



# EAST CAROLINA UNIVERSITY HEALTH SCIENCES AND WEST RESEARCH CAMPUS

## MASTER PLAN | CAMPUS INVENTORY ANALYSIS MAPS

April 29, 2010









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## COMMUNITY CONTEXT







**Brody School of Medicine, artist rendering, 1979**



**Brody School of Medicine, 1982**





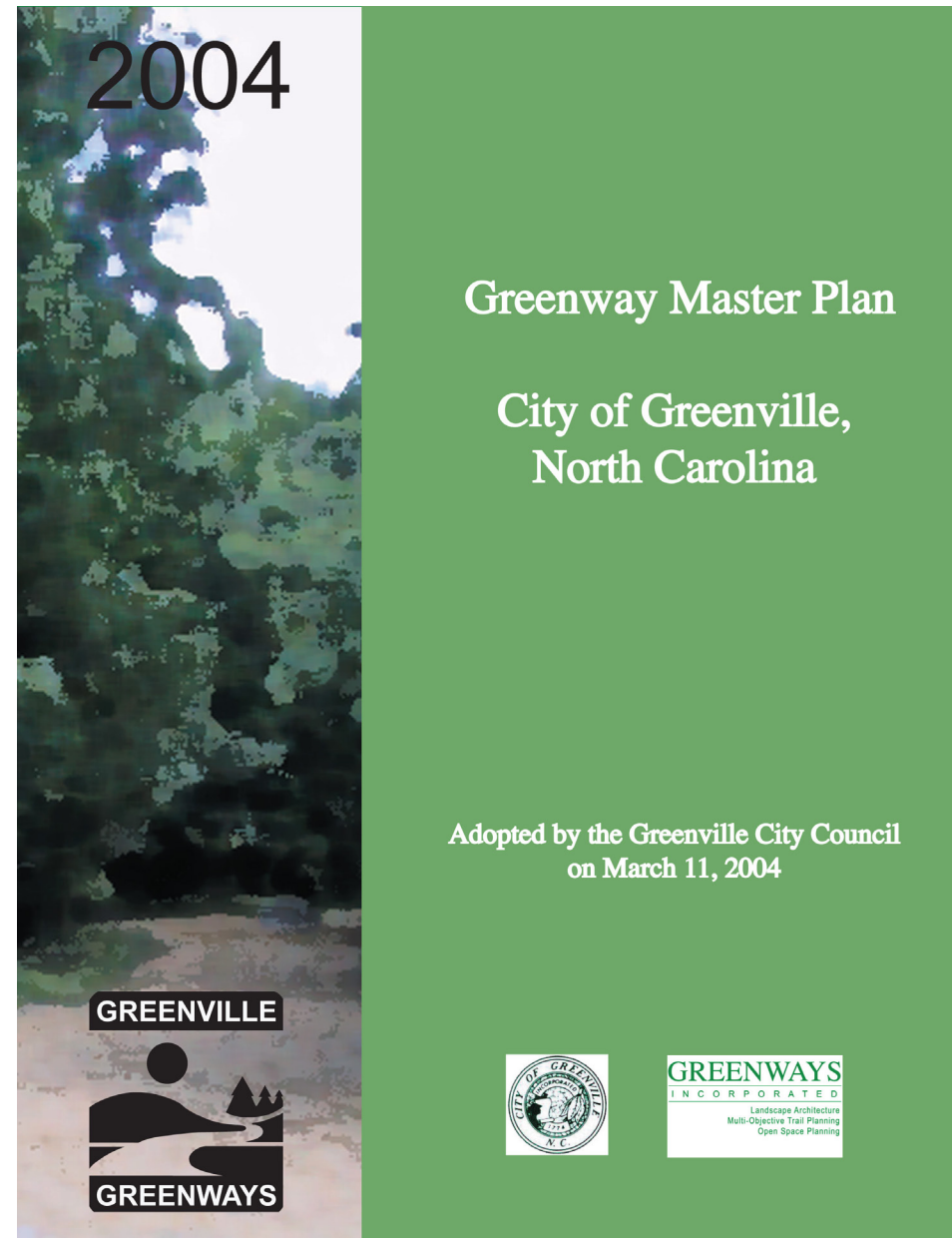
## 10th Street Connector:

The 10th street connector is a proposed vehicular and pedestrian connection between downtown Greenville and the ECU Health Sciences Campus. There are 3 preliminary routings proposed as a part of this project, the preferred is pictured above.



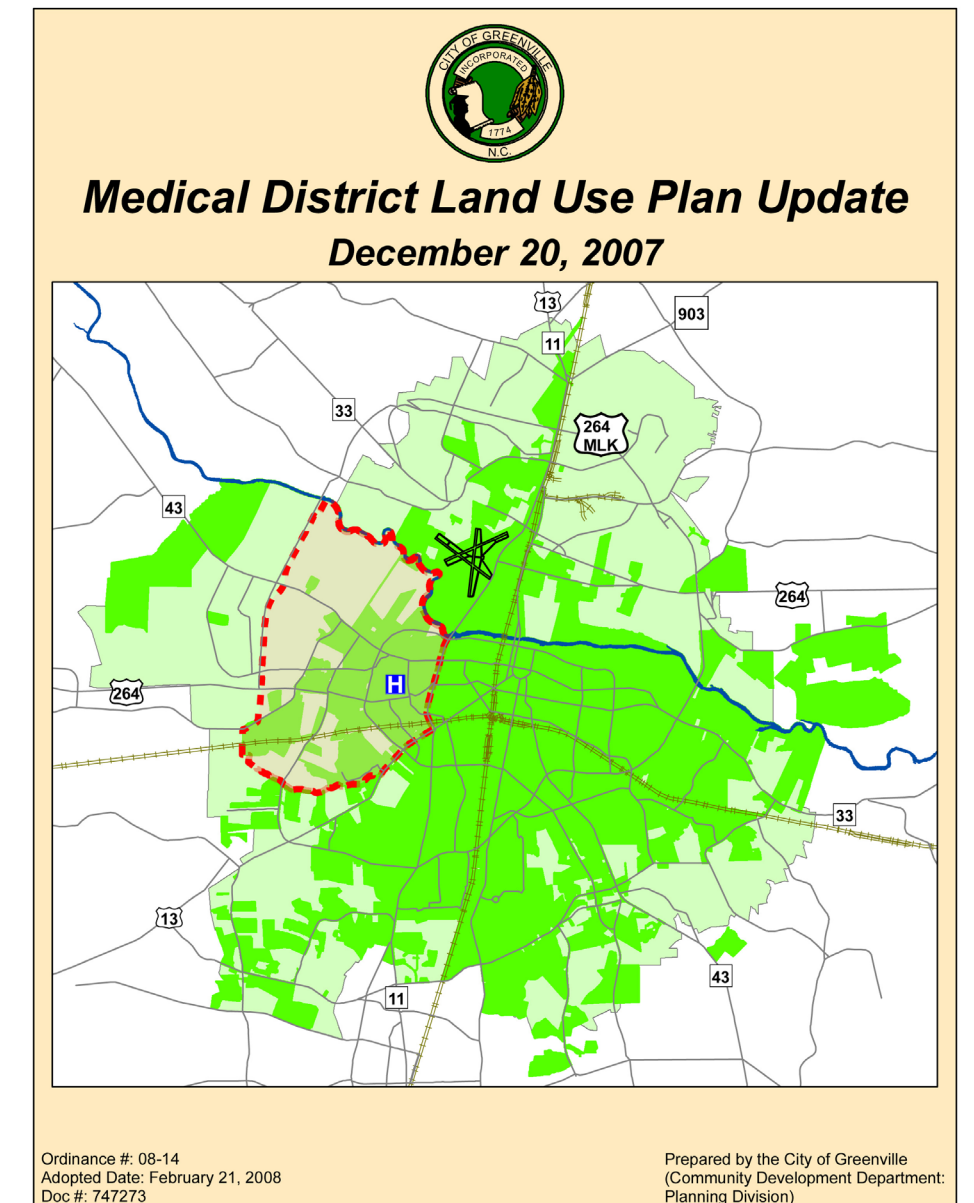
## Greenville Intermodal Station:

The proposed intermodal station would more effectively serve both the Greenville Area Transit (GREAT) and the East Carolina University Student Transit Authority (ECUSTA).



## Greenville Greenway Master Plan:

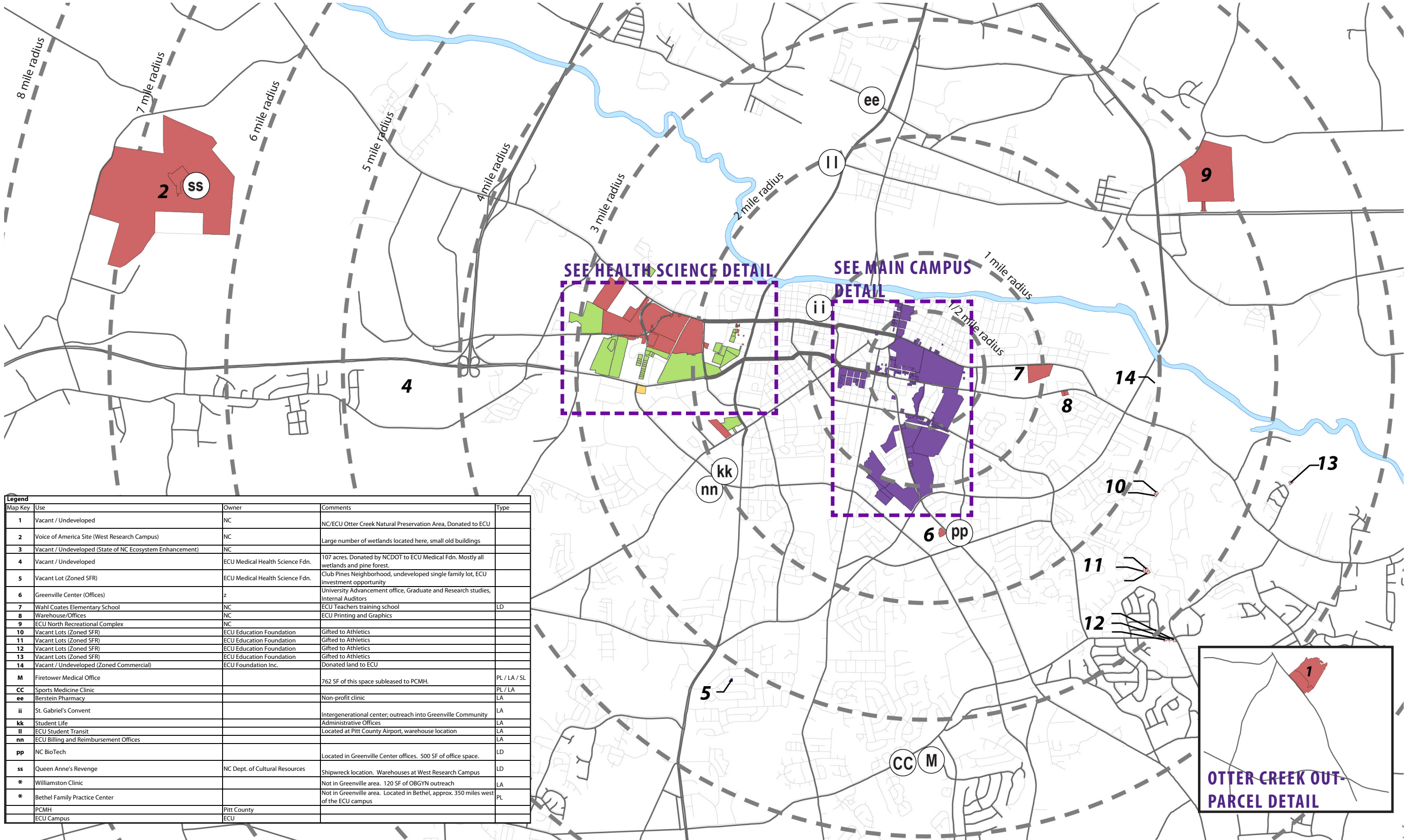
The 2004 Greenway Master Plan proposes multiple connections to the Health Sciences Campus. The plan proposes connections along McGregor Downs Rd., Stantonsburg Rd. and Memorial Dr.



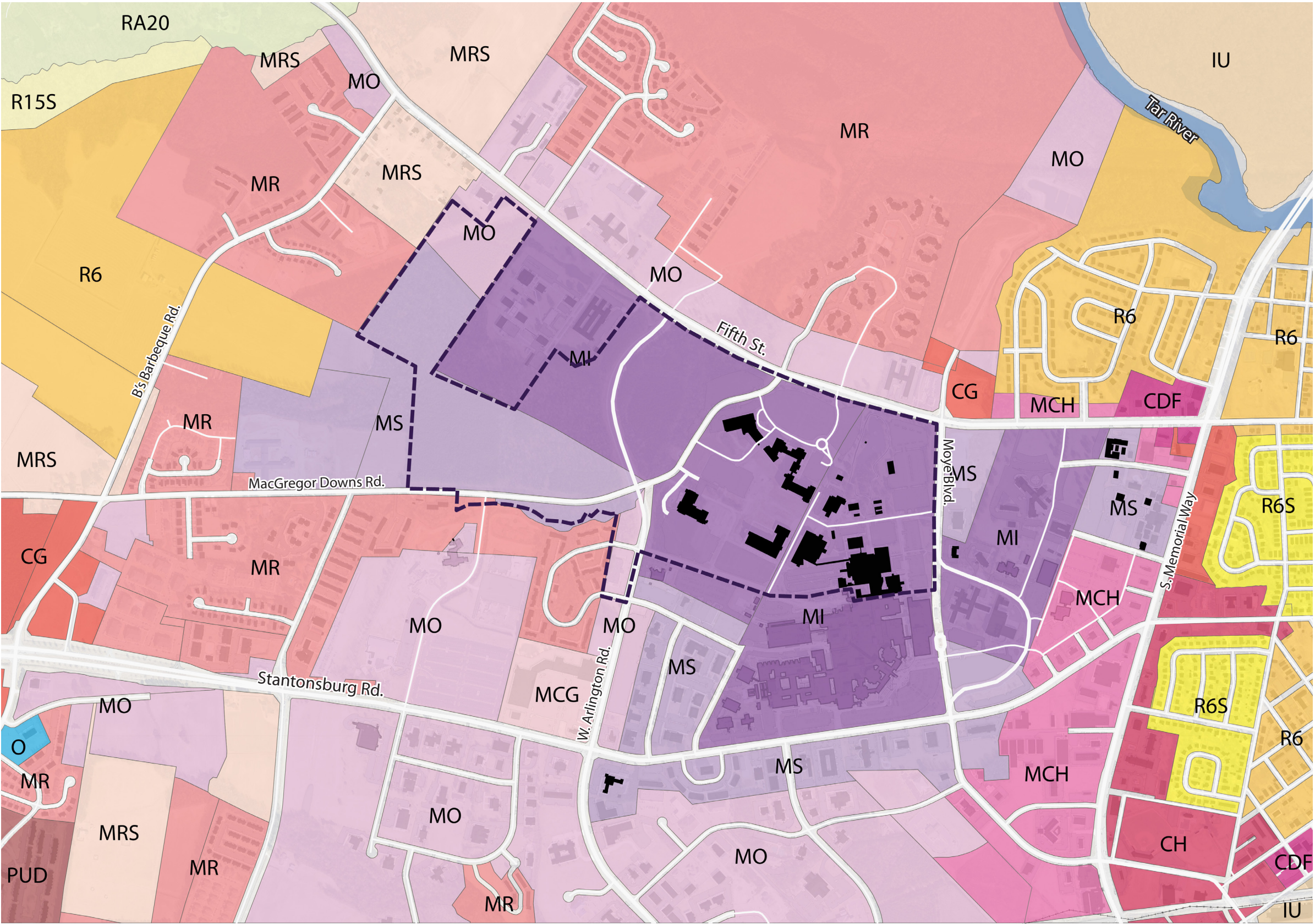
## Medical District Land Use Plan Update:

The Medical District Land Use Plan Update calls for a number of changes to help foster the responsible growth of the medical district.









# EXISTING ZONING

- LAND USE**
- CDF - DOWNTOWN COMMERCIAL FRINGE
  - CG - GENERAL COMMERCIAL
  - CH - HEAVY COMMERCIAL
  - IU - UNOFFENSIVE INDUSTRY
  - MI - MEDICAL INSTITUTIONAL
  - MS - MEDICAL SUPPORT
  - MO - MEDICAL OFFICE
  - MCG - MEDICAL GENERAL COMMERCIAL
  - MCH - MEDICAL HEAVY COMMERCIAL
  - MR - MEDICAL RESIDENTIAL
  - MRS - MEDICAL RESIDENTIAL SINGLE FAMILY
  - O - OFFICE
  - RA20 - RESIDENTIAL AGRICULTURE
  - R15S - RESIDENTIAL SINGLE FAMILY LOW DENSITY
  - R9S/R6S - RESIDENTIAL SINGLE FAMILY MEDIUM DENSITY
  - R6 - RESIDENTIAL- SINGLE/ MULTI-FAMILY HIGH DENSITY

Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



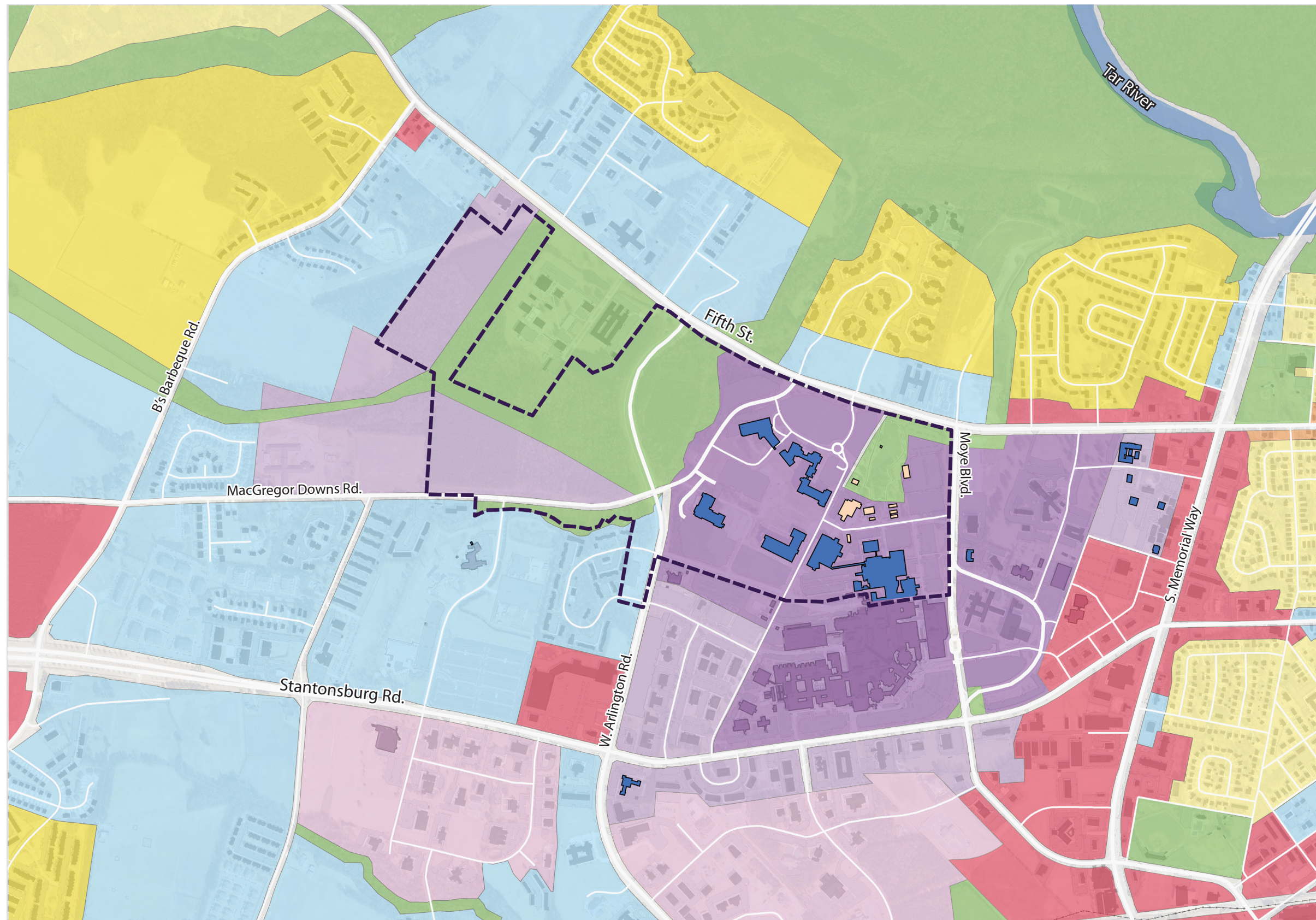
# CAMPUS LAND USE

## BUILDING USE

- MEDICAL ACADEMIC
- CAMPUS SERVICE/ SUPPORT

## LAND USE

- COMMERCIAL
- MIXED USE/ OFFICE/ INSTITUTIONAL
- MEDICAL CORE
- MEDICAL TRANSITION
- OFFICE/ INSTITUTIONAL/ MEDICAL
- OFFICE/ INSTITUTIONAL/ MULTI-FAMILY
- HIGH DENSITY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- CONSERVATION/ OPEN SPACE

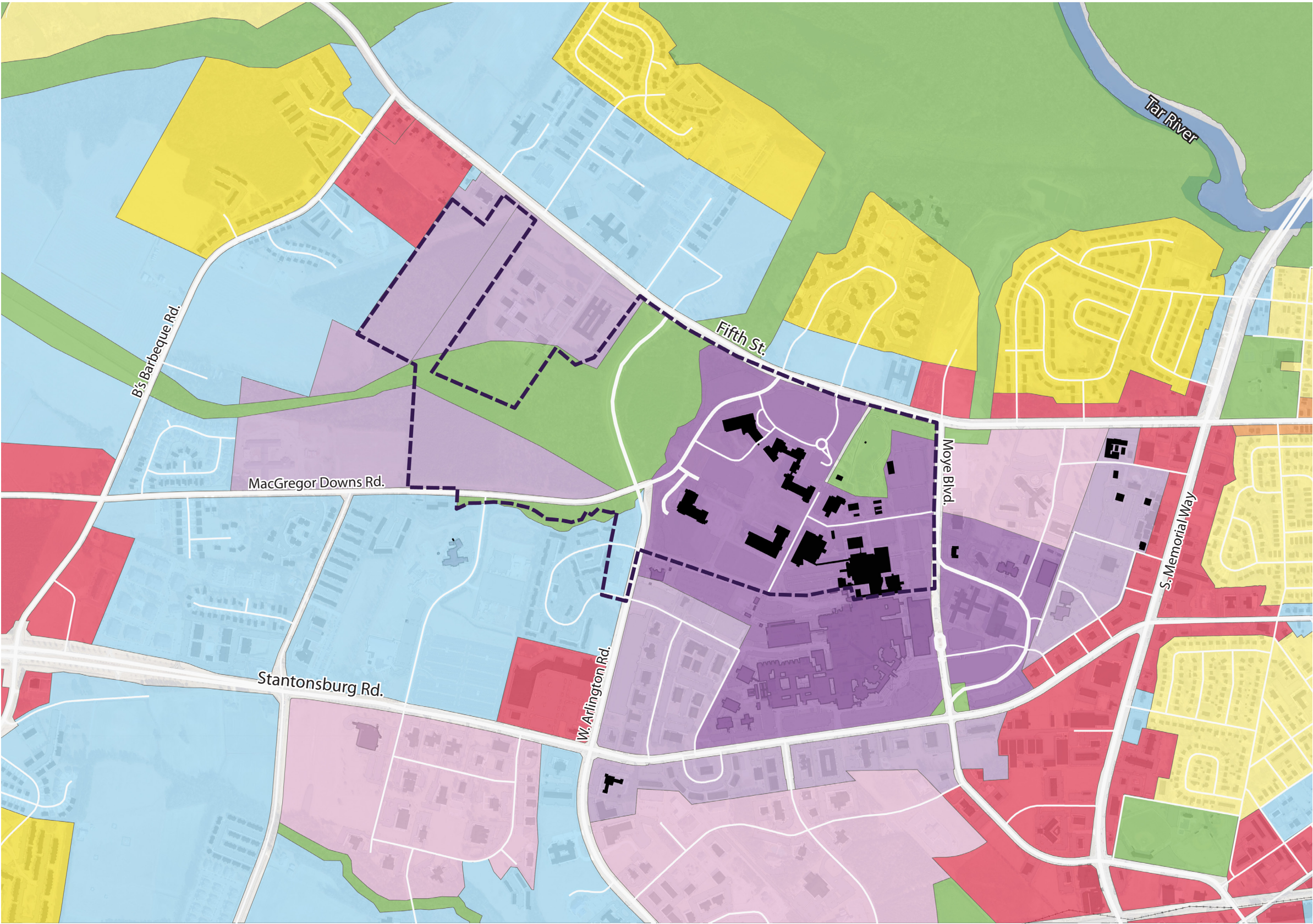


Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



FUTURE LAND USE

- LAND USE
- COMMERCIAL
  - MIXED USE/ OFFICE/ INSTITUTIONAL
  - MEDICAL CORE
  - MEDICAL TRANSITION
  - OFFICE/ INSTITUTIONAL/ MEDICAL
  - OFFICE/ INSTITUTIONAL/ MULTI-FAMILY
  - HIGH DENSITY RESIDENTIAL
  - MEDIUM DENSITY RESIDENTIAL
  - CONSERVATION/ OPEN SPACE



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



ECU PROPERTY

LEGEND

- PITT COUNTY MEMORIAL HOSPITAL
- ECU
- ECU BUILDINGS
- PITT COUNTY BUILDINGS



Map Key	Name	Comments	Type
A	Adult and Pediatric Health Care		PL / LA
C	Brody Outpatient Center	2,369 SF of this space subleased to PCMH	PL / SL
D	Cardiovascular Imaging Center		PL
F	Dental Practice		PL
G	Digestive Diseases Clinic		PL
H	East Carolina Heart Institute at ECU		PL
I	ECU Women's Physicians		PL / LA
J	ECU Neurosurgical and Spine Center		PL
K	Emergency Department		PL
L	Family Medicine Center		PL / LA
N	Geriatric Center		PL
O	International Traveler's Clinic		PL / LA
P	Learning & Behavior Clinic for Children		PL
Q	Leo W. Jenkins Cancer Center		PL
R	MedDirect		PL
S	Moye Medical Center	7,067 SF of this space subleased to PCMH	PL / LA / SL
T	Nephrology & Hypertension Center		PL / LA
U	Pain Management Center		PL / LA
V	Pediatric Outpatient Center		PL
W	Pediatric Sleep Disorders Clinic		PL / LA
X	Pediatric Specialty Care		PL / LA
Y	Plastic & Reconstructive Surgery		PL / LA
Z	Psychiatric Services		PL / LA
AA	Regional Rehabilitation Center		PL
BB	Rehabilitation Physician Clinic		PL
dd	Academic Affairs		LA
mm	Testing Center		LA
rr	Gamma Knife	2200 SF ground lease, located next to Brody	LD
tt	Radio Reading Room	Within Health Sciences Library, 102 SF of office space	LA

PL = ECU Practice Location  
LA = ECU Lease Acquisition  
LD = ECU Lease Disposition  
SL = ECU Sub-Lease

Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



## CAMPUS NATURAL FEATURES

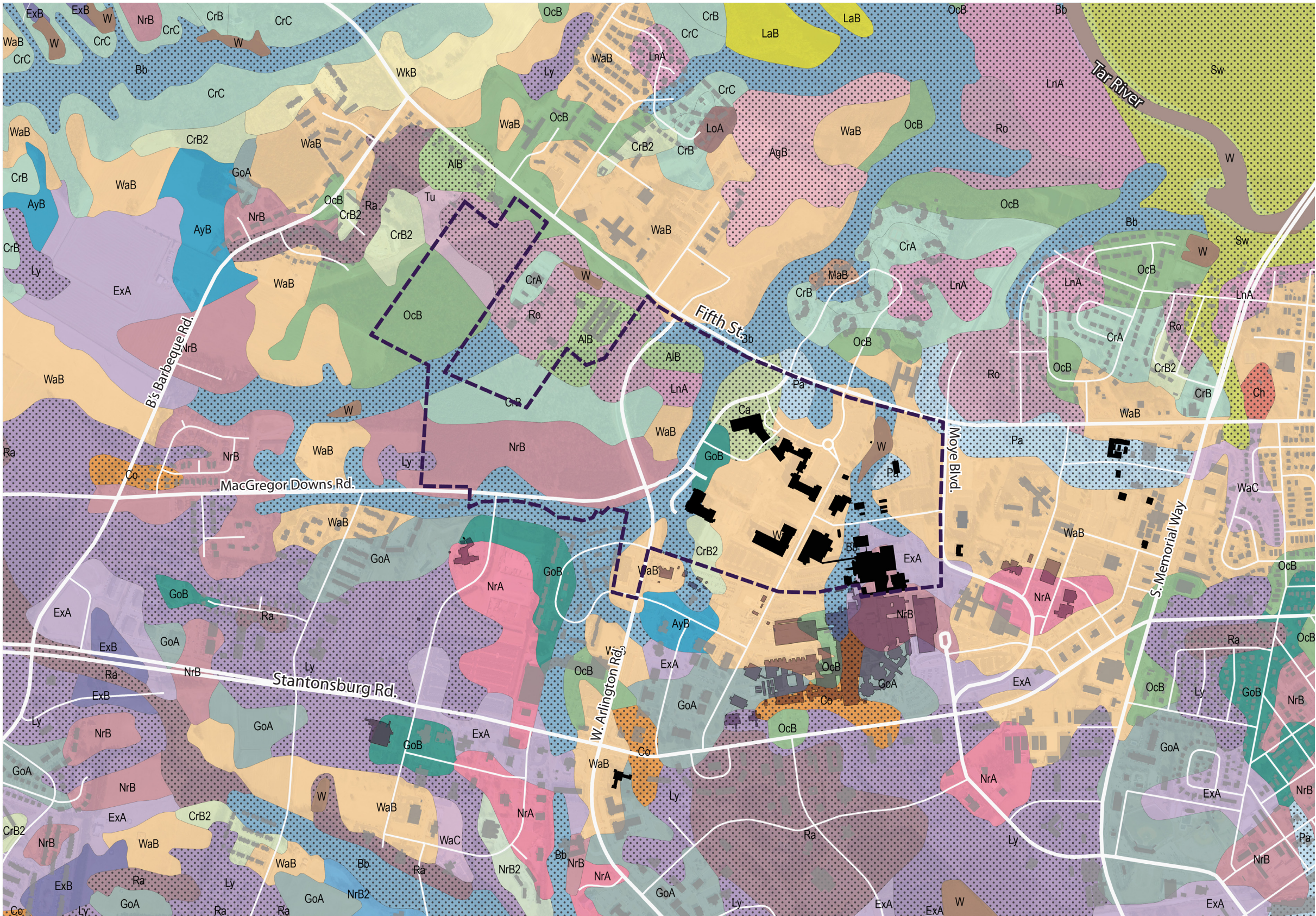




# SOIL TYPES

## SOIL TYPES

- AgB ALAGA LOAMY SAND, 0-6% SLOPE
- AlB ALTAVISTA SANDY LOAM, 0-4% SLOPE
- AyB AYCOCK FINE SANDY LOAM, 1-6% SLOPE
- Bb BIBB COMPLEX
- Ca CAPE FEAR LOAM
- Ch CHIPLEY SAND
- Co COXVILLE FINE SANDY LOAM
- Cr CRAVEN FINE SANDY LOAM, 1-6% SLOPE
- CrB2 CRAVEN FINE SANDY LOAM, 1-6 % SLOPE, ERODED
- ExA EXUM FINE SANDY LOAM, 0-1% SLOPE
- ExB EXUM FINE SANDY LOAM, 1-6% SLOPE
- GoA GOLDSBORO SANDY LOAM, 0-1% SLOPE
- GoB GOLDSBORO SANDY LOAM, 1-6% SLOPE
- LaB LAKELAND SAND, 1-6% SLOPE
- LnA LENOIR FINE SANDY LOAM, 0-3% SLOPE
- Ly LYNCHBURG FINE SANDY LOAM
- MaB MASADA SAND LOAM, 0-4% SLOPE
- NrA NORFOLK SANDY LOAM, 0-1% SLOPE
- NrB NORFOLK SANDY LOAM, 1-6% SLOPE
- OcB OCILLA LOAMY FINE SAND, 0-4% SLOPE
- Pa PACTOLUS LOAMY SAND
- Ra RAINS FINE SANDY LOAM
- Ro ROANOKE SILT LOAM
- Sw SWAMP
- W WATER
- WaB WAGRAM LOAMY SAND, 0-6% SLOPE
- WkB WICKHAM SANDY LOAM, 0-6% SLOPE
- Limiting Soils



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



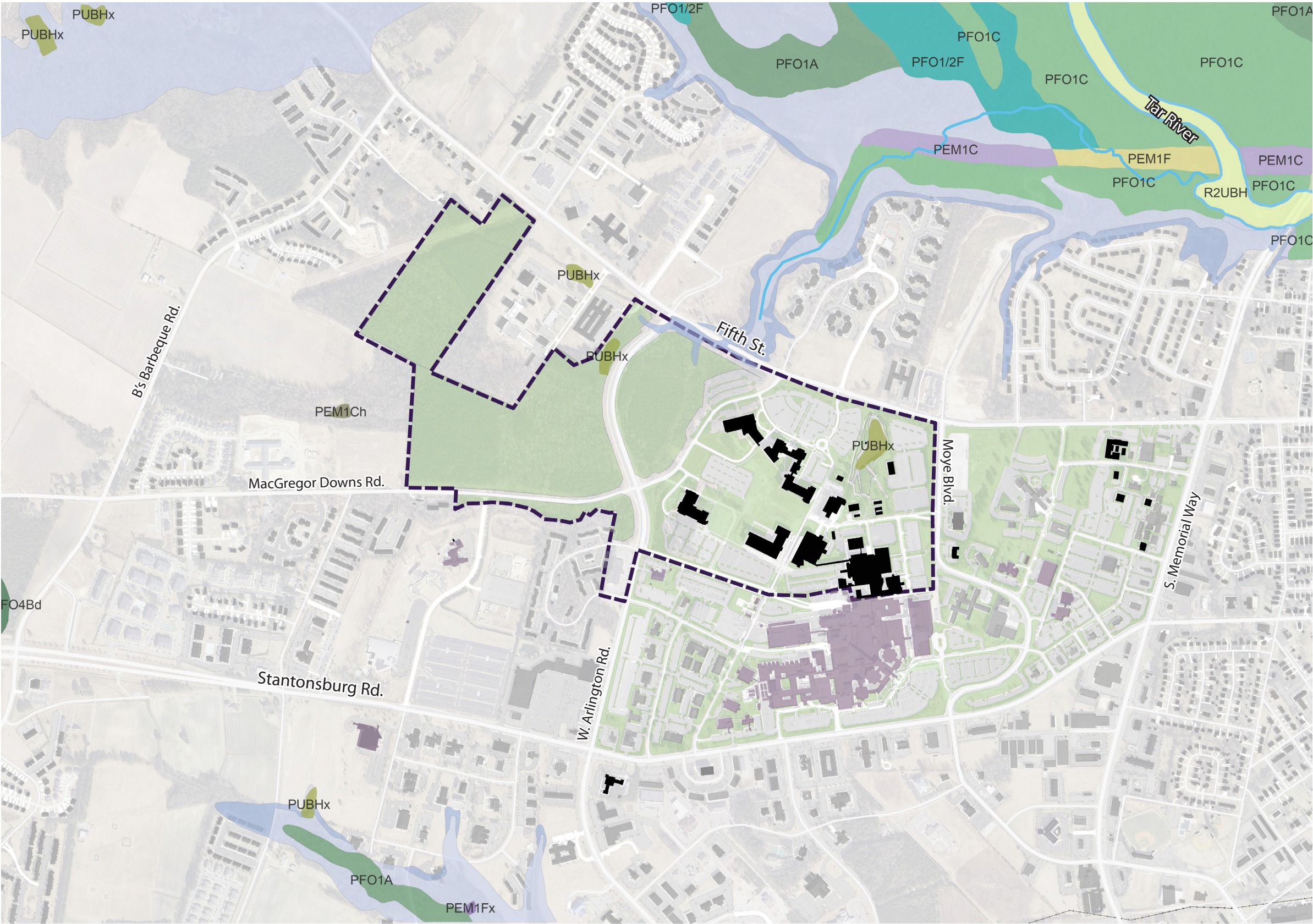
# SITE HYDROLOGY

## WETLANDS

- PFO4Bd** PALUSTRINE  
(FORESTED, NEEDLE-LEAVED EVERGREEN, SATURATED, ACID)
- PFO1A** PALUSTRINE  
(FORESTED, BROAD- LEAVED DECIDUOUS, TEMPORARILY FLOODED)
- PFO1C** PALUSTRINE  
(FORESTED BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED)
- PFO1/2F** PALUSTRINE  
(FORTESTED, BROAD & NEEDLE-LEAVED DECIDUOUS, SEMIPERMANENTLY FLOODED)
- PEM1C** PALUSTRINE  
(EMERGENT, PERSISTENT, SEASONALLY FLOODED)
- PEM1Fx** PALUSTRINE  
(EMERGENT, PERSISTENT, SEASONALLY FLOODED)
- PEM1Ch** PALUSTRINE  
(EMERGENT, PERSISTENT, SEASONALLY FLOODED, DIKED/ IMPOUNDED)
- PUBHx** PALUSTRINE  
(UNCONSOLIDATE BOTTOM, PERMANENTLY FLOODED, EXCAVATED)
- PEM1F** PALUSTRINE  
(EMERGENT, PERSISTENT, SEMIPERMANENTLY FLOODED)
- R2UBH** RIVERINE  
(LOWER PERENNIAL, UNCONSOLIDATED BOTTOM, PERMANENTLY FLOODED)

## FEMA FLOOD ZONES

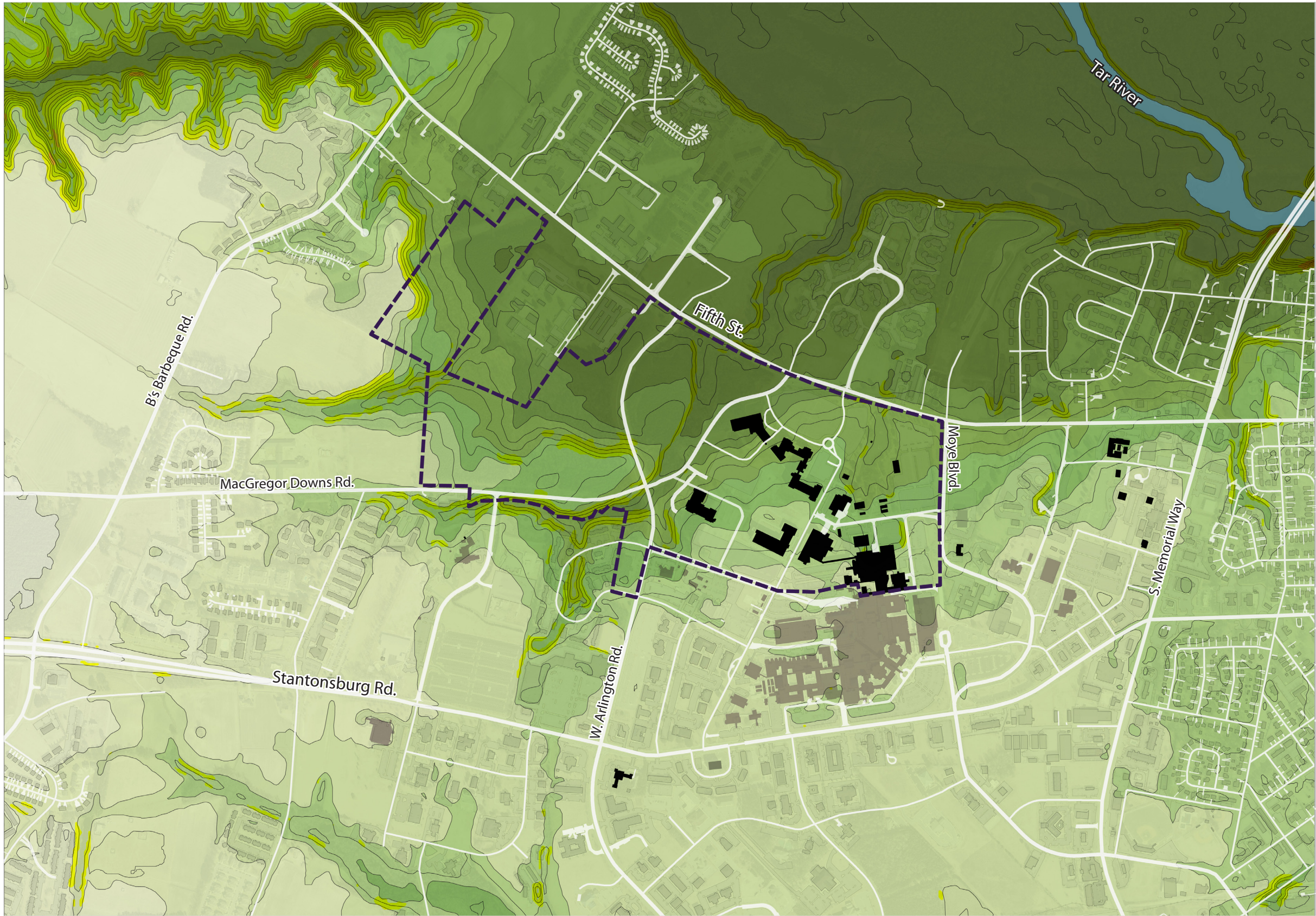
- 100-YEAR FLOODPLAIN**  
(AN AREA INUNDATED BY 100-YEAR FLOODING, BASE FLOOD ELEVATIONS HAVE BEEN DETERMINED)
- 500-YEAR FLOODPLAIN**  
(AN AREA INUNDATED BY 500 YEAR FLOODING; AN AREA INUNDATED WITH 100 YEAR FLOODING WITH AN AVERAGE DEPTH OF LESS THAN 1 FOOT)
- OUTSIDE 100/500-YEAR FLOODPLAIN**
- CAMPUS**



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# TOPOGRAPHY



## ELEVATIONS

- WATER
- <22'
- 22'-34'
- 34'-42'
- 42'-54'
- 54'-62'
- 62'-70'
- 70'-78'
- >78'

## STEEP SLOPES

- 0-10 DEGREE SLOPES (18%)
- 10-20 DEGREE SLOPES (36%)

4' CONTOUR INTERVAL


Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.







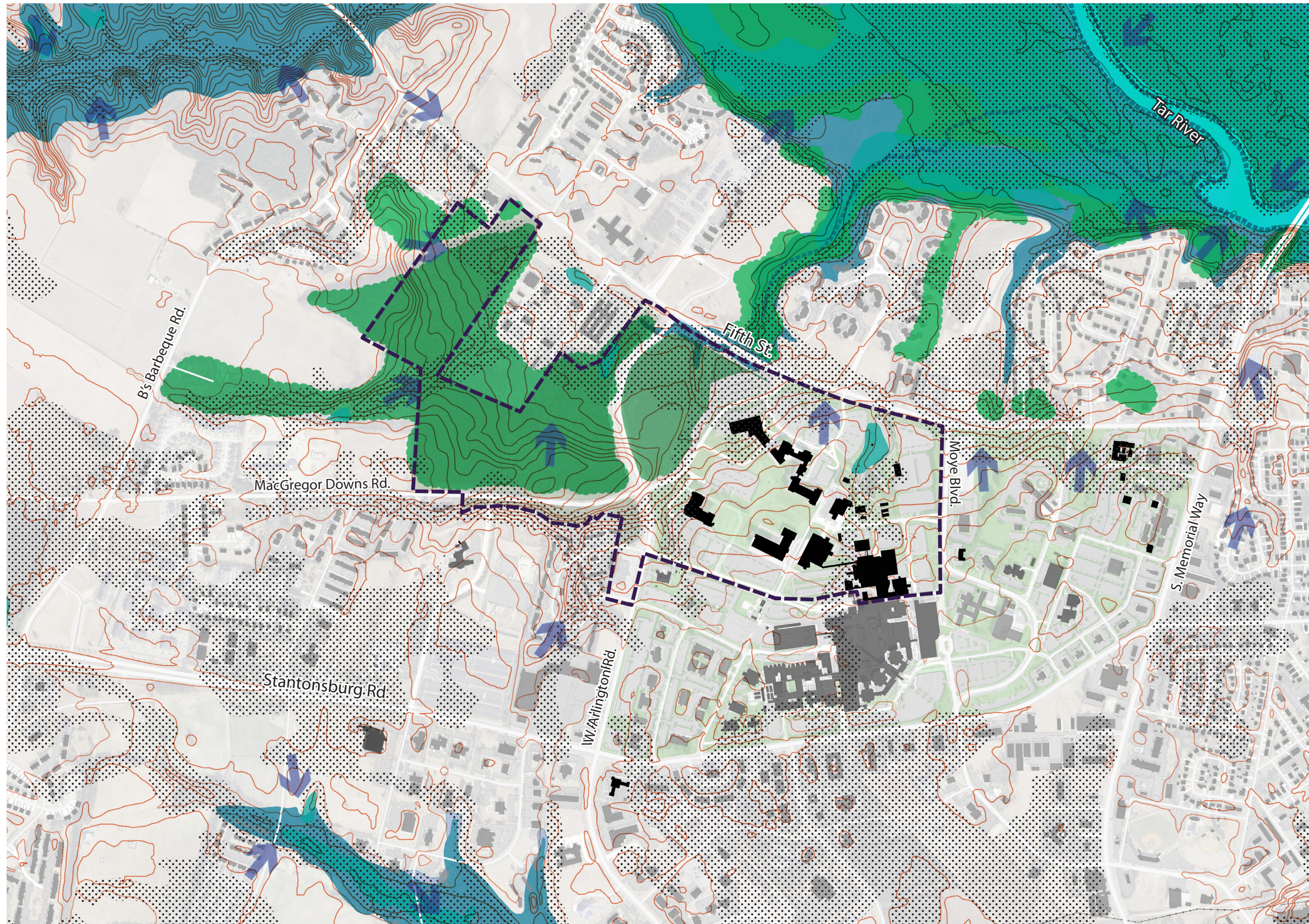
# NATURAL FEATURES SUMMARY ANALYSIS

## LEGEND

-  WATER BODY
-  WETLAND
-  FLOOD ZONE
-  WOODED AREA
-  CONTOURS

 FLOW DIRECTION

-  10 DEGREES OF SLOPE (18%)
-  20 DEGREES OF SLOPE (36%)
-  CAMPUS
-  LIMITING SOILS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.

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## CAMPUS STRUCTURE





# BUILDING HEIGHTS

## TOTAL FLOORS

- 1-2 FLOORS
- 3-4 FLOORS
- 5-6 FLOORS
- 7-10 FLOORS
- CAMPUS



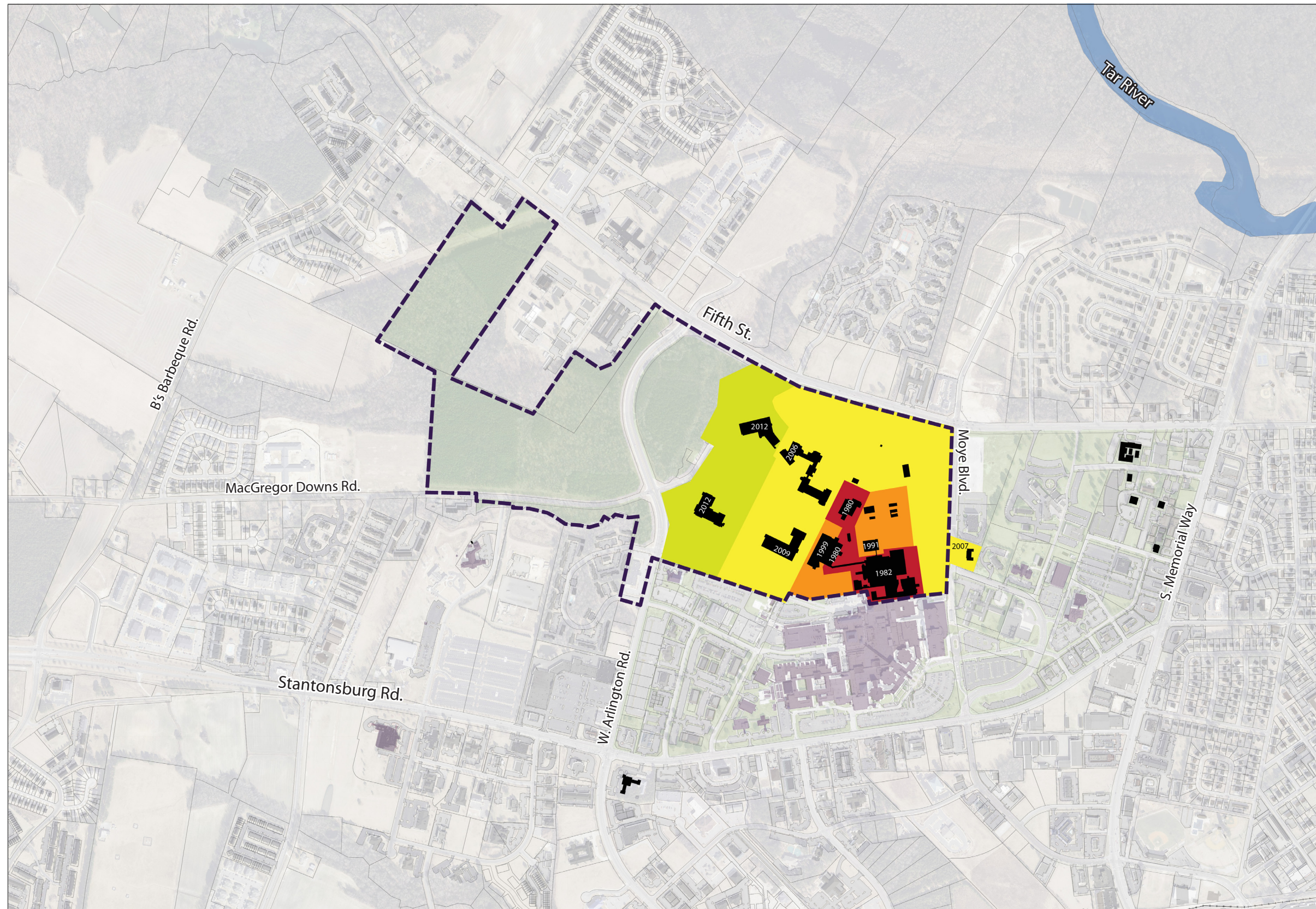
Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# CAMPUS GROWTH

## CAMPUS DEVELOPMENT

- 1980'S FACILITIES
- 1990'S FACILITIES
- 2000-2008 FACILITIES
- 2009+ FACILITIES
- CAMPUS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# GENERAL BUILDING CONDITION

## BUILDING CONDITION (FCNI RANGES)

- 0.01-0.05: EXCELLENT CONDITION,  
TYPICALLY NEW CONSTRUCTION
- 0.06-0.15: GOOD CONDITION,  
RENOVATIONS OCCUR ON SCHEDULE
- 0.16-0.30: FAIR CONDITION,  
IN NEED OF NORMAL RENOVATION
- 0.31- 0.40: BELOW AVERAGE CONDITION,  
MAJOR RENOVATION REQUIRED
- 0.41-0.59: POOR CONDITION,  
TOTAL RENOVATION INDICATED
- 0.60 AND ABOVE:  
COMPLETE REPLACEMENT NEEDED
- NOT EVALUATED
- CAMPUS



Facilities conditions compiled from  
ISES Corporation  
Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



# EXISTING UTILITY CORRIDORS

- LEGEND
- CHILLED WATER

DOMESTIC WATER

SANITARY SEWER

STORM

STEAM

GAS

TELECOM / ELECTRIC

OVERHEAD HIGH POWER TRANSMISSION LINE

CAMPUS



Utility data compiled from  
RMF Engineering  
Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



CAMPUS PUBLIC REALM

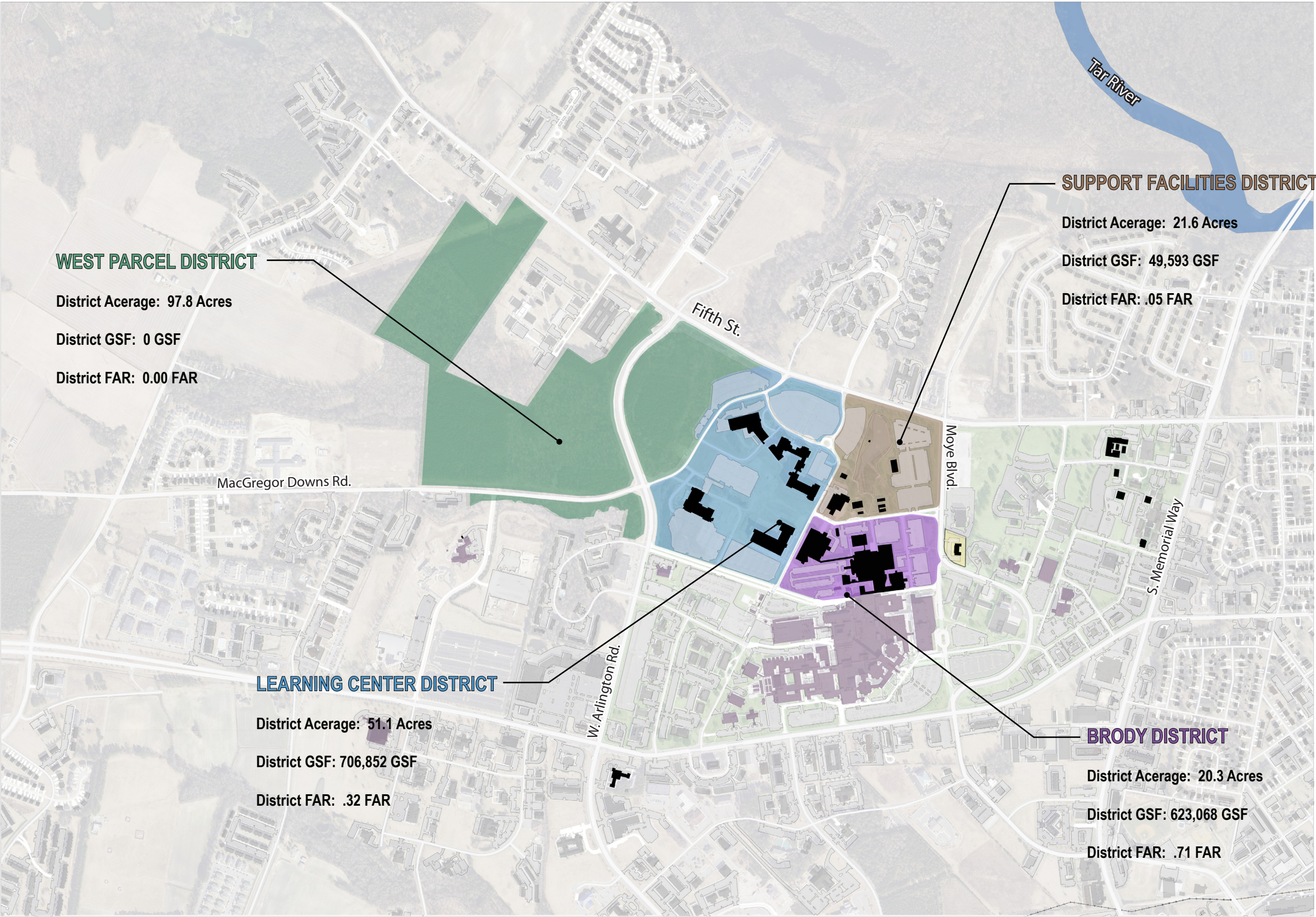




# CAMPUS DISTRICTS

## DISTRICTS

- BRODY DISTRICT
- SUPPORT FACILITIES DISTRICT
- WEST PARCEL DISTRICT
- LEARNING CENTER DISTRICT







Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina. 23



# CAMPUS OPEN SPACE

## LAND COVER TYPES

-  NATURAL AREAS:  
96.4 ACRES
-  LAWN/ OPEN SPACE:  
102.5 ACRES
-  OPEN WATER:  
1.8 ACRES
-  TREE CANOPY (INCLUDING NATURAL AREA):  
100.5 ACRES

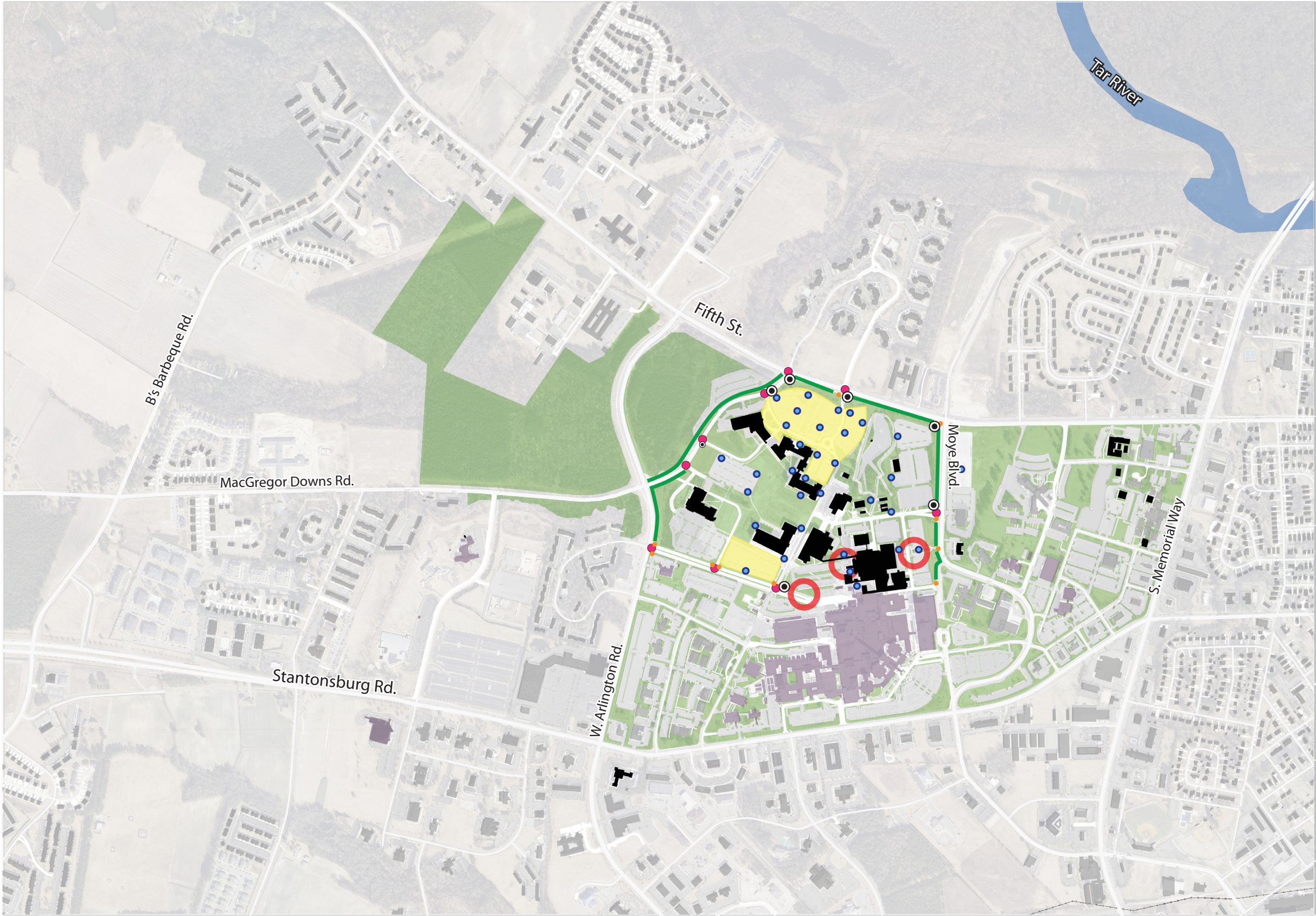
TOTAL HEALTH SCIENCE  
CAMPUS AREA:  
200.7 ACRES



Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



# CAMPUS SAFETY & SECURITY



- TERRITORIALITY**
- CAMPUS IDENTIFICATION SIGN
  - EDGES (HEDGE, FENCE, SET BACK OR VEGETATION)
  - CAMPUS
- TECHNICAL**
- EMERGENCY CALL BOX
- NATURAL SURVEILLANCE**
- ACCEPTABLE LIGHT LEVELS (OBSERVED)
- NATURAL ACCESS CONTROL**
- PEDESTRIAN ACCESS POINTS
  - VEHICULAR ACCESS POINTS
  - POOR MAINTENANCE, PARKING AND PEDESTRIAN ADJACENCIES

Security and safety data compiled from  
Protection Engineering Group  
Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



# PUBLIC REALM SUMMARY ANALYSIS



- OPEN SPACE TYPE**
- HIGHLY CONTRIBUTING OPEN SPACE
  - CONTRIBUTING OPEN SPACE
  - NON-CONTRIBUTING OPEN SPACE
  - UNPROGRAMMED / UNDEFINED OPEN SPACE
  - RECREATION / ATHLETICS OPEN SPACE

- CAMPUS EDGES**
- HIGH QUALITY EDGE
  - MEDIUM QUALITY EDGE
  - LOW QUALITY EDGE

- CAMPUS ENTRIES**
- HIGH QUALITY GATEWAY
  - MEDIUM QUALITY GATEWAY
  - LOW QUALITY GATEWAY

Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



## CAMPUS CIRCULATION





# PEDESTRIAN CIRCULATION

## PEDESTRIAN HIERARCHY

- PRIMARY HEALTH SCIENCE PEDESTRIAN MOVEMENT
- SECONDARY MEDICAL CENTER PEDESTRIAN MOVEMENT
- TERTIARY PEDESTRIAN MOVEMENT
- CAMPUS
- GURRHEAD / ENCLOSED WALKWAY
- CROSSWALK
- OBSERVED CONFLICT AREAS






Pedestrian data compiled from  
 Martin, Alexiou, Bryson  
 Base map data provided by ECU, the City of Greenville,  
 Pitt County, and the State of North Carolina.



# SERVICE DRIVES

## SERVICE DRIVES AND STREETS

-  SERVICE DRIVE/LOADING AREA
-  CAMPUS
-  HELICOPTER PAD AND FLIGHT ZONE



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# PARKING

## STRUCTURES AND STREETS

- ECU PARKING LOTS
- PARKING DECK
- OFF-CAMPUS PARKING LOTS
- CAMPUS STREETS
- OFF CAMPUS STREETS
- CAMPUS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



PARKING DIAGRAM

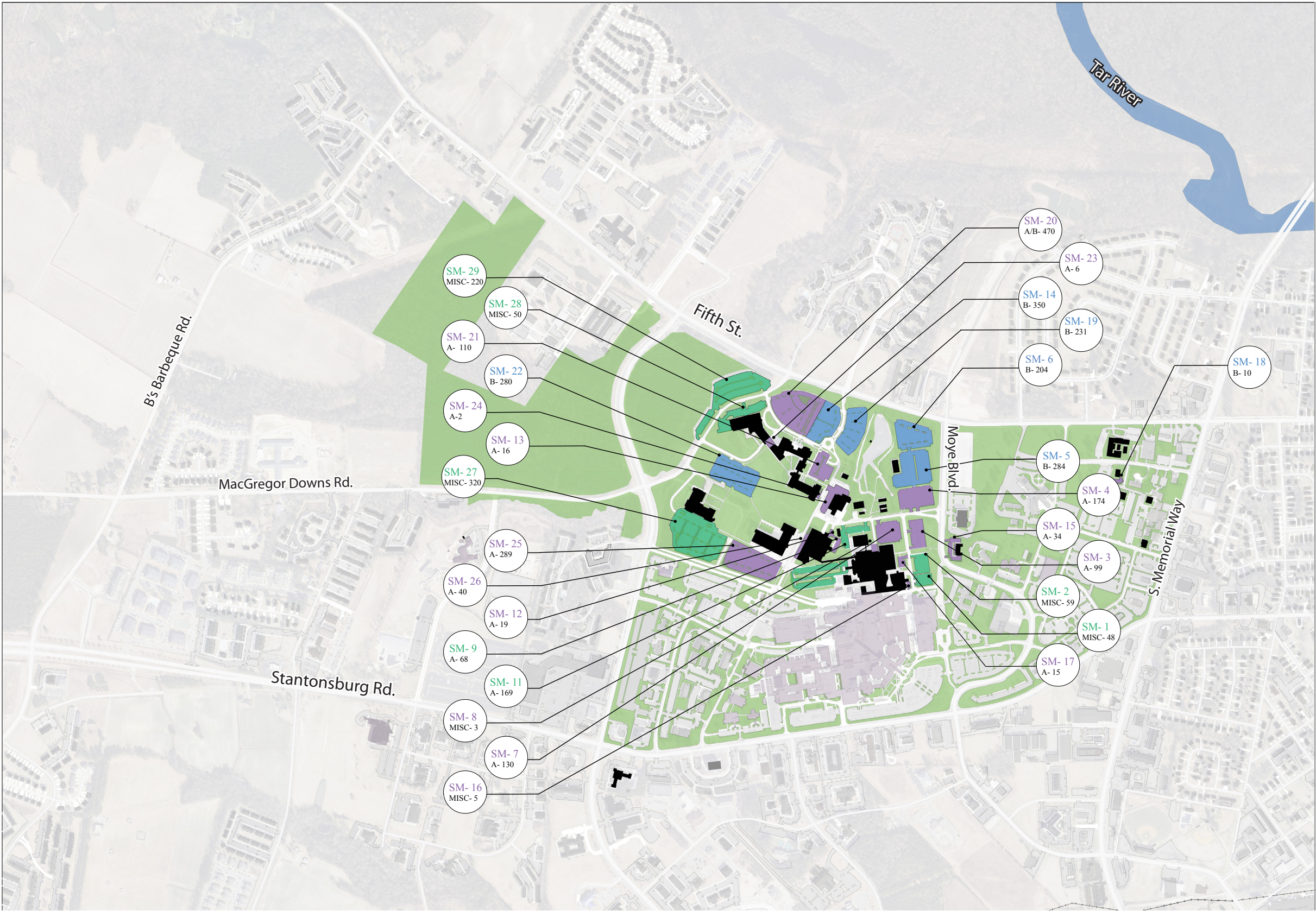
ECU PERMIT TYPE

- "A" PERMIT
- "B" PERMIT
- VISITOR OR OTHER
- CAMPUS

Map Key	Description	# of Spaces
SM	School of Medicine	3,115
Total spaces		3,115

Includes all lots (except patient parking) at the Health Sciences Campus

TOTAL (ALL LOCATIONS) CAMPUS PARKING  
SUPPLY RATIO:  
1 SPACE PER 3 PEOPLE  
OR  
0.38 PERSONS/SPACE



Parking data compiled from  
Martin, Alexiou, Bryson  
Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



BUS ROUTES

GREENVILLE AREA TRANSIT AUTHORITY (GREAT)

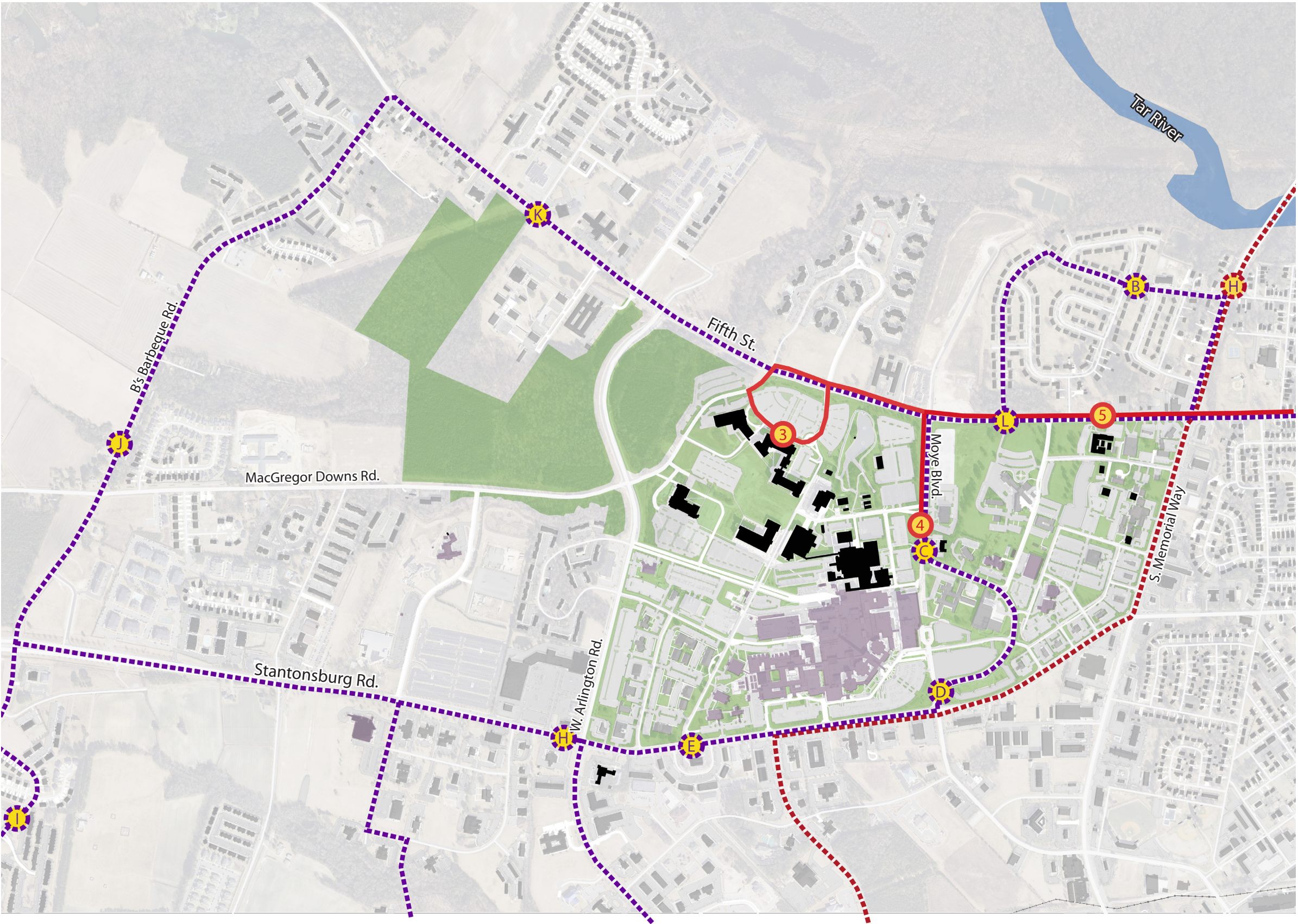
ROUTE 2

ROUTE 4

EAST CAROLINA UNIVERSITY STUDENT TRANSIT AUTHORITY (ECUSTA)

ROUTE 302 RED

CAMPUS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# ESTIMATED DAILY TRAFFIC

## ESTIMATED DAILY TRIPS

- 0-10,000 DAILY TRIPS
- 10,001-20,000 DAILY TRIPS
- 20,001+ DAILY TRIPS
- CAMPUS
- SIGNALIZED INTERSECTIONS



Traffic data compiled from  
Martin, Alexiou, Bryson  
Base map data provided by ECU, the City of Greenville,  
Pitt County, and the State of North Carolina.



# FUNCTIONAL CLASSIFICATION

## FUNCTIONAL ROAD CLASSIFICATIONS

- MAJOR THOROUGHFARE
- MINOR THOROUGHFARE
- CAMPUS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# CIRCULATION ANALYSIS

## TRANSIT ROUTES

- ECUSTA ROUTES, STOPS
- GREAT ROUTES, STOPS

## VEHICULAR CIRCULATION

- MAJOR CIRCULATION  
(WIDTH INDICATES LEVEL OF USE)
- BACKGROUND ROAD NETWORK
- CAMPUS GATEWAY

- PARKING

## PEDESTRIAN CIRCULATION

- MAJOR CIRCULATION  
(WIDTH INDICATES LEVEL OF USE)
- PROPOSED AND EXISTING GREENWAY

## GAPS, CONFLICTS AND CONSTRAINTS

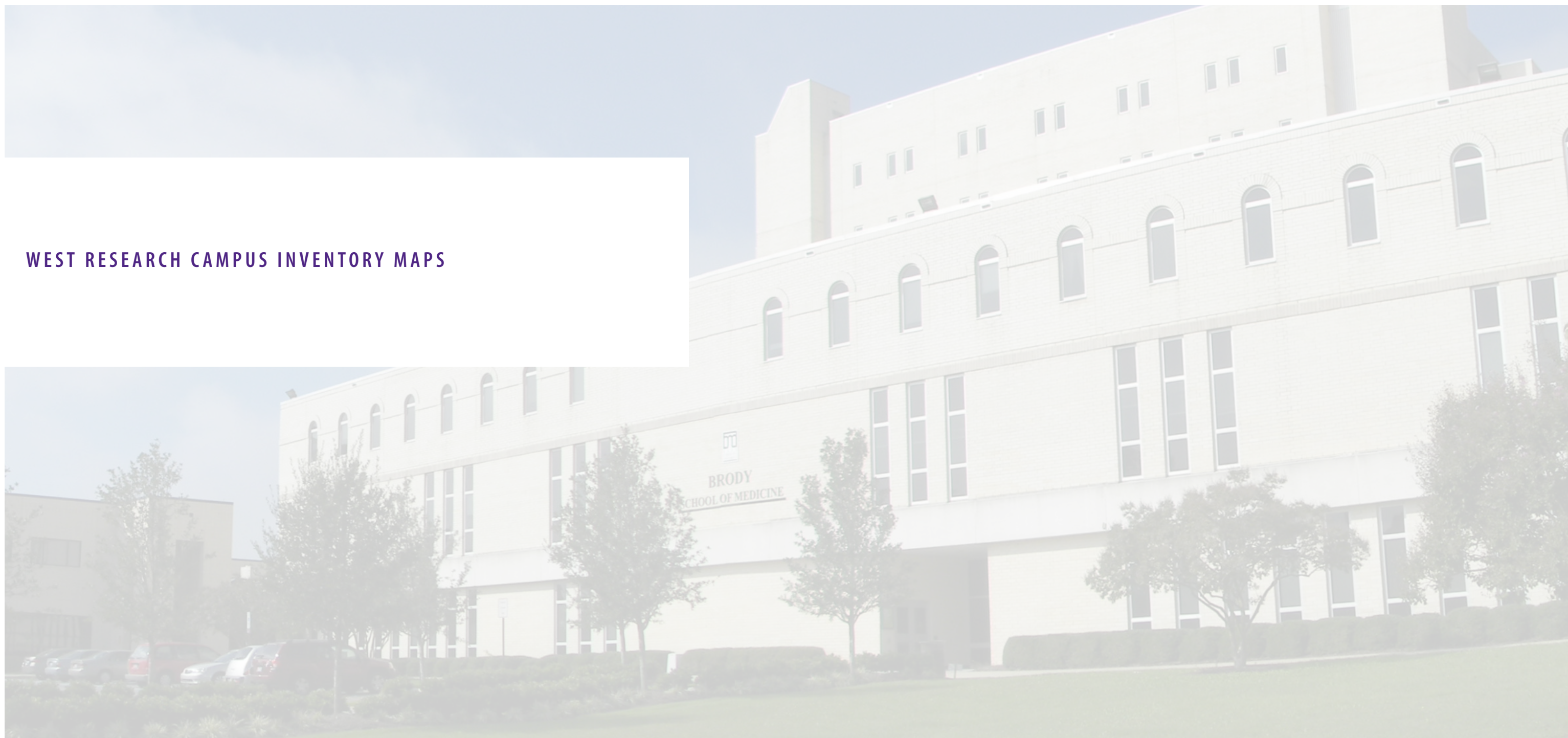
- BARRIERS
- GAPS, AND MISSING LINKS
- CONFLICTS
  - 1. VEHICULAR
  - 2. PEDESTRIAN
  - 3. TRANSIT



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



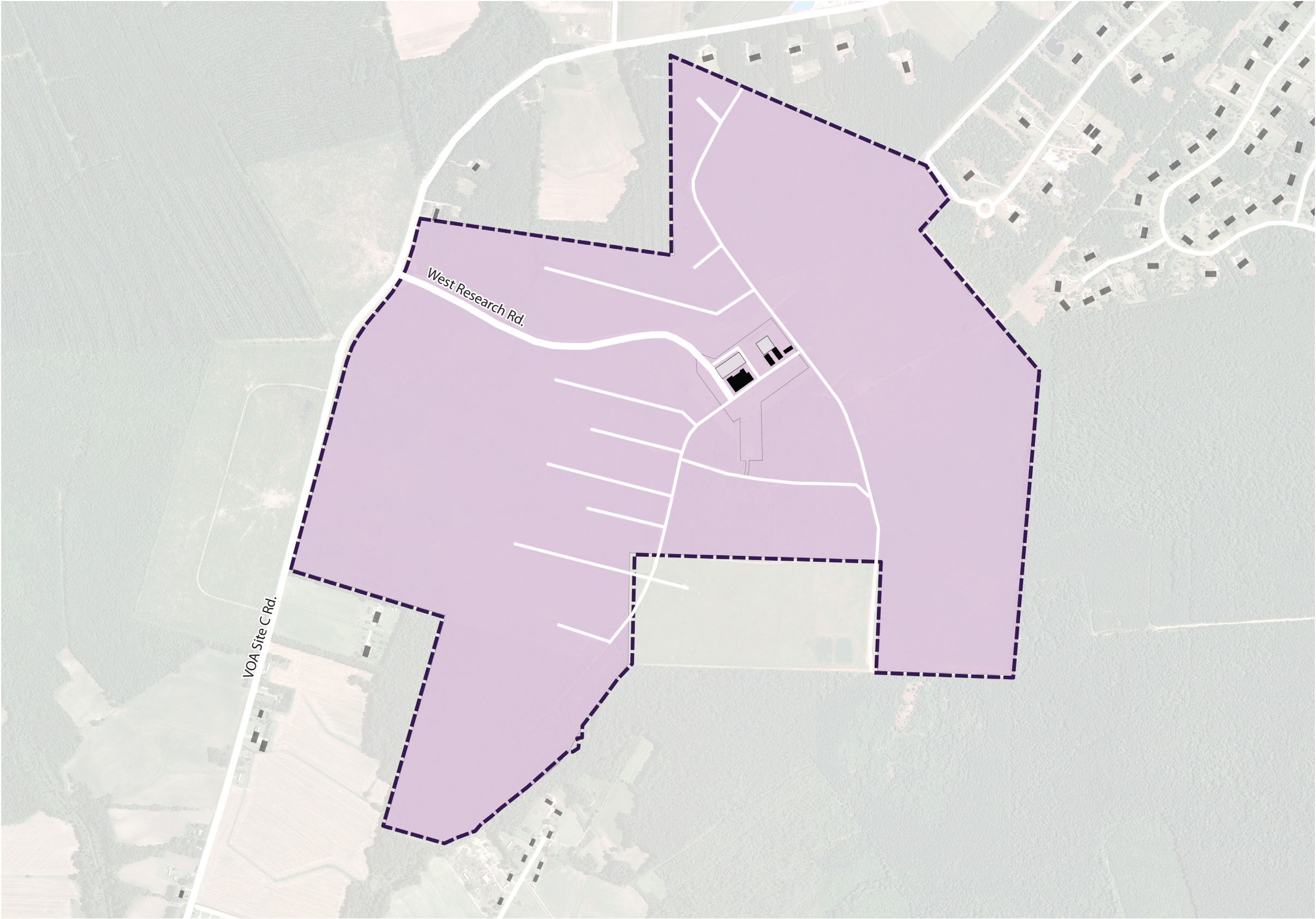
## WEST RESEARCH CAMPUS INVENTORY MAPS





**LEGEND**

- ECU
- ECU BUILDINGS
- NON-CAMPUS BUILDINGS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# SOIL TYPES



## SOIL TYPES

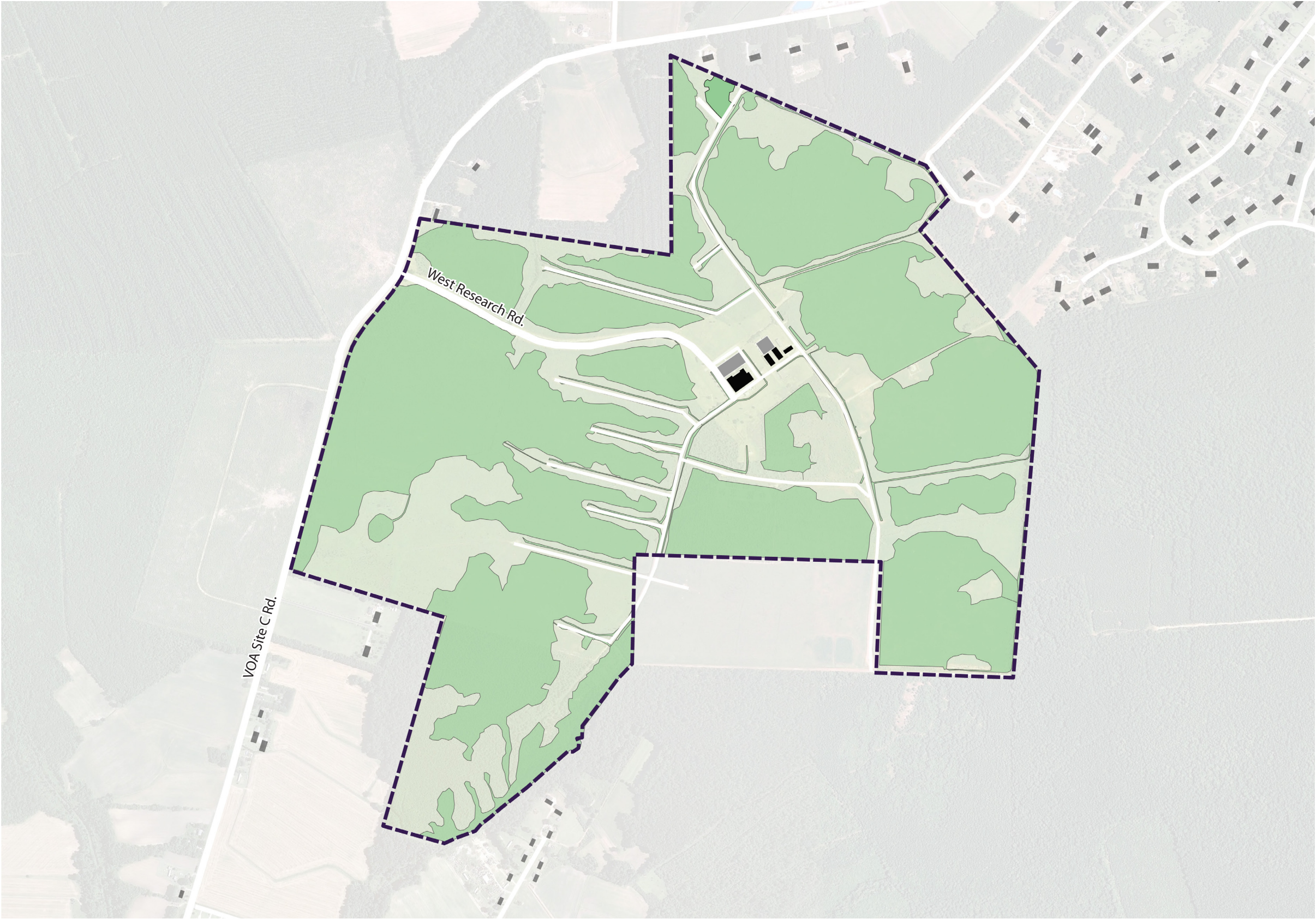
Bb	BIBB COMPLEX
Co	COXVILLE FINE SANDY LOAM
ExA	EXUM FINE SANDY LOAM, 0-1% SLOPE
GoA	GOLDSBORO SANDY LOAM, 0-1% SLOPE
Ly	LYNCHBURG FINE SANDY LOAM
NrA	NORFOLK SANDY LOAM, 0-1% SLOPE
NrB	NORFOLK SANDY LOAM, 1-6% SLOPE
OcB	OCILLA LOAMY FINE SAND, 0-4% SLOPE
Ra	RAINS FINE SANDY LOAM
WaB	WAGRAM LOAMY SAND, 0-6% SLOPE
	LIMITING SOILS

Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



SITE HYDROLOGY

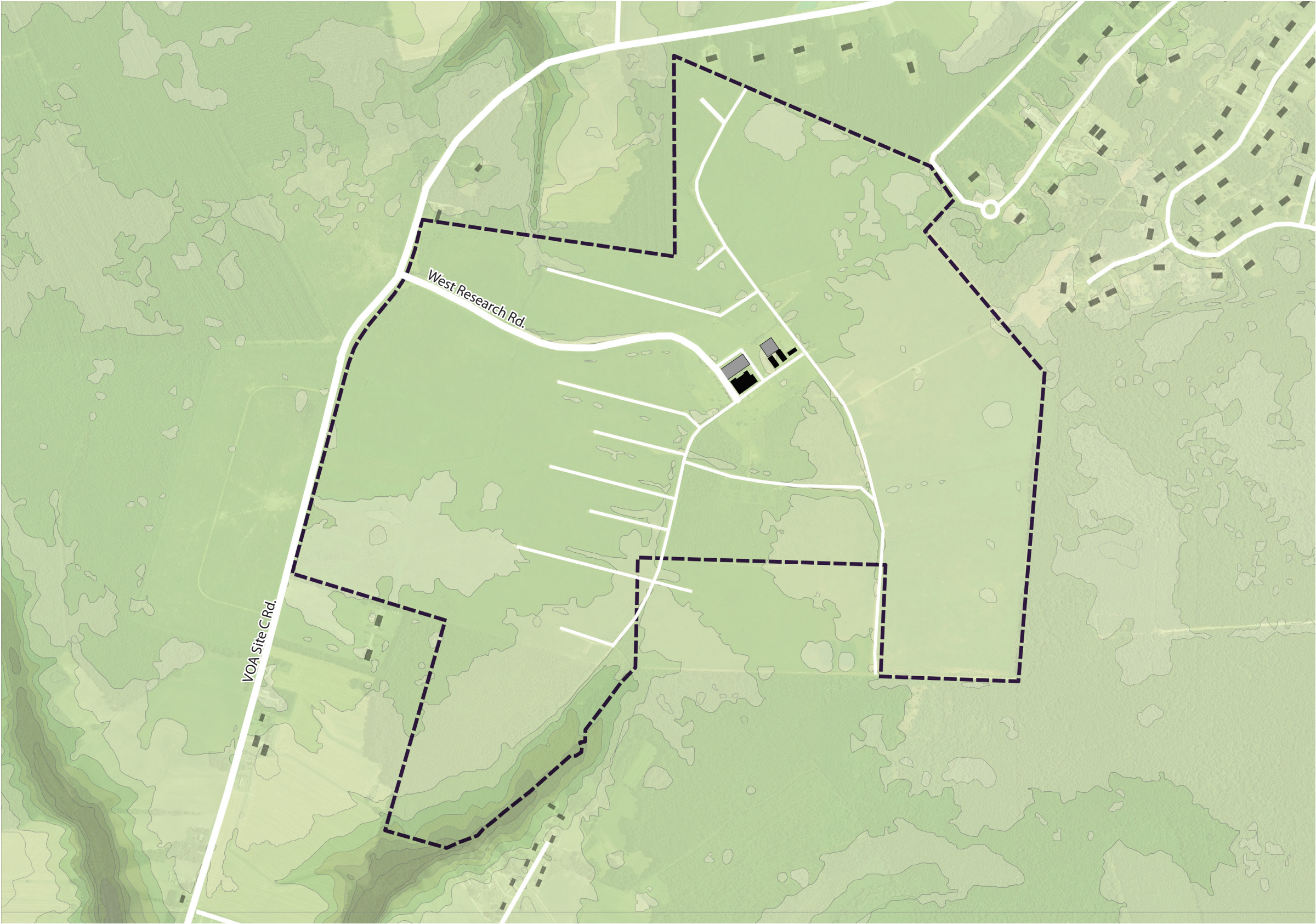
DELINEATED WETLANDS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



TOPOGRAPHY



ELEVATIONS

- <66'
- 66'-70'
- 70'-72'
- 72'-74'
- 74'-76'
- 76'-78'
- 78-80'
- 80'-82'
- >84'
- 2' CONTOUR INTERVAL

Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.



# STREETS AND PARKING

## STREETS AND PARKING

- ECU PARKING LOTS
- CAMPUS STREETS
- OFF CAMPUS STREETS
- CAMPUS



Base map data provided by ECU, the City of Greenville, Pitt County, and the State of North Carolina.





