

CITY OF ALBUQUERQUE



July 15, 2015

Daniel Aguirre, P.E.
Wilson and Company, Inc.
4900 Lang Ave, NE
Albuquerque, NM 87109

Re: Boca Negra Dam LOMR June 15, 2015
Engineer's Stamp Date –no seal or stamp- (D10D000)

Dear Mr. Aguirre,

Based upon the information provided in your submittal received 5-11-15, the following comments are to be addressed:

1. The LOMR is not stamped or sealed.
2. Provide 2014 or more recent aerial imagery on the Floodplain Work Map and on the annotated FIRMs. It is difficult to determine where the changes are on the plates submitted. In addition, these plates will be used in the future for floodplain management.
3. There will be comments concerning the increase in the flood plain in this letter. The City is aware that FEMA will accept the 24-hour storm even though it only requires the 6-hour storm. However, using the 24-hour storm will generate more runoff than the 6-hour storm and therefore most likely increase the flood plain and adversely affect private property owners. The City recommends running an analysis using the 6-hour storm.
4. The HGL on Sheet 29 of the SAD 228 plans shows the HGL below the soffit. The LOMR states the water surface elevation is over the road. It was not clear to the City that the floodplain would be increased upstream of these storm drains (lots 4 and 5?) immediately after construction. This may increase the likelihood of a financial institution requiring these property owners have flood insurance as well as it devalues their property. Provide calculations for the capacity of the storm drains under Scenic Blvd.
5. Remove the flood zones for Trails ponds J and K. Structures will not be constructed in the affected area because the City has a public drainage easement on the tract, the City has numerous drainage reports and grading plans showing the existence of the ponds and a drainage report and grading plan will be required for the final configuration of the ponds when this tract develops.
6. The stage discharge curves for the dam show 372 cfs from the principal spillway and 312 cfs from the secondary spillway, yet the AHYMO output shows a peak flow of 1066.8 cfs. Please explain. Provide calculations for the outflow of the dam.

PO Box 1293

Albuquerque

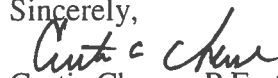
New Mexico 87103

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7. Wilson and Company is the Engineer of Record for SAD 227, SAD 228, and the Boca Negra Dam. A revision to the Boca Negra Dam construction plans was made without City approval which reduced the volume of the dam and lowered the elevation of the principal and secondary spillways. Lowering the elevation of the spillways had the effect of increasing flow out of the dam. These three areas all discharge into the channel below the dam. Per the City's Drainage Control Ordinance any activity or change in land use shall not result in downstream capacity being exceeded. Downstream capacity appears to be exceeded in the channel below the dam where two structures have been identified in the revised floodplain. Wilson and Company is to come up with solutions so the flood plain is not increased on developed properties. Possible solutions that may be effective are:
 - a. Change the design storm.
 - b. Thoroughly review all calculations and assumptions.
 - c. Verify cross-sections.
 - d. Atrisco Vista Blvd acts as a dam and will delay peaks from uphill basins.
 - e. Construct something.
8. It is difficult to tell the extent of the adverse effect on downstream properties, including 6423 Star Bright and 6515 Tesuque drive without the newer aerial imagery. If the impact is great enough, properties owners may be required to purchase flood insurance as a condition of their mortgage (if they have one). Policies could cost \$2000 to \$4000 per year. The impact may also reduce the value of their property.
9. The property at 6423 Star Bright appears a minimum of about 3 feet above the thalweg. There is a sewer manhole about 5 feet north of the northwest corner of the lot. The rim elevation should be on as-built construction plans. The property is higher than the rim elevation. This may help adjust the flood plain in this area.
10. There is a 72 inch storm drain in Emerald drive. This pipe accepts flows from the Southern Tributary of the Boca Negra Arroyo. The storm drain as-builts are included in the LOMR. This should remove the flood plain in SAD 227 from 81st St. to the outfall east of Unser Blvd without any additional analysis.

If you have any questions, you can contact me at 924-3420.

Sincerely,



Curtis Cherne, P.E., CFM

Local Floodplain Administrator

Principal Engineer, Stormwater Quality

Planning Dept.