TRAFFIC PLANNING AND DESIGN, INC.
Est. 1989
2500 E. High Street | Suite 650 | Pottstown, PA | 19464
610.326.3100 | TPD@TrafficPD.com

May 15, 2015

Mr. Francis J. Hanney
District Traffic Services Manager
PennDOT District 6-0
7000 Geerdes Boulevard
King of Prussia, PA 19406-1525

Re: **Response Letter – Preliminary Review**
Cardinal Crossing
Marple Township, Delaware County, PA
Traffic Log: D14-021XQ
TPD# GMP.A.00030

Dear Mr. Hanney:

Traffic Planning & Design, Inc. (TPD) has had an opportunity to review the December 29, 2014, preliminary review letter prepared by the Department, pertaining to the submitted Transportation Impact Study (TIS) for the proposed Cardinal Crossing, dated November 5, 2014. A copy of the PennDOT review letter is attached for reference. Review comments are shown below in bold and italics with TPD's responses following.

PRELIMINARY COMMENTS

1. ***The PennDOT project number, D14-021XQ, for this preliminary review must be referenced when the formal Highway Occupancy Permit (HOP) application is submitted.***

   Will Comply

2. ***Department guidelines require that the overall intersection level of service with development be at least equivalent to the Level of Service (LOS) without development, or that the change in delay shall not exceed 10-seconds of additional delay, for the opening year and horizon year projected condition. As presented the Study identifies four intersections without necessary improvements to mitigate the development traffic impact:***

   - ***S.R. 0320 (Sproul Road) and S.R. 1009 (Springfield Road)***
   - ***S.R. 0320 (Sproul Road) and S.R. 0001 (State Road)***
   - ***S.R. 1009 (Springfield Road) and S.R. 0001 (State Road)***
   - ***S.R. 1020 (Lawrence Road) and Parkway Avenue***

   If mitigation/acceptable levels of service cannot be achieved for the overall level of service, an approved local or alternative transportation plan must be provided or a level-

of-service design waiver, in accordance with Pennsylvania Code, Title 67, Chapter 441.5(e), must be submitted for consideration along with a detailed description of the remedy necessary to mitigate the impact of the development and clearly identifying the constraints making the implementation of the improvements infeasible.

Based on the revised capacity analysis contained in the TIS, only two locations remain un-mitigated due to site-related impact. These locations are as follows:

- Sproul Road (S.R. 0320) & Springfield Road (S.R. 1009) – This intersection continues to operate at ILOS D or better, which is acceptable in urban settings. Additional improvements are considered feasible based on the location of two bridges over I-476, just south of the intersection.
- State Road (S.R. 0001) & Springfield Road (S.R. 1009) – At the recent PennDOT meeting, the Department and Township agreed that, in lieu of mitigation at this intersection, they will accept additional improvements at an alternate location in the study area.

3. In addition to the intersections where the LOS standard is not met, the following deficient operation identified in the Study should be addressed:

a. S.R. 0320 (Sproul Road)/Crum Creek Road/Realigned Reed Road – This modified intersection is projected to operate with numerous deficient movements during the all three peak periods under proposed condition. This includes northbound and/or southbound queues projected to extend through adjacent intersections.

The Applicant is proposing significant roadway improvements at this intersection, including the re-alignment of Reed Road and lanes on all approaches, including an additional thru lane on NB Sproul Road. These improvements result in operations of ILOS D (intersection) or better and LOS E (individual movements) or better under 2025 Projected Conditions. The only deficient queueing issue occurs on SAT, and is the NB Sproul Road queue that will impact the proposed RI/RO/LI driveway on Sproul Road. The 50th Percentile Queue will not impact this driveway location. It is TPD's opinion that this queuing issue would require a shorter cycle length to reduce queuing and/or an additional thru lane on NB Sproul Road. It is TPD's opinion that none of these improvements are feasible.

b. S.R. 0320 (Sproul Road) at North Cemetery Driveway/Proposed Main Site Driveway and Southern Cemetery Drive/Proposed Site Driveway – The northbound and/or southbound through movements operate in a deficient manner during all three peak periods under proposed conditions. The northbound queues at the Main Driveway are projected to extend to the Cardinal O'Hara Main Driveway and the Springfield Road intersection during the morning and Saturday peak hours; during the evening peak the queues will extend beyond the Southern Driveway. Additionally, the southbound left at the Main Driveway will exceed the proposed storage by 250 feet during the Saturday peak hour.

The proposed improvements at these intersections result in operations of ILOS C (intersection) or better and LOS E (individual movements) or better under 2025 Projected

Conditions. No queueing issues remain at the northern driveway. The only significant queueing issue that remains at the southern driveway occurs on SAT, and is the NB Sproul Road queue that will impact the Cardinal O'Hara Driveway to the south. The SAT peak hour is not the peak time for this adjacent driveway. It is TPD's opinion that this queuing issue would require a shorter cycle length to reduce queuing and/or an additional thru lane on NB Sproul Road. It is TPD's opinion a shorter cycle length would not work at this location, and the proposed intersection already includes an additional NB thru/right lane along the site frontage.

4. ***Auxiliary lane warrant analyses should be provided for S.R. 0320 (Sproul Road) and Williamsburg Drive/Shopping Center to determine if the existing northbound right turn lane (proposed to be converted to through/right under post-development conditions) should be replaced.***

   Though not included in the official meeting minutes of the meeting on August 14, 2014 held between the Township, PennDOT and the Applicant, the Department had asked the applicant about the possibility of converting the existing northbound right turn lane to a thru/right via restriping. Therefore, this improvement was included in the traffic study. Regardless of any analysis, parking for the existing CVS Pharmacy would preclude any additional widening for an auxiliary lane, as approximately 23 parking spaces would need to be relocated in addition to the existing sidewalk. Secondly, based on the capacity analysis, the NB approach lane, once converted to a shared through/right, would operate at acceptable LOS. Thirdly, PennDOT's auxiliary turn lane warrants analysis methodology does not support approaches with three lanes. The volumes would need to be scaled back in order to perform a two lane approach. This methodology would need to be agreed upon. Finally, based on further coordination with reviewers, they acknowledge that lack of a right turn lane will impact traffic operations and/or safety. Therefore, this analysis was not performed and included.

5. ***Schematic concept plans should be provided for all improvements, both proposed and those assumed to be infeasible.***

   Will Comply – Concept Plans will be provided under separate cover.

6. ***Verify the number of proposed accesses to Reed Road; there appears to be a discrepancy between the Study and the site plan.***

   Will Comply – The number of accesses along Reed Road have been revised to be consistent with the most recent site plan. This number includes three (3) accesses on the southern side of Reed Road, one (1) access on the northern side of Reed Road, and one (1) proposed convenience market driveway off of the extended Home Depot Driveway.

7. ***Provide additional information regarding the crashes at Lawrence Road and Parkway Avenue, including the types of crashes and potential patterns over the five year period. Please note that as part of the formal permit application intersection collision diagrams will be required to be in the Signal Design report.***

   Since none of the years evaluated resulted in over five (5) correctible crashes in one year, the requested crash diagrams will be provided later as part of the formal HOP application noted in the review comment above.

8. ***Confirm that the approval status of the assumed background developments and include trip generation information for each background development in the appendix, as well as excerpts from the respective traffic impact studies if available.***

   Will Comply – TPD followed up with Township Staff for information on the nearby developments assumed in the TIS. TPD received specific information on two of the sites. TPD was informed the third site is no longer moving forward, and was therefore removed from the TIS. This associated information is included in Appendix A and Appendix F of the revised TIS.

9. ***Coordinate with the applicable Townships to determine when the current signal timings were implemented; if the timings are recent they should be used "as-is" for the evaluation of future pre-development conditions.***

   As stated in the TIS, the updated timings provided by Marple Township along Sproul Road, were utilized "as-is" under 2020 Base and 2020 Projected Conditions. Timings at these intersections were not further optimized until 2025 Base Conditions (Design Year). All other signals were optimized normally under both 2020 and 2025 Base Conditions.

10. ***The internal capture rates for this development used the Center for Urban Transportation Research, Trip Internalization in Multi-Use Developments, April 2014 which is slightly different than the ITE Trip Generation Handbook, 3rd Edition. It is not anticipated that changes to the internal capture presented in the report will materially affect the results presented; therefore it will be accepted for purposes of this study. Note that the ITE Trip Generation Handbook, 3rd Edition should be used for all future development submissions***.

    So Noted – The utilized interaction methodology will continue to be used for this project only. All future projects will utilize the newest methodology. It should be noted that the newest methodology contains no interaction data for retail-to-retail, nor does it contain any midday data for Saturday interaction, which does not appear reasonable. Finally, the highest interaction percentage utilized during any peak hour in the TIS is 10%, which is not unreasonable in TPD's opinion.

11. ***The following comments relate to the distribution of new trips and the gravity model information provided in Appendix H:***

    a. ***Provide additional information on the anticipated market area served by the proposed development and verify if the development is anticipated to draw from a larger area than the 10 mile radius, particularly along the I-476 corridor.***

       Based on further coordination with reviewers and with the Project Team, it is not anticipated that a larger radius is not needed as specific tenant information is not known at this time. Based on the methodology of the gravity model, which diminishes the gravity of each population center by the square of the distance (X/distance^2), the drawing gravity of areas outside of 10 miles would be minimal in the overall influence. For instance, if the gravity model were increased to a 15 mile radius, all population centers within 0-10 miles would still garner 98.1% of the influence. The additional 1.9% of influence outside of 10 miles would not change the results of the study.

b. The gravity model for the residential component of the development should be based on employment data rather than population data. Provide a separate distribution for the residential portion of the development.

It should be noted that, Journey to Work information was not updated by municipality as part of the 2010 Census. Therefore, TPD utilized the revised gravity model only for "non-residential" uses, and existing travel patterns for "residential" uses. This methodology was recently utilized and accepted in a large mixed-use development in Montgomery County, where the reviewer made the same comment.

c. Verify the travel routes assumed for each municipality, including <u>but not limited to</u> Haverford Township.

Will Comply - TPD agrees there were inconsistencies in the previous routes assumed. Therefore, TPD updated all assumed routes utilizing Google Maps as a third-party tool. For each municipality, 1-3 routes were assumed based on travel times.

d. The distribution to S.R. 1020 (Lawrence Road) appears to be high relative to S.R. 0001 (State Road) to and from the east.

Based on the new trip distribution/trip assignment methodology outlined in this section, the distribution/assignment percentage to/from Lawrence Road significantly decreased.

e. The municipalities near the bottom of the Relative Percentage Using Routes spreadsheet appear to be mislabeled.

Will Comply - The gravity model spreadsheet was updated to correct this error.

f. Verify the routes currently assumed for trips on S.R. 1020 (Lawrence Road); Reed Road appears a more attractive route that S.R. 0320 (Sproul Road).

Will Comply – The previous TIS assumed approximately 23% of trips to/from Lawrence Road, using Parkway Avenue vs. Sproul Road. Based on a review of the existing patterns and the location of "non-residential" and "residential" portions of the proposed site, TPD made the following changes pursuant to this comment:

- For "non-residential" uses, TPD assumed 25% to utilize Parkway Avenue vs. Sproul Road.
- For "residential" uses, TPD assumed 55% to utilize Parkway Avenue vs. Sproul Road.

As requested at the most recent PennDOT meeting, the revised gravity model and revised trip assignment % changes, as described above in all sub-comments under #11, were forwarded to PennDOT and Marple Township representatives ahead of time before this re-submission.

12. Ensure that the pass-by volumes entering and exiting the site for the morning and evening peak hours are consistent between Table 7 and all figures.

Will Comply – The volume development spreadsheet was updated to correct this error.

13. Revise the Synchro analysis as appropriate to address the following:

a. Verify the heavy vehicle percentages used in the morning and evening peak analyses for S.R. 0320 (Sproul Road) and S.R. 0001 (State Road); it appears that

right-turn on reds may have been included in the heavy vehicle percentage.

Will Comply – The heavy vehicle percentages were corrected accordingly at this intersection during the weekday AM and PM peak hours. In addition, the RTOR at this intersection was also corrected under all peak hours.

b. Ensure that buses are included in the heavy vehicle percentage for S.R. 0320 (Sproul Road) and S.R. 1020 (Lawrence Road) in the morning peak.

Will Comply – The heavy vehicle percentages were corrected accordingly at this intersection during the weekday AM peak hour.

c. Verify the number of westbound receiving lanes modeled at S.R. 1009 (Springfield Road) and S.R. 0001 (State Road).

Will Comply – The number of WB receiving lanes was increased to two. It should be noted this does not impact the LOS results, but would impact any future simulation.

d. Verify that the lane configuration used for the S.R. 1020 (Lawrence Road) approach to S.R. 0320 (Sproul Road) under existing and background conditions are consistent with the approved signal permit and existing conditions.

Will Comply – During the preparation of the initial TIS, there was a conflict between what TPD saw in the field, on Google Earth Street View, and on the old signal diagram. TPD confirmed all "non-improvement" conditions reflect this configuration with this revision.

e. Under the future improved conditions the lane utilization of the S.R. 0320 (Sproul Road) northbound through at Williamsburg Drive/Shopping Center should be modified to account for the upstream lane drop (into a right turn lane) at S.R. 1020 Lawrence Road.

Will Comply – A revised lane utilization factor was developed at this intersection for all future build conditions (with improvements). It should be noted that the curb-lane was assumed to carry a significant volume as it includes the right-turn volume for both the driveway and at Lawrence Road.

f. Under future conditions evaluate if protected/prohibited left turn phasing is warranted for S.R. 0320 (Sproul Road) at:

i) Realigned Reed Road/Crum Creek Road

The SBL at this intersection will be a dual left-turn and will therefore be protected/ prohibited. The conflict factor analysis provided in the revised TIS confirms the appropriateness of this phasing. A protected left-turn phase for the WB egress (dual left) movement was also assumed to avoid the "split phase" as requested below.

ii) Proposed Main Site Driveway/North Cemetery Driveway

The SBL at this intersection will be protected/ prohibited. The conflict factor analysis provided in the revised TIS confirms the appropriateness of this phasing. A protected left-turn phase for the WB egress (dual left) movement was also assumed to avoid the "split phase" as requested below.

iii) Proposed Site Driveway/Southern Cemetery Drive

The conflict factor analysis provided in the revised TIS confirms the appropriateness of protected/prohibited phasing for the SBL movement at this intersection. A permitted left-turn phase for the WB egress movement.

iv) S.R. 1008 (Old Marple Road)

Thresholds for both "Vehicles/Cycle" and "Conflict Factor" are not satisfied for two hours under opening year. Therefore, NBL and SBL phases were not determined to be appropriate at this intersection.

g. Ensure that S.R. 0320 (Sproul Road) and S.R. 1008 (Old Marple Road) is modeled as coordinated with the intersections to the north for all periods using a consistent cycle length.

Will Comply – In the revised TIS, this intersection was modelled as coordinated with the intersections to the north, with a cycle length that was either the same cycle length or half-cylcle length, depending on the resultant operations at Sproul and Old Marple.

h. Re-evaluate the cycle length used for the proposed condition at S.R. 1020 (Lawrence Road) and Parkway Avenue during the morning peak; a longer cycle length may improve operations.

Will Comply - As part of the revised TIS, this intersection was coordinated with Sproul/Lawrence to the west, and a half-cycle length was provided to minimize queuing along Parkway Avenue. This improvement was provided under all three peak hours, not just during the weekday A.M. where mitigation was required.

i. Re-evaluate the use of split phasing for modified intersections

Will Comply - Will Comply - As part of the revised TIS, many of the previously recommended "split-phases" were converted to protected left-turn phases.

14. Verify the existing and proposed storage lengths; the study must address all locations where the future queues exceed the proposed storage or distance between intersections.

Will Comply – Queue lengths have been addresses where feasible.

15. Consideration of the recommendation to install a traffic signal at S.R. 2009 (Springfield) and S.R. 2008 (Old Marple Road) requires additional coordination with the Township.

Will Comply – The Project Team will further coordinate with Marple Township regarding this improvement as the project proceeds.

16. As indicated in the August 14, 2014 meeting minutes, provide documentation of coordination with SEPTA regarding bus stop locations and pedestrian accommodations.

Will Comply – Coordination will be made with SEPTA as the HOP proceeds.

17. With respect to the access design and formal permit application, please ensure that the following items are addressed:

a. The proposed scope of work must ensure pedestrian access into the site and compliant, accessible crossings at the signalized site driveways. Sidewalks should be provided along the site frontage.

So Noted – The Applicant will work with PennDOT and the Township to provide pedestrian facilities as needed, along the site frontage.

b. Consistent with current Department Policy, applicants for a HOP must apply for an EPS Business Partner ID (BPID). The BPID is to be used in the establishment of a billing account for the invoicing of inspection costs. Information on obtaining a BPID is listed below:

https://www.dot14.state.pa.us/EPS/home/manageBPRegistration.jsp
[Please make sure that you follow the instructions that are in the "PINK" area]. After a BPID is obtained and activated by the system administrator, please provide the following information in the applicant contact information tab under "Applicant Team":

i) BPID (please ensure that the BPID is searchable through the "looking glass" feature)

ii) Contact information (name/title/phone/email) for a "general" contact person (person that typically deals with the Highway Occupancy Permit application process)

iii) Contact information (name/title/phone/email) for a "billing" contact person (person that typically deals with the Highway Occupancy Permit invoicing process)

Will Comply – The Applicant will apply for an EPS BPID when the HOP is officially submitted.

We trust that the responses to each comment are satisfactory. Please feel free to call with any further questions or if additional information is required. Your cooperation in this matter is greatly appreciated.

Respectfully submitted,

TRAFFIC PLANNING AND DESIGN, INC.

Matthew I. Hammond, P.E.
Executive Vice-President

Est. 1989

Attachments: Review Letter – December 29, 2014

cc: M. Miele - PennDOT
L.R. Belmonte - PennDOT
Anthony Hamaday, Marple Township Manager
Joseph Mastronardo, Pennoni Associates
Joe Romano, Marple Township Director of Code Enforcement
Adam Matlawski, Esq. – Marple Township Solicitor
Delaware County Planning Commission
Bruce Goodman, Goodman Properties
Chris Anderson, Goodman Properties
TPD File

pennsylvania
DEPARTMENT OF TRANSPORTATION
www.dot.state.pa.us

December 29, 2014

MARPLE TOWNSHIP, DELAWARE COUNTY
S.R. 0320 (SPROUL ROAD)
HIGHWAY OCCUPANCY PERMIT APPLICATION NO. 1074
CARDINAL CROSSING
TRAFFIC LOG NO.: D14-021XQ
PRELIMINARY REVIEW

Matthew I. Hammond PE
Traffic Planning and Design, Inc.
2500 East High Street, Suite 650
Pottstown, PA 19464

Dear Mr. Hammond:

The Department has reviewed the preliminary submission for compliance with applicable Department Regulations. This preliminary review has identified deficiencies that must be addressed in order for your submission to be processed as efficiently as possible.

The Department understands that the provided analysis is preliminary in nature. As such, the Department reserves the right to make future additional comments based on the formal submission of a complete Transportation Impact Study (TIS).

Our comments on your preliminary submission are as follows:

PRELIMINARY COMMENTS

1. The PennDOT project number, D14-021XQ, for this preliminary review must be referenced when the formal Highway Occupancy Permit (HOP) application is submitted.
2. Department guidelines require that the overall intersection level of service with development be at least equivalent to the Level of Service (LOS) without development, or that the change in delay shall not exceed 10-seconds of additional delay, for the opening year and horizon year projected condition. As presented the Study identifies four intersections without necessary improvements to mitigate the development traffic impact:
    - S.R. 0320 (Sproul Road) and S.R. 1009 (Springfield Road)
    - S.R. 0320 (Sproul Road) and S.R. 0001 (State Road)
    - S.R. 1009 (Springfield Road) and S.R. 0001 (State Road)
    - S.R. 1020 (Lawrence Road) and Parkway Avenue

If mitigation/acceptable levels of service cannot be achieved for the overall level of service, an approved local or alternative transportation plan must be provided or a level-of-service design waiver, in accordance with Pennsylvania Code, Title 67, Chapter 441.5(e), must be submitted for consideration along with a detailed description of the remedy necessary to mitigate the impact of the development and clearly identifying the constraints making the implementation of the improvements infeasible.

3. In addition to the intersections where the LOS standard is not met, the following deficient operation identified in the Study should be addressed:
   a. S.R. 0320 (Sproul Road)/Crum Creek Road/Realigned Reed Road – This modified intersection is projected to operate with numerous deficient movements during the all three peak periods under proposed condition. This includes northbound and/or southbound queues projected to extend through adjacent intersections.
   b. S.R. 0320 (Sproul Road) at North Cemetery Driveway/Proposed Main Site Driveway and Southern Cemetery Drive/Proposed Site Driveway – The northbound and/or southbound through movements operate in a deficient manner during all three peak periods under proposed conditions. The northbound queues at the Main Driveway are projected to extend to the Cardinal O'Hara Main Driveway and the Springfield Road intersection during the morning and Saturday peak hours; during the evening peak the queues will extend beyond the Southern Driveway. Additionally, the southbound left at the Main Driveway will exceed the proposed storage by 250 feet during the Saturday peak hour.
4. Auxiliary lane warrant analyses should be provided for S.R. 0320 (Sproul Road) and Williamsburg Drive/Shopping Center to determine if the existing northbound right turn lane (proposed to be converted to through/right under post-development conditions) should be replaced.
5. Schematic concept plans should be provided for all improvements, both proposed and those assumed to be infeasible.
6. Verify the number of proposed accesses to Reed Road; there appears to be a discrepancy between the Study and the site plan.
7. Provide additional information regarding the crashes at Lawrence Road and Parkway Avenue, including the types of crashes and potential patterns over the five year period. Please note that as part of the formal permit application intersection collision diagrams will be required to be in the Signal Design report.
8. Confirm that the approval status of the assumed background developments and include trip generation information for each background development in the appendix, as well as excerpts from the respective traffic impact studies if available.
9. Coordinate with the applicable Townships to determine when the current signal timings were implemented; if the timings are recent they should be used "as-is" for the evaluation of future pre-development conditions.

10. The internal capture rates for this development used the Center for Urban Transportation Research, Trip Internalization in Multi-Use Developments, April 2014 which is slightly different than the ITE Trip Generation Handbook, 3rd Edition. It is not anticipated that changes to the internal capture presented in the report will materially affect the results presented; therefore it will be accepted for purposes of this study. Note that the ITE Trip Generation Handbook, 3rd Edition should be used for all future development submissions.
11. The following comments relate to the distribution of new trips and the gravity model information provided in Appendix H:
    a. Provide additional information on the anticipated market area served by the proposed development and verify if the development is anticipated to draw from a larger area than the 10 mile radius, particularly along the I-476 corridor.
    b. The gravity model for the residential component of the development should be based on employment data rather than population data. Provide a separate distribution for the residential portion of the development.
    c. Verify the travel routes assumed for each municipality, including but not limited to Haverford Township.
    d. The distribution to S.R. 1020 (Lawrence Road) appears to be high relative to S.R. 0001 (State Road) to and from the east.
    e. The municipalities near the bottom of the Relative Percentage Using Routes spreadsheet appear to be mislabeled.
    f. Verify the routes currently assumed for trips on S.R. 1020 (Lawrence Road); Reed Road appears a more attractive route that S.R. 0320 (Sproul Road).
12. Ensure that the pass-by volumes entering and exiting the site for the morning and evening peak hours are consistent between Table 7 and all figures.
13. Revise the Synchro analysis as appropriate to address the following:
    a. Verify the heavy vehicle percentages used in the morning and evening peak analyses for S.R. 0320 (Sproul Road) and S.R. 0001 (State Road); it appears that right-turn on reds may have been included in the heavy vehicle percentage.
    b. Ensure that buses are included in the heavy vehicle percentage for S.R. 0320 (Sproul Road) and S.R. 1020 (Lawrence Road) in the morning peak.
    c. Verify the number of westbound receiving lanes modeled at S.R. 1009 (Springfield Road) and S.R. 0001 (State Road).
    d. Verify that the lane configuration used for the S.R. 1020 (Lawrence Road) approach to S.R. 0320 (Sproul Road) under existing and background conditions are consistent with the approved signal permit and existing conditions.
    e. Under the future improved conditions the lane utilization of the S.R. 0320 (Sproul Road) northbound through at Williamsburg Drive/Shopping Center should be modified to account for the upstream lane drop (into a right turn lane) at S.R. 1020 Lawrence Road.

f. Under future conditions evaluate if protected/prohibited left turn phasing is warranted for S.R. 0320 (Sproul Road) at:

   i) Realigned Reed Road/Crum Creek Road

   ii) Proposed Main Site Driveway/North Cemetery Driveway

   iii) Proposed Site Driveway/Southern Cemetery Drive

   iv) S.R. 1008 (Old Marple Road)

g. Ensure that S.R. 0320 (Sproul Road) and S.R. 1008 (Old Marple Road) is modeled as coordinated with the intersections to the north for all periods using a consistent cycle length.

h. Re-evaluate the cycle length used for the proposed condition at S.R. 1020 (Lawrence Road) and Parkway Avenue during the morning peak; a longer cycle length may improve operations.

i. Re-evaluate the use of split phasing for modified intersections.

14. Verify the existing and proposed storage lengths; the study must address all locations where the future queues exceed the proposed storage or distance between intersections.

15. Consideration of the recommendation to install a traffic signal at S.R. 2009 (Springfield) and S.R. 2008 (Old Marple Road) requires additional coordination with the Township.

16. As indicated in the August 14, 2014 meeting minutes, provide documentation of coordination with SEPTA regarding bus stop locations and pedestrian accommodations.

17. With respect to the access design and formal permit application, please ensure that the following items are addressed:

    a. The proposed scope of work must ensure pedestrian access into the site and compliant, accessible crossings at the signalized site driveways. Sidewalks should be provided along the site frontage.

    b. Consistent with current Department Policy, applicants for a HOP must apply for an EPS Business Partner ID (BPID). The BPID is to be used in the establishment of a billing account for the invoicing of inspection costs. Information on obtaining a BPID is listed below:

       https://www.dot14.state.pa.us/EPS/home/manageBPRegistration.jsp

       [Please make sure that you follow the instructions that are in the "PINK" area]. After a BPID is obtained and activated by the system administrator, please provide the following information in the applicant contact information tab under "Applicant Team":

       i) BPID (please ensure that the BPID is searchable through the "looking glass" feature)

       ii) Contact information (name/title/phone/email) for a "general" contact person (person that typically deals with the Highway Occupancy Permit application process)

       iii) Contact information (name/title/phone/email) for a "billing" contact person (person that typically deals with the Highway Occupancy Permit invoicing process)

The Department has performed this preliminary review based only on the limited information provided. We reserve the right to make future, additional, detailed comments based on the formal submission and application for a Highway Occupancy Permit. If you have any questions pertaining to the technical aspects of this review, please contact Albert Federico, P.E., PTOE of McCormick Taylor, Inc. at 215.592.4200 or apfederico@mtmail.biz.

Respectfully,

Francis J. Hanney
District Traffic Services Manager
Engineering District 6-0

cc: M. Miele
L.R. Belmonte
Traffic Services File
Marple Township
Delaware County Planning Commission