

November 15, 2006

Mr. Glenn Rowe, P.E.
Pennsylvania Department of Transportation
Bureau of Highway Safety and Traffic Engineering
Commonwealth Keystone Building
400 North Street, 6th Floor
Harrisburg, PA 17105

RE: Pocono Manor Resort & Casino Traffic Impact Study Detailed Traffic Impact Study Review

Dear Mr. Rowe:

McCormick Taylor, Inc. has completed its detailed review of the traffic study submitted for the proposed Mount Airy Lodge redevelopment, located Paradise Township, Monroe County. The material reviewed consisted of the following:

- Pocono Manor Resort & Casino Traffic Impact Study, including Synchro traffic analysis files, prepared by Pennoni Associates, Inc., dated December 2005, revised July 2006
- Minutes from a September 13, 2006 meeting involving PennDOT, Tobyhanna Township, Pocono Manor Investors, and Pennoni Associates
- Letter of responding to Initial Review Comments, prepared by Pennoni Associates, Inc., dated October 10, 2006

It should be noted that additional materials (<u>Traffic Study for the Temporary Casino at the Pocono Manor Resort & Casino</u>, prepared by Pennoni Associates, Inc., dated October 2006; and <u>Pocono Manor Resort & Casino Traffic Impact Study</u>, prepared by Pennoni Associates, Inc., revised November 2006) were provided to McCormick Taylor after the deadline for submission of materials established by the Gaming Board and were not reviewed.

This detailed review builds upon our initial review, dated July 31, 2006. According to our scope of services, we conducted a project site visit and evaluated the technical elements of the traffic analysis as well as the feasibility and safety of constructing the various transportation improvements proposed in the study. We also contacted the PennDOT District offices, local municipalities, and planning agencies to receive their comments on the proposed gaming facilities.



Project Summary

The project site is located in the southwest quadrant of the interchange of Interstate 380 and PA Route 940 in Tobyhanna Township, Monroe County. Access to the gaming facility will be obtained via driveways onto PA Route 314 and a new northbound off-ramp from Interstate 380. The Pocono Manor Resort & Casino will be developed as a Class II gaming facility, outside of the urban boundaries within PennDOT District 5-0.

The study considered the resort development to be known as Pocono Manor Resort & Casino, which would include the following:

- o 8,000 slot machines
- o 831,200 square foot indoor shopping center
- o 50,000 square foot professional office building
- o 475 residential condominiums/townhouses

The study also notes that the proposed facility will include the following additional uses:

- Hotel rooms/time-share villas
- Convention/meeting rooms
- o Restaurants
- Theatre
- o Retail shops
- Hospitality & gaming school

Following are our comments and findings for the initial review of the above-referenced submission:

PennDOT and Municipal Coordination

McCormick Taylor contacted Brian Boyer, PennDOT District 5-0 Permits Manager. Mr. Boyer indicated that PennDOT had met with the applicant, the Township and FHWA. Specific concerns raised at the meeting included, but were not limited to the following:

- The basis of the proposed trip generation and distribution
- The need for the proposed frontage roads
- Impacts to the residents of Stillwater Lakes Estates
- The potential need for Point of Access Study and Environmental Assessments for the modifications to limited access facilities
- o The need for the study to evaluate interchange operations



McCormick Taylor contacted Bob McHale at Tobyhanna Township. Mr. McHale indicated that the Township had completed an in-house review of the December 2005 Traffic Study. He confirmed the previously noted meeting with PennDOT and emphasized the following items:

- The Township had several concerns about existing transportation problems and the ability of the roadway network to support a large trip generating development.
- Extensive queuing currently occurs on existing roadways, including the "Five Points" intersection in Mount Pocono Borough and southeast along I-80 at Scotrun.
- The Township noted several issues with the source of the trip generation information, particularly the fact that the casinos from which the trip generation data was derived did not have a similar size or land use mix as the proposed Pocono Manor facility.

Site Visit

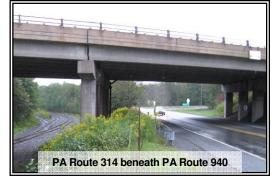
McCormick Taylor visited the location of the proposed gaming facility and the study area addressed within the applicant's impact study. The following observations were made as part of the site visit:

- The PA Route 940/Long Pond Road intersection is located very close to the unsignalized I-380 South off-ramp to PA Route 940
- The proposed modifications to the I-380 North off-ramp appear to have possible

impacts on wetlands and/or other environmental-sensitive features. An environmental impact statement may be required as part of the approval of improvements.

The PA Route 940 overpass over PA Route 314 appears relatively narrow, permitting minimal opportunity to widen PA Route 314 without significant impacts to the bridge structure. The adjacent rail bed may provide additional constraints.







- The offset intersection alignment of PA Route 611 and PA Route 314 is undesirable, particularly the western approach of PA Route 314.
- The "Five-Points" intersection in Mount Pocono Borough is extremely congested. Additionally, the intersection geometry appeared to present difficulty to larger trucks.



Technical Review of the Traffic Study

Unless specifically identified below, the most current materials submitted by the applicant (<u>Pocono Manor Resort & Casino Traffic Impact Study</u>, prepared by Pennoni Associates, Inc., revised July 2006; and Letter of Responses to Initial Review Comments, prepared by Pennoni Associates, Inc., dated October 10, 2006) has addressed the comments presented in the initial July 31, 2006 review. It should be noted that the applicant provided a revised Traffic Impact Study, dated November 2006, however the timeframe of the submission did not permit it to be evaluated as part of this review. The following comments have not been addressed:

Approach

- 1. The study did not adequately address impacts to the I-380/PA 940 and PA 940/PA 314 interchanges. Evaluations of the interchange merge and weave operations, queuing along the ramps and the capacity of the I-380 mainline is considered appropriate. The applicant has indicated that these improvement concepts are reflected in the November 2006 TIS.
- 2. The study did not address impacts resulting from the proposed closure of the access to the Stillwater Estates residential development as part of the proposed interchange modifications. Expanding the study area to include the roadways and intersections affected by the diversion, quantifying the diverted traffic, and evaluating its effect on the affected streets and intersections would be considered appropriate.
- 3. The study did not address impacts resulting from the proposed closure of the connection between Old Route 940 and the PA Route 940/PA Route 314 interchange. Expanding the study area to include the roadways and intersections affected by the diversion, quantifying the diverted traffic, and evaluating its affect on the streets and intersections would be considered appropriate.

Trip Generation

4. When comparing trip generation estimates for the gaming component of the five At-large facilities, the trip generation for the Pocono Manner facility is considerably higher than the projections for the other At-large facilities.



Analytical Approach

- 5. No calculations or other information was provided to support the assumed distribution of project traffic. *The applicant has indicated that gravity models were developed for both the casino and retail uses, documentation of which is included in the November 2006 TIS.*
- 6. The site plan shows connections to Sullivan Trail (SR 4004) and Manor Drive. However, site traffic does not appear to have been assigned to these roads.
- 7. The study did not provide evaluations of vehicle queuing and determinations regarding the adequacy of existing turning bays. The applicant has indicated that vehicle queuing and the adequacy of existing turn bays are evaluated in the November 2006 TIS.
- 8. Traffic volumes were not balanced between some study area intersections where volume balancing would be appropriate, particularly along the limited-access sections of PA Route 940 from Long Pond Road to Oak Street.
- 9. The Synchro software default values for several critical inputs were used without qualification in all traffic analyses. The use of software defaults, rather than values measured and/or collected in the field, can significantly influence the results of the capacity analysis.
 - Peak Hour Factors The software default of 0.92 was used for all capacity analyses. This parameter should be calculated directly from the traffic count data.
 - Lane Widths The software default of 12 feet was used for all capacity analyses. This parameter should be measured in the field.
 - Heavy Vehicle Percentage The software default of 2 percent was used for all capacity analyses. This parameter should be calculated directly from the traffic count data.
- 10. Several operational parameters of the studied traffic signals (e.g., Recall Mode and Minimum Green Time) do not appear to have been programmed into the capacity analysis according to the approved signal plans. Improper signal programming can significantly influence the results of the capacity analysis.
- 11. The analyses of the PA Route 611/PA Route 314 (Western Leg) intersection should evaluate the northbound approach with one left-turn lane and two through lanes.

Evaluation of the Recommended Improvements

McCormick Taylor evaluated the recommended roadway improvements identified in the Pocono Manor Resort & Casino Traffic Impact Study. The mitigations measures proposed were reviewed for completeness and adequacy in serving the anticipated additional traffic volumes.



- 12. Significant modifications are proposed to the two interchanges of I-380/PA Route 940 and PA Route 940/PA Route 314; however the interchange of I-380/PA Route 940 is projected to operate with deficient levels of service during post-development conditions.
- 13. The modifications to the I-380/PA Route 940 interchange include aligning the I-380 South off-ramp with existing Long Pond Road, eliminating two closely spaced intersections. This modification would most likely involve closing existing access to the Stillwater Estates residential development. As previously noted the impact of this closure has not been assessed.
- 14. The modifications to the two interchanges include a proposed frontage road. This modification would most likely involve closing the connection between Old Route 940 and the PA Route 940/PA Route 314 interchange. As previously noted the impact of this closure has not been assessed.
- 15. The report indicates that traffic signals are warranted at several unsignalized intersections. However, documentation of the signal warrant analysis is not provided in the report. *The applicant has indicated that signal warrant analyses are included in the November 2006 TIS.*
- 16. At the following study area intersections, the traffic impacts of the site were not acceptably mitigated:
 - PA Route 940/Long Pond Road/Relocated I-380 South Ramps
 - PA Route 940/I-380 North Ramps
 - PA Route 940/PA Route 611/PA Route 196 ("Five-Points")
 - PA Route 611/PA Route 314 (Western Leg)
- 17. The applicant has proposed paying a "traffic impact fee" to Mount Pocono Borough, in lieu of making improvements to "Five-Points".
- 18. Except as noted above, it appears that the proposed improvements adequately mitigate the project impacts based on the results presented in the analysis.

Highway Occupancy Permit Issues

McCormick Taylor evaluated issues that may impede the issuance of a PennDOT Highway Occupancy Permit (HOP). This investigation included preliminary assessments of apparent issues associated with right-of-way, existing structures, utility conflicts, and the constructability of the roadway improvements suggested in the study. McCormick Taylor understands that PennDOT District 5-0 and the applicant are in direct contact regarding the traffic study and HOP requirements. Therefore, the following comments are provided in deference to any other comments that PennDOT has given the applicant during the HOP review process.

o It appears that the improvements proposed for the I-380/PA Route 940 interchange will require widening of the interchange bridge structure over the I-380 mainline.



- The design of the signal proposed for PA Route 611 and PA Route 314 (Western Leg) must accommodate the limited sight distance resulting from the approach geometry.
- A Point-of-Access (POA) study and Federal approval may be required for the proposed modifications at the I-380/PA Route 940 interchange. If such a study is required, PennDOT and FHWA approval must be secured prior to the start of construction on the interchange improvements.
- Environmental assessments and/or clearances, if required for the roadway improvements proposed in the study, may affect the ability of the applicant to complete the proposed improvements within the schedule assumed in the study.

Conclusions

Based on our review there are still issues that have not been addressed by the information submitted by the applicant. Further consideration of the project impacts would benefit from the applicant:

- Revising the traffic analysis to address previously noted technical deficiencies including expanding the study area address the impacts of the proposed road closures
- Coordinating with PennDOT and the affected municipalities to developing an acceptable improvement program, including additional improvements to mitigate the noted impacts of project traffic
- Obtaining confirmation from FHWA regarding the need to prepare a Point-of-Access (POA) study for the proposed interchange modifications
- Obtaining confirmation from PennDOT regarding the need to prepare environmental studies
- O Advancing the design of the proposed improvements to the I-380/PA Route 940 interchange, including verification that sufficient width is available between the existing bridge structures.
- o Initiate coordination with utility agencies regarding relocation needs associated with roadway and intersection improvements.
- o Develop a coordinated, regional plan for way-finding signage.



I trust that this review will assist PennDOT and the Pennsylvania Gaming Control Board in their evaluation of this application. I am available if you have any questions regarding this review.

Very truly yours,

McCORMICK TAYLOR, INC.

Alber Federico, P.E., PTOE Senior Traffic Engineer

cc: Paul Resch, PA Gaming Control Board Paul Archibald, McCormick Taylor