



HOMEGOODS DISTRIBUTION CENTER

CHALLENGE

AFTER A LONGTIME AUTOMOTIVE PLANT CLOSED ITS DOORS, HOMEGOODS SAW AN OPPORTUNITY AND NEEDED A PARTNER TO PREPARE THE SITE FOR NEW DEVELOPMENT.

SERVICES INVOLVED

- Site Civil Engineering
- Survey
- Environmental Permitting
- Water/Wastewater
- Roadway Services
- Traffic Impact Study

HOMEGOODS DISTRIBUTION CENTER

An opportunity for development arose when an automotive plant closed its doors after more than 50 years in Lordstown, Ohio. Upon seeing this opportunity in northeast Ohio, HomeGoods, a subsidiary of TJX Companies, was inspired to build a new commercial distribution center in the city. TJX and HomeGoods collectively invested approximately \$160 million in land,

facilities, and equipment on a new distribution center. Located near the Ohio turnpike interchange, this new distribution center is at a prime location to support HomeGoods regional stores.

PREPARING THE SITE FOR DEVELOPMENT

HomeGoods hired ms consultants, inc. for site civil, surveying, environmental permitting, water and sewer, and roadway services for the design of the site. The site includes a 1.2-million-square-foot distribution center building with parking to accommodate 1,000 trucks and over 500 employees.

Additionally, ms coordinated with the HomeGood's architect on the distribution building footprint, site routing, parking, and utility connections. Should HomeGoods wish to grow, the site civil team also developed plans for a potential future expansion.

INFRASTRUCTURE DEVELOPMENT

To better understand the site and plan infrastructure needs, the ms team augmented aerial mapping from a subconsultant with conventional field surveying. Throughout this process, the ms team located and verified observable utilities, which were comprised of drive pipes, storm and sanitary structures, utility poles, utility markers, and valves. To obtain the location plans of public and private utilities, the team contacted the Ohio Utility Protection Service.

New water and sewer lines were necessary due to the existing infrastructure being undersized and needing

to be rerouted. Therefore, the team designed an approximately 7,000-foot, new sewer line, which serves a mobile home park close to the site. ms also designed a 3,500-foot, water-main extension.

Although, the new water main was able to provide potable water to the facility, the fire demand was simply too much for Lordstown's system to handle. The ms design team was able to resolve this issue by using the onsite stormwater detention ponds and an adjacent intake structure to back feed the building's fire suppression system.

PROTECTING THE ENVIRONMENT

Protecting the surrounding environment was an important component for the HomeGoods distribution center and the ms team. The ms team studied the 300-acre development site for environmental approvals. Items identified include:

- Several thousand feet of jurisdictional streams
- About 20 acres of wetlands
- Large areas of potential endangered species habitat

Knowledge of the environmental approvals process is key and the ms team was here to help. The streams

and wetlands were evaluated using U.S. Army Corps of Engineers (ACOE) and the Ohio Environmental Protection Agency (OEPA) protocols. Then, study findings were compiled in a Waters of the United States (WOTUS) Report suitable for a Jurisdictional Determination.

The permitting team assisted HomeGoods site designers with avoiding or minimizing impacts to any of the regulated resources. The preferred layout of the HomeGoods distribution site has minimal impact on the regulated streams and wetlands.

MANAGING AN INCREASE IN TRAFFIC

The addition of the new HomeGoods distribution center created an increase in traffic with an influx of employees and distribution routes. Due to the additional traffic, ms performed a traffic impact study to minimize local disruptions. The team summarized the findings in a report and recommended the addition of:

- Three new driveways - two for employees and one for trucks
- Two signalized intersections

- Various left-and-right-turn lanes at the site's egress and ingress

The design included relocation of one of the roads and development of roadway plans that consisted of 12-foot travel lanes, shoulders and roadside ditches, a drainage system, and a culvert.

Additionally, the ms team created maintenance of traffic, traffic control, and traffic signal plans.