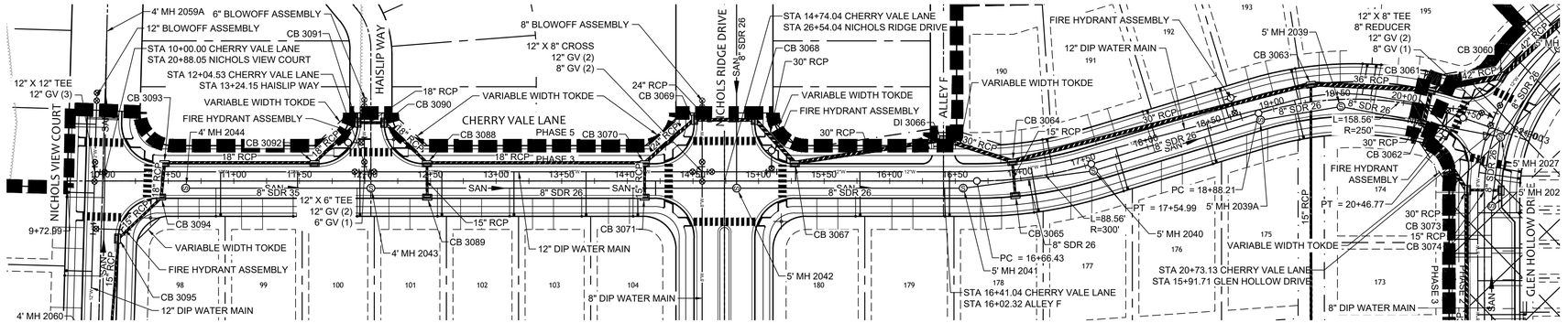

SCALE 1"=50'
0 50' 100'
NAD 83

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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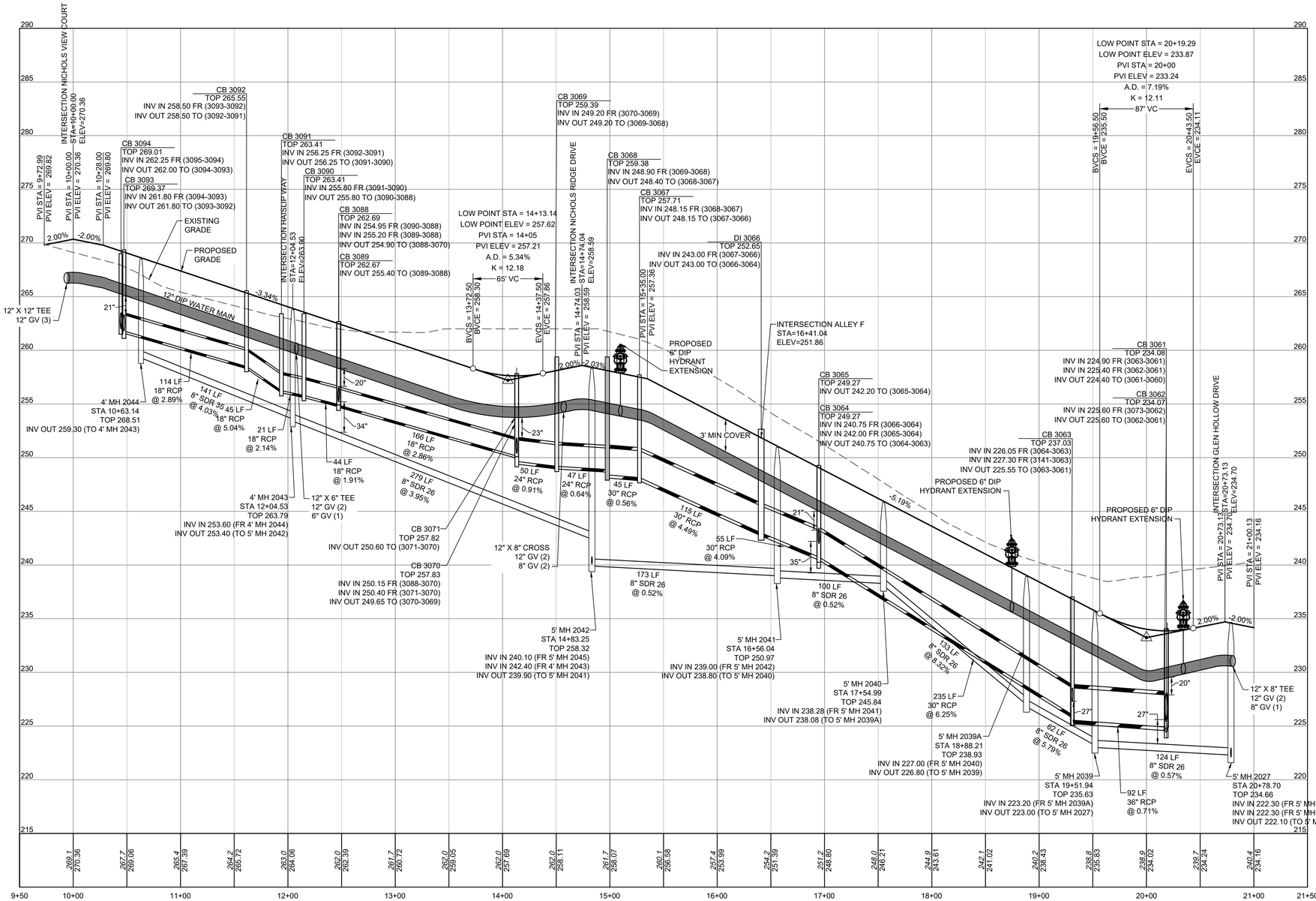
BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY



CHERRY VALE LANE PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

5
0
0 50
PROFILE SCALE

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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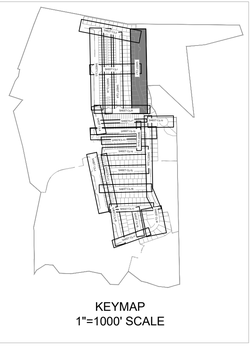
City of Raleigh Development Approval _____

Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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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.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
CHERRY VALE LANE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.7

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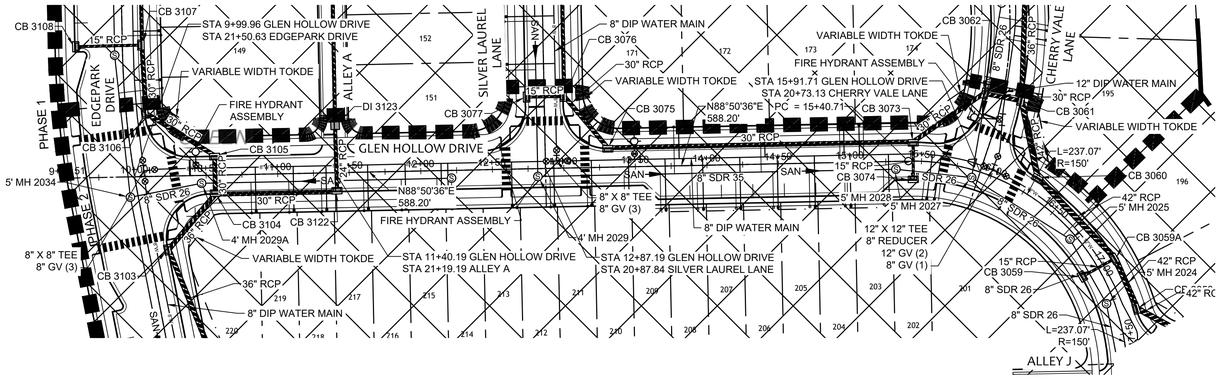
S:\331\44529- WIL_MAR\CIVIL\Sheet\CD\Phase III\44529_331-CV_0-PROF_ROAD-H.dwg | Plotted by Jeremy Edens



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BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

5
0
0 50
PROFILE SCALE

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
@	WATER METER
	REDUCER
⊗	GATE VALVE
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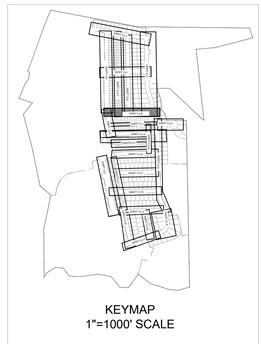

KEYMAP
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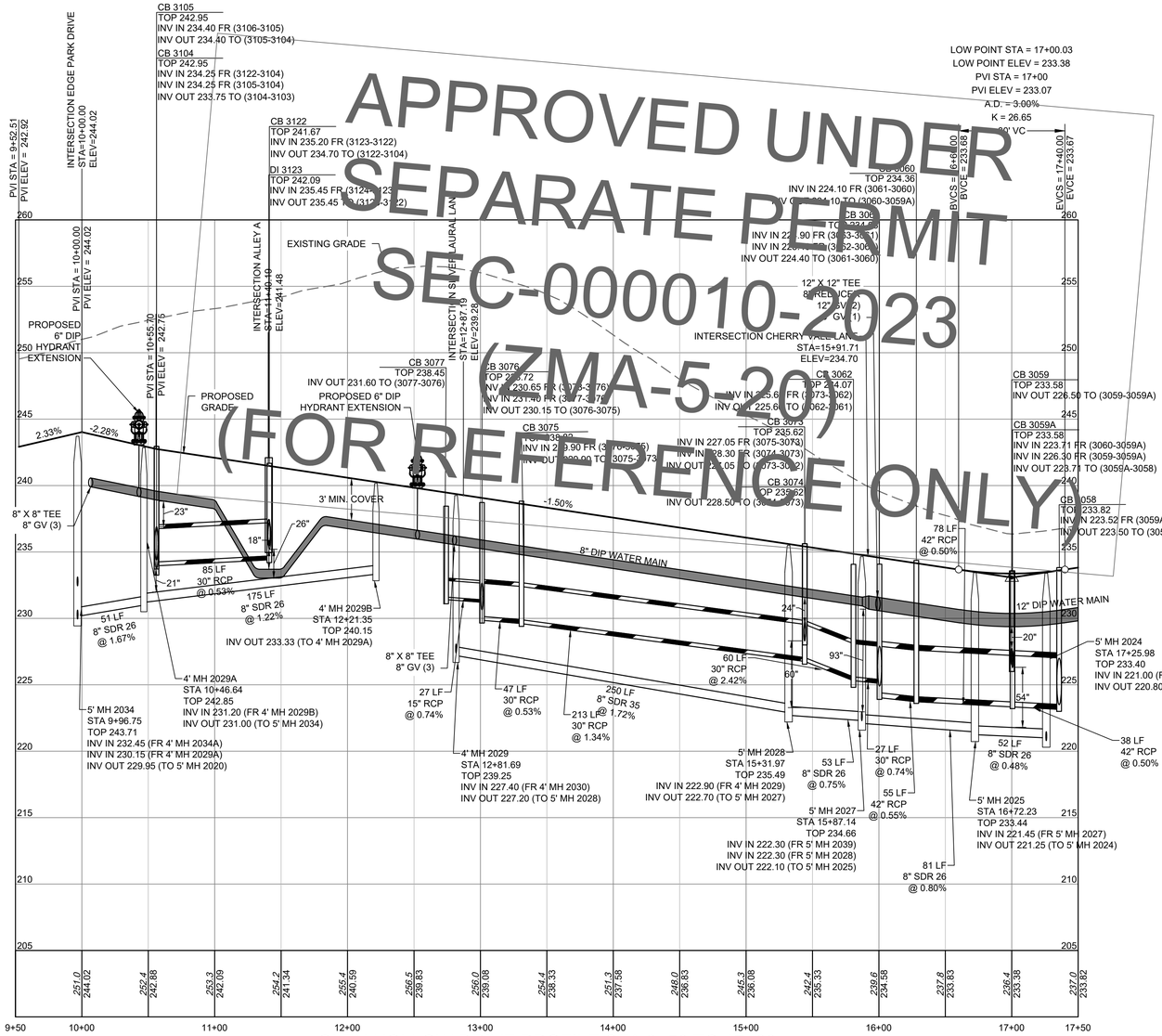

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

GLEN HOLLOW DRIVE PROFILE STA 9+50 TO 17+00
HORIZ SCALE: 1"=50'
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S:\331\44529-WIL_MAR\DWG\Sheet\C0\Phase III\44529-331-CX-0-PROF-ROAD-K.dwg | Plotted by Jeremy Edens

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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TIMMONS GROUP

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 1 OF 4

JOB NO. 44529
SHEET NO. C5.8

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BY: ______________________________ DATE: ____________
ADMINISTRATOR

UTILITY LEGEND

Symbol	Description
SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

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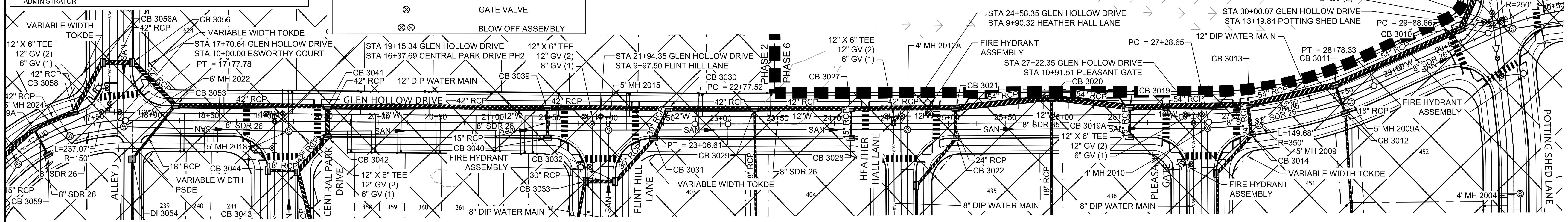
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT



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

NAD 83

PROFILE SCALE 0 50

SCALE 1"=50' 0 50' 100'

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** ____________

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City of Raleigh Public Utilities Department Permit # ____________

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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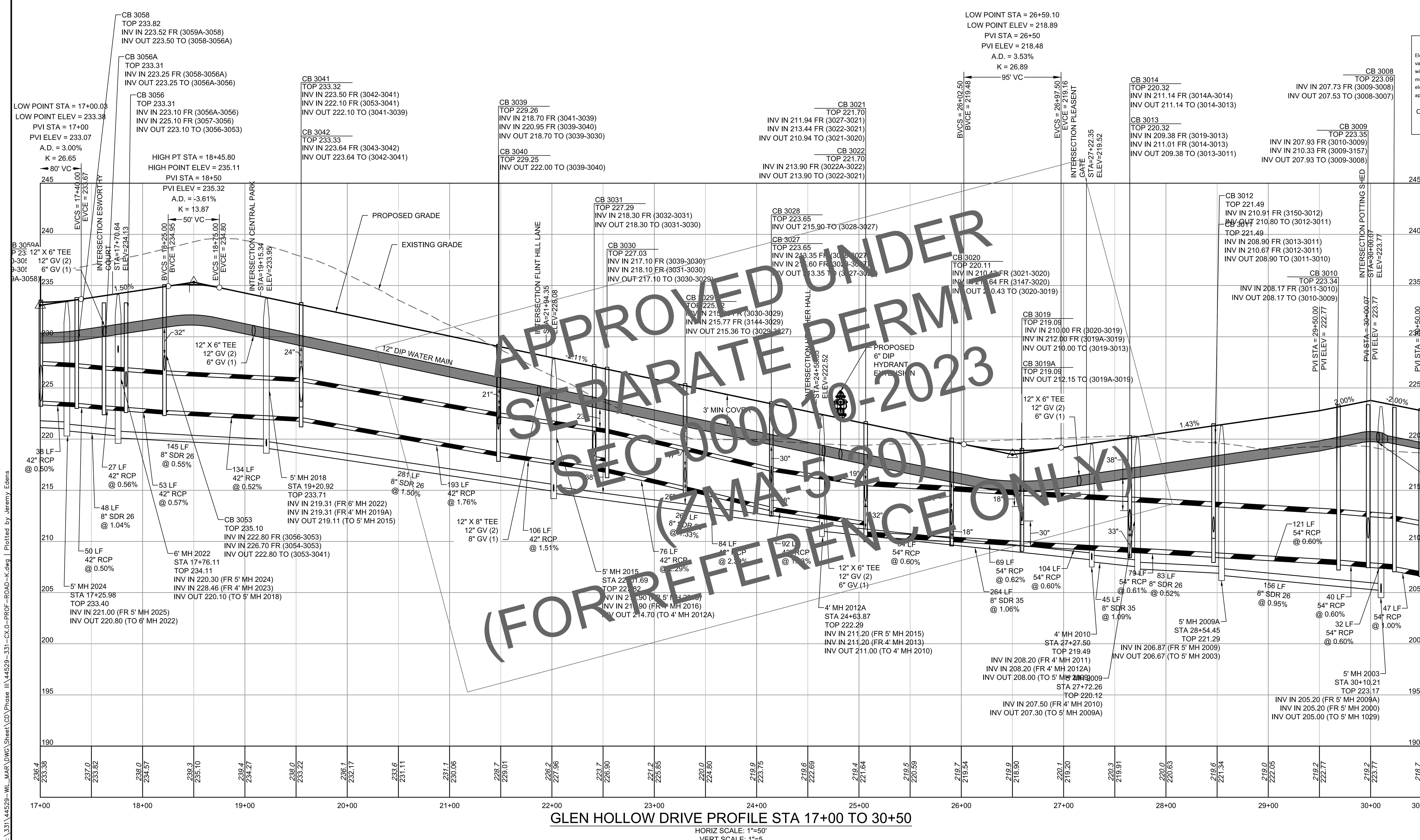
City of Raleigh Development Approval ____________

Raleigh Water Review Officer



APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

GLEN HOLLOW DRIVE PROFILE STA 17+00 TO 30+50

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

KEYMAP
1"=1000' SCALE

SEAL 053562 NORTH CAROLINA PROFESSIONAL ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE	07/11/2024
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	A. STONE
SCALE	H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 2 OF 4

JOB NO.	44529
SHEET NO.	C5.9

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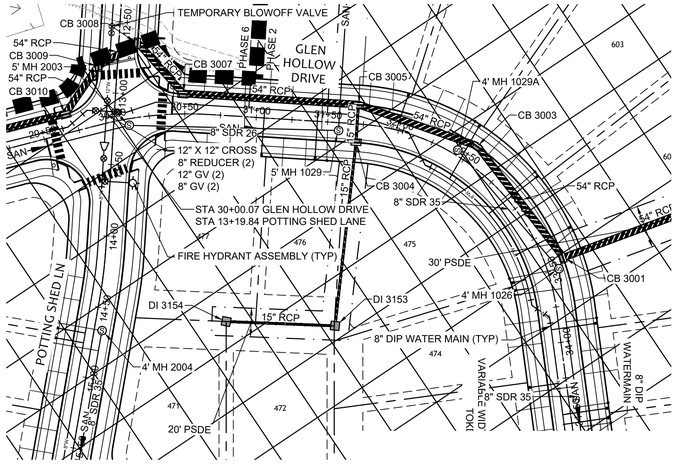
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX.0-PROF-ROAD-K.dwg | Plotted by Jeremy Edens



CB 3010
TOP 223.34
INV IN 208.17 FR (3011-3010)
INV OUT 208.17 TO (3010-3009)

CB 3009
TOP 223.35
INV IN 207.93 FR (3010-3009)
INV IN 210.33 FR (3009-3157)
INV OUT 207.93 TO (3009-3008)

12" X 12" CROSS
8" REDUCER (2)
12" GV (2)
8" GV (2)

CB 3004
TOP 220.88
INV IN 209.02 FR (3153-3004)
INV OUT 208.92 TO (3004-3005)

CB 3005
TOP 220.88
INV IN 206.32 FR (3007-3005)
INV IN 208.79 FR (3004-3005)
INV OUT 208.32 TO (3005-3003)

CB 3007
TOP 222.98
INV IN 207.06 FR (3008-3007)
INV OUT 207.06 TO (3007-3009)

CB 3003
TOP 219.46
INV IN 205.75 FR (3005-3003)
INV OUT 205.75 TO (3003-3001)

CB 3001
TOP 217.77
INV IN 205.70 FR (3003-3001)
INV OUT 205.70 TO (3001-3000A)

GLEN HOLLOW DRIVE PROFILE ST 29+50 TO 34+50

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

Water and Sewer Permits (If applicable)

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City of Raleigh Public Utilities Department Permit # _____

UTILITY NOTES:

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2. **MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:**
   WATER AND SANITARY SEWER MAINS - 10 FT.
   WATER AND STORM SEWER MAINS - 5 FT.
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   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
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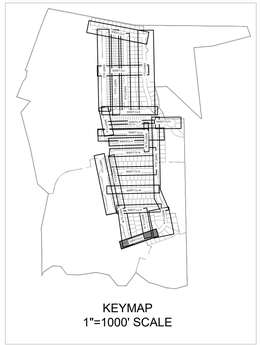
   WATER AND SANITARY SEWER MAINS - 18IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.



KEYMAP
1"=1000' SCALE

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

5
0
0 50
PROFILE SCALE

SCALE 1"=50'
0 50' 100'

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

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 3 OF 4

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'
JOB NO. 44529
SHEET NO. C5.10

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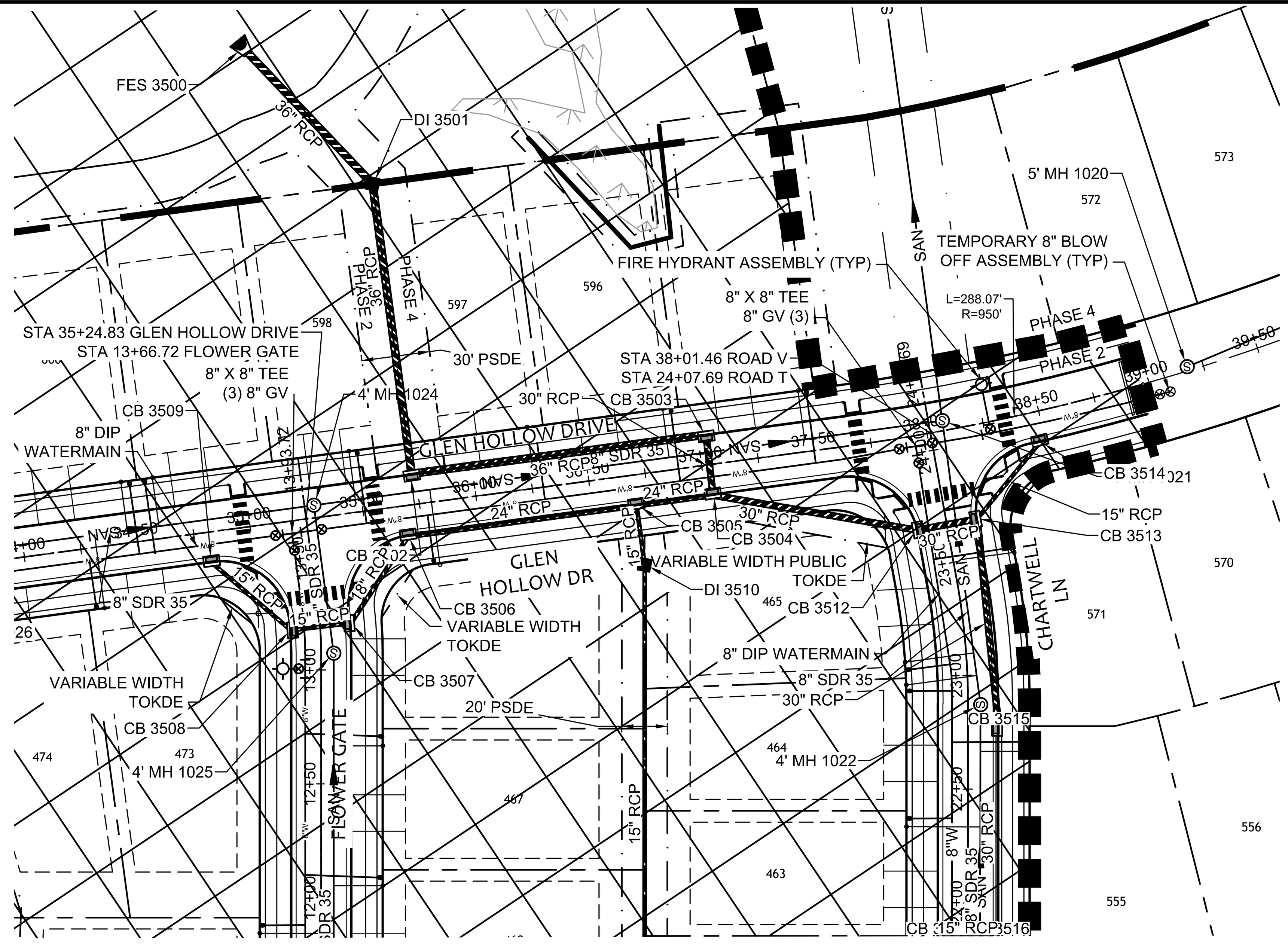

UTILITY NOTES:

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2. MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:
   WATER AND SANITARY SEWER MAINS - 10 FT.
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   WATER AND SANITARY SEWER MAINS - 18 IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.
4. CLASS 1 STRUCTURAL MATERIAL REQUIRED FROM EXISTING GROUND TO SPRING LINE OF PROPOSED PIPE IN FILL CONDITIONS (TYP).

Water and Sewer Permits (If applicable)

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City of Raleigh Public Utilities Department Permit # ______

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BY: ______ DATE: ______
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: ______ DATE: ______
ADMINISTRATOR

NAD 83

PROFILE SCALE 0 50 (horizontal), 0 5 (vertical)

SCALE 1"=50' 0 50' 100'

UTILITY LEGEND

Symbol	Description
SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
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PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
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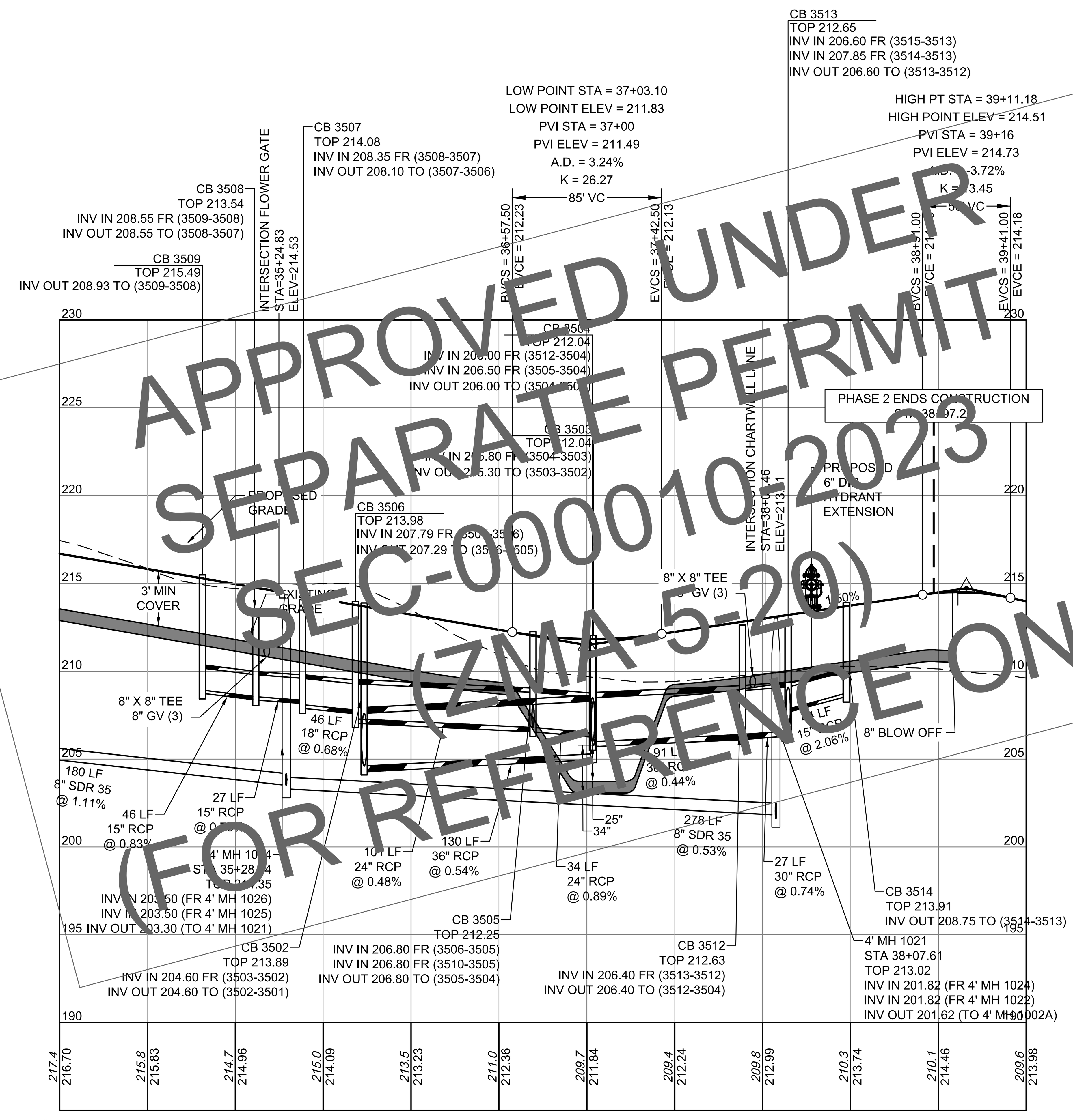
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT



GLEN HOLLOW DRIVE PROFILE ST 34+00 TO 46+50

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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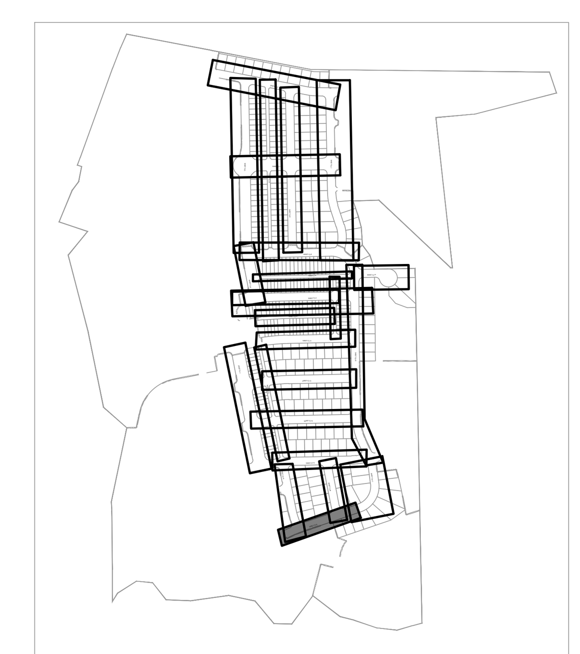
City of Raleigh Development Approval ______

Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE	07/11/2024
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	A. STONE
SCALE	H: 1" = 50' V: 1" = 5'
JOB NO.	44529
SHEET NO.	C5.11

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

GLEN HOLLOW DRIVE PLAN & PROFILE - SHEET 4 OF 4

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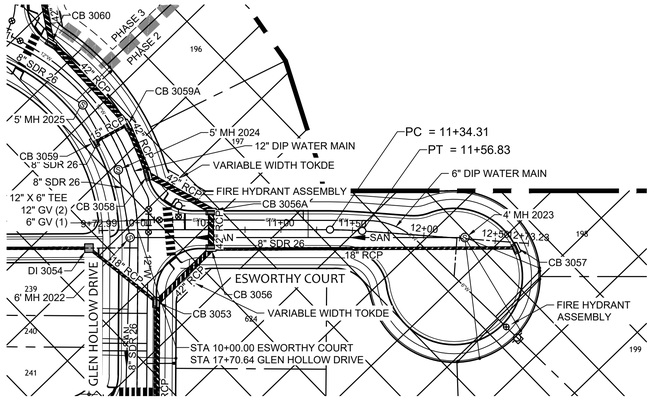
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX.0-PROF-ROAD-V.dwg | Plotted by Jeremy Edens



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City of Raleigh Public Utilities Department Permit # _____

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

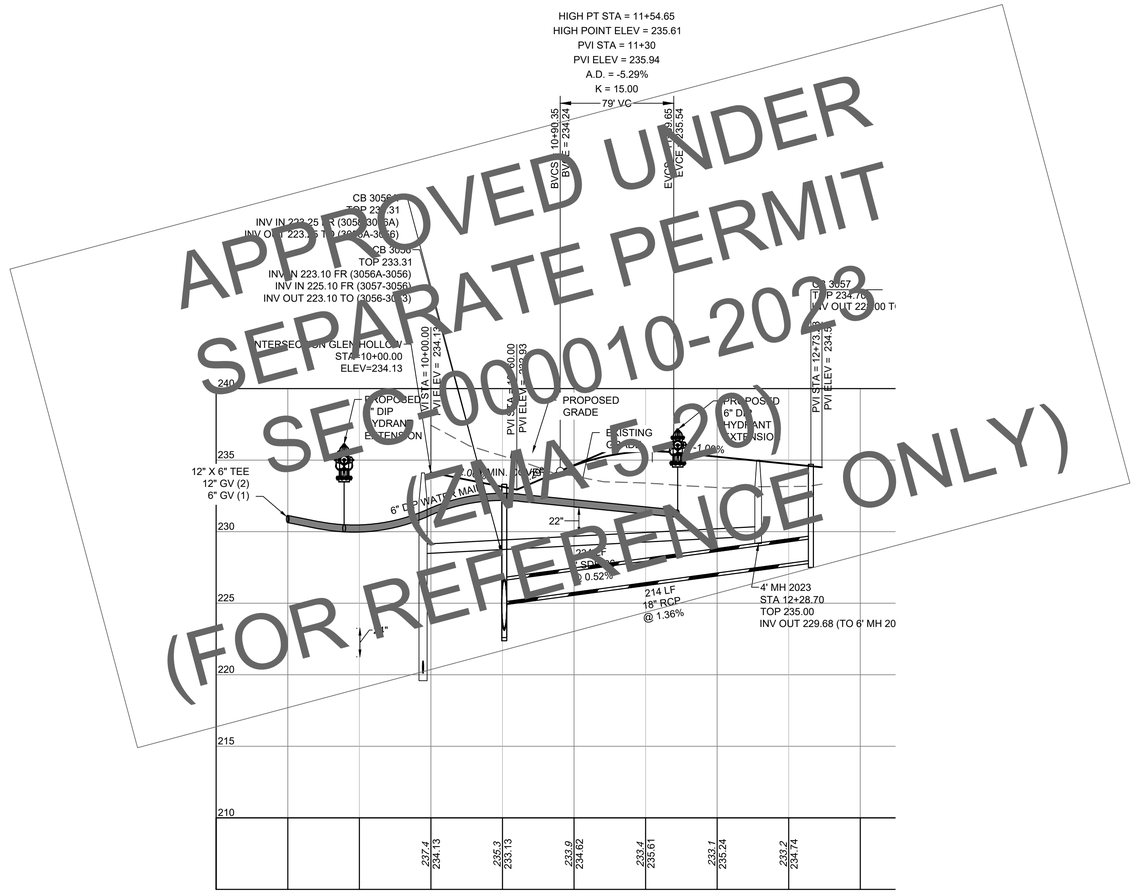
5
0
0 50
PROFILE SCALE

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

SCALE 1"=50'
0 50' 100'

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



ESWORTHY COURT PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC 00010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

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PRIVATE EASEMENTS (4 CHARACTER)	
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PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
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TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
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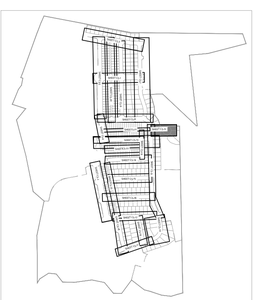

KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE

DATE
07/11/2024

DRAWN BY
331

DESIGNED BY
331

CHECKED BY
A. STONE

SCALE
H: 1" = 50'
V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

ESWORTHY COURT PLAN & PROFILE

JOB NO.
44529

SHEET NO.
C5.12

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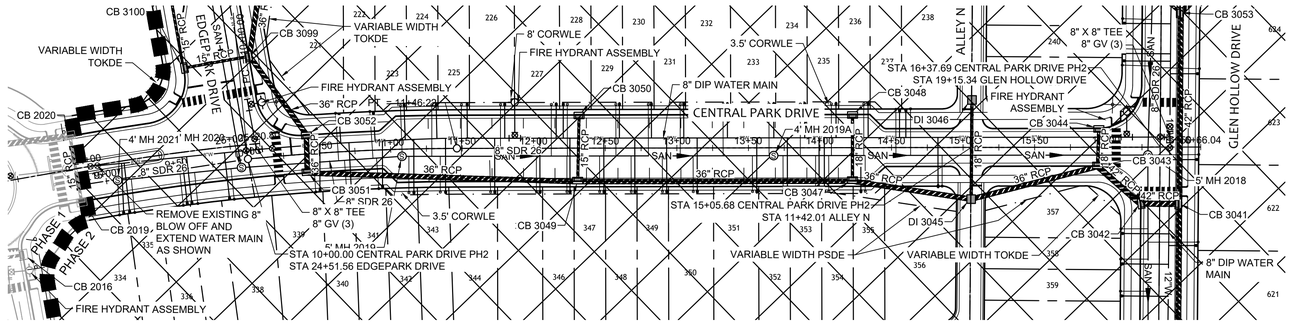

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SCALE 1"=50'
0 50' 100'

NAD 83

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

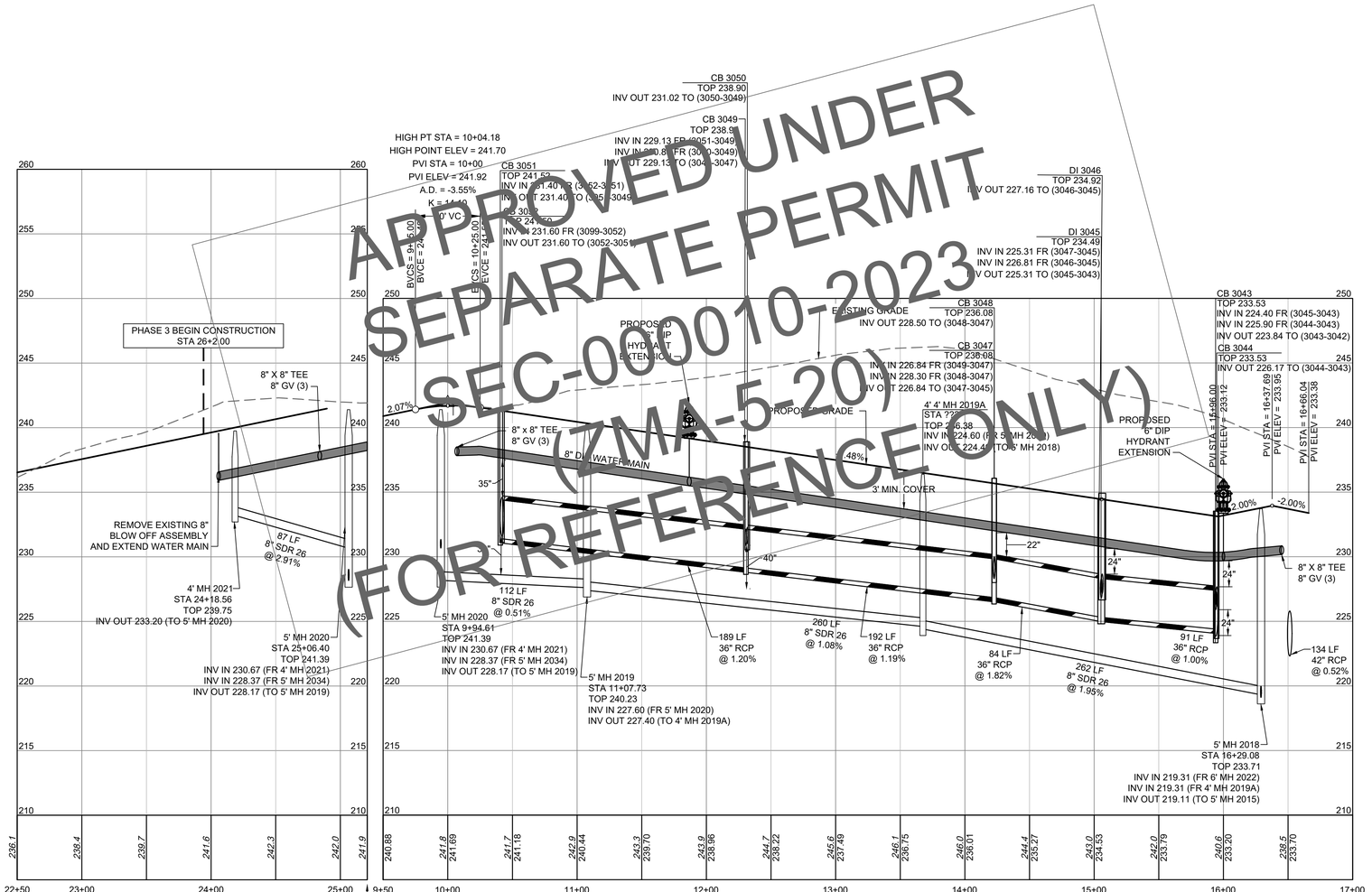
UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

5
0 50
PROFILE SCALE

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

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)



CENTRAL PARK DRIVE PROFILE (2)
HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

CENTRAL PARK DRIVE PROFILE
HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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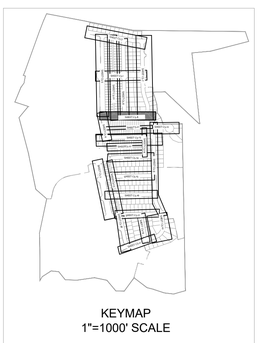
City of Raleigh Development Approval _____

Raleigh Water Review Officer

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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5410 Trinity Road, Suite 102 | Raleigh, NC 27607
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

CENTRAL PARK DRIVE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.13

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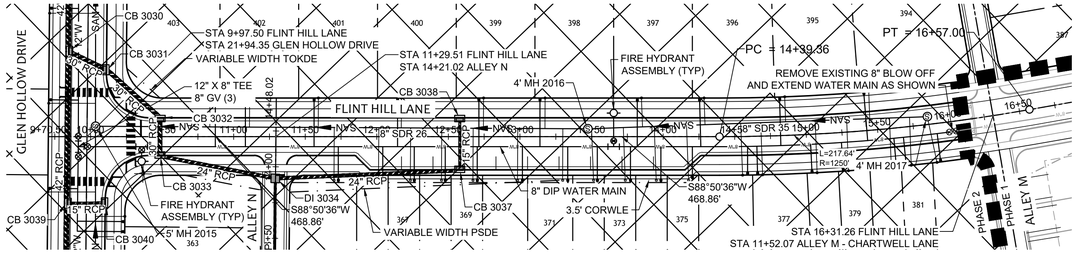
S:\331\44529-WIL_MAR\DWG\Sheet\C0\Phase III\44529-331-CX0-PROF-ROAD-M.dwg | Plotted by Jeremy Edens



UTILITY NOTES:

1. **ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.**
2. **MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:**
   WATER AND SANITARY SEWER MAINS - 10 FT.
   WATER AND STORM SEWER MAINS - 5 FT.
   SANITARY SEWER AND STORM SEWER MAINS - 5 FT.
   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES:**
   WATER AND SANITARY SEWER MAINS - 18 IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

5
0
0 50
PROFILE SCALE

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
@	WATER METER
	REDUCER
⊗	GATE VALVE
⊗⊗	BLOW OFF ASSEMBLY

SCALE 1"=50'
0 50' 100'

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

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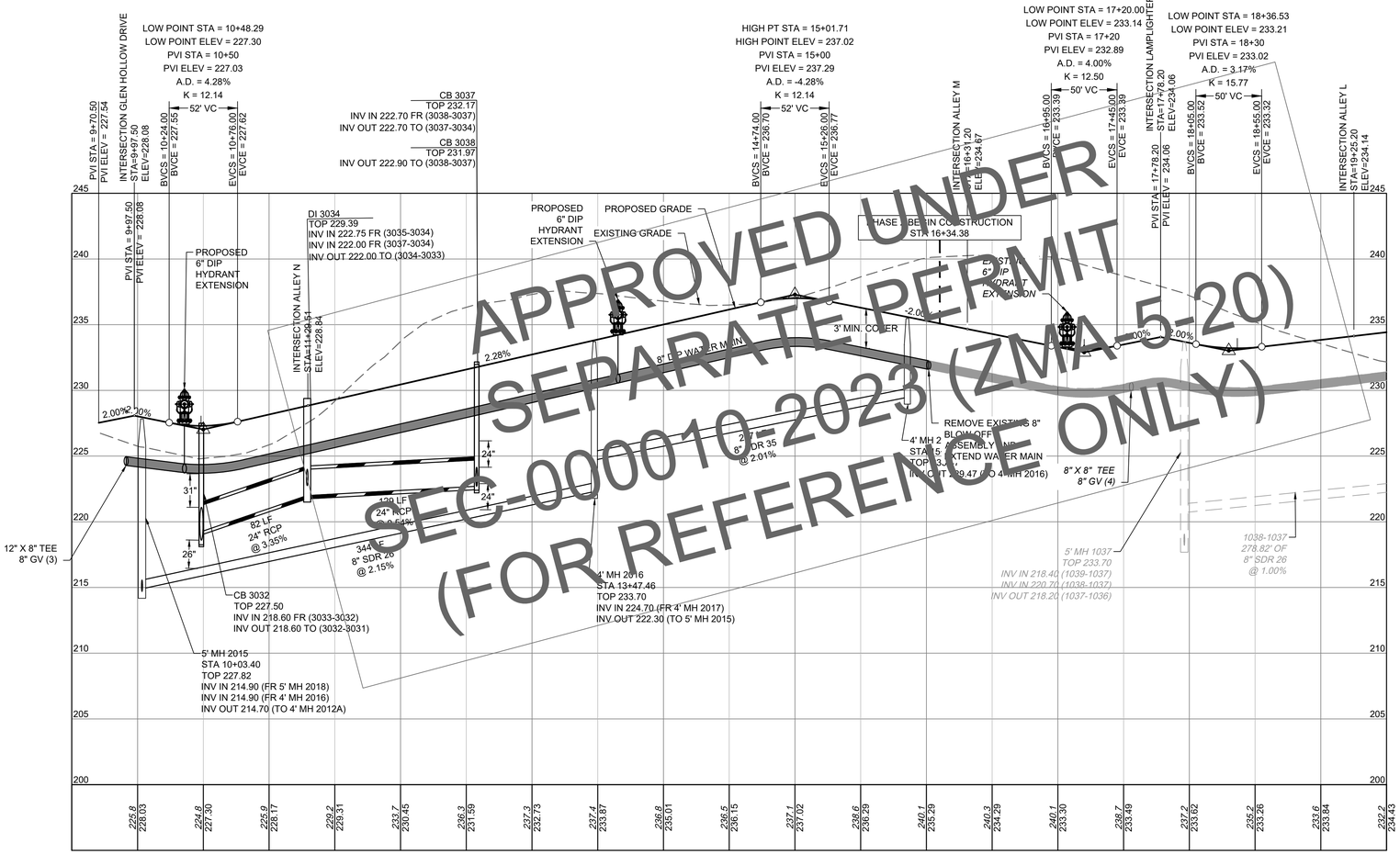
City of Raleigh Development Approval _____

Raleigh Water Review Officer



APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
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PUBLIC EASEMENTS (5 CHARACTER)	
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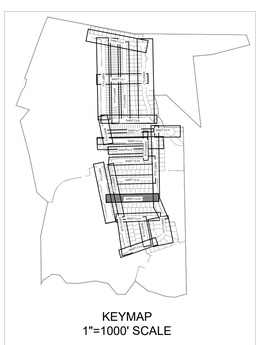

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

FLINT HILL LANE PLAN & PROFILE

REVISION DESCRIPTION	DATE

DATE	07/11/2024
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	A. STONE
SCALE	H: 1" = 50' V: 1" = 5'
JOB NO.	44529
SHEET NO.	C5.14

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S:_331\44529-WIL_MAR\CWO\Sheet\CD\Phase III\44529_331_CX_0_PROF_ROAD_N.dwg | Plotted by Jeremy Edens

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
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PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

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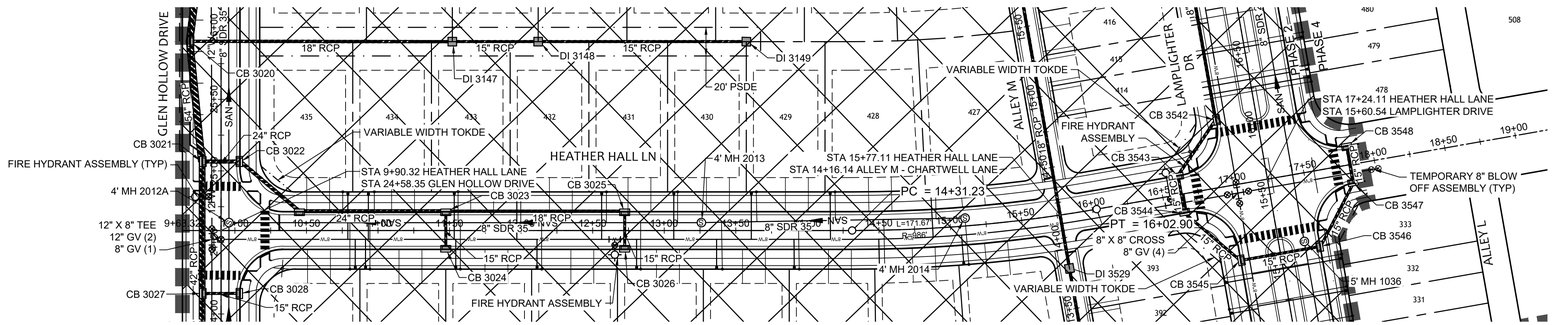
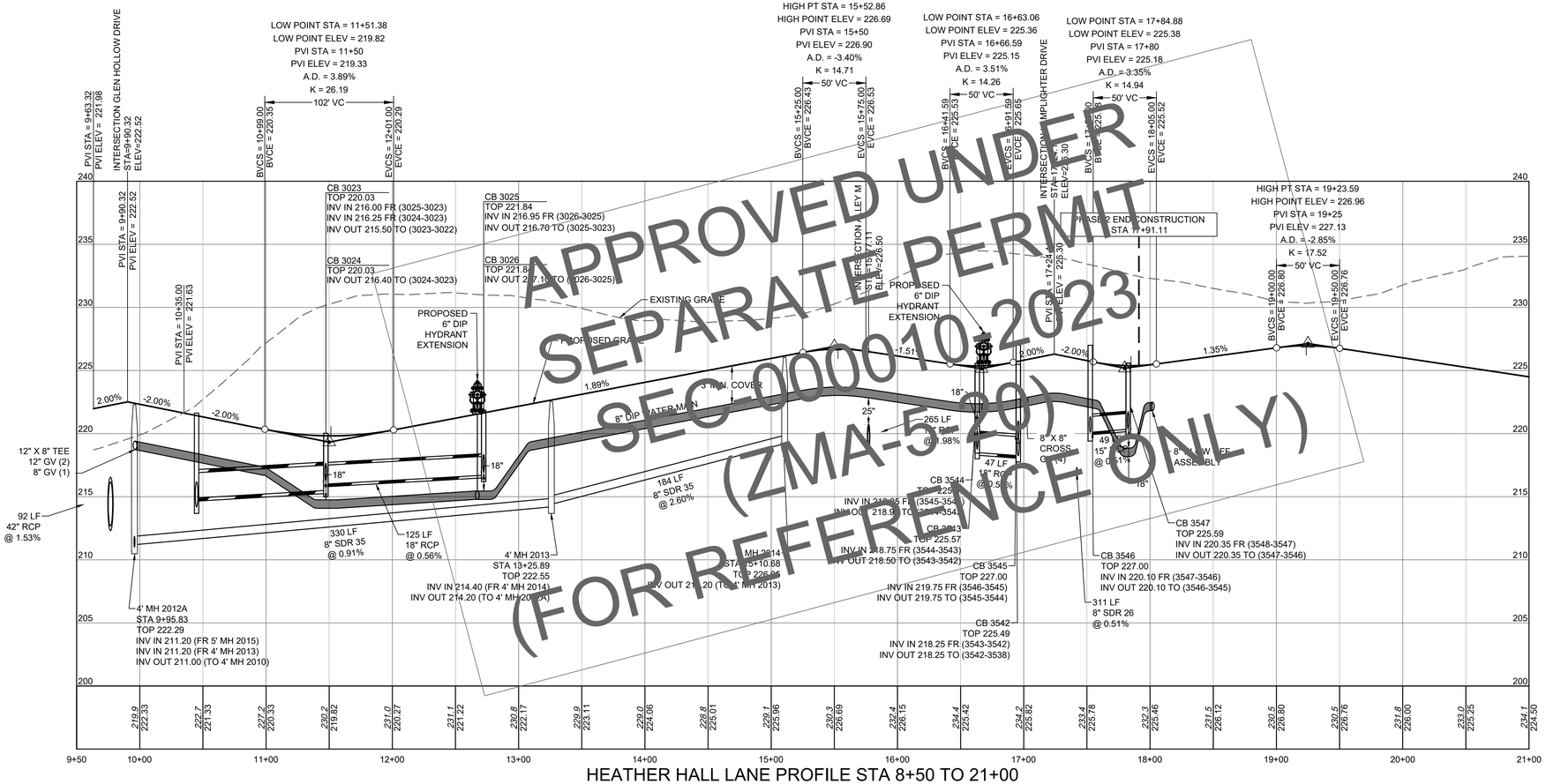
Raleigh Water Review Officer





HEATHER HALL LANE PROFILE STA 8+50 TO 21+00

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

NAD 83

SCALE 1"=50'
0 50' 100'

5
0 0 50
PROFILE SCALE

KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

HEATHER HALL LANE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.15

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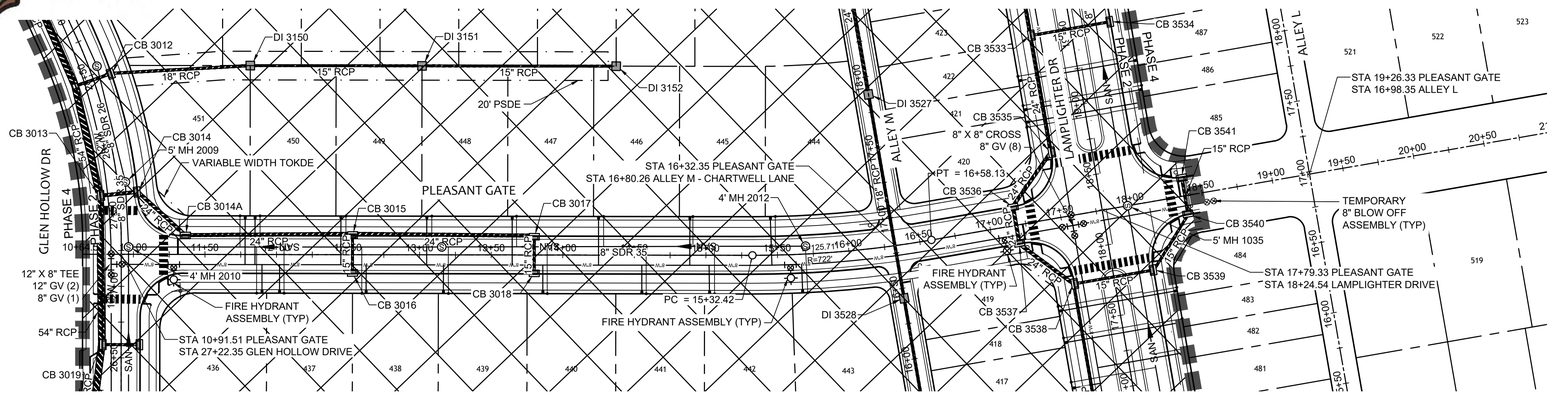
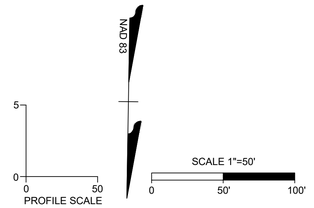


NAD 83



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Raleigh Water Review Officer

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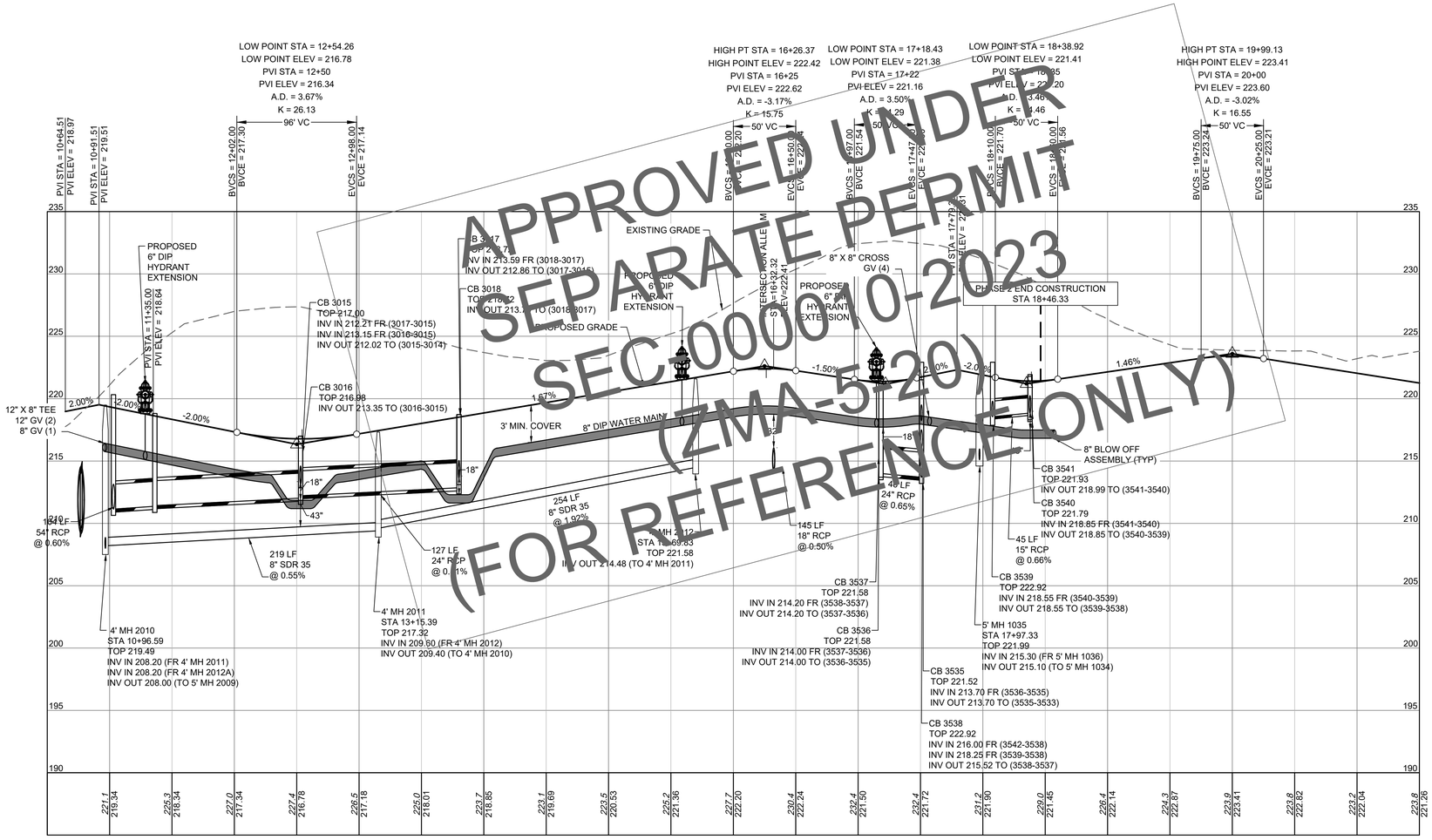
UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY



PLEASENT GATE PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-0000-10-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

EASEMENT LEGEND

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PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
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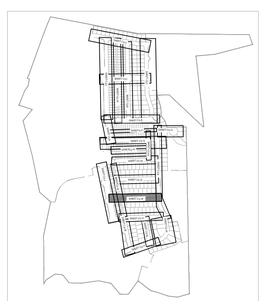

KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
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TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA
PLEASANT GATE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.16

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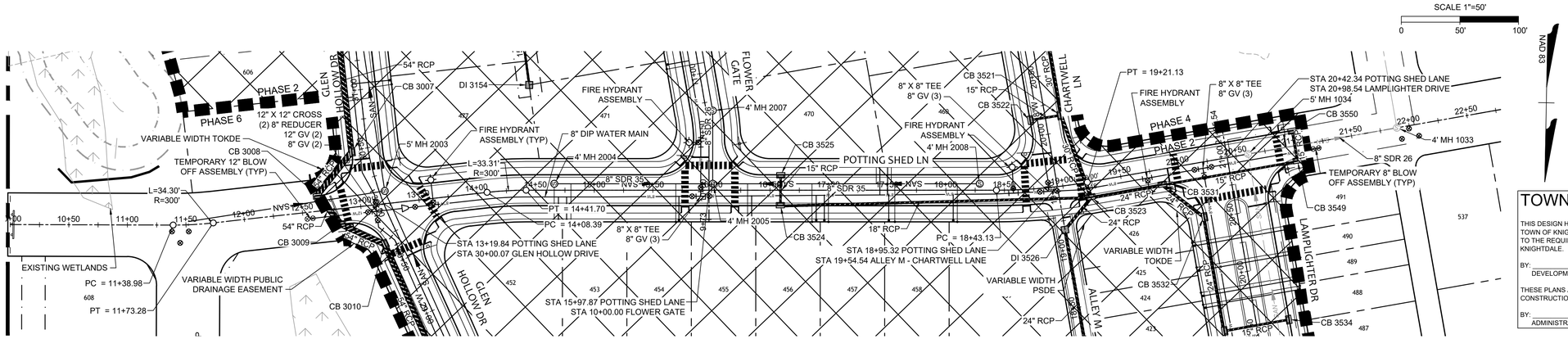

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CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
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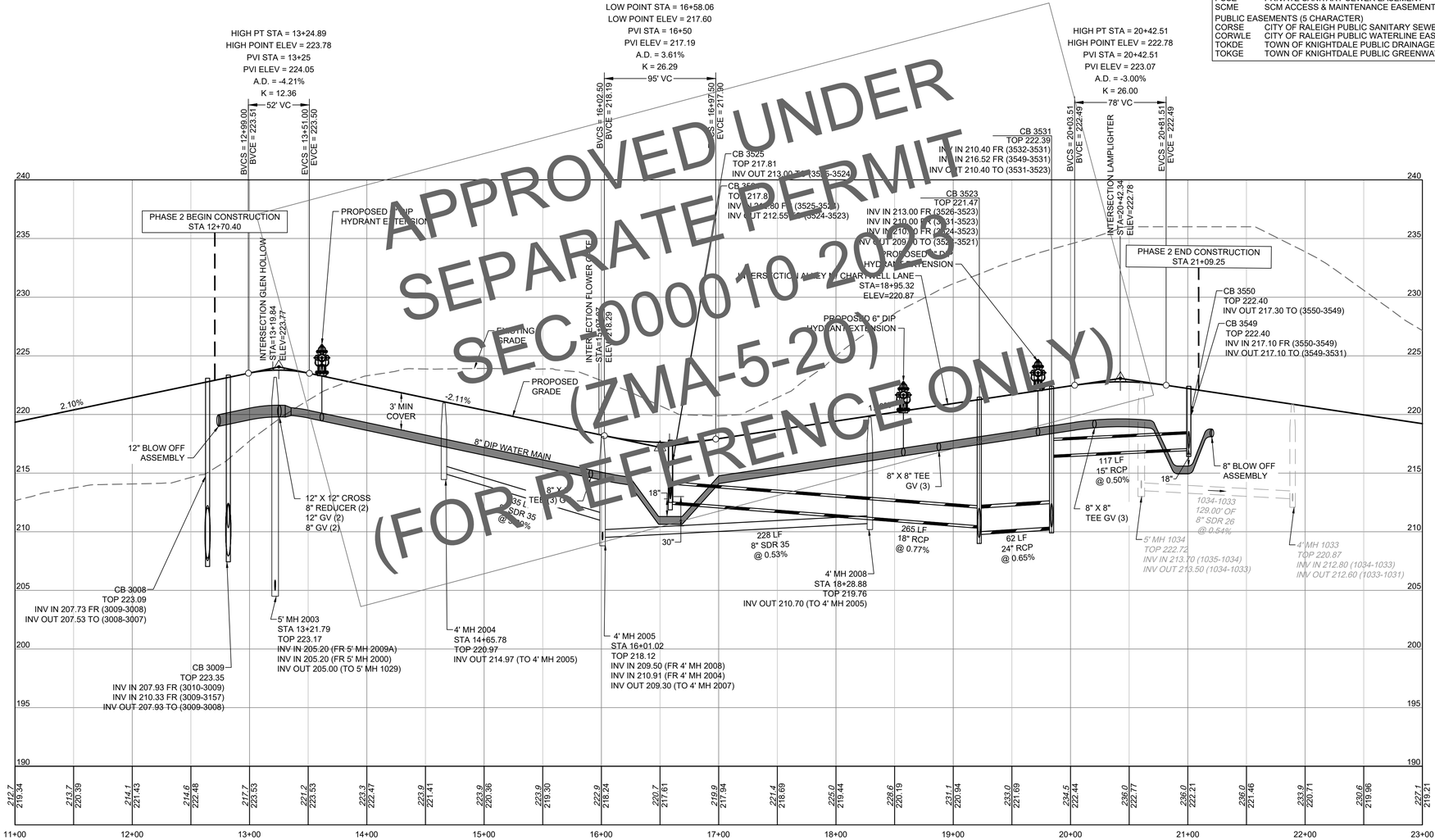

APPROVED UNDER SEPARATE PERMIT SEC 000010-2024 (ZMA-5-20) (FOR REFERENCE ONLY)

POTTING SHED LANE PROFILE STA 9+50 TO STA 21+00

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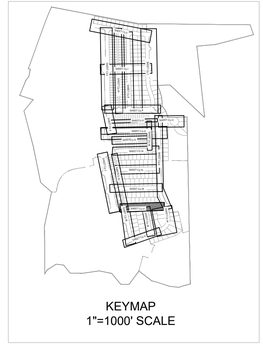
0
0 50
PROFILE SCALE



KEYMAP
1"=1000' SCALE

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

POTTING SHED LANE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.17

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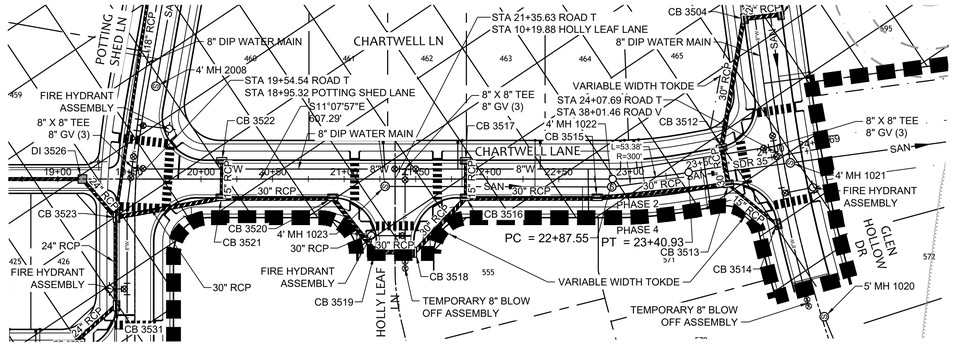

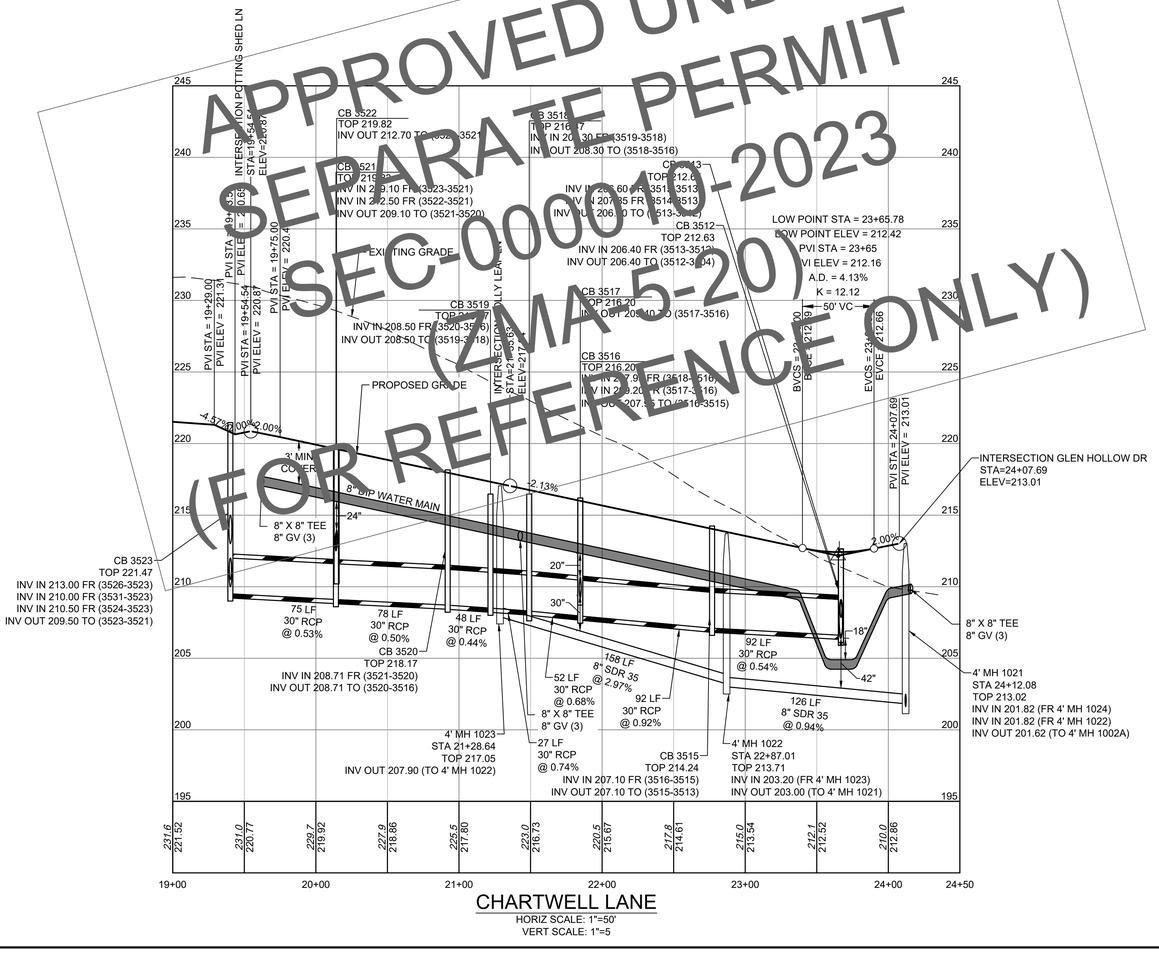

CHARTWELL LANE

HORIZ SCALE: 1"=50'

VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000041-2023 (ZMA 5-20) (FOR REFERENCE ONLY)

NAD 83

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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City of Raleigh Public Utilities Department Permit # _____

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

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

SCALE 1"=50'

0 50' 100'

UTILITY NOTES:

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3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 18 IN. WATER AND STORM SEWER MAINS - 18 IN. SANITARY SEWER AND STORM SEWER MAINS - 24 IN.**

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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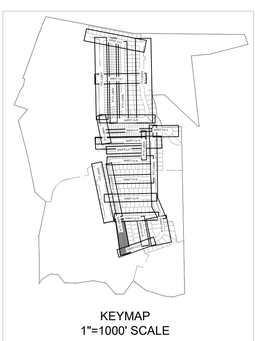
City of Raleigh Development Approval _____

Raleigh Water Review Officer

5
0
0 50
PROFILE SCALE



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA
CHARTWELL LANE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.18

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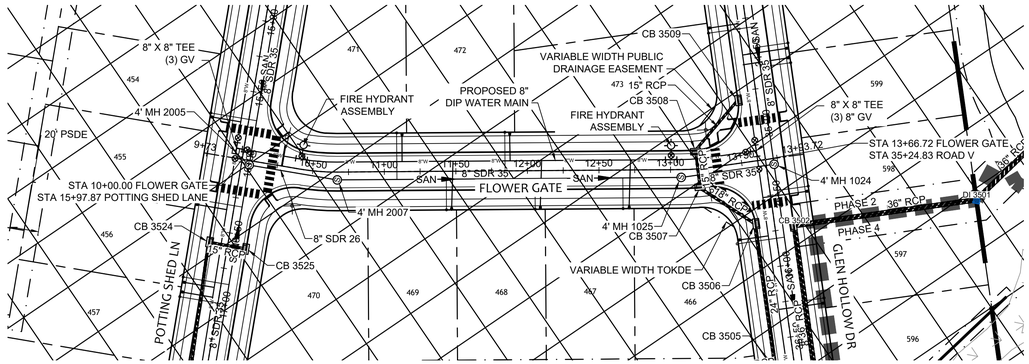

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER MAIN
8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOW OFF ASSEMBLY

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

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

SCALE 1"=50'
0 50' 100'

UTILITY NOTES:

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   WATER AND STORM SEWER MAINS - 5 FT.
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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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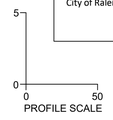
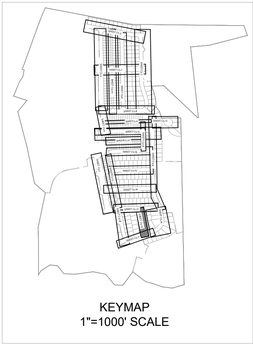
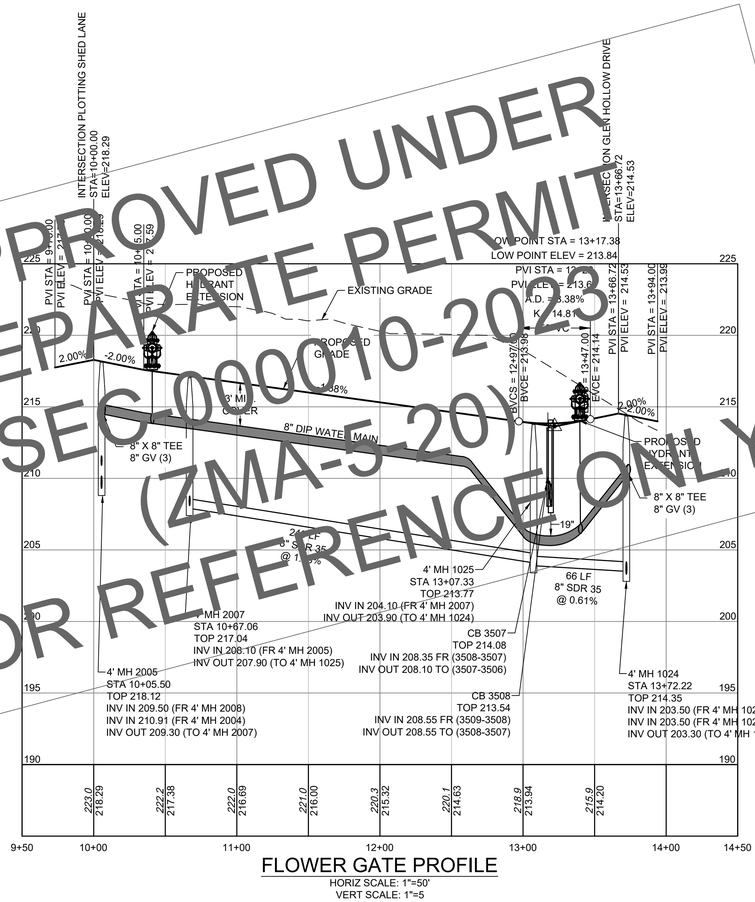
City of Raleigh Development Approval _____

Raleigh Water Review Officer





KEYMAP
1"=1000' SCALE



FLOWER GATE PROFILE
HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5'

APPROVED UNDER SEPARATE PERMIT SEC 000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
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DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

FLOWER GATE PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.19

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S:\331\44529-WIL_MAR\CWR\Sheet\CD\Phase III\44529-331-CX-0-PROF-ROAD-Y.dwg | Plotted by Jeremy Edens

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

TOWN CERTIFICATION

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ADMINISTRATOR

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Raleigh Water Review Officer

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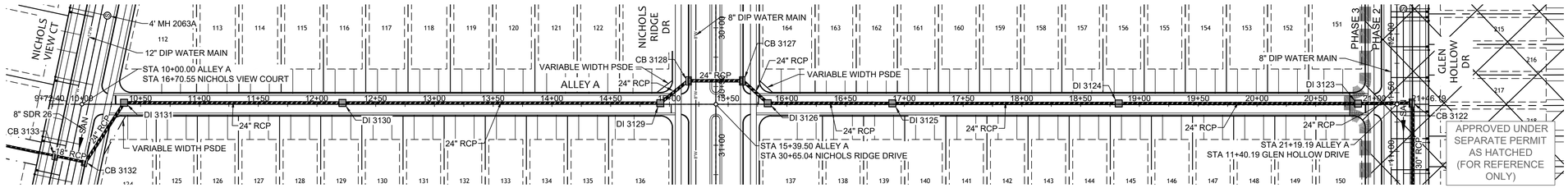

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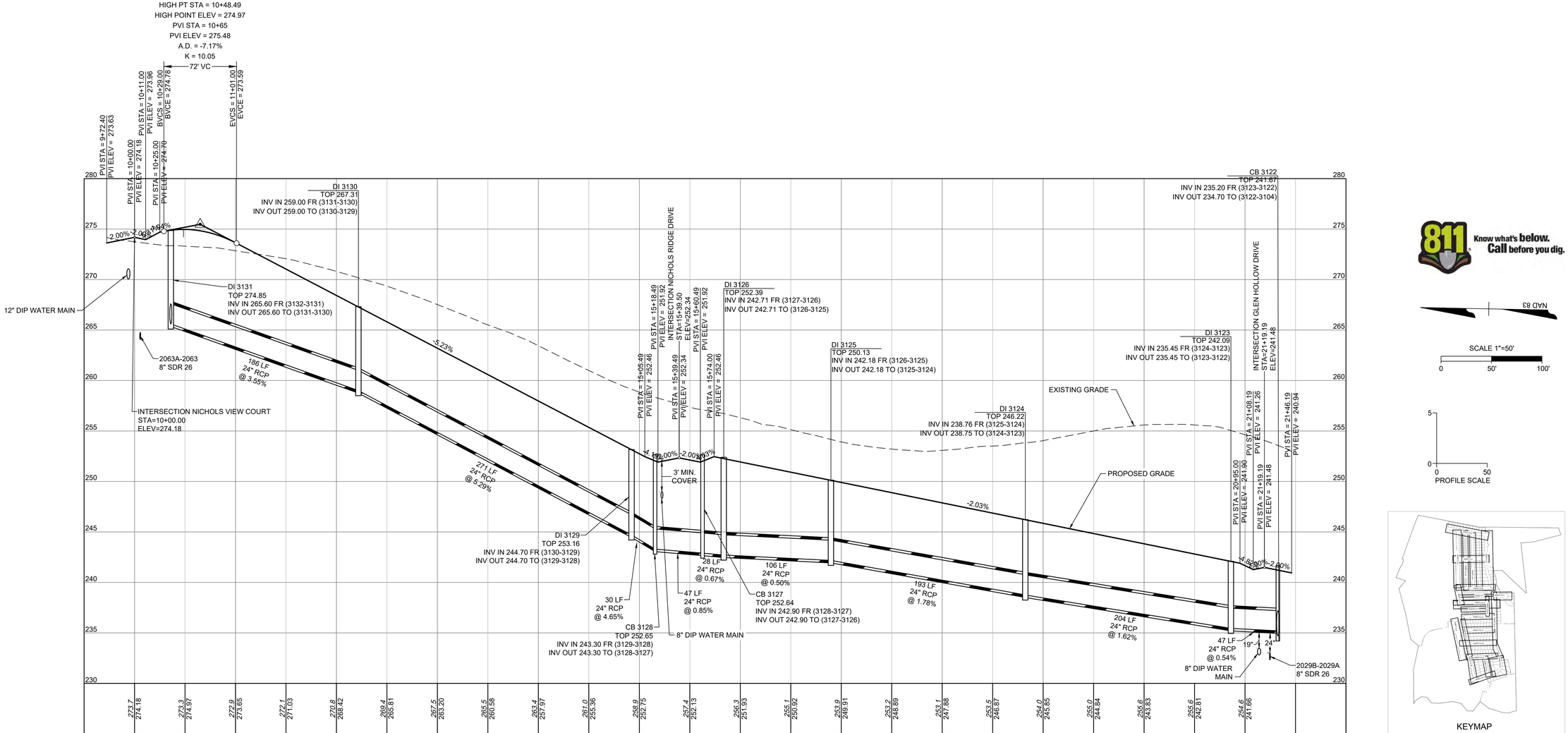

ALLEY A PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

NAD 83

SCALE 1"=50'
0 50' 100'

5
0
0 50
PROFILE SCALE

KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE
07/11/2024

DRAWN BY
331

DESIGNED BY
331

CHECKED BY
A. STONE

SCALE
H: 1" = 50'
V: 1" = 5'

JOB NO.
44529

SHEET NO.
C5.20

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

ALLEY A PLAN & PROFILE

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S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX(0-PROF-ALLEY A.dwg | Plotted by Jeremy Edens

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
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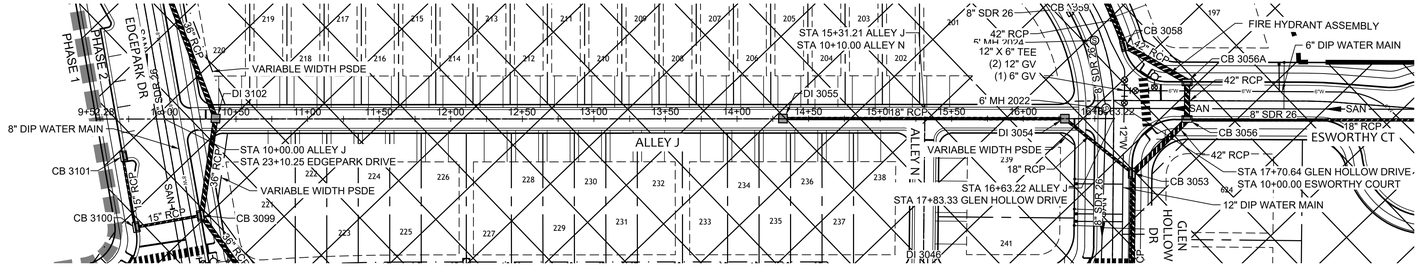

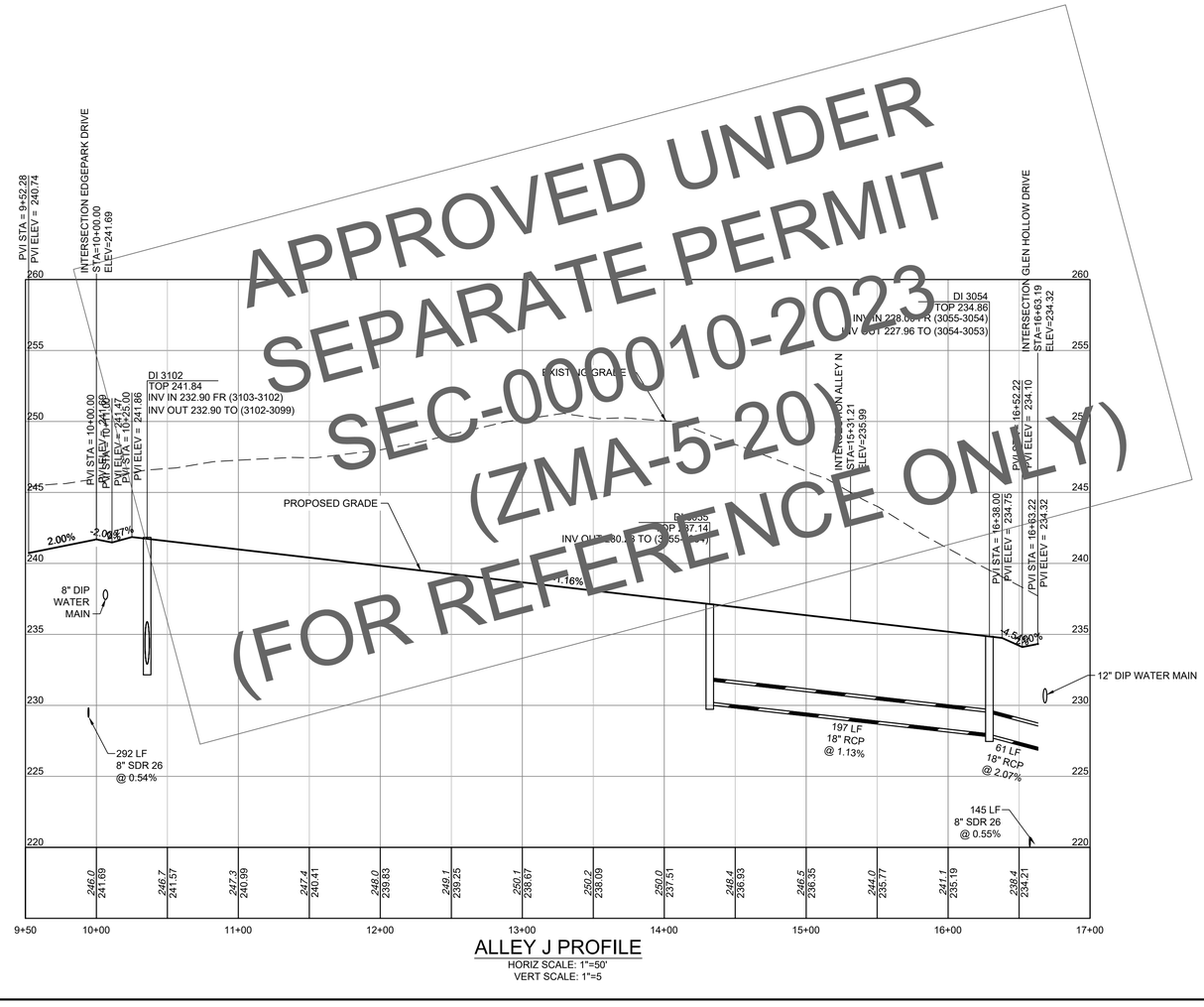

ALLEY J PROFILE

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VERT SCALE: 1"=5

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NAD 83

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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ADMINISTRATOR

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8"W	PROPOSED WATER MAIN
	WATER MAIN TEE
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Raleigh Water Review Officer

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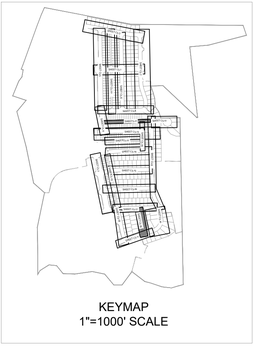
0 50
PROFILE SCALE



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE
07/11/2024

DRAWN BY
331

DESIGNED BY
331

CHECKED BY
A. STONE

SCALE
H: 1" = 50'
V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

ALLEY J PLAN & PROFILE

JOB NO.
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SHEET NO.
C5.21

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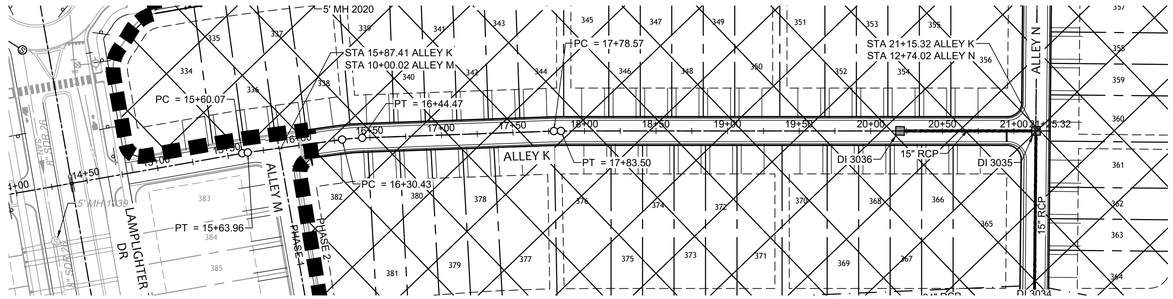
S:\331\44529-WL_MAR\DWGS\Sheet\CD\Phase III\44529-331-CXD-PROF-ALLEY J.dwg | Plotted by Jeremy Edens



HIGH PT STA = 16+04.16
HIGH POINT ELEV = 241.20
PVI STA = 16+00
PVI ELEV = 241.44
A.D. = -4.37%
K = 10.31
45' VC

BVCS = 15+77.50
BVCE = 240.86

EVCS = 16+22.50
EVCE = 241.04

PVI STA = 14+13.04
PVI ELEV = 237.67

PVI STA = 14+39.04
PVI ELEV = 238.19

PVI STA = 14+65.04
PVI ELEV = 237.67

PVI STA = 14+78.61
PVI ELEV = 238.30

PHASE 2 BEGIN CONSTRUCTION
STA 15+77.49

EXISTING GRADE

INTERSECTION ALLEY M
STA=15+87.42
ELEV=241.07

PROPOSED GRADE

8" DIP WATER MAIN

INTERSECTION LAMPLIGHTER DR
STA=14+39.04
ELEV=238.19

1040:1039
135.71' OF
8" SDR 26
@ 0.52%

DI 3036
TOP 238.96
INV IN 228.90 FR (3036-3035)
INV OUT 228.90 TO (3036-3035)

PVI STA = 21+05.51
PVI ELEV = 232.44

PVI STA = 21+25.32
PVI ELEV = 232.46

PVI STA = 21+15.32
PVI ELEV = 232.25

-4.66%
-2.00%
2.59%
-2.00%
4.66%
-1.78%
-2.00%
2.00%

95 LF
15" RCP
@ 2.00%

INTERSECTION ALLEY N
STA=21+15.32
ELEV=232.25

DI 3035
TOP 232.26
INV IN 227.00 FR (3036-3035)
INV OUT 227.00 TO (3035-3034)

286.5 238.28
239.1 237.97
241.3 238.85
241.1 240.15
241.19
240.3 240.55
239.1 239.66
239.1 238.77
240.0 237.88
240.4 236.99
240.2 236.10
240.3 235.21
239.5 234.32
236.6 233.44
234.3 232.55

240
235
230
225
220
215
245
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
21+50

ALLEY K PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

- SAN — PROPOSED SEWER MAIN
- 8"W — PROPOSED WATER MAIN
- WATER MAIN TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

NAD 83

SCALE 1"=50'
0 50' 100'

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

UTILITY NOTES:

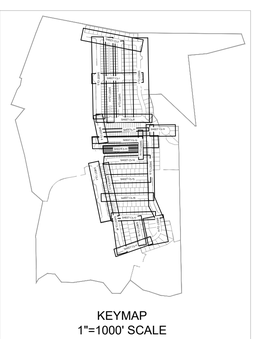
1. **ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.**
2. **MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 10 FT. WATER AND STORM SEWER MAINS - 5 FT. SANITARY SEWER AND STORM SEWER MAINS - 5 FT. GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.**
3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES: WATER AND SANITARY SEWER MAINS - 18 IN. WATER AND STORM SEWER MAINS - 18 IN. SANITARY SEWER AND STORM SEWER MAINS - 24 IN.**
4. **CLASS 1 STRUCTURAL MATERIAL REQUIRED FROM EXISTING GROUND TO SPRING LINE OF PROPOSED PIPE IN FILL CONDITIONS (TYP).**

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

5
0
0 50
PROFILE SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

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REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
ALLEY K PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.22

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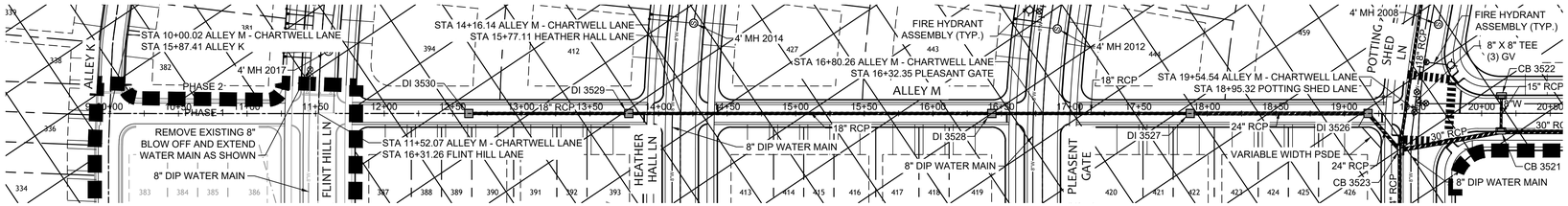
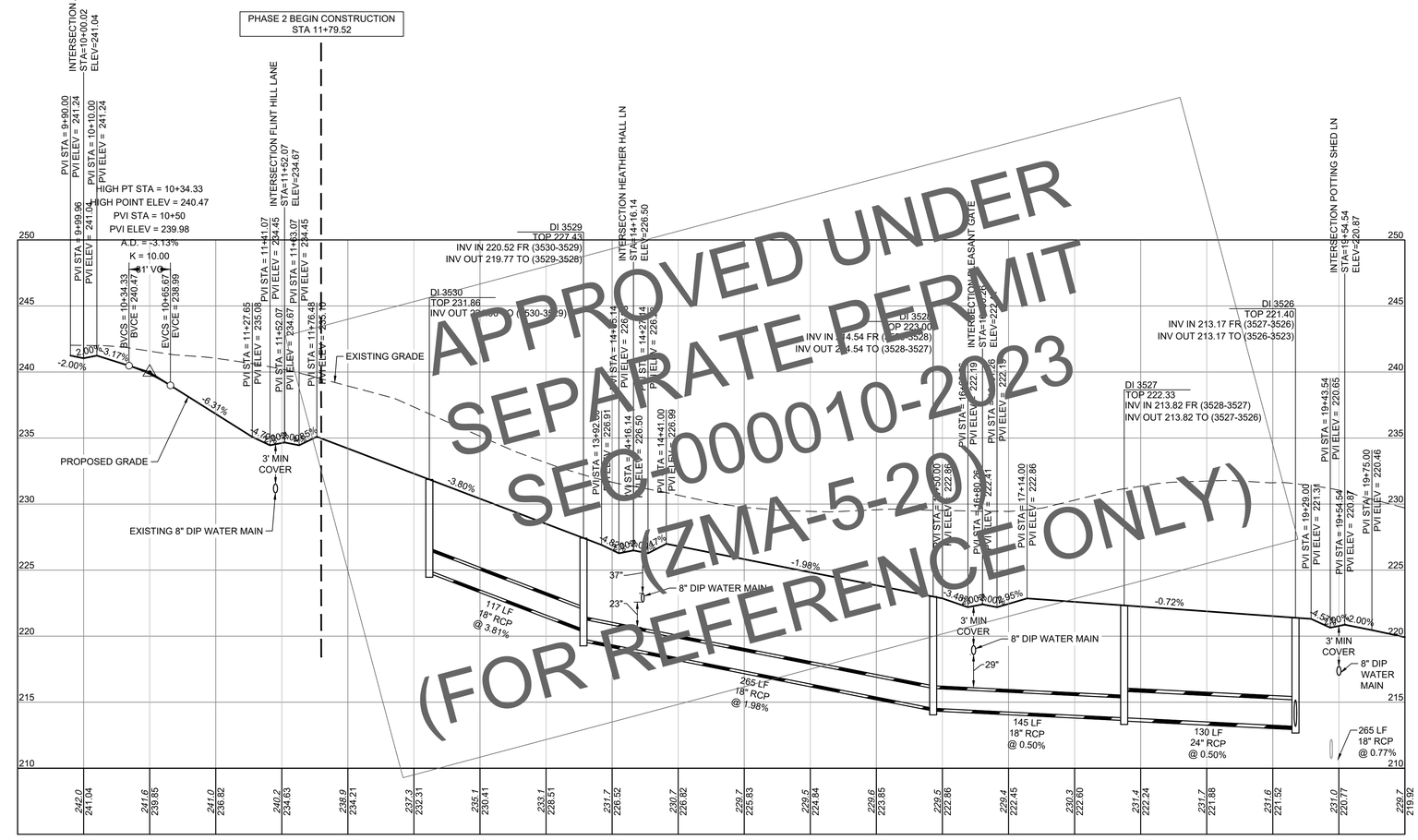
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX-D-PROF-ALLEY K.dwg | Plotted by Jeremy Edens

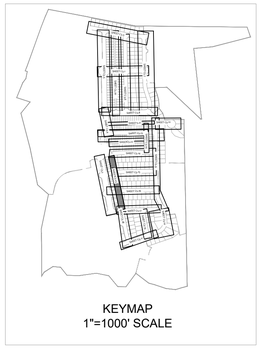




ALLEY M PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)



KEYMAP
1"=1000' SCALE

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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City of Raleigh Development Approval _____

Raleigh Water Review Officer

UTILITY NOTES:

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   WATER AND SANITARY SEWER MAINS - 10 FT.
   WATER AND STORM SEWER MAINS - 5 FT.
   SANITARY SEWER AND STORM SEWER MAINS - 5 FT.
   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
3. **MINIMUM UTILITY VERTICAL SEPARATION DISTANCES:**
   WATER AND SANITARY SEWER MAINS - 18 IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

Water and Sewer Permits (If applicable)

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

UTILITY LEGEND

SAN	PROPOSED SEWER LINE
8"W	PROPOSED WATER LINE
	WATER LINE TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOWOFF ASSEMBLY

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

NAD 83

5
0
0 50
PROFILE SCALE

SCALE 1"=50'
0 50' 100'

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

ALLEY M PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.23

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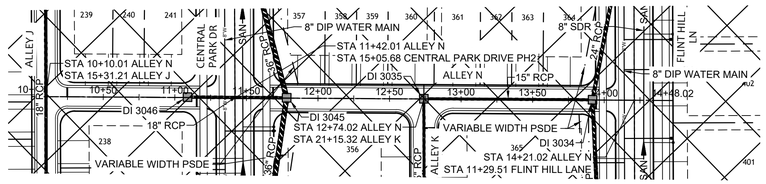

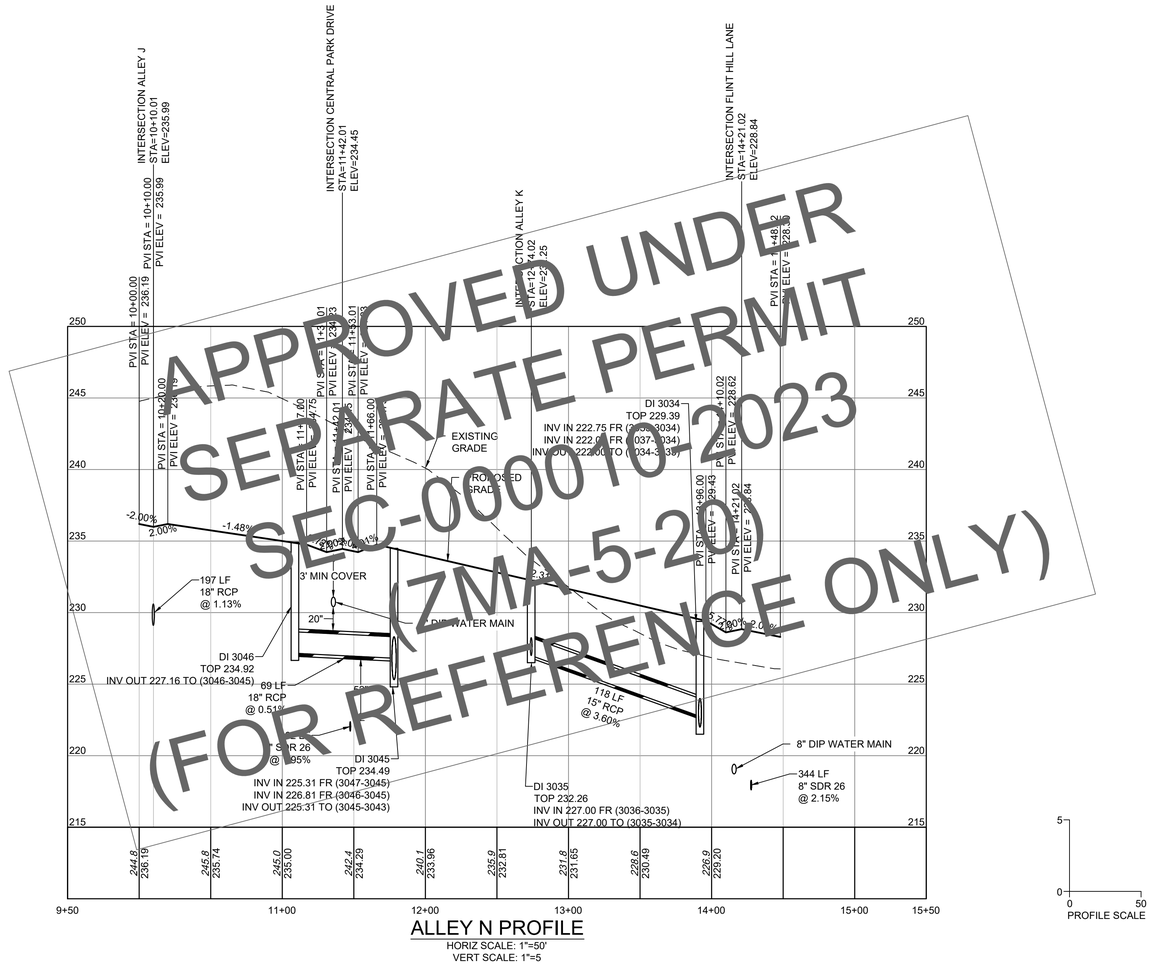

ALLEY N PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

EASEMENT LEGEND

PRIVATE EASEMENTS (4 CHARACTER)	
PAME	PRIVATE ACCESS & MAINTENANCE EASEMENT
PGSE	PRIVATE GREENWAY SYSTEM EASEMENT
PSDE	PRIVATE STORMWATER DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
SCME	SCM ACCESS & MAINTENANCE EASEMENT
PUBLIC EASEMENTS (5 CHARACTER)	
CORSE	CITY OF RALEIGH PUBLIC SANITARY SEWER EASEMENT
CORWLE	CITY OF RALEIGH PUBLIC WATERLINE EASEMENT
TOKDE	TOWN OF KNIGHTDALE PUBLIC DRAINAGE EASEMENT
TOKGE	TOWN OF KNIGHTDALE PUBLIC GREENWAY EASEMENT

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

UTILITY LEGEND

SAN	PROPOSED SEWER LINE
8"W	PROPOSED WATER LINE
	WATER LINE TEE
	FIRE HYDRANT
	WATER METER
	REDUCER
	GATE VALVE
	BLOWOFF ASSEMBLY

SCALE 1"=50'
0 50' 100'

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UTILITY NOTES:

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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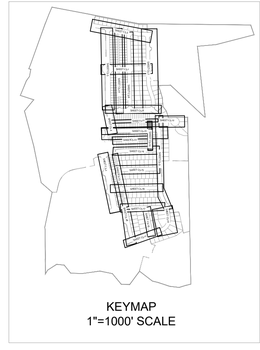
Raleigh Water Review Officer



KEYMAP
1"=1000' SCALE

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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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.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

ALLEY N PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.24

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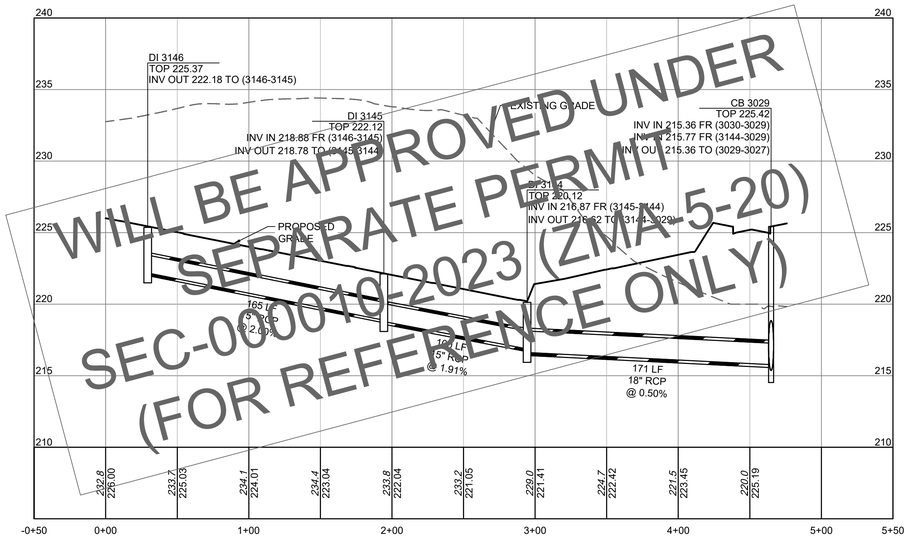
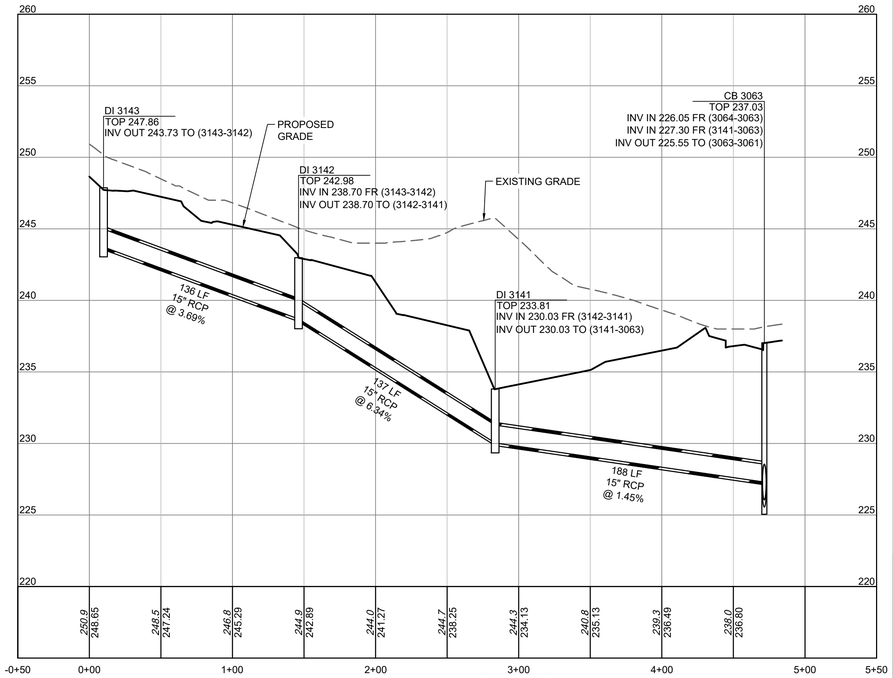
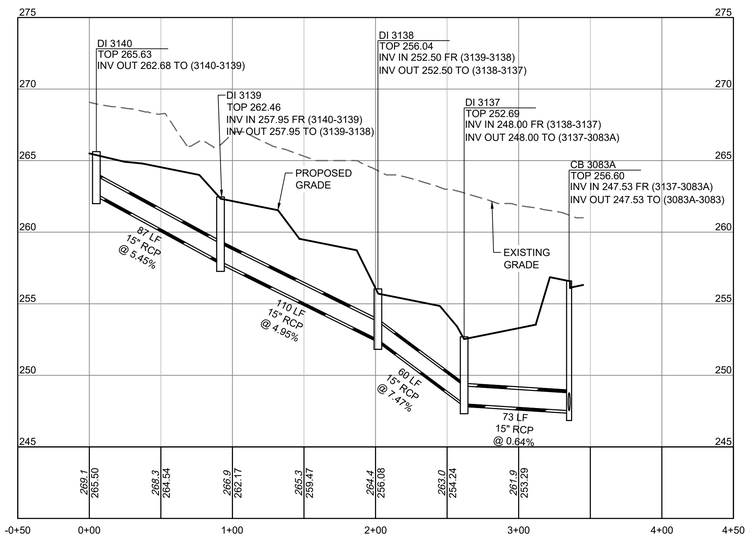
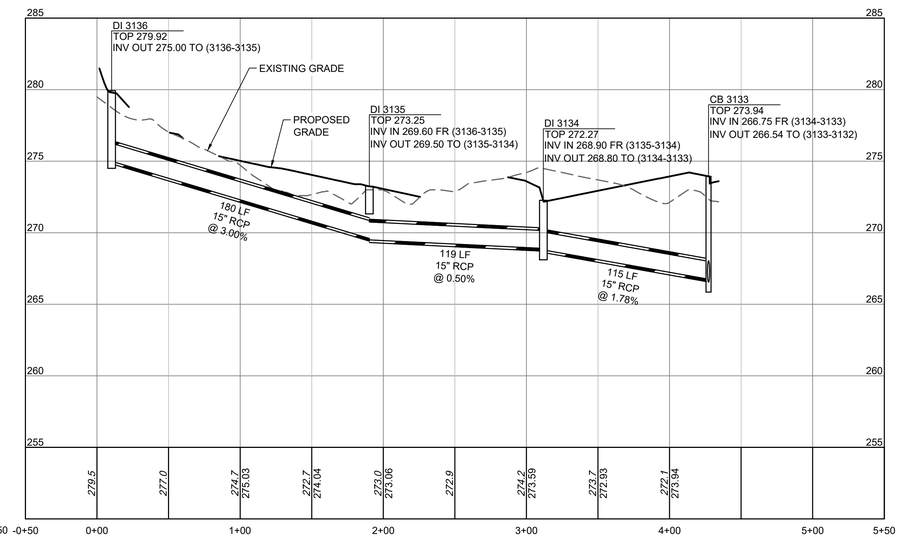
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-CX-0-PROF-ALLEY N.dwg | Plotted by Jeremy Edens

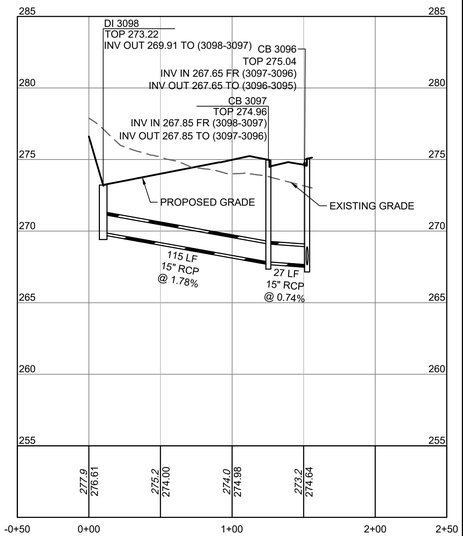


WILL BE APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)









TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: H: 1"=50' V: 1"=5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
STORM OUTFALL PROFILES

JOB NO. 44529
SHEET NO. C5.26

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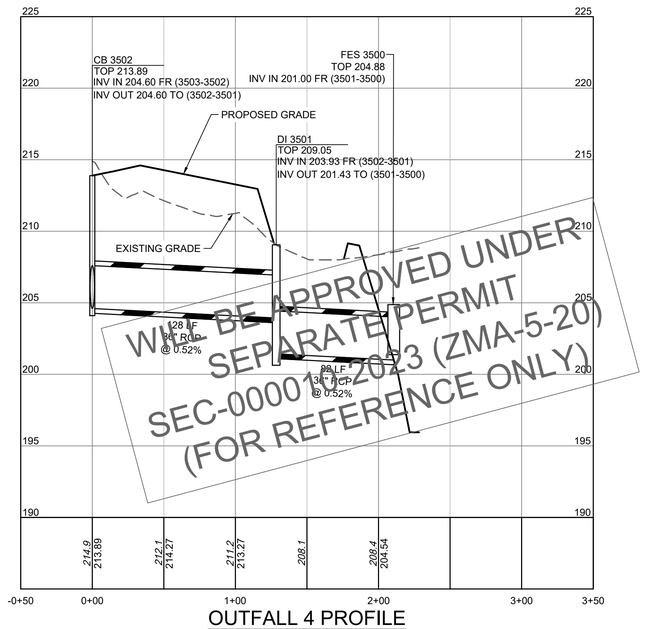
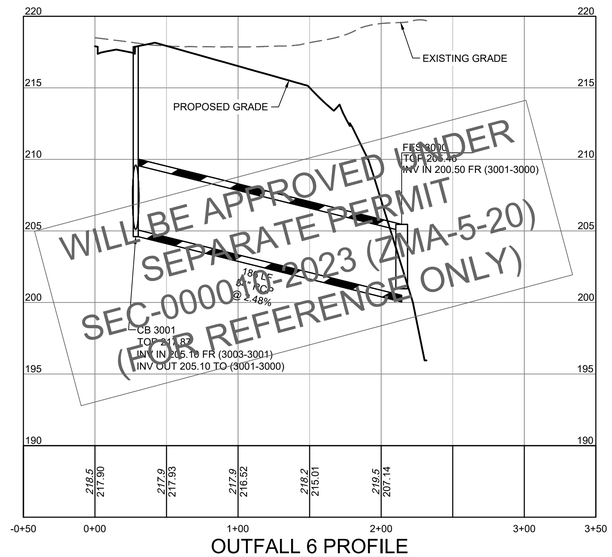
S:\231\44529-WIL_MAR\VWS\Sheet\CD\Phase III\44529-331-C6.0-OUTFALL.dwg | Plotted by Jeremy Edens



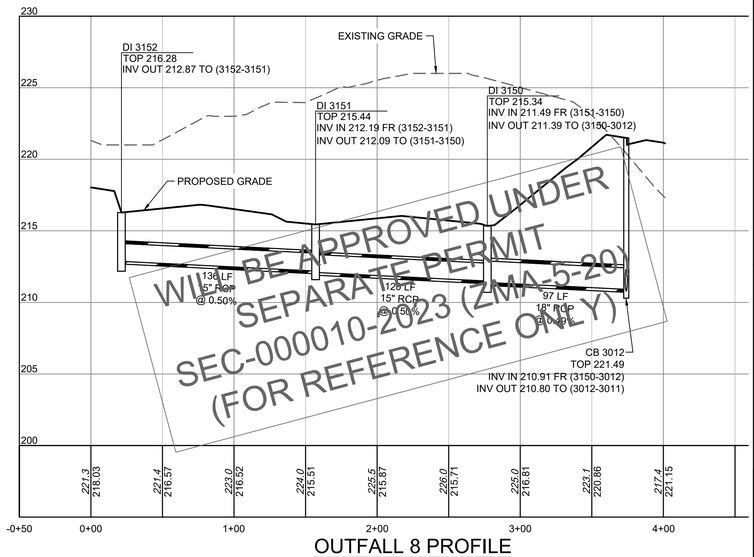
OUTFALL 4 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



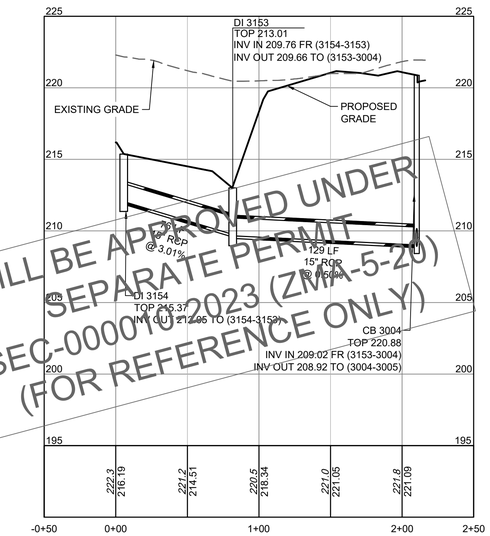
OUTFALL 6 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



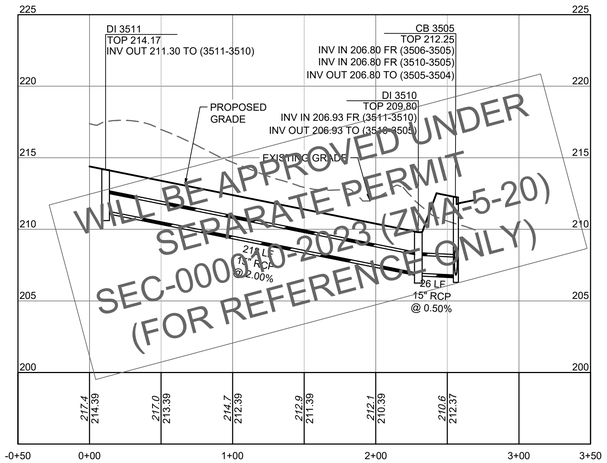
OUTFALL 8 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



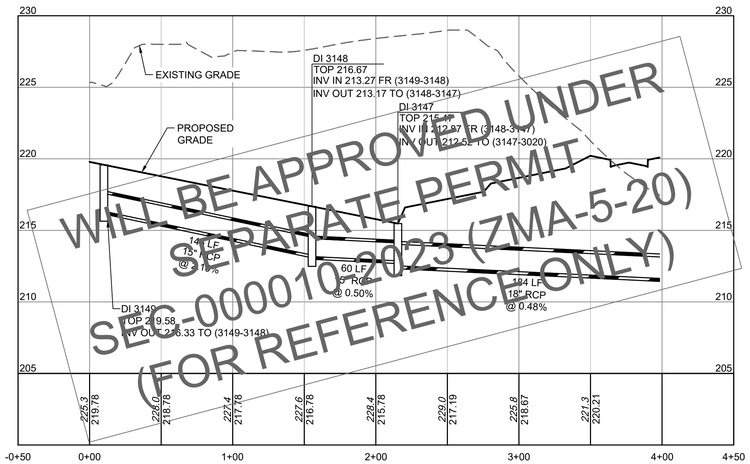
OUTFALL 9 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



OUTFALL 10 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5



OUTFALL 11 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

TOWN CERTIFICATION

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BY: _____ DATE: _____
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THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: H: 1"=50' V: 1"=5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

STORM OUTFALL PROFILES

JOB NO. 44529
SHEET NO. C5.25

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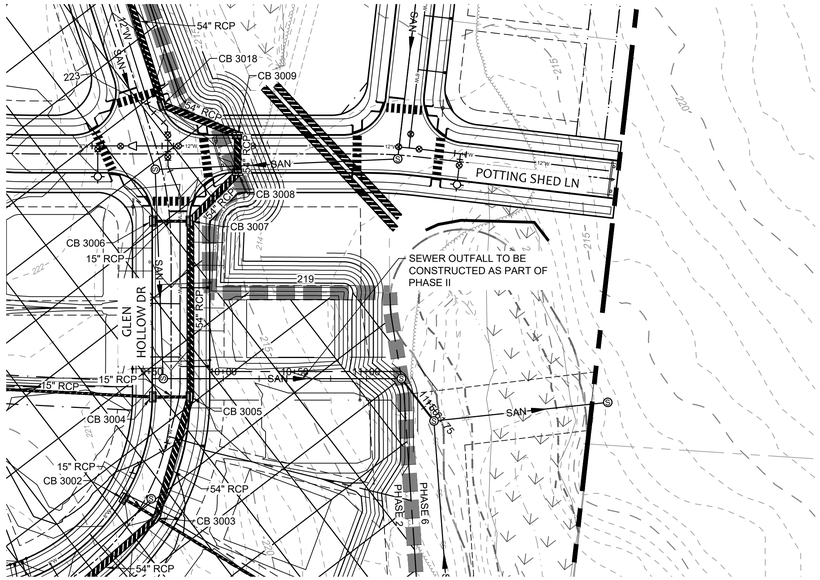
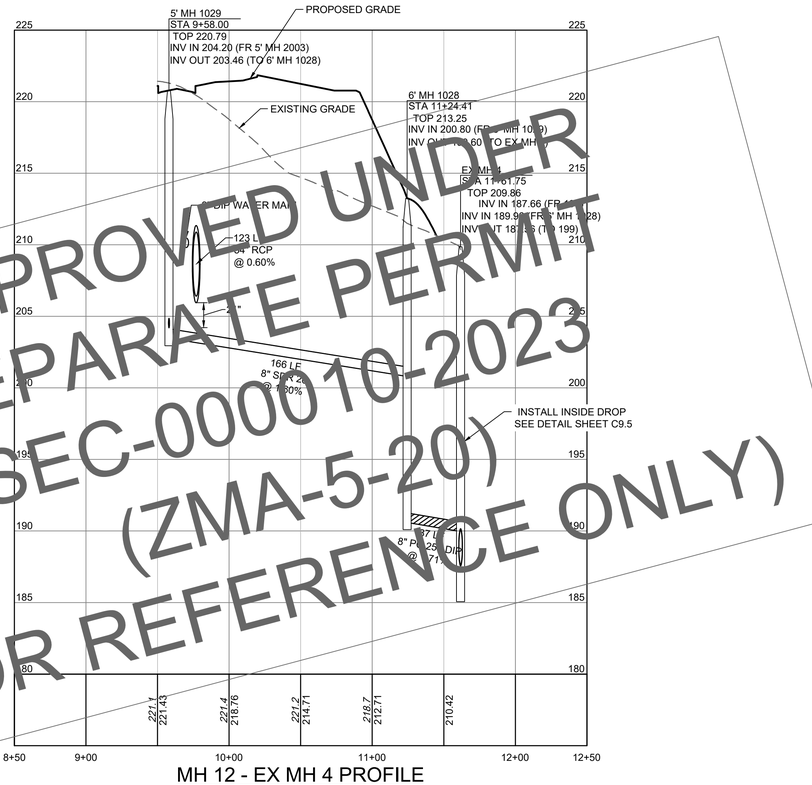
S:\33\44529-WL_MAR\DWG\Sheet\C0\Phase III\44529-331-C6.0-OUTFALL.dwg | Plotted by Jeremy Edens





MH 12 - EX MH 4 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (ZMA-5-20) (FOR REFERENCE ONLY)

UTILITY NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
2. MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:
   WATER AND SANITARY SEWER MAINS - 10 FT.
   WATER AND STORM SEWER MAINS - 5 FT.
   SANITARY SEWER AND STORM SEWER MAINS - 5 FT.
   GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
3. MINIMUM UTILITY VERTICAL SEPARATION DISTANCES:
   WATER AND SANITARY SEWER MAINS - 18 IN.
   WATER AND STORM SEWER MAINS - 18 IN.
   SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

UTILITY LEGEND

- SAN → PROPOSED SEWER LINE
- 8"W PROPOSED WATER LINE
- WATER LINE TEE
- FIRE HYDRANT
- WATER METER
- REDUCER
- GATE VALVE
- BLOW OFF ASSEMBLY

Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

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CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

5
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NAD 83

0 50
PROFILE SCALE

SCALE 1"=50'
0 50' 100'

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1"=50' V: 1"=5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
SEWER OUTFALL1 PLAN & PROFILE

JOB NO. 44529
SHEET NO. C5.27

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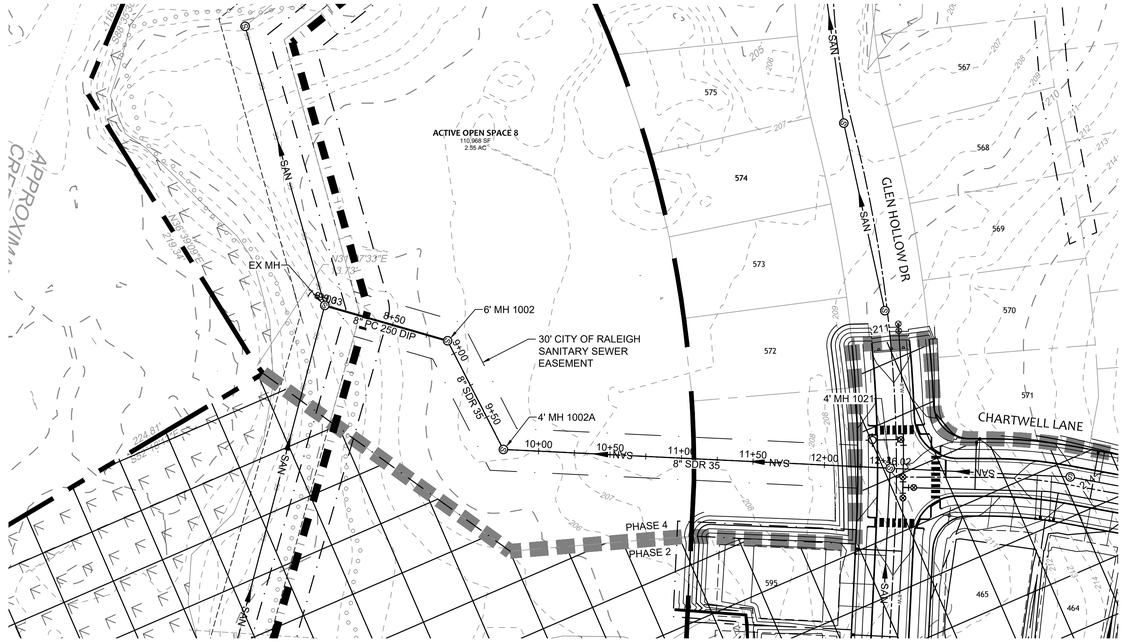

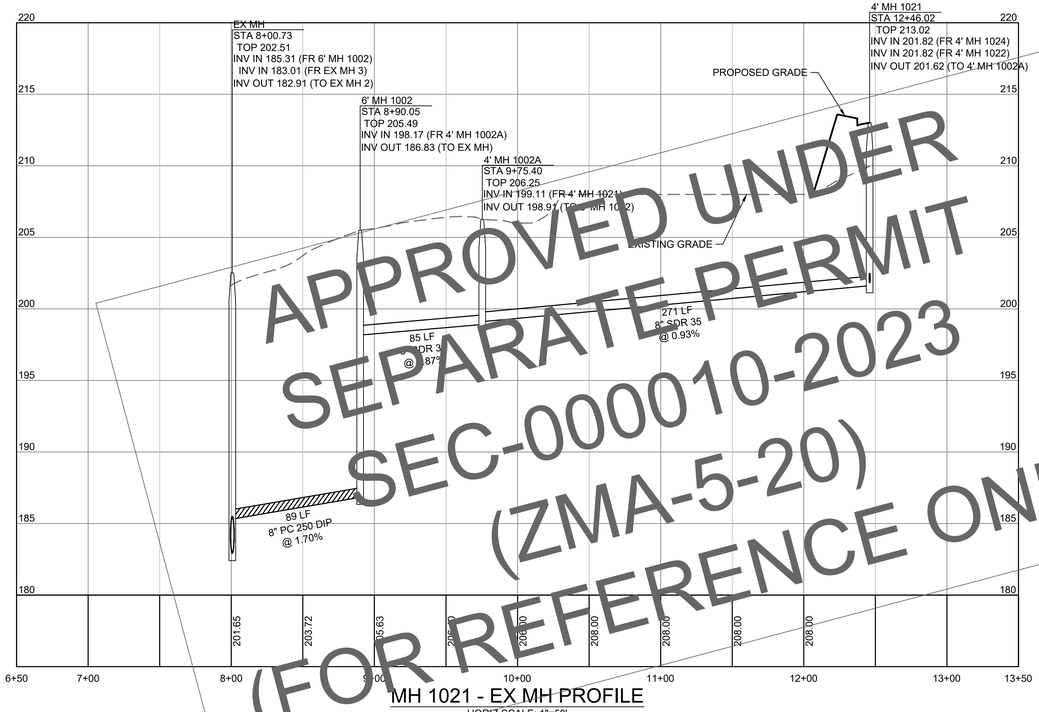

MH 1021 - EX MH PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5

APPROVED UNDER
SEPARATE PERMIT
SEC-000010-2023
(ZMA-5-20)
(FOR REFERENCE ONLY)

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BY: _____ DATE: _____
ADMINISTRATOR

NAD 83

5
0
0 50
PROFILE SCALE

SCALE 1"=50'
0 50' 100'

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NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
SEWER OUTFALL 2 PLAN & PROFILE

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1"=50' V: 1"=5'
JOB NO. 44529
SHEET NO. C5.28

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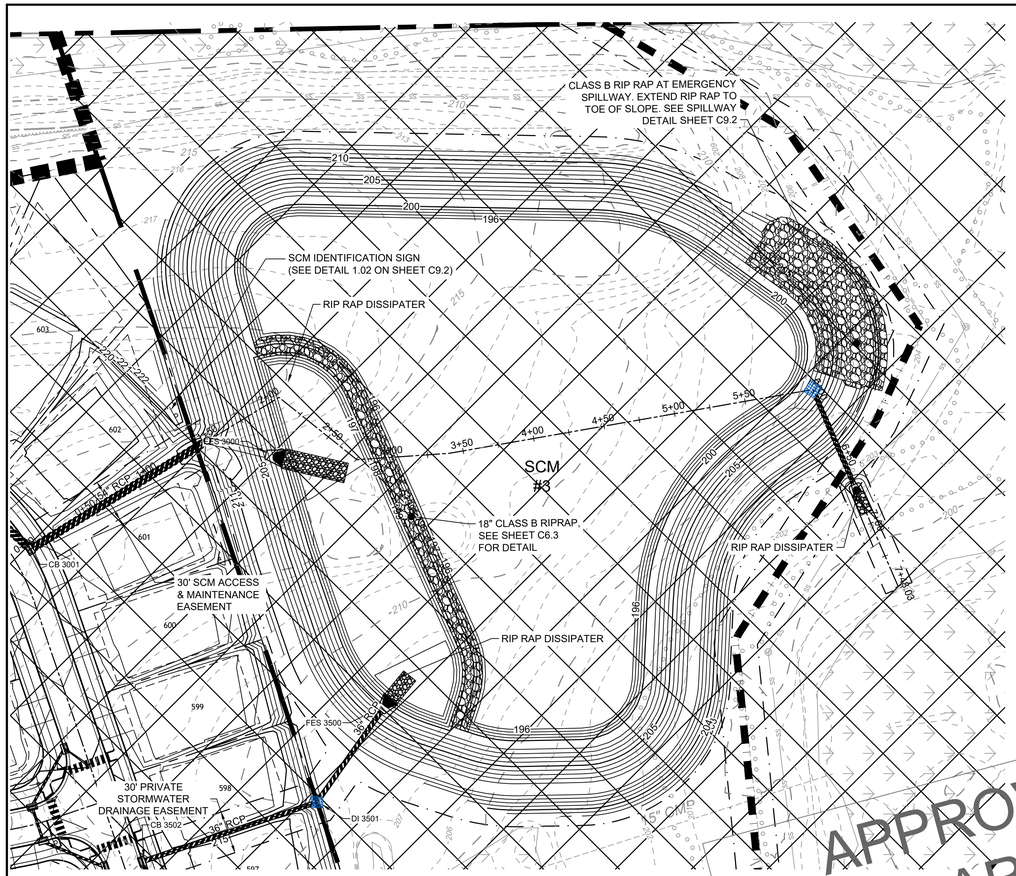


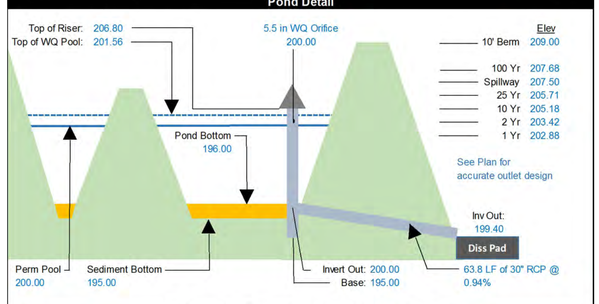
BASIN CONVERSION SEQUENCE:

1. SCHEDULE A SITE MEETING WITH THE TOWN OF KNIGHTDALE EROSION CONTROL INSPECTOR TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. CONTACT NCDEQ - RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS. AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NCDEQ-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ONSITE. THE EMAIL SHOULD INCLUDE E&SC JURISDICTION: TOWN OF KNIGHTDALE, TOK PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, AND ADDRESS THE FOLLOWING: A) REASON FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO FROM PART II, SECTION G, ITEM 4 OF THE NCG01. (KEEP EMAIL FOR YOUR NPDES MONITORING DOCUMENTATION.
3. AFTER RECEIVING POSITIVE CONFIRMATION FROM NCDEQ-DEMLR THAT YOU MAY REMOVE THE BASIN OR ON DAY 11, WHICHEVER IS SOONER. REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
4. PERFORM SEEDBED PREPARATION, SEED, MULCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY USING NON-CLUMPING TURF GRASS (CINTIPEDE/HYBRID BERMUDA).
5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
6. WHEN SITE IS FULL STABILIZED, CALL EROSION CONTROL INSPECTOR FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVICE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE EROSION CONTROL INPSECTOR AND STORMWATER TECHNICIAN TO DETERMINE WITHIN A BASIN MAY BE CONVERTED FOR STORMWATER USE.

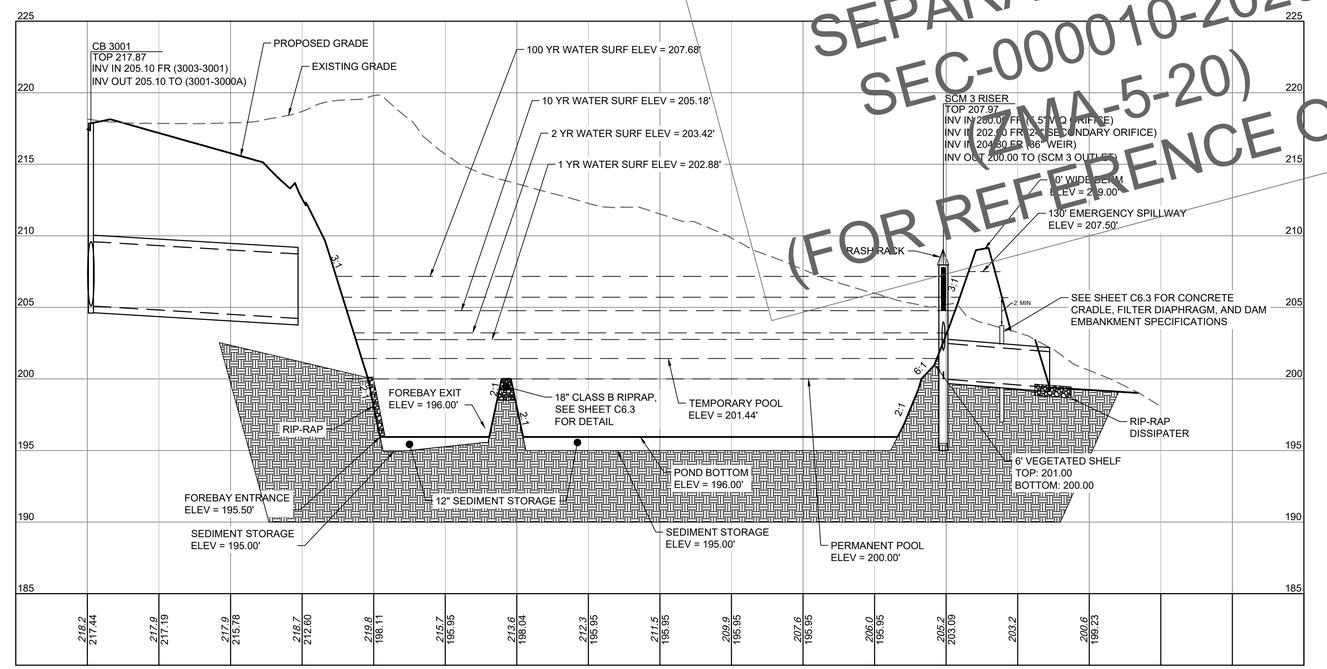
APPROVED UNDER SEPARATE PERMIT SEC-000010-2023 (SCMA-5-20) (FOR REFERENCE ONLY)

Pond / Riser Data & Elevations			
Pond Type	Wet Pond		
TSS Removal	85%		
Top of Pond / Berm	209.00 ft		
Secondary Spillway Width	130.00 ft		
Bottom of Secondary Spillway	207.50 ft		
Top of Riser	206.80 ft	(at least 1' Above TPE)	
Riser Type / Size	4x4 ft		
Top of Water Quality / Temp Pool Elev	201.56 ft	(1" Runoff)	
Top of Veg. Shelf	201.00 ft		
Permanent Pool Elevation (Normal Pool)	200.00 ft		
Water Quality Orifice Elevation and Size	200.00 ft	5.50 in	
Secondary Orifice Elevation & Size (Rise & Span)	202.00 ft	24.00 inch	24.00 inch
		^ Rise	^ Span
Weir Elevation, Size, and # of Sides	204.80 ft	36.00 inch	1 side(s)
Bottom of Veg. Shelf	200.00 ft	^ Width	^ # of Sides
Top of Sediment Storage / Pond Bottom	196.00 ft		
Bottom of Sediment Storage	195.00 ft	(Min 1 ft)	
Invert Out of Riser	200.00 ft		
Outlet Pipe Size	30.00 in	Diameter RCP	
Outlet Pipe Length & Slope	63.80 ft	0.94 %	
Downstream Outlet Elevation	199.40 ft		
1 Yr Water Surface Elev / Peak Flow (CFS)	202.88 ft	5.40 CFS	
2 Yr Water Surface Elev Peak Flow (CFS)	203.42 ft	10.88 CFS	
10 Yr Water Surface Elev Peak Flow (CFS)	205.18 ft	25.89 CFS	
100 Yr Water Surface Elev Peak Flow (CFS)	207.68 ft	85.97 CFS	

Pond Detail

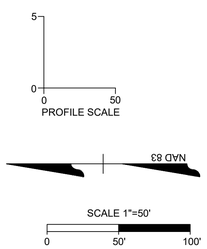


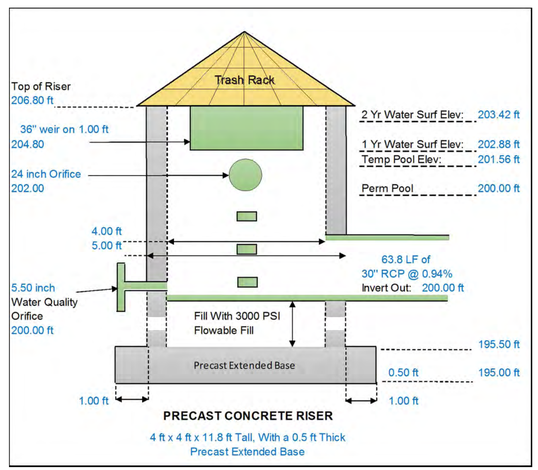
Anti-Bouyancy Calculations for the Riser Structure					
Riser Dimensions		**Weight of Structure**		**Displaced Volume**	
Outside Width	5.00 ft	Walls =	15,930 LBS	V = LxWx(HT) = C.F.	
Inside Width	4.00 ft	Base =	3,675 LBS		
Outside Length	5.00 ft	FILL =	10,800 lbs	Displaced Water =	
Inside Length	4.00 ft			C.F. * 62.4 PCF = LBS	
Height	11.80 ft	Outlet Pipe =	368 LBS		
Base Thick' (ft)	0.50 ft	WQ Orifice =	12 LBS	Add 15% Factor of Safety	
Wall Thick' (ft)	0.50 ft				
Ext Base (ft)	1.00 ft	Weir #1 =	300 LBS	V =	295 C.F.
Areas removed from Riser		Weir #2 =	450 LBS	Disp. Water =	18,408 LBS
Outlet Pipe	4.91 ft	Weir #3 =	0 LBS	15% F.S. =	2,761 LBS
WQ Orifice	0.16 ft	Weir #4 =	0 LBS		
Orifice #1	4.00 ft	Other #1 =	0 LBS	Safety Factor	1.38
Orifice #2	6.00 ft				
Orifice #3	0.00 ft	**Weight =**	**29,275 LBS**	**Weight =**	**21,169 LBS**
Orifice #4	0.00 ft	**Precast Concrete Riser Structure to be 4 ft x 4 ft x 11.8 ft Tall, With a 0.5 ft Thick Precast Extended Base**			
Other	0.00 ft				



SCM 3 PROFILE

HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5





PRECAST CONCRETE RISER

4 ft x 4 ft x 11.8 ft Tall, With a 0.5 ft Thick Precast Extended Base

TOWN CERTIFICATION

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DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

AS-BUILT SURVEY REQUIREMENTS

NOTE: CONTRACTOR SHALL PROVIDE AS-BUILT TOPOGRAPHIC SURVEY PERFORMED BY A PROFESSIONAL LAND SURVEYOR CERTIFYING STORMWATER POND AREA DIMENSIONS, ELEVATIONS, OUTLET STRUCTURE INVERTS, ORIFICE DIAMETER, PIPE SIZES AND CLEANOUT LOCATIONS. TOPOGRAPHY SHALL EXTEND 20 FEET OUTSIDE LIMITS OF POND.

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SCM 3 PLAN & PROFILE

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SHEET NO. C6.1

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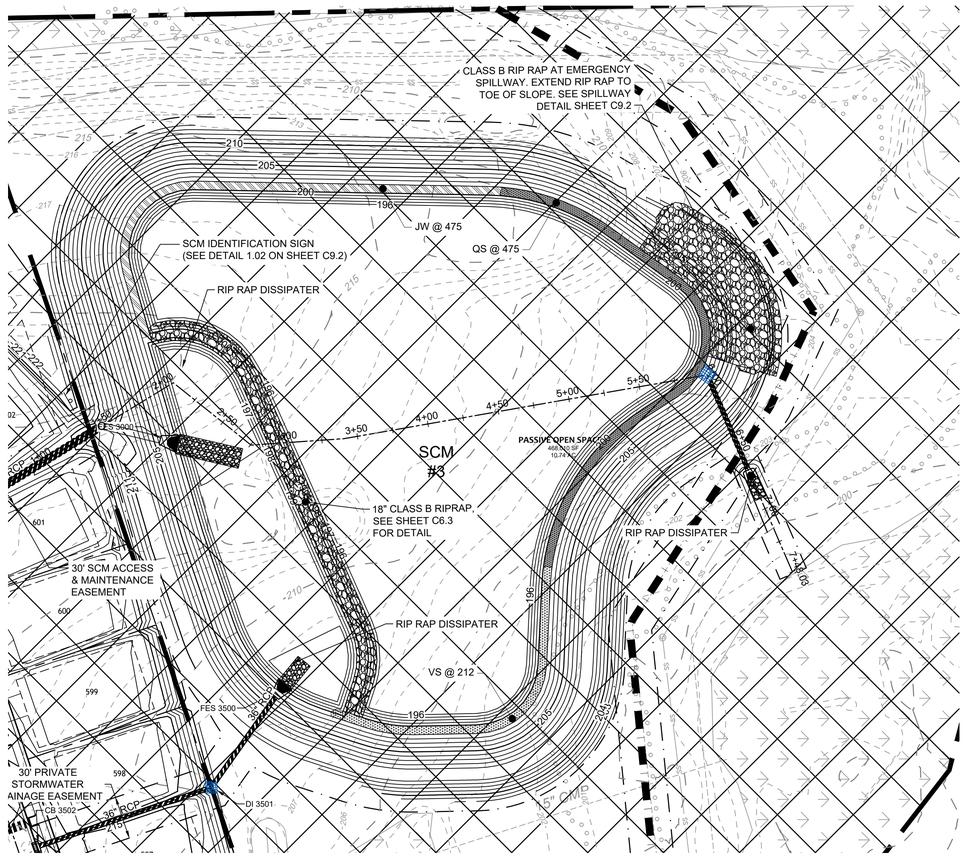


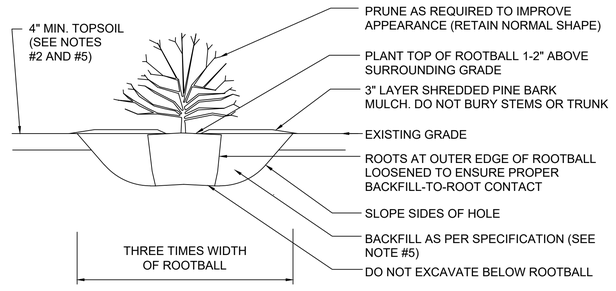
Planting Summary Requirements						
Dam / Berm				Non-Clumping Turf Grass		
6' Shelf Length 950		Area of Shelf = 5700 SF		(50 Plants per 200 SF of Area)		
Quantity	Type	Root	Common Name	Scientific Name	Planting Size	Notes
475	Herbaceous	Container	Quill Sedge	Cerex Tenera	4" Pot	24"-36" OC
475	Herbaceous	Container	Henry Garnet	Itea Virginica	4" Pot	24"-36" OC
475	Herbaceous	Container	Joe Pye Weed	Eupat' Fistulosus	4" Pot	24"-36" OC

PLANTING NOTES:

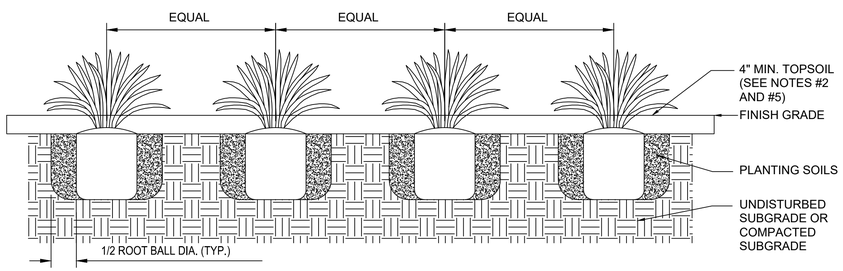
1. THE DAM STRUCTURE, INCLUDING FRONT AND BACK EMBANKMENT SLOPES, OF THE POND SHALL BE VEGETATED WITH NON-CLUMPING TURF GRASS OR SOD. TREES AND WOODY SHRUBS SHALL NOT BE ALLOWED. 90% GERMINATION ON ALL PORTIONS OF THE DEVICE WILL BE REQUIRED PRIOR TO FINAL CERTIFICATION
2. THE VEGETATED SHELF SHALL BE PLANTED WITH A MINIMUM OF THREE DIVERSE SPECIES OF HERBACEOUS, NATIVE VEGETATION AT A MINIMUM DENSITY OF 50 PLANTS PER 200 SQUARE FEET OF SHELF AREA.
3. CONTRACTOR TO WORK WITH SOILS SCIENTIST TO ENSURE SOILS ARE ADEQUATE TO SUPPORT ESTABLISHMENT AND GROWTH OF THE WETLAND PLANTINGS. CONTRACTOR TO AMEND SOILS AND INSTALL SOILS IN PLANT, SHRUB, AND TREE AREAS PER DETAILS, SOIL SPECIFICATIONS, NCDENR SPECIFICATION, AND SOIL SCIENTIST RECOMMENDATIONS. VEGETATION SHALL BE PLANTED DURING THE APPROPRIATE TIME OF YEAR TO ENSURE PROPER ESTABLISHMENT.
4. ALL DISTURBED AREAS AROUND THE OUTSIDE OF THE WET POND SHALL BE SEEDED WITH A LAWN AREA SEED MIX (PER SEEDING SPECIFICATIONS) NATIVE GRASSES, LEGUMES, CLOVERS AND WILDFLOWERS.
5. IF THE WETPOND WAS USED DURING CONSTRUCTION AS A SEDIMENT BASIN OR TRAP, THE BASIN MUST BE CLEANED OUT, GRADED, APPROPRIATE AREAS COVERED WITH 4" OF TOPSOIL AS SPECIFIED IN NOTE #2 ABOVE, AND VEGETATED WITHIN 14 DAYS OF THE COMPLETION OF THE CONSTRUCTION. SEE TOWN OF KNIGHTDALE SCM BASIN REMOVAL SEQUENCE FOR MORE INFORMATION.
6. CONTRACTOR SHALL WATER ALL VEGETATION AND GRASS ON A WEEKLY BASIS AS NEEDED TO ENSURE GRASS AND PLANT SURVIVAL UNTIL AFTER THE SCM IS CERTIFIED AND ACCEPTED BY THE MUNICIPALITY.

INSTALLATION AND MAINTENANCE OF LANDSCAPING:

1. ALL LANDSCAPING SHALL BE OF NURSERY-STOCK QUALITY AND SHALL BE INSTALLED IN A SOUND, WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED GOOD PLANTING PROCEDURES. ALL LANDSCAPING SHALL BE ADAPTABLE TO CLIMATIC CONDITIONS OF THE AREA, AND CONSIDERATION SHALL BE GIVEN TO NOT PLANTING LARGE TREES NEAR UTILITIES. ALL LANDSCAPING SHALL BE MAINTAINED IN GOOD CONDITION.
2. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. STANDARD FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. ALL LANDSCAPING SHALL AT ALL TIMES SHALL PRESENT A HEALTHY, NEAT, CLEAN, ORDERLY, DISEASE-FREE AND PEST-FREE APPEARANCE.
4. ALL LANDSCAPING SOIL AND FILL SHALL BE FREE FROM WEEDS, REFUSE, AND DEBRIS AT ALL TIMES.
5. ANY DEAD PLANT MATERIAL OR MATERIAL THAT FAILS TO SHOW HEALTHY GROWTH MUST BE REMOVED WITHIN 30 DAYS.
6. REPLACEMENT OF REMOVED PLANT MATERIAL MUST TAKE PLACE WITHIN 90 DAYS OF REMOVAL OR NOTIFICATION BY THE CITY, WHICHEVER OCCURS FIRST.
7. ANY REPLACEMENT PLANT MATERIAL MUST MEET THE SIZE AND OTHER CHARACTERISTICS OF NEWLY PLANTED MATERIAL.
8. MAINTENANCE OF THE LANDSCAPING IS THE RESPONSIBILITY OF THE OWNER.



SHRUB PLANTING DETAIL N.T.S.



HERBACEOUS PLANTING DETAIL N.T.S.

SCALE 1"=50'
0 50' 100'
NAD 83

PLANTING PLAN LEGEND

- QUAIL SEDGE (CEREZ TENERA)
- VIRGINIA SWEETSPIRE (ITEA VIRGINICA)
- JOE PYE WEED (EUPAT' FISTULOSUS)

AS-BUILT SURVEY REQUIREMENTS

NOTE: CONTRACTOR SHALL PROVIDE AS-BUILT TOPOGRAPHIC SURVEY PERFORMED BY A PROFESSIONAL LAND SURVEYOR CERTIFYING STORMWATER POND AREA DIMENSIONS, ELEVATIONS, OUTLET STRUCTURE INVERTS, ORIFICE DIAMETER, PIPE SIZES AND CLEANOUT LOCATIONS. TOPOGRAPHY SHALL EXTEND 20 FEET OUTSIDE LIMITS OF POND.

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 053562 ALLISON R. STONE

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REVISION DESCRIPTION | DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE H: 1" = 50' V: 1" = 5'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SCM PLANTING PLAN & DETAILS

JOB NO. 44529
SHEET NO. C6.2

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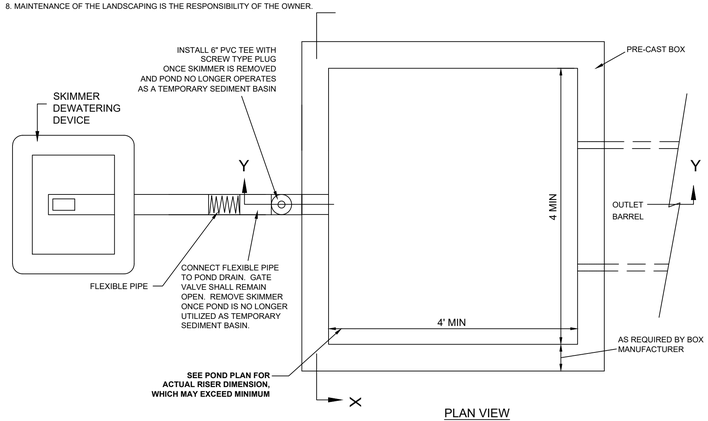
S:\331\44529-WL_MAR\DWG\Sheet\CD\Phase III\44529-331-C6.1-SCM1.dwg | Plotted by Jeremy Edens

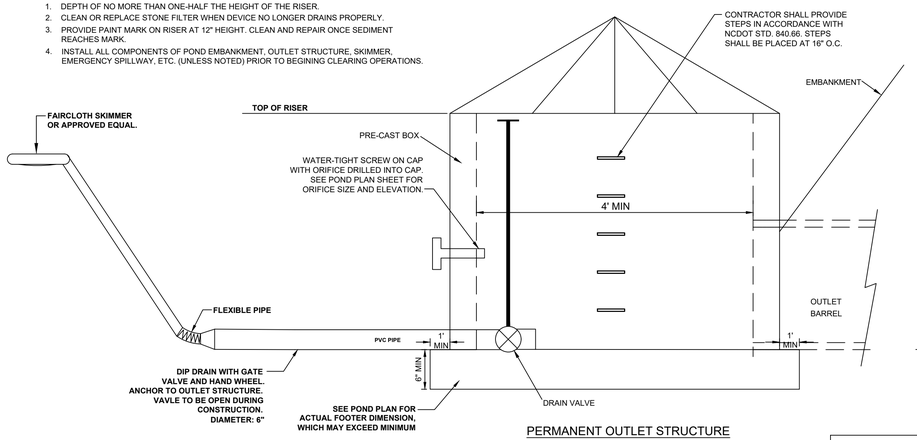
INSTALLATION AND MAINTENANCE OF LANDSCAPING:

1. ALL LANDSCAPING SHALL BE OF NURSERY-STOCK QUALITY AND SHALL BE INSTALLED IN A SOUND, WORKMANLIKE MANNER AND ACCORDING TO ACCEPTED GOOD PLANTING PROCEDURES. ALL LANDSCAPING SHALL BE ADAPTABLE TO CLIMATIC CONDITIONS OF THE AREA, AND CONSIDERATION SHALL BE GIVEN TO NOT PLANTING LARGE TREES NEAR UTILITIES. ALL LANDSCAPING SHALL BE MAINTAINED IN GOOD CONDITION.
2. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM STANDARDS SET BY THE U.S.D.A. STANDARD FOR NURSERY STOCK SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
3. ALL LANDSCAPING SHALL AT ALL TIMES SHALL PRESENT A HEALTHY, NEAT, CLEAN, ORDERLY, DISEASE-FREE AND PEST-FREE APPEARANCE.
4. ALL LANDSCAPING SOIL AND FILL SHALL BE FREE FROM WEEDS, REFUSE, AND DEBRIS AT ALL TIMES.
5. ANY DEAD PLANT MATERIAL OR MATERIAL THAT FAILS TO SHOW HEALTHY GROWTH MUST BE REMOVED WITHIN 30 DAYS.
6. REPLACEMENT OF REMOVED PLANT MATERIAL MUST TAKE PLACE WITHIN 90 DAYS OF REMOVAL OR NOTIFICATION BY THE CITY, WHICHEVER OCCURS FIRST.
7. ANY REPLACEMENT PLANT MATERIAL MUST MEET THE SIZE AND OTHER CHARACTERISTICS OF NEWLY PLANTED MATERIAL.
8. MAINTENANCE OF THE LANDSCAPING IS THE RESPONSIBILITY OF THE OWNER.

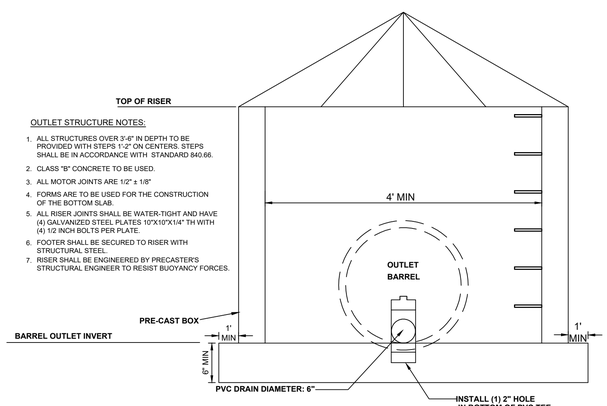


PLAN VIEW
NOT TO SCALE

1. DEPTH OF NO MORE THAN ONE-HALF THE HEIGHT OF THE RISER.
2. CLEAN OR REPLACE STONE FILTER WHEN DEVICE NO LONGER DRAINS PROPERLY.
3. PROVIDE PAINT MARK ON RISER AT 12" HEIGHT. CLEAN AND REPAIR ONCE SEDIMENT REACHES MARK.
4. INSTALL ALL COMPONENTS OF POND EMBANKMENT, OUTLET STRUCTURE, SKIMMER, EMERGENCY SPILLWAY, ETC. (UNLESS NOTED) PRIOR TO BEGINING CLEARING OPERATIONS.



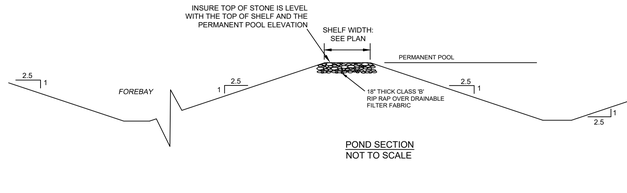
PERMANENT OUTLET STRUCTURE
SECTION Y-Y
NOT TO SCALE



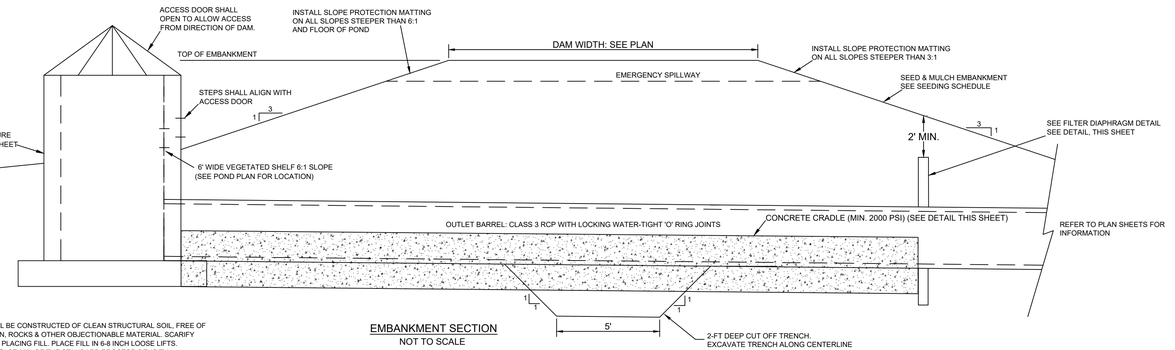
SECTION X-X
OUTLET STRUCTURE
NOT TO SCALE

DURING EROSION CONTROL STAGES, ALL RISER ORIFICES SHALL BE TEMPORARILY PLUGGED, EXCEPT FOR THE TEMPORARY SKIMMER.

AT TIME OF SKIMMER REMOVAL, THE DRAIN VALVE SHALL BE CLOSED AND ALL RISER ORIFICES SHALL BE UNPLUGGED.



POND SECTION
NOT TO SCALE



EMBANKMENT SECTION
NOT TO SCALE

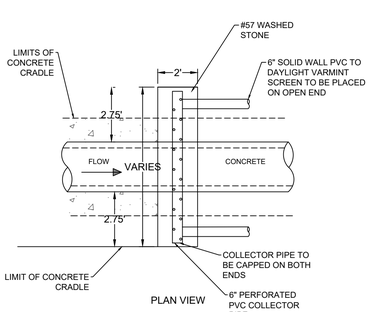
STORMWATER WET POND DETAIL

NOTES:

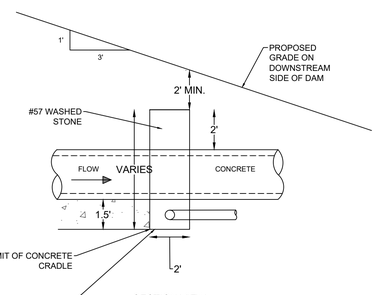
1. EMBANKMENT SHALL BE CONSTRUCTED OF CLEAN STRUCTURAL SOIL, FREE OF ROOTS, VEGETATION, ROCKS & OTHER OBJECTIONABLE MATERIAL. SCARIFY SURFACES BEFORE PLACING FILL. PLACE FILL IN 6-8 INCH LOOSE LIFTS. COMPACTS TO AT LEAST 95% OF THE STANDARD PROCTOR DENSITY.
2. CONTRACTOR TO SUPPLY SHOP DRAWINGS OF RISER STRUCTURES PRIOR TO FABRICATION.
3. ALL RISERS SHALL BE PRECAST CONCRETE SOLID 6" WALL STRUCTURES.
4. 4-6 INCH LAYER OF AMENDED SOIL IS RECOMMENDED IN ANY AREA WHERE PLANTINGS ARE REQUIRED (SEE NCDENR BMP DESIGN MANUAL).

GEOTECHNICAL CERTIFICATION NOTE:

ASBUILT CERTIFICATION OF THE EMBANKMENT COMPACTION, CONCRETE CRADLE, FILTER DIAPHRAGM, CUT OFF TRENCH, ETC. WILL BE REQUIRED PRIOR TO CERTIFICATE OF OCCUPANCY



PLAN VIEW



SECTION VIEW

FILTER DIAPHRAGM DETAIL
NOT TO SCALE

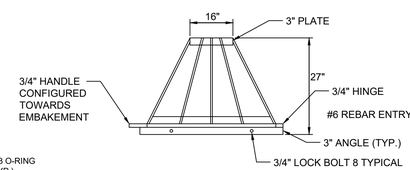
NOTES:

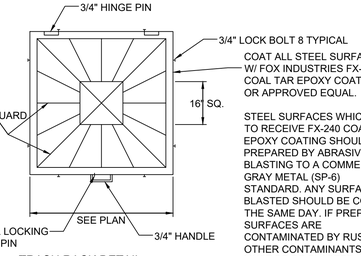
MINIMUM DENSITY SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH MOISTURE CONTENT WITHIN +/- 2% OF THE OPTIMUM. EACH LIFT OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY. ALL COMPACTION IS DETERMINED PER AASHTO METHOD T-99 (STANDARD PROCTOR).
DAM EMBANKMENT IS TO BE SEEDED IMMEDIATELY AFTER DAM CONSTRUCTION IS COMPLETE.

STORMWATER MANAGEMENT STRUCTURE IS TO BE UTILIZED AS A TEMPORARY EROSION CONTROL DEVICE INITIALLY. ONCE CONSTRUCTION IS COMPLETED AND UPSTREAM SURFACES HAVE BEEN PERMANENTLY STABILIZED, CONTRACTOR IS TO REMOVE ALL SEDIMENT FROM BASIN AND CONVERT TO PERMANENT WATER QUALITY STRUCTURE. THIS INCLUDES INSTALLING THE PROPOSED PLANTINGS ALONG THE LITTORAL SHELF.

DAM EMBANKMENT CONSTRUCTION NOTES:

1. CONSTRUCTION OF THIS DAM SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED GEOTECHNICAL ENGINEER, WHO IS A REGISTERED PROFESSIONAL ENIGINEER IN THE STATE OF NORTH CAROLINA. CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
2. ALL VISIBLE ORGANIC DEBRIS SUCH AS ROOTS AND LIMBS SHALL BE REMOVED FROM THE FILL MATERIAL PRIOR TO COMPACTION TO THE REQUIRED DENSITY. SOILS WITH ORGANIC MATTER CONTENT EXCEEDING 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3-INCH (IN ANY DIRECTION) SHALL BE REMOVED FROM THE FILL PRIOR TO COMPACTION.
3. FILL MATERIAL PLACED AT DENSITIES LOWER THAN SPECIFIED MINIMUM DENSITIES OR AT MOISTURE CONTENTS OUTSIDE THE SPECIFIED RANGES OR OTHERWISE NOT CONFORMING TO SPECIFIED REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
4. ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.
5. SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
6. FOUNDATION AREAS MAY REQUIRE UNDERCUTTING OF COMPRESSIBLE AND/OR UNSUITABLE SOILS IN ADDITION TO THAT INDICATED ON THE PLANS. ALL SUCH UNDERCUTTING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED. IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH CRUSHED STONE.
7. TREATMENT OF SEEPAGE AREAS, SUBGRADE PREPARATION, FOUNDATION DEWATERING AND ROCK FOUNDATION PREPARATION (I.E., TREATMENT WITH SLUSH GROUTING, DENTAL CONCRETE, ETC.) MAY BE REQUIRED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER. ALL SUCH ACTIVITIES SHALL BE CLOSELY MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
8. FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.
9. EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.
10. COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.
11. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES (INCLUDING THE CRADLE) UNTIL ADEQUATE CURING TIME HAS ELAPSED.
12. TO RE-ESTABLISH VEGETATION AFTER CONSTRUCTION, A 2- TO 3-INCH LAYER OF TOPSOIL SHALL BE PLACED ON THE DISTURBED EMBANKMENT SURFACE AND THE AREA SEEDED AND MULCHED OR HYDROSEEDED.
13. THE EMBANKMENT MATERIAL SHALL BE COMPRISED OF CLAYEY SAND OR SANDY CLAY WITH A MINIMUM OF 30% PASSING THE #200 SIEVE, A LIQUID LIMIT OF AT LEAST 25 AND A PLASTICITY INDEX OF AT LEAST 10%, AND LESS THAN 5% ORGANICS. THIS MATERIAL SHALL ALSO HAVE A UNIFIED SOIL CLASSIFICATION OF SC OR CL.

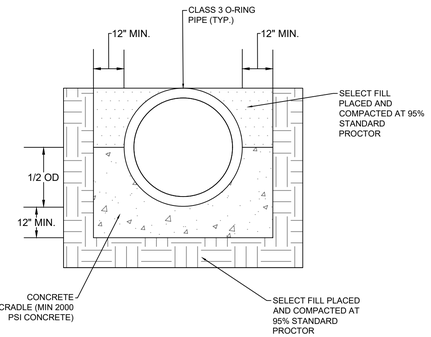




TRASH RACK DETAIL
NTS

COAT ALL STEEL SURFACES W/ FOX INDUSTRIES FX-420 COAL TAR EPOXY COATING OR APPROVED EQUAL.

STEEL SURFACES WHICH ARE TO RECEIVE FX-240 COAL TAR EPOXY COATING SHOULD BE PREPARED BY ABRASIVE BLASTING TO A COMMERCIAL GRAY METAL (SP-6) STANDARD. ANY SURFACE BLASTED SHOULD BE COATED THE SAME DAY. IF PREPARED SURFACES ARE CONTAMINATED BY RUST OR OTHER CONTAMINANTS, THEY MUST BE RE-BLASTED.



CONCRETE CRADLE DETAIL
NOT TO SCALE

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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	07/11/2024

DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: H: 1" = 50' V: 1" = 5'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SCM NOTES & DETAILS

JOB NO. 44529
SHEET NO. C6.3

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SEE SHEET C9.1 FOR TREE SCHEDULE FOR PHASE 2
SEE SHEET C9.3 FOR TREE SCHEDULE FOR PHASE 3

TREE REMOVAL
PHASE THREE

DECIDUOUS - TREES IN INCHES			EVERGREEN - TREES IN INCHES		
TIER 1	TIER 2	TIER 3	TIER 1	TIER 2	TIER 3
	24	24	24		26
		28			35
		39			27
		39			35
		30			24
		32			25
		27			39
					31
					31
					41
					33
					28
					24
					27
					27
					39
					37
					28
					29
					30
					27
					24
					27
					25
					27
					24
					34
TOTAL 24		219	0	24	0 828

TREE REPLACEMENT	PER 8.5 A
PHASE THREE - ONLY	
TOTAL INCHES TO BE REPLACED AT 1 TREE PER 12" OF CAL AT DBH	
1095 / 12 =	91 TREES

TREE REMOVAL
PHASE TWO

DECIDUOUS - TREES IN INCHES			EVERGREEN - TREES IN INCHES		
TIER 1	TIER 2	TIER 3	TIER 1	TIER 2	TIER 3
	24	27		24	37
		31			37
		16			32
		24			35
		31			29
		30			24
		24			29
		29			30
		26			24
		33			28
		41			26
		29			35
		33			31
		32			33
		27			25
		25			25
		27			27
		27			27
		24			28
		27			26
		26			24
		27			32
		26			27
		39			39
		27			30
		27			27
		26			31
		24			31
		27			36
		36			38
		27			24
		29			24
		36			28
		27			25
		28			24
					25
					26
					25
TOTAL 24		995	24		1101

TREE REPLACEMENT	PER 8.5 A
PHASE TWO - ONLY	
TOTAL INCHES TO BE REPLACED AT 1 TREE PER 12" OF CAL AT DBH	
2144 / 12 =	179 TREES

NOTES

1. STREET TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY.
2. STREET TREES SHALL BE PLANTED BY EACH BUILDER PRIOR TO RECEIVING C.O. FOR HOUSE.
3. ALL LANDSCAPING SHOULD BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE'S UDO.
4. ALL PLANT MATERIALS TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI.Z60.
5. CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
6. SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
7. 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.
8. LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIALS FOR A ONE YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
9. AREAS DAMAGED BY LANDSCAPE CONTRACTOR TO BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
10. ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
11. ALL ABOVE GROUND UTILITIES MUST BE SCREENED.

NAD 83

SCALE 1"=200'
0 200' 400'

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

LEGEND

- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=200'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL LANDSCAPING PLAN

JOB NO. 44529
SHEET NO. C7.0

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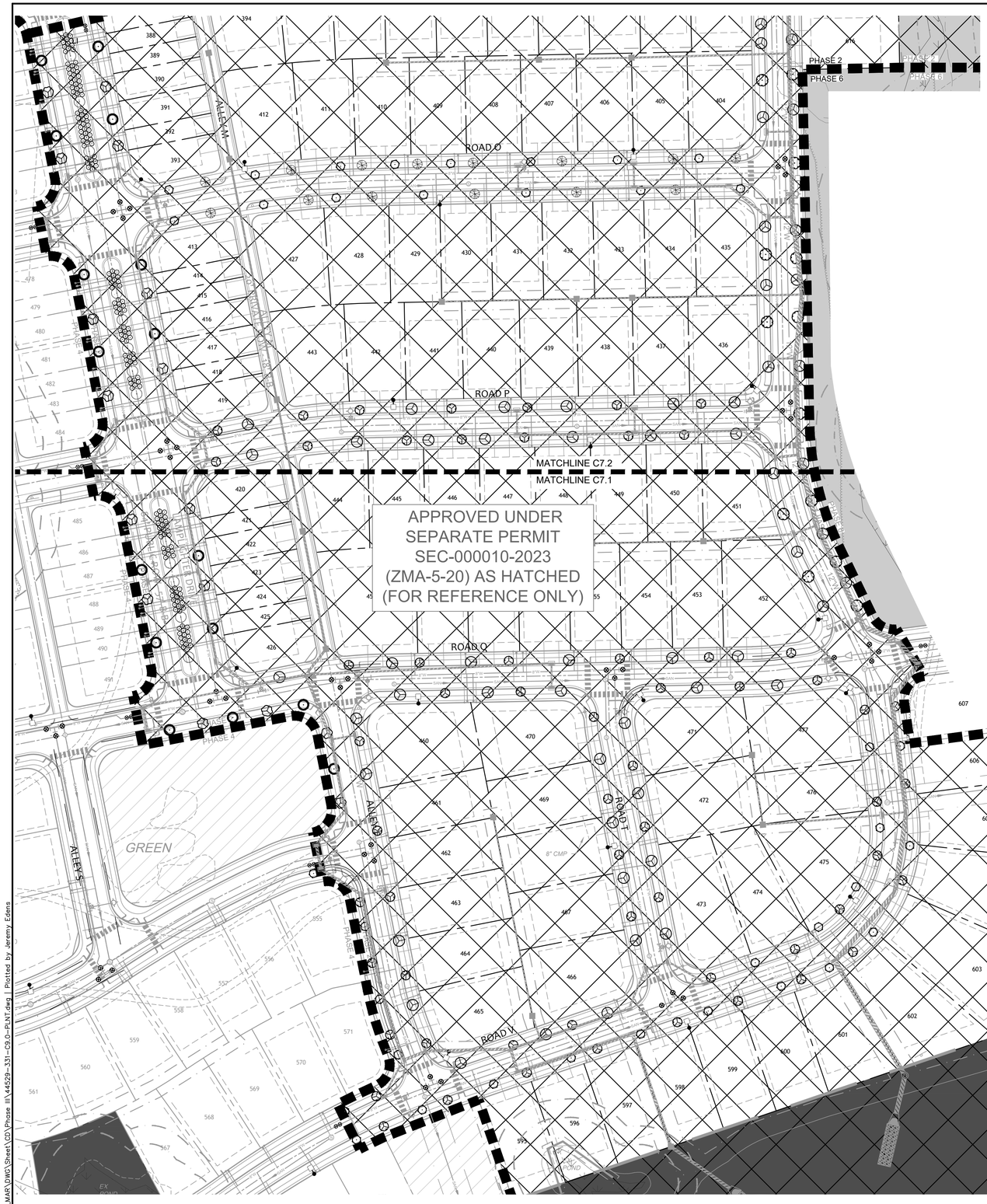

TREES- PHASE TWO REPLACEMENT TREES - CANOPY

SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	AS	29	ACER SACCHARUM	SUGAR MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	BN	36	BETULA NIGRA	RIVER BIRCH	D	1.5"/STEM	B&B	8-10'	5'-7'	FULL
	CD	34	CEDRUS DEODORA	DEODORA CEDER	E	2"	B&B	10'12'	6'-8'	FULL
	IO	18	ILEX OPACA	AMERICAN HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	IXN	23	ILEX X NELLIE STEVENS	NELLIE STEVENS HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	MG	10	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	E	2"	B&B	10'12'	6'-8'	FULL
	PT	6	PINUS TAEDA	LOBLOLLY PINE	E	2"	B&B	10'12'	6'-8'	FULL
	QP	24	QUERCUS PHELLOS	WILLOW OAK	D	2"	B&B	10'12'	6'-8'	FULL
		180	**TOTAL**							

SHURBS - PHASE TWO - NOT INCLUDED IN TREE REPLACEMENT COUNT

SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	RU	187	RAPHIOLEPSIS UMBELLATA	ELEANOR TABOR HAWTHORNE	E		CONT	18"-24"	18"-24"	FULL

STREET TREES - PHASE TWO - NOT INCULDE IN THE TREE REPLACEMENT

SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	AR	47	ACER RUBUM	RED MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	AS	48	ACER SACCHARUM	SUGAR MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	BN	39	BETULA NIGRA	RIVER BIRCH	D	1.5"/STEM	B&B	8-10'	5'-7'	FULL
	IXN	13	ILEX X NELLIE STEVENS	NELLIE STEVENS HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	PC	86	PISTACIA CHINENSIS	CHINESE PISTACHIO	D	2"	B&B	10'12'	6'-8'	FULL
	QP	26	QUERCUS PHELLOS	WILLOW OAK	D	2"	B&B	10'12'	6'-8'	FULL
	UP	60	ULMUS PARVIFOLIA	CHINESE ELM	D	2"	B&B	10'12'	6'-8'	FULL
	ZS	36	ZELCOVA SERRATA	JAPANESE ZELCOVA	D	2'	B&B	10'12'	6'-8'	FULL
		308	**TOTAL**							

NAD 83

SCALE 1"=60'

0 60' 120'

LEGEND

- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION

DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

JOB NO. 44529
SHEET NO. C7.1

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

LANDSCAPING PLAN - SHEET 1 OF 3

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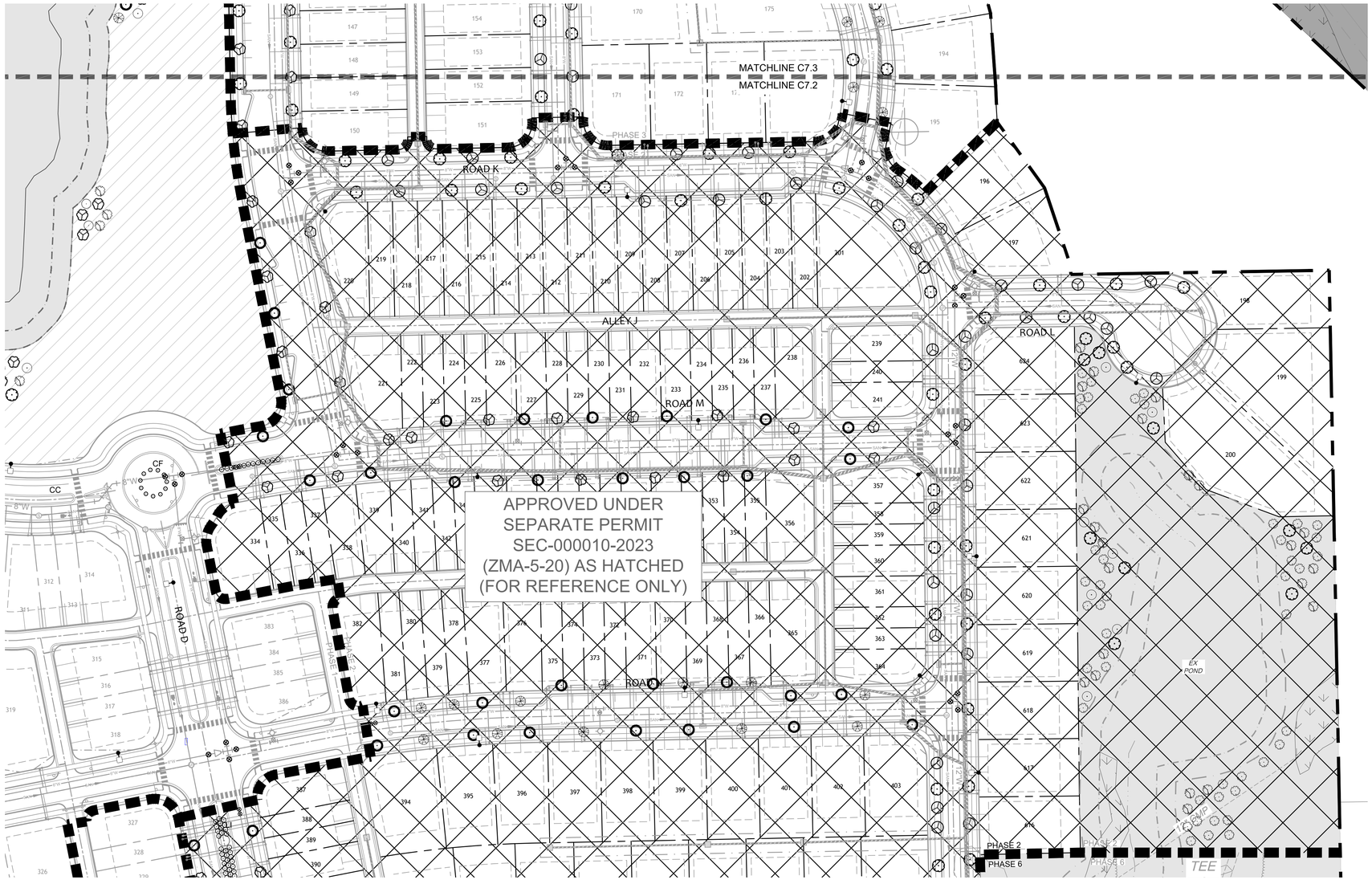

NAD 83

SCALE 1"=60'

0 60' 120'

SEE SHEET C9.1 FOR TREE SCHEDULE FOR PHASE 2
SEE SHEET C9.3 FOR TREE SCHEDULE FOR PHASE 3

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ADMINISTRATOR

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

LANDSCAPING PLAN - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C7.2

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ALLEN PARK CANOPY REPLACEMENT REQUIRED 179 TREES 85 DECIDUOUS - 94 EVERGREEN

DUE TO LIMITED SPACE IN PHASE TWO, PLANTS WERE PLACED IN PHASE ONE OPENSPACE EAST OF PHASE THREE AND IN THE PASSIVE OPEN SPACE EAST OF PHASE THREE

TREES- PHASE TWO REPLACEMENT TREES - CANOPY										
SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	AS	29	ACER SACCHARUM	SUGAR MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	BN	36	BETULA NIGRA	RIVER BIRCH	D	1.5"/STEM	B&B	8-10'	5'-7'	FULL
	CD	34	CEDRUS DEODORA	DEODORA CEDER	E	2"	B&B	10'12'	6'-8'	FULL
	IO	18	ILEX OPACA	AMERICAN HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	IXN	23	ILEX X NELLIE STEVENS	NELLIE STEVENS HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	MG	10	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	E	2"	B&B	10'12'	6'-8'	FULL
	PT	6	PINUS TAEDA	LOBLOLLY PINE	E	2"	B&B	10'12'	6'-8'	FULL
	QP	24	QUERCUS PHELLOS	WILLOW OAK	D	2"	B&B	10'12'	6'-8'	FULL
		180	**TOTAL**							

SHURBS - PHASE TWO - NOT INCLUDED IN TREE REPLACEMENT COUNT										
SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	RU	187	RAPHIOLEPSIS UMBELLATA	ELEANOR TABOR HAWTHORNE	E		CONT	18"-24"	18"-24"	FULL

STREET TREES - PHASE TWO - NOT INCULDE IN THE TREE REPLACEMENT										
SYM	CODE	QUANT	SCIENTIFIC NAME	COMMON NAME		CAL	CONT	HT	SP	NOTES
	AR	47	ACER RUBUM	RED MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	AS	49	ACER SACCHARUM	SUGAR MAPLE	D	2"	B&B	10'12'	6'-8'	FULL
	BN	39	BETULA NIGRA	RIVER BIRCH	D	1.5"/STEM	B&B	8-10'	5'-7'	FULL
	IXN	13	ILEX X NELLIE STEVENS	NELLIE STEVENS HOLLY	E	2"	B&B	10'12'	6'-8'	FULL
	PC	87	PISTACIA CHINENSIS	CHINESE PISTACHIO	D	2"	B&B	10'12'	6'-8'	FULL
	QP	28	QUERCUS PHELLOS	WILLOW OAK	D	2"	B&B	10'12'	6'-8'	FULL
	UP	60	ULMUS PARVIFOLIA	CHINESE ELM	D	2"	B&B	10'12'	6'-8'	FULL
	ZS	37	ZELCOVA SERRATA	JAPANESE ZELCOVA	D	2'	B&B	10'12'	6'-8'	FULL
		313	**TOTAL**							

NAD 83

SCALE 1"=60'

0 60' 120'

TOWN CERTIFICATION

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BY: _____ DATE: _____
ADMINISTRATOR

LEGEND

- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

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DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

LANDSCAPING PLAN - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C7.3

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SEEDING SCHEDULE		
MAXIMUM SLOPE 3:1		
SEEDING PERIOD	SEEDING TYPE	APPLICATION RATE (LBS/ACRE)
AUGUST 15 – NOVEMBER 01	TALL FESCUE	300
NOVEMBER 01 – MARCH 01	TALL FESCUE AND	300
	ABRUZZI RYE	25
MARCH 01 – APRIL 15	TALL FESCUE	300
APRIL 15 – JUNE 30	HULLED COMMON BERMUDAGRASS	25
JULY 01 – AUGUST 15	TALL FESCUE AND	120
	*BROWNTOP MILLET OR	35
	*SORGHUM–SUDAN HYBRIDS	30
SLOPES 2:1 TO 3:1		
MARCH 01 – JUNE 01	SERICEA LESPEDEZA (SCARIFIED) AND	50
MARCH 01 – APRIL 15	TALL FESCUE OR	120
MARCH 01 – JUNE 30	WEEPING LOVEGRASS OR	10
	HULLED COMMON BERMUDAGRASS	25
JUNE 01 – SEPTEMBER 01	*TALL FESCUE AND	120
	*BROWNTOP MILLET OR	35
	*SORGHUM–SUDAN HYBRIDS	30
SEPTEMBER 01 – MARCH 01	SERICEA LESPEDEZA (UNHULLED, USCARIFIED) AND	70
	TALL FESCUE OR	120
NOVEMBER 01 – MARCH 01	ABRUZZI RYE	25

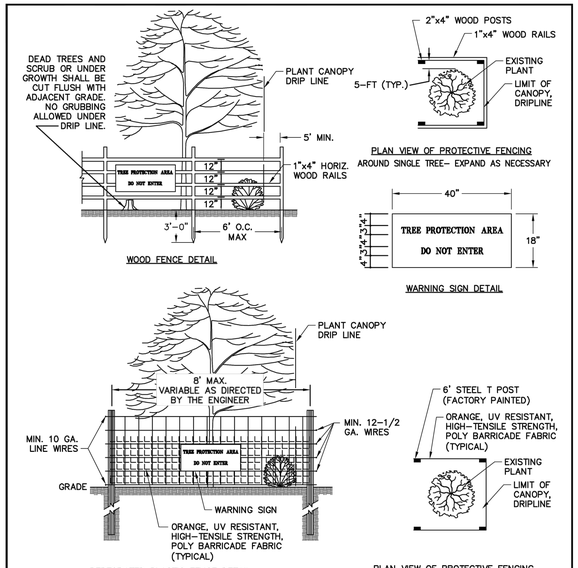
*TEMPORARY – RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT. CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

GROUND COVER – WHEREVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE (1) ACRE, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR PROVIDED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS.

GRADED SLOPES AND FILLS – WITHIN 15 WORKING DAYS OR 30 CALENDAR DAYS, OR COMPLETION OF ANY PHASE OF GRADING, WHICHEVER PERIOD IS SHORTER, SLOPES SHALL BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

REVISIONS	
DATE	DESCRIPTION

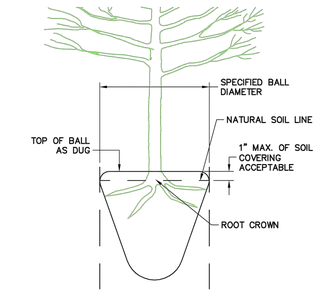
TOWN OF KNIGHTDALE STANDARD DETAILS	SEEDING SCHEDULE	STD. NO. 2.01



NOTES:
1. REMOVE ALL BARRIERS UPON COMPLETION OF PROJECT.
2. LANDSCAPING PLANS SHALL SHOW LOCATIONS OF ALL TREE PROTECTION FENCES.
3. ALL PLANTS TO BE SAVED SHALL BE PROTECTED BY FENCING AS SHOWN IN THIS DETAIL.
4. CONTRACTOR SHALL INSTALL FENCING PRIOR TO BEGINNING ANY CONSTRUCTION OR GRADING ACTIVITY.
5. CONTRACTOR SHALL CALL FOR INSPECTION AND APPROVAL OF PROTECTIVE FENCING PRIOR TO BEGINNING ANY CONSTRUCTION OR GRADING.
6. PROTECTIVE FENCING SHALL BE LOCATED 5' OUTSIDE DRIPLINE OF TREES AND 1' MINIMUM OUTSIDE SHRUBS OR OTHER PLANTS.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS	PLANT PROTECTIVE FENCING	STD. NO. 2.10



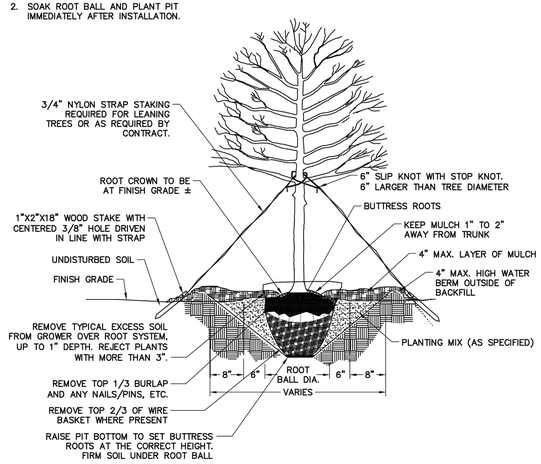
NOTE:

A ROOT COLLAR EXCAVATION FOR ALL TREES SPECIFIED WILL BE DONE BY THE TOWN TO ENSURE THAT TREES WERE NOT PLANTED/GROWN TOO DEEPLY AT SOURCE (NURSERY). LANDSCAPE CONTRACTOR SHALL HAVE SUPPLIER MARK GROUND LEVEL LINE ABOVE ROOT BALL. IF TOWN DETERMINES THAT THERE IS EXCESSIVE SOIL OVER THE ROOT CROWN, THESE TREES WILL BE REJECTED.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS	ROOT CROWN DEPTHS	STD. NO. 3.21

NOTES:
1. REMOVE WIRE OR NYLON TWINE FROM BALL.
2. SOAK ROOT BALL AND PLANT PIT IMMEDIATELY AFTER INSTALLATION.



ALL TREES SHALL MEET AMERICAN STANDARD FOR NURSERY STOCK
(AMSI, 1990, PART 1, "SHADE AND FLOWERING TREES")

FOR EXAMPLE: CALIPER	HEIGHT (RANGE)	MAX. HEIGHT	MIN. ROOT BALL DIA.	MIN. ROOT BALL DEPTH
2"	12–14'	16'	24"	16"
3"	14–16'	18'	32"	21"

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS	TREE PLANTING (FOR SINGLE AND MULTI-STEM TREES)	STD. NO. 3.25

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NOTES

1. STREET TREES SHALL BE LOCATED WITHIN THE RIGHT OF WAY.
2. STREET TREES SHALL BE PLANTED BY EACH BUILDER PRIOR TO RECEIVING C.O. FOR HOUSE.
3. ALL LANDSCAPING SHOULD BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE TOWN OF KNIGHTDALE'S UDO.
4. ALL PLANT MATERIALS TO COMPLY WITH AMERICAN STANDARD FOR NURSERY STOCK ANSI.Z60.
5. CONTRACTOR ENGAGED IN LANDSCAPE IMPLEMENTATION SHALL BE A LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF NORTH CAROLINA.
6. SUBSTITUTIONS OF PLANT MATERIALS SPECIFIED CAN ONLY OCCUR WITH PRIOR APPROVAL BY LANDSCAPE ARCHITECT.
7. 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.
8. LANDSCAPE CONTRACTOR TO GUARANTEE PLANT MATERIALS FOR A ONE YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION.
9. AREAS DAMAGED BY LANDSCAPE CONTRACTOR TO BE REPAIRED TO PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE OWNER.
10. ALL LANDSCAPE ISLANDS SHALL BE GRADED FOR POSITIVE DRAINAGE WITH NO LOW SPOTS ALLOWING WATER TO BE TRAPPED.
11. ALL ABOVE GROUND UTILITIES MUST BE SCREENED.

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=200'

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

LANDSCAPING NOTES AND DETAILS

JOB NO. 44529
SHEET NO. C7.4

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LIGHTING PLAN NOTES:

1. POLES SHALL BE FIBERGLASS.
2. AVERAGE MAXIMUM SPACING IS 250 FEET.
3. POLES SHALL BE PLACED ON ALTERNATE SIDES OF THE STREET.
4. BUG RATING: ALL STREETLIGHTS SHALL BE FULLY SHIELDED (NO LIGHT AT OR ABOVE HORIZONTAL) AND SHALL NOT EXCEED THE FOLLOWING BUG RATINGS ESTABLISHED FOR EACH TYPE OF STREET:

   I. LOCAL STREETS - B1, U1, G2
   II. COLLECTOR STREETS IN RESIDENTIAL AREAS - B2, U2, G3
   III. COLLECTOR STREETS IN OTHER AREAS - B3, U3, G3
   IV. ARTERIAL STREETS - B3, U3, G4

a. Lighting Plan Certification: I hereby certify I am the applicant and that a Lighting Plan shall be submitted by the utility provider to the Knightdale Planning Department for approval prior to the installation of all required lighting. The lighting plan shall designate the proposed location of all light poles and shall be in compliance with sections 8.10 and 16.8B as well as Chapter 11 of the Town of Knightdale UDO. If a proposed light pole location should present a conflict with existing or proposed vegetation according to the approved construction drawings, the Landscaping Plan shall be revised to comply with the Town of Knightdale UDO requirements. All revisions are subject to Town of Knightdale approval.

_____ _____
Date Applicant

I (officer authorized to take acknowledgments) do hereby certify that _____ personally appeared before me this day and acknowledged the due execution of this certificate. Witness my hand and (where an official seal is required by law) official seal this ___ day of _____, A.D., ____ (year).

_____
Official Seal Notary

_____
Commission Expires

NAD 83

LIGHTING LEGEND

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

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

TOWN CERTIFICATION

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DEVELOPMENT SERVICES ENGINEER

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ADMINISTRATOR

SCALE 1"=200'
0 200' 400'

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 053562 ALLISON R. STONE

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DATE

DATE
07/11/2024

DRAWN BY
331

DESIGNED BY
331

CHECKED BY
A. STONE

SCALE
1"=200'

JOB NO.
44529

SHEET NO.
C8.0

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

OVERALL LIGHTING PLANS

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LEGEND

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SCALE 1"=60'

0 60' 120'

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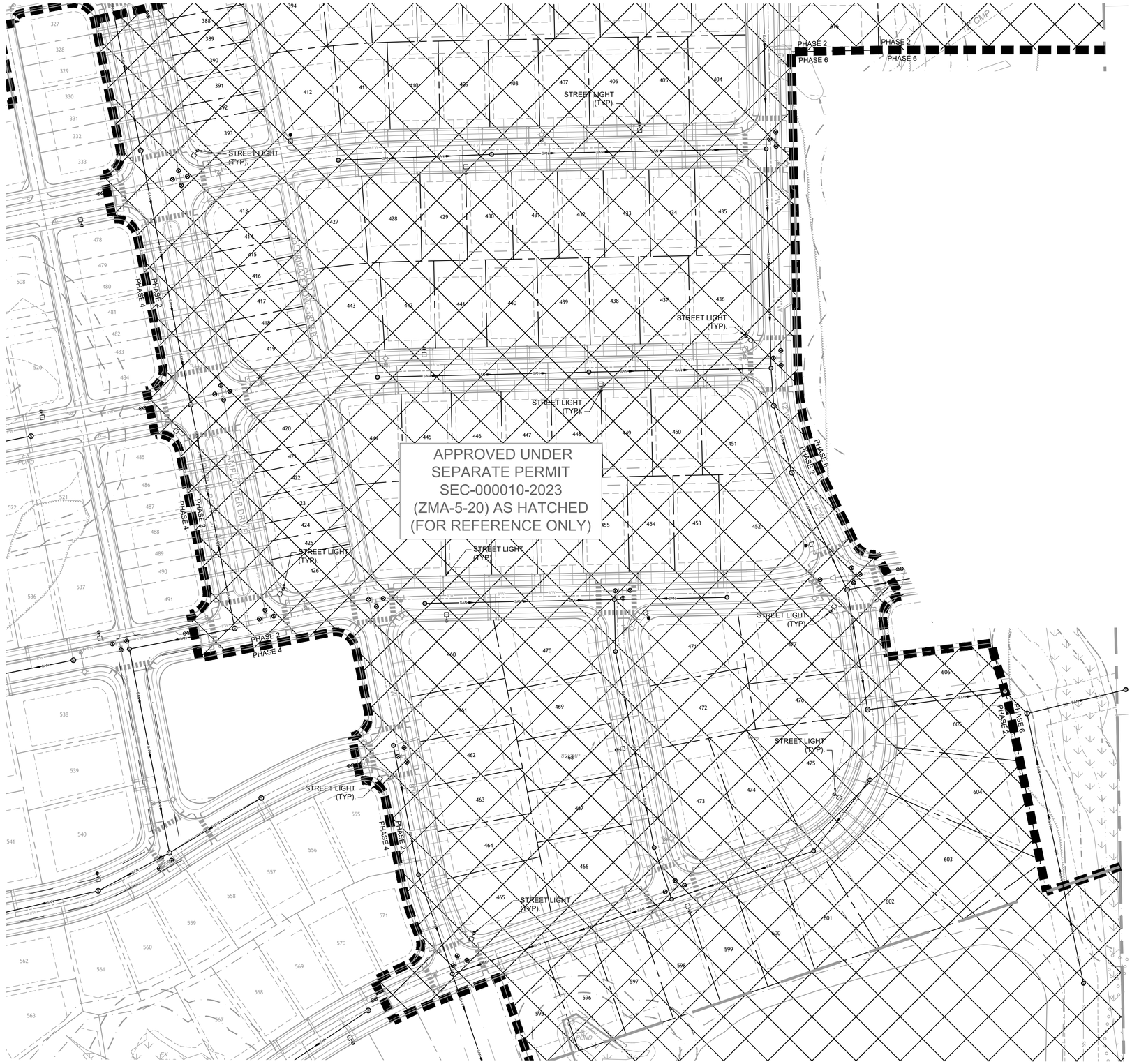
ADMINISTRATOR

LIGHTING LEGEND

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



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ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

LIGHTING PLAN - SHEET 1 OF 3

REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE 1"=60'
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SHEET NO. C8.1

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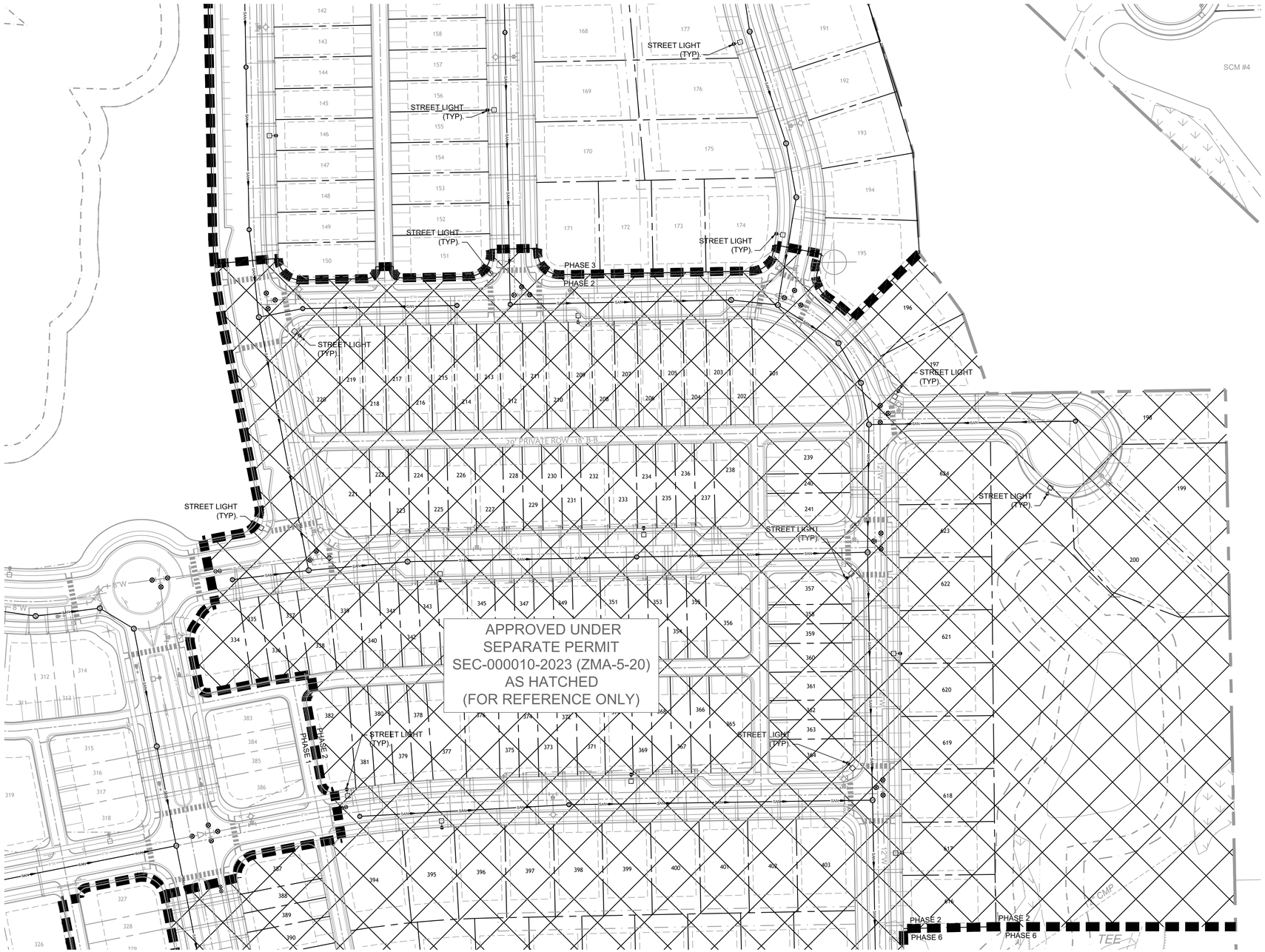

LEGEND

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- COMMON AREA

NAD 83

SCALE 1"=60'
0 60' 120'

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

LIGHTING LEGEND

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

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

S:\33\44529-WL_MAR\DWG\Sheet\CD\Phase III\44529-331-C8.0-LUMN.dwg | Plotted by Jeremy Edens

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=60'

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE - WAKE COUNTY - NORTH CAROLINA

LIGHTING PLAN - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C8.2

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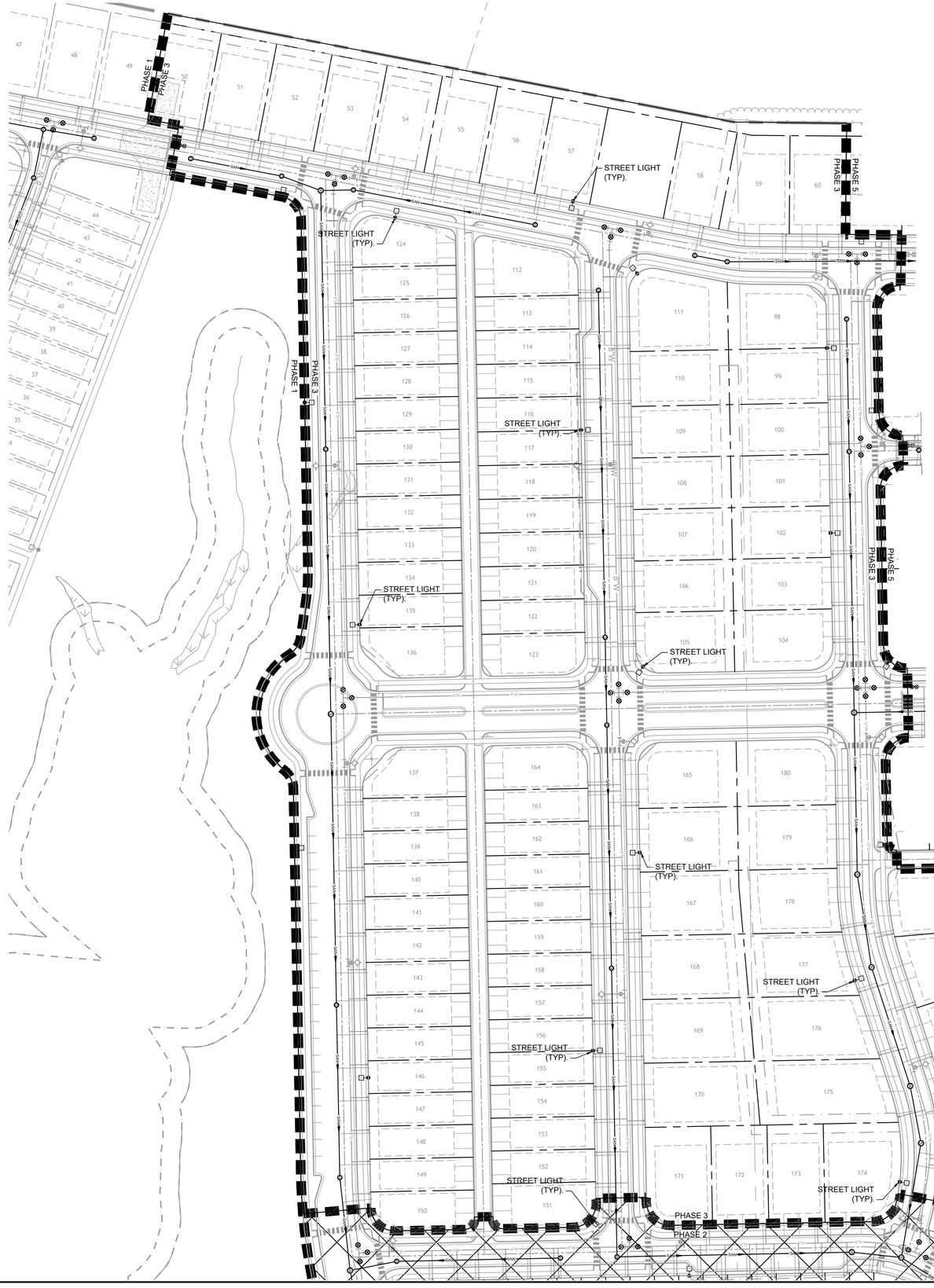

LEGEND

- PROPERTY LINE
- ACTIVE OPEN SPACE
- PASSIVE OPEN SPACE
- COMMON AREA

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

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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BY: _____ DATE: _____
ADMINISTRATOR

LIGHTING LEGEND

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

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

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YOUR VISION ACHIEVED THROUGH OURS.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: 1"=60'

TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

LIGHTING PLAN - SHEET 3 OF 3

JOB NO. 44529
SHEET NO. C8.3

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S:\331\44529-WIL_MAR\CIVIL\Sheet\CD\Phase III\44529-331-C8.0-LUMN.dwg | Plotted by Jeremy Edens

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION

DATE

DATE 07/11/2024

DRAWN BY 331

DESIGNED BY 331

CHECKED BY A. STONE

SCALE N/A

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TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SITE DETAILS - SHEET 1 OF 3

JOB NO. 44529

SHEET NO. C9.1

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S:\331\44529-WIL_MAR\CIVIL\Sheet\CD\Phase III\44529-331-C7.0-NTDT.dwg | Plotted by Jeremy Edens

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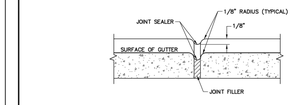


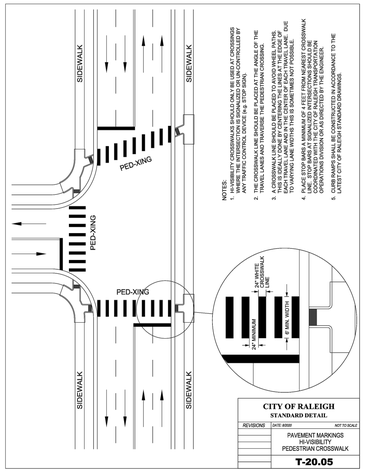
TRANSVERSE EXPANSION JOINT

NOTES:

1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED.
3. ALL EXPANSION JOINTS SHALL BE SPACED AT 80-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI IN 28 DAYS.
5. CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
6. TOP 6" OF SUBGRADE BENEATH THE CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | CURB AND GUTTER | 3 of 3 | STD. NO. 4.01

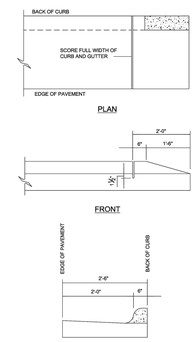


NOTES:

1. HI-VISIBILITY CROSSWALKS SHOULD ONLY BE USED AT CONTROLLED INTERSECTIONS WITH TRAFFIC SIGNALS, ALL-WAY STOP CONTROL OR AT A STOP SIGN.
2. THE CROSSWALK SHOULD BE PERPENDICULAR TO THE ANGLE OF THE TRAVEL LANES AND TRAVERSE THE PEDESTRIAN CROSSING.
3. A CROSSWALK LINE SHOULD BE PLACED TO ANTICIPATE PATHS TAKEN BY PEDESTRIANS. CROSSWALKS SHOULD NOT BE PLACED TO WHERE PEDESTRIANS WOULD BE FORCED TO WALK BEHIND PARKED CARS TO ENTER THE TRAVEL LANE. AVOID TO VANISHING LANE WIDTHS THIS IS SOMETIMES NOT POSSIBLE.
4. PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE TO ENCOURAGE DRIVERS TO STOP BEFORE ENTERING THE CROSSWALK. OPPORTUNITIES WITH SITE CONSTRAINTS MAY VARY.
5. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST CITY OF RALEIGH STANDARD DRAWINGS.

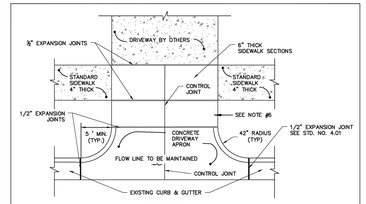
CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	PAVEMENT MARKINGS HI-VISIBILITY PEDESTRIAN CROSSWALK	
	T-20.05	

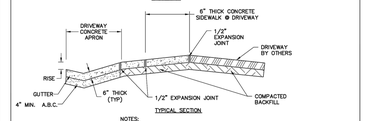


CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	STANDARD METHOD OF ENDING CURB AND GUTTER	
	T-10.25	



PLAN VIEW



TYPICAL SECTION

NOTES:

1. RESIDENTIAL DRIVEWAYS TO BE 12' TO 18'.
2. COMMERCIAL DRIVEWAYS TO BE A MAXIMUM OF 36' WIDE.
3. CONCRETE SHALL BE 3000 P.S.I.
4. CONTROL JOINTS NOT TO EXCEED 10' ON CENTER.
5. CURB RADIUS SHALL NOT RISE MORE THAN 1 (ONE) INCH.
6. IF THE DRIVEWAY SECTION BETWEEN THE SIDEWALK AND THE DRIVEWAY APRON IS 18" OR LESS THE SIDEWALK WILL BE WIDENED TO THE APRON AND AN EXPANSION JOINT ELIMINATED.
7. DRIVEWAY SHALL BE A MINIMUM OF 5 FEET FROM PROPERTY LINE.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | STANDARD DRIVEWAY APRON | STD. NO. 4.03

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

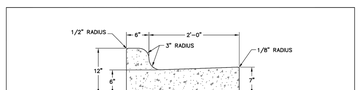
Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

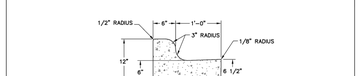
The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

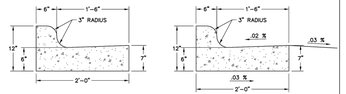
City of Raleigh Public Utilities Department Permit # _____



STANDARD 2'-6" CURB AND GUTTER



1'-6" STANDARD CURB AND GUTTER

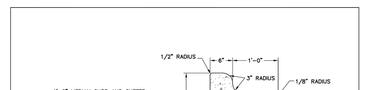


2'-0" STANDARD CURB & GUTTER

SLOPE FOR VARIABLE SUPER ELEVATION RATES

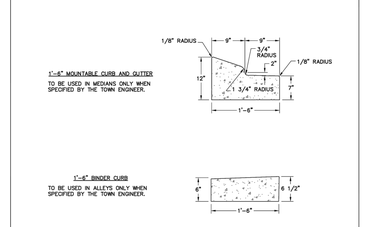
REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | CURB AND GUTTER | 1 of 3 | STD. NO. 4.01



1'-6" MEDIAN CURB AND GUTTER

TO BE USED IN MEDIANS WHEN LANES ARE SLOPED FROM ISLAND OR AS SPECIFIED BY THE TOWN ENGINEER.



1'-6" MOUNTABLE CURB AND GUTTER

TO BE USED IN MEDIANS ONLY WHEN SPECIFIED BY THE TOWN ENGINEER.

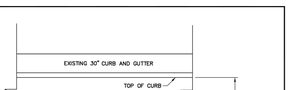
1'-6" BINDER CURB

TO BE USED IN ALLEYS ONLY WHEN SPECIFIED BY THE TOWN ENGINEER.

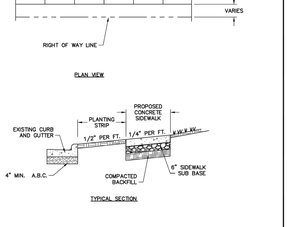
1'-6" STANDARD CURB AND GUTTER

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | CURB AND GUTTER | 2 of 3 | STD. NO. 4.01



PLAN VIEW



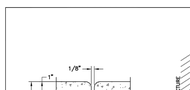
TYPICAL SECTION

NOTES:

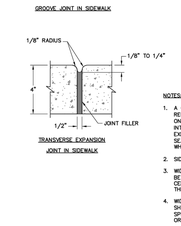
1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET APART.
2. CONTROL JOINTS TO BE AT 5 FEET O.C.
3. ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
4. SIDEWALK SUB BASE TO BE A MIXTURE OF 70 PERCENT #57 STONE AND ASTM C33 SAND OR EQUAL.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | CONCRETE SIDEWALKS | 1 of 2 | STD. NO. 4.04



DETAILS SHOWING EXPANSION JOINTS IN CONCRETE SIDEWALK



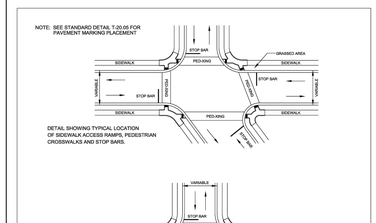
TRANSVERSE EXPANSION JOINT IN SIDEWALK

NOTES:

1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SCALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
3. WIDTH OF SIDEWALK ON THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5'. WIDTH OF SIDEWALKS IN THE CENTRAL BUSINESS DISTRICT WILL BE DETERMINED BY THE TOWN ENGINEER.
4. WIDTH OF SIDEWALKS ON NON-THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5' UNLESS OTHERWISE SPECIFIED BY THE TOWN'S UNIFIED DEVELOPMENT ORDINANCE.
5. SIDEWALK TO BE POURED TO END OF RADIUS AT INTERSECTING STREETS.
6. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI IN 28 DAYS.

REVISIONS	
DATE	DESCRIPTION

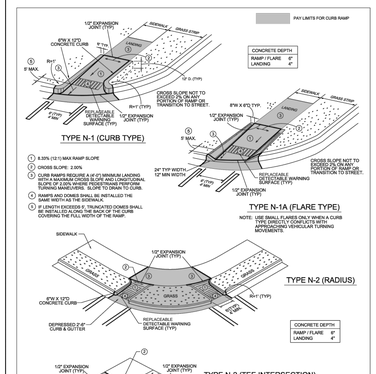
TOWN OF KNIGHTDALE STANDARD DETAILS | CONCRETE SIDEWALKS | 2 of 2 | STD. NO. 4.04



SHEET 1 OF 6

CITY OF RALEIGH
STANDARD DETAIL

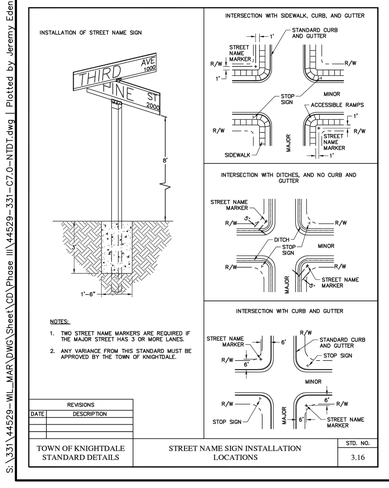
REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB RAMPS	
	T-20.01.1	



SHEET 2 OF 6

CITY OF RALEIGH
STANDARD DETAIL

REVISIONS	DATE: 8/2020	NOT TO SCALE
	CURB RAMPS (NEW DEVELOPMENT)	
	T-20.01.2	

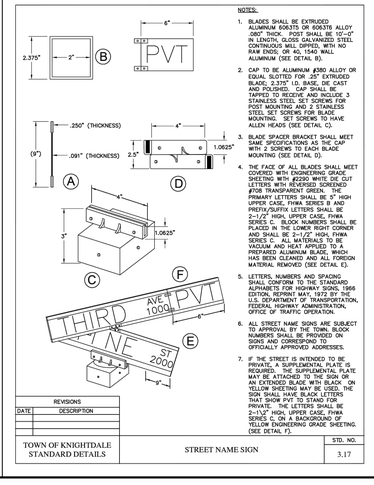


NOTES:

1. TWO STREET NAME MARKERS ARE REQUIRED IF THE MAJOR STREET HAS 3 OR MORE LANES.
2. ANY VARIANCE FROM THIS STANDARD MUST BE APPROVED BY THE TOWN OF KNIGHTDALE.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | STREET NAME SIGN INSTALLATION LOCATIONS | STD. NO. 3.16

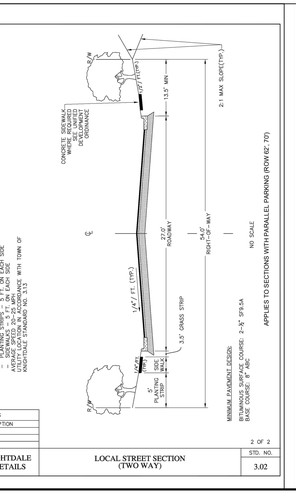


NOTES:

1. BLADES SHALL BE EXTRUDED ALUMINUM 6063T5 OR 6063T6 ALLOY .080" THICK. POST SHALL BE 10'-0" IN LENGTH, GLOSS GALVANIZED STEEL CONTINUOUS MILL DIPPED, WITH NO RAW ENDS, OR AL 1540 MILL ALUMINUM (SEE DETAIL B).
2. CAP TO BE ALUMINUM #360 ALLOY OR EQUAL SLOTTED FOR .25" EXTRUDED BLADE, 2.375" I.D. BASE, DIE CAST AND POLISHED. CAP SHALL BE TAPPED TO RECEIVE AND INCLUDE 3 STAINLESS STEEL SET SCREWS FOR BLADE MOUNTING. SET SCREWS TO BE STEEL, SET SCREWS FOR BLADE MOUNTING. SET SCREWS TO HAVE ALLEN HEADS (SEE DETAIL C).
3. BLADE SPACER BRACKET SHALL MEET SAME SPECIFICATIONS AS THE CAP WITH 2 SCREWS TO EACH BLADE MOUNTING (SEE DETAIL D).
4. THE FACE OF ALL BLADES SHALL MEET COVERED WITH ENGINEERING GRADE SHEETING WITH #2330 WHITE DIE CUT LETTERS WITH REVERSED SCREENED PYRAMIDAL SPACING (SEE DETAIL E). FIRST LETTER IN LINE TO BE 7" HIGH UPPER CASE, FHWA SERIES B AND PREFIX/SUFFIX LETTERS SHALL BE 2-1/2" HIGH, UPPER CASE, FHWA SERIES C. BLOCK NUMBERS SHALL BE PLACED IN THE LOWER RIGHT CORNER AND SHALL BE 2-1/2" HIGH, FHWA SERIES C. ALL MATERIALS TO BE APPLIED TO A 6061T6 ALLOY PREPARED ALUMINUM BLADE, WHICH HAS BEEN CLEANED AND ALL FOREIGN MATERIAL REMOVED (SEE DETAIL E).
5. LETTERS, NUMBERS AND SPACING SHALL CONFORM TO THE STANDARD ALPHABET FOR HIGHWAY SIGNS, 1966 EDITION, REPRINT MAY, 1972 BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, OFFICE OF TRAFFIC OPERATION.
6. ALL STREET NAME SIGNS ARE SUBJECT TO APPROVAL BY THE TOWN. BLOCK NUMBERS SHALL BE PROVIDED ON SIGNS AND CORRESPOND TO OFFICIALLY APPROVED ADDRESSES.
7. IF THE STREET IS INTENDED TO BE PRIVATE, A SUPPLEMENTAL PLATE IS REQUIRED. THE SUPPLEMENTAL PLATE MAY BE ATTACHED TO THE SIGN OR AN EXTENDED BLADE WITH BLACK ON YELLOW SHEETING MAY BE USED. THE SIGN SHALL HAVE BLACK LETTERS WITH THE WORD "PRIVATE". THE LETTERS SHALL BE 2-1/2" HIGH, UPPER CASE, FHWA SERIES C, ON A BACKGROUND OF YELLOW ENGINEERING GRADE SHEETING. (SEE DETAIL F).

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | STREET NAME SIGN | STD. NO. 3.17



BUILDINGS & LAND USE:
RESIDENTIAL - TYPICAL SINGLE FAMILY
MANY RESIDENTIAL TYPES
ROADWAY WIDTH DETERMINED TO ACCOMMODATE PARKING ON SIDEWALK
CONVENTIONAL BUILDING LINE RECOMMENDED
FRONT ENTRANCE GARAGES

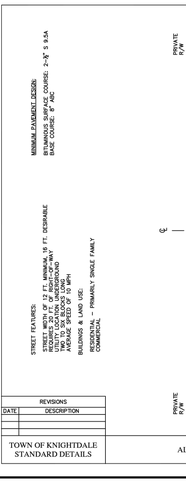
STREET FEATURES:
FLEXIBLE STREET DESIGN ELEMENTS WITH TOWN STAFF
FLEXIBLE STREET WIDTH
PRIMARY MIN. OF 27.0' (TO PROVIDE TWO - 11 FOOT TRAVEL LANES AND PARKING)
NO ONSTREET PARKING
SIDEWALKS - 5' ON EACH SIDE
PLANTING STRIP - 5' ON EACH SIDE
UTILITY LOCATION IN ACCORDANCE WITH TOWN OF KNIGHTDALE STANDARD NO. 3.13

MINIMUM PAVEMENT DESIGN:
SURFACE COURSE: 2"-S9.5A
BASE COURSE: 6"-ABC

APPLIES TO SECTIONS WITH PARALLEL PARKING (ROW 62'-70')

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | LOCAL STREET SECTION (TWO WAY) | 2 OF 2 | STD. NO. 3.02

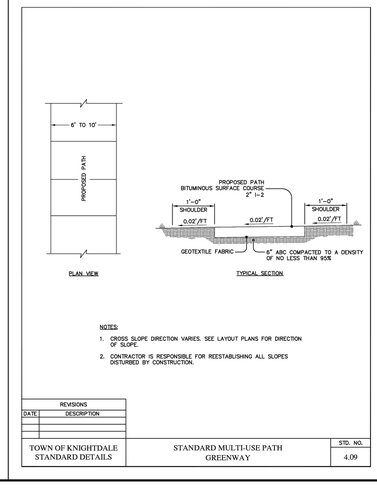


STREET FEATURES:
ROADWAY WIDTH - 21' MINIMUM (4' FT. DESIRABLE)
ROADSIDE DITCH OR REPLACEMENT
INCREASED RIGHT OF WAY REQUIRED
TWO - 10' SIDE BLOCKS LONG
NO ONSTREET PARKING

BUILDINGS & LAND USE:
RESIDENTIAL - PRIMARILY SINGLE FAMILY
COMMERCIAL

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | ALLEY SECTION | STD. NO. 3.01



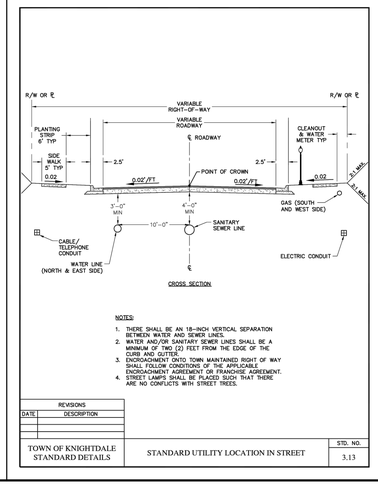
TYPICAL SECTION

NOTES:

1. CROSS SLOPE DIRECTION VARIES. SEE LAYOUT PLANS FOR DIRECTION OF SLOPE.
2. CONTRACTOR IS RESPONSIBLE FOR REESTABLISHING ALL SLOPES DISTURBED BY CONSTRUCTION.

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | STANDARD MULTI-USE PATH GREENWAY | STD. NO. 4.09



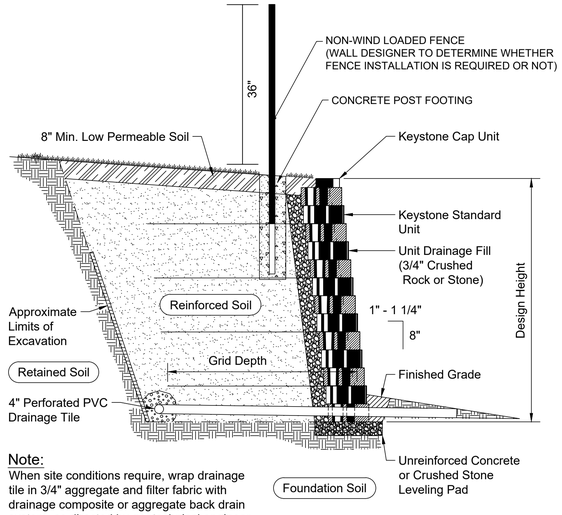
CROSS SECTION

NOTES:

1. THERE SHALL BE AN 18-INCH VERTICAL SEPARATION BETWEEN WATER AND SEWER LINES.
2. WATER AND/OR SANITARY SEWER LINES SHALL BE A MINIMUM OF TWO (2) FEET FROM THE EDGE OF THE ENCROACHMENT.
3. ENCROACHMENT ONTO TOWN MAINTAINED RIGHT OF WAY SHALL FOLLOW CONDITIONS OF THE APPLICABLE ENCROACHMENT AGREEMENT OR FRANCHISE AGREEMENT.
4. STREET LAMPS SHALL BE PLACED SUCH THAT THERE ARE NO CONFLICTS WITH STREET TREES.

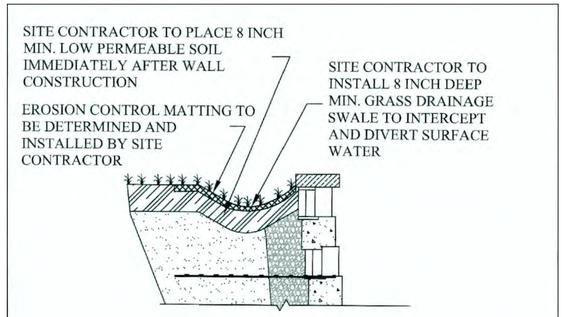
REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS | STANDARD UTILITY LOCATION IN STREET | STD. NO. 3.13



Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

Typical Reinforced Wall Section (Designed By Others)



DRAINAGE SWALE DETAIL

SCALE: NONE

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

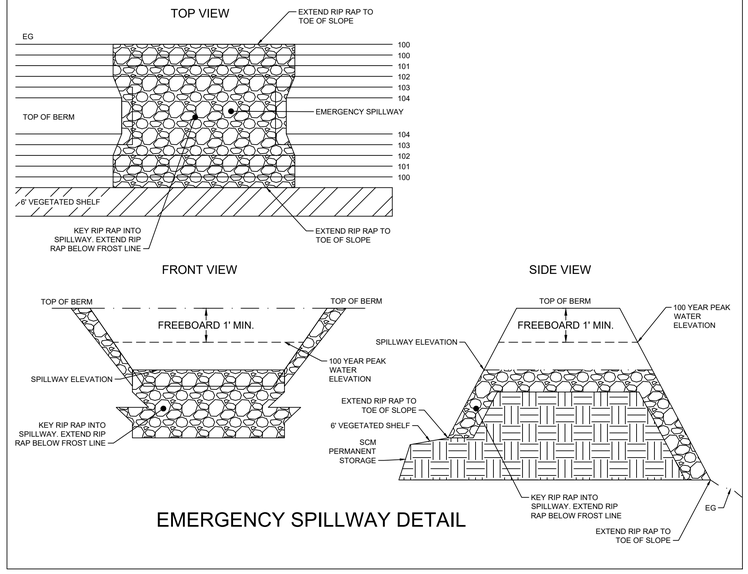
Water and Sewer Permits (If applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

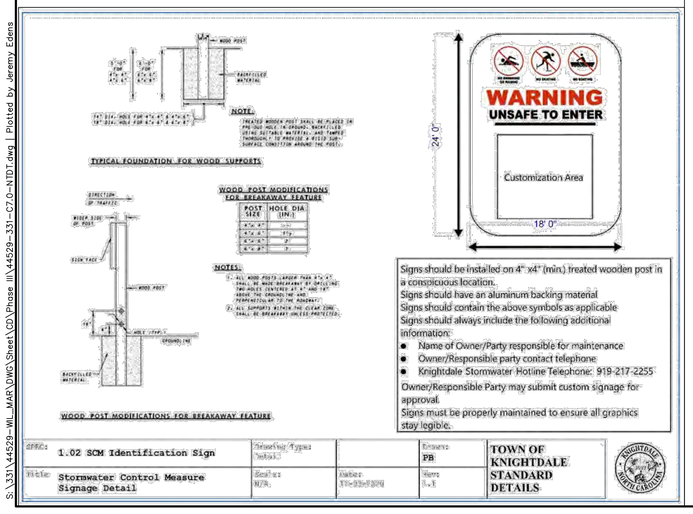
The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** _____

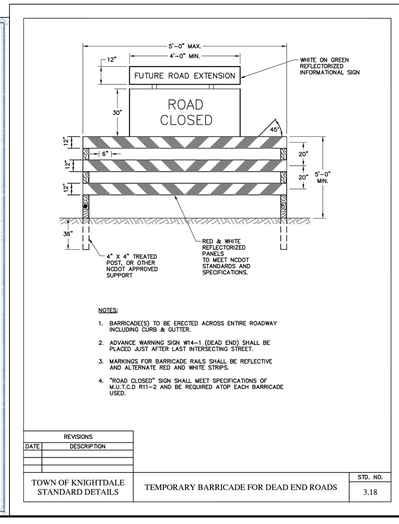
The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

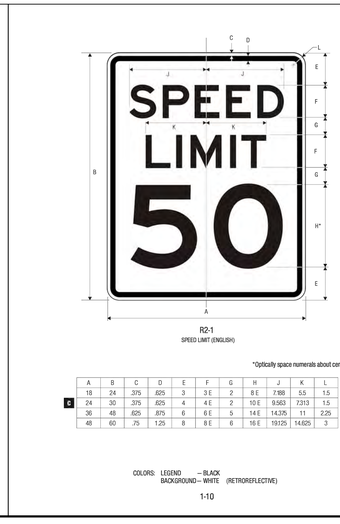
City of Raleigh Public Utilities Department Permit # _____

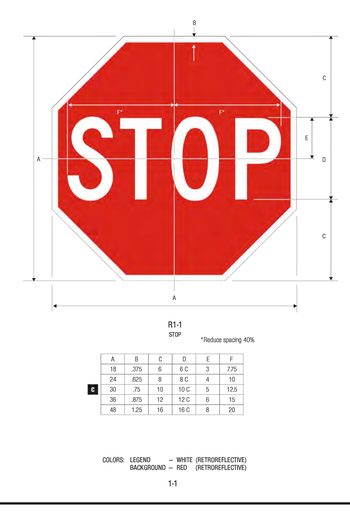


EMERGENCY SPILLWAY DETAIL









PROGRESS DRAWINGS - 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.

REVISION DESCRIPTION	DATE

DATE: 07/11/2024
DRAWN BY: 331
DESIGNED BY: 331
CHECKED BY: A. STONE
SCALE: N/A

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
SITE DETAILS - SHEET 2 OF 3

JOB NO. 44529
SHEET NO. C9.2

FOR REVIEW ONLY: NOT FOR CONSTRUCTION

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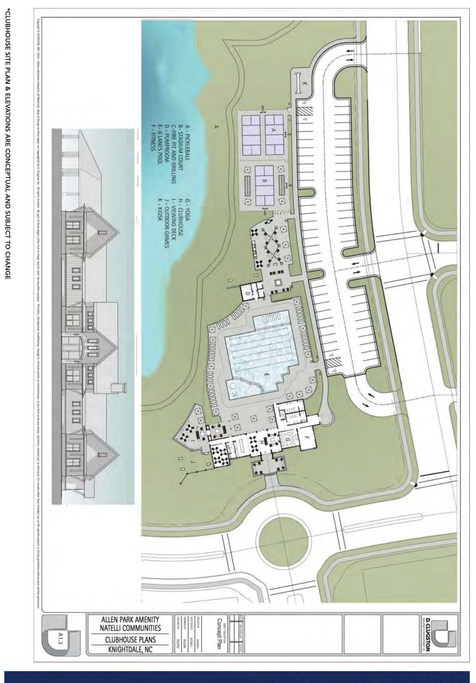
S:\331\44529-WIL_MAR\DWG\Sheet\C0\Phase III\44529-331-C7.0-NTDT.dwg | Plotted by Jeremy Edens

POCKET PARKS

SECONDARY ANENITY AREA



CENTRAL PARK

SECONDARY ANENITY AREA

CENTRAL PARK

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN AND IS BELIEVED TO BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE AND TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT

BY: _____ DATE: _____
ADMINISTRATOR

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

YOUR VISION ACHIEVED THROUGH OURS.

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 053562 BRENDEN R. STONE

DATE	REVISION DESCRIPTION

ALLEN PARK SUBDIVISION - PHASE III

KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA

SITE DETAILS - SHEET 3 OF 3

JOB NO.	SHEET NO.	SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
44529	C9.3	N/A	A. STONE	331	331	07/11/2024

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FOR REVIEW ONLY: NOT FOR CONSTRUCTION

STANDARD UTILITY NOTES (AS APPLICABLE):

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:

a) 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

b) 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

c) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS

d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER

e) 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 W-41 & S-49)

f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED

3. 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
4. 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
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
6. 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
7. INSTALL ¾" 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
8. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
9. 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
10. 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.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION
12. 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 TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION
13. 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

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

BY: _____ DATE: _____
ADMINISTRATOR

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

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City of Raleigh Development Approval _____

Raleigh Water Review Officer

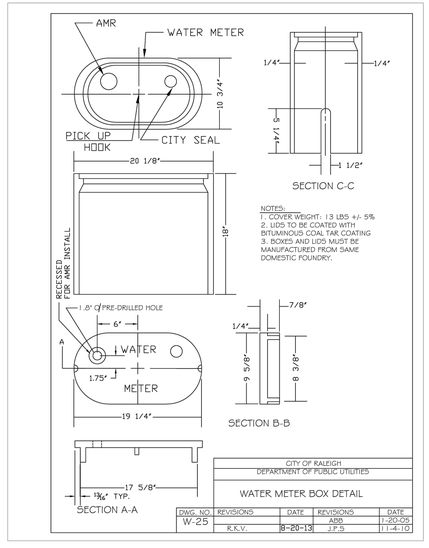
Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** XXXX

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** XXXX

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

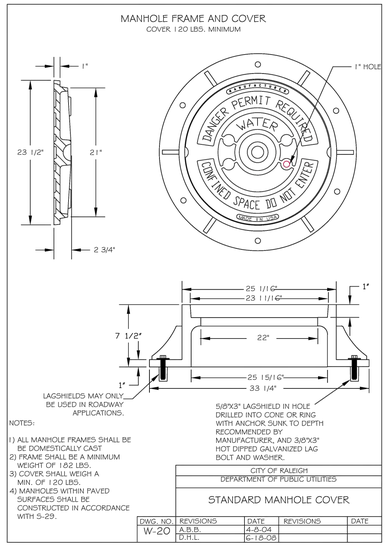
City of Raleigh Public Utilities Department Permit # _____



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

WATER METER BOX DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-25		ABB		1-20-05
	R.K.V.	8-20-13	J.P.S.	11-4-10

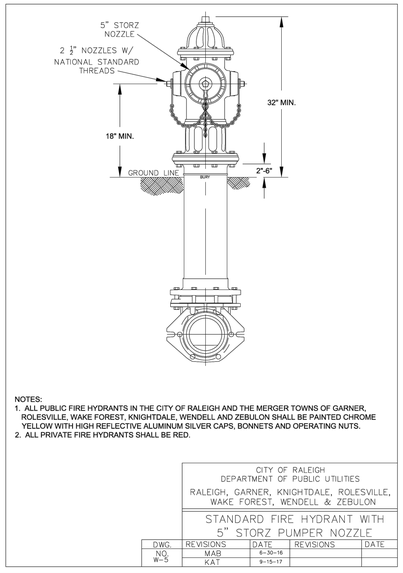


NOTES:
1) ALL MANHOLE FRAMES SHALL BE BE DOMESTICALLY CAST
2) FRAME SHALL BE A MINIMUM WEIGHT OF 182 LBS.
3) COVER SHALL WEIGH A MIN. OF 120 LBS.
4) MANHOLES WITHIN PAVED SURFACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH S-29.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD MANHOLE COVER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-20	A.B.B.	4-5-04		
	D.H.L.	6-18-08		

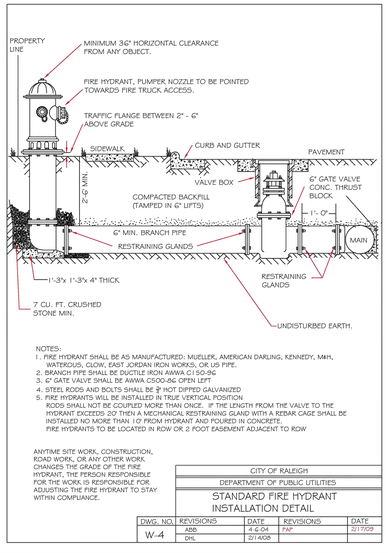


NOTES:
1. ALL PUBLIC FIRE HYDRANTS IN THE CITY OF RALEIGH AND THE MERGER TOWNS OF GARNER, ROLESVILLE, WAKE FOREST, KNIGHTDALE, WENDELL AND ZEBULON SHALL BE PAINTED CHROME YELLOW WITH HIGH REFLECTIVE ALUMINUM SILVER CAPS, BONNETS AND OPERATING NUTS.
2. ALL PRIVATE FIRE HYDRANTS SHALL BE RED.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES
RALEIGH, GARNER, KNIGHTDALE, ROLESVILLE, WAKE FOREST, WENDELL & ZEBULON

STANDARD FIRE HYDRANT WITH 5" STORZ PUMPER NOZZLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-5	MAB	6-30-16		
	KAT	9-15-17		



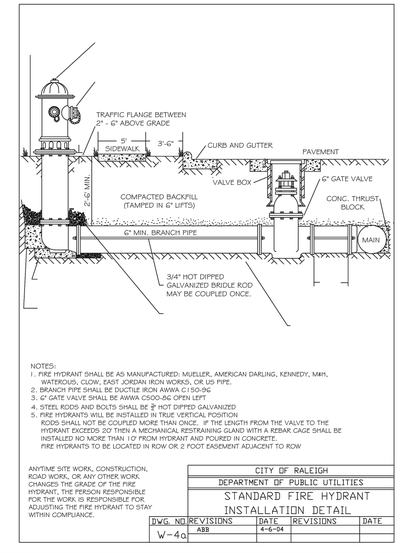
NOTES:
1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, M&H, WATEROUS, CLOW, EAST JORDAN IRON WORKS, OR US PIPE.
2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C150-96
3. 6" GATE VALVE SHALL BE AWWA C500-96 OPEN LEFT
4. STEEL RODS AND BOLTS SHALL BE ⅜" HOT DIPPED GALVANIZED
5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION
   RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
   FIRE HYDRANTS TO BE LOCATED IN ROW OR 2' FOOT EASEMENT ADJACENT TO ROW

ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK CHANGES THE GRADE OF THE FIRE HYDRANT, THE PERSON RESPONSIBLE FOR THE WORK IS RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANT TO STAY WITHIN COMPLIANCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD FIRE HYDRANT INSTALLATION DETAIL

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-4	ABB	4-6-04	PAF	2/17/09
	DHL	2/14/08		



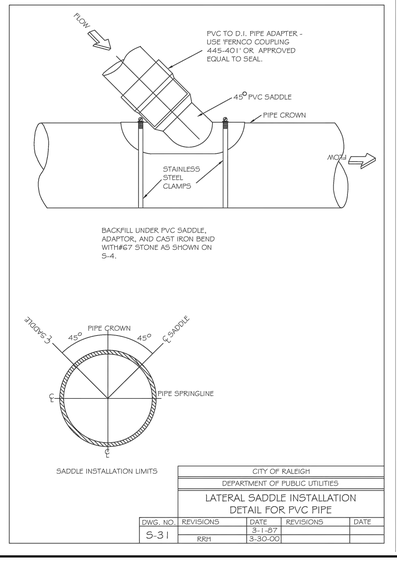
NOTES:
1. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, M&H, WATEROUS, CLOW, EAST JORDAN IRON WORKS, OR US PIPE.
2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C150-96
3. 6" GATE VALVE SHALL BE AWWA C500-96 OPEN LEFT
4. STEEL RODS AND BOLTS SHALL BE ⅜" HOT DIPPED GALVANIZED
5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION
   RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.
   FIRE HYDRANTS TO BE LOCATED IN ROW OR 2' FOOT EASEMENT ADJACENT TO ROW

ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK CHANGES THE GRADE OF THE FIRE HYDRANT, THE PERSON RESPONSIBLE FOR THE WORK IS RESPONSIBLE FOR ADJUSTING THE FIRE HYDRANT TO STAY WITHIN COMPLIANCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD FIRE HYDRANT INSTALLATION DETAIL

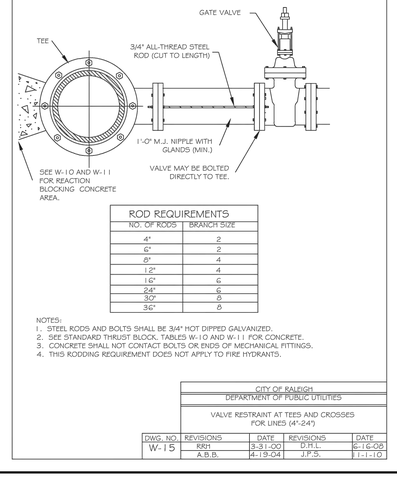
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-4a	ABB	4-6-04		



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

LATERAL SADDLE INSTALLATION DETAIL FOR PVC PIPE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-31		3-1-07		
	RRH	5-30-00		



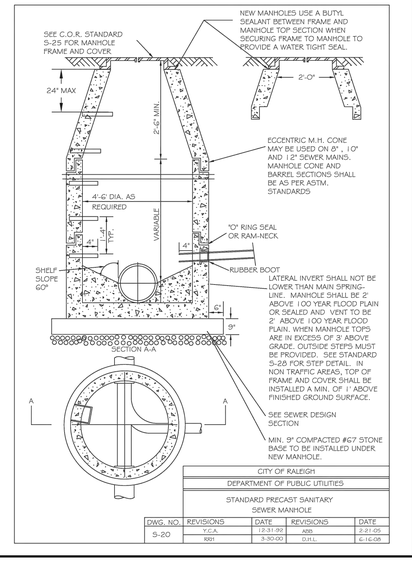
ROD REQUIREMENTS	
NO. OF RODS	BRANCH SIZE
4"	2
6"	2
8"	4
12"	4
16"	6
24"	6
30"	8
36"	8

NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. SEE STANDARD THRUST BLOCK, TABLES W-10 AND W-11 FOR CONCRETE.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
4. THIS RODDING REQUIREMENT DOES NOT APPLY TO FIRE HYDRANTS.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

VALVE RESTRAINT AT TEES AND CROSSES FOR LINES (4"-24")

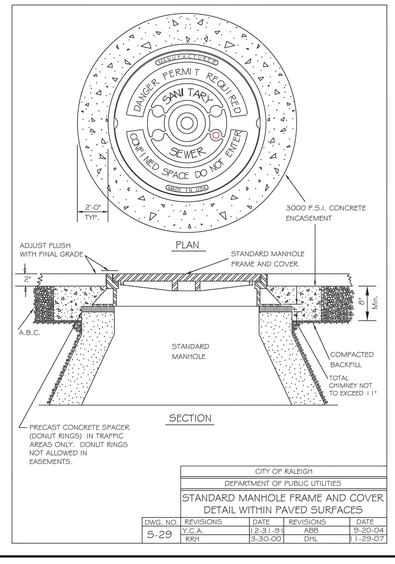
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-15	RR1	3-31-00	D.H.L.	6-16-08
	A.B.B.	4-19-04	J.P.S.	11-1-10



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD PRECAST SANITARY SEWER MANHOLE

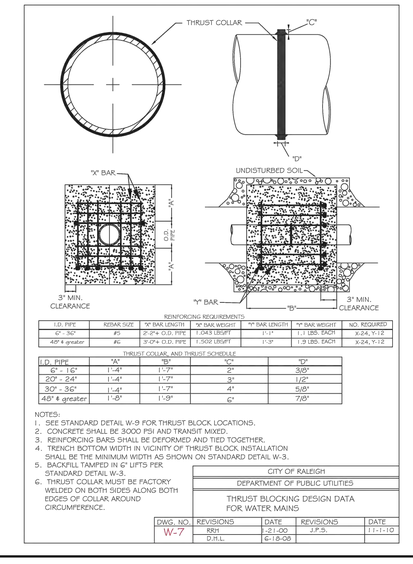
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-20	Y.C.A.	12-31-92	ABB	2-21-05
	RR1	3-30-00	D.H.L.	6-16-08



CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD MANHOLE FRAME AND COVER DETAIL WITHIN PAVED SURFACES

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-29	Y.C.A.	12-31-92	ABB	9-20-04
	RR1	3-30-00	DHL	1-29-07



REINFORCING REQUIREMENTS

I.D. PIPE	REBAR SIZE	"A" BAR LENGTH	"A" BAR WEIGHT	"B" BAR LENGTH	"B" BAR WEIGHT	NO. REQUIRED
6" - 36"	#5	2'-2"+ O.D. PIPE	1.043 LBS/FT	1'-1"	1.120. EACH	X-24, Y-12
48" & greater	#6	3'-0"+ O.D. PIPE	1.502 LBS/FT	1'-3"	1.2 LBS. EACH	X-24, Y-12

THRUST COLLAR AND THRUST SCHEDULE

I.D. PIPE	"A"	"B"	"C"	"D"
6" - 16"	1'-4"	1'-7"	2"	3/8"
20" - 24"	1'-4"	1'-7"	3"	1/2"
30" - 36"	1'-4"	1'-7"	4"	5/8"
48" & greater	1'-5"	1'-9"	6"	7/8"

NOTES:
1. SEE STANDARD DETAIL W-9 FOR THRUST BLOCK LOCATIONS.
2. CONCRETE SHALL BE 3000 PSI AND TRANSIT MIXED.
3. REINFORCING BARS SHALL BE DEFORMED AND TIED TOGETHER.
4. TRENCH BOTTOM WIDTH IN VICINITY OF THRUST BLOCK INSTALLATION SHALL BE THE MINIMUM WIDTH AS SHOWN ON STANDARD DETAIL W-3.
5. BACKFILL TAMPED IN 6" LIFTS PER STANDARD DETAIL W-3.
6. THRUST COLLAR MUST BE FACTORY WELDED ON BOTH SIDES ALONG BOTH EDGES OF COLLAR AROUND CIRCUMFERENCE.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

THRUST BLOCKING DESIGN DATA FOR WATER MAINS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-7	RRH	2-21-00	J.P.S.	11-1-10
	D.H.L.	6-18-08		

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
WATER & SEWER DETAILS - SHEET 1 OF 2

JOB NO. 44529
SHEET NO. C9.4

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NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE N/A

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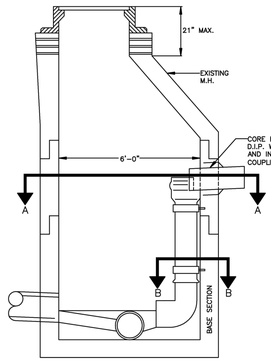
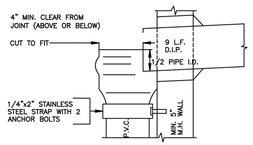
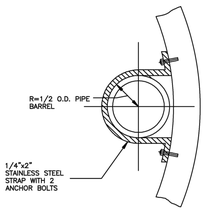
S:\331\44529-WIL_MAR\DWG\Sheet\CD\Phase III\44529-331-C7.0-NTDT.dwg | Plotted by Jeremy Edens

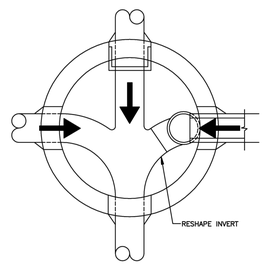


ENLARGED DETAIL





SECTION B–B



SECTION A–A

NOTES:

1. PIPE FOR INSIDE DROP SHALL BE SDR 35 PVC CONFORMING TO ASTM SPECIFICATION D3034.
2. BOTTOM BEND TO BE 90° SHORT BEND, BELL SPIGOT, OF SDR 35 PVC. SPIGOT OF BEND TO REST DIRECTLY ON EXISTING SHELF. CONSTRUCT MASONRY TROUGH FROM DROP EFFLUENT TO MAIN CHANNEL.
3. NOTCH BELL OF PVC DROP TO ACCEPT D.I.P. SPIGOT AS SHOWN.
4. LOCATE STRAPS AT PIPE BELL AND ABOVE BELL OF 90° BEND AS SHOWN. ADD EXTRA STRAPS AS NECESSARY TO MAINTAIN MAXIMUM SPACING OF TEN FEET.
5. HOLE IN MANHOLE WALL TO BE MADE WITH A CORING MACHINE. INSTALL FLEXIBLE RUBBER COUPLING.
6. CORE HOLE SHALL NOT ENTER CONE SECTION.
7. STEPS SHALL BE RELOCATED IF THEY CONFLICT WITH INSIDE DROP.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
INSIDE DROP MANHOLE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-53	MAB	11-6-13		

Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** XXXX

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit #** XXXX

The City of Raleigh consents to the connection to its public sewer system and extension of the **private sewer collection** system as shown on this plan. The material and constructions methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

THIS DESIGN HAS BEEN REVIEWED BY THE ENGINEER FOR THE TOWN OF KNIGHTDALE, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IT CONFORMS TO THE REQUIREMENTS ESTABLISHED IN THE STANDARD SPECIFICATIONS OF THE TOWN OF KNIGHTDALE.

BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

THESE PLANS ARE APPROVED BY THE TOWN OF KNIGHTDALE AND SERVE AS CONSTRUCTION PLANS FOR THIS PROJECT.

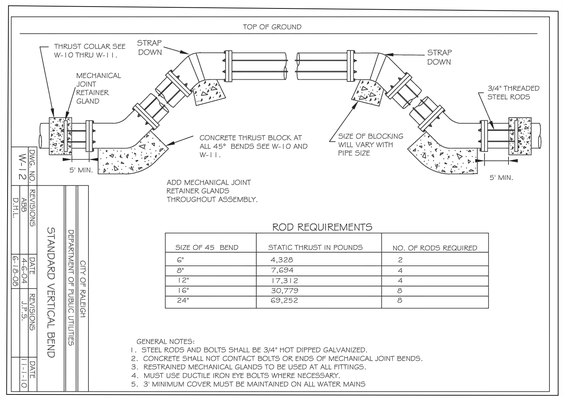
BY: _____ DATE: _____
ADMINISTRATOR

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____

Raleigh Water Review Officer



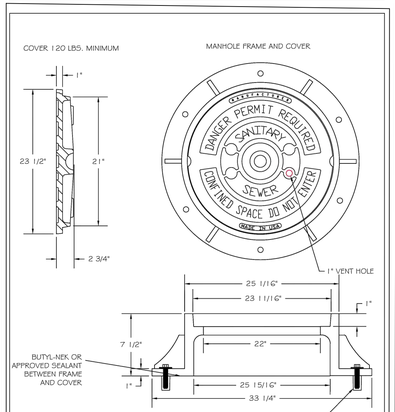
ROD REQUIREMENTS

SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
6"	4,326	2
8"	7,684	4
12"	17,312	4
16"	30,779	8
24"	69,252	8

GENERAL NOTES:
1. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
3. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
4. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
5. 3' MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

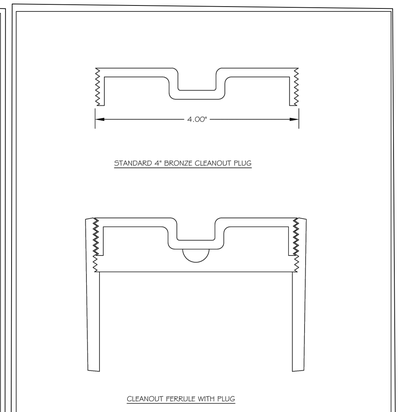
DWG. NO. W-12 | REVISIONS D.H.L. | DATE 6-15-05 | REVISIONS | DATE | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

STANDARD VERTICAL BEND



NOTES:
1) ALL MANHOLE FRAMES SHALL BE DOMESTICALLY CAST.
2) FRAME SHALL BE A MINIMUM WEIGHT OF 182 LBS. WITHIN PUBLIC ROW AND 160 LBS. WITHIN EASEMENTS.
3) COVER SHALL WEIGH A MIN. OF 120 LBS.
4) ALL MANHOLE FRAMES OUTSIDE OF PAVED SURFACES SHALL BE BOLTED TO THE CONE SECTION OR RING WITH A MINIMUM OF 4 BOLTS PER FRAME.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD MANHOLE COVER				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-25	3-1-07 RKH	3-30-00	A.B.B. D.H.L.	2-9-05 6-18-08

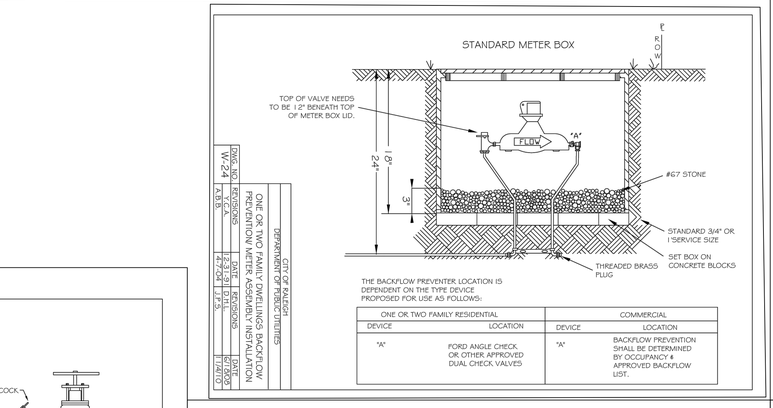


STANDARD 4" BRONZE CLEANOUT PLUG

CLEANOUT FERRULE WITH PLUG

STYLES ACCEPTED:
INVERTED NUT
RAISED NUT

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
4" CLEANOUT PLUG				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-34	D.W.C.	3-1-07 3-27-95	RKH	3-30-00

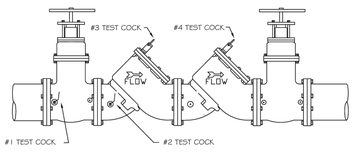


THE BACKFLOW PREVENTER LOCATION IS DEPENDENT ON THE TYPE DEVICE PROPOSED FOR USE AS FOLLOWS:

ONE OR TWO FAMILY RESIDENTIAL		COMMERCIAL	
DEVICE	LOCATION	DEVICE	LOCATION
"A"	FORD ANGLE CHECK OR OTHER APPROVED DUAL CHECK VALVES	"A"	BACKFLOW PREVENTION SHALL BE DETERMINED BY OCCUPANCY & APPROVED BACKFLOW LIST.

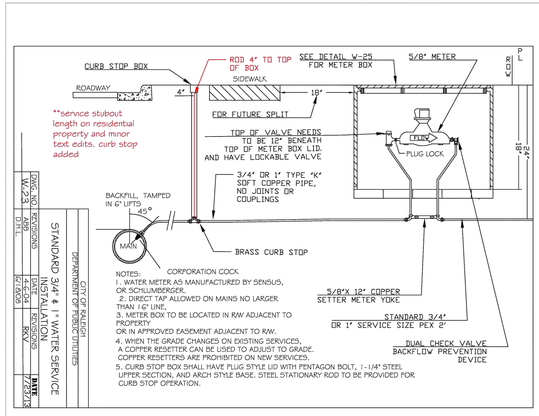
DWG. NO. W-24 | REVISIONS A.B.B. | DATE 4-7-04 | REVISIONS R.K.H. | DATE 7/27/18 | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

ONE OR TWO FAMILY DWELLINGS BACKFLOW PREVENTION METER ASSEMBLY INSTALLATION



1. SHUT-OFF VALVES, CHECK VALVES, AND TEST COCKS SHALL BE STANDARD TO THE APPROVED BACKFLOW ASSEMBLY.
2. ALL LARGE(2-1/2" - 10") ASSEMBLIES TO BE SUPPORTED BY A CRADLE.
3. ENCLOSURE FOUNDATIONS SHALL BE CONSTRUCTED OF 4" OF CONCRETE OR 6" OF STONE.
4. ASSEMBLIES MUST BE ON CURRENT APPROVAL LIST.
5. 2 1/2" AND LARGER ASSEMBLIES SHALL BE FUSION BONDED EPOXY COATED INCLUDING SHUTOFF VALVES.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD DOUBLE CHECK VALVE ASSEMBLY				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-38	D.W.C. RKH	12-20-99 3-31-00	A.B.B. D.H.L.	4-13-04 5/16/05

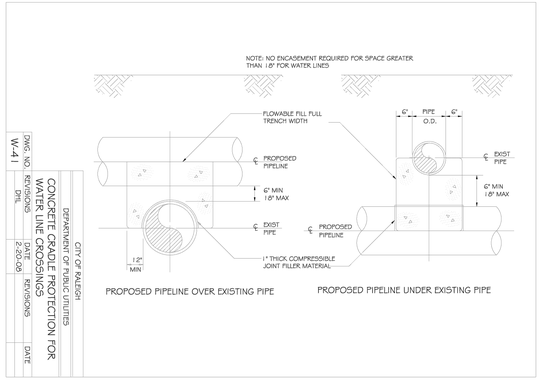


**service stubout length on residential property and minor text edits. curb stop added

NOTES:
1. WATER METER AS MANUFACTURED BY SENSUS, OR SCHLUMBERGER.
2. DIRECT TAP ALLOWED ON MAINS NO LARGER THAN 16" LINE.
3. METER BOX TO BE LOCATED IN RW ADJACENT TO PROPERTY OR IN APPROVED EASEMENT ADJACENT TO RW.
4. WHEN THE GRADE CHANGES ON EXISTING SERVICES, A COPPER RESETTER CAN BE USED TO ADJUST TO GRADE. COPPER RESETTERS ARE PROHIBITED ON NEW SERVICES.
5. CURB STOP BOX SHALL HAVE PLUG STYLE LID WITH PENTAGON BOLT, 1-1/4" STEEL UPPER SECTION, AND ARCH STYLE BASE. STEEL STATIONARY ROD TO BE PROVIDED FOR CURB STOP OPERATION.

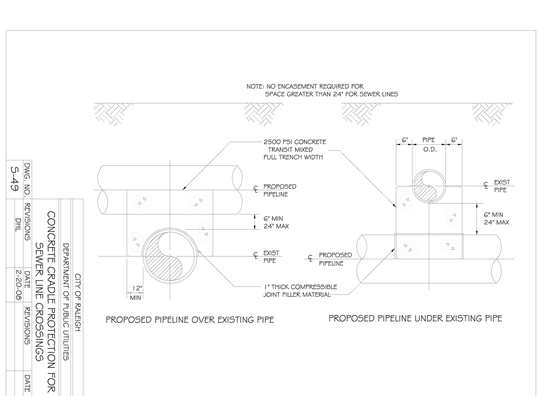
DWG. NO. W-23 | REVISIONS ABB | DATE 4-6-04 | REVISIONS R.K.H. | DATE 7/27/18 | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

STANDARD 3/4" & 1" WATER SERVICE



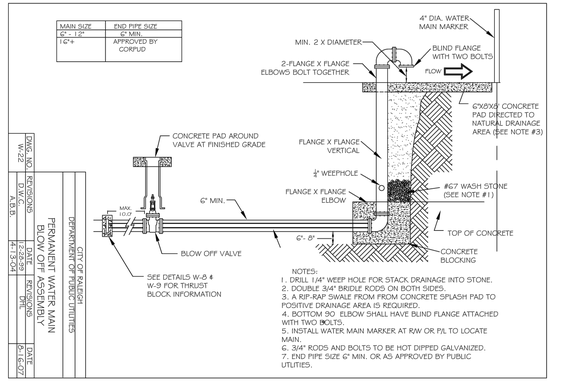
DWG. NO. W-41 | REVISIONS DHL | DATE 2-20-06 | REVISIONS | DATE | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

CONCRETE CRADLE PROTECTION FOR WATER LINE CROSSINGS



DWG. NO. S-49 | REVISIONS DHL | DATE 2-20-06 | REVISIONS | DATE | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

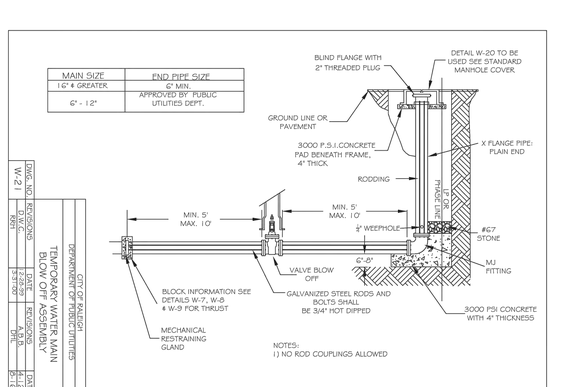
CONCRETE CRADLE PROTECTION FOR SEWER LINE CROSSINGS



NOTES:
1. DRILL 1/4" WEEP HOLE FOR STACK DRAINAGE INTO STONE.
2. DOUBLE 3/4" BRIDLE RODS ON BOTH SIDES.
3. A RIP-RAP SWALE FROM FROM CONCRETE SPLASH PAD TO POSITIVE DRAINAGE AREA IS REQUIRED.
4. BOTTOM 90° ELBOW SHALL HAVE BLIND FLANGE ATTACHED WITH TWO BOLTS.
5. INSTALL WATER MAIN MARKER AT RW OR P/L TO LOCATE MAIN.
6. 3/4" RODS AND BOLTS TO BE HOT DIPPED GALVANIZED.
7. END PIPE SIZE 6" MIN. OR AS APPROVED BY PUBLIC UTILITIES.

DWG. NO. W-22 | REVISIONS D.W.C. A.B.B. | DATE 4-13-04 | REVISIONS D.H.L. | DATE 5-16-07 | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

PERMANENT WATER MAIN BLOW OFF ASSEMBLY



NOTES:
1) NO ROD COUPLINGS ALLOWED

DWG. NO. W-21 | REVISIONS D.W.C. RKH | DATE 2-27-07 | REVISIONS A.B.B. D.H.L. | DATE 5-16-07 | CITY OF RALEIGH DEPARTMENT OF PUBLIC UTILITIES

TEMPORARY WATER MAIN BLOW OFF ASSEMBLY

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
WATER & SEWER DETAILS - SHEET 2 OF 2

JOB NO. 44529
SHEET NO. C9.5

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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DESIGNED BY 331
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SCALE N/A

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City of Raleigh Development Approval _____

Raleigh Water Review Officer

Water and Sewer Permits (If applicable)

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City of Raleigh Public Utilities Department Permit # _____

TOWN CERTIFICATION

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BY: _____ DATE: _____
DEVELOPMENT SERVICES ENGINEER

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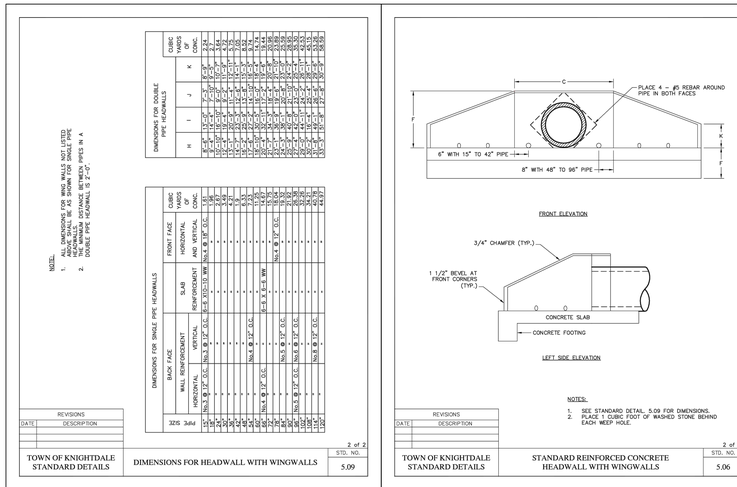
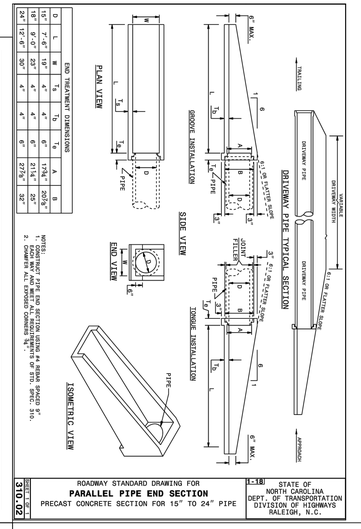
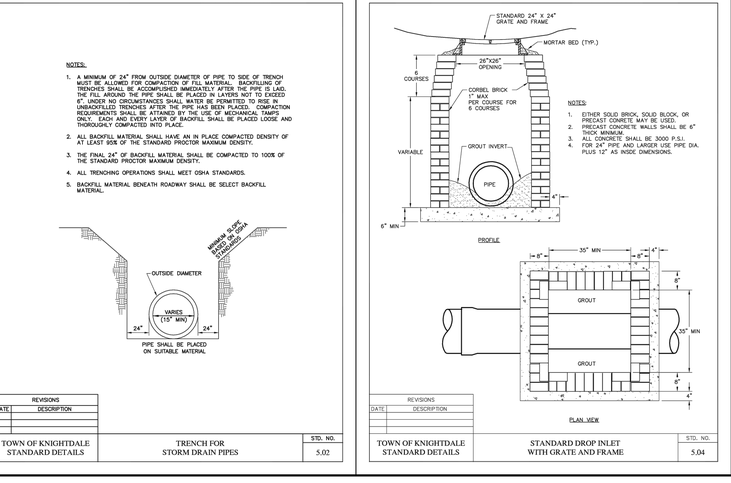
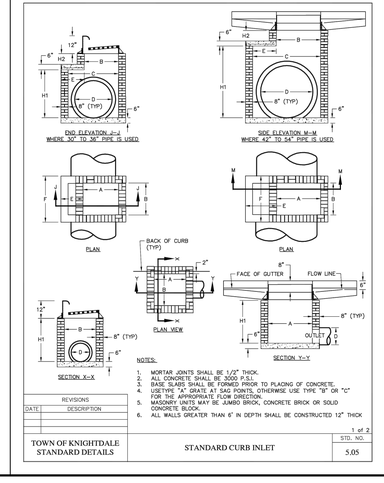
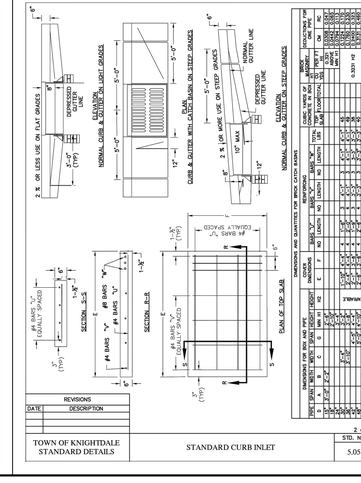
ADMINISTRATOR











TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652

ALLEN PARK SUBDIVISION - PHASE III
KNIGHTDALE -WAKE COUNTY - NORTH CAROLINA
STORM DETAILS

JOB NO. 44529
SHEET NO. C9.6

PROGRESS DRAWINGS - DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA PROFESSIONAL SEAL 053562 ENGINEER ALLISON R. STONE

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REVISION DESCRIPTION	DATE

DATE 07/11/2024
DRAWN BY 331
DESIGNED BY 331
CHECKED BY A. STONE
SCALE N/A

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REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — DIMENSIONS FOR HEADWALL WITH WINGWALLS — 2 of 2 — STD. NO. 5.09

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — STANDARD REINFORCED CONCRETE HEADWALL WITH WINGWALLS — 2 of 2 — STD. NO. 5.06

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — TRENCH FOR STORM DRAIN PIPES — STD. NO. 5.02

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — STANDARD DROP INLET WITH GRATE AND FRAME — STD. NO. 5.04

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — STANDARD CURB INLET — 1 of 2 — STD. NO. 5.05

REVISIONS	
DATE	DESCRIPTION

TOWN OF KNIGHTDALE STANDARD DETAILS — STANDARD CURB INLET — 2 of 2 — STD. NO. 5.05