

A. ELEMENTS OF SEQRA ANALYSIS

The EAF Part 3 is intended to convey general and technical information regarding the potential environmental impacts of the Proposed Project to the Town of Dover Planning Board (as Lead Agency), as well as several other agencies involved in the review of the Proposed Project. The EAF Part 3 shall contain an analysis of environmental impacts in the subject areas outlined below and an identification of any significant adverse environmental effects that cannot be avoided if the Proposed Project is implemented. Information for each of the subject areas shall be provided in individual sections describing existing conditions, potential impacts of the Proposed Project, and mitigation measures for any significant adverse impacts identified.

ORGANIZATION AND CONTENT OF THE SEQRA ANALYSIS

SECTION 1: DESCRIPTION OF THE PROPOSED ACTION

1. Project Description

- a. Location and Site Definition—include local and regional geographic descriptors, tax map designation(s), size of parcel(s) affected by Proposed Project, existing zoning designation(s), adjoining streets and land uses, natural features or habitats on-site or contiguous (physically, hydrologically, or otherwise) to the site, and existing site conditions including a description of the existing hospital complex, previous community uses, and prior site uses.
- b. Site Design—include all information necessary to describe the Proposed Project. Information to be provided should include a description of: the proposed site layout, proposed building; operational information including vehicular access, parking, and loading requirements, including truck size limitation, typical hours of operation, and site security; site improvements including grading, roadways, parking areas, landscaping, signs, lighting, drainage features, and pedestrian improvements; a description of any off-site improvements to be undertaken by the applicant; and the detailed phasing schedule for the Proposed Project.
- c. Building Design—Include description of architectural features of the proposed building, including graphic depictions of the building, façade treatments, building materials, and screening for HVAC equipment.

SECTION 2: EVALUATION OF POTENTIAL IMPACTS

A. Land Use and Community Character, Zoning, and Public Policy

1. Land Use and Community Character

- a. Existing Conditions—Describe existing conditions on the Project Site, including on-site uses, buildings, and conditions. Also describe the existing conditions in the vicinity of the project. The study area for the land use survey shall include the general land use pattern within ½ mile of the project boundaries.
- b. Potential Impacts of the Proposed Project—Describe the relationship of the Proposed Project with adjoining uses and discuss the effects of the Proposed Project on the general land use pattern and community character within the ½ mile study area.

- c. Proposed Mitigation Measures—Provide mitigation measures for any potentially significant adverse impacts. Potential mitigation could include the alteration of the project's size, design and layout.
2. Zoning
 - a. Existing Conditions—Describe the existing zoning for the Project Site. Include information on allowed uses, density, bulk, and setbacks required within the district. Also include a description of the requirements for subdivision and clustering.
 - b. Potential Impacts of the Proposed Project—Describe how the Proposed Project would conform to the zoning regulations with respect to use, density, bulk, and setback requirements.
 - c. Proposed Mitigation Measures—Provide mitigation measures for any potentially significant adverse impacts. Potential mitigation could include the alteration of the project's size, design and layout.
 3. Public Policy
 - a. Existing Conditions—Identify and describe relevant policies contained in the Town of Dover Master Plan (dated September 1993 and as last revised). Identify specific provisions within the Master Plan of relevance to the Dover Plains Hamlet and Route 22.
 - b. Potential Impacts of the Proposed Project—Assess the compatibility of the Proposed Project with relevant policies contained in the Master Plan, particularly focusing on the Dover Plains Hamlet and Route 22. Provide specific references to the full text of relevant Master Plan policies. The Proposed Project shall also be evaluated for consistency with Dutchess County plans and policies including, but not limited to, *Greenway Connections* and *Hamlet Design Guidelines*.
 - c. Proposed Mitigation Measures—Provide mitigation measures for any potentially significant adverse impacts. Potential mitigation could include the alteration of the project's size, design and layout.

B. Visual Resources

1. Existing Conditions—Describe through text and photographs the visual character of the Project Site within the context of its surrounding area.
2. Potential Impacts of the Proposed Project—Describe visibility of the project from Route 22 and surrounding local roads. Provide color perspective renderings and line-of-sight drawings showing the proposed buildings in the context of the site from any location from which substantial views of the site are possible.

Describe the proposed landscape and architectural design treatment. Describe any proposed signs and site lighting. Identify any impacts to the visual character of the area resulting from the Proposed Project. Include an assessment of the Project's impact on the key elements defining the surrounding area's community character.

3. Mitigation—Describe practicable mitigation techniques that will avoid, minimize or offset identified visual impacts.

C. Geology

1. Existing Conditions
 - a. Soils—Describe on-site soils and their suitability for urban development and on-site stormwater management.

- b. Topography—Describe the topography of the site and include a topographic map based on 2- foot contour survey map.
 - c. Bedrock—Describe the depth to bedrock on the Project Site and the amount, if any, of any bedrock removal and the means and methods anticipated to be used for removing bedrock.
 - d. Unique Features—Identify unique site features such as bog, fen, and slopes in excess of 15%, and other sensitive environmental areas. Identify and discuss Critical Environmental Areas ("CEAs") within 1 mile of the Project Site.
2. Potential Impacts of the Proposed Project
- a. Soils—Describe the suitability of on-site soils for the proposed stormwater basins; quantify the amount of cut-and-fill and the amount of any soils to be exported from or imported to the site. Describe any fill to be used on the Site in accordance with Chapter 65 of the Dover Code and the method by which the Applicant will ensure that any fill brought to the Site is clean fill.
 - b. Topography—Changes to the site's topography resulting from project grading should be identified.
 - c. Bedrock—Discuss likelihood of blasting and, if needed, identify areas that will require blasting and quantity amount/extent.
 - d. Erosion and Sediment Control Plan—Describe grading and excavation plans with respect to changes in drainage patterns and potential soil erosion. Identify and describe measures for controlling erosion and preventing sediments from migrating off site.
 - e. Unique Features—Identify any potential impacts to sensitive and critical environmental areas. Identify any impacts resulting from an increase in impervious surfaces.
3. Mitigation Measures
- a. Discussion should include methods for minimizing impervious surfaces and/or maximizing compensatory recharge through the use of pervious swales, infiltration areas, recycling of stormwater for irrigation, etc.
 - b. Site stabilization and protection of steep slopes/construction techniques for sloped areas.
 - c. Rock removal and blasting protocols and notification/claim procedure to/for neighbors.
 - d. Limitation on construction or avoidance of sensitive environmental resources on the site.

D. Natural Resources

- 1 Existing Conditions—Identify vegetative communities and habitat types on the Project Site and in the vicinity of the site, including a description of species presence and abundance, age, size, distribution, dominance, community type, productivity and value as habitat for wildlife. Identify any protected native plants, State-listed threatened or endangered plant and animal species, unique or locally rare plants and animals, and significant habitat areas on or in the vicinity of the Project Site.
2. Potential Impacts of the Proposed Project—Assess the potential impacts to existing vegetative communities or habitat as a result of the Proposed Project.
3. Mitigation Measures—Discuss potential augmentation and restoration of wildlife habitats.

E. Water Resources and Wetlands

1. Existing Conditions—Describe and identify graphically all watercourses and wetlands on the Project Site and in the vicinity of the site. The description should include the existing drainage patterns on the site, inter-wetland connectivity, a description of the watershed, and discharge points of existing

drainage. Identify any regulations or regulated activities within Town of Dover Town Code, NYSDEC, and ACOE regulations. The description shall also include a description of existing flooding issues, if any.

2. Potential Impacts of the Proposed Project—Assess the potential impacts to existing waterbodies, watercourses, wetlands, and aquifers. Evaluate wetland and wetland buffer impacts (including any associated with construction of stormwater management facilities). In particular, assess the potential impacts to Seven Wells Brook and the Stone Church Brook which traverse the northern edge of the Dover Village Plaza property. Identify and analyze proposed measures to mitigate any disturbance to the Town, NYSDEC, and ACOE buffers. Identify how on-site drainage patterns will be altered including an assessment of the resulting impacts to wetlands, streams, and aquifers. Potential impacts on the 100-year flood plain.
3. Mitigation Measures—Address wetland and buffer avoidance and potential for wetland restoration.

F. Community Services

1. Police—Describe existing police protection in the area. Describe any changes to service levels in the future without the project. Using information obtained from comparable projects and local law enforcement agencies assess potential impacts of the Proposed Project on police protection on- and off-site. The need for additional on- or off-site facilities, personnel, and equipment, and the anticipated cost of these items shall be identified.
2. Fire—Describe existing fire protection in the area. Describe any changes to service levels in the future without the project. Using information obtained from comparable projects and the J.H. Ketcham Hose Company, Inc. assess potential impacts of the Proposed Project on police protection on- and off-site. The need for additional on- or off-site facilities, personnel, and equipment, and the anticipated cost of these items shall be identified.
3. Emergency Services—Describe existing emergency services in the area. Describe any anticipated changes to service levels in the future without the project. Using information obtained from comparable projects and local emergency service organizations or companies assess potential impacts of the Proposed Project on emergency service provision on- and off-site. The need for additional on- or off-site facilities, personnel, and equipment, and the anticipated cost of these items shall be identified.

G. Economic Conditions

1. Construction Period—Quantify the expected economic impacts to the local economy during the construction period. Identify the number of jobs (in person-years) to be generated directly and indirectly as a result of construction. Calculate income to the local economy from sales of construction material, construction labor, and sales tax.
2. Operation Period— Identify approximate number of employees that would be generated by the Proposed Project, including information with regard to type and salary level. Using available Town, Dutchess County, Census, and Department of Labor data on employment, identify anticipated residence for the employees. Indicate whether employees would be likely to relocate to the Town of Dover or surrounding communities to fill jobs. Calculate existing and estimated tax revenues to the Town of Dover, Town of Dover School District, Dutchess County, and New York State from the Project Site as a result of operation of the Proposed Project. Coordinate with the Town of Dover tax assessor to obtain relevant data for the analysis. Existing population data should be obtained from the Town of Dover, Dutchess County, and the US Census Bureau. 2010 Decennial Census Local Update of Census Addresses data should be utilized wherever possible.

3. Economic Impact Analysis — Development activity such as the proposed retail supermarket may attract sales from existing stores, and while these competitive socioeconomic impacts do not necessarily generate environmental concerns, they can become an environmental concern if they have the potential to alter neighborhood character by affecting the viability of neighborhood shopping areas. Therefore, an analysis will be performed to determine whether the proposed project could result in retail market saturation, and if so, whether the potential displacement of competing uses could affect the viability of neighborhood shopping areas, which in turn could result in neighborhood character impacts. The assessment of potential retail market saturation should include the following:
- Determine the primary trade area for the proposed project. The primary trade area is the area from which the bulk of the new stores' sales are likely to be derived, and typically includes a geographic area from which approximately 70 to 80 percent of a project's retail sales revenue are derived. Factors to consider in establishing the primary trade area include the quality and quantity of similar food stores in Dover and the surrounding area, and the distance area residents travel for supermarket shopping.
 - Develop a profile of shoppers within the primary trade area, including household incomes and average annual expenditure on products typically associated with a supermarket. Estimates of annual "food for home" and other expenditures can be estimated based on U.S. Census Consumer Expenditure Survey data, or from private market data providers such as Claritas or ESRI Business Analyst.
 - Develop a profile of the most potentially competitive stores within the primary trade area.
 - Develop an estimate of supermarket sales generated by existing stores in the primary trade area. Sales estimates can be derived from local sources, from the Urban Land Institute's *Dollars & Cents of Shopping Centers*, or from private market data providers such as Claritas or ESRI Business Analyst.
 - Determine whether any factors would emerge that would affect retail market conditions within the primary trade area by the project Build year. This could include planned projects that would increase the expenditure potential of the trade area, as well as any planned supermarket development in the primary trade area that could capture supermarket expenditure potential.
 - Compare the supermarket expenditure potential of residents within the primary trade area against projected supermarket sales in the future with the proposed project to determine whether the trade area is currently saturated with supermarket uses, or whether there is an outflow of expenditures from the trade area.

If the assessment finds that the project could result in retail market saturation, further analysis should be conducted to determine whether the potential displacement of any existing supermarkets could affect the viability of neighborhood shopping areas, which in turn could result in neighborhood character impacts.

H. Cultural Resources

1. Archaeological Resources—A Phase IA documentary study shall be prepared that will address the Project Site's potential to have hosted prehistoric and historic archaeological resources as well as the likelihood that such resources have survived the subsurface disturbances concomitant with construction episodes, infrastructure systems, landscaping, and agricultural practices. Sufficient information must be gathered to compare the prehistoric past, the historic past, and the subsurface disturbance record. This assessment will take into consideration known archaeological sites in the area and site file information from the New York State Office of Parks, Recreation, and Historic Preservation, the New York State Museum, and local sources. If the Phase IA analysis identifies potential sensitivity for cultural resources or grave sites on the Project Site, a Phase IB site survey,

including a subsurface investigation, should be completed to determine the presence or absence of cultural resources on the Project Site.

2. Historic Resources—Identify potential impacts to historic, architectural and archaeological resources that would result from the Proposed Project.

I. Stormwater Management

1. Existing Conditions—Describe existing stormwater flow rates and patterns on the site.
2. Potential Impacts of the Proposed Project— Describe all stormwater practices to be used to detain and treat stormwater runoff. Describe measures to ensure that post-development stormwater peak flows will be below existing peak flows. Describe measures to ensure that stormwater runoff from the site in the post-development condition will not adversely affect adjacent and downstream properties and existing off-site drainage facilities. Describe any impacts to adjacent wetlands and waterbodies, and underlying aquifers. Identify areas on the Project Site where underlying soils, geology, or groundwater may create conditions that are not suitable for construction of stormwater management facilities. Identify any additional Best Management Practices (BMPs) that will reduce phosphorus exported from the developed site to below pre-construction levels.
3. Mitigation Measures – Discuss the use of Low Impact Development Techniques (LID) including pervious pavement/pavers, bioswales, perimeter sand filters, and filter strips in the parking area and the potential benefit with respect to stormwater management.

J. Traffic and Transportation

1. Existing Conditions
 - a. Traffic Data Collection
 - (1) The traffic impact study (TIS) shall describe the physical conditions of the street network in the project study area. Physical conditions of the street network including roadway and sidewalk widths, pavement conditions, traffic light signalization (i.e., ratio of green to total cycle timings), and other control data and traffic flow conditions (i.e., effective roadway width, etc.) shall be inventoried.
 - (2) Automatic Traffic Recorder (ATR) counts shall be conducted on NYS Route 22 in front of the project site for a contiguous seven (7) day period not including any national, state, or school holiday to identify weekday AM and PM and Saturday midday peak hours.
 - (3) Manual Turning Movement Counts (TMC) and Vehicle Classification Counts (VCC – in order to determine the percentage of heavy vehicles) shall be conducted during the weekday AM and PM peak hours and the Saturday midday peak hour at the following intersections:
 - Route 22 and Old Route 22 (TMC)
 - Route 22 and Mill Street (TMC and VCC)
 - Route 22 and School Street (TMC)
 - Route 22 and Seven Wells Road (TMC)
 - Route 22 and North and South Tinkertown Road (TMC)
 - Route 22 and Dover Village Shopping Center Driveway (TMC and VCC)
 - Route 22 and Freshtown Driveway (TMC and VCC)
 - Route 22 and New Project Site Driveway (Build Conditions)

- Route 22 and North and South Nellie Hill Road (TMC)
 - (4) Obtain the most recent three years of accident data from the NYSDOT or other local agencies for the study area intersections. The accident rate (Accident/Million Vehicle Mile) shall be computed for the study area roadways and compared to the statewide average. The TIS shall identify any NYSDOT Priority Investigation Locations (PILs) in the study area. A Highway Safety Investigation study will prepared for all PIL locations.
 - b. Capacity Analysis—Perform a capacity analysis for each of the peak periods for which manual counts were collected at each of the study area intersections using the latest version of the Synchro methodology. Present Level of Service (LOS) and queuing (storage lengths and 95th percentile queue) results tabularly for each peak period.
 - c. Parking Analysis—Perform a parking utilization study (to identify peak parking conditions) for both weekday and Saturday conditions for the existing Dover Village Shopping Center.
 - d. Speed Analysis—In order to establish the 85th percentile speed on Route 22, an ATR machine (that can record vehicular speeds) shall be installed for a contiguous seven (7) day period concurrent with the TMC, VCC and ATR counts.
2. Potential Impacts of the Proposed Project (Including Mitigation Measures)
- a. The analysis of the proposed project should account for future conditions without the proposed project. In particular, this analysis should account for the Knolls of Dover, Dover, NY project, and any approved mitigation measures (such as road improvements), that would affect the Proposed Project. In addition, this analysis should address the following:
 - (1) Background Traffic Growth—Estimate traffic volumes in the study area in the future without the project. Future traffic volumes shall be estimated using existing volume information and by adding a background growth factor (1 percent per year), as well as incremental increases in traffic from any phases of the Knolls of Dover project scheduled to be completed by the Build Year. Trips generated by these projects shall be determined using Institute of Transportation Engineers (ITE) Trip Generation rates or information presented in other recent studies (which studies shall be referenced and included in the appendix of the TIS).
 - (2) Capacity Analysis—Perform a capacity analysis for the future without the proposed project for each of the peak periods for which manual counts were collected at each of the study area intersections using the latest version of the Synchro methodology. Present LOS and queuing (storage lengths and 95th percentile) result tabularly for each peak period. The TIS shall also identify any changes in traffic conditions in the study area that would affect the accident experience at study area intersections and roadways as presented in the Existing Conditions analysis.
 - b. Trip Generation—Use ITE trip generation to estimate future traffic volumes resulting from the proposed development program. Identify projected arrival and departure patterns for project-generated traffic. Overlay the project-generated traffic on the future No Build network to determine future Build traffic volumes.
 - c. Capacity Analysis—Perform a capacity analysis for each of the peak periods for which manual counts were collected at each of the study area intersections using the latest Synchro methodology. Present LOS and queuing (storage lengths and 95th percentile) results tabularly for each peak period. Identify potential significant adverse impacts of the proposed project. For locations where significant adverse impacts are identified, the feasibility of potential mitigation measures will be evaluated. Conventional transportation system management (TSM) measures—such as revisions to the signal timings and changes in lane usage, signalization of intersections, street widening, and pavement marking, etc.—will be considered, as well as traffic calming

measures (e.g., to reduce speed near the project site, etc.) where appropriate. An assessment of LOS, queue, traffic control devices and sight distance shall be performed at all new and existing project site driveways on Route 22, as well as the internal intersection of the Dover Village Shopping Center Driveway and the new roadway created to provide access to the southern end of the project site. **The Route 22 and Dover Village Shopping Center Driveway intersection shall be analyzed both with and without a traffic signal. A traffic signal warrant study shall be performed for the Route 22 and Dover Village Shopping Center Driveway intersection.**

- d. Parking Analysis—Use ITE data, survey data from existing grocery stores in the region (e.g. Hannaford Supermarket stores in LaGrange and Pawling, NY) and the Town code to establish the parking demand of the proposed project. Assess overall parking supply and demand for the entire Dover Village Shopping Center. Evaluate the potential for shared parking using the methodology described in Urban Land Institute’s “Shared Parking” or a similar methodology.
 - e. Vehicular and Pedestrian On-Site Circulation—Identify primary access paths for passenger vehicles, emergency vehicles (emergency services personnel shall be contacted to discuss their concerns regarding the project), delivery vehicles, and pedestrians (for the entire Dover Village Shopping Center). Provide diagrams showing truck tire turning radii in relation to parking spaces and pedestrian walkways for all turns between the site access and loading area(s).
 - f. Pedestrian and Bicycle Analysis—Identify the pedestrian /bicycle connections from the project site to the surrounding area.
3. Discuss how the proposed project complies with the traffic and transportation polices and recommendations as identified in the Route 22 Corridor Management Plan.

M. Hazardous Materials

1. Existing Conditions
 - a. Summarize the findings of a full Phase I Environmental Site Assessment (ESA) of the site, and any Phase II investigations.
 - b. Identify and describe any areas of environmental concern including, but not limited to, solid waste facilities (dumps, ashfills, landfills), petroleum spills (active and closed), chemical spills, petroleum bulk storage facilities and any location where residual contamination is known to exist such that soil, subsurface vapor, sediment, surface water or groundwater standards or guidance values have been exceeded.
2. Potential Impacts of the Proposed Project
 - a. Describe how environmental contaminants will be abated prior to commencement of construction including, but not limited to, remediation of asbestos, lead paint, contaminated soil, groundwater, and sub-surface vapor, removal or closure of chemical or petroleum storage tanks, solid waste facilities, and maintenance of institutional or engineering controls if contaminants are to remain.
 - b. Identify any hazardous materials to be generated or stored on the Site in both the construction and operations periods of the project. Describe storage and disposal practices to be implemented for these hazardous materials.
3. Mitigation Measures
 - a. Describe mitigation measures/best management practices to be utilized during construction or rehabilitation of the project. Describe any required mitigation as part of any Remedial Action Plan developed for the site.

N. Construction

1. Describe proposed construction phasing, overall schedule for project completion, and hours of construction operations. Describe the equipment and materials storage and/or staging area, anticipated number of construction workers, anticipated lighting and security, and the delivery means and methods. Describe the erosion and sediment control plan for the Proposed Project and any stormwater management practices to be used on a temporary basis.
2. Assess the potential environmental impacts anticipated due to the construction of the Proposed Project including traffic, noise, air quality, dust, blasting, erosion and sedimentation and its impact on the surrounding area.
3. Discuss construction management techniques and enforcement, control plans, ideal management practices to be employed, along with mechanisms to minimize impacts related to partial project completion.

O. Infrastructure and Energy

1. Sanitary Sewage
 - a. Existing Conditions—Describe the Dover Village Plaza wastewater treatment plant, its design capacity, and its current/former SPDES permit discharge limits.
 - b. Potential Impacts of the Proposed Project—Describe the anticipated flow volumes from the Proposed Project. Describe any necessary improvements to the wastewater treatment plant and collection system to accommodate the anticipated flow volumes from the Proposed Project and any improvements or modifications to the treatment plant to allow projected flow volumes to meet SPDES permitting requirements.
 - c. Mitigation Measures—Discuss water saving fixtures, use of tertiary treatment plant, reuse of treated water for irrigation and commercial uses; recycling of grey water, and creation of natural resources for filtering purposes.
3. Water Supply
 - a. Existing Conditions—Describe existing water supply to Project Site.
 - b. Potential Impacts of the Proposed Project—Describe how water will be supplied to the Proposed Project and the ability of the local and regional groundwater system to handle the anticipated demand including any potential impacts to private wells off the Project Site. Estimate the usage for the proposed building including estimates for fire fighting purposes. Describe the project's fire-fighting system, including water storage capacity, number and location of fire hydrants, and building sprinkler systems. Include a discussion of the potential for the use of a graywater system and analyze its effect on total water usage.
 - c. Mitigation Measures—The EAF Part 3 shall evaluate measures to reduce and conserve water resources, and potential system and infrastructure improvements.
4. Electrical Supply
 - a. Existing Conditions—Identify service providers and existing energy infrastructure.
 - b. Potential Impacts of the Proposed Project—Evaluate anticipated energy demand and ability of providers to service the project including, but not limited to, a discussion of the use of energy efficient appliances, lighting and all other measures of energy conservation. Identify the anticipated heating fuel type.
 - c. Mitigation Measures—Discuss the Applicant's use of alternate energy resources.

APPENDICES

Materials to be provided in Full EAF Appendices include:

1. All technical reports in their entirety including, but not limited to, the following:
 - a. Traffic Study
 - b. Water and Sanitary Sewer Report
 - c. Stormwater Management Plan
 - d. Geotechnical Report and/or narrative
 - e. Phase I Environmental Site Assessment, and any Phase II investigations
 - f. SHPO studies including the Phase 1A investigation
 - g. Environmental Reports

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