

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

May 17, 2021

Joshua J. Lutz, PE
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

**RE: The Preserve at Woodmont
Conceptual Grading & Drainage Plan
Engineer's Stamp Date: 05/17/21
Hydrology File: C09D015**

Dear Mr. Lutz:

Based upon the information provided in your resubmittal received 04/29/2021, the Conceptual Grading & Drainage Plan is preliminary approved for action by the DRB on Site Plan for Building Permit.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title: The Preserve at Woodmont **Building Permit #:** _____ **Hydrology File #:** C09D015
DRB#: _____ **EPC#:** 2018-2018-001198 **Work Order#:** _____
Legal Description: Tract 11, Catalonia
City Address: _____

Applicant: Bohannon Huston Inc. **Contact:** Josh Lutz
Address: 7500 Jefferson St NE CY2 Albuquerque, NM, 87109
Phone#: 505-923-3306 **Fax#:** _____ **E-mail:** jltuz@bhinc.com
Owner: PV Trails Albuquerque LCC **Contact:** Scott Steffen
Address: 4350 La Jolla Village Dr, Suite 110 San Diego CA 92122
Phone#: 505 243-3949 **Fax#:** _____ **E-mail:** ssteffen@pricedg.com

TYPE OF SUBMITTAL: _____ PLAT (____# OF LOTS) _____ RESIDENCE ☒ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: ☒ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
☒ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE MASTER PLAN
☒ DRAINAGE REPORT
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
☒ SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 04/29/2021 **By:** Josh Lutz, P.E.

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

April 29, 2021

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department
Development Review Services
PO Box 1293
Albuquerque, NM 87103

RE: The Preserve at Woodmont
Conceptual Grading & Drainage Plan
Engineer's Stamp Date: 02/26/21
Hydrology File: C09D015

Dear Renée,

Based upon the information provided in your submittal received 03/18/2021, the Conceptual Grading & Drainage Plan is not approved for action by the DRB on Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Please add the word "Conceptual" to the sheets title and add a note stating "Not for Construction".

This has been updated.

Grading Plan

2. Section B shows a small portion of the site along the northern property line being graded to Paseo del Norte R.O.W. Currently it appears that Paseo is higher than the natural grades at the shoulder and the runoff appears to actually discharge into the site. (see photo below) How is this new discharge from the site and the existing runoff from Paseo being handled? Please note that any work within Paseo del Norte R.O.W. will have to be approved by New Mexico DOT. This can be done prior to work order approval.

A retaining wall has been added so the site will not discharge to Paseo. Paseo del Norte will convey drainage as it has historically.



3. This project is proposing to install the intersection of Woodmont and Paseo del Norte. How is the runoff from Comment #2 going to cross this intersection? Is there going to be a culvert installed? Please note that any work within Paseo del Norte R.O.W. will have to be approved by New Mexico DOT. This can be done prior to work order approval and be included on the Infrastructure List.

As we discussed, the drainage from Paseo will pond west of Woodmont and it will eventually overtop the curb in larger storms and continue across the intersection. This is similar to how the interim Rainbow/Paseo intersection has been designed.

4. Section A. It appears that there will be off-site drainage from west watershed that enter the site and the proposed retaining wall will then work as a broad crest weir for this runoff and it will then enter the parking lot of the project. Has this been accounted for in your design? Or are you planning to provide a swale to collect the runoff and have it discharge into Girona Ave. Please address the off-site flows.

The drainage from Offsite Basin D will be conveyed via a drop inlet and is accounted for in the storm drain network design. This is an interim condition and once Offsite Basin D is developed, the storm drain will be plugged, and this will no longer be an acceptable discharge point for that area. With the development of the site, Offsite Basin D will need to convey their drainage to the storm drain network located in Girona avenue and adhere to the allowable discharge provided by the Catalonia Drainage Management Plan.

Drainage Management Plan

5. Please fix Basin A, B, & C to reflect the drainage that is entering Paseo del Norte R.O.W. (See Comment #2) This should be shown as an additional Basin.

The site will not discharge to Paseo del Norte.

6. Please fix Basin C to reflect the drainage that is entering Woodmont R.O.W. This should be shown as an additional to the Woodmont Basin.

Basin G has been updated to include the additional runoff from the site to Woodmont.

7. A new off-site basin should be shown to address the drainage from Comment #4. Also, please note that this drainage was not addressed in the road and drainage system that was designed by the Drainage Report for Catalonia at the Trails Subdivision, dated March 25, 2020.

Offsite Basin D has been added. It is shown in an overall map due to the scale.

8. Based on the flows going into Pond A and the limited discharge out of the pond, it appears that Pond A was not designed to handle the flows that this project generates. (See the image below). Pond A was designed by the Drainage Report for Catalonia at the Trails Subdivision, dated March 25, 2020. It was designed to handle only 44.6 cfs (100 year-24 hr) or 4.68 ac-ft of volume. Please insure that this pond will function as designed. It appears that the Q entering Pond A is 56.8 cfs (from this DMP) plus 68.5 cfs (from Off-Site Pond 1, Catalonia Subdivision, and Girona Ave per the DR for Catalonia) for a total of 125.3 cfs with only 46.4 cfs discharging from Pond A. With these numbers, it appears that Pond A is not big enough.

Per our conversation, Pond A is designed to handle the flows coming from the new development as well as the flow from Woodmont and Catalonia subdivision. The addition of Offsite Basin D, in the interim condition, does not exceed the ultimate flows from Offsite Pond 1. Therefore, the addition of Offsite Basin D does not exceed Pond A's capacity. In the ultimate condition, Offsite Basin D will no longer be conveyed through our site as described in comment response #4.

An abbreviated sensitivity analysis was done to compare the pond routing schemes in HEC-HMS (v4.2) and EPA SWMM (v5.1). In SWMM, the sensitivity analysis was limited to evaluating the 'Pond A' hydraulics and downstream routing to 'Pond A5' and comparing those results versus those that were produced using HEC-HMS. In our best engineering judgement, the differences between the two software models are considered minimal and within the acceptable tolerances for a hydrologic analysis. The minor differences are due to how each program models or can model the outlet structure. In the first HMS scenario, the outlet is modeled using the FHWA HDS No. 5 culvert charts that allow for varying flow regimes, headwater, and tailwater conditions. The SWMM model uses an orifice outlet to model the pond discharge and results in very comparable pond performance. The second scenario in HMS utilizes a simple orifice outlet (similar to SWMM) and again produces very comparable results.

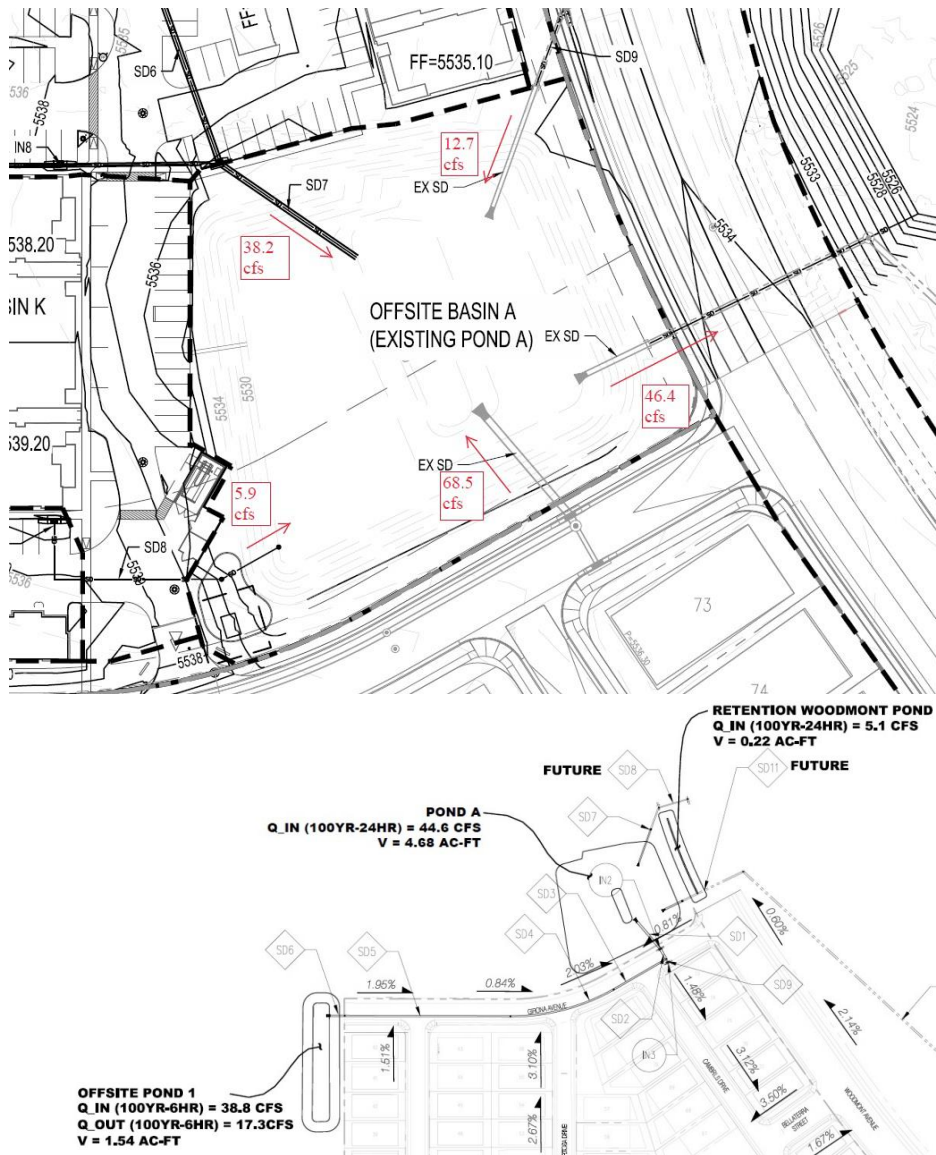
The evaluation of SD-1 shows that the HEC-HMS routing methodology (Muskingum-Cunge) produces nearly identical results from SWMM's methodology (Kinematic Wave). Both show minimal effects from on-site routing and do not impact the routing of the various pond hydrographs as they are managed through the site during large storm events.

The tables below provide a summary of these analyses:

Hydrologic Element:	HEC-HMS (Culvert Outlet)	SWMM	Difference	Difference %
Pond A Peak Inflow (cfs)	162.38	162.38	0.00	0.00%
Pond A Max WSEL (ft)	5532.41	5531.97	(0.44)	-0.01%
Pond A Max Storage (ac-ft)	3.26	3.08	(0.18)	-5.52%
Pond A Peak Outflow (cfs)	55.01	57.96	2.95	5.36%
SD-1 Peak Inflow (cfs)	55.01	57.96	2.95	5.36%
SD-1 Peak Outflow (cfs)	54.98	57.95	2.97	5.40%

Hydrologic Element:	HEC-HMS (Orifice Outlet)	SWMM	Difference	Difference %
Pond A Peak Inflow (cfs)	162.38	162.38	0.00	0.00%
Pond A Max WSEL (ft)	5532.16	5531.97	(0.19)	0.00%
Pond A Max Storage (ac-ft)	3.05	3.08	0.03	0.98%
Pond A Peak Outflow (cfs)	60.15	57.96	(2.19)	-3.64%
SD-1 Peak Inflow (cfs)	60.15	57.96	(2.19)	-3.64%
SD-1 Peak Outflow (cfs)	60.09	57.95	(2.14)	-3.56%

These results all support the HEC-HMS models that have been prepared for this project to date and reinforce the applicability of using HEC-HMS to accurately model ponds and hydrograph routing in most scenarios.



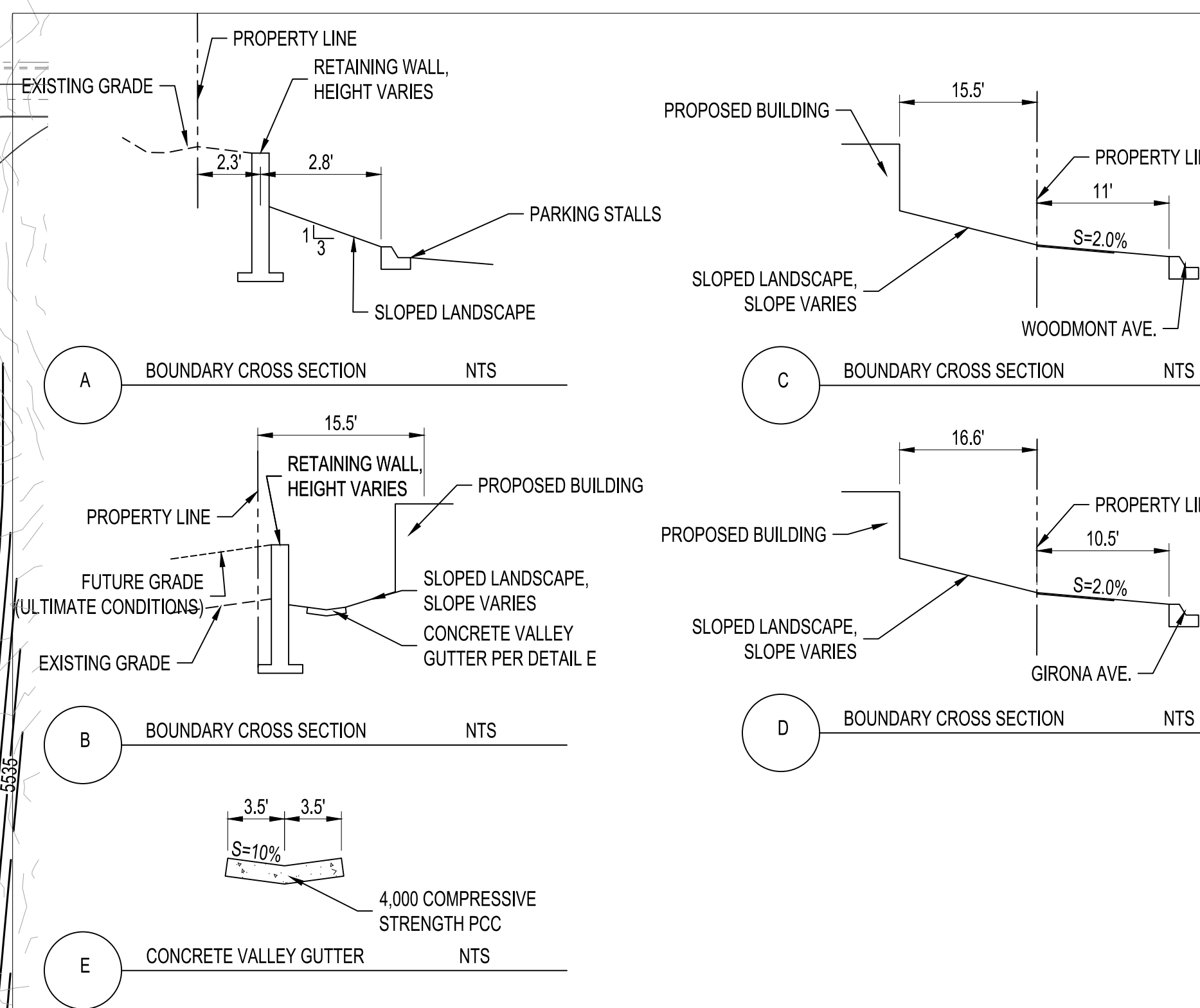
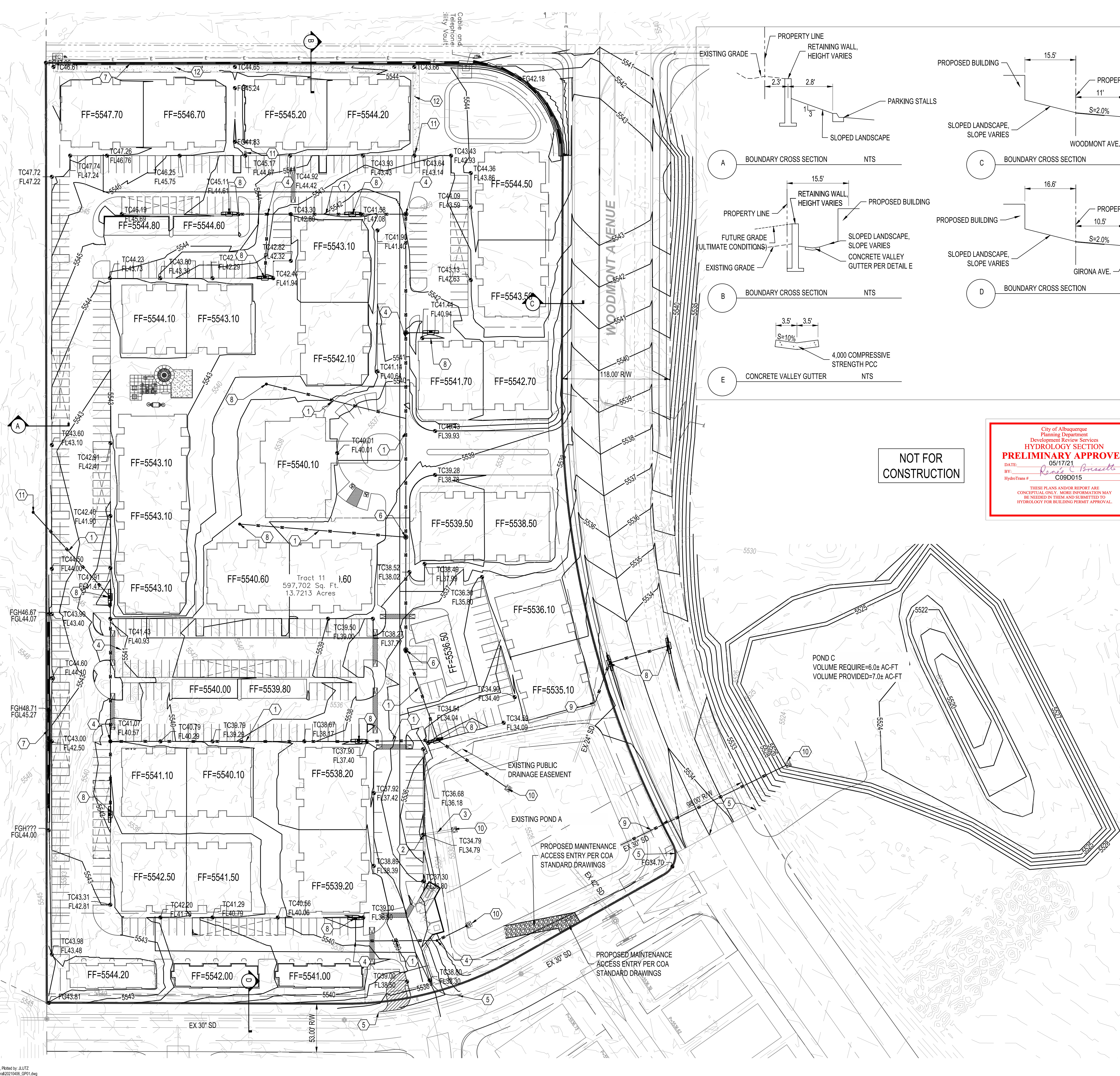
9. As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

10. Standard review fee of \$300 (for DRB Site) will be required at the time of resubmittal.

If you have any questions, please contact me at 823-1000 or jlutz@bhinc.com.

Sincerely,
Josh Lutz, PE

FILE: P:\0210406\CDP\Plans\General\2010406_GP01.dwg LAYOUT: GP01
SCALE: 1"=111.11' DATE/TIME: Mon 7/20/2021 11:31am
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Mon 12/4/2021 11:31am Plotted by: JLUZ
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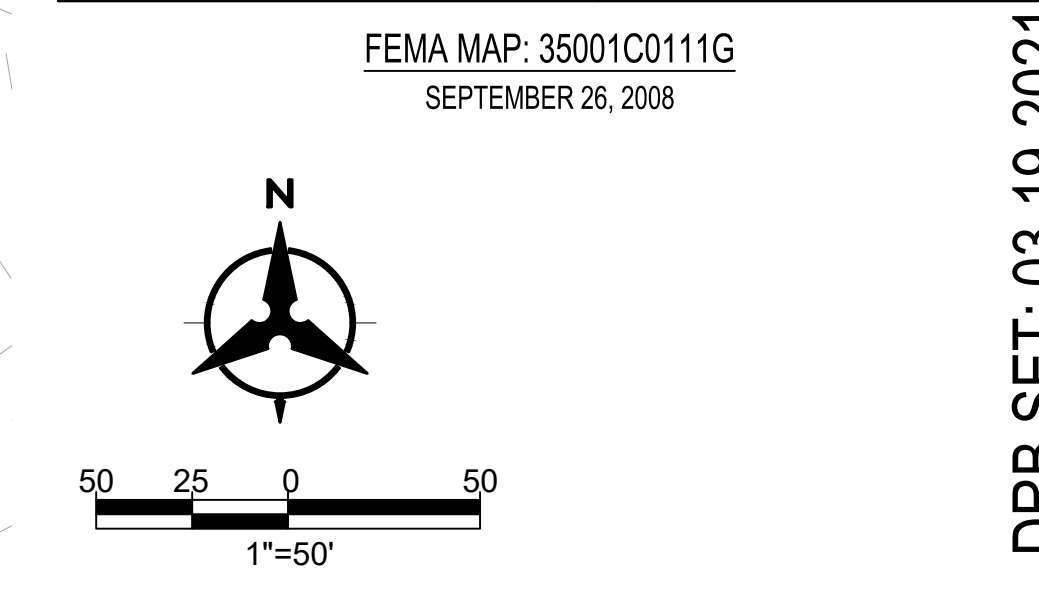
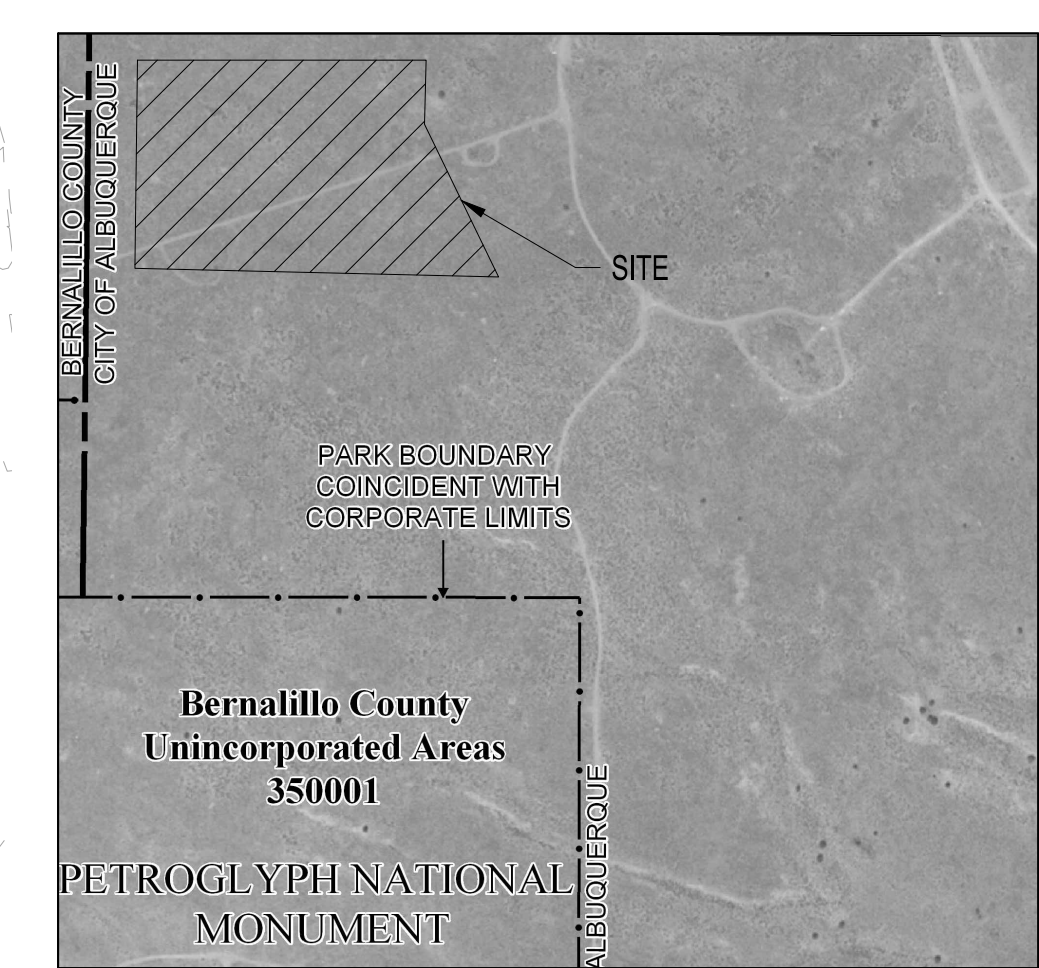
City of Albuquerque
Planning Department
Development Review Services
PRELIMINARY APPROVED
DATE: 05/17/21
BY: *Renee Branstetter*
HydroTeam # C09D015
THESE PLANS AND/OR REPORT ARE
CONCEPTUAL ONLY. MORE INFORMATION MAY
BE NEEDED IN THEM AND SUBMITTED TO
HYDROLOGY FOR BUILDING PERMIT APPROVAL.

NOT FOR
CONSTRUCTION

POND C
VOLUME REQUIRE=6.0± AC-FT
VOLUME PROVIDED=7.0± AC-FT

- ### GRADING KEYED NOTES
1. INSTALL HDPE (N12WT, OR APPROVED EQUAL) STORM DRAIN PIPE. SEE PLAN FOR SIZE.
 2. INSTALL CONCRETE CURB OPENING
 3. INSTALL CONCRETE RIBBON CHANNEL
 4. INSTALL PRE-MANUFACTURED STORM DRAIN FITTING
 5. MATCH EXISTING ELEVATION
 6. INSTALL STORM DRAIN MANHOLE
 7. INSTALL RETAINING WALL
 8. INSTALL STORM DRAIN INLET
 9. CONNECT TO EXISTING STORM DRAIN INLET
 10. INSTALL 6"X6" RIP RAP PAD
 11. INSTALL DROP INLET WITH 24" NYLOPLAST DOME GRATE OR APPROVED EQUAL
 12. INSTALL 24" WIDE SIDEWALK CULVERT PER C.O.A. STD. DWG 2236
 13. INSTALL VALLEY GUTTER PER SECTION B THIS SHEET
- SEE DMP01 FOR DRAINAGE NARRATIVE

LEGEND	
	PROPERTY LINE
	PROPOSED SPOT ELEVATION
	TA=TOP OF ASPHALT
	TC=TOP OF CURB
	FL=FLOW LINE
	TOC=TOP OF CONCRETE
	TS=TOP OF SIDEWALK
	TG=TOP OF GRATE
	FG=FINISHED GRADE
	FGH=FINISHED GRADE HIGH
	FGL=FINISHED GRADE LOW
	INV=INVERT
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	PROPOSED STORM DRAIN PIPE
	PROPOSED STORM DRAIN INLETS
	6" RIP RAP, 12" THICK, PLACED OVER NON-WOOLEN FILTER FABRIC
	RETAINING WALL



Designed by: JLUZ

Drawn by:

Architect of Record:

Date Plotted:

Issue for Pricing / Bidding:	XXXX/XX
Issue for Permit Application:	XX/XX/XX
Issue for Construction:	XX/XX/XX

Revisions:		
#	DATE	COMMENTS



THE PRESERVE
AT WOODMONT
ALBUQUERQUE, NM
PAC VENTURES INC.



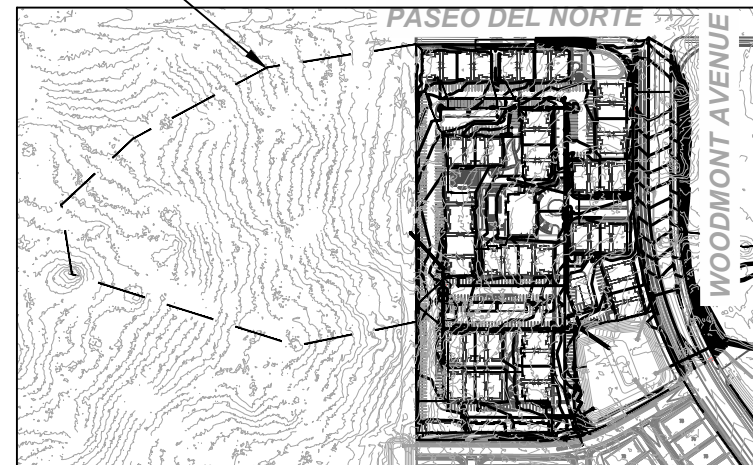
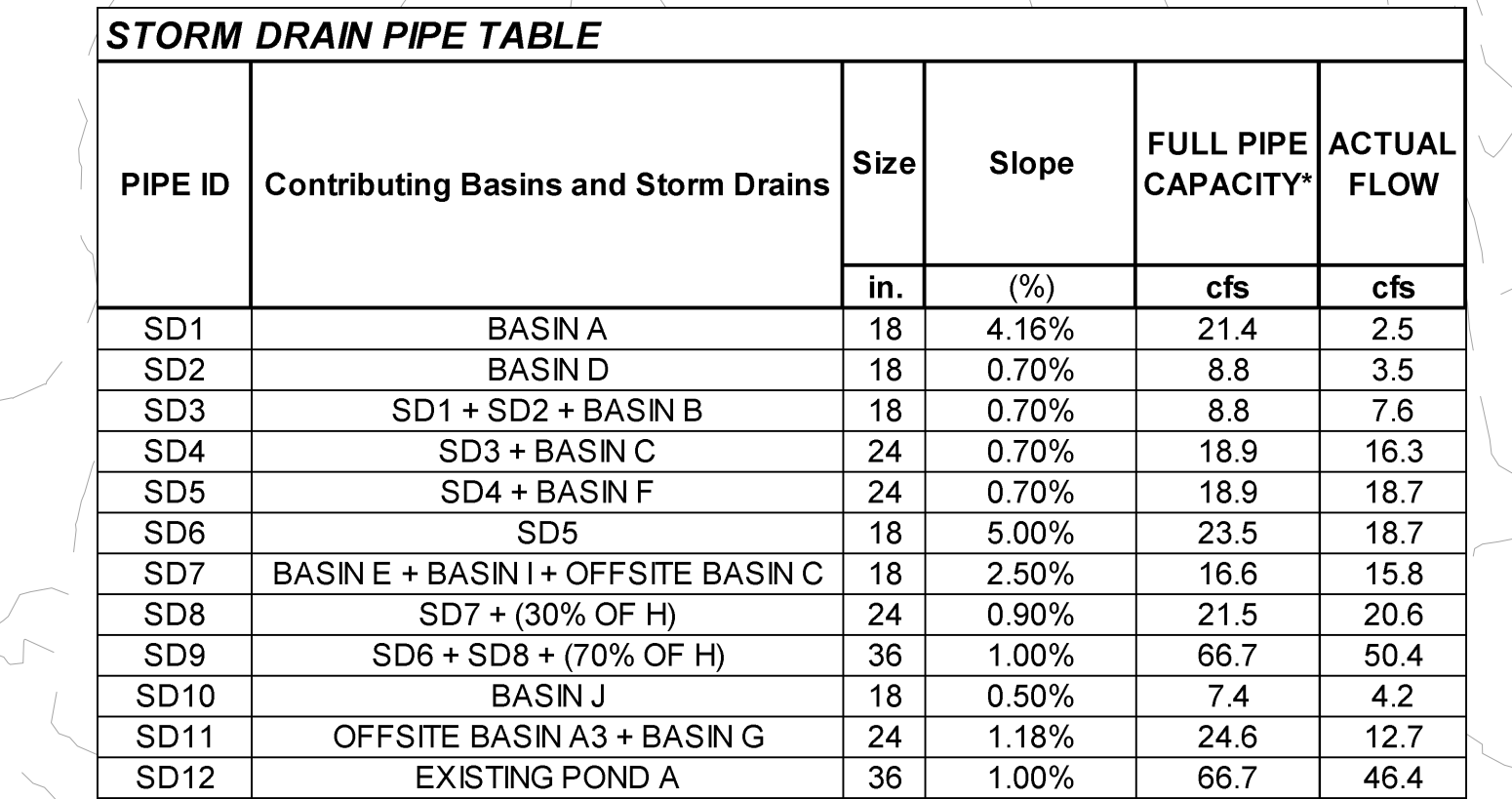
SHEET CONTENTS:

SHEET NO.

**CONCEPTUAL
GRADING AND
DRAINAGE PLAN**

18666

DRB SET: 03-19-2021



INTRODUCTION:

THE PROJECT IS LOCATED ON THE SOUTHWEST CORNER OF PASEO DEL NORTE AND WOODMONT AVE. THE SITE WILL CONSIST OF MULTI-FAMILY BUILDINGS, ASSOCIATED PARKING, LANDSCAPING, AND SITE AMENITIES. PER FEMA COMMUNITY MAP PANEL #35001C0111G, THE SITE IS NOT LOCATED WITHIN A FLOODPLAIN. THE SITE IS IN RAINFALL ZONE 1 AS DEFINED BY THE DPM.

EXISTING CONDITIONS:

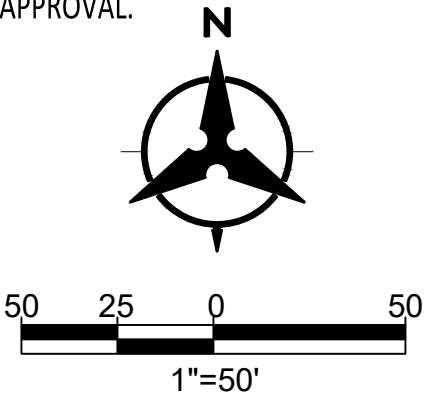
TRACT 1 OF THE TRAILS UNIT 3A IS CURRENTLY UNDEVELOPED. THE SITE SLOPES TO THE SOUTH AND EAST. RUNOFF SHEET FLOWS TO POND A AS DEFINED BY "THE CATALONIA AT THE TRAILS DRAINAGE REPORT" (APPROVED FILE NO. C09013). POND A IS CURRENTLY UNDER CONSTRUCTION WITH THE CATALONIA SUBDIVISION PROJECT.

THE HYDRAULIC ANALYSIS PROVIDED WITH THIS DRAINAGE SUBMITTAL HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 6.2 OF THE CITY OF ALBUQUERQUE DPM. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE ACTUAL CONDITIONS IN EACH ONSITE BASIN AND ARE SUMMARIZED IN THE "PROPOSED BASIN DATA TABLE" (THIS SHEET). THIS SITE WAS ANALYZED FOR THE 100-YEAR, 6-HOUR STORM EVENT. THIS PLAN DEMONSTRATES THE PROPOSED GRADING AND DRAINAGE CONCEPTS.

PROPOSED:

THE PROPOSED SITE IS ALLOWED TO DISCHARGE INTO POND A AS A FLOW NOT GRATER THAN 51.7 CFS WHICH HAS BEEN DEFINED BY THE CATALONIA AT THE TRAILS DRAINAGE REPORT AND "THE AMENDMENT TO THE DMP FOR THE TRAILS UNITS 1, 2, AND 3" DONE BY THOMPSON ENGINEERING. ALL BUT BASINS G AND L WILL EITHER SURFACE DRAIN OR BE CONVEYED BY A STORM DRAIN SYSTEM TO POND A (Q=2.3) CFS. BASINS G WILL SURFACE DRAIN TO WOODMONT AVENUE, ALSO KNOWN AS OFFSITE BASIN A3. OFFSITE BASIN A3 WILL SURFACE DRAIN TO PROPOSED INLETS IN WOODMONT AND OUTFALL TO POND A. OFFSITE BASIN D WILL BE CONNECTED TO THE ONSITE STORM DRAIN NETWORK VIA A DROP INLET WHICH WILL ACCEPT 9.0 CFS INTO OUR SITE. UPON CONSTRUCTION OF THE OFFSITE BASIN D, THE DROP INLET SHALL BE REMOVED AND THE CONNECTING 18" SD PIPE SHALL BE PLUGGED. OFFSITE DRAINAGE, IN THE ULTIMATE CONDITION, SHALL BE DISTRIBUTED TO POND A VIA THE EXISTING STORM DRAIN PIPE IN GIRONA AVENUE.

CONCLUSION:
THE CALCULATED PEAK DISCHARGE FROM THE SITE IS IN COMPLIANCE WITH THE PREVIOUSLY APPROVED DRAINAGE REPORT. DETENTION PONDS WILL NOT BE REQUIRED. THE GRADING AND DRAINAGE PLAN AS PRESENTED IS IN CONFORMANCE WITH THE APPROVED MASTER DRAINAGE REPORT AND CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS. PLEASE ACCEPT THIS SUBMITTAL AS A FORMAL REQUEST FOR SITE PLAN APPROVAL.



ALBUQUERQUE, NM
PAC VENTURES INC.



**Bohannon
▲ Huston**
www.bhinc.com
800.877.5332

SHEET NO. _____

**CONCEPTUAL
DMP01**

18666

DRB SET: 03-19-2021