Environmental Impact Assessment	Womble Farm Catalyst Capital Partners LLC Subdivision Rezoning Case R-2 to CD-MU Parcels 2647 (58.03 ac) and 2646 (1 acre) 11785 US 15-501 N, Baldwin Township +/- 6.5 acres developed +/- 52.5 acres of open space
Proposed Project Description and Need	
Describe the overall project in detail, including all proposed phases.	Yes
Provide a project location map showing surrounding areas.	Yes
Provide a project site plan showing existing and proposed facilities.	Yes  Comment: Some of it is still unclear. Pool is shown in different locations: between parking lot and Bldg. 3, or next to Amenity Bldg. and pond near Bldg. 1.
Describe how this project fits into larger plans or connects with adjacent projects.	Yes  Comment: Page 5 section 3 is misleading as to current adjacent property uses. Although it's correct that the properties across 15-501 are mainly commercial, this property is surrounded by mostly single family residences.
List and describe public facilities or benefits provided by the project	Yes  Comment: Is more apt. housing and commercial area along 15-501 considered a public benefit?
6. Discuss the land acreage to be disturbed during each phase.	Yes  Comment: 13 acres including wastewater disposal area(s) to be disturbed. For WSII Watershed District, only slightly more than seven acres can be impervious surface. Does the +/- 6.5 acres [impervious surface] being developed include WWTP footprint?
<ol><li>List square footage and height (in stores) of new buildings.</li></ol>	Yes

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8. Describe proposed uses of all buildings and proposed facilities.	Yes
9. Show number of parking spaces in parking lots and decks.	Yes - preliminary
10. Show areas to be cleared, graded, filled, paved and landscaped.	Yes
11. Show connections to existing utility and sewer lines or new utilities.	Incomplete  Comment: More information should be included on type and location of the onsite wastewater system (with constructed wetlands). Map does not show connection to location of existing County water main along southern portion of road frontage. Is this on the east or west side of 15-501?.
12. Show wastewater management systems on a map.	Yes
13. Show proposed areas of impervious and semi-pervious surfaces.	Yes  Comment: Could green infrastructure like permeable pavers for the sidewalks and other surfaces be used?
14. Show and describe any proposed stormwater control devices.	Insufficient information  CommentL P. 4 "existing pond will be drained slowly prior to breaching dam & will not flood downstreams areas". In Appendix K a proposed pond [wider than existing one] is shown near the pool and Amenity Bldg. No description of existing pond repurposed as stormwater control measure [p. 2., no.14].  What other SCM will be used?
Alternatives Analysis	
Discuss and compare all reasonable development alternatives (site selection, facility layout, utilities, stormwater management, construction methods, open space preservation, any other pertinent alternative considerations.	Yes  Comment: They said there were no alternatives since most of the property is unavailable for development. Limitation due to landfill [considered Recognized Environmental Conditions; Vapor Encroachment Conditions; and Business Environment Risks], former gas station site, and an un-named tributary. Five Findings. How can the landfill portion of open space [total open space area = +/- 52.5 acres] be used for "enjoyment by multifamily community"?

	Are there restrictions or conditions [e.g., posting/signage] that apply to landfill(s) located in residential/commercial development? In this case, a CD-MU development. If someone notices a smell or detects possible leachate from landfill, who do they contact? Property owner(s) held responsible for reporting and mitigating environmental problems to NC DEQ? Conveyance?
2. Discuss how the preferred alternative was selected and its benefits relative to other alternatives (including a no-build alternative, if applicable).	Yes, but see comments above
Existing Environment and Project Impacts For each resource topic below, describe:	
A. Existing resources and conditions.	Yes
B. Anticipated impacts (short-term construction impacts, long-term operation impacts, and indirect or secondary impacts.)	Insufficient discussion of impacts
C. Discuss how potential impacts to the resource will be avoided and minimized through alternative selection, design strategies, construction methods, and long-term maintenance procedures.	Incomplete information about impacts of landfill and previous gas station.
D. For unavoidable impacts, describe whether any compensatory mitigation is planned or required.	Comment: EIA discussed no need for road improvement. However, this area is right at the Old Lystra road intersection and that is a difficult intersection now. There may need to be some safety considerations in looking at the impact and location of the entrances to this development and traffic flow through that intersection,.  They discussed potential migration of methane and other hazardous materials into neighboring wells.  They didn't discuss the potential impact of these neighboring wells from the drip fields from the WWTP. Drip field connected to WWTP are on a hill that is on the north side of parcel. Not clear how the developers will handle the possible runoff towards the adjacent property owners.  There was a Phase I Environmental Site Assessment performed in February 2022 stating the landfill

	(northern portion of site) and refueling station located to the east of the site has been closed due to NCDEQ guidelines. A vapor screening assessment was conducted and results indicate no vapor encroachment. Phase 2 Assessment?  Methane testing was completed during 2 consecutive days in March 2022. The location closest to one of the apartment buildings had the highest rating of methane detected. An additional reading should be completed during warmer times since it is well documented that as the landfill's temperature rises, bacterial activity increases, resulting in increased gas production. Increased temperature may also increase rates of volatilization and chemical reactions.  There are also levels (6)of H2S detected at a different site than the one that has detectable levels of methane
1. Geography	
Discuss the geographic setting, geology, and topography of the project area and adjacent areas.	Corrections needed: Under "Geography, pg. 3, 2nd para. the following statement is incorrect: "Morgan Creek flows into Jordan Lake (New Hope Creek). New Hope Creek flows into the Deep River." This should say "Morgan Creek flows into the New Hope Creek Arm of Jordan Lake, part of the Haw River watershed."  3rd para. Correction- The property is located in Chatham County, NC, not Chapel HIII.
<ul> <li>Provide a topographic map of the property and surrounding area, use the county GIS website topography (2' contours interval) data at a scale appropriate for the project size, i.e., 1" = 100', etc.).</li> </ul>	Yes
<ul> <li>Identify any 100-year floodplains (FEMA Special Flood Hazard Areas) on or adjacent to the property. If present, provide an appropriate-scale map of the flood-prone areas defined by the NC Flood Mapping Program.</li> </ul>	Yes
<ul> <li>Show areas that will be graded or filled, and provide estimated cut/fill volumes.</li> </ul>	Yes
<ul> <li>If the project includes pond or dam work, show areas that will be flooded.</li> </ul>	Yes

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2.	Soils and Prime Farmlands	
•	Identify dominant soils in the project area (county GIS or NRCS website) and show on a map.	Yes
•	Discuss any soil constraints (fill, wetland soils, septic suitability, slopes, etc.) and indicate those areas on a map.	Yes
•	Describe any soil disturbance or contamination expected as a result of this project.	Yes
•	If contamination is expected, discuss containment plans and procedures.	Insufficient - needs discussion of Phase 1 EIA information
•	If soil will be relocated, specify the number of square yards/feet to be moved, and its relocation site.	Yes
•	Describe runoff management plans for the project.	Insufficient  Comment: SCM should meet Chatham Co. standards.  On page 6 under wetlands, what does "additional runoff will be directed back to the stream" mean?
•	If soil disturbance is proposed, describe the off-site impacts expected from this activity.	Incomplete  Comment: Page 5 - "erosion and sediment control practices will be implemented". No other detail available.  Omit "in an attempt" to prevent off-site impacts, as the plan should clearly be to prevent off-site impacts.
•	Provide a map of any prime or unique farmland soils in the project or service areas, and include reference used to make this determination.	Yes
•	Describe impacts to prime or unique farmland soils, including acreage estimates of lost farmland soils and retained farmland soils.	No  Comment: prime farmlands were identified, so impacts should be discussed.
3.	Land Use	
•	Provide a map showing current use of land on the site and surrounding properties.	Yes

•	Discuss how the current land use fits into the surrounding area (conservation, development, ecological function, etc.)	Yes
•	Provide the current zoning of the project site and the surrounding area.	Yes
•	Discuss how the proposed uses fit into the intended land use of the area (conservation, development, ecological function, quality of life).	Yes
•	Indicate whether zoning or local land use plans will need to be changed after project completion.	Yes  Comment: Proposal is that this total property will be rezoned as CD-MU while 88% will serve as open space. ERAC made recommendation to split the parcel's conditional zoning, or for the conditional rezoning to take place under the limitations a conservation easement is emplaced upon the desired greenspace.
4.	Wetlands	
•	Indicate whether wetlands are present, describe the basis for this determination	Yes
	and identity of the person who made the determination.	
•		Incomplete Shown on the map but no discussion of delineation, functions etc.
•	determination.  Show identified wetlands on a map, and describe all relevant details, such as	Shown on the map but no discussion of delineation,
•	determination.  Show identified wetlands on a map, and describe all relevant details, such as acreage, types, delineation, function, etc.)  If wetlands are to be filled, specify the	Shown on the map but no discussion of delineation, functions etc.
•	determination.  Show identified wetlands on a map, and describe all relevant details, such as acreage, types, delineation, function, etc.)  If wetlands are to be filled, specify the number of acres that will be affected.  List all required permits and permitting	Shown on the map but no discussion of delineation, functions etc.  N/A  No NCG00001; NPDES permit for WWTP; Chatham

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<ul> <li>Provide a map of County or municipal parks, scenic, recreational or state natural areas (SNHAs, State or Federal Forests, etc.) on or adjacent to the site/project area.</li> </ul>	Yes  Comment: We asked for adjacent, not total parks and rec areas in the county.
6. Areas of Archaeological or Historical Value	
<ul> <li>Discuss any archaeological or historical studies of the project location; provide relevant references.</li> </ul>	Yes  Comment: they reached out to Federal Recognized Tribes, but none of the State Recognized tribes, such as the neighboring Occaneechi Band of Saponi Nations. Reach out to the NC Indian Commission?
<ul> <li>Describe and identify on a map any structures (i.e., walls, buildings, etc.) on the site and provide estimated ages of those structures.</li> </ul>	Yes
<ul> <li>Describe all impacts to any archaeological or historical resources in the proposed project area.</li> </ul>	Yes
Describe plans for demolishing or rebuilding any structures.	Comment: they mentioned demolishing using asbestos abatement techniques but they should also comply with Lead abatement as well). An asbestos-containing materials survey will need to be conducted prior to renovation or demolition of the buildings. Different lead-based paint rules apply for what they will be doing with the building or building materials.
<ul> <li>Provide photographs of any significant resources, including all structures older than 50-years.</li> </ul>	Yes
<ul> <li>Provide relevant correspondence with the Chatham County Historical Association and NC SHPO.</li> </ul>	Yes
7. Air Quality	
<ul> <li>Describe the project's impacts on ambient air quality.</li> </ul>	Incomplete The area is currently in attainment for all criteria pollutants. However there is no discussion of the additional vehicle miles traveled in the area that will be generated by the increased population and visit to the businesses, and the potential impact on Ozone

•	Describe plans for any open burning during or after construction.	Yes Comment: No plans for open burning during or after construction, but what will be done with vegetative debris? Possibility of composting?
•	Indicate the number of proposed parking spaces, if applicable.	Yes  Comment: Same no. of parking spaces in two different parking lot layouts? Not sure which preliminary design will be used. [See no. 9. for no. of parking spaces.].
•	Describe whether the project will increase odor levels, or the likelihood of odor complaints.	Incomplete EIA indicated current odors noticed on site. Will there be further testing or abatement?
•	Provide a copy of any required traffic studies.	Insufficient information provided regarding impact of traffic from a CD-MU
8.	Noise Levels	
•	Discuss current noise levels; use a benchmark if possible.	Yes
•	Describe any increases in noise levels expected from this project.	Insufficient, as construction noise not discussed
•	Specify the distance at which the increased noise will be heard.	No
•	Discuss whether surrounding properties	Insufficient
	will be affected by noise levels.	No discussion of off-site noise during construction
•	If commercial uses are proposed, specify the hours of operation.	Yes
9.	Light Levels	
•	Describe lighting plans for the project, including how lighting will impact adjacent residents and wildlife.	Incomplete  No discussion of impact on adjacent properties or wildlife  Comment: ERAC encourages use of LEED certified
10.	Surface and Groundwater Resources (discuss separately)	lighting structures

<ul> <li>Identify and provide a map of surface waters in the project area. Describe groundwater (aquifers) in the project area.</li> </ul>	Yes  Comment: SUMMIT Phase 1 report says that the onsite unidentified tributary flows to East Branch Price Creek
<ul> <li>Include names, locations, classifications, and use support ratings for surface waters.</li> </ul>	yes
<ul> <li>Specify and show on a map the river basin in which the project is located.</li> </ul>	yes
<ul> <li>Discuss any known groundwater quality issues.</li> </ul>	No Comment: Only discussion was in the SUMMIT Phase I ESA - February 2022; identified recognized environmental condition (REC) - groundwater impacted from refueling station or landfill. No additional groundwater data / testing.
<ul> <li>Discuss drinking water sources.</li> </ul>	Yes
11. Fish and Aquatic Habitats	
<ul> <li>Describe fish and aquatic habitats in and adjacent to the site/project area.</li> </ul>	Yes
<ul> <li>Discuss impacts to fish and aquatic life and their habitats, including a map showing those habitats.</li> </ul>	Incomplete Has an inventory of the aquatic life including fish been carried out for the pond that will be drained? Can the fish and amphibians be relocated?
12. Wildlife and Natural Vegetation	
<ul> <li>Describe and provide a map of natural community types on and adjacent to the site/project area.</li> </ul>	Yes
<ul> <li>List the species of dominant plants and animals observed on the site that typify those communities.</li> </ul>	Incomplete list of plants and animals
<ul> <li>Evaluate and discuss whether suitable habitat exists for rare, threatened, and /or endangered species, as described by the NC Natural Heritage Program.</li> </ul>	Yes  Comment: Were the Natural Heritage Program guidelines for evaluation used?
If wildlife will be displaced, discuss any limitation of adjacent areas to support them.	No Not discussed.

<ul> <li>Identify, list, and describe the distribution of the invasive species present on the site.</li> <li>Consult the NC Botanical Garden's Web page, "Plants to Avoid in the Southeast US" for a list of invasive species common to the region.</li> </ul>	Not discussed or referenced, beyond the discussion of Chinese wisteria.
<ul> <li>If forest will be cleared, discuss the extent of planned deforestation and specify the forestry methods to be used, including BMPs.</li> </ul>	No
13. Hazardous Materials	
List all hazardous materials to be stored or introduced during construction or operation.	Incomplete  Will pool chemicals be stored in Amenity Bldg.?  Will chlorine, caustic, or acids be used in the anticipated WWTP? If utilized for pH neutralization and sterilization they should be detailed in their intended use and management  How much fuel oil will be utilized onsite during construction? If >1320 gallons then a SPCC is needed and a spill response plan with a responsible party for clean up. (Recommendation for bulk fuel oil storage to be managed within secondary containment and fuel dispensing to be conducted on impervious services.)  Please detail how contaminated soil, in the event of a spill response, will be managed.  Any Underground Storage Tanks from existing structures?  How will Asbestos be managed, removed, and disposed of if uncovered during demolition?
<ul> <li>For each hazardous material, other than deminimis quantities or for routine housekeeping purposes, describe the procedures to be used to ensure their proper management, storage, and disposal.</li> </ul>	No
References	Yes

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Exhibits (Maps, Figures, Tables, Photos, etc.)	Yes
State and Federal Permits Required	No
	Need to specify if a NPDES has or will be submitted for the Wastewater treatment
	Need to apply for a NCG00001 for the construction phase of the development
	They will need a Chatham Co. Land Disturbance permit
	Will a Brownfield application permit be pursued.
ADDITIONAL COMMENTS from ERAC	There is considerable information in the 11 page "Proposed Project Description and Need" that was unnecessary, such as the geologic history of the Piedmont, detailed descriptions of Chatham parks, Jordan Lake water allocation rules, and removal of Chinese wisteria. The SUMMIT Phase 1 EIA has long sections of duplicate or unnecessary information that adds many pages to this 495 page document(CC Parks & Rec Fall/Winter Program Guide; copies of envelopes sent to each adjoining property owner(s), duplicate photo pages, etc.) We bring this up because it makes review of the document more time consuming. On the other hand, some important details and information relevant to the project were lacking in the 11 page summary, or seem to be contradicted by findings of the SUMMIT Phase 1 EIA.
	We're uncertain which preliminary design is current since information submitted for ERAC's review of EIA is not always the same as planning department docs listed for Catalyst Capital Partners, LLC 2023 Rezoning case.
	There is a major red flag for this development discussed in the SUMMIT Phase 1 EIA report (pages 2-4) concerning "Recognized Environmental Conditions". These include the LCID landfill which was considered to have high potential for soil, groundwater and vapor impacts, and observation of potential leacheate seeps and methane gas release from the landfill. In addition they found insufficient
	data to rule out soil and groundwater contamination from the gas station on-site that operated from the 1950's-1990's as well. The Summit considered these

REC's to be Business Environmental Risks (BEC). The county should require more investigation of these problems and their possible impacts on neighboring properties before approval for new development.

It is not clear what other NMOC (non-methane organic compounds) are in the soils in the surrounding areas. NMOCs most commonly found in landfills include acrylonitrile, benzene, 1,1-dichloroethane, 1,2-cis dichloroethylene, dichloromethane, carbonyl sulfide, ethyl-benzene, hexane, methyl ethyl ketone, tetrachloroethylene, toluene, trichloroethylene, vinyl chloride, and xylenes.. Many of these organic compounds are known and possible human carcinogens. Additional soil analysis should be completed to determine levels. This is important because the landfill was commissioned prior to RCRA and proximity to the new buildings.

There was a limited methane assessment completed but no additional hazardous materials or soil-vapor assessment conducted for other contaminants.

Additional Methane testing should be completed during warmer times in particular at those sites that have detectable levels of Methane and H2S.

ERAC recommends that infiltration basins, pervious pavers and rain gardens are incorporated with facility parking lot design due to close proximity to riparian ecosystems

ERAC Womble Farm EIA Review Decision

Statement approved unanimously by ERAC 11/9/2023

Our review found significant areas of insufficient and incomplete information. These included:

- Potential groundwater and soil contamination and remediation
- Hazardous material usage and storage
- Land disturbance and stormwater containment practices and permits
- Impacts of noise, light and odor to adjacent landowners and wildlife
- Alternatives to land use zoning for entirety of property
- Wastewater treatment discharge and applicable permits
- Traffic impacts

Due to gaps in the aforementioned criteria, we found this EIA insufficient for approval.