

March 6, 2017

Mr. Marc R. Rousseau, AICP
Town Planner & Administrative Officer
Tiverton Planning Department
343 Highland Road
Tiverton, Rhode Island 02878

Subject: Twin River – Tiverton
Proposed Casino & Hotel
SESC Peer Review

Dear Mr. Rousseau,

Steere Engineering, Inc. has received the below listed documents. These documents are only associated with the proposed land clearing and grading at the Tiverton Casino site.

1. Rhode Island Department of Environmental Management
Insignificant Alteration - Permit
Dated January 12, 2017
2. Soil Erosion and Sedimentation Control Plan
Prepared by: Cherenzia & Associates, Ltd
Dated December 2016
3. Twin River - Tiverton
Proposed Land Clearing & Grading
Dated December 15, 2016 (6 plan sheets)

We reviewed the above documents and performed a site visit with William Anderson on March 2, 2017. We offer the following comments:

Comments associated with the reviewed documents

1. The Soil Erosion and Sedimentation Control Plan was not signed by the Owner.
2. The Engineer to clarify the following:
 - a. SESC, Section 2.9, pg 11 specifies that there are no inlets within the project area, however, there is an existing inlet at the construction entrance/exit along William Canning Blvd.
 - b. SESC, Section 2.9, pg 13 specifies that there are no temporary sediment traps required, however they are shown on the plans.
 - c. SESC, Section 2.10, pg 15 specifies that the construction exit maintenance requirement shall apply to all three phases of construction. Please clarify if there are three phases or one phase.
 - d. SESC, Section 2.11, pg 15 specifies that if a significant snow build-up occurs then it will be stockpiled on site, however, the stockpiles are not identified on the Plans.
 - e. Notes regarding dewatering differ between Plan Sheet C-1 and SESC, Section 3.6, pg 19. For example, it appears that dewatering is required to install the temporary culvert, however the SESC specifies that no dewatering is required.

- f. Notes regarding a washout facility differ between Plan Sheet C-1 and SESC, Section 3.9, pg 20. For example, a detail is provided, however the SESC specifies that no washouts areas are required.
 - g. Notes regarding conducting inspections of erosion control devices differ between Plan Sheet C-1 and SESC, Section 4.2, pg 23. For example, one specifies within 12 hours after a rainfall event and the other specifies within 24 hours of a 0.25 inches of a rainfall event.
 - h. Note #4, Plan Sheet C-1 specifies that the temporary sediment traps will remain in place until the site has been stabilized with buildings and pavement. However, it appears that the traps will be impacted during the construction of the permanent roadway, i.e., the clearing and grubbing access road is 15 feet wide on existing ground and the permanent roadway is in the same location but 30 feet wide and generally above the existing ground, please clarify.
3. Construction signs are required to alert motorists for exiting/entering construction vehicles from the site.
 4. The construction access drive is approximately 15 feet in width. This would indicate that access road is only for one-way of travel. To that end, the section of construction access road from the William Canning Blvd to the proposed building pad and stockpile areas is about 2,000 feet. Please identify if a communication system will be in place in order to not have a conflict with opposing vehicles within the 2,000 foot stretch. Will construction vehicles be stopped along William Canning Blvd in order to allow for other exiting vehicles?
 5. It is assumed that the sediment trap and stockpile locations will be adjusted in the field. For example, Plan Sheet C-3, access to the temporary stockpile area is through the sediment trap #4.
 6. Reference Chapter 65 – Soil Erosion and Sediment Runoff Control, 65-5b,4d. Pre and Post runoff rates were not included in the submission. Ms. Shea has stated that the calculations are available and will be forwarded.
 7. It appears that a large amount of excavated material will be removed from the site. The current grading plan appears to excavate about 12,000 cubic yards of material. An average dump truck capacity is between 10 to 15 cubic yards. The Applicant's traffic engineer to clarify if the location of site entrance either existing or proposed will have impacts to the existing traffic flow due to the truck traffic.
 8. Please clarify if a stockpile area is required at the entrance and if a field office and/or dumpster will also be at the entrance.

Comments as a result of the Site Walk

1. It was apparent from the site walk that the existing site conditions do not favor standard vehicle traffic traveling over the existing ground. Even walking within the site LOD limits was challenging in order to avoid sinking in the mud and stepping in puddles. Other obstacles included isolated boulders and rock outcrops within the LOD. Having said that, the Engineer to clarify if the intent for the construction access road is only for off road construction vehicles. Or is additional excavation required to establish a stable access for vehicles such as a gravel road for the clearing and grading program.
2. Although not part of the previous soil boring program, tree protection was not visible but should be considered for the clearing and grading program. (Reference Chapter 65 – Soil Erosion and Sediment Runoff Control, 65-5b,4l. Trees and existing vegetation to remain shall be protected by either fencing and/or roped off at the driplines.) Also, vehicle tracks and debris, assumed to be from the previous soil boring program, were observed to be beyond the LOD.

3. The temporary culvert crossing may need minor engineering adjustments in the field during the clearing and grading program. This location was observed to have water flowing across the proposed temporary culvert area. It was difficult to cross by foot and appears to require additional stabilization measures, besides what is depicted in the detail, in order to support vehicle loads. The detail indicates that the two 24" rcp pipes will divert the flowing water into the pipes. The pipes will be covered with crushed stone and a steel plate will be placed over the stone to protect the pipes. The invert of the pipes is shown to be at elevation 186.0 and the proposed grade is at elevation 188.0. To that end, the steel plate would be placed basically on top of the pipe. The invert of the pipe or proposed grade requires modifications in order to allow for the thickness of the steel pipe, thickness of the concrete pipe and crushed stone layer.
4. The site entrance appears to require additional clearing to allow for the proper sight distance along William Canning Blvd.
5. There are several stone walls observed in the field that were not shown of the plans. These should be shown on all future plans.
6. There is an existing site access entrance but it differs from the location shown on the plans. The Engineer to clarify if the existing site entrance will be relocated to the location shown on the plans. If the site entrance remains in the current existing location then a detail will be required for the removal of the existing curb and asphalt. Also, if the total project area to be disturbed (4.8 acres) is impacted then the Applicant to notify RIDEM in accordance with the RIDEM Terms and Conditions #2.
7. Please clarify if blasting will be required for the clearing and grading program.

Conclusion

It is Steere's opinion that the Applicant should restore the areas disturbed during the previous soil boring program which are outside of the Limit of Disturbance (LOD) before starting the clearing and grading program. This involves removing of existing cut/stacked trees and restoring the disturbed areas outside the LOD with loam and seed. The LOD should be delineated by either snow fencing, silt fence and/or straw wattles and the Town to verify the restoration.

Below lists the recommended actions after performing the restoration of wetland buffers and limits outside the LOD. (Note: some of the below actions can be performed concurrently with restoration activity.)

1. Town to review restoration areas
2. Applicant to submit a Schedule identifying the construction activities for Town review
3. Pre-Construction meeting
4. Install remaining erosion control measures (Town review)
5. Continue Construction Schedule

Should you have any questions or comments, please do not hesitate to contact me.

Very truly yours,



Steven J. Baker

Cc: K.Morris, S.Hardy, N.Hall, W.Anderson, file