



McDonough & Rea Associates, Inc.

Traffic and Transportation Consulting

Kevin P. McDonough (1953-1994)
John H. Rea, P.E.
Jay S. Troutman, Jr., P.E.
Scott T. Kennel

*Revised May 21, 2020
April 17, 2020*

John Giunco, Esq.
Giordano, Halleran & Ciesla
125 Half Mile Road, Suite 300
Red Bank, NJ 07701-6777

Re: Home Depot Bridgeport FDC Conversion
2359 Center Square Road
Lot 6 in Block 3104
Logan Township, Gloucester County, New Jersey
MRA File No. 20-128

Dear Mr. Giunco:

As requested, McDonough & Rea Associates (MRA) has reviewed plans prepared by Hammer Land Engineering (HLE) to facilitate conversion of the existing *Home Depot* warehouse on the noted property from a bulk distribution center (BDC) to a flatbed distribution center (FDC). As a result of this conversion, there will be a need for more passenger car parking (for employees) but there will be a reduction in the number of loading dock doors required for trucks. After considering the traffic impacts from the proposed changes, it is MRA's opinion that the site access to Center Square Road from the warehouse facility will continue to operate safely and efficiently. The following represents our findings.

EXISTING CONDITIONS

The subject property currently contains a 299,480 SF warehouse building and is located on the north side of Center Square Road in the *Pureland Industrial Complex*. Specifically, the property is located at the western end of Center Square Road near Route 130 where traffic volumes are lower than areas near I-295.

Center Square Road is the main collector roadway serving the *Pureland Industrial Complex*. It has varying widths and lane configurations from its interchange with I-295 (Exit 10) to Route 130. The property is served by a single point of access to Center Square Road. Center Square Road in the vicinity of the site provides for 1 travel lane in each direction along with shoulders on both sides of the roadway. The *Home Depot* warehouse is at the extreme western end of the *Pureland Industrial Complex* and, as such, Center Square Road in the vicinity of this warehouse, experiences significantly lower traffic volumes than the more heavily developed sections of the industrial park toward I-295.

Please reply to:

- 1431 Lakewood Road, Suite C, Manasquan, NJ 08736 • (732) 528-7076 • Fax (732) 528-6673
- 105 Elm Street, Lower Level, Westfield, NJ 07090 • (908) 789-7180 • Fax (908) 789-7181



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CONVERSION FROM BDC TO FDC

As a result of the conversion from a BDC to an FDC, it is anticipated that there will be an additional need for passenger vehicle parking spaces for employees. As a result, plans prepared by HLE show an expansion of the passenger vehicle parking area from 44 existing spaces to 113 spaces. The expansion of the passenger vehicle parking area will take place along the eastern side of the building in an area where truck loading currently occurs. No change in access to Center Square Road is proposed. When reconfigured, the *Home Depot* warehouse facility will have the following breakdown of office/warehouse space and parking spaces:

- Total area of building – 299,480 SF
- Warehouse- 286,466 SF
- Office – 13,014 SF
- 113 parking spaces for passenger vehicles
- 74 trailer stalls
- 24 loading docks

The passenger vehicle parking spaces will be located along the eastern side of the building and the trailer stalls and loading docks will be located along the north side of the building.

With respect to the anticipated peak employee population within the building, the following information has been forwarded to MRA from *Home Depot*.

- There will be a 6 day core operation Monday through Saturday with limited hours on Sunday.
- There are 2 anticipated shifts, 6:00 AM-2:30 PM and 5:00 PM-1:30 AM.
- The peak number of warehouse associates during any shift will be 60 with 10 office staff also within the building at peak.
- Inbound truck volume will be spread fairly evenly across operating hours.
- Outbound truck volume will peak at approximately 6:00 AM when all loaded trucks leave the site for their first delivery. Some of the outbound trucks leaving at 6:00 AM will return at approximately 10:00 AM to be loaded for the next route. Outbound full load trucks will stop leaving the site at approximately 1:00 PM with all empty trucks returning back to the site by 7:00 PM or earlier.



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TRAFFIC IMPACT FROM PROPOSED CHANGES

As a result of the proposed changes from a BDC to an FDC facility, there will likely be an increase in peak hour passenger vehicle traffic generated to and from the site. MRA reviewed information published in the 10th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. Based on the number of warehouse associates and office staff that will be permanently stationed at the facility, the following represents the anticipated number of peak hour employee (passenger vehicle) trips generated to and from the facility.

**TABLE I
TRIP GENERATION
PASSENGER VEHICLES (EMPLOYEE TRAFFIC)
WAREHOUSE ASSOCIATES AND OFFICE STAFF**

AM PSH			PM PSH		
IN	OUT	TOTAL	IN	OUT	TOTAL
31	12	43	17	29	46

In addition to the foregoing passenger vehicle traffic, related to employees within the warehouse, inbound and outbound trucks will enter and leave the site throughout the day. There are anticipated to be approximately 61 outbound truck loads per day on average with most outbound trucks (approximately 44) to be leaving the site at 6:00 AM, before peak hour traffic volumes are experienced along Center Square Road for the morning peak hour.

Approximately 17 of the outbound trucks will return to be reloaded and leave at approximately 10:00 AM for the next route.

Based on the anticipated operation of inbound and outbound trucks, which will be spread out throughout the course of the day, MRA anticipates that there will be minimal impacts to traditional peak hour volumes along Center Square Road (traditional peak hours being 7:00 AM-9:00 AM and 4:00 PM-6:00 PM).



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ANALYSIS OF IMPACT

As previously indicated, the *Home Depot* facility is located at the extreme western end of Center Square Road's access to the *Pureland Industrial Complex*. As such, Center Square Road experiences significantly lower traffic volumes at the site access to the *Home Depot* facility than it does closer to I-295 where the majority of the uses within the *Pureland Industrial Complex* are located. During a site visit to the *Home Depot* warehouse in March of 2020, existing traffic flow passing the site driveway was observed to be extremely low.

Based on our observations of traffic flow along Center Square Road in the vicinity of the site access, and the amount of traffic that will be generated by the facility following the conversion from a BDC to an FDC, it is our opinion that traffic movements onto and off the site will continue to function safely and efficiently as they were observed to do during our site observations in March 2020. Center Square Road has a level and straight alignment in the vicinity of the site and sight distance is good in both directions.

REVIEW OF SITE PLAN

With respect to the *Site Plan* itself, the additional passenger vehicle parking will be provided in an area on the east side of the building where truck activity currently takes place. A total of 113 parking spaces will be provided in 2 separate parking areas along the east side of the building. Each parking area will be provided with its own separate driveway for ingress and egress movements. Handicapped parking spaces will be provided for in an area proximate to the office space at the south side of the building.

The balance of the *Site Plan* shows new functional layout areas for loading docks and trailer stalls.

CONCLUSIONS

It is concluded, based on our visit to the site and our analysis of the proposed changes, that they can be approved and that the site access and internal circulation at the site can continue to operate safely and efficiently. Although there will be an increase in passenger vehicle traffic generated during peak hours (as shown on *Table I*), this traffic will be able to interact with the low volumes along Center Square Road during peak hours without undue delay. Delays to trucks exiting to Center Square Road are also anticipated to be minimal, based on the location of the site at the west end of Center Square Road.



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The *Site Plan* itself has been properly designed with respect to the addition of the new passenger vehicle parking spaces and the reorganization of the rear (north) side of the building to accommodate truck loading docks and trailer stalls.

We hope the foregoing information is helpful. If you have any questions please do not hesitate to call.

Very truly yours,

John H. Rea, PE
Principal

Scott T. Kennel
Sr. Associate

cc: Josh Hanrahan, PE