

# LSC Responses to Redline Comments

**LSC Response:** The number of lots on a dead-end roadway would remain only at 10 because the 59 lots would have two access points. The allowable county cul-de-sac (in terms of number of units – max. 25 units) would have a corresponding estimated ADT of about 250 daily trips. The projected ADT for South Park Drive with this PUD Amendment is 125 (Note: the Brookmoor residents have an alternative and could use the Moveen Heights access in the event of an accident). Note: Even if the Brookmoor added traffic were hypothetically based on ITE trip generation rates, the projected total ADT would be 160 vpd. The proposed condition would be a better situation for South Park residents in the event of an emergency/accident because the gate could be opened by emergency service personnel, if deemed necessary, to provide exit and/or entry for South Park residents.

## PCD Engineering Manager's Comments:

**#1:** *The TIS cites striping adjustments are needed at Lake Woodmoor/and Woodmoor Drive. The report did not note if the asphalt is of adequate width or not for the extension of these turn lanes. It also did not address who should make these changes.*

**LSC Response:** This did not address the comment. The TIS should go into more detail about the needs at this intersection and state if this would alleviate the issues that Brookmoor residents are experiencing, thus alleviating the need to open the interback gate to this development. 1

**# 2:** *The report states that no improvements are needed with this. First, the estimated traffic was increased. Next, the TIS uses counts for the traffic other traffic, causing an unrealistic comparison adequate for this additional traffic and should were to open.*

**LSC Response:** LSC put together a very detailed and South Park. The details of the distribution and trip rate

Most traffic studies are for developments not yet generation rates based on actual counts from Brook existing, established development and the calculation account the unique characteristics of this community

Again, the report doesn't state the improvements needed for S Park. S Park is not constructed to current County standards and opening this gate to the Brookmoor traffic would require making the improvements to the existing width and depth of the pavement. Due to the known traffic issues at the WM/Lake WM intersection the traffic split exiting the Brookmoor site (back gate) in the am PH should be much higher than is shown. It could be assumed that the entire trips exiting at Moveen to the left and wanting to turn left onto LWM Dr would exit the back gate in the AM PH. All tables should use ITE trip generation values.

Appendix table 1 and appendix table 2 as well as the findings and conclusion use the actual counts and not the ITE estimated trip generation for the Brookmoor subdivision. The ITE trip generation values should be used in all cases for calculating the traffic volume from this subdivision. Please revise and use the ITE values for all calculation. Please show the peak hour calculation in this report (for cars exiting the site), and use the ITE trip generation value when performing the calculation. Based on the left turn movement vs the right turn movement when a resident uses the front gate vs the potential back gate, this report should justify the projected split in exiting traffic that is to use the back gate (see next comment). 2

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# LSC Responses to Redline Comments

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☰ Number: 1 Author: dsdnijkamp Subject: Engineer Date: 8/12/2020 7:22:14 PM

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This did not address the comment. The TIS should go into more detail about the needs at this intersection and state if this would alleviate the issues that Brookmoor residents are experiencing, thus alleviating the need to open the back gate to this development.

👉 Author: jchodsdon Subject: Sticky Note Date: 3/21/2022 12:31:35 PM

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LSC Response: This comment has been addressed in the updated TIS report. The report presents existing conditions at the top of page 12 and in section 3.6 on page 13. A more detailed level of service analysis is presented in sections 3.9 and 6.2. An analysis of signal-warrant thresholds is included in section 3.10. Section 8.1 has been added to address striping and laneage. Projected signal warrants are also included in this section.

The opening of the back gate would only help to reduce delay/congestion at this intersection, although a minor amount, as trips would be "removed" from this intersection.

☰ Number: 2 Author: dsdnijkamp Subject: Engineer Date: 3/31/2020 5:17:52 PM

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👉 Author: jchodsdon Subject: Sticky Note Date: 3/21/2022 12:31:59 PM

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LSC Response: The report has been updated to use ITE trip-generation rates and values (Please refer to page 10 and Table 7 (p.23) of the updated report). The trip generation based on actual counts remains in the table for comparison. ITE trip-generation rates for ITE Land Use 251 "Senior Adult Housing (detached)" have been used for the updated trip-generation estimate. The report explains (on page 9) the rationale for use of this land-use category for this community (versus land use 220- Single-Family Detached Housing). The volume projections, analysis, findings, and conclusions have been updated based on the revised trip-generation estimate.

☰ Number: 3 Author: dsdnijkamp Subject: Engineer Date: 3/31/2020 5:13:51 PM

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Again, the report doesn't state the improvements needed for S Park. S Park is not constructed to current County standards and opening this gate to the Brookmoor traffic **would require making the improvements** to the existing width and depth of the pavement. Due to the known traffic issues at the WM/Lake WM intersection the traffic split exiting the Brookmoor site (back gate) in the am PH should be much higher than is shown. It could be assumed that the entire trips exiting at Moveen to the left and wanting to turn left onto LWM Dr would exit the back gate in the AM PH. All tables should use ITE trip generation values.

👉 Author: jchodsdon Subject: Sticky Note Date: 3/21/2022 12:33:17 PM

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LSC Response: The updated report provides additional information to address this comment. Please refer to the applicable discussion in section 3.1, findings in section 7.2, and summary in section 9.1 of the updated report. The County road inventory shows this as a 24' local road - like most other roads within Woodmoor.

ITE trip generation has been used in the analysis, as mentioned in section 9.2, bullet no. 2.

The trip distribution and routing splits were addressed in more detail in sections 5.1 and 5.2. Also, please refer to the "sensitivity analysis" in section 5.3.

The pavement loading due to the existing homes along South Park Drive plus the impact of some added

Comments from page 2 continued on next page

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Brookmoor is a gated-community with that the ITE rates are primarily similar to Brookmoor. These factors alone result in community demographics likely different from those on which ITE trip generation characteristics are different as result. The report included a comparison of trip generation. The comparison, provided as

Brookmoor passenger vehicles to the overall ESAL would be well below the design ESAL of a rural local road. Please refer Appendix B of the updated report for details.

required, was not between Brookmoor and “other traffic”- rather between Brookmoor “actual recorded” trip generation versus “hypothetical” trip generation for Brookmoor based on ITE rates. Note: The peak-hour volumes for South Park Drive have been based on actual peak hour counts. The estimate of existing **daily** traffic on South Park Drive (based on ITE rates) may actually be conservative as the peak-hour volumes counted are lower than hypothetical trip projections based on average ITE rates. Note: Even if the Brookmoor added traffic were based on ITE trip generation rates, the total ADT would be 160 vpd.

**#3 and #4:** *The intersection of Lake Woodmoor Drive and Woodmoor drive should be assessed to see if it meets warrants for a signal. A signal at this location may alleviate the issues that Brookmoor is having with the traffic. At this time Engineering cannot support the opening of this gate for the local traffic as requested without proposed improvements to South Park Drive. If the gate is to be opened to local Brookmoor traffic roadway improvements would be required for South Park drive from the gate to Knollwood. This would include both width and depth of asphalt*

**LSC Response to Comment #3:** This proposed change would reduce traffic (by a relatively minor amount) at this intersection. Additionally, the allowable use of the east gate to Brookmoor residents would provide access to the intersection neighborhood. **This did not address the comment. The TIS should go into more detail about the needs at this intersection and state if a signal would alleviate the issues that Brookmoor residents are experiencing, thus alleviating the need to open the back gate to this development. A signal warrant should be performed.** 1

**LSC Response to Comment #4:** The width is addressed in the traffic study along with documentation and discussion of the limited use of on-street parking. Regarding the pavement depth, trucks have significantly more impact to pavement than passenger vehicles - only passenger vehicles will be allowed to use the connection and not trucks.

JCH:jas

**The added traffic to S Park warrants the need to upgrade the width (and possibly the depth) of S Park. Because there were no cars parked on the street during your survey is moot. Cars are allowed to park on S Park. S Park should be upgraded to today's standards to account for these additional trips. Knollwood should also be evaluated in this report. Engineering could support the opening of this gate to internal residents if S Park is upgraded to current EPC standards and if Knollwood is analyzed and any needed improvements to it were proposed to be constructed with this gate opening.** 2

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Number: 1 Author: dsdnijkamp Subject: Engineer Date: 3/31/2020 5:20:34 PM

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This did not address the comment. The TIS should go into more detail about the needs at this intersection and state if a signal would alleviate the issues that Brookmoor residents are experiencing, thus alleviating the need to open the back gate to this development. A signal warrant should be performed.

Author: jchodsdon Subject: Sticky Note Date: 3/21/2022 12:29:56 PM

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LSC Response: This comment has been addressed in the updated TIS report. The updated report includes a signal-warrant chart evaluation (see Sections 3.10 and 8.1, second subsection) of the updated report). The opening of the back gate would only help to reduce delay/congestion at this intersection, although a minor amount, as trips would be "removed" from this intersection. It is our understanding is that the delay on the westbound approach to this intersection is NOT the primary reason the HOA is requesting the gate be opened. Please refer to the applicable discussion in section 9.3 of the updated report.

Regarding the striping evaluation of Woodmoor Drive, please refer to Section 8.1, first subsection.

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Number: 2 Author: dsdnijkamp Subject: Engineer Date: 4/1/2020 9:54:18 AM

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The added traffic to S Park warrants the need to upgrade the width (and possibly the depth) of S Park. Because there were no cars parked on the street during your survey is moot. Cars are allowed to park on S Park. S Park should be upgraded to today's standards to account for these additional trips. Knollwood should also be evaluated in this report. Engineering could support the opening of this gate to internal residents if S Park is upgraded to current EPC standards and if Knollwood is analyzed and any needed improvements to it were proposed to be constructed with this gate opening.

Author: jchodsdon Subject: Sticky Note Date: 3/21/2022 12:34:05 PM

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LSC Response: The updated report provides additional information to address this comment. Please refer to section 3.1, findings in section 7.2, and summary in section 9.1 of the updated report. The County road inventory shows this as a 24' local road - like most other roads within Woodmoor.

Regarding Knollwood/Highway 105, please refer to section 3.4. The Knollwood Drive/South Park Drive intersection is analyzed at the end of section 3.4 and in section 3.5. Section 8.2 indicates that the impact of the requested PUD Amendment is less than a five percent increase on Knollwood Drive.

The pavement loading due to the existing homes along South Park Drive plus the impact of some added Brookmoor passenger vehicles to the overall ESAL would be well below the design ESAL of a rural local road. Please refer to Appendix B in the updated report.