

May 20, 2019
PK No.: 2609-19.157

Mr. David Nevarez, P. E., PTOE
Senior Engineer
CITY OF DALLAS
Sustainable Development & Construction
1500 Marilla Street, L1BS
Dallas, Texas 75201

Re: **PRESTON PLACE CONDOMINIUM SITE**
Dallas, Texas

Dear Mr. Nevarez:

This letter is to notify you that the enclosed Construction Plans have been revised in accordance with your April 19, 2019, Review Memorandum. The following items have been addressed as per the referenced review:

GENERAL REVIEW COMMENTS

1. On Page 3, paragraph 2, correct location of Hillcrest located “east” of the study area.

Response: This has been corrected.

2. Identify/label residential streets north of PD 15 within the study area map.

Response: Local street names have been added.

3. Study should include state of existing traffic signs and pavement markings. All traffic signs should meet current Texas MUTCD standards—example, stop sign at Deloache and Edgemere.

Response: Pacheco Koch does not have the resources in this traffic assessment to conduct a comprehensive traffic signs and pavement markings inventory; however, it is agreed that such items should comply with TMUTCD. Based upon a cursory visual inspection of area, there were no obvious omissions or deficiencies in signs or markings within PD 15 other than the privately-owned streets, which have no signs or markings. The intersection of Deloache and Edgemere is outside of the area of focus of this study, but a visual inspection of the intersection yielded no readily-apparent issues with the existing STOP signs.

4. Study should reference data (counts and speed studies) provided by City of Dallas.

Response: The City of Dallas did provide to Pacheco Koch a copy of their Synchro software file for Northwest Highway (used to evaluate traffic signal timing and coordination), which did include peak hour traffic volumes along Northwest Highway. However, no other traffic counts and no speed studies were provided.

5. Study should reference comments and recommendations documented by NCTCOG in the Northwest Highway and Preston Road Area Plan (Zone 4).

Response: A summary of the comments and recommendations from the NCTCOG study have been added to the report.

6. Study should identify current conditions, operations and traffic impact to residential streets located north of PD 15.

Response: The study area discussed with the City of Dallas staff at the start of the study was limited to the local streets within PD 15. The results of those analyses indicate that those intersections operate very efficiently (i.e., good Levels of Service) under current conditions. Even with the addition of projected traffic from the potential redevelopment within PD 15, the intersections are anticipated to continue to operate at very good conditions.

However, based upon multiple field visits to the study area during peak hour periods, I believe that the intersections north of PD 15 operate at similar (i.e., good Level of Service) conditions and will continue to do so after the potential redevelopment within PD 15.

7. Study should identify theoretical capacity of local residential street listed on Page 4.

Response: As stated in the paragraph below Table 2 on Page 4, the theoretical daily capacity of a two-lane roadway is 10,000 vehicles per day according to the City of Dallas Thoroughfare Plan. The daily volumes on each of the streets listed on Page 4 are well below (less than 25%) the theoretical capacity of a two-lane roadway. Analytically, streets with traffic volumes less than 65% of theoretical capacity are considered to operate at a good Level-of-Service.

For "residential" streets, there are no separate capacity definitions (i.e., those would fall under two-lane roadways). However, it is desirable for the traffic volume on residential streets to be as low as practical in order to promote livability (ideally: 2,000, or less, on non-collector streets fronting single-family homes and 5,000, or less, on non-collector streets fronting multifamily homes). Typical residential streets may have a daily volume ranging from a few hundred up to several thousand depending on the proximity to major thoroughfares, the context of the area, the adjacent land uses, etc.

The streets listed on Page 4 front multifamily developments and also provide some level of collector street functionality. In my opinion, the existing daily traffic volumes, which range from 1,100 to 2,300 vehicles per day, are reasonable given the context AND offer adequate reserve capacity to accommodate the potential redevelopment within PD 15.

8. Study should include hourly, directional volumes, as reference.

Response: Detailed traffic volume datasheets are provided in the Appendix of the revised report.

9. Table 3, page 5 should provide a comparison of actual trips based on actual traffic counts generated by existing properties in PD 15 (as well as current occupancy).

Response: Peak hour turning movement volumes were collected at intersections surrounding PD 15—i.e., along Pickwick Lane and Edgemere. While the number of vehicles entering and exiting this zone during the peak hours can be calculated, there are two unknown variables incorporated in these data: (1) trips generated by the residential units between Pickwick and Edgemere that are not part of PD 15, and (2) the number of vehicles from surrounding neighborhoods that are cutting through PD 15 streets (e.g., to reach the traffic signal at Pickwick, to get to Preston Road, etc.). However, a summary of those values are provided in the following table:

	AM PEAK HOUR	PM PEAK HOUR
<i>Calculated Volumes from Table 3 (Includes PD 15 uses only)</i>	IN: 42 OUT: 135	IN: 129 OUT: 81
<i>Actual Volume (Includes PD 15 uses, plus other volumes)*</i>	IN: 97 OUT: 157	IN: 165 OUT: 155
<i>DIFFERENCE:</i>	IN: +55 OUT: +22	IN: +36 OUT: +74

** The following volumes are included and cannot be readily discerned from PD 15 traffic: traffic from by residential located between Pickwick and Edgemere that are outside of in PD 15, and traffic "cutting through" PD 15 streets.*

As indicated in the summary, the "actual volumes" are slightly higher than the "calculated volume", which is to be expected given the additional trips included in the "actual volumes". However, based upon the relative similarity, it is my opinion that the "calculated volumes" from Table 3 are a reasonable representation of the volumes generated by PD 15.

10. Table 3, page 5 should specify which land use from ITE Trip Generation manual (10th edition) was selected to calculate data and description.

Response: The ITE Land Use Codes are now listed in the note below Table 3.

11. Study should provide an explanation to define "existing uses (534 DU)" and "units to remain (460)".

Response: PD 15 currently contains 534 multifamily dwelling units—460 units in two existing high-rise development and 74 in various low-rise developments—i.e., "existing uses". The traffic study analyzes two hypothetical redevelopment scenarios but assumes, in both scenarios, that only the existing low-rise portions of PD 15 would be redeveloped. Therefore, both redevelopment scenarios consist of 460 dwelling units "to remain" (i.e., the two high-rises), plus "new units" that would replace the existing low-rise developments at a rate of 90- and 125- dwelling units per acre.

12. Provide a calculation of breakdown in projected trips to arrive at projected distribution listed on page 6 based on actual data. Provide a professional opinion on how much traffic currently travels through residential streets.

Response: *The trip generation values listed as "new units" will be added to the study area for the respective scenarios. (NOTE: The estimated trip distribution and assignment have been refined since the preliminary study and are based upon the existing traffic patterns that occur in the study area.)*

Based upon a detailed review of the existing traffic volumes collected for this study, it is my professional opinion that 5-10% of the traffic generated by uses within PD 15 travels north of Bandera Avenue on Edgemere Road (i.e., into the single-family residential areas). Traffic travelling on Bandera Avenue east of Edgemere Road is assumed to be accessing the traffic signal on Thackery Street or to travel directly to Hillcrest Road. These estimates apply to both the existing conditions and potential future conditions and assuming no major improvements (e.g., traffic signal installation). If a new traffic signal is installed in the immediate vicinity of PD 15 (e.g., Edgemere Road), this percentage is estimated to reduce slightly (to approximately 5%).

13. Study should include traffic signal warrant analysis for Edgemere Road at Northwest Highway.

Response: *A Traffic Signal Warrant Analysis for the intersection of Northwest Highway and Edgemere Road has been prepared. The analysis indicates that a traffic signal will be warranted under Scenarios A and B.*

14. Study should include traffic signal warrant analysis for driveway opening at Northwest Highway under each study scenario. NOTE: study must specify that Tulane is not a public street.

Response: *A Traffic Signal Warrant Analysis was also prepared for the hypothetical intersection of Northwest Highway and Tulane Boulevard. The analysis indicates that a traffic signal will not be warranted under Scenarios A or B.*

15. Study should specify which development scenario is analyzed and summarized in Table 4 and Table 5.

Response: *In the DRAFT report, the results presented in Tables 4 and 5 reflected Scenario B (125 DU/Acre). In the revised report, results from both scenarios are provided.*

16. Study should provide actual control delay by approach and include queue MOEs and actual PHF, replace ">100 sec/veh" with actual delays and confirm analysis uses Synchro timing settings provided by City of Dallas.

Response: *This information has been added to Tables 4 and 5.*

17. Study should include a technical review on sight distance at intersections.

Response: *Sight distance exhibits have been provided in Appendix E of the revised report.*

18. Study should include a technical review of historical traffic accidents.

Response: *A review of traffic crash history is provided in Appendix E of the revised report.*

19. Study should include observations of pedestrian activity and pedestrian amenities/infrastructure and treatments within study area.

Response: Based upon multiple trips to the study area, consistent pedestrian activity was observed within the District and surrounding residential areas. Essentially all of the trips appeared to be for exercise or domestic purposes (dog-walking, etc.) and occurred on local streets.

As has been previously noted in prior City evaluations, the area has very few sidewalks or other pedestrian amenities. It is assumed that any redevelopment in the area will require construction of appropriate sidewalks. Pedestrian safety would be significantly improved with the addition of sidewalks and other enhancements, such as curb extensions. Marked crosswalks are not common in residential areas but should be considered on an as-needed basis where warranted.

Based upon observations and affirmed by existing traffic volume data, pedestrian crossings of Northwest Highway are very low. However, with commercial and institutional destinations being located on the south side of Northwest Highway, providing a safe crossing is essential. The existing traffic signal at the intersection of Northwest Highway and Pickwick Lane provides a marked crosswalk, pedestrian heads, and pedestrian pushbuttons. These appurtenances are typical for traffic-signal-controlled intersections and prudent for the characteristics of this intersection.

20. Staff comments on traffic operations for Pickwick at Northwest Highway:

- a. Right turns on red at Pickwick are not allowed because of sight distance limitations. Even if we had the right of way at our disposal, right turns would be in conflict with the alley from the west and restricted due to visibility restrictions including bus stop shelter (which could be relocated) and the pink walls on both sides.
- b. The intersection already has detection but it is challenged by the intersecting approaches from the parkway. The detection picks up a few vehicles but not all the time, depending on how they're position as they approach the intersection.
- c. If the geometry allows, I think there might a possibility of adding to one more approach lane and a protected right turn overlapping with left turns into Pickwick. This condition should only be investigated in coordination with the traffic patterns of the entire system.
- d. All signals along the Northwest Hwy corridor have already been optimized. There is a possibility of adding more green time to the highway at the expense of the cross streets. Any future optimization would negatively impact pedestrians and vehicles crossing Northwest Highway. Douglass is the only one that is not part of the synchronization because of the preemption needed for the fire station.

Response: No further comments required.

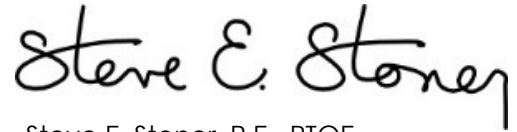
21. Staff provided synchro files for Northwest Highway. Study should evaluate whether a new signal at Edgemere (should one be warranted) would have a negative impact to progression for this corridor based on analysis of Synchro's spacetime diagrams.

Response: Pacheco Koch did use the City's Synchro file to evaluate the impact of adding a traffic signal at the intersection of Northwest Highway and Edgemere Road. Our finding was that there would be no significant impact to traffic signal progression during the AM and PM peak hour periods and a slight impact during the noon period and off-peak periods.

Mr. David Nevarez, P. E., PTOE
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If you have any questions or need any additional information, please call at your earliest convenience.

Sincerely,

A handwritten signature in black ink that reads "Steve E. Stoner". The signature is written in a cursive, flowing style.

Steve E. Stoner, P.E., PTOE

SES/slr
2609-19.157_Comment Response Letter