November 10, 2021

Mike Nilsson, PE  
City of Spokane Department of Engineering Services  
808 W Spokane Falls Boulevard  
Spokane, WA 99201

RE: Trip Generation and Distribution Letter  
Kelly Preliminary Short Plat  
Storhaug Engineering Project #21-006

Dear Mike,

It is the intent of this narrative to discuss the proposed Kelly Preliminary Short Plat, located at 3230 N. Ash Pl., Spokane, WA 99205, to summarize the trips generated by the completed project. The project fronts the east side of N. Ash Pl., in the residential area surrounding Drumheller Springs Conservation Area. The project site is 0.26-acres in size and is currently vacant. The current zoning of the site is RSF. Please see the attached drawings for site plan, vicinity map, and circulation diagram. The project is anticipated to be built in 1 phase, and construction will start in Summer of 2022.

Please see attached:

Exhibit ‘A’ – Trip Generation and Distribution Map  
Exhibit ‘B’ – Kelly Preliminary Short Plat

Trip Generation characteristics for the Kelly Preliminary Short Plat project, are calculated from trip generation studies compiled by the Institute of Transportation Engineers, “Trip Generation”, 10th Edition, 2017. The project proposes one (1) single-family home in addition to the previously platted residential lot previously accounted for. Based on the total number of units for the proposed project, Trip Generation characteristics of the project are projected as follows:

The trip generation characteristics of the commercial project conforms to ITE Land Use category 210, Single-Family Housing. The weekday trips were calculated as follows:

ITE 210 Single-Family Housing Weekday Trips: Average rate per household given at 9.44 trips per dwelling unit.  
10 Weekday Trips  
Allocation: 50% entering, 50% exiting: 5 trips enter, 5 trips exit
ITE 210 Single-Family Housing A.M. Peak Hour of Adjacent Street Traffic Trip Generation Fitted Curve Equation: $T = 0.71(X) + 4.80$
Calculation: $T = 0.71(1) + 4.80$
$T = 5.51$ rounded to **6 A.M. Peak Hour Trips**
Allocation: 25% entering, 75% exiting: 2 trips enter, 4 trips exit

ITE 210 Single-Family Housing P.M. Peak Hour of Adjacent Street Traffic Trip Generation

**FITTED CURVE CALCULATION:**

<table>
<thead>
<tr>
<th>ITE EQUATION GIVEN:</th>
<th>$\ln(T) = 0.96\ln(X) + 0.20$</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQUATION VARIABLES:</td>
<td>$\ln(T) = A\ln(X) + B$</td>
</tr>
<tr>
<td>SOLVE FOR TRIPS:</td>
<td>$T = e^{(A\ln(X)+B)}$</td>
</tr>
</tbody>
</table>

| $e =$ MATHMATICAL CONSTANT | 2.71828 |
| A = ITE VARIABLE GIVEN     | 0.92    |
| B = ITE VARIABLE GIVEN     | 2.71    |
| X = NUMBER OF DWELLING UNITS | 1      |
| TRIPS (T)                  | 1.22    |

**2 P.M. Peak Hour Trips**
Allocation: 63% entering, 37% exiting: 1 trips enter, 1 trips exit

Trip Generation summary for overall proposed project:
ADT Total: 10
A.M. Peak Total: 6, 2 enter, 4 exit
P.M. Peak Total: 2, 1 enter, 1 exit

It is anticipated that 100% of the traffic will travel to and from the north of the site, utilizing N Ash Pl. via W Liberty Ave. It is anticipated that 90% of this traffic will utilize N Oak St. and W Courtland Ave en route to the Maple-Ash arterial couplet and 10% of the traffic will travel to and from the west, utilizing W. Liberty Ave.

Written by: William Sinclair, PLA
Reviewed by: Jerry Storhaug, PE