November 14, 2006

Mr. Paul Resch
PA Gaming Control Board
P.O. Box 69060
Harrisburg, PA 17106

Dear Mr. Resch:

Majestic Star Casino Transportation and Parking Assessment
Detailed Traffic and Parking Study Review - McCormick Taylor

In response to the above captioned McCormick Taylor peer review dated November 8, 2006, which we received November 9, 2006, we have provided below supplementary analysis and clarifications to their numbered comments. Our response to their points is provided below using the same numbering system as their letter.

Approach

1. The subject transportation study was completed under the supervision of Russell Brownlee, a registered professional engineer in the Province of Ontario, with considerable experience in transportation engineering and transportation impact studies. Mr. Brownlee was a member of the peer review team selected to assist in the development of ITE International's Recommended Practice: Transportation Impact Analysis for Site Development (2006). We understand that transportation and other work to be completed in support of a Highway Occupancy Permit will require the stamp and signature of a Professional Engineer licensed in the State of Pennsylvania and which PITG Gaming will do.

2. While some figures showing traffic volumes were omitted, it is noted that the capacity analysis for each of those cases was provided, which included the current and anticipated traffic volumes. As specified in the text of the report, background (No-Build) traffic volumes were determined using the growth rates confirmed by the Southwestern Pennsylvania Commission (SPC).

3. The peer review noted that several technical appendices were absent in the subject report.

    a. Traffic count summaries from the study area intersections were supplied, including AM, PM and Saturday PM counts for 10 intersections in the study area, and including the additional intersections requested in the McCormick Taylor Initial Traffic and Parking Study Review letter dated September 7, 2006.

    b. Capacity analysis sheets were supplied for all the intersections included in our original report of December 2005. In addition, capacity analysis sheets were supplied for the

additional intersections requested in the McCormick Taylor Initial Traffic and Parking Study Review letter dated September 7, 2006.

c. A more detailed description of the calculations supporting the trip generation was included in our letter responding to the initial review comments dated September 29, 2006.

Trip Generation

4. The analysis assumptions provided on Pages 18-21 of the report reflect overall assumptions of our trip generation estimates, to provide the reader with a general understanding of the range of values assumed. As outlined in our letter responding to the initial review comments dated September 29, 2006, adjustments to the calculated trip generation were applied to account for any dissimilarity between the subject site and the survey results from the surrogate site, and to better reflect trip generation rates surveyed through ITE.

   As the McCormick Taylor peer review letter dated November 8, 2006 states, we have in all respects attempted to provide worst-case trip generation assumptions to ensure that the potential transportation impacts are not underestimated.

5. As outlined in our letter responding to the initial review comments dated September 29, 2006, the subject study assumes 65,000 ft^2 speciality retail, 6,000 ft^2 general retail, 40,000 ft^2 other entertainment uses, which reflected approximate sizes of the proposed facility. Since these ancillary uses will be primarily used by casino attendees and those using the Three Rivers trail system, they will not generate a large number of new vehicle trips above those already generated for the casino patrons. Regardless of the adjustment and synergy factor used, the trip generation for the non-casino components is insignificant in comparison to the worst-case assumptions made for the casino trip generation.

6. This is a statement of fact. We have maintained a worst-case scenario with regards to trip generation to ensure that potential impacts are not underestimated. It is expected that actual operating conditions during full build out of the site will be better than reported.

7. Some minor differences in volumes between the report exhibits and the analysis at two locations are described below. In both cases, traffic volumes used in the capacity analysis and reported in the traffic operation sections of the report were slightly higher than the volumes shown on the exhibits.

   a. Eastbound right turn volumes at Reedsdale Street/North Point Avenue/Lighthill Street were increased in the analysis to ensure that truck volumes accessing the loading area located on Lighthill Street were accounted for. The difference in volumes resulted in an increase of eight vehicles in the AM analysis and 20 vehicles in the PM analysis. It is noted that while the difference is insignificant in terms of intersection operations, the higher volumes were used in the analysis.

   b. Westbound through volumes at the Porte Cochere/North Shore Drive intersection were increased from the 76 vehicles shown on Exhibit 9-2 of our report to 100 vehicles. This was partially to account for a minor imbalance in westbound vehicles on North Shore Drive, and also to ensure a slightly more conservative assessment of the future operation of the proposed intersection.

8. While the existing conditions could have been modelled using peak hour factors based on existing traffic count data, the peak hour factor would be expected to change significantly in future conditions due to the introduction of a significant number of casino-generated trips. For example, current traffic conditions on North Shore Drive as shown in Exhibit 6-2 of our report show an extremely pronounced tidal traffic pattern, and use of the existing peak hour factor for future build

conditions with a 24-hour casino would be inappropriate. In order to remain consistent and to allow ease of comparison between cases, the same peak hour factor (0.92) was carried forward through an analysis from existing conditions to future 2018 conditions. The Highway Capacity Manual states that for congested conditions, 0.92 is a reasonable approximation for the peak hour factor.

9. Intersection geometry in the capacity analysis is inconsistent with McCormick Taylor's observations of existing geometrics in three cases, and an explanation is provided below.

    a. The eastbound approach of North Shore Drive at Allegheny Avenue currently has one left turn lane and two right turn lanes. However, two receiving lanes are available of Allegheny Avenue for the left turn from North Shore Drive, and our analysis includes an intersection improvement that changes one of the dedicated right turn lanes into a shared left turn/right turn lane to allow left turns to be conducted from two lanes. In order to remain consistent and to allow ease of comparison between cases, the same improved intersection configuration was carried forward through an analysis from existing conditions to future 2018 conditions. We do realize that this intersection improvement was not specifically documented in our report.

    b. The northbound approach of Allegheny Avenue at Reedsdale Street currently has one left turn lane and a shared through/right turn lane. However, on the southbound approach of Allegheny Avenue, one southbound lane north of Reedsdale Street feeds two receiving lanes south of Reedsdale Street, creating an opportunity to provide an additional northbound traffic lane by restriping the intersection. Our analysis includes an intersection improvement on the northbound Allegheny Avenue approach that provides a 150 foot long auxiliary left turn lane, one dedicated through lane, and one dedicated right turn lane. In order to remain consistent and to allow ease of comparison between cases, the same improved intersection configuration was carried forward through all analysis from existing conditions to future 2018 conditions. We do realize that this intersection improvement was not specifically documented in our report.

    c. The northbound and southbound approaches of the West End Bridge/Western Avenue/PA Route 65 Ramps are controlled by overhead lane control signals that can change the number of lanes to respond to different traffic patterns at different times of the day. We understand that the typical configuration in existing conditions is to provide two northbound left turn lanes. Notwithstanding this, we have assumed a single northbound left turn lane for all cases, which results in less favourable intersection operation. We note that if our analysis had used two northbound left turn lanes, improved intersection operations would result.

10. Capacity analysis summaries for the intersections of North Shore Drive/Sproat Way and Reedsdale Street/Sproat Way were not included in the appendix. Operations at these unsignalized intersections are shown to be acceptable using the unsignalized intersection capacity analysis.

    Capacity analysis summaries for the intersection of Reedsdale Street/Fontella Street/PA Route 65 and West End Bridge Ramps were included in our original and revised report. The intersection is identified as "Reedsdale and Fontella" on the Synchro reports.

11. Capacity analysis included lane configurations as discussed below:

    a. North Shore Drive/Porte Cochere was modelled with two exit lanes and one entry lane, while the site plan showed one exit lane and two entry lanes. Changing the analysis to reflect one exit lane does not change the level of service of the exit movement or the intersection as a whole. Alternatively, the Porte Cochere access configuration on the site

plan can be changed to provide two exit lanes. Neither change has an impact on the findings of the report.

b. Reedsdale Street/North Point Avenue/Lighthill Street was modelled with two exit lanes, while the site plan showed one exit lane and two entry lanes. Changing the analysis to reflect one exit lane changes the level of service of the exit movement and the intersection as a whole, but still results in acceptable intersection operation. Alternatively, the Lighthill Street access configuration on the site plan can be changed to provide two exit lanes. Neither change has an impact on the findings of the report.

c. The McCormick Taylor peer review letter dated November 8, 2006 states that while the Reedsdale Street/Fontella Street/PA Route 65 and West End Bridge Ramps was modelled under signal control, "the site plan presented an unconventional configuration including a free-flow channelized right turn movement from the ramps." This statement appears to reflect a misunderstanding on the part of McCormick Taylor. The intersection is proposed to be fully signalized as is evident from the capacity analysis summaries in the report.

12. The McCormick Taylor peer review letter dated November 8, 2006 states that assumed signal timings for some intersections are inconsistent with generally accepted PennDOT policy:

    a. At the Reedsdale Street/Fontella Street intersection, the eastbound right turn approach generally operates as protected, and only operates as permitted during the time that the westbound left turn operates. A minor signal timing modification could be made to make this movement fully protected, or to ban the westbound left turn. The westbound right turn approach generally operates as protected, and only operates as permitted during the time that the eastbound left turn operates. A minor signal timing modification could be made to make this movement fully protected, and would result in delays and queues similar to those included in our report.

    b. Changing the signal timing at the North Shore Drive/Allegheny Avenue intersection to be consistent with the assumed shared lane configuration results in a negligible difference in intersection operations and delay. The intersection delay for the amended signal timings would improve from the 10 seconds reported in our analysis for the 2018 PM total future conditions to 7 seconds.

    c. Assuming two northbound left turn lanes at the intersection of West End Bridge/Western Avenue/PA Route 65 Ramps (as noted under number 9 of this letter) along with protected northbound left turn phasing would improve the intersection operations in comparison to that contained in our report. The intersection delay for the amended signal timings would improve from the 37 seconds reported in our analysis for the 2018 PM total future conditions to 33 seconds.

    d. Assuming protected left turn phasing for the southbound approach of the Ridge Avenue/Allegheny Avenue intersection would not significantly impact the intersection operations contained in our report. The change would not alter the intersection level of service and would increase intersection delay from the 11 seconds reported in our analysis for the 2018 PM total future conditions to 20 seconds.

13. The capacity analysis at the Reedsdale Street/Allegheny Avenue intersection indicates a predicted 95^{th} percentile queue of approximately 440 feet in the 2008 evening peak hour. Since the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes, this queue length is expected to only occur occasionally. The 50th percentile maximum queue (the maximum back of queue on a typical cycle) is shown to be approximately 250 feet, which would not impact operations at the North Shore Drive/Allegheny Avenue intersection.

Evaluation of the Recommended Improvements

14. As the McCormick Taylor peer review letter dated November 8, 2006 points out, widening of Reedsdale Street could be carried out to the south; however, the concept plan included with our report indicates widening to the south and the north in order to achieve the desired number of lanes while maintaining an acceptable alignment. Section 8.2.3 of our report states that "A 24-foot wide piece of property along the northern casino site boundary would be conveyed to the City of Pittsburgh to provide the required road right of way."

15. The separation between the garage exit and Fontella Street provides approximately 760 feet within which to change lanes. The 95th percentile maximum back of queue in the eastbound direction is shown as 130 feet in the PM peak hour and 340 feet in the Saturday evening peak hour. Furthermore, the casino exit is to be controlled by a traffic signal so that traffic exiting the casino will not need to merge with any other traffic. Based on the analysis it is unlikely that there will any issues for vehicles changing lanes to enter the eastbound left turn lane.

16. The proposed traffic signal at the intersection of Reedsdale Street and Fontella Street will provide a dedicated phase for eastbound left turning vehicles. The movement will be made across two lanes of traffic, and will operate in the same manner as a left turn at any signalized intersection in Pittsburgh.

17. This issue is discussed in Sections 8.3.2 and 8.3.4 of our report. The report states "it is desirable to limit queuing on North Shore Drive and the West End Bridge/SR 65 ramps by providing set-back detectors for southbound queued vehicles to indicate the presence of six or more vehicles queued in the southbound lanes and to call the southbound phase." In addition, it is noted that the existing length of the ramp would allow queues in the order of 1,700 feet before mainline operations on PA Route 65 would be impacted.

18. As has been described above, the changes to address the comments made in the McCormick Taylor peer review letter dated November 8, 2006 are relatively minor and have no significant impacts on the intersection operations reported in the IBI Group report of October 2006. Accordingly, no additional mitigation is considered warranted.

19. The existing North Shore Drive/West End Bridge/Reedsdale Street intersection represents an atypical intersection. With the full build out of the site, we are proposing that this location be reconstructed and placed under traffic signal control. We are of the opinion that, under traffic signal control, motorists will be presented with driving tasks that are not unlike the manoeuvres at a standard intersection. Through the design process, we would ensure that a traffic management plan, including guide and trail blazing signs, are provided consistent with PennDOT standards and positive guidance practices. The casino access on Reedsdale Street is not a typical intersection, but the design and operations of the turning movements should not present a problem even to the unfamiliar motorist.

20. The intersection improvements that have been suggested have been specifically intended to mitigate the traffic impacts of the proposed casino. As discussed above, changes in the capacity analysis to address issues raised in the McCormick Taylor peer review letter dated November 8, 2006 are relatively minor and have no significant impacts on the reported intersection operations. The IBI Group report of October 2006 contains an evaluation of 2018 traffic conditions that did not identify any additional deficiencies requiring mitigation.

Highway Occupancy Permit Issues

It is acknowledged that a Highway Occupancy Permit will be required for modifications to the State highway facilities, and for the installation of traffic signals.

The McCormick Taylor peer review letter dated November 8, 2006 states that the "convergence of numerous regional routes and significant destinations within the vicinity of the Majestic Star site may present additional challenges to providing adequate destination signing". We note that the existing destination and direction signing for the North Shore and existing facilities such as Heinz Field are clear and easy to follow, and provide a significant opportunity rather than a challenge.

We trust this adequately responds to your initial comments. If you have any questions whatsoever, please do not hesitate to contact either of the undersigned at 416-596-1930.

Yours truly,

IBI GROUP

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Traffic Analyst

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Director

cc: Mr. Jim LeFresne, The Majestic Star Casino
Mr. Steve Lemberg, The Majestic Star Casino