

# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development & Building Services



January 24, 2014

Richard J. Berry, Mayor

David Thompson, P.E.  
Thompson Engineering  
P.O. Box 65760  
Albuquerque, New Mexico 87193

RE: **THE TRAILS - UNITS I, II & III**  
**Amendment to the Drainage Master Plan**

**File: C09-D001**  
PE Stamp: 11/25/2013

Dear Mr. Thompson:

Based upon the information provided in your submittal received on 11/26/13, we cannot approve the above referenced **Amendment to the Drainage Master Plan (DMP)**. Thank you for your cooperation in meeting last Friday to review and discuss this submittal, and the diverse history of planning, construction, and storm water routing in THE TRAILS development.

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Following is a summary of issues relating to your submittal, which need to be addressed prior to our approval of this Amendment to the DMP:

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1. Prior to resubmitting any Amendment to the DMP, you should complete the requested model of "Developed Conditions" without the use of Orifice Plates in outfall manholes. This is based on our concern for the long-term maintenance of these orifice plates "buried" in the system, and a desire to avoid them if possible.
2. Following completion of the above analysis, please contact me or Curtis Cherne to schedule a meeting to review your results.
3. Any resubmittal should include a summary of responses to previous comments, citing action taken, or justification for alternative action.
4. Following are outstanding concerns from the previous letter to you from Curtis Cherne, dated 10-9-2012:
  - a. *Item 1-* Follow up with RCS (Hugh Floyd, ECE) on the feasibility of draining Basin D6 (formerly F6) to Pond D. Our lengthy discussion of reducing the footprint of Pond D with development of Unit 1, Tract 1 may affect the direction of your final analysis.

- b. *Items 3-5:* The use of Orifice Plates proposed in this DMP is a concern for City of Albuquerque maintenance and long-term performance of the system. If orifice plates are determined to be necessary (see notes 1 & 2 above), further discussion will be needed, prior to DMP approval, regarding the design and installation of the flow control devices, along with options and liability for maintenance of the restrictions in conjunction with THE TRAILS surge ponds.
  - c. *Item 6:* Provide system modeling without the orifice plates (see 1 & 2 above).
  - d. *Item 8:* Per previous discussions, this DMP should model the Developed Conditions for the 100-year, 24-hour storm, unless the ponds take longer than 24-hours to drain. Add a note to the report AND PLATES stating that the longer runs of storm drain piping, not controlled by a pond HGL, will need to be sized for the 100-year, 6-hour storm prior to final DRC design approval.
  - e. *Item 10:* Provide City Project Numbers (CPN) on existing storm drains and ponds on Plates. Restore pipe sizes and Q's that were on the previous Plates and have been omitted on this edition.
  - f. *Item 18:* Basin E1 (and possibly OS-2) need to be divided into N and S sub-basins to reflect the portion of the basin(s) that flows southerly and discharges to Tract 8, Basin E2. Adjust modeling accordingly.
5. DMP presentation comments:
- a. Clearly label this DMP and the Plates as Amendment to DMP for The Trails Units 1, 2, and 3.
  - b. Plates are intended to provide a visual summary of the DMP facilities and modeling results, to serve as a quick reference for future development use. This includes the previous request to include Line sizes and Q's on all pipelines, and CPNs on the existing lines.
  - c. Some of the Basins shown on the Plates do not have flow arrows indicating modeled outfall points. Please update Plates to include flow arrows on all basins, and show the associated  $Q_{100}$  on the plan or Basin Summary Table.
  - d. Clarify the "Detention Pond Characteristics" tables by including units in the column headings, and adding a "Pond Bottom Elev." column.

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- e. Add a “Basin Summary” table to the Plates, including, at least the following:  
Basin No. – Area (Ac-Ft) – Yield (cfs/Ac) – Q<sub>100</sub> (cfs) – V<sub>100-24</sub> (Ac-Ft)
- f. Add a note on Plate 2 showing the intended, Future Contribution of 20 cfs flow from The Trails Unit 4, east of Universe Boulevard.
- g. Add a note in the Report and on the Plates stating that the line sizes shown are based upon 100-year, 24-hour storm flows, and that future development projects may have to upsize pipes to accommodate 100-year, 6-hours storms during subdivision design.
- h. *Report TC:* The “Table of Contents” needs to include more detail on the content included in the Appendices.
- i. *Report Pg. 1:* The “Introduction” paragraph talks about updating the report to match densities approved in the Volcano Trails Sector Development Plan. For reference, this report should include a copy of the Zoning Map from that report, and a summary of runoff rates (percentage of land treatment) modeled for each Zoning type.
- j. *Report Pg. 2:* The “Developed Conditions Model” section discusses the surge ponds and the effect of throttling the outflow to detain higher runoff rates in neighborhood ponds. Pond hydrograph reports in Appendix A show some pretty high inflow rates to the existing ponds, which exceed the capacity of the existing infrastructure to pass these flows in and out of the surge ponds (e.g.- 51.4 cfs entering Pond D through one slotted MH cover). This will need to be addressed in the final DMP, following the determination regarding the acceptability of orifice plates, and the resultant inflow/out flow rates. This may require Pond Inlet/Outlet Modifications **prior to DMP approval**.
- k. *Report Pg. 4:* The “Developed Conditions DMP” section:
  - i. Clarify why is some of the un-built system is referred to as “Proposed” and some as “Future?”
  - ii. Use of an outline or bulleted format on the system description paragraphs would be clearer.
  - iii. The second paragraph states that the storm drains have been sized for the 100-year peak flows. Is this the 6-hour or 24-hour storm?

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AO

- iv. Paragraph 3 states that Pond J will detain flows (in Universe?) above 26.34 cfs, and then discharge a maximum 6.05 cfs as the HGL subsides. Clarify how this works.
  - v. Paragraph 4 states that Pond K will detain flows in Universe above 41.91 cfs as the peak flow rises, and then discharge a maximum 15.58 cfs as the HGL subsides. Clarify how this works, and how this aggregates to a total of 60.49 cfs discharging south in the Universe Storm Drain. The discussion has been that The Trails Unit 4 will in the future contribute 20 cfs from east of Universe, into the Universe line. Clarify these constraints and commitments in the report.
  - vi. Paragraph 5 discusses flows and calcs for the Paseo del Norte storm drains. These lines should be sized for the 100-year, 6-hour peak flow rate. Confirm this in the report.
- 1. *Report Pg. 5: "Table 2:"*
    - i. Include units in the column headings
    - ii. Why are there no pond elevations on the offsite ponds?
  - m. *Report Appendices:* Cover sheets for each appendix should include an index of content.
  - n. Provide a BOLD note on each Plate, and a statement where appropriate in the report, to identify what datum is referenced for the elevations used in the report (?NAD 1929?).
- 6. Since this report represents the existing conditions for the developed portion of the study area, we require that the model conditions accurately represent existing conditions. Specific criteria include:
    - a. The ponds which currently have plugs in the pond outlets will need to be "unplugged" so that the systems functions as modeled.
    - b. If orifice plates or other restrictive devices are approved for the system, such control devices will need to be installed in existing portions of the system.
    - c. Existing pond inlets/outlets will need to be modified to accommodate the modeled flow rates (See comment 5.j, above).

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If you have questions, please contact me at [grolson@cabq.gov](mailto:grolson@cabq.gov) or phone 505-924-3994.

Sincerely,

Gregory R. Olson, P.E.  
Senior Engineer

Orig: Drainage file **C09-D001**  
c.pdf Addressee via Email: [TECnm@yahoo.com](mailto:TECnm@yahoo.com)

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