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To: Tom O'Neil - Menard, Inc.

From: Ed Terhaar, P.E.

Date: March 16, 2018

Subject: Supplemental Traffic Forecast Information for the Menards Development in Apple Valley, MN

BACKGROUND INFORMATION

Updated site plans have been developed for the proposed Menards development in Apple Valley, MN. The Menards only site plan is shown in **Figure 1** and the full development site plan is shown in **Figure 2**. The size of the Menards store remains at 210,000 square feet while the amount of medical office space is reduced from 176,000 square feet to 144,000 square feet. The Menards store has been rotated and now faces CSAH 42.

TRIP GENERATION INFORMATION

Trip generation information included in the November 2017 study was based on the Ninth Edition of *Trip Generation*, published by Institute of Transportation Engineers (ITE). Since the completion of the report, ITE has issued the Tenth Edition of *Trip Generation*. The expected number of trips for the updated site plan were calculated based on data presented in Tenth Edition. A comparison of the previous and current trip generation estimates is shown in **Table 1**.

Table 1: Weekday Trip Generation for Proposed Project

Land Use	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily
		In	**Out**	**Total**	**In**	**Out**	**Total**	**Total**
November 2017 Study-Ninth Edition Data								
Menards Store	210,000 SF	178	135	313	240	249	489	6455
Medical Office	176,000 SF	332	88	420	176	453	629	6359
Subtotal		**510**	**223**	**733**	**416**	**702**	**1118**	**12814**
Current Site Plan-Tenth Edition Data								
Menards Store	210,000 SF	188	142	330	240	249	489	6455
Medical Office	144,000 SF	312	88	400	139	359	498	5011
Subtotal		**500**	**230**	**730**	**379**	**608**	**987**	**11466**
Difference		**-10**	**+7**	**-3**	**-37**	**-94**	**-131**	**-1348**

SF=Square Feet

As shown in Table 1, the current plan generates fewer total trips during the a.m. peak hour, p.m. peak hour, and weekday daily.

TRAFFIC OPERATIONS IMPACTS

With fewer trip generated by the current plan, the traffic impact will be very similar and may show less overall impact compared to the results presented in the November 2017 study. Access alternative 2 in the November 2017 study included the same access configuration shown on the current plan. Trips were assigned to both access points on CSAH 42 based on the size of the store. The orientation of the Menards store is not expected to impact the distribution of trips to the surrounding roadway system.

Based on observations at the existing Menards store, the amount of traffic using the building materials driveway is expected to be a small portion of the overall site traffic. The proposed access intersection with the internal street system is expected to adequately accommodate the amount of traffic at this location.

The future use for the property in the northeast corner of the site plan is not known at this time. The location of the internal street will allow an access for this property at a location south of 147th Street. The access would be located an adequate distance from 147th Street and therefore is not expected to impact operations at the 147th Street/internal street intersection. Further analysis should be completed when the land use for this property is determined.



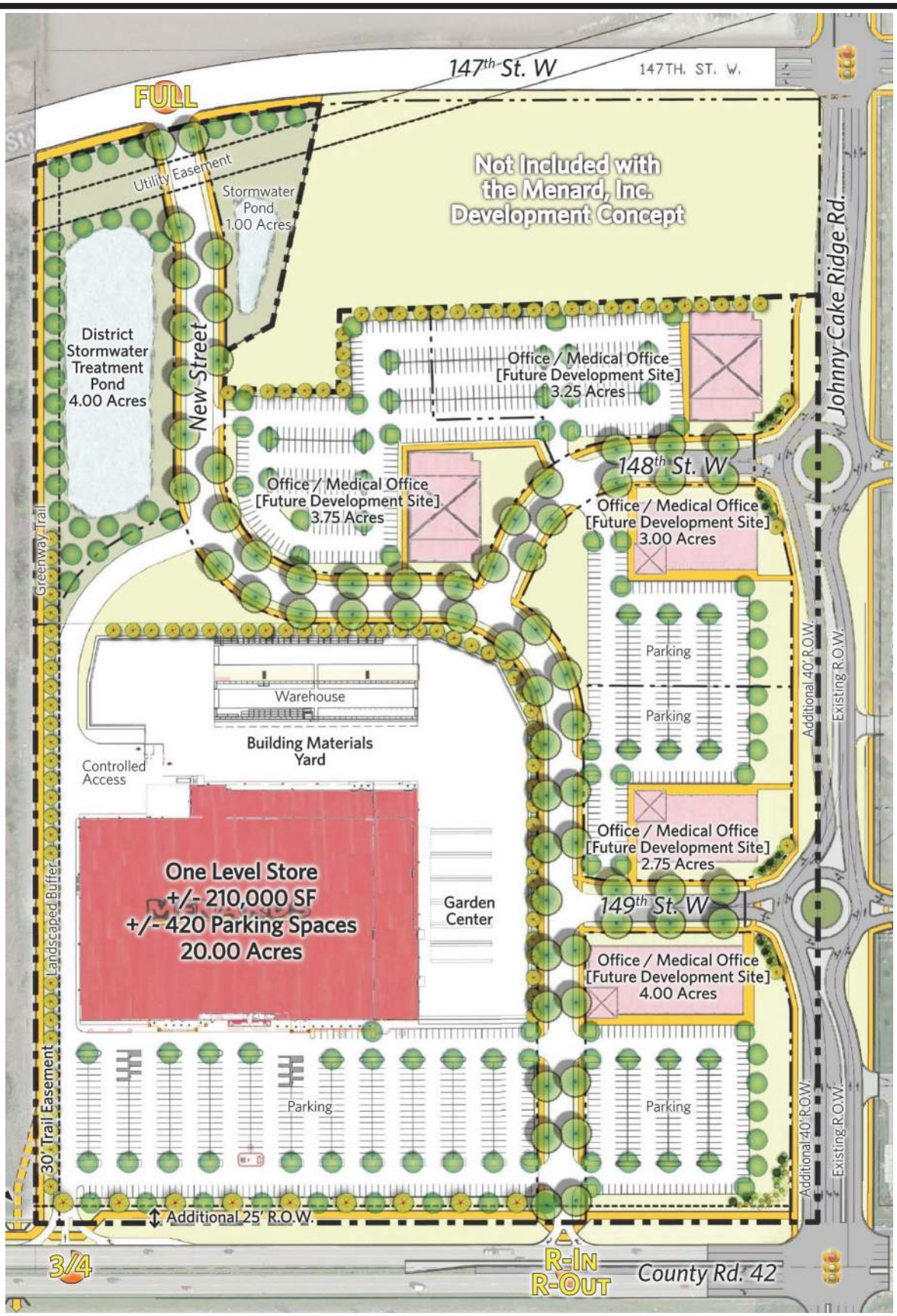
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TRAFFIC INFORMATION
FOR MENARDS
DEVELOPMENT
IN APPLE VALLEY, MN

FIGURE 1

MENARDS ONLY SITE PLAN



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FIGURE 2

FULL DEVELOPMENT SITE PLAN