April 15, 2014 Responses of BME Associates Regarding the Wilmot Casino and Resort Site Plan

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April 15, 2014

Mr. Adam Cummings, PE
Barton & Loguidice PC
11 Centre Park
Rochester, New York 14614

Re: Response to Comments **2392**

Dear Adam:

We have prepared responses to your April 9, 2014 memorandum addressed to Supervisor Ron McGreevy regarding the Wilmot Casino & Resort Site Plan. We have provided your original comment with our responses immediately following in bold lettering.

1. Stormwater management ponds do not appear to be designed in accordance with current NYSDEC design standards. Typically, pond forebays are required for pre-treatment of stormwater. Additional detail regarding pond outlets, outlet protection, spillway, landscaping and safety/vegetated benches will be required as part of the Stormwater Pollution Prevention Plan (SWPPP).

   Additional details have been provided with the site plan application for the stormwater management facilities. The grading plan now shows detailed contours within the stormwater facilities to more accurately depict the pond geometry. Phase II calculations for each facility have also been included within Appendix A of the revised Engineer's Report.

2. Construction erosion control and stormwater quality management indicates that the applicant will comply with state requirements for erosion and sedimentation control by using measures outlined in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. While the report mentions the use of silt fence and stone check dams, there is little detail regarding specific measures that will be employed to prevent erosion. Specific measures should be discussed, and specified by location and phase of construction. Indicating that construction entrances will be stabilized is too vague; the report should indicate how they will be stabilized, and how each sedimentation and erosion control practice will be monitored and maintained.

   An erosion control plan was included within the Site Plans showing locations of specific erosion control practices. A sequence of construction for the site was prepared and included as part of this plan. Details for each type of erosion control practice have been provided on the detail sheets, which were also included within

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the Site Plans. Erosion control practices will be maintained by the site contractor, with monitoring to occur as part of the Storm Water Pollution Prevention Plan (SWPPP) as required by the New York State Department of Conservation.

3. We note that detailed calculations sizing proposed green infrastructure and closed drainage systems were not included as part of this submittal. Nor was a SWPPP. We anticipate that these items will be included in future submissions by the applicant.

   The Site Plans and Engineer's report that have been provided will be incorporated with the SWPPP. The complete SWPPP package including the Notice of Intent, five acre waiver letter, and construction details will be completed and provided for review during the time of construction document preparation. Overall water quality volume and runoff reduction volume calculations have been included within Appendix A and the green infrastructure section of the revised Engineer's report. Construction details for individually sized practices will be provided within the SWPPP at the time of construction document preparation.

4. Detailed analysis of off-site tributary areas and potential attenuation practices for project storm water and for impacts from nearby existing Petro development will need to be addressed as the design progresses.

   A complete drainage analysis of the northwest stormwater management facility of the Petro development has been completed and included within the revised Engineer's Report. The two proposed culverts (24") within the project site that will convey the runoff entering the site from the Petro development have been sized to convey runoff from the smaller storms without restriction, while providing some mitigation of flow rates for larger storm events. These culverts were modeled within the stormwater hydrographs included in the revised Engineer's Report. Drainage entering into the wooded area project site from the eastern tributary will remain unaltered, since no development is proposed to occur in the eastern portion of the site. Runoff from proposed Subarea B-1 and B-2 which drains east into this tributary will not be increased from the pre-development rates.

5. As submitted, the grading plans depict 5' contours. As the design is developed, a 1' contour interval must be provided during the Site Plan submission allowing for more detailed review of limits of work, proposed grading, etc.

   Per the PUD Zoning Law Section 2A.204 Item #1, "A topographic map showing contour intervals of not more than five feet of elevation shall be provided." However, additional contours have been added in the vicinity of the stormwater management facilities to better depict the pond geometry including the pond side slopes, safety and aquatic benches, forebays and deep pool areas.

6. Some soils identified in the site plans have a shallow depth to groundwater. These areas should be considered in siting of the green infrastructure practices.

Foundation Design, P.C. has completed a Geotechnical Evaluation which has been included with the revised Engineer's Report. This report includes 15 test pits that were completed as part of the evaluation. The water table was not encountered during the test pits, with the exception of Test Pit #15 where flow was observed above the shale which was encountered at 9' in depth. Slight seepage was observed in some of the western test pits locations between 1'-5' in depth, however this seepage appears to be the result of the saturated upper soil layers from the recent spring snow melt. Based upon this evaluation the ground water should not be an issue when locating the green infrastructure practices.

7. "Green stormwater practices" are mentioned for stormwater treatment, but they are not specified. Specific practices should be indicated, along with their location and extent, to allow a determination whether they are being appropriately applied. Porous pavement is a recognized green infrastructure element that has proven viable for parking lot, pedestrian walkways, and vehicular thoroughfares throughout New York State. It is recommended that further justification and demonstration of the feasibility of this stormwater management element be incorporated into the Site Plan design.

   From the Geotechnical Evaluation prepared by Foundation Design, P.C. and percolation testing completed by BME Associates in April of 2014 it appears that the soils have poor infiltration. This is consistent with the soil survey which classifies the soils on site as predominantly Class "C" and "D", which tend to have poor infiltration rates. The soils on the site are not conductive to using practices, such as permeable pavement, which is susceptible to damage during the winter months if water is unable to infiltrate and is retained within the sub layers. The NYS DEC Stormwater Management Design Manual also states that, "High volume parking lots, particularly parking drive aisles... are not recommended for this practice." At this time it is anticipated that bio-retention practices with underdrains will be utilized throughout the site to meet the water quality and runoff reduction requirements.

8. The engineering report describes a list of green infrastructure practices (bio-retention areas, dry vegetated swales, tree plantings, and vegetation preservation) that will be included in the stormwater plan. The report further lists, "rain gardens, planters, cisterns, and porous pavements" that will, "be investigated for use on the site at the time of final design". With the exception of cisterns and porous pavement, all of these measures are no more expensive than the options listed earlier, and should be committed to by the applicant in the site plan. Again, this area is an agricultural zone.

   Due to the size of the proposed buildings, it is impractical to separate portions of the roof drains to meet the maximum contributing drainage area allowed for rain gardens (1,000sf) or planters (15,000sf). As mentioned in the response to comment #7, porous pavements do not appear to be a suitable option considered for this development due to the existing soil conditions. Bio-retention areas with underdrains provide the most practical solution to meet the water quality and runoff reduction for this type of commercial development.

9. It is understood that the Development Plan is conceptual in nature. We respectfully request that a more detailed water fixture schedule and hydraulic analysis be submitted to the Town Code Enforcement after the site plan has been approved to ensure that the proposed building design meets the requirements stated in Chapter 6 – Water Supply and Distribution of the latest NYS Plumbing Code.

   Acknowledged.

10. Regarding on-site wastewater storage, consider provisions for odor control because of the use of an EQ tank and potential for extreme variations in flow. Please discuss what options would be proposed.

    We are coordinating with a local vendor to provide a filter system or chemical treatment (ie. Bioxide) to address any potential odors that may result from the proposed sanitary sewer EQ tank.

Please feel free to contact our office with any comments or questions you may have in this regard.

Thank you.

Sincerely,
BME ASSOCIATES

Michael A. Simon

MAS

c: Ron McGreevy, Supervisor; Town of Tyre
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