



October 15, 2020

Bradley Kaul  
Kaul Design Architecture, PLLC  
1733 Ferndale Avenue SE  
Renton, WA 98058

Subject – Shell Convenience Store Addition Trip Generation

The intent of this memo is to provide the City of Mercer Island with a trip generation summary and traffic information as it relates to the proposed Shell Convenience Store Addition development.

### PROJECT DESCRIPTION

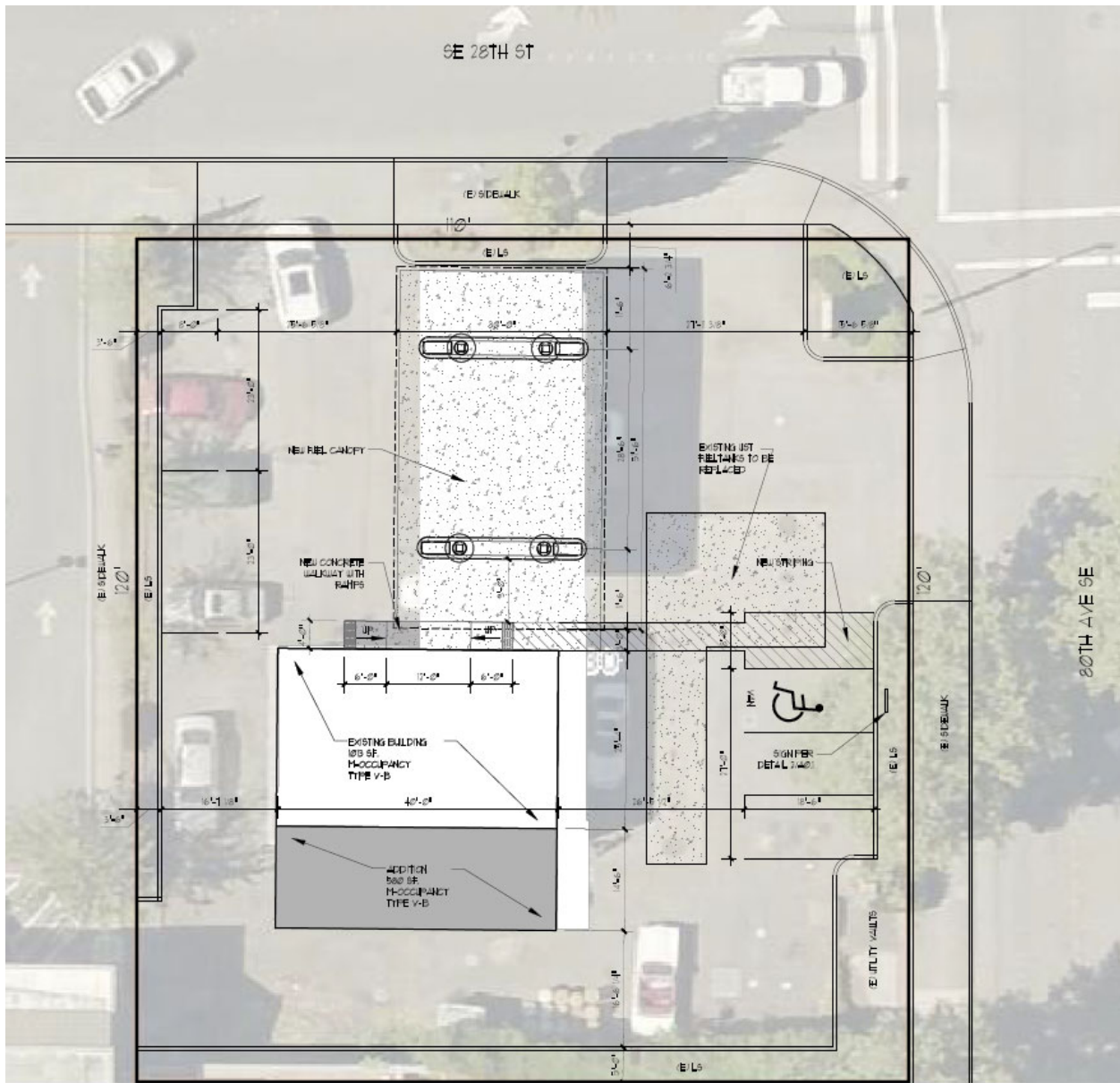
An existing 8-fueling position Shell station proposes for an addition to their 1,013 square foot convenience market. The subject site is located within the city of Mercer Island with a site address of 7833 SE 28<sup>th</sup> Street. The proposed addition is to be constructed at the south end of the building occupying an additional 580 square feet and is intended to expand area for storage and additional purchase selections for on-site customers. A proposed site plan is illustrated on the following page.

### TRIP GENERATION

Trip generation is defined as the number of vehicle movements that enter or exit a respective project site during a designated time period such as the PM peak hour or an entire day. As the subject gas station is a preexisting establishment, this assessment focuses only on the net increase in estimated activity as a result of the proposed development.

The primary attraction and trip-generating determinant for gas stations is the ability for drivers to fuel their motor vehicles. As such, the common practice for trip forecasting is to use fueling positions as the independent variable. Other on-site amenities may augment a customer's trip such as a convenience market or car wash, which are generally considered as a secondary, or non-primary activity. As the proposal is not increasing the fueling capacity (i.e., additional fueling positions), trip generation to and from the existing site is anticipated to remain similar to current operations. The ancillary convenience market will enhance experience for customers already captured on-site with more purchase options, not necessarily translating into new trips.

Figure 1 – Site Plan



**TRAFFIC IMPACT FEE MITIGATION**

Consistent with the City of Mercer Island's Commercial Fee Schedule, transportation impact fees are assessed for gas stations per new fuel pump. As no new pumps are proposed, no impact fees would be calculated. Furthermore, the fee schedule states that retail uses are exempt from transportation impact fee payment.

## CONCLUSION

The subject project is an existing gas station located in the city of Mercer Island with a site address of 7833 SE 28<sup>th</sup> Street. Existing on-site is a total of 8 fueling positions and a 1013 square foot convenience market. The development proposal consists of a 580 square feet addition to the convenience market. No additional fueling positions are proposed.

The primary trip generating factor for gas stations is the ability and available capacity for drivers to fuel their motor vehicles. With no additional fueling positions proposed, vehicular activity is anticipated to remain unchanged to and from the site. The increased convenience market is an auxiliary use for customers already captured on-site and is not anticipated to result in new trips but rather enhance on-site operations for drivers fueling their vehicle. The City of Mercer Island's fee schedule exempts retail use from transportation impact fees.

Please feel free to contact me should you require further information.



Aaron Van Aken, P.E.