November 17, 2009

Barbara McBeth, AICP  
Deputy Director of Community Development  
City of Novi  
45175 W. Ten Mile Road  
Novi, MI 48375

SUBJECT: Grand River and Beck Study Area – Transportation Component Analysis and Recommendations

Dear Ms. McBeth:

At the request of the City of Novi’s Community Development Department, Birchler Arroyo has reviewed the transportation components of the Grand River and Beck Study Area, as part of the proposed amendments to the City’s Master Plan. The Master Plan and Zoning Committee has developed three alternatives for that Study Area, and each of those alternatives includes variations to the design of a potential new roadway network. The alternatives also vary with respect to the portion of the Study Area to be included in the proposed Retail Service Overlay.

Our following comments and recommendation will concentrate on the transportation component only, while recognizing the fact that the design of the future roadway network and the size of the retail overlay component are in many ways dependent upon one another. The intent of this report is to provide our analysis and comments on each of the Master Plan and Zoning Committee’s three alternatives, and offer a recommendation as to which of the three is most advisable.

RECOMMENDATION

Of the three alternatives developed by the Master Plan and Zoning Committee, Birchler Arroyo recommends adoption of the transportation components included in Alternative 2 (with some revisions as discussed below). This alternative, which includes a collector loop road as well as an interior retail circulation system, facilitates the installation of a future traffic signal along Grand River Avenue at an advisable distance from the existing signal at Beck Road as well as the existing signal at the main driveway for the Rock Financial Showplace. This collector loop road and future signal on Grand River will be critical for safely and efficiently accommodating the additional traffic to be generated by development of the Beck / Grand River Study Area with retail and/or office uses. Also, the retail circulation system as proposed in Alternative 2 would be spaced a more desirable distance from the Beck/Grand River intersection when compared to that proposed in the other alternatives. We have attached a mark-up of the map for Alternative 2 which shows our proposed minor revisions.
Overall Comments Applicable to All Three Alternatives

1. Proposed Collector Loop Road and Beck, south of Grand River

In Birchler Arroyo’s report dated May 20, 2009, we show the potential collector loop road following a reverse curve and intersecting the east side of Beck Road (south of Grand River) approximately 75 feet further north of where that same intersection is shown on each of the three alternatives developed by the Master Plan and Zoning Committee. This discrepancy may be a simple drafting error, but it is worth discussing. The path of the collector loop road proposed by Birchler Arroyo was intended to provide the City-minimum same-side driveway spacing relative to the existing commercial driveway to the south (see attached birds-eye aerial photo of that driveway and surrounding uses). The path of the collector loop was also intended to provide a safe opposite-side spacing relative to the existing Providence Park driveway. Whichever alternative the Committee decides upon, the path of the collector loop road where it intersects Beck south of Grand River should be consistent with what we proposed in our May 2009 report.

2. Proposed Collector Loop Road and Grand River

One of the most critical elements of our recommendation for a future collector loop road was designing it so that it intersects Grand River Avenue in a location that would facilitate the future installation of a new traffic signal. It is important to consider the spacing of this future signalized intersection, relative not only to the Beck and Grand River intersection to the west, but also the existing signals along Grand River to the east (at the main driveway to Rock Financial Showplace and at Taft Road). Birchler Arroyo recommended the collector loop road intersect Grand River at or near the existing intersection of Grand River and Heyn Drive. A signal at this location would be approximately 1,900 feet east of the signal at Beck Road and 1,900 feet west of the signal at the main Showplace driveway. This satisfies the RCOC’s minimum signal spacing guidelines for a 50-mph road like Grand River, and also creates the opportunity for optimum progression through the four Grand River traffic signals (at Taft Road, the Showplace driveway, the collector loop road, and Beck Road) if ever the timing of those four signals is coordinated. In summation, the possibility of a new traffic signal at Grand River and the collector loop road should be discussed in the Committee’s report and should be clearly indicated on Study Area maps which display the collector loop road concept.

3. Proposed Collector Loop and Beck, north of Grand River

Birchler Arroyo’s May 20, 2009 report recommends that a future traffic study analyze the potential for a new traffic signal on the northbound side of the Beck Road boulevard where it would intersect the future collector loop road, to facilitate entering left turns as well as exiting right turns. The possibility of a new signal at this location should be cited within the Master Plan and Zoning Committee’s report. The timing of a new signal at that location would have to be coordinated such that it would allow protected entering left turns onto
the collector loop from southbound Beck Road, but would not adversely affect the progression of northbound vehicles once released from the signal at Beck and Grand River. The length of the existing southbound left-turn pocket within the Beck Road median would have to be evaluated to determine whether it could adequately store vehicles stacked to make the left turn onto the collector loop. The prohibition of entering left turns from southbound Beck onto the collector loop should not be considered if at all possible. Prohibiting that southbound left turn would severely restrict access to the properties on the north side of Grand River, particularly for vehicles exiting I-96 at the Beck Road interchange, and would create additional southbound left-turn traffic at the Beck / Grand River intersection. For retail uses to be viable on the north side of Grand River, they will require access from southbound Beck Road.

For a number of reasons, we believe that exiting left turns from the collector loop onto southbound Beck should be prohibited by constricting the existing median opening within the Beck Road boulevard, and providing adequate regulatory and wayfinding signage. Restricting exiting left turns at that intersection would only be feasible with the installation of a new traffic signal where the collector loop intersects Grand River (east of Beck). Future traffic exiting the Study Area (north of Grand River) destined for eastbound Grand River would be directed via wayfinding signage to follow the collector loop to the new signal on Grand River. Future traffic exiting the Study Area (north of Grand River) destined for either westbound Grand River or southbound Beck would be directed via wayfinding signage to follow the collector loop to the new traffic signal on Grand River or to follow the Proposed Retail Circulation System discussed below. Outbound right turns toward the freeway interchange should be the only outbound movement permitted from the collector loop onto Beck Road north of Grand River.

**Alternative 1**

The collector loop road displayed in the Study Area map for Alternative 1 generally follows the path developed by Birchler Arroyo for our May 20, 2009 report (save for the location of its intersection with Beck south of Grand River, discussed in Overall Comment #1 above).

The Proposed Retail Circulation System (which we will henceforth refer to as the “retail loop”) is shown intersecting Grand River approximately 400 feet east of Beck Road. Since the south and north legs of the retail loop are shown to be aligned, we assume the intent is to allow crossover traffic from one side of Grand River to the other. If this is the case, then the intersection of Grand River and the retail loop proposed in Alternative 1 is too close to the intersection of Beck and Grand River. Crossover traffic as well as left-turns out from the retail loop would potentially be in conflict with the queue at the westbound approach to the Grand River / Beck Road intersection, especially during peak hours of traffic. The only way we would support the retail loop in that location would be if the approaches to Grand River were designed to allow only right-in and right-out turning movements.
**Alternative 2**

The collector loop road displayed in the Study Area map for Alternative 2 generally follows the path developed by Birchler Arroyo for our May 20, 2009 report (save for the location of its intersection with Beck south of Grand River, discussed in Overall Comment #1 above).

Alternative 2 is the most desirable of the three. The intersection spacing between Beck Road and the retail loop is greater than in Alternative 1, although we would still have concerns with the safety of crossover traffic from one side of Grand River to other. The additional spacing would also create the potential for larger developable areas at the northeast and southeast corners of Beck and Grand River, which would likely better accommodate developments that meet the City’s setback, parking, and landscaping requirements.

One improvement we would like to recommend for Alternative 2 is amending the path of the retail loop on the south side of Grand River, so that it intersects Beck at the City-minimum same-side driveway spacing relative to the proposed collector loop (215 feet center-to-center for the 40-mph speed limit, assuming both side roads will be 30 feet wide). This could be accomplished by “wrapping” the retail loop further around the west side of the existing pond. The increased spacing of the retail loop from the Beck/Grand River intersection would improve traffic safety as well as create a larger developable area on the southeast corner of Beck and Grand River (see attached mark-up labeled Alternative 2a). We also recommend showing at least one connection between the retail and collector loops east of Beck (see mark-up).

**Alternative 3**

As discussed above, one of the critical elements of development of the collector loop road was incorporation of a new traffic signal where that road intersects Grand River Avenue. This new signal will be necessary to safely and efficiently accommodate the additional traffic that will be generated by redevelopment of the Study Area with office and retail. The collector loop road as proposed in Alternative 3 would intersect Grand River approximately 800 feet east of Beck Road. This would be too close to the existing signal at Beck and Grand River to accommodate installation of a new traffic signal, which in our opinion would defeat the purpose of developing the collector loop road.

The path of the collector loop road as proposed in Alternative 3 would not provide access to as many of the parcels within the Study Area as the path shown in Alternatives 1 and 2, particularly those on the north side of Grand River. The collector loop road concept was developed to provide access to future developments within the parcels along Grand River, and therefore to minimize the number of new direct-access driveways along Grand River and Beck. Minimizing private commercial driveways onto a major thoroughfare (one of the primary components of a practice known as “Access Management”) has been proven to reduce crashes and increase roadway efficiency. The more parcels that have direct access to the collector loop road, the less that will require a driveway directly onto Grand River or Beck. With that in mind, the “scaled back” collector loop road displayed in Alternative 3 is not ideal compared to the
concept displayed in Alternatives 1 and 2. Additionally, the retail loop south of Grand River marginalizes the need for the portion of the collector loop on the south side of Grand River since the two are so close together and follow the same general path.

We hope these comments prove helpful as the Community Development Department, the Master Plan and Zoning Committee, and the Planning Commission proceed with the Master Plan amendment process. Feel free to contact our offices for anything further.

Sincerely,
BIRCHLER ARROYO ASSOCIATES, INC.

Rodney L. Arroyo, AICP
Vice President

William A. Stimpson, P.E.
Director of Traffic Engineering

David R. Campbell
Senior Associate
Beck and North Providence Driveway

Gated Emergency Access
Grand River & Beck Study Area
Proposed Retail Service Overlay
Alternate 1

Proposed Retail Service Overlay Area
Proposed Retail Circulation System
Proposed Collector Loop Road

Grand River & Beck Study Area
Rock Financial Showplace
West Market Square
Twelve Mile Rd
Providence Park
Grand River Ave
I-96

Tax Parcels

CITY OF NOVI
2009 MASTER PLAN REVIEW
CREATED: 10/27/09
Grand River & Beck Study Area
Proposed Retail Service Overlay
Alternate 3

CITY OF NOVI
2009 MASTER PLAN REVIEW
CREATED: 10/27/09