November 21, 2014

Hugh Floyd, P.E.

Floyd Development Services

918 Pinehurst Rd SE, Suite 102

Rio Rancho, NM 87124

Scott J. Steffen, P.E.

Bohannan Huston, Inc.

7500 Jefferson Street NE Courtyard I

Albuquerque, NM 87109

## RE: Taos at the Trails Unit 1 Inlet Modification and

**Addendum to Taos Unit 1 Drainage Report for Inlet Modification**

**(C09D001C)**

Dear Mr. Floyd and Mr. Steffen,

Hydrology has reviewed the structural calculations by Nob Hill Structural Engineering, LLC and the Addendum to the Taos Unit 1 drainage report by Bohannan Huston Inc.

The structural modification Section A-A shows the concrete fill encapsulating a portion of the grate. This would not allow the grate to be removed for maintenance and reduces the capacity of the inlet.

The Addendum to the Taos Unit 1 Drainage report proposes to use the capacity of the throat area to show the inlet has capacity. Per the Development Process Manual, the throat area is not considered when calculating the capacity of an inlet.

In addition, it is important to Hydrology to be consistent from site to site. The areas of consistency include not altering inlets and the warped gutter adjacent to an inlet and not including the throat in capacity analysis.

Recently, Hydrology did not approve a building permit because the contractor cut the curb (without a permit) and poured the gutter stone without the warp. Hydrology had the contractor remove the incorrectly built improvements and build it per DPM standards. Hydrology then approved the building permit.

At another location, a drainage plan specified an emergency spillway. The emergency spillway was not constructed and Hydrology is not approving building permits in the low-elevation lots until the emergency spillway is constructed. The

engineer proposed to use the throat in his capacity analysis and Hydrology did not accept the proposal.

Hydrology is not approving the inlet modification for the reasons stated above as well as for future protection of flood control facilities.

Hydrology proposes:

1. Leave the inlet and driveway locations as-is and build a short fence or wall (within zoning criteria) behind the inlet to prevent the homeowner from driving over the curb.
2. Remove the existing inlet (double grate double wing) and construct a new single grate single wing inlet near this location and an additional single grate single wing inlet on the north side of the driveway with a lateral storm drain connecting the two inlets.

Sincerely,

Curtis Cherne, P.E.

Principal Engineer, Hydrology

Planning Dept.

C: File