

Isaacson & Arfman, P.A.

Consulting Engineering Associates

Thomas O. Isaacson, PE (Ret.) & LS (Ret.) * Fred C. Arfman, PE * Åsa Nilsson-Weber, PE

March 26, 2012

Mr. Shahab Biazar, Senior Engineer
Planning Dept., Development and Building Services
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Storm Cloud Subdivision, Units 4 & 5--Drainage Report Submittal 2/10/12 (H9/D022)

Dear Mr. Biazar,

This letter is in reference to your comments for the referenced project dated 3/9/12 (attached). Please see below for responses to your comments.

1. *Show proposed Tierra Pintada Blvd. and grades on the plans.*
Added per Bohannon Huston plans.
2. *Show proposed Tierra Pintada Blvd. 3-90" RCPs and grades on the plans.*
Added per Bohannon Huston plans.
3. *Provide updated HEC-RAS analysis for the Mirehaven starting east of the 3-90" RCPs. Include an exhibit showing the proposed floodplain limits east of the culverts and the proposed WSEL/EGL along the Mirehaven Channel.*
Plan & profile exhibits and HEC-RAS analysis are included in the Revised/Supplemental Calculations.
4. *Remove Mirehaven stationing from the grading plan and include them on a separate sheet with updated channel analysis.*
Stationing was removed from grading plans. Plan & profile exhibits of the Mirehaven Arroyo are included in the Revised/Supplemental Calculations.
5. *Since the streets are on a slope top back of the sidewalk on one side of the sidewalk culverts will be lower. Therefore, you may have to lower the invert of the sidewalk culverts to insure the 0.67' head is provided.*
Inverts of the sidewalk culverts are 0.67' below top of sidewalk at the upstream end.
6. *Appendix E, Unit 4, Inlets 4 and 5 should say 5 & 6 to match the inlet numbers on the Basin Exhibit.*
The sump inlet calculation sheet for Unit 4 showing corrected inlet numbers is included in the Revised/Supplemental Calculations.
7. *Inlets 5, 6 & 7 under Unit 5, are designed to be in swamp condition. Please make sure that all three inlets are built with the same top of grate elevation and 0.67' head is provided. The runoff should not overflow to the east. The high point in the street is at 58.67' and grate elevation is at 58.04'.*
The high point elevation is at 58.71' per profile exhibit of Camino del Venado included in Revised/Supplemental Calculations. Inlets 5 & 6, both double-grate inlets, will capture 41.3 cfs at a head of 0.67', and inlet 7 which has a higher top of grate elevation, will capture the remaining 2.6 cfs. Flows will not overflow to the east.

8. *Provide adequate water block (+/- 1') at the proposed entrances from the Tierra Pintada Boulevard.*

Because of the grading constraints on this site, water blocks are not 1'. The flows were analyzed to ensure that no offsite flows from Tierra Pintada would enter the subdivision (but calculations were inadvertently not included in the Drainage Report previously submitted). A basin exhibit of the Tierra Pintada areas that contribute to flows at the entrances to Units 4 & 5 along with AHYMO calculations and sections at the entrances are included in the Revised/Supplemental Information. The entrance to Unit 4 (Monsoon Rd) is just north of the high point in Tierra Pintada, and the flow rate is 2.1 cfs at the entrance. The section shows a water depth of 0.11' at the Unit 4 entrance, and the water block is 0.21'-0.22'. At the entrance to Unit 5 (Watershed Ln), the flow rate is 10.8 cfs. The section shows a water depth of 0.22', and the water block is 0.48' at south end and 0.94' at north end. Therefore, flows in Tierra Pintada will not overtop the water blocks provided at the entrances.

9. *Include the lot numbers for Unit 4.*
Included.

10. *Fix the text overlaps on the grading plans.*
Fixed.

11. *Clearly show all the existing retaining walls, and label the retaining walls that will be removed.*
Wall demolition plans showing existing retaining walls to be removed or to remain have been added.

12. *If the retaining wall will not be certified with the certification of the grading plan, the following note should be added to the plans: "The side and rear lot retaining walls will be constructed by home builders."*
Retaining walls will be certified.

13. *Proposed legends for curb and gutters do not match the actual layout on the grading plans.*
Fixed.

If you have question or additional comments, please call me at 268-8828 or email me at asaw@iacivil.com.
Thank you.

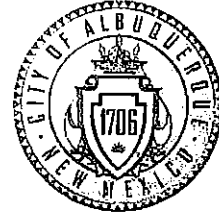
Sincerely,
ISAACSON & ARFMAN P.A.



Åsa Nilsson-Weber, P.E.

Attachments

CITY OF ALBUQUERQUE



March 9, 2012

ASA M. Nilsson-Weber, P.E.
Isaacson & Arfman, P.A.
128 Monroe St NE
Albuquerque, NM 87108

**Re: Storm Cloud Subdivision, Units 4 & 5
Drainage Report
Engineer's Stamp Date 2/10/2012 (H9/D022)**

Dear Mrs. Nilsson-Weber,

Based upon the information provided in your submittal received 2/10/2012, the following comments have to be addressed prior to Preliminary Plat Approval:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

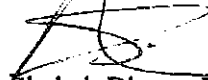
- Show proposed Tierra Pintada Boulevard and grades on the plans.
- Show proposed 3-90" RCPs and grades on the plans.
- Provide updated HEC-RAS analysis for the Mirehaven starting east of the 3-90" RCPs. Include an exhibit showing the proposed floodplain limits east of the culverts and the proposed WSEL/EGL along the Mirehaven Channel.
- Remove Mirehaven Stationing from the grading plan and include them on a separate sheet with updated channel analysis.
- Since the streets are on a slope top back of the sidewalk on one side of the sidewalk culverts will be lower. Therefore, you may have to lower the invert of the sidewalk culverts to insure the 0.67' head is provided.
- Appendix E, Unit 4, Inlets 4 and 5 should say 5 & 6 to match the inlet numbers on the Basin Exhibit.
- Inlets 5, 6, & 7 under Unit 5, are designed to be in swamp condition. Please make sure that all three inlets are built with the same top of grate elevation and 0.67' head is provided. The runoff should not overflow to the east. The high point in the street is at 58.67' and grate elevation is at 58.04'.
- Provide adequate water block (+/- 1') at the proposed entrances from the Tierra Pintada Boulevard.
- Include the lot number for Unit 4.
- Show the existing 36" storm drain pipe on Summer Breeze Dr.
- Fix the text overlaps on the grading plans.
- Clearly show all the existing retaining walls, and label the retaining walls that will be removed.

March 9, 2012
Mrs. Nilsson-Weber
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- If the retaining wall will not be certified with the certification of the grading plan, the following not should be added to the plans: "The side and rear lot retaining walls will be constructed by home builders.
- Proposed legends for curb and gutters does not match what the actual layout on the grading plans.

If you have any questions, you can contact me at 924-3695.

Sincerely,



Shahab Biazar, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: e-mail