

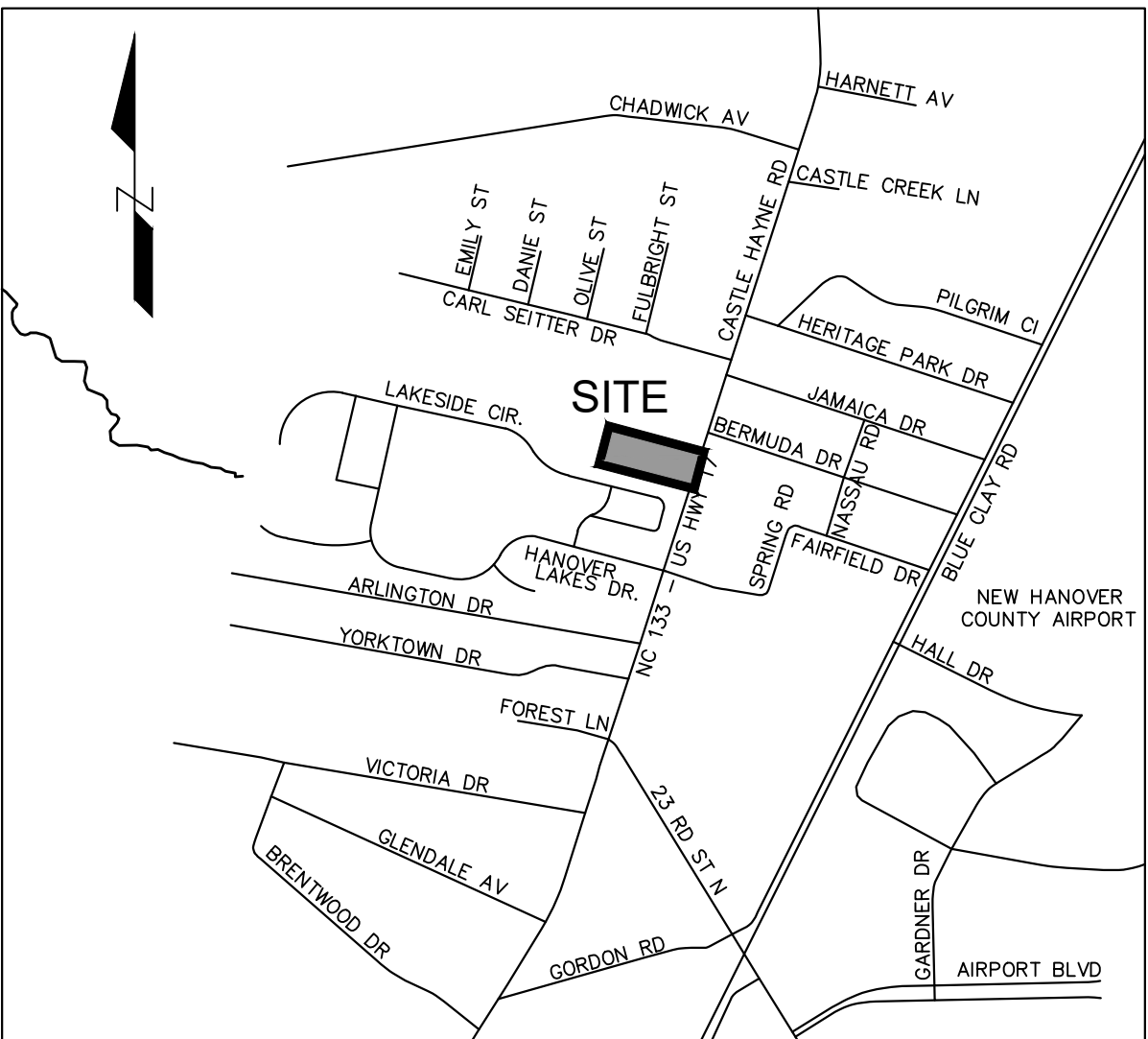
HANOVER LAKES COMMERCIAL

NEW HANOVER COUNTY, NORTH CAROLINA

DESIGN DOCUMENTS

JULY 2020

FOR
HANOVER LAKES, LLC
127 RACINE DRIVE, SUITE 201
WILMINGTON, NC 28403
(910) 350-1744



VICINITY MAP
NOT TO SCALE

NOTICE REQUIRED

ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF SAID UTILITIES.

CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

CONTACT "CAROLINA ONE CALL" AT
1-800-632-4949

CONTACT THESE UTILITIES

NEW HANOVER COUNTY PLANNING DEPARTMENT
ATTN: LINDA PAINTER
PH: 910-798-7068

NEW HANOVER COUNTY EROSION CONTROL
ATTN: BETH WETHERILL
PH: 910-798-7432

NEW HANOVER COUNTY ENGINEERING
ATTN: JIM IANNUCCI
PH: 910-798-7139

PIEDMONT NATURAL GAS
ATTN: CARL PAQUET
PH: 910-350-2242

EMERGENCY DIAL 911
POLICE - FIRE - RESCUE

CAPE FEAR PUBLIC UTILITY AUTHORITY (WATER & SEWER)
ATTN: MATT TRIBETT
PH: 910-332-6674

DUKE ENERGY - PROGRESS
ATTN: KEVIN LEATHERWOOD
PH: 910-602-4304

BELL SOUTH
ATTN: STEVE DAYVAULT
PH: 910-392-8712

TIME WARNER CABLE
PH: 910-763-4638

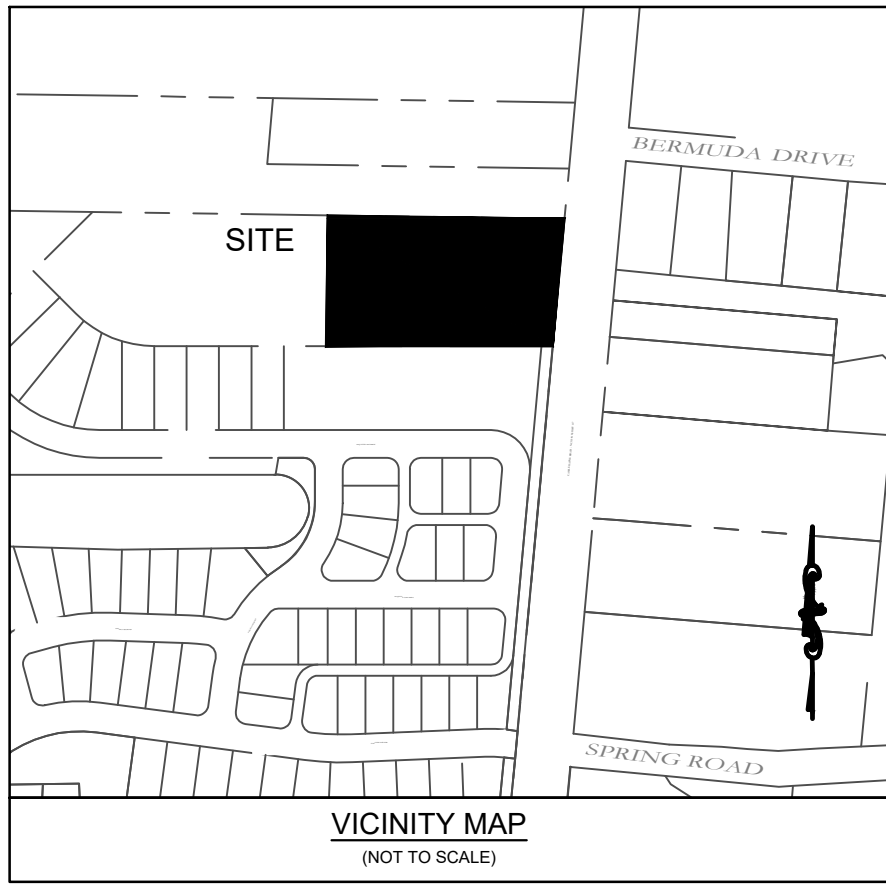
DEVELOPER:
HANOVER LAKES, LLC
127 RACINE DRIVE, SUITE 201
WILMINGTON, NC 28403
ATTN: LONDON WEAVER, BILL CLARK HOMES

ENGINEER (CIVIL):
PARAMOUNT ENGINEERING, INC.
122 CINEMA DRIVE
WILMINGTON, NORTH CAROLINA 28403
ATTN: JEREMY BLAIR, P.E. (910) 791-6707

LANDSCAPE ARCHITECT:
PARAMOUNT ENGINEERING, INC.
122 CINEMA DRIVE
WILMINGTON, NORTH CAROLINA 28403
ATTN: MIKE NICHOLS, RLA (910) 791-6707

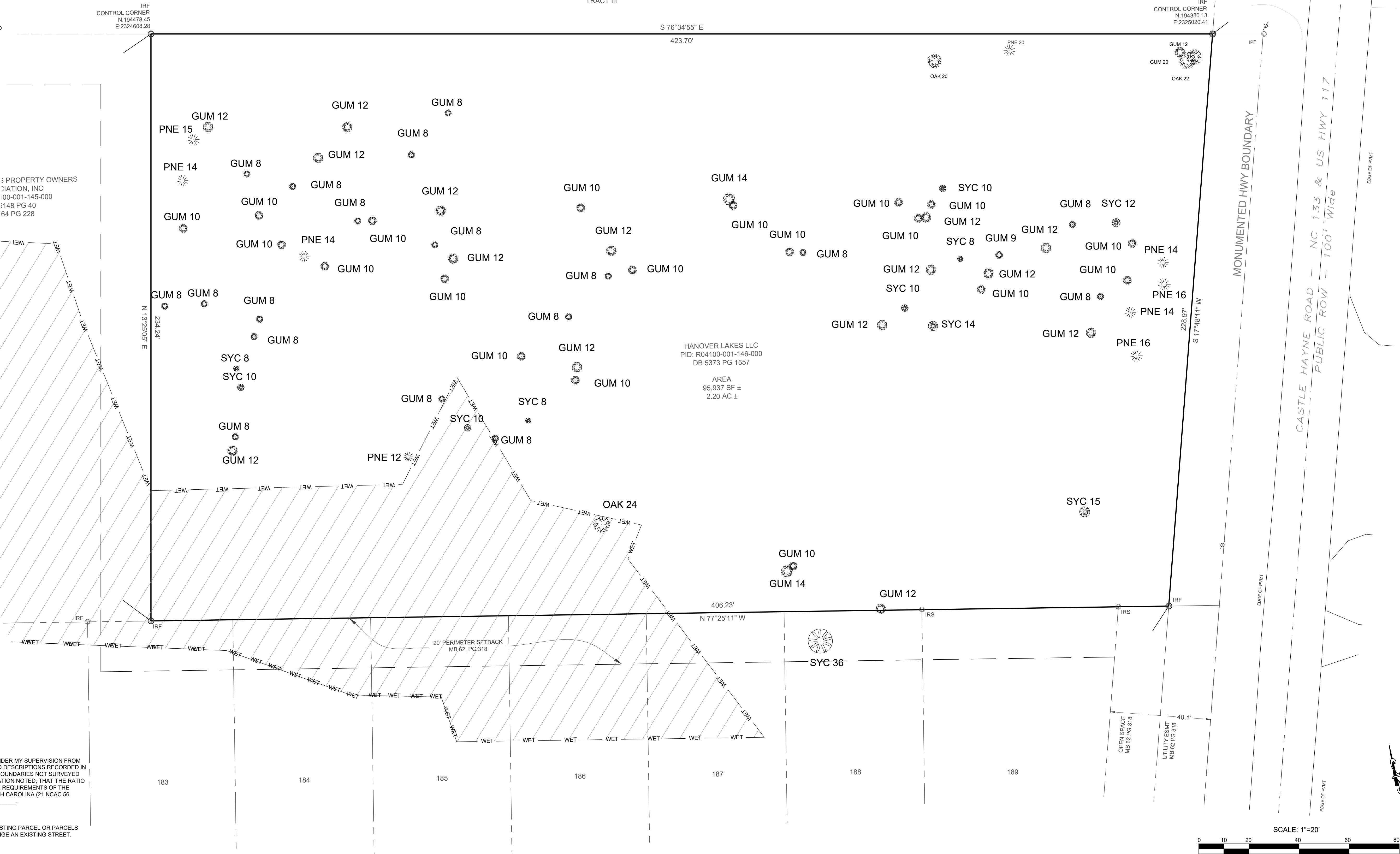
SHEET INDEX	
SHEET NUMBER	SHEET TITLE
C-0.0	COVER SHEET
SV-1	EXISTING CONDITIONS
C-2.0	SITE PLAN
L-1.0	TREE REMOVAL PLAN
L-2.0	LANDSCAPE PLAN

PREPARED BY:
PARAMOUNT
ENGINEERING, INC.
122 Cinema Drive
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6760 (F)
PROJECT # 16128.PE



LEGEND:

- IPF IRON PIPE FOUND
- IRF IRON ROD FOUND
- IRF IRON ROD SET
- CMF CONCRETE MONUMENT FOUND
- PKF PK NAIL FOUND
- PKS PK NAIL SET
- TVR TV RISER
- TRF TRANSFORMER
- TEL TELEPHONE RISER
- WM WATER METER
- WV WATER VALVE
- FH FIRE HYDRANT
- CO CLEAN-OUT
- SSM SANITARY SEWER MANHOLE
- SDM STORM DRAINAGE MANHOLE
- WELL
- CI CURB INLET
- CB CATCH BASIN
- GM GAS METER
- TREES
- EC EXISTING CONTOUR
- APL ADJOINER PROPERTY LINE
- ESMT ESMT LINE
- SL SETBACK LINE
- FZL FLOOD ZONE LINE
- RWL R.O.W. LINE
- WL WETLAND LINE



CERTIFICATE OF ACCURACY AND MAPPING

I, CHRIS GAGNE, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTIONS RECORDED IN THE REFERENCES NOTED ON THIS DRAWING); THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS DASHED LINES AS DRAWN FROM INFORMATION NOTED; THAT THE RATIO OF PRECISION IS 1:10,000; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600). THIS ____ DAY OF ____, A.D.,

I, CHRIS GAGNE, CERTIFY THAT THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

CHRIS GAGNE, PLS LICENSE NO. L-4700

LOT DATA
OWNER: HANOVER LAKES LLC
ADDRESS: CASTLE HAYNE RD
PIN: R04100-001-146-000
DEED: 5373 PAGE: 1557
ZONING DISTRICT: R-15
LOT AREA = 95,937± SQ. FT. OR 2.20± ACRE

- NOTES
1. AREA CALCULATED BY COORDINATE METHOD.
 2. ALL ELEVATIONS ARE (NAVD 88).
 3. THE SUBJECT PARCEL IS LOCATED IN FLOOD ZONE X WHICH IS NOT A SPECIAL HAZARD FLOOD AREA AS SHOWN BY FEMA PANEL NUMBER 3720312900K IN NEW HANOVER COUNTY WITH AN EFFECTIVE AUGUST 28TH, 2018
 4. UTILITIES AS SHOWN ARE PLOTTED FROM INFORMATION VISIBLE IN THE FIELD AND FROM INFORMATION PROVIDED BY UTILITY COMPANIES. ADDITIONAL UTILITIES NOT SHOWN MAY EXIST. THE APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED PRIOR TO LAND DISTURBING ACTIVITIES.
 5. THIS LOT IS SUBJECT TO ALL UTILITY EASEMENTS, RESTRICTIONS, OR COVENANTS OF RECORD.
 6. FIELD WORK COMPLETED ON JUNE XXTH, 2020.
 7. HORIZONTAL DATUM (NAD 83 - 2011) AND VERTICAL (NAVD88) DATUM WAS ESTABLISHED UTILIZING A SURVEY GRADE GPS RECEIVER OPERATING IN VRS MODE WITH REPEAT OBSERVATIONS.

REVISIONS:	
CLIENT INFORMATION:	
BILL CLARK HOMES 127 RACINE DRIVE, SUITE 201 WILMINGTON, NORTH CAROLINA 28403	
PARAMOUNT ENGINEERING, INC. 122 Cinema Drive Wilmington, North Carolina 28403 (910) 791-6707 (O) (910) 791-6760 (F) NC License #: C-2846	
TREE SURVEY FUTURE COMMERCIAL LOT HANOVER LAKES LLC. CAPE FEAR TOWNSHIP NEW HANOVER COUNTY, NC	
PROJECT STATUS CONCEPTUAL LAYOUT: PRELIMINARY LAYOUT: RELEASED FOR CONST:	DRAWING INFORMATION DATE: 06/09/2020 TIME: 11:40 DESIGNED: CUG CHECKED: CUG
SEAL PRELIMINARY DRAWING DO NOT USE FOR CONSTRUCTION, RECORDATION, CONVEYANCES, OR SALES.	
SV-1	
PEI JOB#: 0000.PE	



VICINITY MAP
SCALE: 1"=1000'

SITE DATA TABULATION

OWNER:	HANOVER LAKES, LLC
PROJECT ADDRESS:	2111 CASTLE HAYNE ROAD WILMINGTON, NC 28401
TAX PARCEL IDENTIFICATION #:	R04100-001-026-000
TOTAL PARCEL AREA:	2.20 AC
RECORDED DEED BOOK:	DB 5373 PG 1557
CURRENT ZONING:	R-15
PROPOSED ZONING:	O&I
CAMA LAND USE CLASSIFICATION:	TRANSITION
EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	COMMERCIAL/ OFFICE

DIMENSION STANDARDS	REQUIRED	PROVIDED
MINIMUM FRONT SETBACK	25 FT.	163.5 FT.
MINIMUM SIDE SETBACK	55 FT.	56 FT.
MINIMUM REAR SETBACK	74.6 FT.	112 FT.

MINIMUM LOT SIZE	15,000 SF(34 AC)	2.20 AC
MINIMUM LOT WIDTH	90 FT.	228.97 FT.
MAXIMUM HEIGHT	40'	1 STORY (20')

BUILDING INFORMATION

NUMBER OF PROPOSED BUILDINGS	1
PROPOSED BUILDING	12,970 SF MAX.*
HEIGHT	1 STORY (20'-0")
LOT COVERAGE	13.5%
PHASING:	TOTAL SITE IS ANTICIPATED TO BE BUILT IN ONE PHASE

* BUILDING SIZE NOTE: THE BUILDING SHOWN IS THE LARGEST BUILDING PROPOSED FOR THE SITE; HOWEVER, A SMALLER BUILDING MAY CONSTRUCTED PENDING THE USE OF THE BUILDING; REFER TO THE TRIP GENERATION CHART FOR FURTHER INFORMATION ON USE/SQUARE FOOTAGE RELATIONSHIP

SITE PARKING

MINIMUM PARKING REQUIRED PER COUNTY:	1 SPACE/400 SF (RETAIL/OFFICE USE) 12,970 SF/400 = 32 SPACES
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TOTAL PARKING PROVIDED: 44 SPACES

HANDICAP PARKING REQUIRED: 2 SPACES
HANDICAP PARKING PROVIDED: 2 SPACES

LANDSCAPE CALCULATIONS

SEE LANDSCAPE PLAN

FLOOD NOTE

THIS TRACT IS LOCATED IN FLOOD ZONE X (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO FEMA FLOOD INSURANCE RATE MAP NUMBER 3720312900K WITH A DATE OF AUGUST 28, 2018.

TRAFFIC NOTE

A TRAFFIC IMPACT ANALYSIS FOR THE PARENT PARCEL WAS PREVIOUSLY COMPLETED. THAT TIA DETERMINED THAT A TURN LANE WAS NEEDED AT THE MAIN DEVELOPMENT ENTRANCE ROAD. THIS PROPOSED SUBDIVIDED TRACT PROPOSES USES THAT WILL NOT GENERATE OVER 100 PEAK HOUR TRIPS; THEREFORE, NO ADDITIONAL TIA IS ANTICIPATED.

LIGHTING

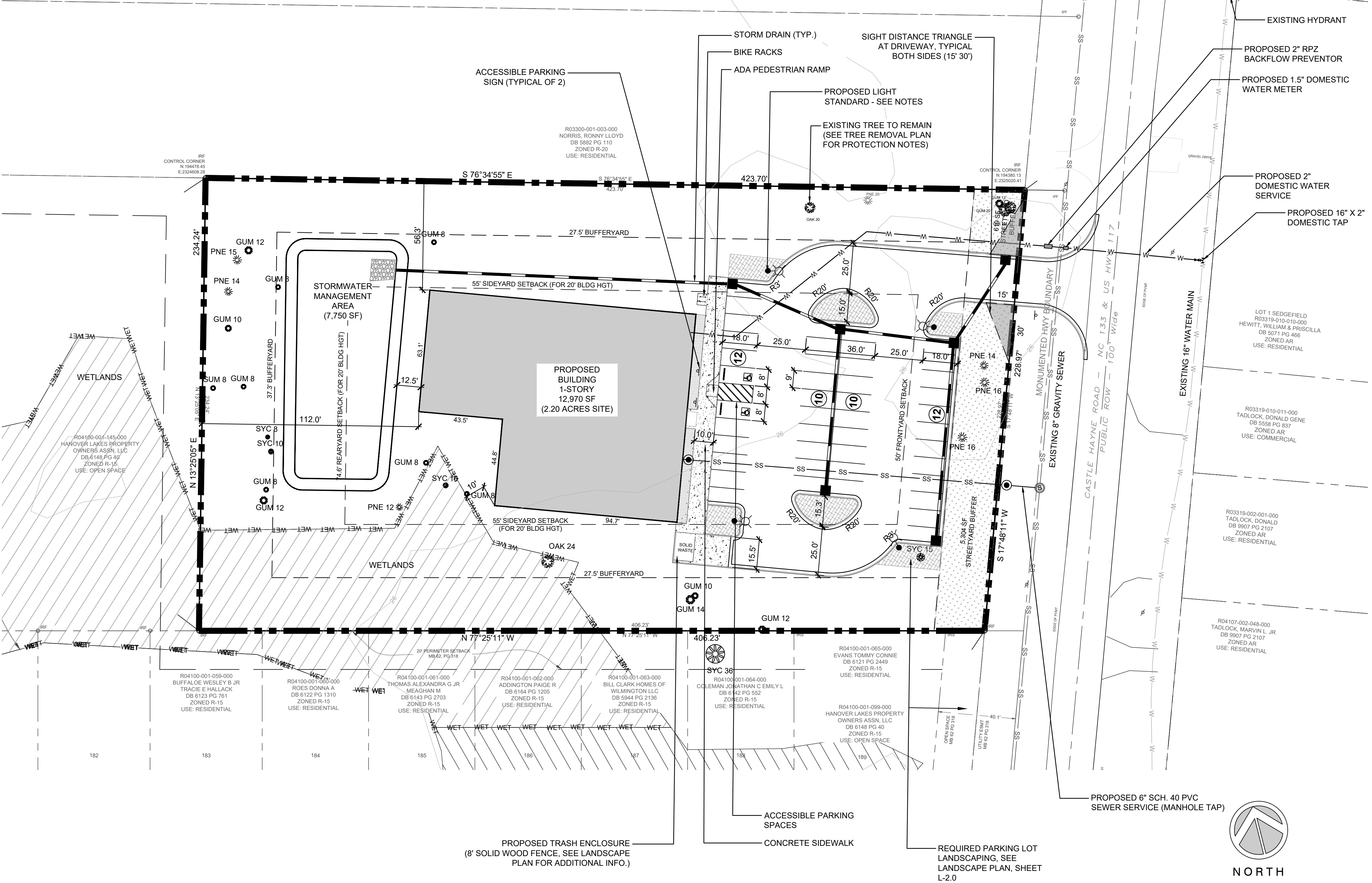
ALL SITE LIGHTING FOR NON-RESIDENTIAL, MIXED USE OR MULTI-FAMILY USES SHALL BE LOCATED AND DIRECTED SO NOT TO SHINE OR REFLECT ONTO ANY ADJACENT RESIDENTIAL ZONING DISTRICTS AND/OR USES. PROPOSED LAYOUT PROVIDED FOR REFERENCE ONLY AND FINAL DESIGN TO BE DETERMINED BY ELECTRICAL/LIGHTING PROVIDER

SIGHT DISTANCE TRIANGLE NOTES

ALL PROPOSED VEGETATION WITHIN SIGHT DISTANCE TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES - PER SEC. 62.1-3(4) ADEQUATE SITE ANGLES (PAGE 135)

IMPERVIOUS INFORMATION

EXISTING IMPERVIOUS AREA	
TOTAL	0 SF
PROPOSED IMPERVIOUS AREA	
ON-SITE PARKING & DRIVEWAYS	18,610 SF
ON-SITE CONCRETE SIDEWALKS	1,882 SF
PROPOSED BUILDING	12,970 SF
TOTAL PROPOSED IMP. AREA	33,462 SF
TOTAL SITE AREA	95,832 SF
TOTAL IMPERVIOUS AREA	33,462 SF
PERCENT IMPERVIOUS	34.9%



Potential Zoning Uses & Corresponding Traffic Trip Generation Calculations				
Permitted Zoning Use in O&I	Code	Area for Use	AM Peak Trips	PM Peak Trips
Antenna & Towers less than 70' ht & Ancillary to Principal Use	N/A	0	0	0
Cellular & PCS Antennas	N/A	0	0	0
Amateur Radio Antennas (up to 90')	N/A	0	0	0
Barber/Beauty Shop	918	12,970 sf	0	25
Business Services Including Printing	867	12,970 sf	0	44
Parks & Recreation Area	412	2.2 ac	1	1
Adult Day Care	260	2.2 ac	29	24
Child Care Center	565	7,100 sf	96	99
Hospital (Medical-Dental Office)	720	12,970 sf	51	58
Residential Care	252	26 units	2	3
Libraries	590	11,250 sf	64	99
Museums	580	12,970sf	5	2
Churches	560	12,970 sf	17	22
Labor Organizations	591	100 members	3	3
Accessory Buildings or Uses, clearly incidental to the Permitted Use or Building	N/A	0	0	0
Christmas Tree Sales	N/A	0	0	0
Evangelistic and Religious Assemblies not Conducted at a Church	N/A	0	0	0
Government Offices & Buildings	730	9,000 sf	53	99
Offices for Private Business & Professional Activities	710	12,970 sf	37	93
Pumpkin Sales	N/A	0	0	0
Principal Use Sign	N/A	0	0	0
Special Fund Raising for Non-Profit Organizations	N/A	0	0	0
Temporary Sign	N/A	0	0	0

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION

CLIENT INFORMATION:

PARAMOUNT ENGINEERING, INC.

SITE PLAN

PROJECT STATUS

SEAL

PEI JOB#:

HANOVER LAKES COMMERCIAL TRACT
NEW HANOVER COUNTY
NORTH CAROLINA

DRAWING INFORMATION

C-2.0

JB

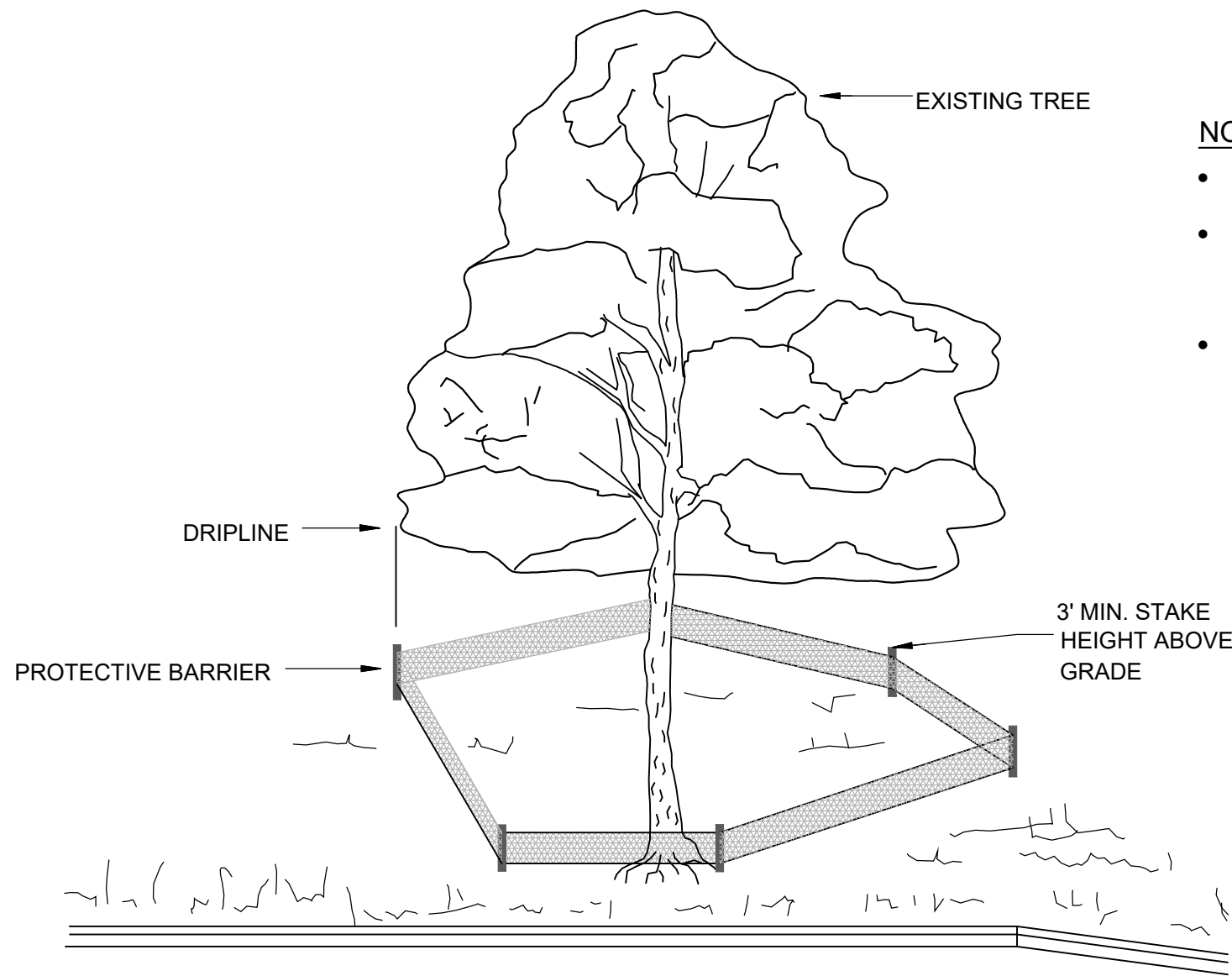


VICINITY MAP
SCALE: 1"=1000'

SITE DATA TABULATION

OWNER: HANOVER LAKES, LLC
PROJECT ADDRESS: 2111 CASTLE HAYNE ROAD
WILMINGTON, NC 28401
TAX PARCEL IDENTIFICATION #: R04100-001-026-000
TOTAL PARCEL AREA: 2.20 AC
RECORDED DEED BOOK: DB 5373 PG 1557
CURRENT ZONING: R-15
PROPOSED ZONING: O&I
CAMA LAND USE CLASSIFICATION: TRANSITION
EXISTING LAND USE: VACANT
PROPOSED LAND USE: COMMERCIAL/ OFFICE

LANDSCAPE CALCULATIONS SEE LANDSCAPE PLAN



NOTES:

- TREES TO BE SAVED WILL BE CLEARLY MARKED PRIOR TO CONSTRUCTION
- INSTALLATION OF PROTECTION FENCING IS REQUIRED PRIOR TO LAND DISTURBING ACTIVITY AND IS TO BE MAINTAINED UNTIL AFTER FINAL SITE INSPECTION
- FENCING SHALL BE INSTALLED AT THE DRIPLINE OR AT THE BOUNDARY OF THE CRITICAL ROOT ZONE, WHICHEVER IS GREATER
- DRIPLINE - THE AREA OF SOIL DIRECTLY BENEATH THE TREE EXTENDING OUT TO THE TIPS OF THE OUTERMOST BRANCHES
- CRITICAL ROOT ZONE - 1" RADIUS FROM THE TREE TRUNK PER 1" CALIPER

LEGEND:

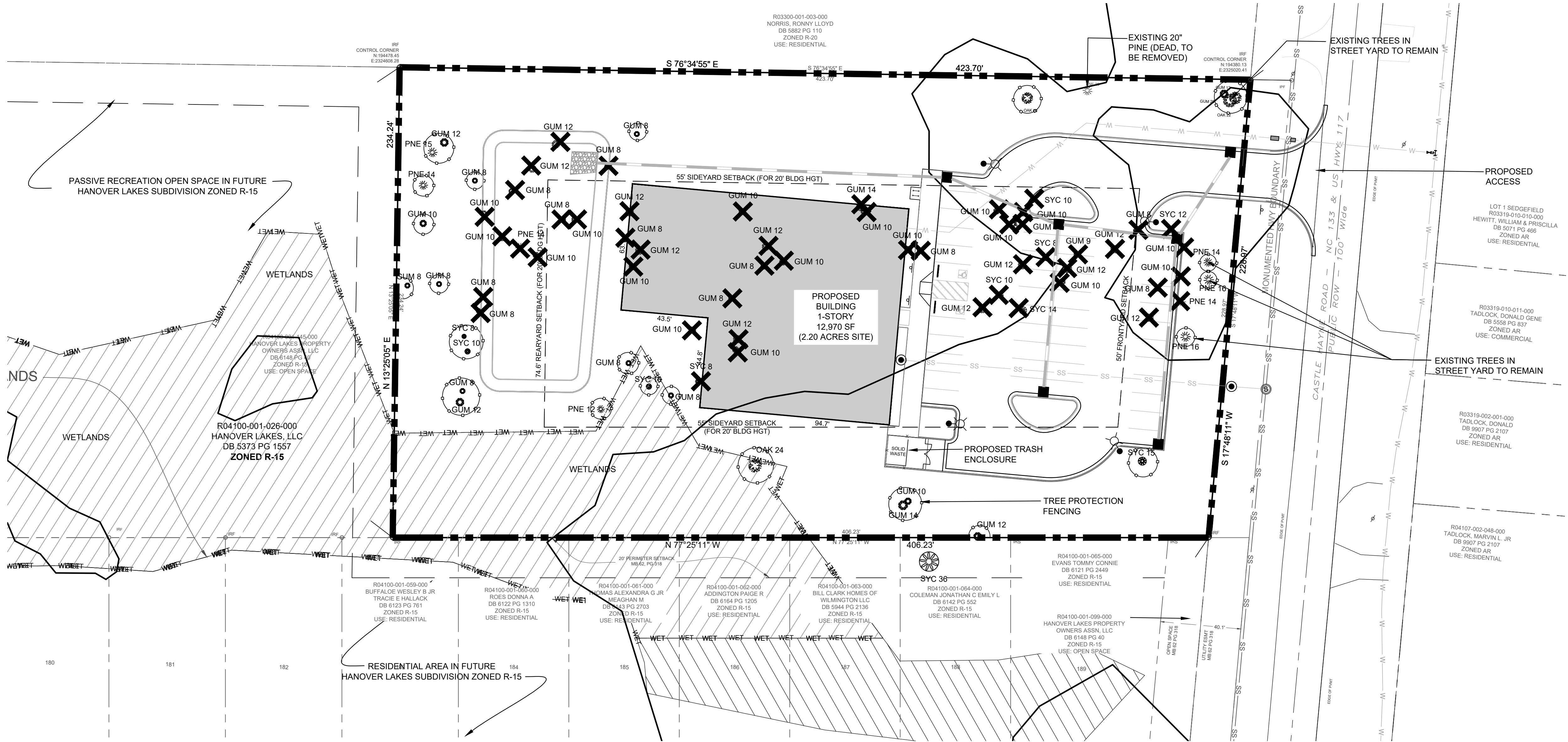
- PROPOSED TREE PROTECTION FENCE
- EXISTING TREE TO BE REMOVED

TREE REMOVAL/MITIGATION NOTES:

- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN TREE PROTECTION FENCING.
- ALL TREES TO BE REMOVED SHALL BE DUE TO ESSENTIAL SITE IMPROVEMENTS. MITIGATION FOR ANY TREE REMOVAL SHALL ONLY BE APPLICABLE TO SIGNIFICANT TREES REMOVED.
- NO SIGNIFICANT TREES ARE SCHEDULED FOR REMOVAL, SEE PLAN.

TREES TO BE REMOVED					
Size (in.)	Type	Quantity	Location	Significant	Total Caliper Inches
14	PINE	2	Project Interior	NO	28
20	PINE	1	Side Bufferyard (Dead)	NO	20
8	SYCAMORE	2	Project Interior	NO	16
10	SYCAMORE	2	Project Interior	NO	20
12	SYCAMORE	1	Project Interior	NO	12
14	SYCAMORE	1	Project Interior	NO	14
8	GUM	11	Project Interior	NO	88
9	GUM	1	Project Interior	NO	9
10	GUM	17	Project Interior	NO	170
12	GUM	12	Project Interior	NO	144
14	GUM	1	Project Interior	NO	14
TOTAL CALIPER INCHES TO BE REMOVED					535

A METHOD OF TREE PROTECTION DURING CONSTRUCTION NTS



CLIENT INFORMATION:

PARAMOUNT ENGINEERING, INC.
5911 Oleander Drive, Suite 201
Wilmington, North Carolina 28403
(910) 791-6707 (O) (910) 791-6766 (F)
NC License #: C-2846

TREE REMOVAL PLAN
HANOVER LAKES COMMERCIAL TRACT
NEW HANOVER COUNTY
NORTH CAROLINA

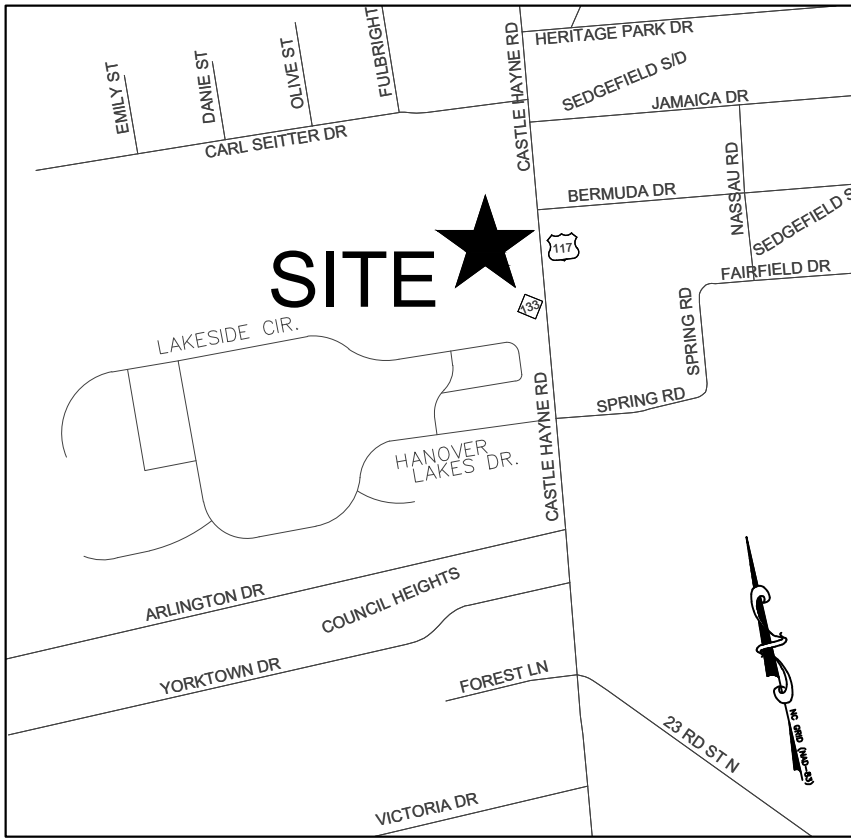
PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
RELEASED FOR CONSTRUCTION:
DRAWING INFORMATION
DATE: 7-9-2020
DESIGNED: T-30
DRAWN: T-30
CHECKED: T-30

SEAL

L-1.0

PEI JOB#: 16128.PE

PRELIMINARY DESIGN - NOT RELEASED FOR CONSTRUCTION



VICINITY MAP
SCALE: 1"=1000'

SITE DATA TABULATION

OWNER: HANOVER LAKES, LLC
PROJECT ADDRESS: 2111 CASTLE HAYNE ROAD
WILMINGTON, NC 28401
R04100-001-026-000
TAX PARCEL IDENTIFICATION #: 2.20 AC
TOTAL PARCEL AREA: DB 5373 PG 1557
RECORDED DEED BOOK: R-15
CURRENT ZONING: O&I
PROPOSED ZONING: TRANSITION
CAMA LAND USE CLASSIFICATION: VACANT
EXISTING LAND USE: COMMERCIAL/ OFFICE
PROPOSED LAND USE:

LANDSCAPE CALCULATIONS

REQUIRED FOUNDATION PLANTINGS [(BLDG LENGTH X BLDG HGT) X 12%]

FRONT (EAST): (108 X 20) X 0.12 = 259 SF
PROVIDED: 490 SF

REQUIRED STREET YARD BUFFER [(LENGTH OF FRONTAGE - DRIVEWAY) X 26']

REQUIRED: (229 - 25) X 27 = 5,304 SF
PROVIDED: 3,817 SFPS

1 CANOPY / SHADE TREE OR 3 UNDERSTORY TREES PER 600 SF OF REQUIRED YARD
3,672 / 600 = 6.12 (6) TREES REQUIRED; (6) EXISTING TREES TO REMAIN AND SATISFY
STREET TREE REQUIREMENTS, IF ANY OF THE TREES ARE NOT ACCEPTABLE PER
THE PLANNING DIRECTOR, REMOVE THE REJECTED EXISTING TREES AND PROVIDE
NEW IN THE QUANTITY REQUIRED TO EQUAL SIX TREES TOTAL IN THE STREET YARD -
SEE PLAN FOR PROPOSED TREES IF REQUIRED.

6 SHRUBS PER 600 SF OF REQUIRED YARD
3,672 / 600 = 6.12 X 6 = 36.72 (37) SHRUBS REQUIRED; 37 SHRUBS PROVIDED
(SEE SHRUBS AT FRONT OF PARKING STALLS LOCATED WITHIN STREET YARD)

BUFFER YARD

BUFFER AGAINST RESIDENTIAL PROPERTIES IS EQUAL TO 50% OF REQUIRED
SETBACK PER UDO SECTION 62.1-4

INTERIOR LANDSCAPE AREA (8% REQUIRED)

VEHICULAR USE AREA = 18,610 SF X 8% = 1,488.8 SF REQUIRED
LANDSCAPE AREA PROVIDED IN VEHICULAR USE AREA = 2,186 SF
(SEE PLANS FOR ADDITIONAL INFORMATION)

LEGEND:

216

STREET YARD PLANTING REQ'MNTS
SF OF PLANTER AREA IN PARKING
LOT (VEHICULAR USE AREA)

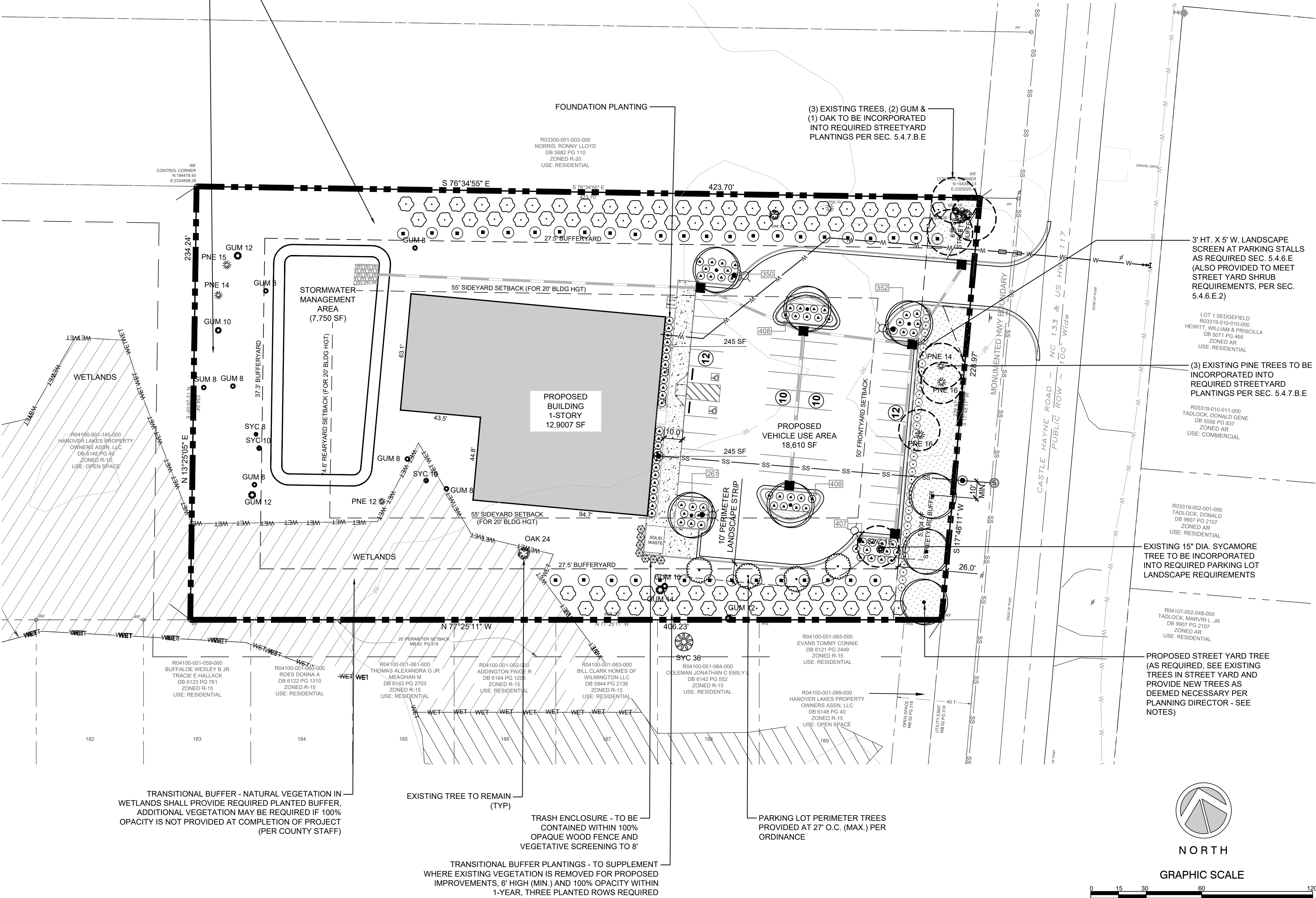
266 (X)

FOUNDATION PLANTING REQUIREMENTS
SF OF PLANTER AREA

TREE PROTECTION NOTES:

1. PRIOR TO ANY CLEARING, GRADING OR
CONSTRUCTION ACTIVITY, TREE PROTECTION
FENCING WILL BE INSTALLED AROUND PROTECTED
TREES OR GROVES OF TREES. NO CONSTRUCTION
WORKERS, TOOLS, MATERIALS, OR VEHICLES SHALL
BE PERMITTED WITHIN THE TREE PROTECTION AREA.
2. SEE TREE PROTECTION PLAN, SHEET L-1.0, FOR
ADDITIONAL INFORMATION AND TREE PROTECTION
FENCING REQUIREMENTS.

TRANSITIONAL BUFFER - NATURAL VEGETATION IN
WETLANDS SHALL PROVIDE REQUIRED PLANTED BUFFER,
ADDITIONAL VEGETATION MAY BE REQUIRED IF 100%
OPACITY IS NOT PROVIDED AT COMPLETION OF PROJECT
(PER COUNTY STAFF)



PLANT SCHEDULE

CANOPY TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
	LO	8	Quercus virginiana Southern Live Oak	3" CAL (MIN.)
UNDERSTORY TREE	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
	MCM	4	Lagerstroemia x 'Muskogee' Lavender Crape Myrtle	3" CAL (MIN.)
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONTAINER
	APT	37	Azalea l. 'George L. Tabor' Purple Tabor Azalea	15 GAL / 4" X 4" MIN.
	DYH	79	Ilex vomitoria 'Nana' Dwarf Yaupon	3 gal
	Lig rot	37	Ligustrum japonicum 'Rotundifolium' Curly Leaf Japanese Privet	3" HT (MIN.)
	POD	7	Podocarpus m. maki Shrubby Yew Podocarpus	4" ht
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	AJ	53	Trachelospermum a. 'Asiatic' Asiatic Jasmine	1 gal

CLIENT INFORMATION:

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ENGINEERING, INC.

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NC License #: C-2846

LANDSCAPE PLAN

HANOVER LAKES COMMERCIAL TRACT
NEW HANOVER COUNTY
NORTH CAROLINA

PROJECT STATUS
CONCEPTUAL LAYOUT:
PRELIMINARY LAYOUT:
RELEASED FOR CONST:

SEAL

DRAWING INFORMATION
DATE: 7-25-2020
DRAWN BY: T. HAN
DESIGNED BY: T. HAN
CHECKED BY: T. HAN

L-2.0

PEI JOB#: 16128.PE