

Multistory Distribution: A New Asset Class

By Michael Bennett, LEED AP | Principal | Ware Malcomb

From the Drawing Table to Reality

Over the past three years commercial real estate professionals have scrambled to address the disruptive changes of last touch, on-demand logistics. E-commerce and consumer demand for same day/door step fulfillment is driving this paradigm shift. The effect e-commerce is having is not a trend in commercial real estate, but rather an ongoing evolution of a cultural phenomenon. This shift is fueling the demand for close in, rentable square footage for decades to come.

In 2015, Ware Malcomb was challenged with designing a multistory distribution center in the Los Angeles Metro region. Momentum was building, and the challenge of identifying available land and maximizing rentable area was top of mind for commercial real estate professionals coast to coast. Ware Malcomb embarked on the wholistic design of a multistory prototype that would be consistent with a Class A, institutional grade industrial distribution center. Over the last three years, we continually refined the design with advice from developers, brokers, engineers, general contractors and capital markets. The prototype came into focus and is now a reality.

A New Definition

The functional attributes of state-of-the-art, Class A, industrial grade buildings are well defined by commercial real estate professionals and end users, with only minor regional variables due to climactic differences and local construction practices. A multistory distribution building poses a new set of design, engineering, and construction challenges. Every design decision made during the evolution of this building type has been to meet Class A, institutional grade building features and functional attributes, while being mindful of costs and standard construction practices and limitations.

Site Selection and Feasibility

Site selection is critical to the success of multistory facilities. We initially determined an 8-acre site was optimal, but real-world market conditions have proven that



Three-story, speculative multistory distribution center

available land in highly urbanized, port related locations, with as-of-right zoning is challenging to find. While accommodating full size tractor trailers is preferred, facilitating sprinter vans and box trucks is what last touch facilitators require since the outbound and multiple turn capability is equally important as inbound. As a result, the building blocks of our prototype have been reconfigured, so a multistory building can be implemented on sites in the 4-acre size range. Sites smaller than 4 acres can accommodate multistory, but will rely on service by smaller vehicles, automation, and high-speed freight elevators for vertical circulation of goods.

Functionality and the Future

For tenants to universally accept this new building configuration we cannot compromise functionality. Market demand has changed several of our initial assumptions and design strategies. Among several design refinements, we have increased elevated floor loading requirements up into the 500-600 PSF range, optimized bay spacing, and increased ramp widths to accommodate truck queuing and bypass lanes. Maximizing rentable floor area is critical to support development costs. Since projects necessitate building to the minimum zoning setback dimensions, this triggers higher levels of fire resistive walls, structure, mechanical ventilation, and in many cases the high-rise requirements of the building code. This process of

evolution and discovery has led to higher construction costs for these buildings to meet building codes to become reality.

The function of raised truck courts has evolved to integrate trailer storage, fleet vehicle parking, contract driver pick-up zones, and sprinter van and box truck loading. We are implementing creative uses of the roof area for green roofs, vehicular and trailer parking, as well as identifying future uses such as accommodating drones and flying delivery vehicles to future proof this new hybrid building type

Ware Malcomb is in full production on five multistory distribution buildings in multiple cities across North America, all in the 4-acre size range and scheduled for completion in the next 12-16 months. Leveraging our 22-office platform, Ware Malcomb's industrial leaders are constantly refining the multistory distribution prototype to increase the feasibility, functionality and long term real estate value of this new asset class.

Michael Bennett, LEED AP
Principal
mbennett@waremalcomb.com

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