

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

October 31, 2018

J. Graeme Means, P.E.
High Mesa Consulting Group
6010 B Midway Park Blvd NE
Albuquerque, NM 87109

RE: **Holly Senior Living**
9100 Holly Ave NE
Conceptual Grading and Drainage Plan
Engineer's Stamp Date: 10/17/18
Hydrology File: C20D079

Dear Mr. Means,

PO Box 1293

Based on the submittal received on 10/23/18, this project cannot be approved for Site Plan Building Permit until the following are corrected and a complete resubmittal is made:

Prior to Site Plan Building Permit:

Albuquerque

NM 87103

www.cabq.gov

1. Provide structural drawings and calculations for the retaining walls at section B-B demonstrating that a wall with no footer will retain 3.6' of soil. Provide structural drawings and calculations for the retaining walls at section A-A demonstrating that the wall with reversed footer will retain 4.4' of soil. All structural drawings and calculations will need to be stamped by a structural engineer.
2. If the proposed retaining wall footer for Section B-B or Section A-A encroaches on the neighboring property; provide written permission from the adjoining property owner for this work. Written permission must include: signature of the property owner or owners representative, statement that undersigned is the owner or authorized representative, permission to construct the encroachment with a brief description of the encroachment.
3. Define the areas expected to route through first flush facilities and those that will bypass. State the first flush bypass volume on the plans.

Prior to Building Permit (For Information):

4. Remove all "Conceptual" markings.
5. Hydraulic Calculations are required per DPM 22.3 documenting pipe capacity, overland flowpath capacities, pond routing and water surface elevations for the first flush and the 100-year volumes.

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6. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
7. Payment of the Fee in Lieu (Amount TBD) for the required first flush volume must be made.

Prior to Certificate of Occupancy (For Information):

8. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.
9. The public work order will need to be closed out and accepted by the City, unless a financial guarantee has been posted.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

PO Box 1293

Sincerely,

Albuquerque

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

NM 87103

www.cabq.gov



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF DEVELOPMENT: _____ PLAT (# of lots) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL? _____ Yes _____ No

DEPARTMENT _____ TRANSPORTATION _____ HYDROLOGY/DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE REPORT
- _____ DRAINAGE MASTER PLAN
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ STREET LIGHT LAYOUT
- _____ 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: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

CONCEPTUAL DRAINAGE NARRATIVE

THIS PROJECT IS A NEW DEVELOPMENT ON AN UNDEVELOPED SITE THAT CONSISTS OF A NEW BUILDING, PAVED PARKING AREAS, SITE WORK, COURTYARDS, SERVICE DRIVE AND NEW LANDSCAPED AREAS. THE SITE DRAINS FROM SOUTHEAST TO NORTHWEST TO HOLLY AVE NE. THE SITE DOES NOT LIE WITHIN A DESIGNATED FLOODPLAIN. THE PROPOSED DRAINAGE CONCEPT FOR THE SITE WILL BE CONTINUED FREE DISCHARGE TO EXISTING PUBLIC STORM DRAINAGE FACILITIES IN HOLLY THAT WERE DESIGNED, SIZED AND CONSTRUCTED TO ACCEPT 4.68 CFS PER ACRE FROM THIS SITE BASED ON THE FOLLOWING PLANS PREPARED BY THIS OFFICE FOR THIS SITE AND SURROUNDING AREAS:

LOMR FOR NORTH DOMINGO BACA ARROYO CARMEL AVENUE STORM DRAIN EXTENSION (HMC 12/08/2003) APPROVED BY FEMA 03/23/2004.

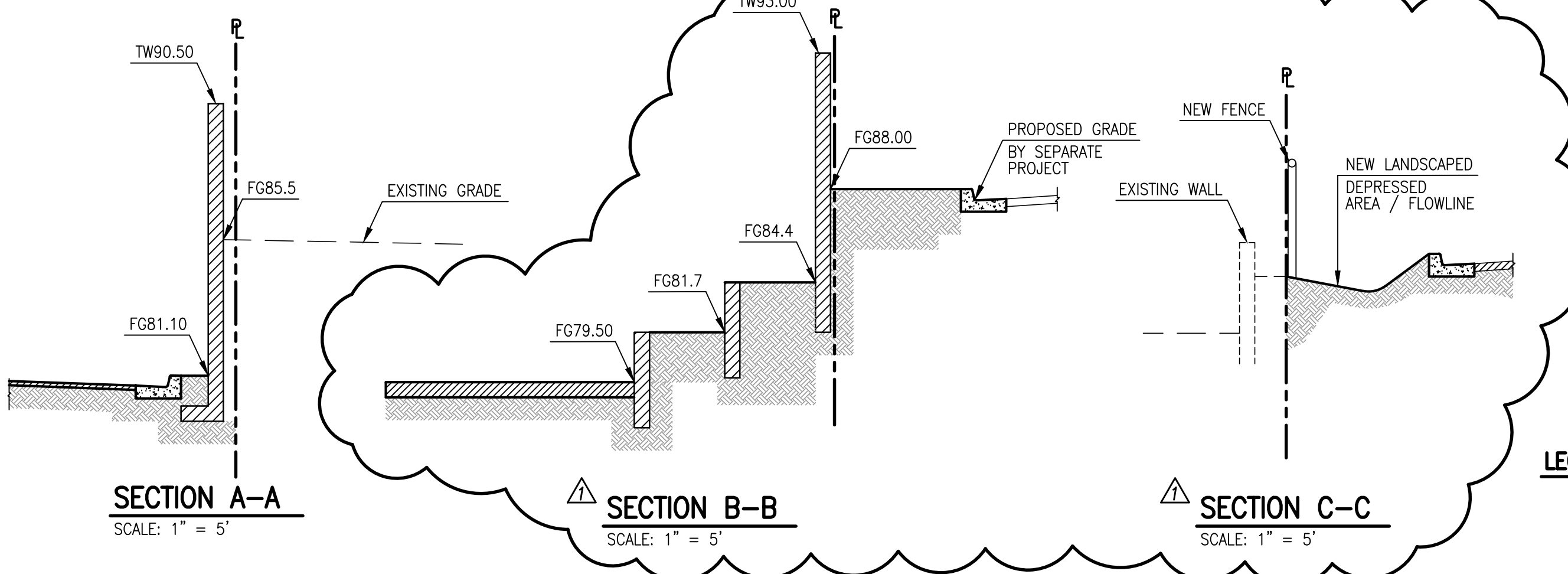
DRAINAGE REPORT FOR LOS VIGILIS SUBDIVISION (HMC 12/31/2002, C20/D41).

GRADING AND DRAINAGE PLAN FOR DESERT RIDGE OFFICE PARK (HMC C20/D51).

DRAINAGE REPORT FOR VINEYARD COURT ESTATES (HMC 08/21/2003)

GRADING AND DRAINAGE PLANS FOR HOLLY MARK 3S DEVELOPMENT (HMC 02/05/2007 AND 05/11/2015).

SITE RUNOFF WILL BE DIRECTED TO LANDSCAPED AREAS FOR WATER QUALITY WHERE PRACTICABLE BUT THE FIRST FLUSH RETENTION REQUIREMENT WILL NOT BE MET WITH THIS SITE AND A PAYMENT WILL BE MADE IN LIEU OF MEETING THE ENTIRE REQUIREMENT. NO RETENTION PONDING FOR DISCHARGE CONTROL IS REQUIRED OR PROPOSED BEYOND WHAT IS USED FOR WATER QUALITY.

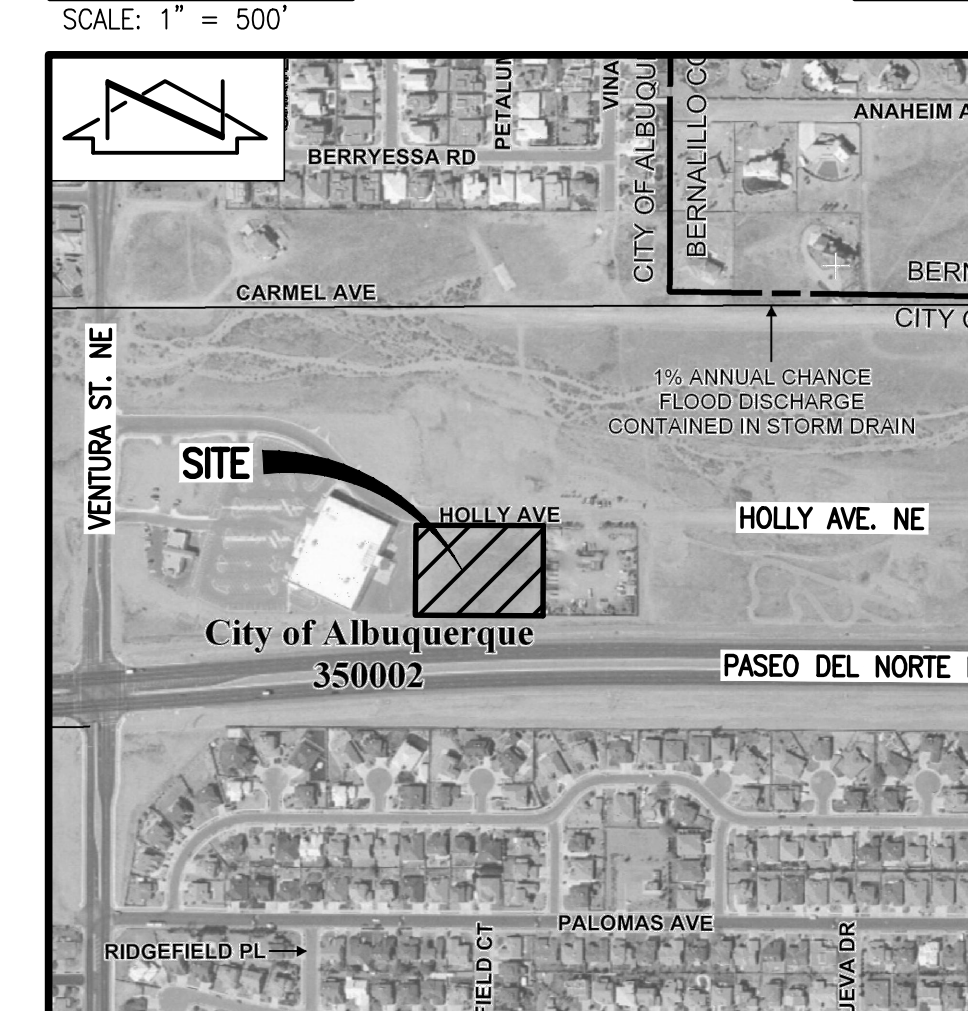
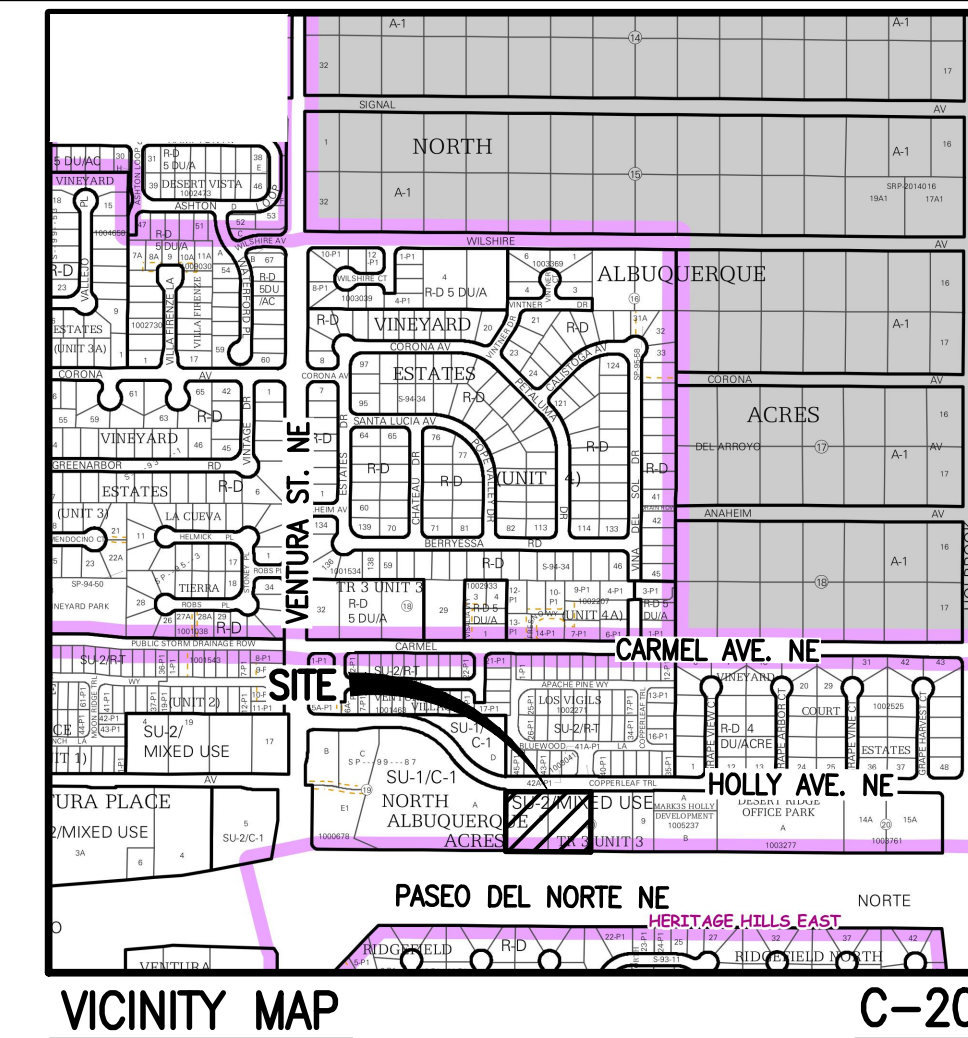


KEYED NOTES:

1. CONSTRUCT 4" DIA. STORM DRAIN MANHOLE
2. CONSTRUCT SINGLE 'D' STORM DRAIN INLET
3. CONSTRUCT DOUBLE 'C' STORM DRAIN INLET
4. CONSTRUCT 24"x24" STORM DRAIN INLET
5. INSTALL 8" HDPE STORM DRAIN
6. INSTALL 12" HDPE STORM DRAIN
7. INSTALL 18" HDPE STORM DRAIN
8. NEW 12" CURB OPENING
9. NEW 6" DRAIN OPENING
10. DEPRESSED LANDSCAPING FOR WATER QUALITY PLAN
11. NEW REFUSE DRAIN. SEE CONCEPTUAL UTILITY PLAN
12. HOLLY IMPROVEMENTS TO BE CONSTRUCTED BY WORK ORDER
13. NEW 6" WALL OPENING
14. NEW SCREEN WALL
15. NEW REFUSE WALL
16. NEW RETAINING WALL

LEGEND:

- INV INVERT
- TA TOP OF ASPHALT PAVEMENT
- TC TOP OF CURB
- TG TOP OF GRATE
- + 87.80 EXISTING SPOT ELEVATION
- 88.70 PROPOSED SPOT ELEVATION
- EXISTING FLOWLINE
- PROPOSED FLOWLINE
- 5585 EXISTING CONTOUR
- 90 PROPOSED CONTOUR
- PROPOSED HDPE STORM DRAIN
- PROPOSED 24"x24" STORM DRAIN INLET
- PROPOSED DOUBLE 'C' STORM DRAIN INLET
- PROPOSED SINGLE 'D' STORM DRAIN INLET
- PROPOSED 4" DIA. STORM DRAIN MANHOLE
- PROPOSED REFUSE DRAIN
- EXISTING DIRECTION OF FLOW
- PROPOSED DIRECTION OF FLOW
- HIGH POINT / DVIDE
- PROPERTY LINE
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVING
- PROPOSED LANDSCAPE AREA
- PROPOSED GRAVEL BASE COURSE
- DRAINAGE BASIN
- FIRST FLUSH BASIN



F.I.R.M. 141 OF 825

CALCULATIONS

I. SITE CHARACTERISTICS			
A. PRECIPITATION ZONE =	3		
B. $P_{24} = P_{24} =$	2.80		
C. TOTAL PROJECT AREA (A) =			
	86,275 SF		
	1.98 AC		
D. LAND TREATMENTS			
1. EXISTING LAND TREATMENT			
a. OVERALL		AREA (SF/AC)	%
Treatment A Area	86,275	1.98	
Treatment B Area			
Treatment C Area	86,275	1.98	100
Treatment D Area			
2. DEVELOPED LAND TREATMENT			
a. OVERALL		AREA (SF/AC)	%
Treatment A Area	86,275	1.98	
Treatment B Area	4,782	0.11	6
Treatment C Area	13,056	0.30	15
Treatment D Area	68,437	1.57	79
II. HYDROLOGY			
A. EXISTING CONDITION			
1. BASIN A			
a. VOLUME			
$E_W = (E_{A1} + E_{A2} + E_{A3} + E_{A4})/A_1$			
$E_W = (0.00'0.66) + (0.00'0.92) + (1.98'1.29) + (0.00'3.36)/1.98 =$	1.29 IN		
$V_{100} = (E_W/12)A_1 = (2.12/12)1.98 =$	0.2128 AC-FT		
b. PEAK DISCHARGE			
$Q_p = Q_{A1} + Q_{A2} + Q_{A3} + Q_{A4}$			
$Q_p = Q_{100} = (0.00'1.87) + (0.00'2.6) + (1.98'3.45) + (0.00'5.02) =$	6.8 CFS		
B. DEVELOPED CONDITION			
1. BASIN A			
a. VOLUME			
$E_W = (E_{A1} + E_{A2} + E_{A3} + E_{A4})/A_1$			
$E_W = (0.00'0.66) + (0.11'0.92) + (0.30'1.29) + (1.57'2.36)/1.98 =$	2.12 IN		
$V_{100} = (E_W/12)A_1 = (2.12/12)1.98 =$	0.3498 AC-FT		
b. PEAK DISCHARGE			
$Q_p = Q_{A1} + Q_{A2} + Q_{A3} + Q_{A4}$			
$Q_p = Q_{100} = (0.00'1.87) + (0.11'2.6) + (0.30'3.45) + (1.57'5.02) =$	9.20 CFS		
C. COMPARISON			
1. BASIN A			
a. VOLUME			
$\Delta V_{100} = 15,240 - 9,270 =$	5,970.00 CF	64.4%	(INCREASE)
b. PEAK DISCHARGE			
$\Delta Q_{100} = 9.2 - 6.8 =$	2.40 CFS	35.3%	(INCREASE)
c. DISCHARGE RATE			
$9.2 \text{ CFS} / 1.98 \text{ AC} =$	4.64 CFS/AC	(4.86 CFS/AC ALLOWABLE)	
D. FIRST FLUSH BASIN CALCULATIONS			
1. DEVELOPED AREA			
a. DEVELOPED AREA =	86,275 SF		
b. PERVIOUS AREA =	17,838 SF		
c. IMPERVIOUS AREA =	68,437 SF		
2. FIRST FLUSH VOLUME - DEVELOPED AREA			
$V_{FF100} = (0.44/12)(68,437 \text{ SF}) =$	2,510 CF		
3. PROPOSED RETAINED VOLUMES & IMPERVIOUS FF CONTRIBUTION			
AREA	$V_{100} \text{ CAP}$	A_{IMP}	$V_{IMP} \text{ FF} = (0.44/12)(A_{IMP})$
A =	370 CF	9,280 SF	356 CF
$A_{IMP} =$ IMPERVIOUS AREA DISCHARGING TO POND			
$V_{IMP \text{ FF}} =$ FIRST FLUSH VOLUME GENERATED BY IMPERVIOUS AREA			

2018.027.1

HIGH MESA Consulting Group

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ARCHITECTURE / DESIGN / INSPIRATION

**DEKKER
PERICH
SABATINI**

7601 JEFFERSON NE, SUITE 100
ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

ENGINEER

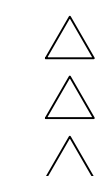


9/19/2018 10/17/2018

PROJECT

HOLLY SENIOR LIVING
9100 HOLLY AVENUE NE
ALBUQUERQUE, NM 87122

REVISIONS
HYDROLOGY COMMENTS



DRAWN BY J.Y.R.

REVIEWED BY G.M.

DATE 10.09.2018

PROJECT NO. 18-0038

DRAWING NAME

**CONCEPTUAL
GRADING AND
DRAINAGE PLAN**

SHEET NO.

SDP 3.1

OF

NOTE:

THIS IS NOT A BOUNDARY SURVEY; DATA IS SHOWN FOR ORIENTATION ONLY. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON THE PLAT OF RECORD (2017C-0146, RECORDED 12-18-2017).

THE TOPOGRAPHIC AND UTILITY INFORMATION DEPICTED HEREON IS BASED UPON THE EXISTING TOPOGRAPHIC AND UTILITY SURVEY PREPARED BY THIS FIRM, NMPS NO. 11184, DATED 01/10/2017 (2016.059.1).