



March 25, 2021

Gene Williams, P.E., CFM  
City of Lee's Summit  
220 SE Green Street  
Lee's Summit, MO 64063

**DCI - Lee's Summit (PL2019246)**  
**2001 NW Shamrock Avenue Detention Pond As-Built Responses**

Dear Mr. Williams:

Thank you for your review of the DCI – Lee's Summit Detention Pond As-Built. Please see below for the responses to the comments provided to us dated March 13, 2021.

**Comments and Responses:**

**Plan Information and Fees**

1. It appears the emergency spillway was constructed too low in relation to the new 100 year nominal (design) water elevation within the basin, and the 0.5 foot freeboard requirement is not being met in some portions of the emergency spillway. This issue does not appear to be continuous across the entire emergency spillway, but would need to be addressed in the low areas prior to acceptance. The measurement appears to be in the range of 0.15 feet to low, with a resultant freeboard of 0.35 feet +/- . The concern is settlement of earth over the next few months, and subsequent lowering of the emergency spillway.

**Response: The contractor has provided us elevations within the emergency spillway on March 25, 2021. The lowest elevation on the bottom of the spillway berm is 966.80 as shown on Record Sheet C5.0. This elevation is 0.53' higher than the 100 year storm water surface elevation.**

2. We are still not seeing any indication on the as-built plan showing the exact low elevation within the emergency spillway. There are spot elevations, but no point showing the minimum (which the freeboard requirement is referenced). We were able to ascertain this from the stormwater report.

**Response: A call out has been added to Record Sheet C5.0 pointing to the lowest emergency spillway elevation 966.80.**

3. After modifications are made, the clogged condition/zero available storage analysis contained within the stormwater report may need to be revised, or a sealed memorandum prepared stating that the depth of flow will be essentially the same as already shown, and the 1.0 foot freeboard requirement between the low point of the dam and the clogged condition water surface elevation will be met.

**Response: The clogged/zero available storage routing analysis has been revised in the Record Calcs. The depth of water discharging through the emergency spillway during the 100 year event in a clogged detention pond condition was calculated to be 0.81'. Therefore, the water surface elevation was calculated to be 967.61. The lowest elevation of the detention pond berm is 968.74 which exceeds the required 1' of freeboard.**

Best Regards,

**Catalyst Design Group**

A handwritten signature in blue ink that reads "C Walker". The "C" is large and loops around the "W", and "Walker" is written in a cursive style.

Chandler Walker