



Currituck County
Moyock Mega-Site Market Feasibility Study
March 28, 2016

Presentation Outline

- Project Background
- Demographic and Economic Data Review
- Competitive Market Analysis
- Feasibility Assessment
- Preliminary Environmental Screening
- Public Facilities Assessment
- Conclusions and Recommendations
- Next Steps

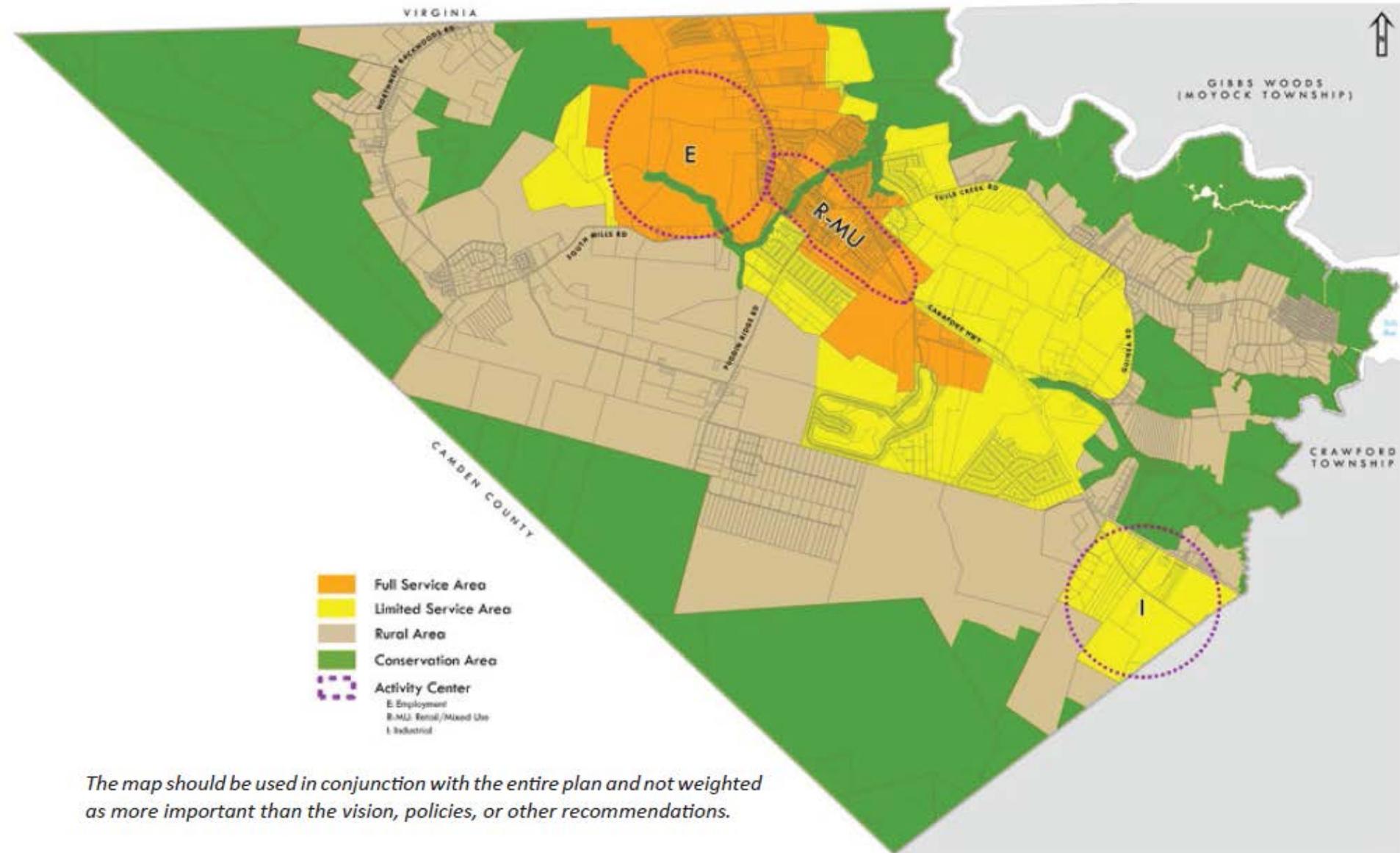


Project Background

- Moyock Mega-Site - \pm 3,000 Acres
- Economic Development Opportunity
- Competitiveness of site within Hampton Roads Region
- Identification of similar scale developments
- Summary of development demand
- Preliminary screening of Environmental constraints
- Assessment of existing infrastructure
- Identification of infrastructure needs/improvements
- Next Steps



Moyock Small Area Plan Future Land Use



The map should be used in conjunction with the entire plan and not weighted as more important than the vision, policies, or other recommendations.

Moyock Mega-Site Property Limits

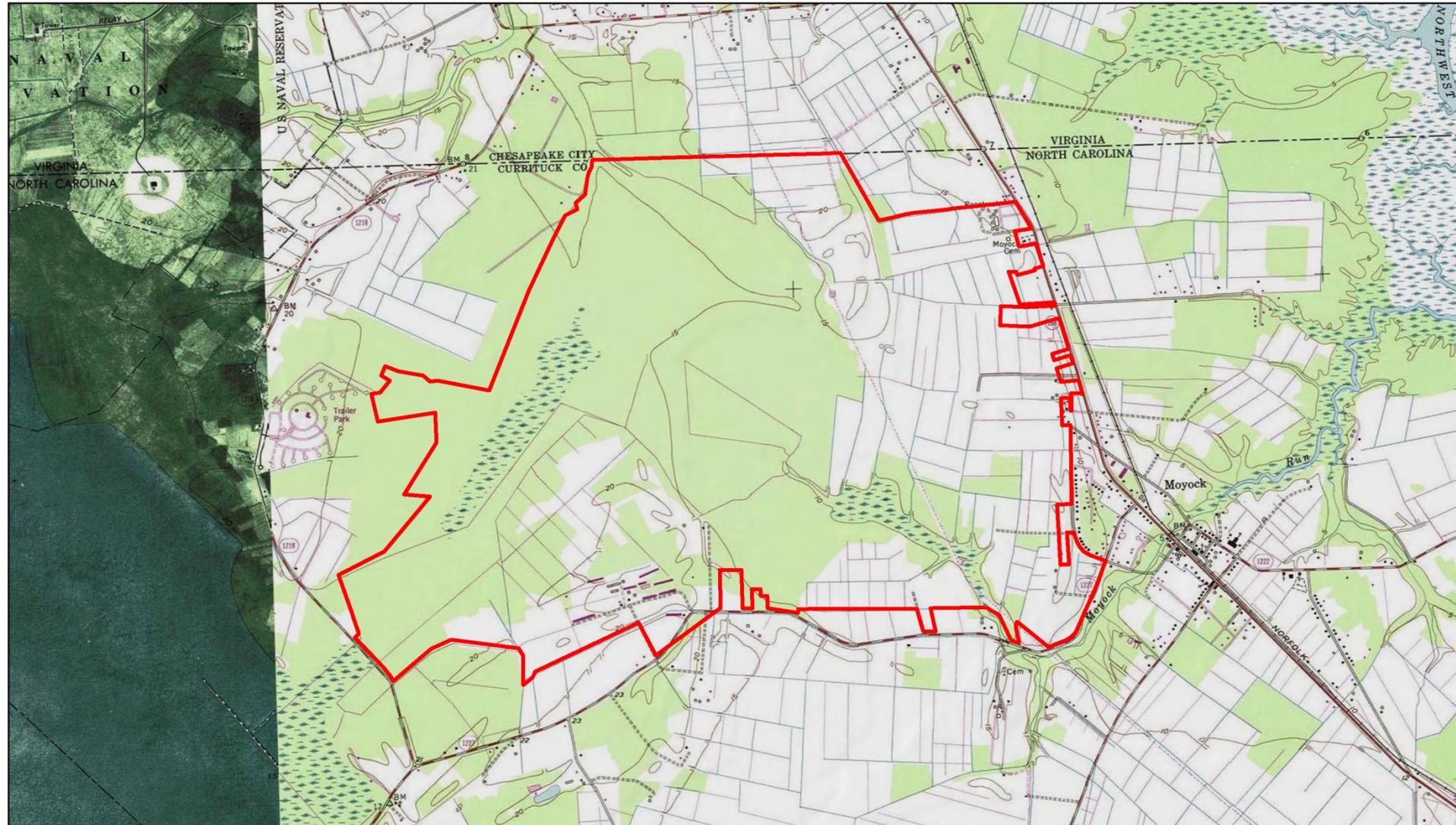
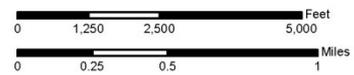


Figure ES-1
Topographic of Moyock Mega-Site
Currituck County, NC

 Project Area

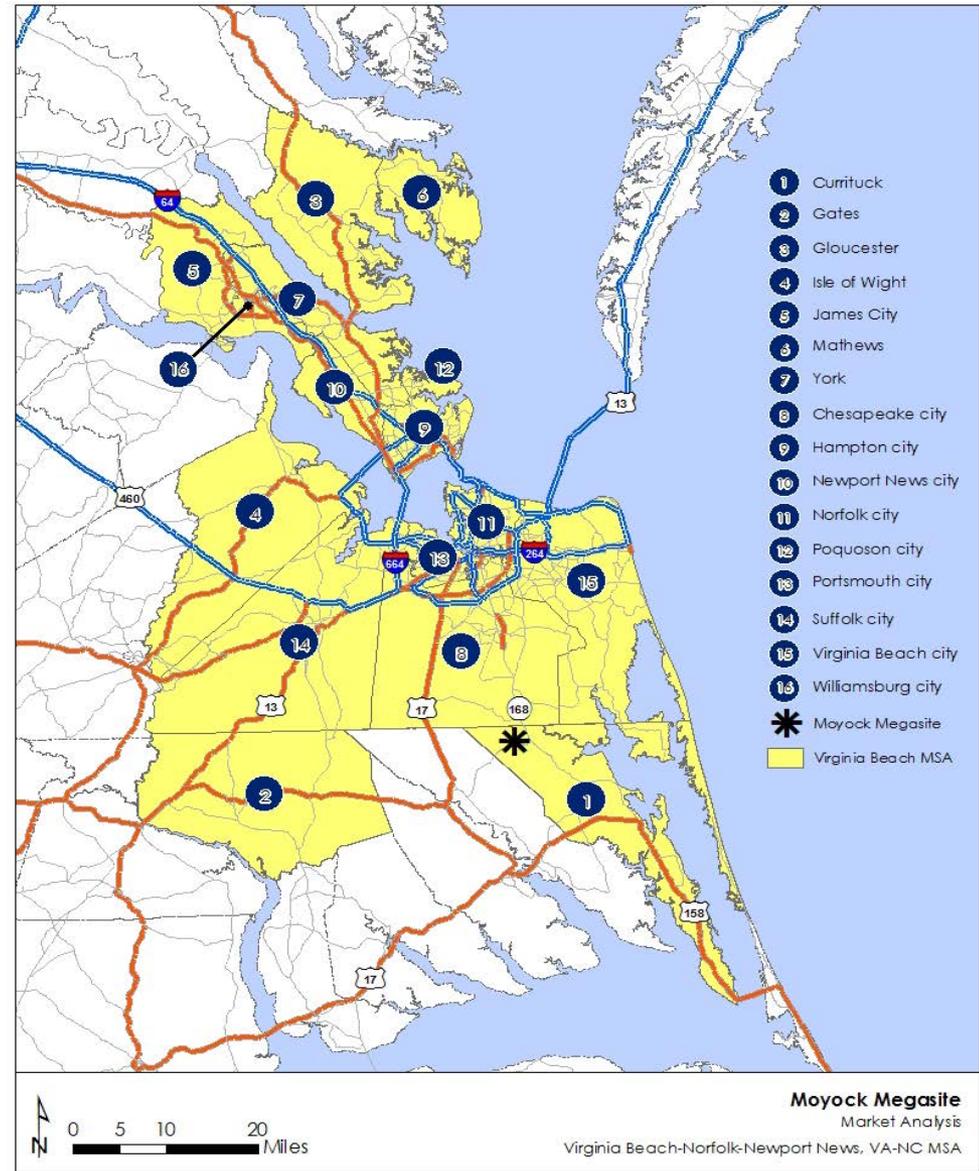


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Data Copyright © 2013 National Geographic Society, Lobster, Currituck County

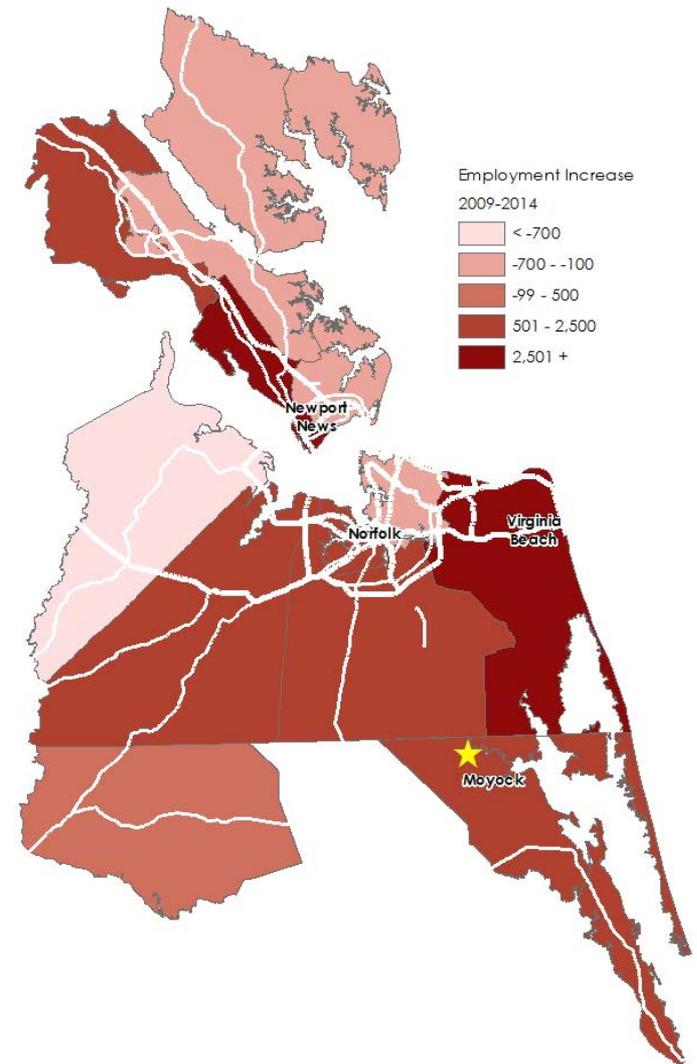
Demographic and Economic Data Review

- Analysis Geographies
 - Metropolitan Statistical Area (MSA)
 - Currituck County
- Economic Anchors
 - Port of Virginia
 - Shipbuilding
 - Manufacturing
 - Defense
 - Tourism



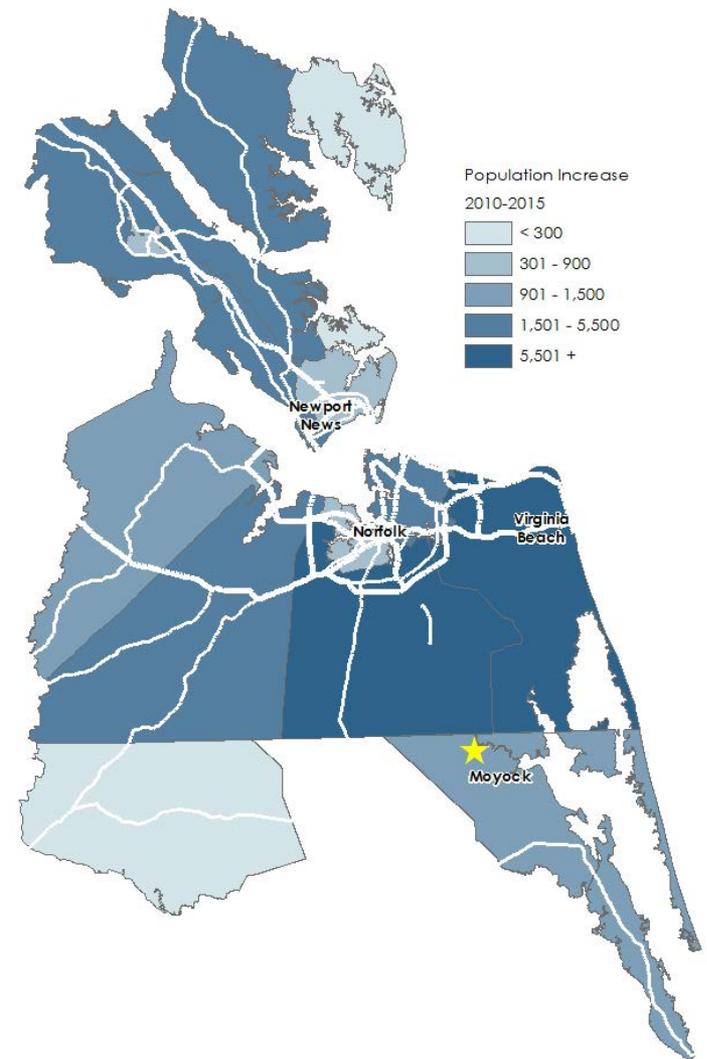
Demographic and Economic Data Review

- Regional loss of over 3,000 jobs since 2004
 - Construction comprised 35% of 10-year losses
 - Stabilization and recovery since Recession
- Strong and shifting sectors
- Currituck makes up less than 1% of MSA total
- Nearly 40% employed residents commute to VA



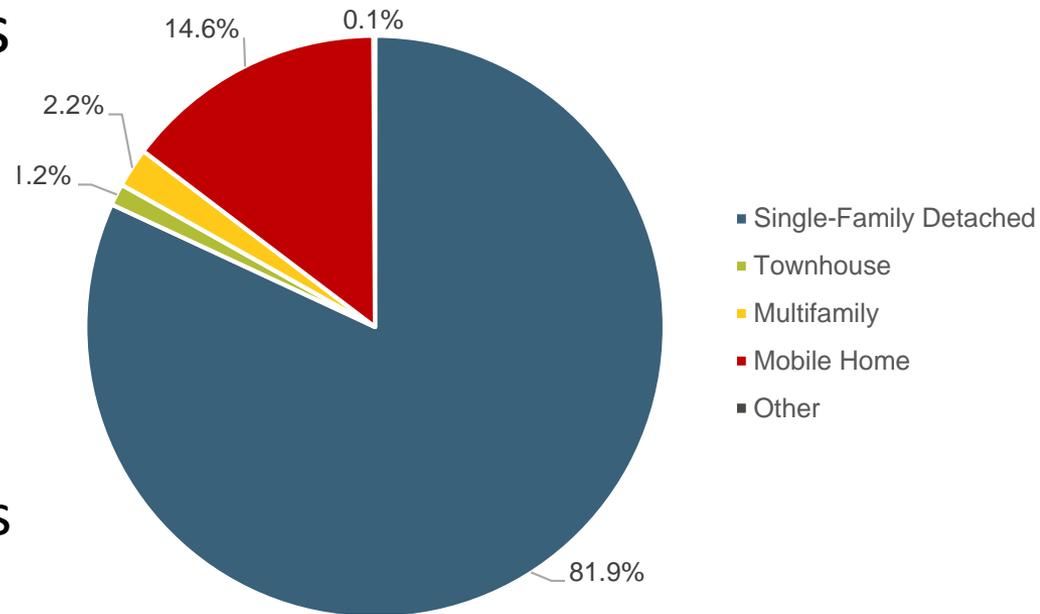
Demographic and Economic Data Review

- Nearly 150,000 new regional residents since 2000
- Currituck added 6,900 new people; ½ growth in Moyock area
- Key characteristics
 - Getting older
 - More prosperous
 - Smaller households dominate, but size is increasing



Demographic and Economic Data Review

- Currituck housing stock is over 80% single-family detached (MSA is 60%)
- Single-family recovery
- Multi-family opportunities:
 - Changing demographics
 - Evolving preferences
 - Not just Millennials



Demographic and Economic Data Review

■ Retail

- Follows population growth
- Retail development has been slow to recover in region
- Low vacancy and stabilized rents likely to encourage development

■ Office

- Three buckets:
 - corporate,
 - professional service, and
 - entrepreneur



Demographic and Economic Data Review

- Office (continued)
 - Regional vacancy has been gradually increasing
 - No new office space completed in last five years in Portsmouth/Suffolk/Chesapeake Submarket
- Industrial
 - Six new buildings completed in region in last five years (1.7 million square feet)
 - Extremely limited supply of shovel ready sites that could accommodate large users (+1.0 million sq.ft.)
 - Competition?



Competitive Market Analysis

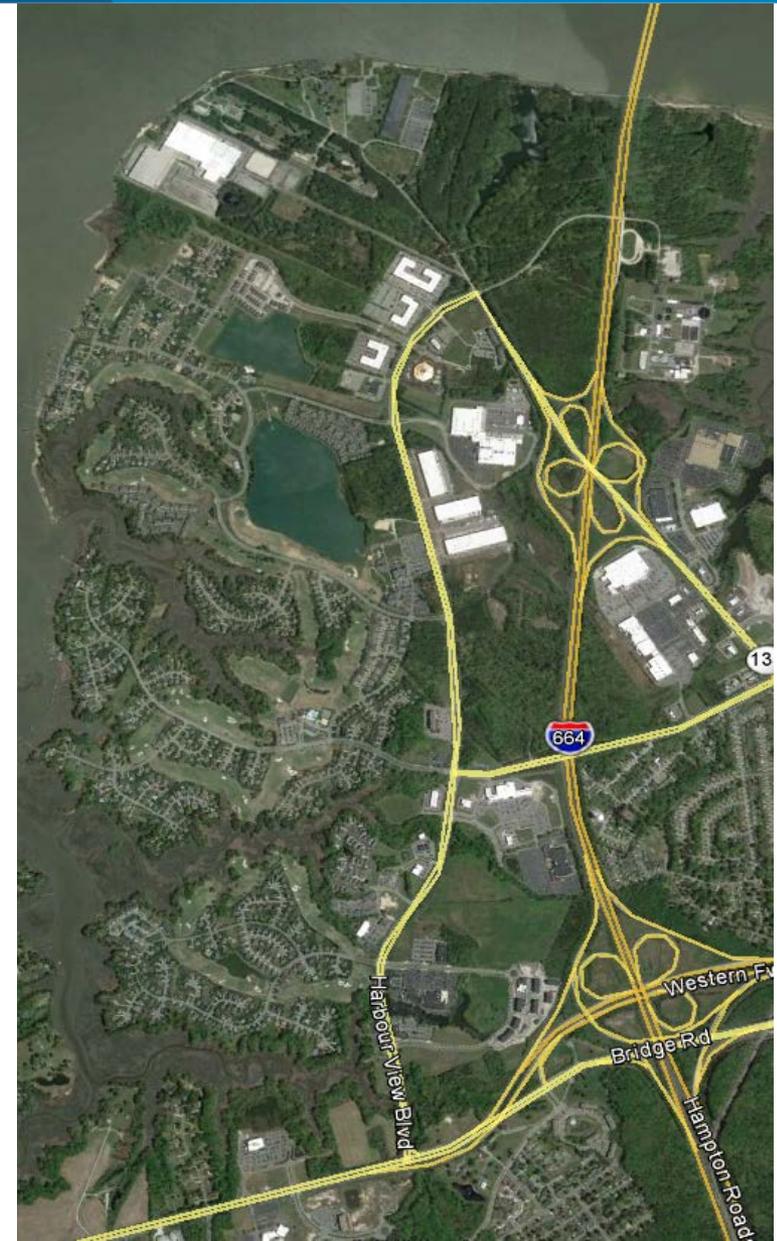
- Purpose
- Mix of existing mixed- and single-use and planned
- Selected Developments
 - Greenbrier (Chesapeake, VA)
 - Rock Creek Center (Guilford County, NC)
 - Lincoln County Industrial Park (Lincoln County, NC)
 - Chatham Park, Pittsboro, NC
 - Kingsley Park North, Fort Mill, SC
 - Wendell Farms, Wake County, NC
 - Harbour View (Suffolk, VA)



Competitive Market Analysis

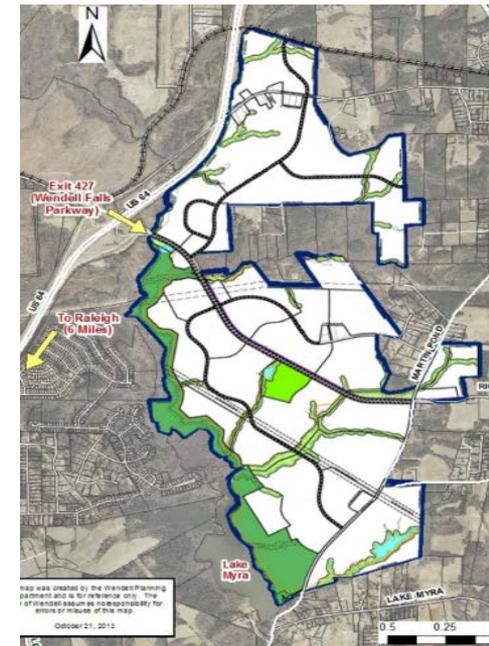
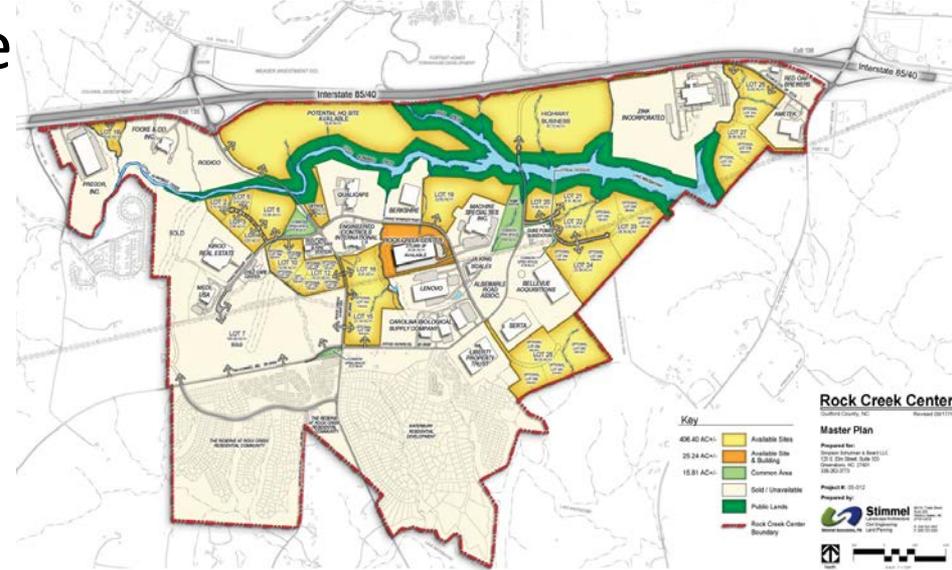
Harbour View

- Residential
 - Single
 - Multi-Family
- Office
- Retail
- Medical Services
- Research and Development
- Warehouse/Distribution
- Institutional



Competitive Market Analysis

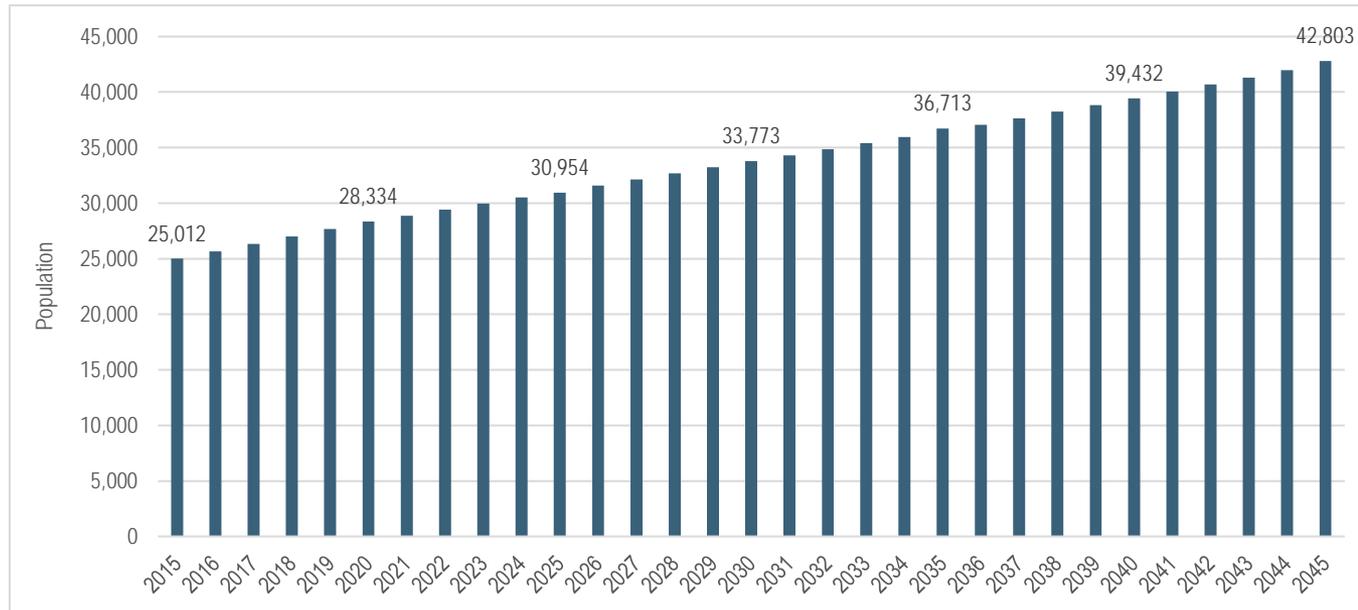
- Access to infrastructure
- Having Flexibility is key
- Mixed-use success
- Residential is not just supporting use
- Varied levels of public participation
- The “long game”



Feasibility Assessment

- Determines future housing and retail demand
- Considers historic growth and future capacity
- 70% increase in 30 years equates to estimated 2045 population of 42,800 in Currituck

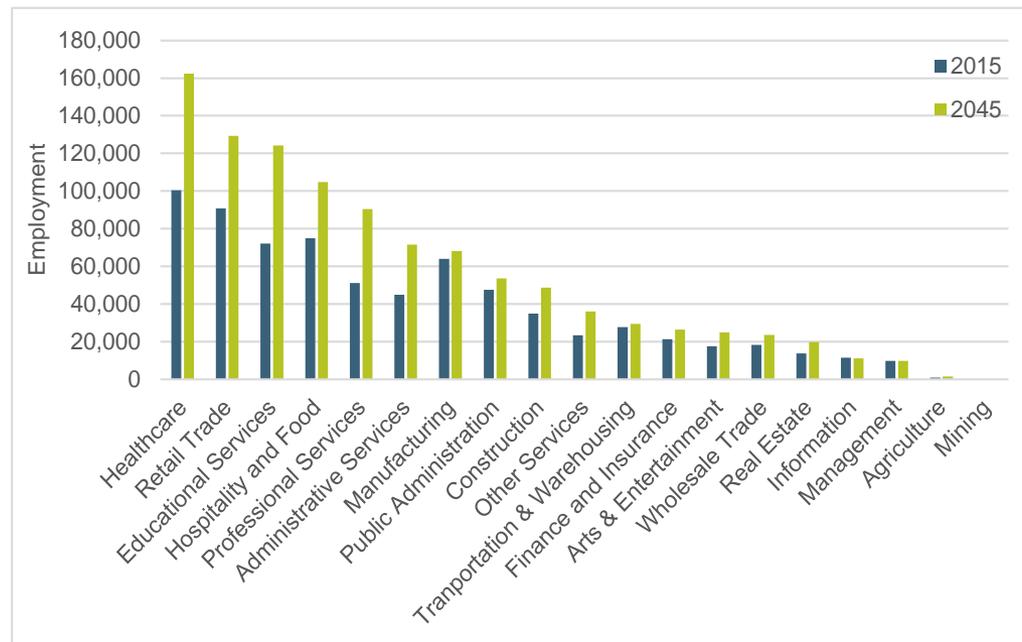
Population Forecast, Currituck County, 2015-2045



Feasibility Assessment

- Determines future office and industrial demand
- Focuses on capture of regional growth; third-party sources undercount potential
- Region expected to exceed 1.0 million jobs by 2045

Employment Forecast, Virginia Beach MSA, 2015-2045



Demand Summary

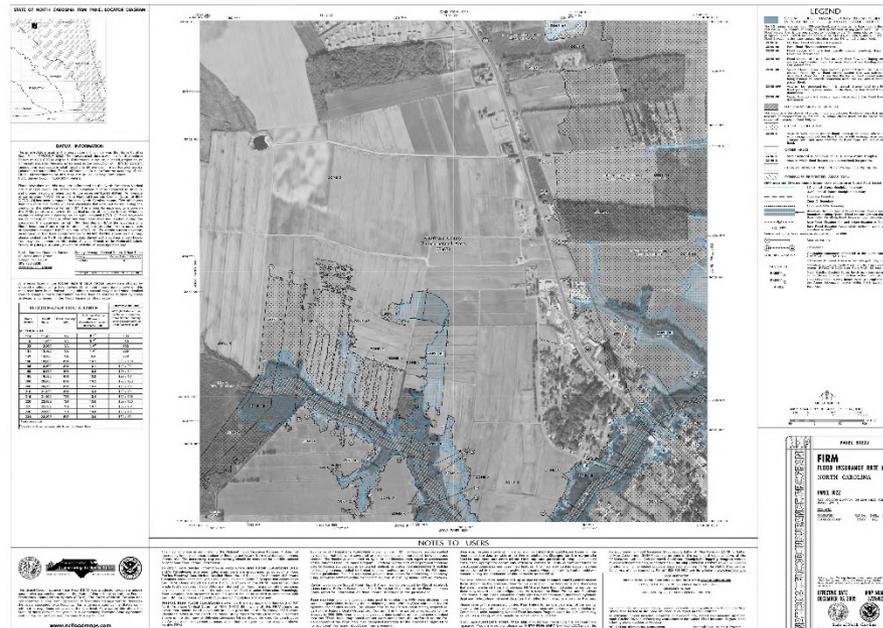
Land Use Type	Measure	30 – Year Demand	
		Low	High
Residential	Units	2,500	3,000
Retail	Square Feet	250,000	500,000
Office	Square Feet	150,000	300,000
Industrial	Square Feet	750,000	1,000,000

- Demand for a variety of development opportunities
- Based on stakeholder input and regional and county projections for new residents and jobs
- Considers the Mega-Site's:
 - Current and future transportation and utility infrastructure
 - Proximity to existing job centers and economic anchors

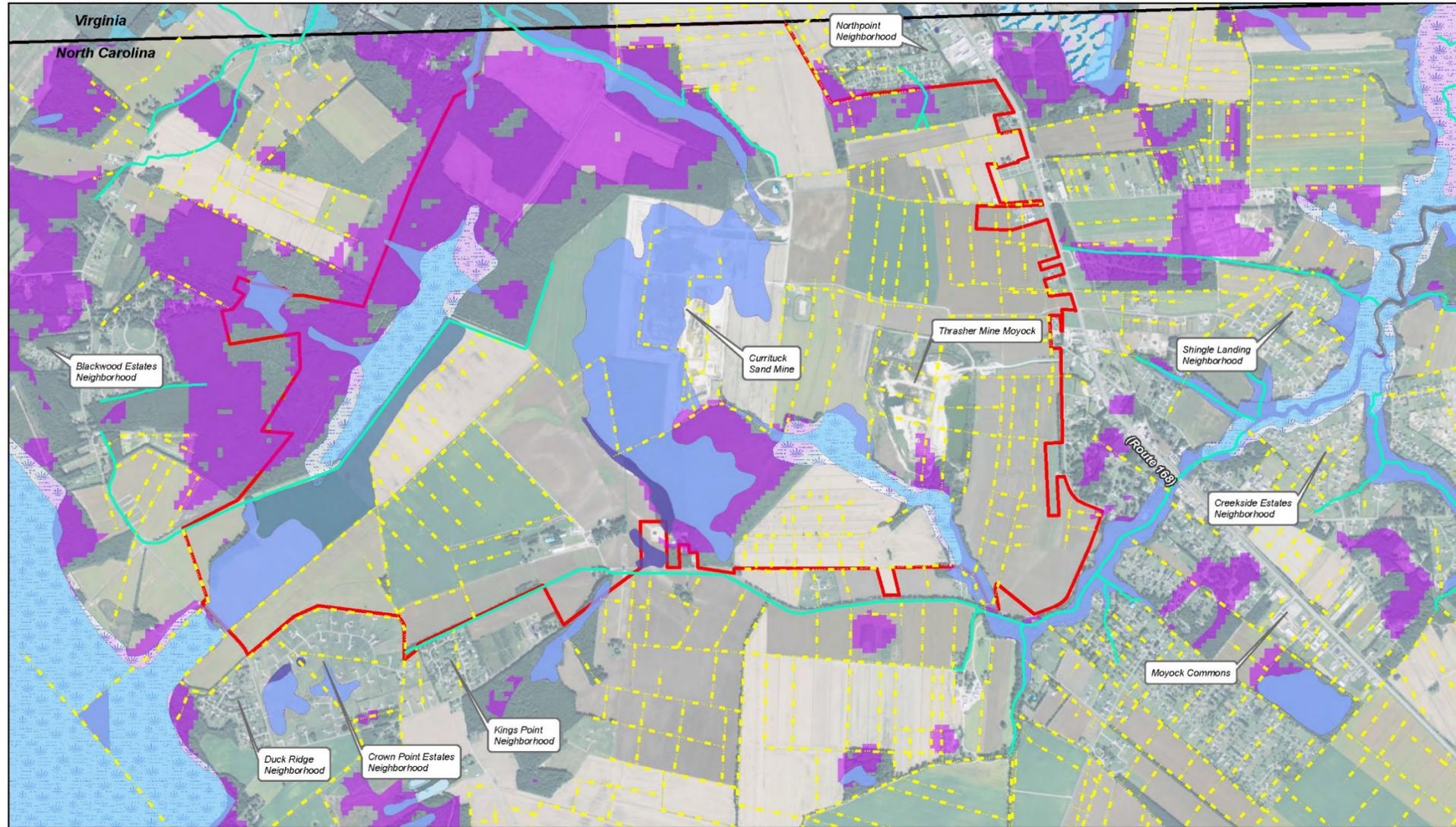


Preliminary Environmental Review

- Wetlands Evaluation
- Threatened and Endangered Species
- Historic Resources
- FEMA Flood Hazard Areas
- Hazardous Materials



Preliminary Environmental Review



**Figure 5-2
Wetlands & Waters
Background Information**

Project Area	NCDWM Wetlands	USFWS NWI
NHDFlowline	NHDWaterbody	Freshwater Emergent Wetland
Canal/Ditch	Lake/Pond	Freshwater Forested/Shrub Wetland
Stream/River	Swamp/Marsh	Freshwater Pond




Data Source: ERI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, GeoEye, IGN, GeoEye, GeoEye, and the GIS User Community, Currituck County

Preliminary Environmental Review

■ Wetlands Evaluation

Total Site Area	3,392 acres
Wetlands/Buffers	770–1,279 acres
FEMA Floodplains	483 acres
Combined Wetlands/Floodplains*	1,005 – 1,521 acres
Net Developable Area	1,871 – 2,387 acres

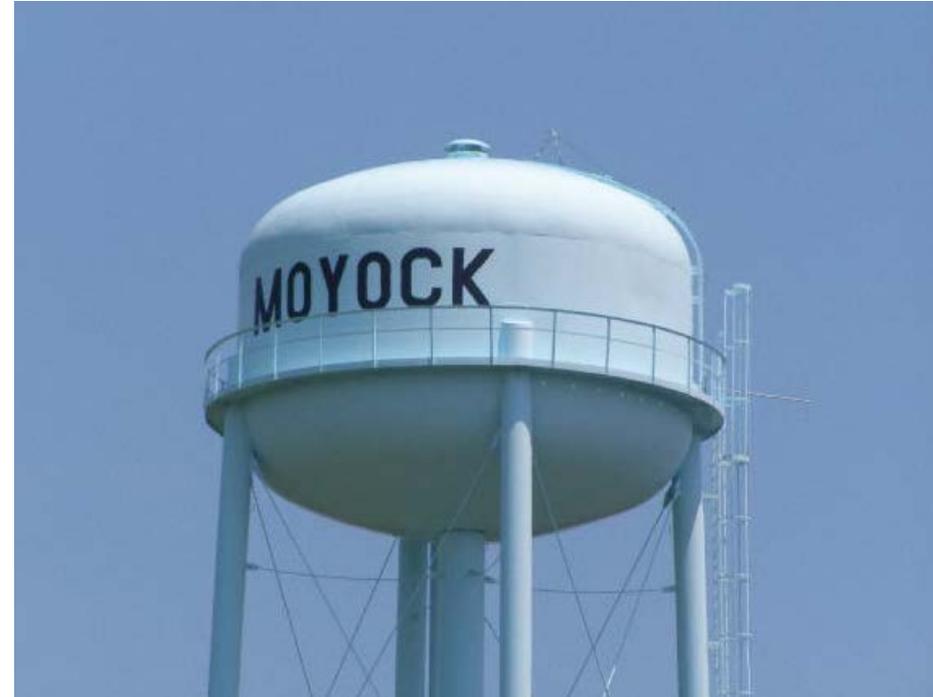
**Combined area accounts for overlap of wetland and floodplain features which occupy much of the same geographic space*



Public Facilities Assessment

Water

- Supply/Treatment
 - Plenty of capacity
 - Protect prime acreage
- Water Distribution
 - Some off-site upgrades may be required
 - Water storage required on-site
 - On-site distribution infrastructure required



Public Facilities Assessment

Wastewater

- Treatment/Disposal
 - System currently has capacity
 - County is has planned for future capacity
 - Additional capacity will be required
- Collection
 - On-site collection system infrastructure required



Public Facilities Assessment

Stormwater

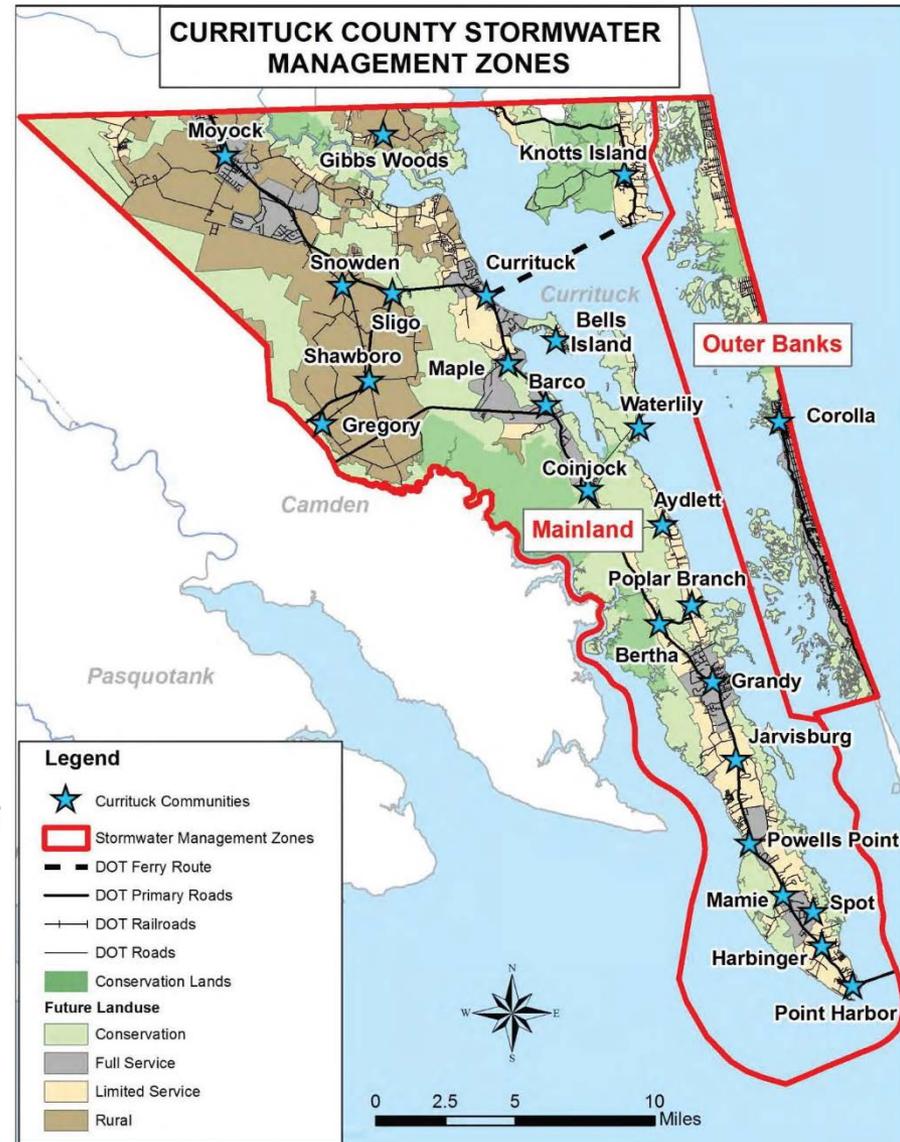
- ± 240 acres required for treatment/attenuation

Utilities

- Coordination with area Utility Providers will verify development demand



Dominion North Carolina Power



Public Facilities Assessment

■ Developable Acreage

Total Site Area	3,392 acres
Wetlands/Buffers	770–1,279 acres
FEMA Floodplains	483 acres
Combined Wetlands/Floodplains*	1,005 – 1,521 acres
Net Developable Acreage	1,871 – 2,387 acres
Road rights-of-way/Utility Easements (10% of Net Developable Acreage)	187 – 239 acres
Stormwater (10% of Net Developable Acreage)	187 – 239 acres
Total Developable Area	1,497 – 1,909 acres



Public Facilities Assessment

■ Land Use Types and Densities

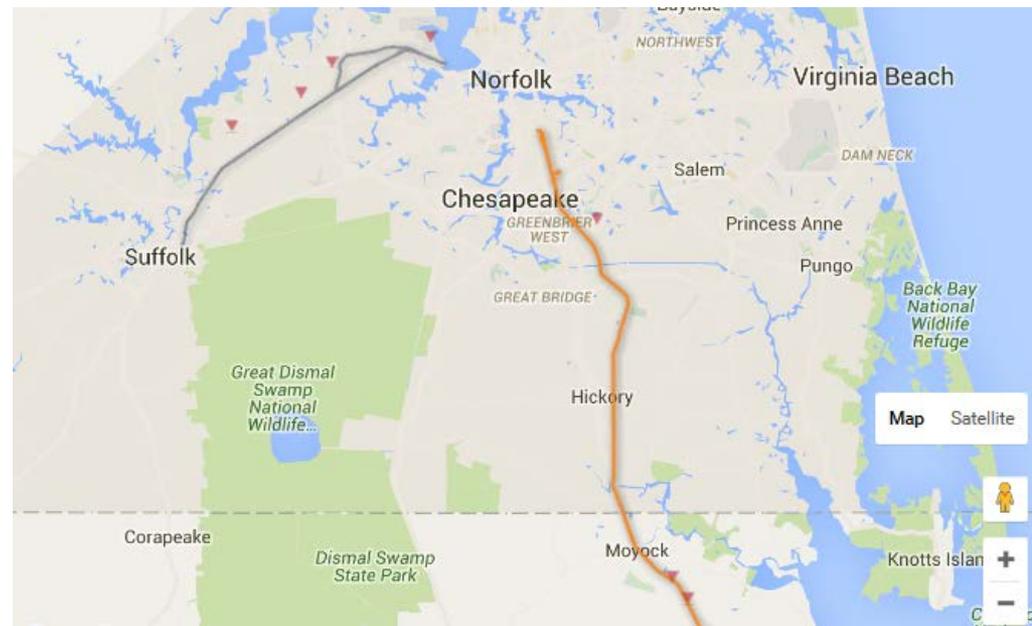
Land Use	Yield	Area (acres)
Residential (Low Density-2units/acre)	1,500 units	750
Residential (Medium Density-8 units/acre)	1,200 units	150
Residential (High Density-15 units/acre)	300 units	20
Retail (10k sf/acre)	500,000 sf	50
Office (12k sf/acre)	300,000 sf	25
Industrial (10k sf/acre)	1,000,000 sf	100
Total		1,095



Public Facilities Assessment

Transportation Network

- Roadways
 - Overall good connectivity
- Aviation
 - Exceptional resource with 5,000 ft. runway
- Railroad
 - Active line (C&A)
 - Access to/from Port operations in Hampton Roads

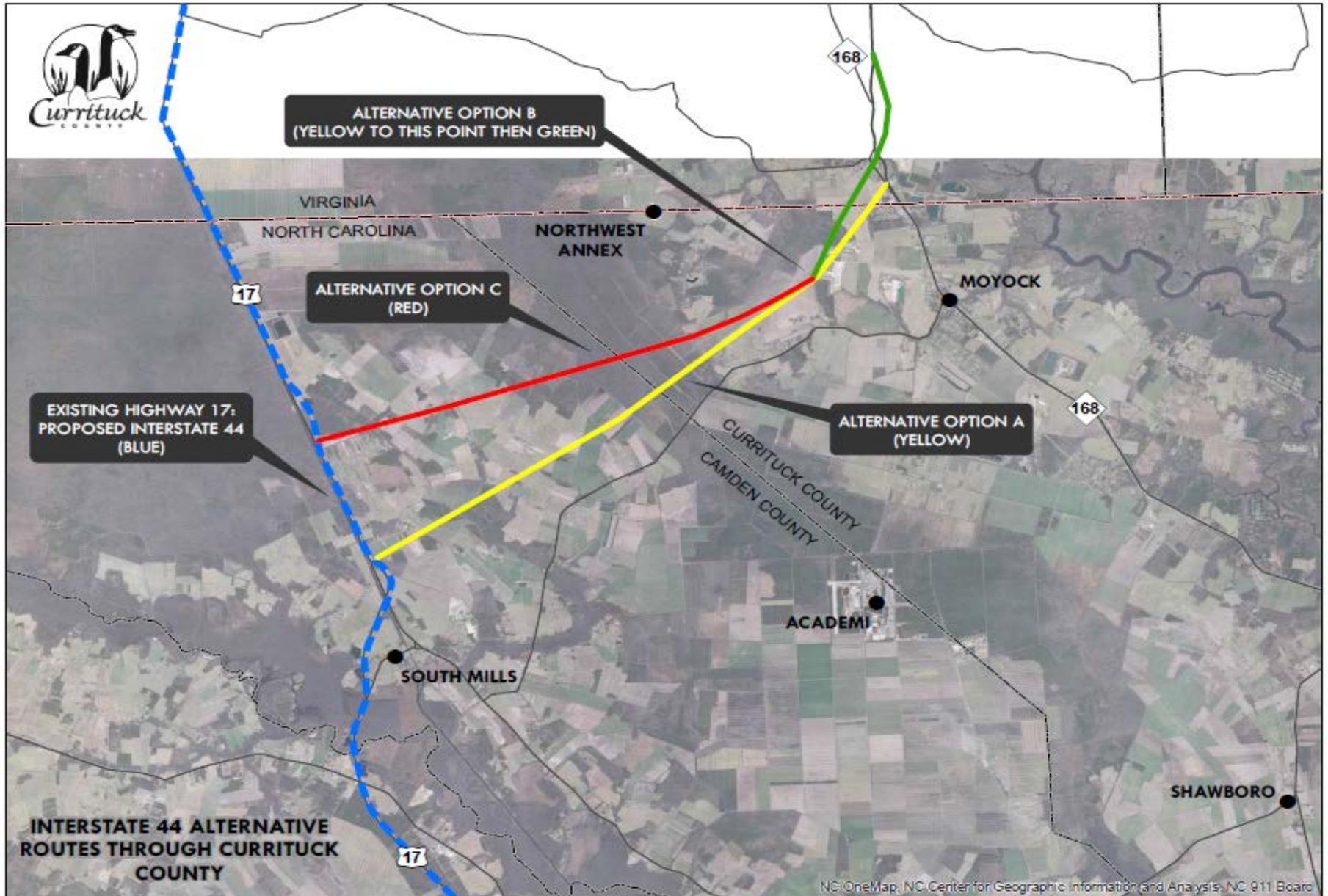


Public Facilities Assessment

- Transportation Considerations
- Aviation
 - Continued implementation of *Airport Layout Plan Update*
- Railroad
 - Keep idea of rail access as an option for “opportunity” site
- Multi-modal considerations
 - Transportation Demand Strategies (TDM)
 - Bike and Pedestrian Accommodations
- Roadways
 - Anticipated increase in traffic volumes on network
 - Will require additional capacity and safety enhancements
 - Continued coordination with NCDOT



Public Facilities Assessment



Conclusions and Recommendations

Market Considerations

- Create a vision for the Mega-Site through master planning
 - Ensure flexibility
 - Protect prime acreage
- Diversify residential product
- Establish branding and market the site
- Determine level of public participation
 - Policy incentives
 - Financial incentives
- Offer shovel-ready sites based on master land use plan
- PERSISTENCE AND PATIENCE IS KEY



Conclusions and Recommendations

Water

- Prepare a Master Water Distribution System Plan for the site upon adoption of a Moyock Mega-Site Master Land Use Plan
- Evaluate the adequacy of the existing water infrastructure near the site, specifically the water main near/along NC-168, and determine if upgrades or additional infrastructure is required

Wastewater

- Revise the Moyock Sewer District boundary and subsequent sewer district planning boundary to encompass the Moyock Mega-Site
- Acquire additional land near the Moyock Regional Wastewater Treatment Plant to allow for future expansion beyond what is currently planned
- Prepare a Master Wastewater Collection System Plan for the site



Conclusions and Recommendations

Stormwater

- Integrate expected stormwater management measures into the Master Land Use Plan
- Integrate the existing sand mines into the Master Land Use Plan to the extent possible and if feasible given the time remaining on the sand mining operations
- Upon adoption of a Master Land Use Plan for the Mega-Site, evaluate the adequacy of the existing downstream drainage infrastructure and determine if upgrades or additional infrastructure is required

Utilities

- Share the Master Land Use Plan with the private utility service providers and confirm their ability to serve the site given the proposed land uses and potential demand



Conclusions and Recommendations

Transportation Infrastructure

- Develop a Transportation Corridor Overlay District for NC-168
- Establish a Mega-Site main entrance to/from NC-168
- Establish a Mega-Site main entrance to/from South Mills Road
- Improve South Mills Road from a two-lane undivided facility to a four-lane divided facility
- The County should continue to enhance safety, services, and accommodations at the airport as outlined in the *Airport Layout Plan Update*.
- Rail location will influence land bay layout as well as location of certain types of land uses in proximity to one another
- Coordinate with rail access providers early



Conclusions and Recommendations

Transportation Infrastructure

- Alternative Transportation Demand Management (TDM) strategies should be considered to mitigate traffic congestion:
 - Public Transit: Express or Bus Rapid Transit services between regional activity/employment centers
 - Park and Ride incentives
 - Carpooling: two or more people traveling in a car
 - Vanpooling: eight to 15 people traveling in a van
 - Bicycle and pedestrian accommodations that enhance local mobility
- With the development of the Moyock Mega-Site Master Plan, consider a “Complete Streets” policy for the roadway network

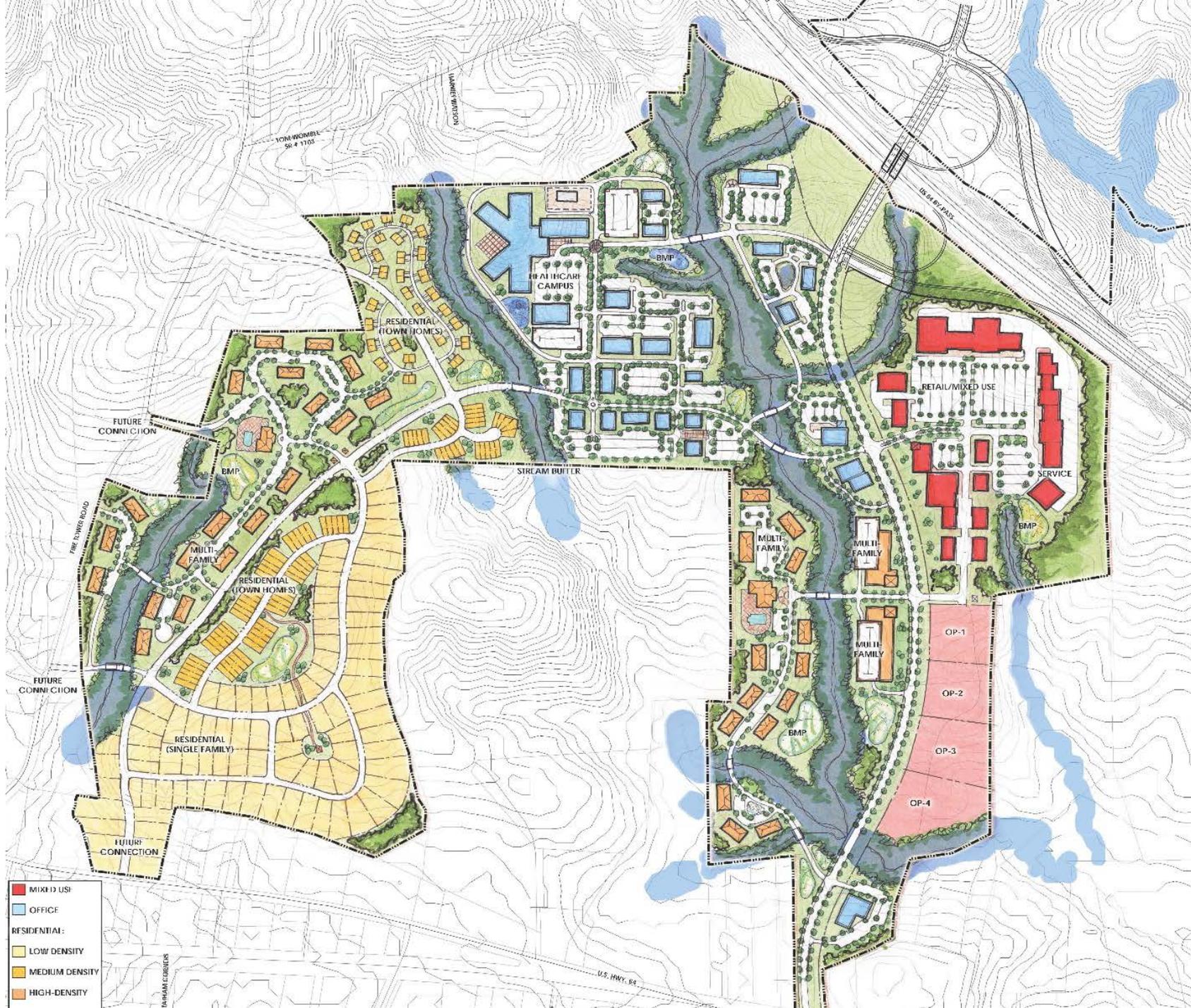


Next Steps

Master Planning

- Program around Market Feasibility Demand (ex. 750 ac = 1,500 lots)
- Develop a constraints map with buildable area
- Convert demand to acreage by product type
- Study where product types want to be on site based upon need for access, visibility, and adjacency to compatible land uses



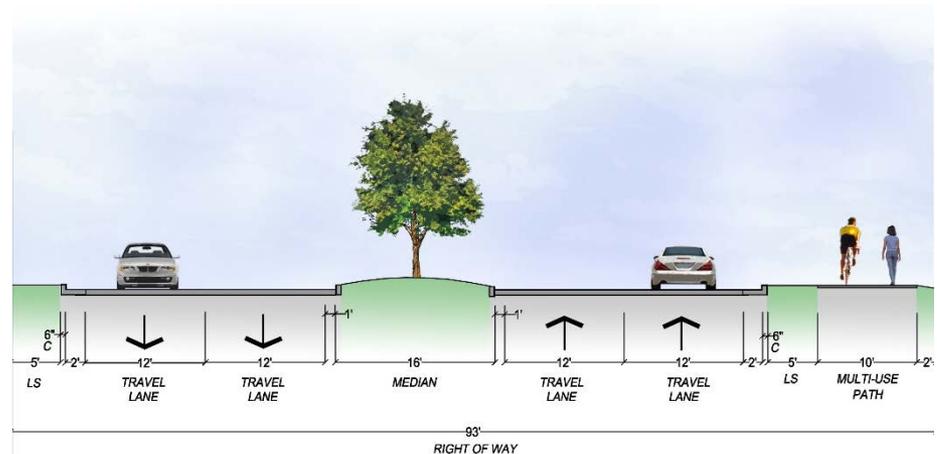
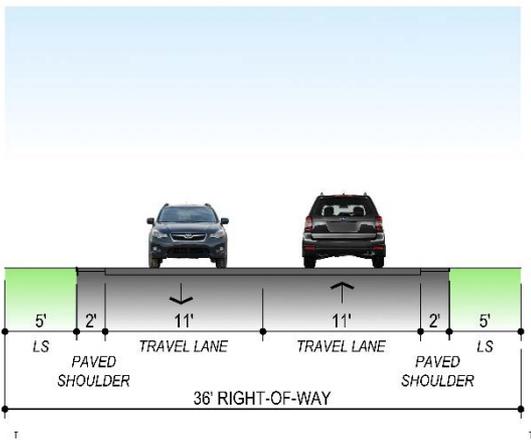


- MIXED USE
- OFFICE
- RESIDENTIAL:
- LOW DENSITY
- MEDIUM DENSITY
- HIGH-DENSITY

Next Steps

■ Transportation Framework

- Site Access
- Street Hierarchy
- Use road network to set up development parcels



- Plan for Stormwater Amenities and Utility Corridors
- Phasing Strategies

Next Steps

- Market demand and timing – natural order to development
- Infrastructure costs - capital projects versus developer funded
- Build in Flexibility
- Plan for Catalyst Projects – “opportunity” sites



Thank You



Kimley»»Horn