

Planner's Memorandum

Ulster County Planning
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Regulating the Development of Warehousing

By Robert A. Leibowitz, AICP

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Defining Modern Warehousing and Logistics

What types of warehousing operations are appropriate for your municipality, and how do they fit into the comprehensive plan?

Zoning for Warehousing

Where should it be allowed, and what other locational considerations be included?

Criteria for Warehousing

What special conditions should be included in your community review of warehousing?

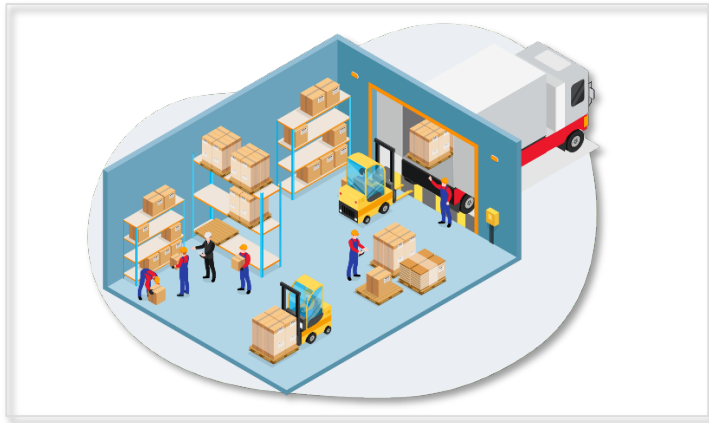


Introduction

Warehousing and distribution centers (logistics infrastructure) have experienced rapid growth nationwide as private industries have evolved their sales practices via e-commerce, emphasizing rapid shipping speeds. As the demand for these types of facilities continues to increase, developers are looking further afield from traditional locations to find suitable land to support their development.

Our review of municipal zoning statutes in Ulster County has revealed that distribution facilities/centers are universally undefined. Many municipalities allow other functions to occur within warehouses, while others only allow warehouses to be used for storage. In many cases, activities other than storage and shipping are considered light industrial uses, leaving it open to interpretation whether the warehouse and distribution components can be viewed as a primary function of the light industrial use. A few communities use the phrase "transportation or truck terminal," which is not always defined. In all zoning statutes reviewed, restrictions on the size (square footage) of warehouse facilities are not included. Other regulatory parameters or design standards are also lacking, such as access to state/county roads and landscaping and notable setbacks for large truck/trailer parking areas. It is noted that some statutes have performance standards generally related to light industrial uses but that they are not explicitly tailored to warehouse and distribution uses.

This guide provides strategies and resources for communities to consider as they update their comprehensive plans and zoning statutes to include more specific regulatory standards for these uses.



Comprehensive Planning

Before any updates to the zoning statute are made, the community should evaluate its comprehensive plan and identify and update how it handles these uses to ensure zoning changes are consistent in their location. Key issues to consider are:

- Traffic and Access Management
- Size/Scale
- Disturbance (including wetlands, steep slopes, habitats, and stormwater, visual impacts)
- Air Quality
- Community Character/Design
- Social Justice

Defining Warehousing in Zoning Statutes

The ITE Trip Generation, Manual 11th Edition supplement, provides a good starting point for defining the types of warehousing and distribution centers as it breaks down these facilities' traffic generation by size. That breakdown provides a baseline definition, which is as follows: a). large fulfillment centers, typically in the 150,000 to 500,000 square foot range requiring 36 "clear feet" (roughly 40 feet tall and in some cases up to 50 feet); b) so-called "Last-Mile" fulfillment facilities that serve more localized markets and have a GFA of 50,000 to 150,000 square feet, and c) micro-scaled fulfillment centers which can be as small as 3,000 square feet and up to roughly 25,000 feet that can be sited within neighborhood commercial areas and lend themselves to repurposing of existing commercial structures.

The above leads to the following definitions:

Fulfillment Center - Those facilities involved in the receipt of bulk products and the storage, separation, and distribution of said products individually to individual end-user consumers (not retail). This use includes e-commerce activities.

Fulfillment Center (Warehouse), Large - A fulfillment center with a GFA greater than 150,000 square feet (optional: a maximum of 500,000 square feet) and 36' clear feet or 40' maximum building height.

Location

In most zoning statutes warehousing is already designated for industrial and manufacturing-related zones and remains the ideal location for most of these uses. As their use becomes less passive, the impacts on adjacent zones and uses become more critical to avoid or mitigate.

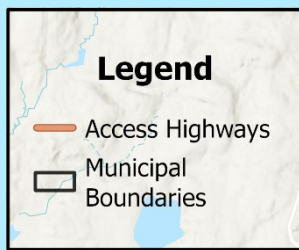
- **Community character** - Outside of downtown or commercial centers
- **Water/Sewer** - These are not water/sewerage consumptive uses and should be cited outside of water and sewer districts where the available capacity could be more efficiently utilized.
- **Existing Office and Manufacturing/Industrial Zoning** - Areas may accommodate last-mile and micro-scale facilities in existing or former commercial buildings, resulting in the need for further regulation.
- **Create special permit standards or warehousing overlay districts** with specific site design criteria.

A Word About Building Height

Our zoning audit has shown that few municipalities allow building heights above 35'. In those districts where more than 35' is permitted, it occurs in industrial districts that will enable heights ranging from 40' to 75'.

Applicants can achieve height variances through the practice of visual impact analysis and photo simulations, which show impacts on local character and visibility from sensitive sites.

Communities seeking to limit the size and scale of these types of facilities should consider including these parameters within their definitions to prevent changes brought about by the variance process.



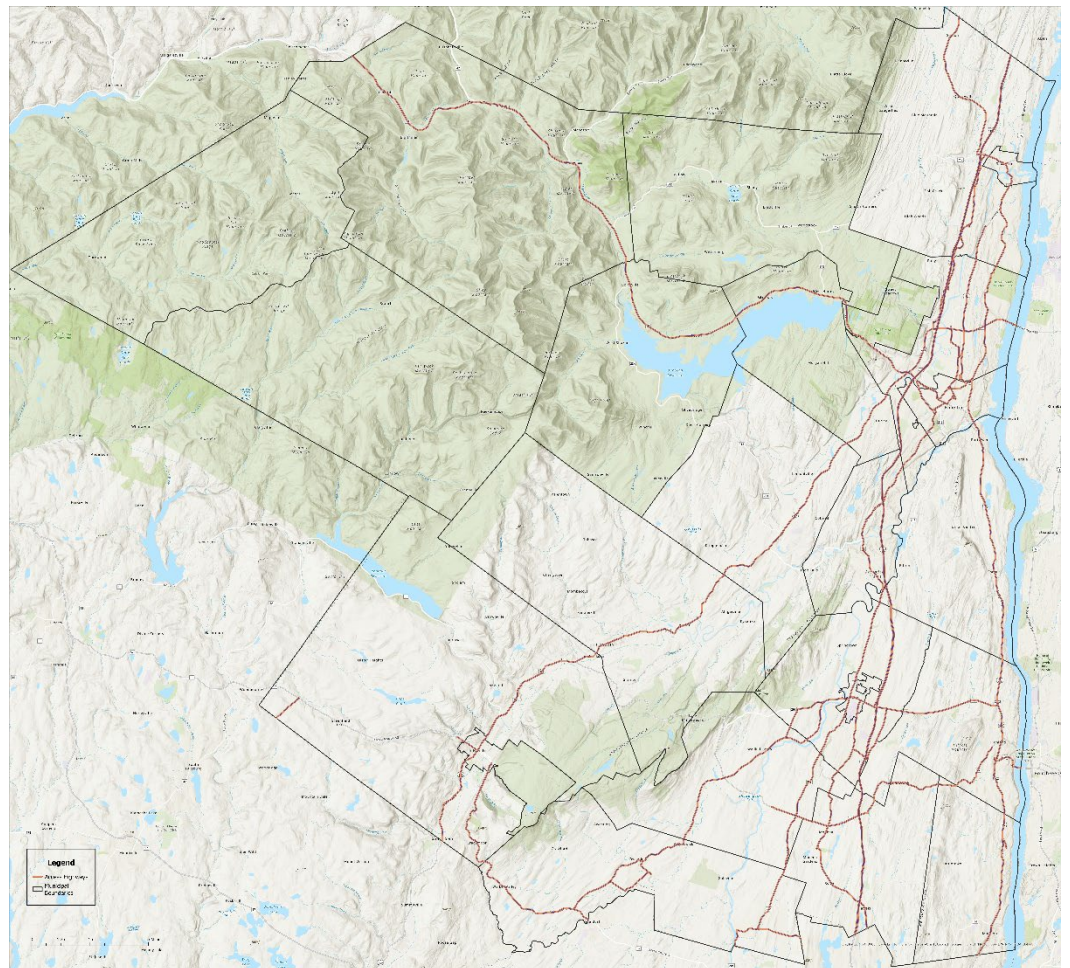
Fulfillment Center (Warehouse), Last Mile or Small - A fulfillment center with a GFA greater than 40,000 square feet and less than 150,000 square feet and a max of 32 feet of clear height or 36 feet maximum of building height.

Neighborhood Center (Warehouse) - A fulfillment center with a GFA of less than 40,000 square feet and a max height in conformance with the standards of the zone in which it is located.

New York State Access Highways

Facilities that intend to utilize trucks 53 feet or longer are required to use only "Access Highways" as designated by the New York State Department of Transportation in their "[Official Description of Designated Qualifying and Access Highways in New York State](#)" in October 2022.

A reference to the above should be incorporated as part of the locational requirements for all warehousing and distribution facilities. Municipalities should take note of their location, as shown below. Standards that prohibit the location of warehousing and distribution facilities, which are likely to receive shipments from these trucks/ trailers of this length absent to these designated access highways, should be included in the statute. This should include the provision of an access route to the facility that meets the requirements.



Special Use Permit or Warehouse Overlay District Design Criteria

Dimensional Requirements: Municipalities will want to consider not only the size and height of these facilities but also maximum lot coverage and minimum lot size. Some zoning statutes include examples of a minimum lot size of 10 acres for 100,000 square feet. As part of the density calculation, steep slopes, wetlands (state and federal), floodplains, and habitats should all be included in determining the buildable area.

Buffers, Berms, and Landscaping: As mentioned, the statute should include provisions for mitigating the impacts on adjacent areas that can be both visual and noise-related. This includes setback provisions for the building and the truck/trailer parking areas and the use of berms and landscaping for both visual screening and noise control. Buffers and berm requirements are common and are a recommended means of mitigation when avoidance is not possible.

It is also recommended that the local planning board use their right within the special permit language and SEQR to require visual impact analysis to be conducted along with visual simulations when such facilities are located near sensitive sites or different use types.

Access and Traffic: Large-scale warehouses are best limited (if not outright required, depending on truck length intended to serve the facility) to State Routes designated as "Access Highways." The applicant's request for access to the State Route will trigger a review by the New York State Department of Transportation (NYSDOT). The municipality may also wish to go beyond NYSDOT requirements regarding location. Importantly, its statute should require that it can conduct its traffic analysis and have access to all the documentation sent to NYSDOT. Information sought should include that generally associated with a traffic study, such as trip generation by path, trucking routes, market area, critical intersections, peak hour traffic and turning movements with levels of service indicated, a review of sight distances, gaps analysis, turning movements, highway speed limits, and road topography. The statute may exempt facilities that generate less than 50 peak-hour trips from the requirement.

It is also essential to consider queuing at peak hours of operation, whether a guard shack or checkpoint will be located at the entrance to these facilities, and their positioning along the driveway.

Off-Street Parking and Loading: Warehousing has various complex parking needs. For more detail, we encourage you to review the zoning statutes in this report's references section.

- Employees - If multiple shifts are involved, 1.5 spaces for every one employee is recommended to account for potential overlap. Parking should be set at the absolute minimum needed and encourage the use of staggered shifts, transit, or shuttle options to reduce demand
- Loading Docks
- Staging spaces are also used for outbound trucks, designed to allow truckers to rest on site and use them after regular hours of operation.
- Prohibition of off-site parking for delivery vehicle

Sustainability Criteria

Sustainability is not limited to minimizing environmental impacts during the construction process but also through incorporating green infrastructure while developing a SWPPP and stormwater management plan for any proposal. We also recommend:

- Special permit standards for these uses should also consider requiring EV-charging stations for vehicles and potentially for future delivery vehicles as fleets turn over from fuel to electric dependency.
- Consider requiring solar-ready roofing and/or installation of solar roofs as part of building design as a special permit requirement.

- Snow storage areas
- Driveway widths and drive lanes
- NYS Idling Law Compliance - [Subpart 217-3 Idling Prohibition for Heavy-Duty Vehicles](#)
- Fire District - Access to the proposed structure and sign-off by the local fire district. Roof access should also be required. Similarly, a prohibition on flammable materials should be noted on the final plans of all such facilities.

Facility Amenities: Workers and truck drivers also need to be ensured that they have the necessary amenities. Municipalities should consider adding them to their conditions for larger facilities and as part of the special permit review process.

Reference Materials:

[Official Description of Designated Qualifying and Access Highways in New York State, October 2022 \(The Truck Book\)](#)

[Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act \(September 2022\)](#)

[Living with Logistics: A Model Logistics Use Zoning Ordinance for Pennsylvania Municipalities](#)

[Putting Warehouse Development in its Place: A Community Toolkit \(PennFuture.org\)](#)

[NJ State Planning Commission Office of Planning Advocacy Distribution Warehousing and Goods Movement Guidelines \(September 2022\)](#)

[Township of Moore, Northampton County, PA - Warehouse Ordinance 2021](#)

[Lower Macungie, PA Model Ordinance: Criteria for Warehouse, Wholesale, Storage, or Distribution Uses](#)

[MetroCommon x 2050 Transportation and Mobility. Hidden and in Plain Sight: Impacts of E-Commerce in Massachusetts](#)

[Planning Magazine. April 2020. Primed for Deliveries](#)

[Planning Magazine. Nov 18, 2021. What to Do When an E-Commerce Warehouse Comes to Town.](#)