April 1, 2014

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Subject: Traffic/Parking Comments on Development Application for
             Anjuman-E-Burhani Mosque – Redmond, WA

Jim,

Per your request, we have reviewed the relevant traffic/parking documentation for the proposed Anjuman-E-Burhani Mosque development located at 15252 NE 51st Street. The documents that we reviewed were provided to us by the City of Redmond (Thara Johnson, Associate Planner), and include the Traffic/Parking Study by Jake Traffic Engineering, Inc. ("TIA" dated 5/28/13), Site Plan by Rolluda Architects (dated 1-2-14), and the SEPA checklist (dated 3/25/13).

Below is a summary of our initial comments:

1. Current site plan provided by the City (dated 1-2-14) shows 22,667 square feet (sf) of building area. The TIA (page 3) assumes 21,961 sq. ft. This should be reconciled as it impacts both trip generation and parking estimates.

2. Trip Generation Comments:

    a. TIA Page 6 and Table 1 – the storage area (2,605 sf) is excluded from the square footage of the Mosque with trip generation calculated separately using ITE LUC 150, Warehouse.   Churches/Mosques typically have supporting storage areas so it is unclear why that area was separated from the trip generation calculations for the Mosque. The use of ITE LUC 150 for this supporting storage area does not seem justified. Additional support or clarification should be provided.

    b. TIA Page 6 – the study indicates that the proposed use is not a typical church use and the ITE Trip Generation manual does not include a land use the would directly fit the proposed use.   However, the TIA fails to mention that the ITE manual has trip generation information for a Mosque (LUC 562), which would appear to more closely match the proposed use than a Church (LUC 560).   Why was LUC 560 used instead of LUC 562? If neither of these land uses is a sufficient match to the proposed use, then we would recommend that local studies of similar facilities be conducted (according to ITE guidelines).

    c. TIA Page 7 - Trip generation for Friday afternoon prayer was calculated based on ITE per seat rates for a Church (LUC 560) for a Sunday service (9 trips).   The study fails to mention that ITE has specific trip rate data for a Mosque (LUC 562) for Friday afternoon prayer indicating a trip rate of 18.37 trips per 1,000 sf.   Based on 17,515 sf utilized in the TIA, this would result in 322 trips.   Although this ITE rate was derived based on 1 study location, the large discrepancy suggests that the TIA estimate of 9 trips (which is based on a different land use and utilizes Sunday data) is likely low.

d. TIA Table 1 - Trip generation rate for peak hour on a Sunday is listed as 11.76 trips per 1,000 sf.   The ITE 9th Edition rate is 12.04 trips per 1,000 sf.

e. There are numerous inconsistencies in the Weekday trip generation estimates (listed below). These should be clarified so that the impacts can be accurately evaluated.

    i. On page 2, it states 8 AM and 8 PM peak hour trips are estimated.

    ii. On page 7, it states that 12 PM peak hour trips are estimated, plus an additional 9 trips during days when the sunset prayer coincides with the PM peak (total of 21 trips).

    iii. On page 10, it states that 12 PM peak hour trips are estimated, plus an additional 9 trips on days when sunset prayer coincides, plus an additional 9 trips on days when afternoon prayer coincides (total of 30 trips).

    iv. On Table 1, it states a total of 12 AM, 12 PM, and 175 weekday daily trips.

    v. In the SEPA Checklist dated 3/25/13, it states 0 AM peak hour trips, 29 PM peak hour trips, and 29 one-way weekday daily trips.

3. Parking Analysis Comments:

a. TIA Pages 9-10 - The zoning code parking calculations and the proposed parking supply are not clear and are inconsistent among the 3 documents. A zoning code analysis is provided in the TIA using RZC Table 21.08.080C, indicating a code requirement of 1 stall per 5 seats. The number of seats indicated is 144 seats, resulting in a code requirement of 29 stalls. The TIA then indicates that 42 stalls are provided. This is not consistent with Cover Sheet A of the site plan dated 1-2-14 which indicates that the City required parking is 1 stall per 1,000 sf GFA for Assembly, and says that 36 stalls are provided. On the actual Site Plan it is unclear where the 36 stalls are located, as we could only count 31 spaces. Furthermore, the SEPA checklist dated 3/25/13 indicates that the project will provide "approximately 40" spaces.

b. TIA Pages 9-10 - Code required parking and actual parking demand should be separate calculations. The TIA utilizes the code-requirement for minimum parking stalls (1 stall per 5 seats) to estimate demand rather than actual parking demand rates based on studies. The TIA fails to mention that the ITE Parking Generation Manual (4th Edition) has specific parking rates for a Mosque (LUC 562). The average peak parking demand occurs on Friday afternoon according to ITE statistics, with an average rate of 17.32 vehicles per 1,000 sf. Utilizing 17,515 sf as used in the TIA for trip generation, this results in 303 vehicles. The range of parking rates from the 3 studies included in the ITE database is 6.25-30.20 vehicles per 1,000 sf. Even if the lowest rate is used (6.25 vehicles per 1,000 sf), the peak parking demand on a Friday would be estimated to be 109 vehicles. The ITE Parking Generation manual also has data for LUC 560 (Church). If one were to use this data (which we don't suggest but is similar to how the TIA utilized LUC 560 to estimate Trip Generation), the average peak parking demand per attendee at Sunday service is 0.45 vehicles per attendee. Assuming 144 attendees, this would result in a peak demand of 65 vehicles. In summary, all of the ITE data suggests that the TIA estimate of 42 spaces needed is low. Given the large discrepancy in peak parking generation using ITE rates vs. City Code

ratios, a more detailed parking analysis is warranted, especially with no opportunity for overflow parking on or adjacent to this site. This could result in significant impacts on the adjacent residential and office developments. If the ITE data is deemed to be insufficient or somehow not applicable for this project, then we would recommend that local parking demand studies be conducted at similar facilities to justify the proposed parking supply.

    c. TIA page 10 – The study acknowledges that event parking will exceed the on-site parking supply, and that a TMP will be required. The TIA indicates that the TMP "will employ a system of family carpooling and use of shuttle buses to and from public park and ride facilities". How will the TMP be enforced? The City requires a formal agreement with the owners of off-site parking locations. Has King County Metro agreed that public park and ride facilities can be utilized? Some events requiring off-site parking will occur during the week, so it is unlikely that a park & ride could be utilized during that time.

4. With regard to the proposal to add c-curbing on NE 51st St to restrict left-turn movements, Microsoft will want to ensure that the location of the c-curbing does not impact access to/from Microsoft's North Campus at 154th Ave NE. In addition, the City should consider monitoring this location after the project opens to ensure vehicles entering the Mosque are not making unsafe U-turns on NE 51st Street.

Please contact me at (425) 250-5001 if you have any questions.

Sincerely,
Transportation Engineering NorthWest

Jeff Haynie, P.E., Principal

cc: Gid Palmer, Microsoft
            Chris Forster, P.E., Project Manager, TENW