



THOMAS
&
HUTTON

REZONING APPLICATION

Varn
PLANNED UNIT DEVELOPMENT (PUD)
TOWN OF RIDGEVILLE, SOUTH CAROLINA

Prepared for:
W.H. Varn Jr Trust

J - 29362

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I. GENERAL DESCRIPTION OF THE PLANNED UNIT DEVELOPMENT

The Varn Planned Development District (PUD) is in unincorporated Dorchester County lying between Ridge Road and Givhans Road. Portions of the property are within the Town of Ridgeville limits, the remaining property will be annexed into the Town as part of the PUD rezoning process. The site consists of approximately six hundred and thirty two acres (632 ac.) and includes all or part of parcel number 108-00-00-055 from the Dorchester County Tax Map. The property is currently zoned Agricultural Residential (AR) in Dorchester County. The property is bounded by undeveloped properties. Vehicular access to the property will be via driveways along Ridge Road and Carter Road. An aerial photograph and context map of the property is included as **Exhibit A – Context Map**.

The total property is approximately 632.28 acres consisting of approximately 493.0 acres of uplands and approximately 139.28 acres of wetlands. A Boundary and Wetland Map is attached as **Exhibit B – Boundary and Wetland Map**. The map depicts the property boundary, wetlands, borrow pits, and surrounding land uses.

A. Property Ownership

The Varn PUD is comprised of two tracts of land owned by EUGENE M. VARN & DAVID L. JOHNS as Trustees. The property owners have given written consent for the submittal of the proposed zoning change and annexation into The Town of Ridgeville. See **Exhibit C – Consent Letter**.

B. Intent of The Varn PUD

The proposed project area is designated as a combination of transit oriented development and low density traditional neighborhood on the Dorchester County Comprehensive Plan and Future Land Use Map. The intent of the PUD rezoning is to provide a mixture of uses including a Commercial node along Carter Road in close proximity to downtown Ridgeville consisting of commercial, civic, hospitality, retail, service, and/or restaurant uses to serve the growing population in the vicinity. As the property moves away from the commercial node the proposed land use will fan out to suburban development with a mixture of attached and detached residential units to meet the demand for housing options in the Town of Ridgeville and this area of Dorchester County and ultimately a Town Park along the Northern boundary of the property.

Individual neighborhoods within the residential areas of the PUD will be established based on the natural features of the land including the wetlands and retained green spaces.

Neighborhood Local Streets will include 4-foot sidewalks on both sides of the street and commercial streets will include 5-foot sidewalks on both sides of the street. All Local streets shall be accented with street trees as depicted on **Exhibit D - Street Sections**. Sidewalks installed along existing roadways will maintain a minimum 5-foot width. The Varn PUD shall commit a minimum Open Space acreage equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space.

C. The Conceptual Land Use Master Plan

The Varn PUD is anticipated to be constructed in multiple phases over a period of approximately ten (10) years. Initial development is tentatively believed to begin in 2023 with single-family residential followed by general commercial uses. Development will occur in accordance with the **Conceptual Land Use Master Plan (Exhibit E)** and Section II.A as set forth in this document or as amended in the future. The Conceptual Land Use Master Plan and this text outline the general scope of the development including number of units, maximum commercial use, development standards, open space, and other issues.

The Conceptual Land Use Master Plan shows a maximum 1,400 single-family dwelling units, 120,000 SF of general commercial uses, 3.0-acre Civic Site and a 6.8-acre Town Park.

The Conceptual Land Use Master Plan and the elements of this text seek to establish areas of open space. The open space, ponds, and amenities will be owned and maintained by the developer, homeowner's association, or other legally designated entity. Property deeded to a governmental entity or dedicated to the public becomes the maintenance responsibility of that entity upon proper dedication and acceptance.

The Conceptual Land Use Master Plan and associated PUD text includes amendments and exceptions to the current Town of Ridgeville Land Development Regulations. The provisions of the Conceptual Land Use Master Plan, Exhibits, and Appendices shall apply to the development of the Varn Planned Unit Development. In the event of a conflict, the hierarchy of documents that control development shall be the Development Agreement, the Varn PUD, and the Current regulations that are defined in the Development Agreement.

Preliminary and Final Plats for each phase of the development shall be submitted for review and approval at staff level by the Town of Ridgeville.

II. PROPOSED LAND USES AND INTENSITIES

A. Introduction

The Varn PUD has been divided into six (6) Land Use Areas as indicated on the Conceptual Land Use Master Plan included as **Exhibit E**. The Areas include:

1. Commercial
2. Civic
3. Attached Single Family Residential
4. Detached Single Family Residential (SF-1 and SF-2)
5. Town Park
6. Preserved Wetlands

The Conceptual Land Use Master Plan for Varn PUD shall maintain flexibility to accommodate specific soil conditions, environmental concerns, physical constraints and smart design parameters. Accordingly, the exact location of boundary lines between planning areas, the location and size of land uses indicated within planning areas, and preliminary design concepts for each tract described herein shall be subject to minor changes as phases of the Conceptual Land Use Master Plan area are submitted for detailed development review over the life of the development; provided that the maximum densities, perimeter buffers, minimum open space, character and intent of the development and other conditions of the Varn PUD will be adhered to.

B. Allowed Density and Transfer of Density Between Planning Areas

The Conceptual Land Use Master Plan shows a maximum 1,400 single-family dwelling units, 120,000 SF of general commercial uses, a 3.0-acre Civic Site and a 6.8-acre Town Park.

The PUD Master Plan for the Varn PUD shall allow for the transfer of the undeveloped residential dwelling units from one Tract to another and increasing the receiving district's density provided the following conditions are met:

1. Commercial uses shall only be allowed on the Commercial Tract and Civic Tract.
2. Commercial densities may not be transferred to residential densities.
3. The maximum densities for development included within the Varn PUD shall not be exceeded.

For planning purposes, densities for each area have been estimated. The actual number of dwellings or commercial acreage shall not exceed the maximum allowed total densities for the Varn PUD.

TABLE 1 Density Allocation Table Varn						
Planning Areas and Land Use	Total Acres	Upland Acres	Wetland Acres	Max. DU's	Maximum Civic SF	Maximum Commercial SF
Commercial	12.00	12.00	-	-	-	120,000
Civic	3.00	3.00	-	-	No Max	-
Single Family Detached (SF-1)	337.20	337.20	-	650	-	-
Single Family Detached (SF-2)	68.00	68.00	-	300	-	-
Single Family Attached	66.00	66.00	-	450	-	-
Town Park	6.80	6.80	-	-	-	-
Wetlands	139.28	-	139.28	-	-	-
Total	632.28	493.00	139.28	1,400	No Max	120,000

FOOTNOTES:

- (a) The PUD Master Plan shall allow for the transfer of the undeveloped dwellings from one area to another.
- (b) SF-2 Single Family Detached residential units may be converted to SF-1 Single Family Detached at a ratio of 1:1 (300 DU)
- (c) SF-1 Single Family Detached residential units may **not** be converted to SF-2 Single Family Detached.
- (d) The PUD Master Plan shall allow for the transfer of the single family attached dwelling units to single family detached dwelling units with no limit, but not the reverse. A maximum of 450 single family attached units total shall be allowed.
- (e) The Civic Site shall be excluded from the density limitations in the Varn PUD.

C. Allowed Land Uses

The following land uses as designated for each individual Planning Area shall be permitted in the Varn PUD. The purpose of this portion of the Varn PUD document is to state which land uses shall be allowed within individual Planning Areas, however, allowing these land uses, and densities does not obligate the Property Owner or his successors to develop the uses, densities or facilities stated herein provided the minimum open space standards and Commercial acreage are adhered to. The development standards for each use are outlined.

Land Uses Terms are defined in Section III below.

Commercial Area

The following uses as defined herein:

- a. Restaurants
- b. Retail
- c. Other uses as provided in the Town of Ridgeville Neighborhood Commercial (NC) zoning district, excluding Multi-Family
- d. Civic
- e. Community Recreation
- f. Model Home/Modular Sales Center
- g. Breweries and Distilleries

Civic Area

The following uses as defined herein:

- a. Government Offices
- b. Fire Station/EMS
- c. Educational uses
- d. Public uses
- e. Parks and recreation
- f. Community assembly
- g. Community services
- h. Social services

Single Family Attached and Single Family Detached Residential Areas

The following uses as defined herein:

- a. Community Recreation
- b. Model Home/Modular Sales Center
- f. Open Space
- g. Single Family Attached and Detached Dwelling Units
- h. Active Adult Communities
- i. Build to Rent Homes, not to exceed 25% of the overall allowed density.
- j. Churches and Uses customarily incidental to the operation of a church including, but not limited to, recreation facilities and buildings, educational buildings, parsonage facilities and parking areas.
- k. Cottage Homes, not to exceed 20% of the overall allowable single family detached density.

Town Park

The following uses as defined herein:

- a. Community Recreation
- b. Open Space

Wetlands

The following uses as defined herein:

- a. Community Recreation as allowed by ACOE wetland permit
- b. Forestry Management as allowed by ACOE Wetland Permit
- c. Open Space

III DEFFINITIONS OF LAND USE TERMS

In the absence of a term definition in the Varn PUD, the definitions included in the Current Regulations as defined in the Development Agreement shall apply.

A. Community Recreation

This designation allows for the recreational amenities to serve the Varn PUD. Land uses may consist of private indoor and outdoor lighted and unlighted recreation facilities, establishments and services which include active and passive sports, and entertainment facilities. Permitted uses include:

- a. Outdoor recreational facilities may include:
 - 1) Swimming pools, pool bath houses and gazebos/pavilions
 - 2) Playgrounds
 - 3) Neighborhood parks
 - 4) Community parks
 - 5) Leisure trails and bike trails 6-foot min. width*
 - 6) Amphitheater
 - 7) Other recreational uses

*Surface material of trails may vary between pervious and impervious to better compliment the environment and location of the trail.
- b. Swim Club with pavilion
- c. Accessory Structures
- d. Community offices/administration buildings
- e. Cultural and Arts Centers – Establishments providing for the mental development and enlightenment of the individual and the development of the display and the performing arts, including museums, libraries, art galleries when non-profit and rehearsal and administrative activities associated with orchestral, choral, opera, ballet, dance, theatrical and other performing arts, but not including theaters or other structures and their associated activities when operated as commercial establishments. Establishments providing instruction in music, dance, crafts and art.

B. Dwellings

a. *Single family Attached or Detached includes:*

- Detached dwelling other than a mobile home designed for or occupied exclusively by one family.
- Townhouse, one of a series of attached one-family dwelling units which:
 - May or may not have a common roof;
 - Share at least one common wall;
 - Primarily sold as individual lots of record.

C. Civic

Civic areas shall allow uses that relate to duties and activities of the people in relation to their town, city or local area. Civic uses may include:

- Government Offices
- Fire Station/EMS
- Educational uses
- Public uses
- Parks and recreation
- Community assembly
- Community services
- Social services
- Library
- Community Gardens

D. Neighborhood Commercial

Commercial uses in the Varn PUD shall include the allowed uses in Town of Ridgeville Neighborhood Commercial (NC) zoning district except for the following uses that shall not be allowed:

- Junkyards or salvage yards
- Video Poker Parlors
- Sexually oriented businesses
- Multi-Family
- Mobile Homes
- Businesses providing deferred presentment services, check cashing services, high-cost home loans, short-term vehicle secured loans, supervised loans, and restricted loans, as such terms are defined by S.C. Code Ann. §§ 34-39-120(3); 34-41-10(3)-(4); 37-23-20(9); 37-3-413(1); 37-3-501(1); and 37-3-501(3), respectively

E. Active Adult Community

Active Adult Community refers to either an age-targeted or an Age-restricted community designed for people aged 55 or older (sometimes 50 or older). AAC's typically contain recreational facilities promoting active and healthy lifestyles. AAC's shall be allowed to be access restricted (gated) for residents only. If community is gated the streets will remain private and be maintained by the POA/HOA, not the Town of Ridgeville.

F. Model Home/Modular Sales Center

This designation allows for the model homes and office/administrative facilities associated with the primary sale of residential lots and homes. The facility(s) may be permanent in nature with the model homes or sales office being sold as dwelling in the future or a temporary mobile building that may relocate from time to time during the period of development to meet the needs of development phasing.

G. Open Space

Total open space for the Varn PUD shall be calculated for the boundary of the Property and not on a site-specific basis. Open Spaces shall not be confined to one area but shall be blended throughout the development. The minimum Open Space acreage provided shall be equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space. Refer to Section III Definitions of Land Use Terms for allowed open space uses.

Open space shall consist of:

- a. Wetland Buffers (Passive use)
- b. Parks, active and passive (to include the Town Park donation)
- c. Amenity centers
- d. Stormwater Ponds (water surface can only be included toward open space requirement if it is greater than 5 acres and has accessibility to on-water activities)
- e. Utility Corridors that include sports fields or trails
- f. Trails and paths*
- g. Natural areas
- h. Landscape areas

Usable Open Space shall consist of:

- a. Parks, active and passive (to include the Town Park donation)
- b. Amenity centers
- c. Trails and paths (Calculated as a 25-foot wide corridor)*
- d. Utility Corridors that include sports fields or trails
- e. Community gardens
- f. Playgrounds
- g. Dog parks
- h. Sports fields

- i. Stormwater Ponds greater than 5 acres with accessibility to on-water activities
- j. Other recreational uses

*Sidewalks along existing or proposed roads will not be considered as a corridor and will not count towards required open space

H. **Setbacks and Buffers**

Setbacks and buffers shall meet the minimum requirement established herein. Buffers shall apply to the perimeter of the Property and between Residential and Commercial uses only; provided, however, that any required wetlands buffers shall apply according to law throughout the Property.

Wetland buffers shall allow selective clearing and tree pruning as allowed by the South Carolina Department of Health and Environmental Control, The Army Corps of Engineers and the Town of Ridgeville Tree Protection Ordinance, unless otherwise noted herein.

Perimeter setbacks and buffers are indicated on the **Conceptual Land Use Master Plan (Exhibit E)**: Perimeter buffers shall be left as natural as feasible.

Allowed uses within perimeter setback and buffer zones shall include:

- a. Selective clearing and tree pruning
- b. Landscape Development as needed to supplement buffer
- c. Earth berming as needed to supplement buffer
- d. Bike/leisure trails/sidewalks
- e. Utility crossings
- f. Road crossings
- g. Signage and entry monuments.

Where the rear yard of any home is adjacent to the right-of-way of a Collector Street as defined in **Exhibit D – Road Sections**, a 20' planted buffer shall be provided. The required buffer will meet the minimum planting requirements of Section 4.4.5.F of the Town of Ridgeville Zoning Ordinance and may include any of the alternatives listed.

I. **Single-Family**

Consists of Singly-Family Detached and Attached dwellings (Townhomes) as more specifically defined in section III.B Dwellings above.

J. **Neighborhood**

Section of the Varn property that is a grouping of like uses with distinguishing characteristics such as individual entry monumentation, unique architecture, amenities, etc. Neighborhoods may also be designated by geographical constraints, such as wetlands or existing waterbodies.

IV. DEVELOPMENT CRITERIA

The Following development criteria shall apply to the Commercial, Civic, and Attached and Detached Single Family Residential Areas of the PUD

**TABLE 2
Development Criteria
Varn**

Lot Type	Min. Lot Size	Min. Lot Width	Min. Front Yd. Setback (ft.)	Min. Side Yd. Setback (ft.)	Min. Rear Yd. Setback (ft.)	Accessory Structure Setback		Max. Impervious Coverage (%)	Max. ht (ft.)
						Side	Rear		
Single Family Detached Dwelling (SF-1 / SF-2)	5,000 SF	50	20 (a)(c)(d)	5(c)	10(c)	5(c)	5(c)	65	35(e)
Single Family Detached Cottage Homes (f)(g)(h)	2,380 SF	28	10 (c)	5(c)	10(c)	5(c)	5(c)	65	35(e)
Townhouse	N/A	16	20 (a)(c)(d)	5 (b)(c)	10(c)	5(c)	5(c)	75	40(e)
Commercial	N/A	50	0	10 (b)(c)	10(c)	5(c)	5(c)	75	N/A

FOOTNOTES:

- (a) A minimum front yard setback of 10 feet is allowed when parking is provided at the rear of fee simple single family detached homes and townhouses.
- (b) Zero setback if buildings are adjoining.
- (c) Steps, eaves and chimneys may encroach into setback areas but not into easements. In any case, local building code will supersede footnote c.
- (d) Front porch setback shall be a minimum of 15 feet provided the garage is setback a minimum of 25 feet from the public right-of-way(SF-1) or a minimum of 20 feet from the public right-of-way (SF-2).
- (e) Building heights are measured to the eve of structure.
- (f) Single Family Detached Cottage Homes shall not exceed 20% of the overall allowable single family detached density.
- (g) Parking for Single Family Detached Cottage Homes shall be provided in the rear of the lot.
- (h) Single Family Detached Cottage Homes do not require Street frontage. They may be subdivided off of Alley Right of Ways as long as the home fronts open space, parks, ponds and other such spaces.

GENERAL NOTES

1. Minimum distance between buildings shall be determined based on Fire Code requirements at the time the building permit application is submitted.
2. Setbacks are measured to the face of proposed structures.
3. Accessory structures are permitted in the rear and side yards only with indicated minimum setbacks from the side and rear property lines.
4. Accessory Dwelling Units (ADU's/garage apartments) shall be allowed and will not count as a dwelling unit; however they cannot exceed 850 square feet of conditioned floor area.
5. Corner lots shall comply with development criteria listed in this chart and be considered to have one front, two sides and a rear.
6. Parking in the rear of a residential lot shall be accessed from the front street or by an alley with a minimum 20 foot right of way. Required parking shall be contained within the residential lot.

V. OPEN SPACE

Total open space for the Varn PUD shall be calculated for the boundary of the Property and not on a site-specific basis. Open Spaces shall not be confined to one area but shall be blended throughout the development. The minimum Open Space acreage provided shall be equal to 20% of the total upland acreage. Not less than 25% of the minimum acreage of Open Space shall be Usable Open Space. The acreage of land donated to the Town for a park shall be considered useable open space. Refer to Section III Definitions of Land Use Terms for allowed open space uses.

VI. STORM WATER MANAGEMENT

The Property Owner or his successors will prepare a storm water management plan for each phase of the Varn project in accordance with the current stormwater management standards of Dorchester County. The plan will address site hydrological characteristics, predevelopment conditions, post development runoff, and storm water management facilities for flood control and treatment. The storm water management plan will consider future construction, and it will detail the ability of the drainage system to treat runoff and control release rates during storm events as required. A preliminary Drainage Map is included as **Exhibit F - Preliminary Drainage Map**.

VII. WETLANDS

Freshwater wetlands on the property have been delineated by Passarella & Associated. An Approved Jurisdictional Determination (AJD) has been issued by the US Army Corps of Engineers, dated December 16, 2021. A copy of the AJD is included as **Exhibit H – Jurisdictional Determination**.

VIII. WATER AND SEWER SERVICE/UTILITY SERVICES/STREET LIGHTS

Water and Sewer service shall be provided to development within the Property. A coordination letter from Dorchester County Water and Sewer is provided in **Exhibit G – Coordination Letters**.

Developers within the Property shall provide electrical utility services. All new permanent power lines shall be installed underground. Coordination letter from Dominion Energy is included in **Exhibit G – Coordination Letters**.

Developers within the property shall coordinate the placement of proposed street lights with the street tree planting required in, X. TREE PROTECTION below to avoid conflict between the two streetscape elements.

IX. SITE ACCESS, PARKING AND TRAFFIC

Access to the Property currently exists off Ridge and Carter Roads. Uses within the property shall be interconnected by private streets, as site and environmental conditions allow, except for Active Adult and Continuing Care Retirement Communities which may be gated but shall include emergency vehicle access to adjacent neighborhoods. Interconnectivity within the proposed subdivision between neighborhood areas is encouraged where feasible and when no wetland impacts are required. Roads shall be designed in accordance with the current land development standards of Dorchester County. Traffic calming measures shall be considered for continuous street sections over 1,000 linear feet with approval of the Town Zoning Administrator. Traffic calming measures can include but are not limited to traffic circles, roundabouts, curb extensions, chicanes, splitter islands, and designated on-street parking. Street sections are included as **Exhibit D – Street Sections**.

Single family residential parking requirements for the Varn PUD shall be subject to Section 4.3 Traditional Neighborhood Residential District (TNR) of the Current Town of Ridgeville Land Development Regulations. All other uses shall be subject to section 4.4 Neighborhood Commercial District (NC) of the Current Town of Ridgeville Land Development Regulations.

HDR has worked directly with Dorchester County and the Town of Ridgeville to complete a preliminary traffic impact assessment for the region. A copy of the final traffic impact assessment will be included upon completion herein as **Exhibit J**. The Varn PUD shall be responsible for site-specific improvements as identified in the traffic impact assessment for the Project and the conditions of the Varn Development Agreement for Traffic Considerations. The Varn PUD shall also cooperate with the Town, Dorchester County, and the South Carolina Department of Transportation to plan for and implement off-site improvements, including the preservation of rights-of-way on major roads.

X. TREE PROTECTION

The protection and preservation of existing trees, as well as repopulating and planting new trees, is a critical part of the Varn PUD. This section sets forth standards for the preservation of existing trees, mitigation for tree removal and conditions for mass clearing and grading.

The Varn PUD shall be subject to the requirements of the Current Town of Ridgeville Land Development Regulations with the following additions/exceptions.

A. Tree Survey Requirements

- Grand trees 24 inches diameter at breast height shall be surveyed, excluding Pines, Sweet Gum, Chinese Tallow, Bradford Pear and any other invasive species as identified by the State of South Carolina. Trees shall be graded by a certified arborist based on quality and health of the tree.
- Grand Tree survey will be completed with each phase of development prior to submittal of construction documents for land disturbance.

B. Tree Removal

Mass grading and removal of trees is allowed for residential construction if the following conditions are met:

- Where clearing and grading the lots to final design elevations is required to positively drain the roads and lots or the final pad elevations of the proposed lots will exceed 24 inches of elevation change from existing grades.
- There shall be 2 Canopy trees per single-family home and/or 1 tree per 2 townhome units planted in a location approved by the Zoning Administrator. Street trees located in front of home/unit shall count towards required tree count.
- Trees shall be planted at least 10' from any structure including drainage structures.
- Clearing associated with Stormwater Management and Erosion Control and Maintenance shall be exempt from any mass clearing restrictions.

C. Tree Mitigation

- Every effort should be made to design around Grand Trees that are graded A or B by a certified arborist. If this is not feasible, they shall be mitigated at 100%.
- Existing 6" trees preserved on site may be used to count towards mitigation.
- Mitigation can be determined utilizing a ¼ acre sample area of existing 6" diameter breast height trees or greater in lieu of a tree survey.
- Street trees shall be allowed to meet tree mitigation requirements regardless of proximity to removed tree.

D. Exemptions

The following shall be exempt from the tree protection and mitigation provisions herein:

- *Timber Harvesting*: Timber harvesting and forestry operations meeting the requirements of South Carolina Code Subsection 48-23-205(B).
- *Commercial tree farms and nurseries*: Raising trees for sale and transplanting of such trees
- *Infrastructure*: Clearing of road and utility right-of ways and easements, installation of utilities and maintenance of said right-of-way and easements.

XI. LANDSCAPE REGULATIONS

The Varn PUD shall comply with the landscape requirements included in the current Town of Ridgeville Land Development Regulations unless otherwise stated in the PUD document.

Street trees shall be planted in regular patterns of approximately 50' to 60' on-center. If the street trees are planted in a landscape planter strip between the back of curb and the sidewalk the planter strip shall be a minimum of six (6) feet wide. Street trees shall be allowed to meet tree mitigation requirements.

Street Trees shall be a minimum of 2" caliper and of a variety from the following approved street tree list or as approved by the Town Zoning Administrator:

- Quercus lyrata 'Highbeam' Highbeam Overcup Oak
- Quercus nuttallii 'Highpoint' Highpoint Nuttall Oak
- Quercus phellos 'Hightower' Hightower Willow Oak
- Quercus virginiana 'highrise' Highrise Live Oak
- Ulmus parvifolia 'Emerll' Allee Allee Elem

Street tree planting shall be coordinated with the placement of proposed street lights with the street tree planting required to avoid conflict between the two streetscape elements.

XII. SIGNAGE REGULATIONS

Signage for the Varn PUD shall follow the requirements of Section 4.4.6 Signage of the Town of Ridgeville Land Development Regulations.

XIII. STREET LIGHTING

The streets within the Varn PUD shall include street lights. Street lights shall be selected from the standard fixtures offered by Dominion Energy. Light pole spacing shall be based on the photometric design standards recommended by Dominion Energy. Final light pole locations shall be coordinated with the street tree plantings to avoid conflict.

XIV. RESIDENTIAL ARCHITECTURAL STANDARDS

SF-1 Single Family residential homes shall comply with the following standards:

1. Building pads will be designed to create positive drainage away from future homes. Pads will be designed to a minimum 18" above the back of curb of the fronting public road right-of-way or as otherwise approved by the reviewing authority.
2. Garages may be detached or attached to the main dwelling, with or without habitable room above. The front wall of the garage shall be on the same plain as the rest of the house placed behind the front façade of the dwelling or constitute less than thirty percent (30%) of the front façade of the building.
3. Stoops are required on the front façade of the homes. Front porches shall be encouraged, but not required. When incorporating a front porch, it shall be a minimum 6' in depth. Front porches may be set back a minimum of 15 feet from the front property line provided the garage is setback a minimum of 25 feet.
4. At least two (2) windows shall be incorporated to each side of the house
5. Minimal repetition of front facades – matching front facades shall not be repeated adjacent, across the street or diagonal to one another.
6. Exterior siding material may include:
 - Hardiboard or equal
 - Brick
 - Stucco
 - Vinyl
 - Manufactured Stone

Vinyl siding shall meet the following minimum standards:

- Panels shall be at least 0.04 inches thick.
- Soffit panels shall be at least 0.05 inches thick.
- Siding shall contain anti-weathering protection.
- Siding product shall have a minimum 50-year warranty from the manufacturer.
- Vinyl shakes, beadboard and water tables are encouraged, but not required to achieve variety.

Vinyl specifications shall be submitted for review and approval to the Residential design review board of the Property Owner's Association.

7. Band Boards at each foundation shall be required and shall be of greater thickness than the siding such that no edge of the siding will project beyond the face of the band board where they meet. Band board shall be a 6" minimum width with a 1" trim cap.

SF-2 Single Family residential homes shall comply with the following standards:

1. Building pads will be designed to create positive drainage away from future homes. Pads will be designed to a minimum 18" above the back of curb of the fronting public road right-of-way or as otherwise approved by the reviewing authority.
2. Garages may be detached or attached to the main dwelling, with or without habitable room above. The front wall of the garage may be placed forward of the front façade of the dwelling.
3. Stoops are required on the front façade of the homes. Front porches shall be encouraged, but not required. When incorporating a front porch, it shall be a minimum 6' in depth. Front porches may be set back a minimum of 15 feet from the front property line provided the garage is setback a minimum of 20 feet.
4. At least two (2) windows shall be incorporated to each side of the house
5. Minimal repetition of front facades – matching front facades shall not be repeated adjacent, across the street or diagonal to one another.
6. Exterior siding material may include:
 - Hardboard or equal
 - Brick
 - Stucco
 - Vinyl
 - Manufactured Stone

Vinyl siding shall meet the following minimum standards:

- Panels shall be at least 0.04 inches thick.
- Soffit panels shall be at least 0.05 inches thick.
- Siding shall contain anti-weathering protection.
- Siding product shall have a minimum 50-year warranty from the manufacturer.
- Vinyl shakes, beadboard and water tables are encouraged, but not required to achieve variety.

Vinyl specifications shall be submitted for review and approval to the Residential design review board of the Property Owner's Association.

7. Band Boards at each foundation shall be required and shall be of greater thickness than the siding such that no edge of the siding will project beyond the face of the band board where they meet. Band board shall be a 6" minimum width with a 1" trim cap.

XV. PROPERTY OWNERS ASSOCIATIONS

Prior to the sale of any property, a Master Property Owners Association (MPOA) shall be established. Membership in the MPOA will be mandatory for any property owner. There may be individual Property Owner Associations (POA's) established for each parcel or group of parcels which will incorporate its own common areas and be managed by each POA and governed by the MPOA. The MPOA may be funded by dues to be established in its recorded restrictive covenants. The MPOA's responsibility will be to manage the affairs of the MPOA including the enforcement of the restrictive covenants and the maintenance of common areas. Common areas will include passive park space, landscape areas and stormwater detention facilities.

XVI. DESIGN REVIEW PROCESS**A. Residential Development**

Design review for residential dwellings shall be the Property Owner's Association and based on the design guidelines included in Section XIV.

B. Commercial/Civic Development

Prior to developing any commercial parcel, Design Guidelines addressing the following shall be prepared:

- Architectural Standards
- Site Development Standards
- Parking Requirements (Shared parking provisions to be included)
- Buffer requirements
- Tree protection requirements
- Landscaping
- Signage requirements
- Exterior lighting

These guidelines (Varn PUD Commercial Design Review Guidelines) will be submitted for review and approval by the Town of Ridgeville staff and with the consultation of the Design Review Board. The Varn PUD Commercial Design Review Guidelines will also detail the formation and responsibilities of a Varn PUD Commercial Design Review Board which may be established by the MPOA. All new developments or major alterations to existing structures, including accessory structures, other than single family detach or attached residential, shall be reviewed by the Varn PUD Commercial Design Review Board for conformance to the Design Review Guidelines prior to submittal to the Town of Ridgeville for building or other permits. No submittals to the Design Review Board will be required. Until such time that the Varn PUD Commercial Design Review Guidelines are approved by the Town, the Dorchester County Cooks Crossroads Design Standards, dated August 2018, shall govern commercial design standards within Varn Tract.

XVII. DEVELOPMENT SCHEDULE

Development schedule is provided in **Exhibit I – Development Schedule**.



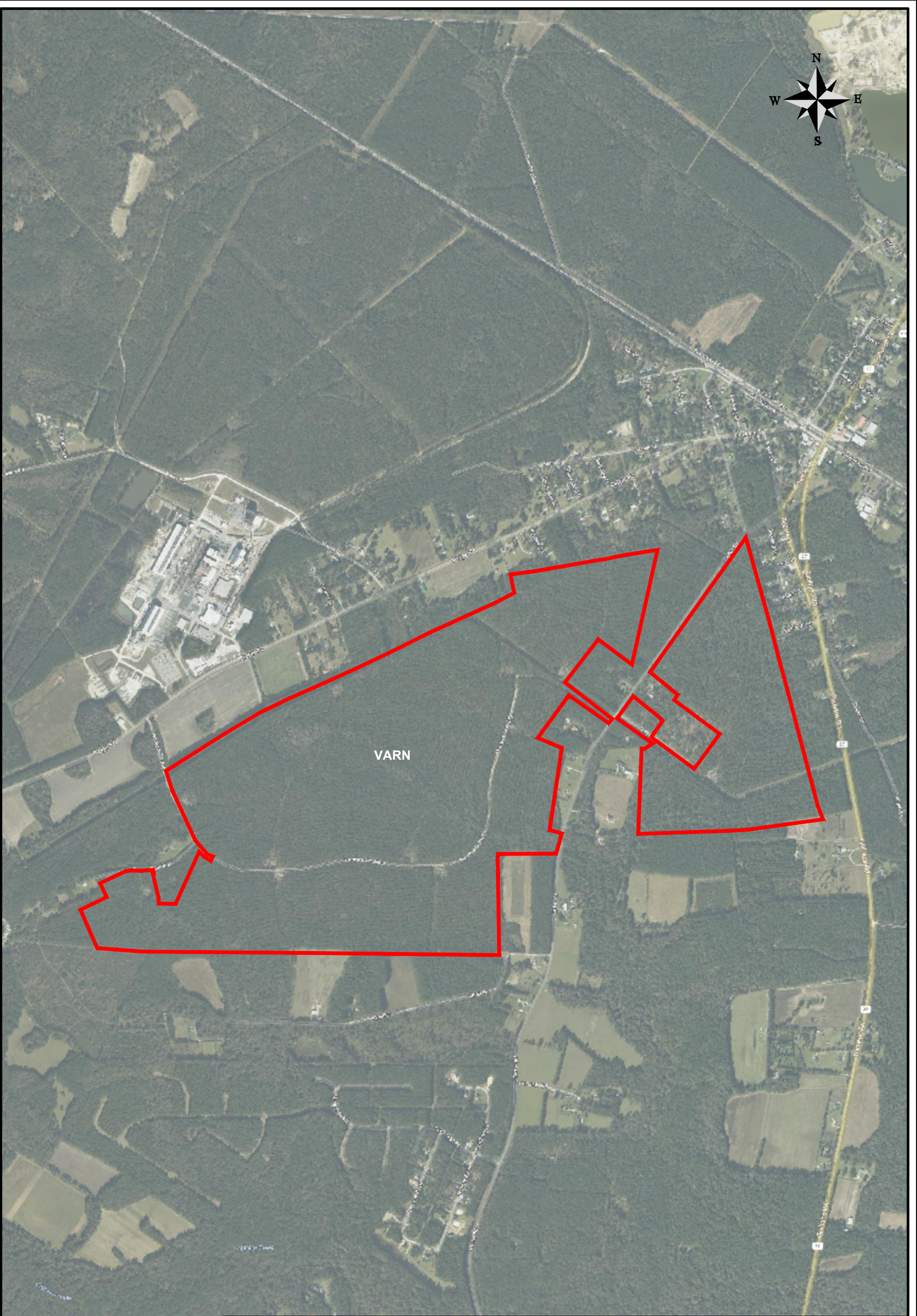
REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT A Context Map

J – 29362

December 2022



VARN-PUD
EXHIBIT A
EXHIBIT A - CONTEXT MAP
CLIENT:
NVR
LOCATION: TOWN OF RIDGEVILLE, SOUTH CAROLINA
DATE: DRAWN BY: CM SHEET:
JOB NUMBER: 29362.0000 REVIEWED BY: CM SCALE: 1" = 1250'



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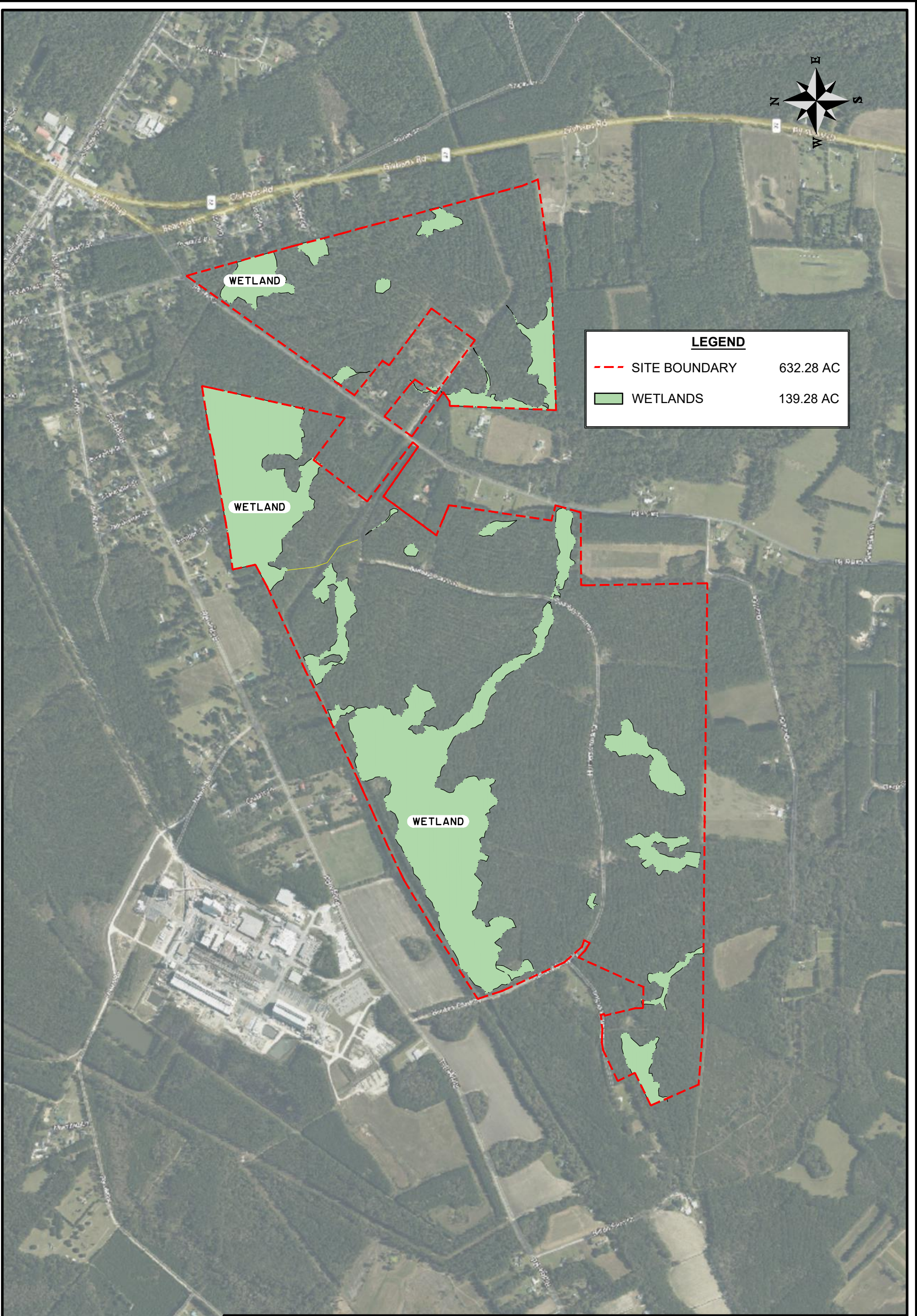
REZONING APPLICATION



VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT B **Boundary and Wetland Map**

J – 29362

December 2022



LEGEND	
	SITE BOUNDARY 632.28 AC
	WETLANDS 139.28 AC

VARN-PUD
 EXHIBIT B
 EXHIBIT B - WETLAND MAP
 CLIENT:
 NVR
 LOCATION: TOWN OF RIDGEVILLE, SOUTH CAROLINA
 DATE: _____ DRAWN BY: LD SHEET:
 JOB NUMBER: 29362.0000 REVIEWED BY: JH SCALE: 1" = 1000'

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VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT C Consent Letter

J – 29362

December 2022

May 5, 2022

Mayor Clarence Hughes
Town of Ridgeville
105 School Street
Ridgeville, SC 29472

RE: Varn Planned Unit Development; TMS No. 108-00-00-055

Dear Mr. Hughes:

Please be advised that representatives of NVR, Inc. are authorized to represent myself, owner of the above referenced property, with regards to annexation, re-zoning and development agreement associated with the property.

If you have any questions, please do not hesitate to contact me.

Sincerely,

W.H. Varn, Jr. Trust


David L. Johns, Trustee


Eugene M. Varn, Trustee



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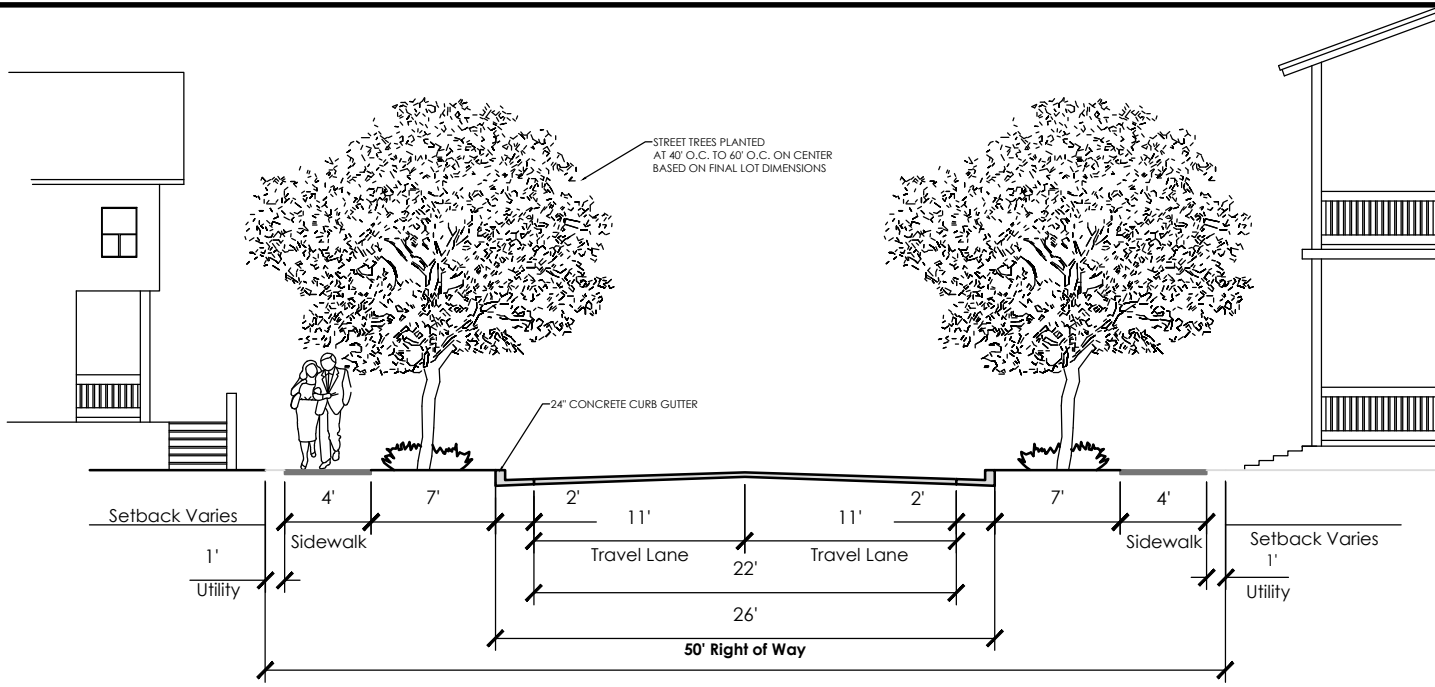
REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

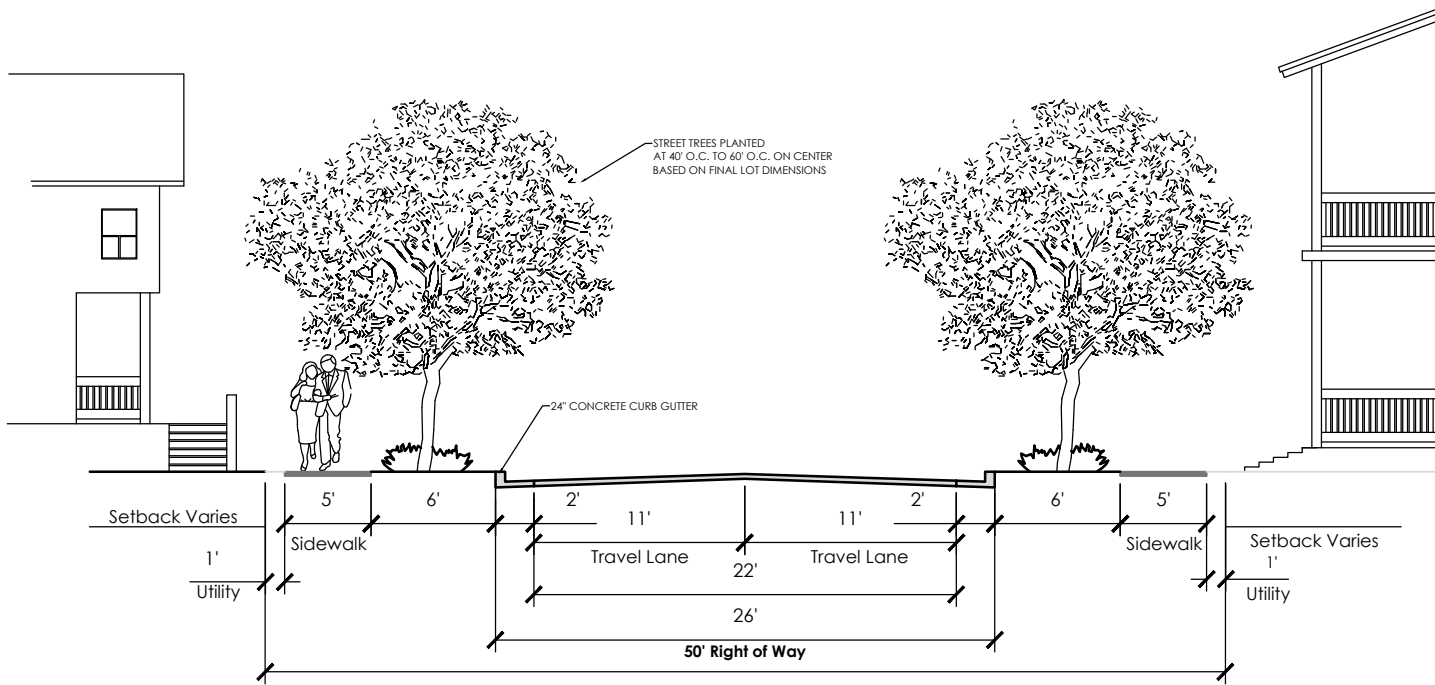
EXHIBIT D **Street Sections**

J – 29362

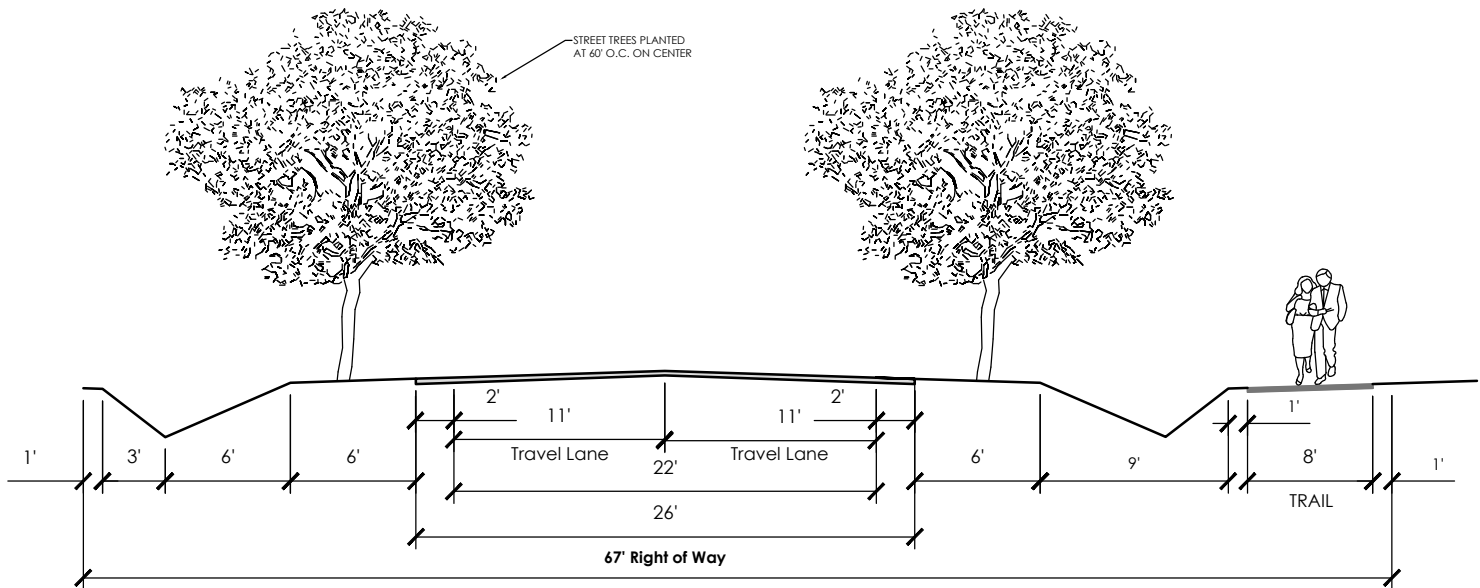
December 2022



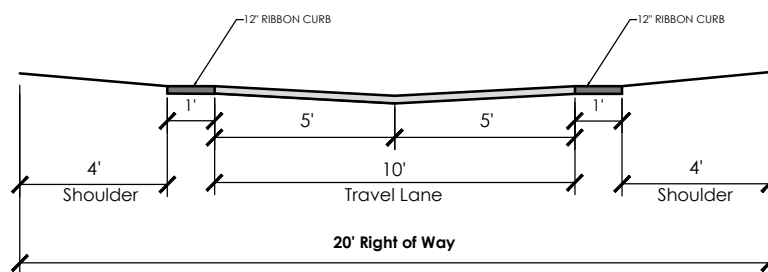
LOCAL STREET - NEIGHBORHOOD - 50' RIGHT OF WAY



LOCAL STREET - COMMERCIAL - 50' RIGHT OF WAY



COLLECTOR STREET - 67' RIGHT OF WAY



ONE WAY ALLEY - 20' RIGHT OF WAY

VARN-PLANNED UNIT DEVELOPMENT

EXHIBIT D
ROAD SECTIONS

CLIENT:

NVR

LOCATION: TOWN OF RIDGEVILLE, SOUTH CAROLINA

DATE:

DRAWN BY: CFM

SHEET: EXHIBIT D

JOB NUMBER: 29362.0000

REVIEWED BY: CFM

SCALE: N.T.S.



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VARN
PLANNED UNIT DEVELOPMENT (PUD)

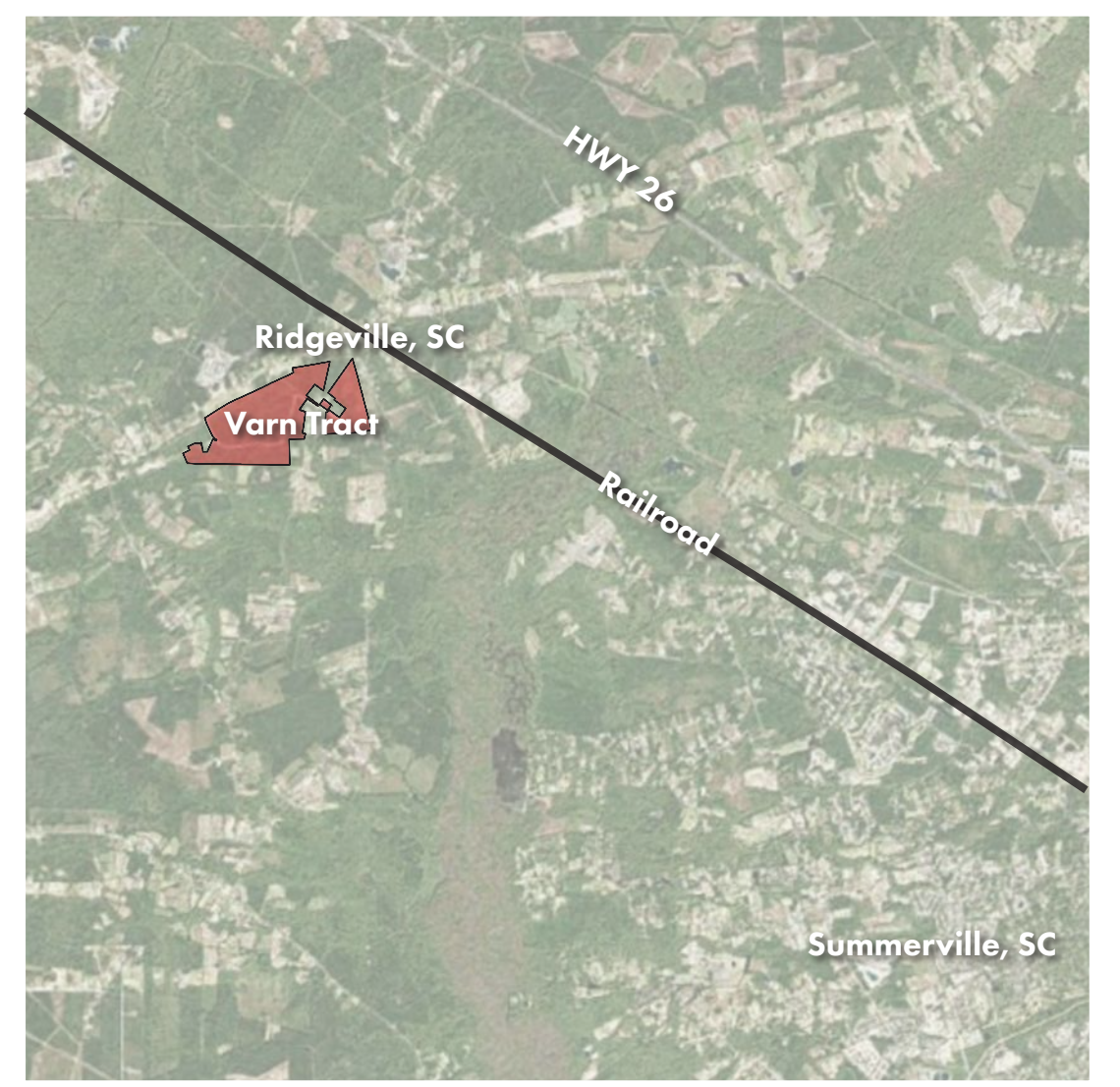
EXHIBIT E **Conceptual Land Use Master Plan**

J – 29362

December 2022

LEGEND

- SINGLE FAMILY DETACHED - SF-1
- SINGLE FAMILY DETACHED - SF-2
- SINGLE FAMILY ATTACHED
- COMMUNITY RECREATION
- NEIGHBORHOOD COMMERCIAL CENTER
- CIVIC
- WETLAND BUFFER
- WETLAND
- PRIMARY TRAFFIC CIRCULATION
- PERIMETER & ROAD BUFFERS
- UPLAND PRESERVE AND BUFFERS



THE LAND USE LIMITS INDICATED ON THE CONCEPTUAL LAND USE MASTER PLAN ARE NOT INTENDED TO BE RIDGED, EXACT, BOUNDING LINES FOR FUTURE IMPROVEMENT

THE "CONCEPTUAL LAND USE MASTER PLAN" FOR THE VARN TRACT PUD SHALL MAINTAIN FLEXIBILITY TO ACCOMMODATE SPECIFIC SOIL CONDITIONS, ENVIRONMENTAL CONCERNS, PHYSICAL CONSTRAINTS, MARKET CONDITIONS, AND DESIGN PARAMETERS. ACCORDINGLY, THE EXACT LOCATION OF THE ELEMENTS OF THE CONCEPTUAL LAND USE MASTER PLAN AND PRELIMINARY DESIGN CONCEPTS DESCRIBED HEREIN SHALL BE SUBJECT TO CHANGE AS PHASES OF THE "CONCEPTUAL LAND USE MASTER PLAN" AREA ARE SUBMITTED FOR DETAILED DEVELOPMENT REVIEW OVER THE LIFE OF THE DEVELOPMENT; PROVIDED THAT THE MAXIMUM DENSITIES, PERIMETER BUFFERS, MINIMUM OPEN SPACE, AND OTHER CONDITIONS OF THE VARN TRACT PUD WILL BE ADHERED TO.

THE "CONCEPTUAL LAND USE MASTER PLAN" FOR THE VARN TRACT PUD TEXT INCLUDES AMENDMENTS AND EXCEPTIONS TO THE CURRENT TOWN OF RIDGEVILLE ORDINANCES. THE PROVISIONS OF THE "CONCEPTUAL LAND USE MASTER PLAN", EXHIBITS, AND APPENDICES SHALL APPLY TO THE DEVELOPMENT OF THE VARN TRACT PUD.



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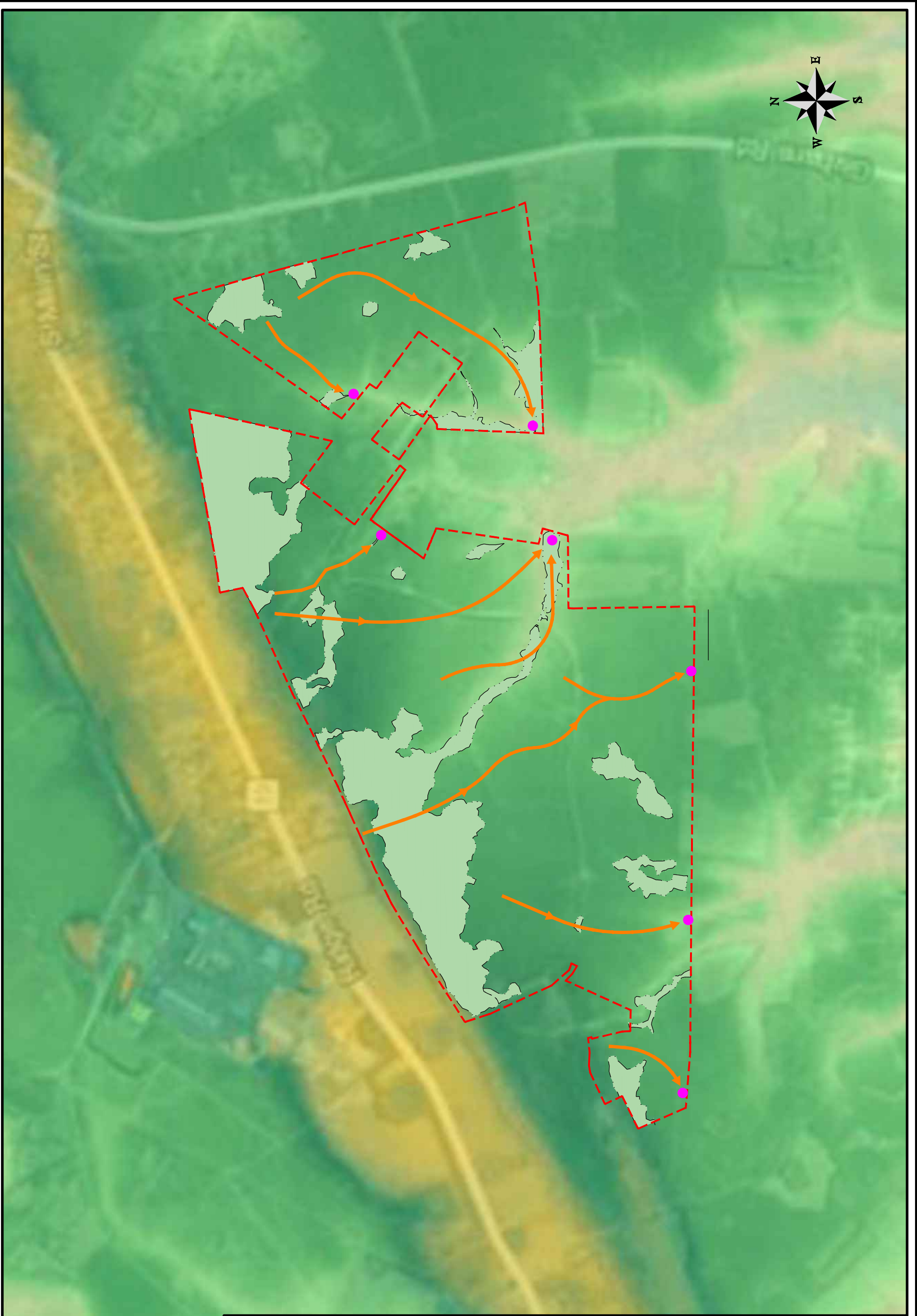
REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT F **Preliminary Drainage Map**

J – 29362

December 2022



VARN-PUD
EXHIBIT F
EXHIBIT F - PRELIMINARY DRAINAGE MAP
CLIENT:
NVR
LOCATION: TOWN OF RIDGEVILLE, SOUTH CAROLINA
DATE: DRAWN BY: LD SHEET:
JOB NUMBER: 29362.0000 REVIEWED BY: JH SCALE: 1" = 1000'

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VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT G Coordination Letters

J – 29362

December 2022



**DORCHESTER COUNTY WATER AND SEWER
235 DEMING WAY
SUMMERVILLE, SC 29483**

Jason Coffman, P.E., Water and Sewer Principal Engineer
(843) 832-0093 * (843) 563-0093 * Fax (843) 832-0073 * (843) 563-0073

September 13, 2022

Brady Cashen
NVR

RE: Varn Tract (TMS 108-00-00-055)

Dear Mr. Cashen:

The referenced property is in Dorchester County's service area for water and sewer. Dorchester County has a 16-inch force main on the west side of Hwy 27 near the site. Downstream sewer improvements will need to be completed before a subdivision on this property can be served. The downstream improvements are expected to be complete in about 3 years. The downstream improvements include upgrade of the Lower Dorchester Wastewater Treatment Plant, upgrade of Pump Station #72 at Ashley Ridge High School, and a new 18-inch force main from Pump Station #72 to Pump Station #120 at Pine Hill Industrial Campus.

At this time, the closest water main of sufficient size is a 12-inch main in Bridlewood Farms Subdivision. A 16-inch extension is planned to be built by a developer from the entrance to Bridlewood Farms to TMS 119-00-00-037 which would bring water closer to the site. The wells supplying this water system does not have capacity available for the entire proposed development. Dorchester County is looking to increase available capacity by extending a water main from the Lake Marion Regional Water System. In the meantime, the development could increase available capacity by constructing a well interconnected with the existing water system.

Availability of service is subject to approval by County Council, payment of required fees, and the applicant obtaining all required permits and easements. Furthermore, capacity is made available on a first come first served basis at the time impact fees are paid. Dorchester County may require the development to construct water and sewer facilities capable of serving other properties off the site. Do not hesitate to call me at (843) 832-0093 if you have any questions or need additional information.

Sincerely,

Jason D. Coffman, P.E.
Water and Sewer Principal Engineer

cc: Larry Harper – DCWS
Steven Ricker – DCWS



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REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT H **Jurisdictional Determination**

J – 29362

December 2022



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT
69A HAGOOD AVENUE
CHARLESTON, SC 29403

December 16, 2021

Regulatory Division

Mr. Judd Goff
Red Bay Environmental
720 Hawksbill Court
Mt. Pleasant, South Carolina 29464

Dear Mr. Goff:

This is in response to your request for an Approved Jurisdictional Determination (AJD) (SAC-2021-00574) received in our office on March 3, 2021, for a 493-acre site located near Ridgeville at TMS# 108-00-00-055, Dorchester County, South Carolina (Latitude: 33.083°, Longitude: -80.332°). An AJD is used to indicate the Corps has identified the presence or absence of wetlands and/or other aquatic resources on a site, including their accurate location(s) and boundaries, as well as their jurisdictional status pursuant to Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344) and/or navigable waters of the United States pursuant to Section 10 of the Rivers and Harbors Act of 1899 (RHA) (33 U.S.C. § 403).

The site is shown on the attached depiction entitled "Preliminary Wetlands Varn Tract Dorchester County, SC" and dated July 19, 2021 prepared by Thomas & Hutton. Based on an on-site inspection, a review of aerial photography, topographic maps, National Wetlands Inventory maps, soil survey information, we conclude the referenced depiction accurately reflects the location and boundaries of aquatic resources within the site. The site contains 128.1537 acres of jurisdictional wetlands, and 870 linear feet of other waters of the United States that are subject to regulatory jurisdiction under Section 404 of the CWA.

The site also contains 11.1304 acres of freshwater wetlands as federally defined by the 1987 Corps of Engineers Wetland Delineation Manual and applicable regional supplement; however, the 11.1304 acres of freshwater wetlands are not subject to Corps' jurisdiction based upon U.S. Supreme Court decisions. The location and configuration of these non-jurisdictional areas are reflected on the above referenced depiction. It should be clearly noted that decisions of the U.S. Supreme Court to exclude certain waters and wetlands from federal jurisdiction under the CWA have no effect on any state or local government restrictions or requirements concerning wetlands. You are strongly cautioned to ascertain whether such restrictions or requirements exist for the area in question before undertaking any activity which might impact these aquatic resources.

Attached is a form describing the basis of jurisdiction for the delineated area(s). Be aware that a Department of the Army (DA) permit may be required for certain activities in the areas subject to Corps' regulatory jurisdiction, and these areas may be subject to restrictions or requirements of other state or local government agencies.

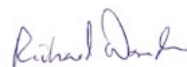
If you submit a permit application as a result of this AJD, include a copy of this letter and the depiction as part of the application. Not submitting the letter and depiction will cause a delay while we confirm an AJD was performed for the proposed permit project area. Note that some or all of these areas may be regulated by other state or local government entities, and you should contact the South Carolina Department of Health and Environmental Control, Bureau of Water, or Department of Ocean and Coastal Resource Management, to determine the limits of their jurisdiction.

This AJD is valid for five (5) years from the date of this letter unless new information warrants revision before the expiration date. This AJD is an appealable action under the Corps of Engineers administrative appeal procedures defined at 33 CFR Part 331. The administrative appeal options, process and appeals request form is attached for your convenience and use.

This AJD was conducted pursuant to Corps of Engineers' regulatory authority to identify the limits of Corps of Engineers' jurisdiction for the particular site identified in this request. This AJD may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

In all future correspondence, please refer to file number SAC-2021-00574. A copy of this letter is forwarded to State and/or Federal agencies for their information. If you have any questions, please contact me at (843) 329-8043, or by email at Richard.L.Darden@usace.army.mil.

Sincerely,



Richard L. Darden, Ph.D.
Project Manager

Attachments:

Approved Jurisdictional Determination Form
Notification of Appeal Options
Preliminary Wetlands Varn Tract Dorchester County, SC

Copies Furnished:

Mr. David Johns
Enterprise Bank
P.O. Box 8
Ehrhardt, South Carolina 29081
David@ebosc.bank

SCDHEC – Bureau of Water
2600 Bull Street
Columbia, South Carolina 29201
WQCWetlands@dhec.sc.gov

SCDHEC - OCRM
1362 McMillan Avenue, Suite 400
North Charleston, South Carolina 29405
OCRMPermitting@dhec.sc.gov

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 9, 2021

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 1 of 2; SAC-2021-00574 Varn Tract

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: Dorchester County City: Ridgeville
Center coordinates of site (lat/long in degree decimal format): Lat. 33.082758552173 °, Long. -80.332464313495 °.
Universal Transverse Mercator:

Name of nearest waterbody: Captains Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Ashley River

Name of watershed or Hydrologic Unit Code (HUC): 0305020105

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: December 9, 2021

Field Determination. Date(s): June 15, 2021

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: **870** linear feet: width (ft) and/or acres.

Wetlands: **128.1537** acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM. 1987 Delineation Manual AGCP Regional Supplement

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: _____ .

Summarize rationale supporting determination: _____ .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”?: _____ .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: _____ .

Identify flow route to TNW⁵: _____ .

Tributary stream order, if known: _____ .

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): .
- Wetland fringe. Characteristics: .
- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width): .
- Vegetation type/percent cover. Explain: .
- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: **One perennial tributary is present on the site. While labeled "Jurisdictional Ditch," this feature represents a historically natural drainage pathway that was straightened and channelized, ultimately appearing and functioning in ditch fashion. This tributary appears on topographic and soils maps as a blue line tributary that carries flow from Jurisdictional Wetland G to Captains Creek via Jurisdictional Wetland F, ultimately flowing to the perennial tributary and major floodplain wetland system Cypress Swamp which transitions to the TNW Ashley River. The tributary is visible in aerial photography and is depicted by National Wetlands Inventory (NWI) as riverine,**

unknown perennial, unconsolidated bottom, and permanently flooded (R5UBH) habitat. For these reasons, the tributary “Jurisdictional Ditch” was determined to have perennial flow and jurisdiction by definition.

- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: **870** linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Wetlands documented in this section are contiguous and directly abutting the two separate perennial tributaries to which they are adjacent (see below). Specifically, this means that each adjacent wetland boundary is coincident with the OHWM of the tributary and that the wetland and tributary are hydrologically continuous and thus water from the tributary can move across the wetland boundary without intervening uplands or other non-wetland pathways (and vice versa).**

Directly abutting offsite tributary Captains Creek:

Jurisdictional Wetland A (3.7623 acres)
Jurisdictional Wetland B (1.7434 acres)
Jurisdictional Wetland C (60.1674 acres)
Jurisdictional Wetland D (3.078 acres)
Jurisdictional Wetland E (5.532 acres)
Jurisdictional Wetland F (0.1371 acre)
Jurisdictional Wetland H (0.6128 acre)
Jurisdictional Wetland I (5.9711 acres)
Jurisdictional Wetland J (1.2651 acres)
Jurisdictional Wetland K (1.7338 acres)
Jurisdictional Wetland L (7.7728 acres)
Jurisdictional Wetland M (0.1551 acre)

Directly abutting onsite Jurisdictional Ditch:

Jurisdictional Wetland G (36.2228 acres)

- Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **128.1537** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

⁸See Footnote # 3.

Provide acreage estimates for jurisdictional wetlands in the review area: _____ acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: _____ acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain: _____
 Other factors. Explain: _____

Identify water body and summarize rationale supporting determination: _____

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: _____ linear feet _____ width (ft).
 Other non-wetland waters: _____ acres.
Identify type(s) of waters: _____
 Wetlands: _____ acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
 Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 Prior to the Jan 2001 Supreme Court decision in “*SWANCC*,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
 Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: _____
 Other: (explain, if not covered above): _____

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): _____ linear feet _____ width (ft).
 Lakes/ponds: _____ acres.
 Other non-wetland waters: _____ acres. List type of aquatic resource: _____
 Wetlands: _____ acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): _____ linear feet, _____ width (ft).
 Lakes/ponds: _____ acres.
 Other non-wetland waters: _____ acres. List type of aquatic resource: _____
 Wetlands: _____ acres.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following *Rapanos*.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: JD Request package submitted by Red Bay Environmental included location and relevant resource mapping.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report. (Office concurs with report conclusions.)
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 USGS 7.5-Minute Quadrangle Ridgeville, SC.
- USDA Natural Resources Conservation Service Soil Survey. Citation: consultant prepared soils layer from USDA.gov overlaid on aerial photograph.
- National wetlands inventory map(s). Cite name: consultant prepared NWI layer from FWS.gov overlaid on aerial photograph.
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): ESRI via Dorchester County GIS, 2020.
or Other (Name & Date): site photographs.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: This form documents the jurisdictional status of one perennial tributary and 13 wetlands. Isolated wetlands on the site are documented on a separate form.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): December 9, 2021

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: JD Form 2 of 2; SAC-2021-00574 Varn Tract

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: South Carolina County/parish/borough: Dorchester County City: Ridgeville
Center coordinates of site (lat/long in degree decimal format): Lat. 33.082758552173 °, Long. -80.332464313495 °
Universal Transverse Mercator:

Name of nearest waterbody: Captains Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A

Name of watershed or Hydrologic Unit Code (HUC): 0305020105

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: December 9, 2021

Field Determination. Date(s): June 15, 2021

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual AGCP Regional Supplement

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **This site includes six wetlands that are isolated and non-jurisdictional: Isolated Wetlands A, B, C, D, E, and F (acreages are provided in Section III F). These six wetlands are depressional wetlands, surrounded entirely by uplands, have no associated ditches or swales that would provide surface hydrologic connections to other wetlands or waters of the U.S., and have no evidence of discrete hydrologic flow through uplands or through other wetlands or waters of the U.S. In addition, these wetlands have no apparent shallow subsurface hydrologic connection, and no**

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

apparent physical, chemical, or biological connection, to Waters of the U.S. The wetlands also have no apparent ecological interconnection to Waters of the U.S. For these reasons, these six wetlands located within the project review area were determined to be isolated and non-jurisdictional; therefore, they are not regulated by Section 404 of the CWA.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: _____ .

Summarize rationale supporting determination: _____ .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: _____ .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:

Tributary stream order, if known:

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Pick List**. Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

⁶ A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

(iv) Biological Characteristics. Channel supports (check all that apply):

Riparian corridor. Characteristics (type, average width): .

Wetland fringe. Characteristics: .

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: . acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

Riparian buffer. Characteristics (type, average width): .

Vegetation type/percent cover. Explain: .

Habitat for:

Federally Listed species. Explain findings: .

Fish/spawn areas. Explain findings: .

Other environmentally-sensitive species. Explain findings: .

Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain: .
 Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters: .
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: 11.1304 acres. **Isolated Wetland A: 0.2458 acre; Isolated Wetland B: 4.1118 acres; Isolated Wetland C: 5.2175 acres; Isolated Wetland D: 0.7219 acre; Isolated Wetland E: 0.3495 acre; Isolated Wetland F: 0.4839 acre.] This site includes six wetlands that are isolated and non-jurisdictional: Isolated Wetlands A, B, C, D, E, and F. These six wetlands are depressional wetlands, surrounded entirely by uplands, have no associated ditches or swales that would provide surface hydrologic connections to other wetlands or waters of the U.S., and have no evidence of discrete hydrologic flow through uplands or through other wetlands or waters of the U.S. In addition, these wetlands have no apparent shallow subsurface hydrologic connection, and no apparent physical, chemical, or biological connection, to Waters of the U.S. The wetlands also have no apparent ecological interconnection to Waters of the U.S. For these reasons, these six wetlands located within the project review area were determined to be isolated and non-jurisdictional; therefore, they are not regulated by Section 404 of the CWA.**

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: JD Request package submitted by Red Bay Environmental included location and relevant resource mapping.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report. (Office concurs with report conclusions.)
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 USGS 7.5-Minute Quadrangle Ridgeville, SC.
- USDA Natural Resources Conservation Service Soil Survey. Citation: consultant prepared soils layer from USDA.gov overlaid on aerial photograph.
- National wetlands inventory map(s). Cite name: consultant prepared NWI layer from FWS.gov overlaid on aerial photograph.
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): ESRI via Dorchester County GIS, 2020.
or Other (Name & Date): site photographs.

- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: This form documents the non-jurisdictional status of six depressional wetlands on the site. Other aquatic features on the site are documented on a separate form.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant:	File Number:	Date:
Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer, South Atlantic Division, 60 Forsyth St, SW, Atlanta, GA 30308-8801. This form must be received by the Division Engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD **is not appealable**. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact the Corps biologist who signed the letter to which this notification is attached. The name and telephone number of this person is given at the end of the letter.

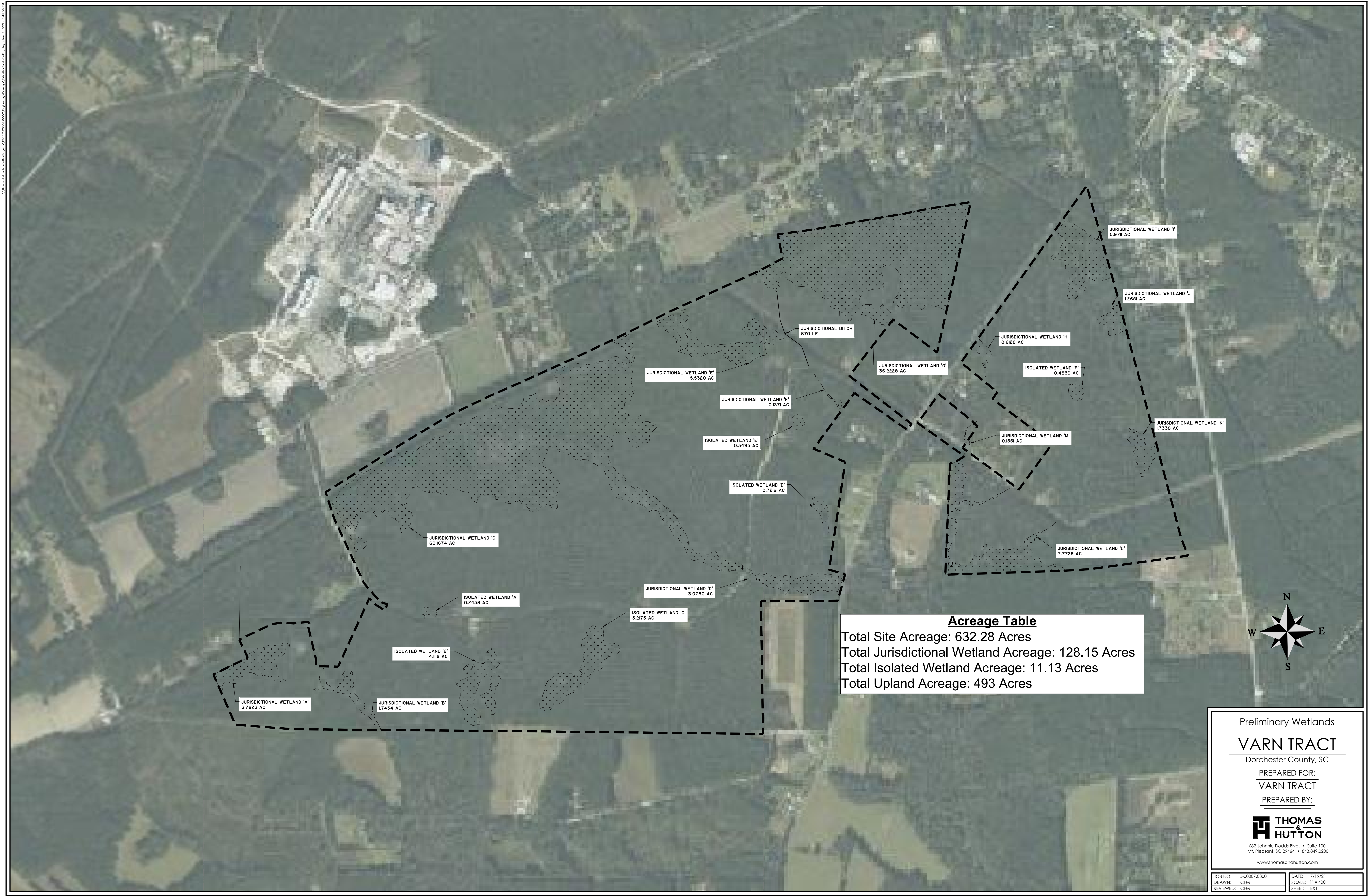
If you only have questions regarding the appeal process you may also contact: Jason W. Steele
Administrative Appeals Review Officer
USACE South Atlantic Division
60 Forsyth St, SW
Atlanta, GA 30308-8801
(404) 562-5137

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:



Total Site Acreage:	632.28 Acres
Total Jurisdictional Wetland Acreage:	128.15 Acres
Total Isolated Wetland Acreage:	11.13 Acres
Total Upland Acreage:	493 Acres



Preliminary Wetlands
VARN TRACT
Dorchester County, SC
PREPARED FOR:
VARN TRACT
PREPARED BY:
THOMAS & HUTTON
682 Johnnie Dodds Blvd. • Suite 100
Mt. Pleasant, SC 29464 • 843.849.0200
www.thomasandhutton.com

JOB NO:	J-00007.0300	DATE:	7/19/21
DRAWN:	CFM	SCALE:	1" = 400'
REVIEWED:	CFM	SHEET:	EX1



THOMAS
&
HUTTON

REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT I Development Schedule

J – 29362

December 2022

Estimated Development Schedule for the Varn PUD

Phases of Construction and Development

Varn PUD will have a build-out program which should take approximately 10 years. The timing of development within the Varn PUD will be very much affected by the health of the national and local economies, as well as the demand for various housing types for the region. It is extremely difficult, if not impossible, to accurately project timing of future phases of development and lot demand. The property owner has provided the following estimates which are based on information believed to be reasonable at this time. The estimates are subject to change substantially, from time to time, based on market conditions, the supply of competing lots within the area, and other factors not under the control of the property owner.

A. Initial Construction 2023

B. 2023 – 2033

- 1,400 Single family attached and/or detached homes
- 120,000 SF of Commercial



THOMAS
&
HUTTON

REZONING APPLICATION

VARN
PLANNED UNIT DEVELOPMENT (PUD)

EXHIBIT J **Traffic Study**

J – 29362

December 2022