CITY OF ALBUQUERQUE

July 27, 2015

Yolanda Padilla-Moyer, PE
Bohannan Huston, Inc.
7500 Jefferson NE, Courtyard I
Albuquerque, NM 87109

Re: Del Webb @ Mirehaven Phase I, Amenity Center Grading Plan, N-2-A of the Watershed Subdivision Engineer's Stamp Date 7/18/2015 (H09/D017C1)

Dear Ms. Padilla-Moyer,

Based upon the information provided in your submittal received 7-20-15, the Grading and Drainage Plan is approved for Building Permit and Grading Permit based on the following conditions:

a) This project requires an approved Erosion and Sediment Control plan prior to building permit approval as well as National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge for disturbing one acre or more.
b) A Topsoil Disturbance Permit is required for disturbing ¾ of an acre or more.
c) Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3999.

Sincerely,

Shahab Biazar, P.E.
City Engineer, Planning Dept.
Development Review Services

C: e-mail

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

Bohannan Huston

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

July 20, 2015

Ms. Rita Harmon
Hydrology Section
City of Albuquerque
600 2nd Street NW
Albuquerque, NM 87102

Re: Amenity Center Final Grading and Drainage Plan Submittal
DRB Case No. 1006864

Dear Rita:

We are submitting a Final Grading and Drainage Plan for the Amenity Center for Del Webb at Mirehaven for Building Permit approval. The Amenity Center is located on Del Webb Blvd between Willow Canyon Trail and Mirehaven Blvd. The site is approximately 6.6 acres. The conceptual grading and drainage plan was approved for Site Plan with a condition that Basin A-2 discharge to Pond #2 via storm drain or surface channel. This condition has been addressed and a swale has been added to drain Basin A-2 to the pond. This floodplain on this site has also been removed via a LOMR-F process through FEMA and the approval information from FEMA has been included in this submittal.

Your review and approval is requested for Building Permit Approval for the above listed buildings. I appreciate your time and consideration. If you have questions or require additional information, please contact me at 823-1000.

Sincerely,

Yolanda Padilla Moyer, P.E.
Senior Project Manager
Community Development & Planning

Enclosures

cc: Peter Steen, Pulte Homes
Kevin Patton, Pulte Homes

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Del Webb @ Mirehaven Phase 1 Amenity Center Building Permit #: _____ City Drainage #: _____

DRB#: 1006864 EPC#: _____ Work Order#: _____

Legal Description: N-2-A OF THE WATERSHED SUBDIVISION

City Address: _____

Engineering Firm: BOHANNAN HUSTON INC Contact: Yolanda Moyer

Address: 7500 JEFFERSON ST NE COURTYARD 1 ALBUQUERQUE NM 87109

Phone#: 823-1000 Fax#: _____ E-mail: ypadilla@bhinc.com

Owner: PULTE HOMES OF NM Contact: Kevin Patton, P.E.

Address: 7601 JEFFERSON ST NE, SUITE 320, ALBUQUERQUE, NM

Phone#: 505-341-8591 Fax#: _____ E-mail: kevin.patton@pultegroup.com

Architect: _____ Contact: _____

Address: _____

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

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- x DRAINAGE PLAN RESUBMITTAL
- ____ CONCEPTUAL G & D PLAN
- X GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- x BUILDING PERMIT APPROVAL
- X GRADING PERMIT APPROVAL
- X PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION

- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

ROUGH GRADING

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 7-20-15 By: Yolanda Padilla Moyer

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

COMMUNITY AND MAP PANEL INFORMATION		LEGAL PROPERTY DESCRIPTION
COMMUNITY	CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO	Lots 151 through 153, and Tract N-2-F-1, Del Webb at Mirehaven, Phase 1, as shown on the Plat recorded as Document No. 2014070165, in Book 2014C, Page 0093; Lots 165, 166, 169 through 174, Del Webb at Mirehaven, Phase 1B, as shown on the Plat recorded as Document No. 2015036902, in Book 2015C, Page 0043, all in the Office of the Clerk, Bernalillo County, New Mexico
	COMMUNITY NO.: 350002	
AFFECTED MAP PANEL	NUMBER: 35001C0326H	
	DATE: 8/16/2012	
FLOODING SOURCE: SHEET FLOW		APPROXIMATE LATITUDE & LONGITUDE OF PROPERTY: 35.109, -106.749 SOURCE OF LAT & LONG: GOOGLE EARTH PRO DATUM: NAD 83

DETERMINATION

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	OUTCOME WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
151	--	Del Webb at Mirehaven, Phase 1	9235 Del Webb Lane NW	Property	X (unshaded)	--	--	5343.6 feet

Special Flood Hazard Area (SFHA) - The SFHA is an area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood).

ADDITIONAL CONSIDERATIONS (Please refer to the appropriate section on Attachment 1 for the additional considerations listed below.)

DETERMINATION TABLE (CONTINUED)
FILL RECOMMENDATION
STUDY UNDERWAY

This document provides the Federal Emergency Management Agency's determination regarding a request for a Letter of Map Revision based on Fill for the property described above. Using the information submitted and the effective National Flood Insurance Program (NFIP) map, we have determined that the property(ies) is/are not located in the SFHA, an area inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This document revises the effective NFIP map to remove the subject property from the SFHA located on the effective NFIP map; therefore, the Federal mandatory flood insurance requirement does not apply. However, the lender has the option to continue the flood insurance requirement to protect its financial risk on the loan. A Preferred Risk Policy (PRP) is available for buildings located outside the SFHA. Information about the PRP and how one can apply is enclosed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

DETERMINATION TABLE (CONTINUED)

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	**OUTCOME** WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
152	--	Del Webb at Mirehaven, Phase 1	9231 Del Webb Lane NW	Property	X (unshaded)	--	--	5341.8 feet
153	--	Del Webb at Mirehaven, Phase 1	9227 Del Webb Lane NW	Property	X (unshaded)	--	--	5340.9 feet
Tract N-2-F-1	--	Del Webb at Mirehaven, Phase 1	9100 Del Webb Lane NW	Property	X (unshaded)	--	--	5317.1 feet
165	--	Del Webb at Mirehaven, Phase 1B	2160 Coyote Creek Trail NW	Property	X (unshaded)	--	--	5352.8 feet
166	--	Del Webb at Mirehaven, Phase 1B	2247 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5353.5 feet
169	--	Del Webb at Mirehaven, Phase 1B	2235 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5356.7 feet
170	--	Del Webb at Mirehaven, Phase 1B	2231 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5358.1 feet
171	--	Del Webb at Mirehaven, Phase 1B	2227 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5359.5 feet
172	--	Del Webb at Mirehaven, Phase 1B	2223 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5360.8 feet
173	--	Del Webb at Mirehaven, Phase 1B	2219 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5362.2 feet

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION BASED ON FILL DETERMINATION DOCUMENT (REMOVAL)

ATTACHMENT 1 (ADDITIONAL CONSIDERATIONS)

LOT	BLOCK/ SECTION	SUBDIVISION	STREET	**OUTCOME** WHAT IS REMOVED FROM THE SFHA	FLOOD ZONE	1% ANNUAL CHANCE FLOOD ELEVATION (NAVD 88)	LOWEST ADJACENT GRADE ELEVATION (NAVD 88)	LOWEST LOT ELEVATION (NAVD 88)
174	--	Del Webb at Mirehaven, Phase 1B	2215 Cebolla Creek Way NW	Property	X (unshaded)	--	--	5363.6 feet

FILL RECOMMENDATION (This Additional Consideration applies to the preceding 12 Properties.)

The minimum NFIP criteria for removal of the subject area based on fill have been met for this request and the community in which the property is located has certified that the area and any subsequent structure(s) built on the filled area are reasonably safe from flooding. FEMA's Technical Bulletin 10-01 provides guidance for the construction of buildings on land elevated above the base flood elevation through the placement of fill. A copy of Technical Bulletin 10-01 can be obtained by calling the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or from our web site at http://www.fema.gov/mit/tb1001.pdf. Although the minimum NFIP standards no longer apply to this area, some communities may have floodplain management regulations that are more restrictive and may continue to enforce some or all of their requirements in areas outside the Special Flood Hazard Area.

STUDY UNDERWAY (This Additional Consideration applies to all properties in the LOMR-F DETERMINATION DOCUMENT (REMOVAL))

This determination is based on the flood data presently available. However, the Federal Emergency Management Agency is currently revising the National Flood Insurance Program (NFIP) map for the community. New flood data could be generated that may affect this property. When the new NFIP map is issued it will supersede this determination. The Federal requirement for the purchase of flood insurance will then be based on the newly revised NFIP map.

This attachment provides additional information regarding this request. If you have any questions about this attachment, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Federal Emergency Management Agency

Washington, D.C. 20472

July 08, 2015

THE HONORABLE RICHARD BERRY
MAYOR, CITY OF ALBUQUERQUE
P.O. BOX 1293
ALBUQUERQUE, NM 87103

CASE NO.: 15-06-3067A
COMMUNITY: CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
COMMUNITY NO.: 350002

DEAR MR. BERRY:

This is in reference to a request that the Federal Emergency Management Agency (FEMA) determine if the property described in the enclosed document is located within an identified Special Flood Hazard Area, the area that would be inundated by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood), on the effective National Flood Insurance Program (NFIP) map. Using the information submitted and the effective NFIP map, our determination is shown on the attached Letter of Map Revision based on Fill (LOMR-F) Determination Document. This determination document provides additional information regarding the effective NFIP map, the legal description of the property and our determination.

Additional documents are enclosed which provide information regarding the subject property and LOMR-Fs. Please see the List of Enclosures below to determine which documents are enclosed. Other attachments specific to this request may be included as referenced in the Determination/Comment document. If you have any questions about this letter or any of the enclosures, please contact the FEMA Map Assistance Center toll free at (877) 336-2627 (877-FEMA MAP) or by letter addressed to the Federal Emergency Management Agency, LOMC Clearinghouse, 847 South Pickett Street, Alexandria, VA 22304-4605.

Sincerely,

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

LIST OF ENCLOSURES:

LOMR-F DETERMINATION DOCUMENT (REMOVAL)

cc: State/Commonwealth NFIP Coordinator
Community Map Repository
Region
Mrs. Alandren Etlantus

Federal Emergency Management Agency
Washington, D.C. 20472

ADDITIONAL INFORMATION REGARDING LETTERS OF MAP REVISION BASED ON FILL

When making determinations on requests for Letters of Map Revision based on the placement of fill (LOMR-Fs), the Department of Homeland Security's Federal Emergency Management Agency (FEMA) bases its determination on the flood hazard information available at the time of the determination. Requesters should be aware that flood conditions may change or new information may be generated that would supersede FEMA's determination. In such cases, the community will be informed by letter.

Requesters also should be aware that removal of a property (parcel of land or structure) from the Special Flood Hazard Area (SFHA) means FEMA has determined the property is not subject to inundation by the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood). This does not mean the property is not subject to other flood hazards. The property could be inundated by a flood with a magnitude greater than the base flood or by localized flooding not shown on the effective National Flood Insurance Program (NFIP) map.

The effect of a LOMR-F is it removes the Federal requirement for the lender to require flood insurance coverage for the property described. The LOMR-F *is not* a waiver of the condition that the property owner maintain flood insurance coverage for the property. *Only* the lender can waive the flood insurance purchase requirement because the lender imposed the requirement. *The property owner must request and receive a written waiver from the lender before canceling the policy*. The lender may determine, on its own as a business decision, that it wishes to continue the flood insurance requirement to protect its financial risk on the loan.

The LOMR-F provides FEMA's comment on the mandatory flood insurance requirements of the NFIP as they apply to a particular property. A LOMR-F is not a building permit, nor should it be construed as such. Any development, new construction, or substantial improvement of a property impacted by a LOMR-F must comply with all applicable State and local criteria and other Federal criteria.

If a lender releases a property owner from the flood insurance requirement, and the property owner decides to cancel the policy and seek a refund, the NFIP will refund the premium paid for the current policy year, provided that no claim is pending or has been paid on the policy during the current policy year. The property owner must provide a written waiver of the insurance requirement from the lender to the property insurance agent or company servicing his or her policy. The agent or company will then process the refund request.

Even though structures are not located in an SFHA, as mentioned above, they could be flooded by a flooding event with a greater magnitude than the base flood. In fact, more than 25 percent of all claims paid by the NFIP are for policies for structures located outside the SFHA in Zones B, C, X (shaded), or X (unshaded). More than one-fourth of all policies purchased under the NFIP protect structures located in these zones. The risk to structures located outside SFHAs is just not as great as the risk to structures located in SFHAs. Finally, approximately 90 percent of all federally declared disasters are caused by flooding, and homeowners insurance does not provide financial protection from this flooding. Therefore, FEMA encourages the widest possible coverage under the NFIP.

The NFIP offers two types of flood insurance policies to property owners: the low-cost Preferred Risk Policy (PRP) and the Standard Flood Insurance Policy (SFIP). The PRP is available for 1- to 4-family residential structures located outside the SFHA with little or no loss history. The PRP is available for townhouse/rowhouse-type structures, but is not available for other types of condominium units. The SFIP is available for all other structures.

Additional information on the PRP and how a property owner can quality for this type of policy may be obtained by contacting the Flood Insurance Information Hotline, toll free, at 1-800-427-4661. Before making a final decision about flood insurance coverage, FEMA strongly encourages property owners to discuss their individual flood risk situations and insurance needs with an insurance agent or company.

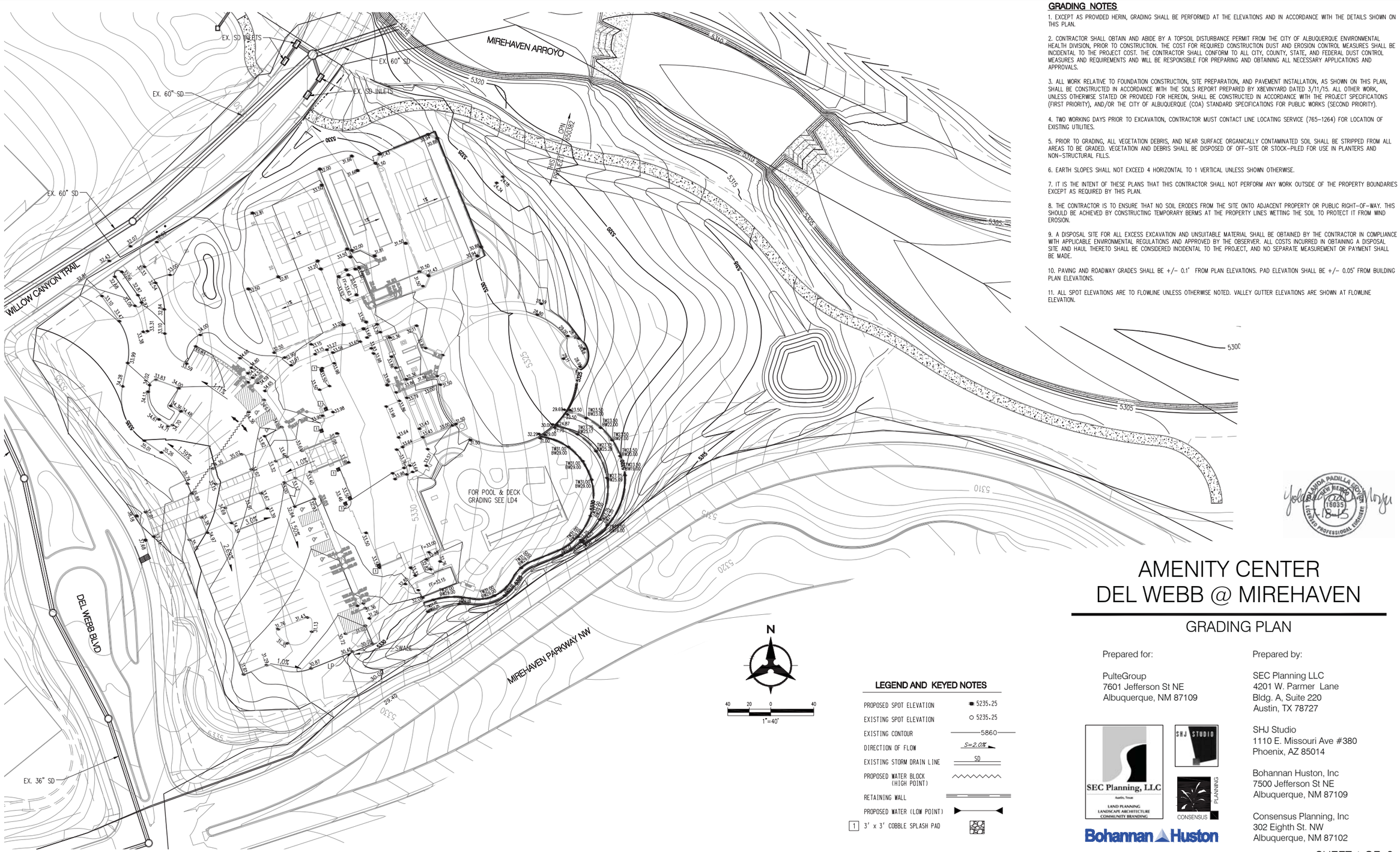
The revisions made effective by a LOMR-F are made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and are in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448) 42 U.S.C. 4001-4128, and 44 CFR Part 65.

In accordance with regulations adopted by the community when it made application to join the NFIP, letters issued to revise an NFIP map must be attached to the community's official record copy of the map. That map is available for public inspection at the community's official map repository. Therefore, FEMA sends copies of all such letters to the affected community's official map repository.

To ensure continued eligibility to participate in the NFIP, the community must enforce its floodplain management regulations using, at a minimum, the flood elevations and zone designations shown on the NFIP map, including the revisions made effective by LOMR-Fs. LOMR-Fs are based on minimum criteria established by the NFIP. State, county, and community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction in the SFHA. If the State, county, or community has adopted more restrictive and comprehensive floodplain management criteria, these criteria take precedence over the minimum Federal criteria.

FEMA does not print and distribute LOMR-Fs to primary map users, such as local insurance agents and mortgage lenders; therefore, the community serves as the repository for LOMR-Fs. FEMA encourages communities to disseminate LOMR-Fs so that interested persons, such as property owners, insurance agents, and mortgage lenders, may benefit from the information. FEMA also encourages communities to prepare articles for publication in the local newspaper that describe the changes made and the assistance community officials will provide in serving as a clearinghouse for LOMR-Fs and interpreting NFIP maps.

When a restudy is undertaken, or when a sufficient number of revisions occur on particular map panels, FEMA initiates the printing and distribution process for the panels and incorporates the changes made effective by LOMR-Fs. FEMA notifies community officials in writing when affected map panels are being physically revised and distributed. If the results of particular LOMR-Fs cannot be reflected on the new map panels because of scale limitations, FEMA notifies the community in writing and revalidates the LOMR-Fs in that letter. LOMR-Fs revalidated in this way usually will become effective 1 day after the effective date of the revised map.



GRADING NOTES

1. EXCEPT AS PROVIDED HERIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.

2. CONTRACTOR SHALL OBTAIN AND ABIDE BY A TOPSOIL DISTURBANCE PERMIT FROM THE CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DIVISION, PRIOR TO CONSTRUCTION. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.

3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SOILS REPORT PREPARED BY XBEVINYARD DATED 3/11/15. ALL OTHER WORK, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS (FIRST PRIORITY), AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).

4. TWO WORKING DAYS PRIOR TO EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE (765-1264) FOR LOCATION OF EXISTING UTILITIES.

5. PRIOR TO GRADING, ALL VEGETATION DEBRIS, AND NEAR SURFACE ORGANICALLY CONTAMINATED SOIL SHALL BE STRIPPED FROM ALL AREAS TO BE GRADED. VEGETATION AND DEBRIS SHALL BE DISPOSED OF OFF-SITE OR STOCK-PILED FOR USE IN PLANTERS AND NON-STRUCTURAL FILLS.

6. EARTH SLOPES SHALL NOT EXCEED 4 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.

7. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.

8. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.

9. A DISPOSAL SITE FOR ALL EXCESS EXCAVATION AND UNSUITABLE MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT, AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

10. PAVING AND ROADWAY GRADES SHALL BE +/- 0.1' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATIONS.

11. ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED. VALLEY GUTTER ELEVATIONS ARE SHOWN AT FLOWLINE ELEVATION.

LEGEND AND KEYED NOTES

PROPOSED SPOT ELEVATION	5235.25
EXISTING SPOT ELEVATION	5235.25
EXISTING CONTOUR	5860
DIRECTION OF FLOW	S=2.0%
EXISTING STORM DRAIN LINE	SD
PROPOSED WATER BLOCK (HIGH POINT)	
RETAINING WALL	
PROPOSED WATER (LOW POINT)	
1 3' x 3' COBBLE SPLASH PAD	

AMENITY CENTER
DEL WEBB @ MIREHAVEN

GRADING PLAN

Prepared for:

PulteGroup
7601 Jefferson St NE
Albuquerque, NM 87109

Prepared by:

SEC Planning LLC
4201 W. Parmer Lane
Bldg. A, Suite 220
Austin, TX 78727

SHJ Studio
1110 E. Missouri Ave #380
Phoenix, AZ 85014

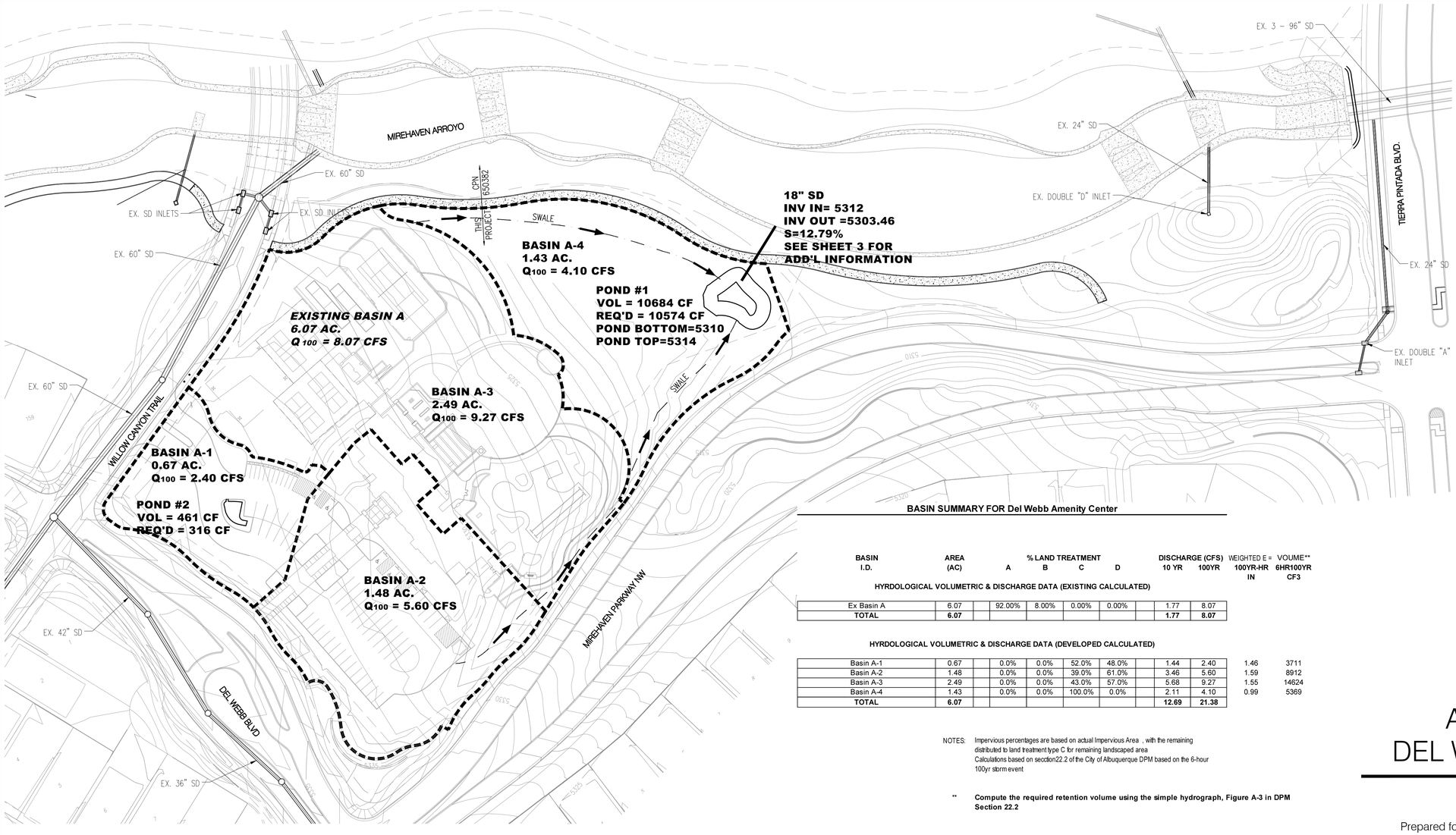
Bohannan Huston, Inc
7500 Jefferson St NE
Albuquerque, NM 87109

Consensus Planning, Inc
302 Eighth St. NW
Albuquerque, NM 87102

SHEET 1 OF 3

July 17, 2015

Sat, 18-Jul-2015 - 9:03:am, Plotted by: YPADILLA
P:\20130375\CDP\Plans\General\Amenity\BuildingPermit\20130375_Grading.dwg



BASIN SUMMARY FOR Del Webb Amenity Center

BASIN I.D.	AREA (AC)	% LAND TREATMENT A	B	C	D	DISCHARGE (CFS) 10 YR	100YR	WEIGHTED E = 100YR-HR IN	VOUME** 6HR100YR CF3
HYRDOLOGICAL VOLUMETRIC & DISCHARGE DATA (EXISTING CALCULATED)									
Ex Basin A	6.07	92.00%	8.00%	0.00%	0.00%	1.77	8.07		
TOTAL	**6.07**					**1.77**	**8.07**		
HYRDOLOGICAL VOLUMETRIC & DISCHARGE DATA (DEVELOPED CALCULATED)									
Basin A-1	0.67	0.0%	0.0%	52.0%	48.0%	1.44	2.40	1.46	3711
Basin A-2	1.48	0.0%	0.0%	39.0%	61.0%	3.46	5.60	1.59	8912
Basin A-3	2.49	0.0%	0.0%	43.0%	57.0%	5.68	9.27	1.55	14624
Basin A-4	1.43	0.0%	0.0%	100.0%	0.0%	2.11	4.10	0.99	5369
TOTAL	**6.07**					**12.69**	**21.38**		

NOTES: Impervious percentages are based on actual Impervious Area , with the remaining distributed to land treatment type C for remaining landscaped area
Calculations based on secction22.2 of the City of Albuquerque DPM based on the 6-hour 100yr storm event

** **Compute the required retention volume using the simple hydrograph, Figure A-3 in DPM Section 22.2**

GRADING AND DRAINAGE NARRATIVE

I. INTRODUCTION
THE PURPOSE OF THIS SUBMITTAL IS TO PRESENT A DRAINAGE PLAN FOR THE PROPOSED DEL WEBB AMENITY CENTER NW ALBUQUERQUE. THE SITE IS LOCATED WITHIN THE DEL WEBB PHASE 1 DEVELOPMENT. THE DRAINAGE MANAGEMENT PLAN IS TO PROVIDE DRAINAGE ANALYSIS TO SUPPORT THE SITE SPECIFIC DRAINAGE AND OBTAIN CITY HYDROLOGY APPROVAL FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT

II. SITE LOCATION
THE SITE IS LOCATED WITHIN ZONE ATLAS MAP H-8. THE SITE IS LOCATED WITHIN THE DEL WEBB PHASE 1 DEVELOPMENT AND IS BOUNDED BY MIREHAVEN PARKWAY TO THE SOUTH, DEL WEBB BLVD TO THE WEST, WILLOW CREEK CANYON TO THE NORTHWEST AND THE MIREHAVEN ARROYO TO THE NORTHEAST. THE SITE IS LOCATED ON N-2-F-1 WHICH IS APPROXIMATELY 6.63 ACRES, HOWEVER SOME OF THIS TRACT IS LOCATED WITH THE MIREHAVEN ARROYO SO THE NET ACREAGE IS APPROX. 6.10 ACRES.

III. EXISTING HYDROLOGIC CONDITIONS
THE LAND COMPRISING OF DEL WEBB AMENITY CENTER IS CURRENTLY UNDEVELOPED, ALTHOUGH IT HAS BEEN MASS GRADED. AS STATED IN THE DRAINAGE MASTER PLAN FOR THE MIREHAVEN MASTER PLANNED COMMUNITY, EXISTING FLOWS THAT ENCOMPASS DEL WEBB @ MIREHAVEN PHASES 1 AND 2, WHICH INCLUDE THE AMENITY CENTER SITE, DRAIN TO THE MIREHAVEN ARROYO AND EAST TO TIERRA PINTADA BLVD, WHERE RUNOFF ENTERS EXISTING CULVERTS AND STORM DRAIN NETWORKS THAT TIE INTO THE AMAFCA LADERA DAM SYSTEM. PLEASE REFER TO THE WEST I-40 DRAINAGE MANAGEMENT PLAN AND THE DRAINAGE REPORT FOR STORMCLOUD SUBDIVISION FOR FURTHER INFORMATION REGARDING THE CONTINUATION OF DOWNSTREAM ANALYSIS OF THE EXISTING STORM DRAIN NETWORK AND THE LADERA DAM SYSTEM.

VI. PROPOSED HYDROLOGIC CONDITIONS
THE ONSITE FLOW ULTIMATELY ALL DISCHARGES TO THE MIREHAVEN ARROYO ALL BE IT BY DIFFERENT DIRECTIONS. THERE ARE FOUR SUB-BASINS, BASIN A-1, A-2, A-3 AND A-4. BASIN A-1 (Q100=2.40CFS) ENCOMPASSES THE NORTHWEST HALF OF THE PARKING LOT FROM THE CENTER PEDESTRIAN WALKWAY TO WILLOW CREEK TRAIL. BASIN A-2 (Q100=5.60CFS) ENCOMPASSES THE SOUTH EAST HALF OF THE PARKING LOT AS WELL AS A MAJORITY OF THE AMENITY BUILDING. BASIN A-3 (Q100=9.27CFS) ENCOMPASSES ALL THE SITE AMENITIES SUCH AS THE POOL, EVENT LAWN, PICKLE AND TENNIS COURTS. LASTLY BASIN A-4 (Q100=4.10CFS) ENCOMPASSES THE REMAINING PORTION OF THE SITE WHICH WILL BE A NATIVELY LANDSCAPED "MEADOW".

THE PARKING LOT IS BISECTED INTO TWO BASINS WITH A HIGHPOINT LOCATED AT THE CENTER PEDESTRIAN WALKWAY. AS NOTED ABOVE, BASIN A-1 WILL DRAIN TO THE NORTHWEST AND DISCHARGE INTO WILLOW CANYON TRAIL. THE FLOW (Q100=2.40CFS) WILL BE CONVEYED DOWNSTREAM TO THE NORTH WHERE FOUR DOUBLE GRATE INLETS WILL COLLECT THE FLOW AND DISCHARGE DIRECTLY TO THE MIREHAVEN ARROYO. A WATER HARVESTING POND (POND#2) IS CREATED WITHIN THE LARGE MEDIAN IN THIS BASIN. MULTIPLE 2' CURB CUTS HAVE BEEN INCORPORATED INTO THE MEDIAN TO COLLECT THE FLOW. BASIN A-2 WILL DRAIN TO A LOWPOINT IN THE PARKING LOT LOCATED AT THE SOUTHEAST CORNER NEAR THE DUMPSTER. A CURB CUT WILL DRAIN THE FLOW (Q100=5.60CFS) TO A MINIMUM FIVE FOOT WIDE SWALE WHERE THE WALLS ARE CLOSEST TO MIREHAVEN PARKWAY ELSE IT VARIES TO 20' WIDE. THIS SWALE WILL PARALLEL THE BACK OF SIDEWALK OF MIREHAVEN PARKWAY, COMBINE WITH BASIN A-3 AND A-4 AND ULTIMATELY DISCHARGE TO POND #1 (SEE BELOW FOR FURTHER INFORMATION ON POND #1). BASIN A-3 AND A-4 WILL MOSTLY SHEET FLOW TO THE NORTH WEST WHERE THE FLOW Q100=9.27CFS AND Q100=4.10CFS RESPECTIVELY WILL DRAINAGE VIA SWALES (20' WIDE V-SHAPE) TO THE SAME POND #1 MENTIONED ABOVE LOCATED AT THE NORTHEAST CORNER OF BASIN A-4. THE COMBINED FLOW Q100=18.98 CFS WILL BE COLLECTED IN THE POND (POND#1) AND DISCHARGE VIA AN 18" STORM DRAIN PIPE DIRECTLY TO THE MIREHAVEN ARROYO. THE INVERT OF THE PIPE IS LOCATED AT ELEV=5312.00 AND THE BOTTOM OF THE POND IS AN ELEV=5310.00. THE DIFFERENCE BETWEEN THE BOTTOM OF THE POND AND THE INVERT IN OF THE PIPE WILL ACCOMDATE THE FIRST FLUSH AS INDICATED BELOW. THE TOTAL VOLUME OF POND #1 = 10684CF AND HAS A REQUIRED VOLUME OF 10574CF = 2866 CF (1ST FLUSH) + 7708 CF (SITE DETENTION).

BASED ON THE NEW DRAINAGE REQUIREMENTS, ALL NEW DEVELOPMENTS MUST RETAIN THE FIRST FLUSH OF ANY STORM. THIS EQUATES TO 0.34" TIMES THE IMPERVIOUS AREA. BASED ON THOSE REQUIREMENTS, THIS SITE MUST RETAIN A TOTAL VOLUME OF 3263CF (.34"x2.64ac). POND #1 LOCATED IN BASIN A-4 HAS A CAPACITY OF 3815 CF AND POND #2 LOCATED IN BASIN A-1 HAS A CAPACITY OF 416CF FOR A TOTAL VOLUME OF 4231CF WHICH IS GREATER THEN THE REQUIRED 3263CF THEREFORE THE REQUIREMENT HAS BEEN SATISFIED.

SEE DRAINAGE PLAN SHEET 3 FOR INFORMATION ON POND, SWALE AND PIPE CALCULATONS.

VII. CONCLUSION
THE DRAINAGE PLAN IS CAPABLE OF SAFELY PASSING THE 100 YEAR STORM EVENT AND THE CITY OF ALBUQUERQUE REQUIREMENTS AND ADHERES TO THE APPROVED DRAINAGE MANAGEMENT PLAN FOR PULTE @ MIREHAVEN PHASE 1. ALL ANALYSIS WAS COMPLETED IN ACCORDANCE WITH SECTION 22.2 OF THE DEVELOPMENT PROCESS MANUAL.

YOLANDA PADILLA ROYBAL NEW MEXICO 16035 7-18-15 LICENSED PROFESSIONAL ENGINEER

AMENITY CENTER
DEL WEBB @ MIREHAVEN

DRAINAGE PLAN

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July 17, 2015

Sat, 18-Jul-2015 - 9:21:am, Plotted by: YPADILLA
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Detention Pond Volume Calculations

MEADOW POND

NOTE: Blue shaded cells require user input, all other cells should not be edited.
ASSUMPTIONS:
1. Area less than 40 acres (simplified hydrograph method).
2. 100-year, 6-hour storm event

Peak Flow per Acre - DPM Section 22.2 Table A-9

Zone	A	B	C	D
1	1.29	2.03	2.87	4.37
2	1.56	2.28	3.14	4.7
3	1.87	2.6	3.45	5.02
4	2.2	2.92	3.73	5.25

Basin Name :
Choose Zone (1 - 4) 1
Basin Area = (acres) 5.41

Exist Conditions				Proposed Conditions			
Treatment	Percentage	Area	Q (cfs)	Treatment	Percentage	Area	Q (cfs)
A	100.0%	5.41	6.98	A	0.0%	0.00	0.00
B	0.0%	0.00	0.00	B	0.0%	0.00	0.00
C	0.0%	0.00	0.00	C	57.9%	3.13	8.98
D	0.0%	0.00	0.00	D	42.1%	2.28	9.96
		Q Peak - exist =	**6.98**			Peak Q Developed=	**18.95**

Use my calculated exist cond. flow as the peak controlled discharge (1 = yes, or N) ?? N
If No, what is the maximum allowable discharge ? 10.35

Excess Precipitation - DPM Section 22.2 Table A-8

Zone	A	B	C	D
1	0.44	0.67	0.99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2.36
4	0.8	1.08	1.46	2.64

Determine Developed E (avg excess precipitation for the developed basin)

%A x E = 0.00
%B x E = 0.00
%C x E = 0.57
%D x E = 0.83
Avg E(in) = 1.40

Determine Tb (hours)

Tb = 0.739

Determine Tc (Note: Tc is assumed to be 0.2 hours, this should be checked using DPM 22.2.B.2)

Tc = 0.2

Determine Tp and Duration of Peak (hours)

Tp = 0.238213
Peak Duration = 0.10536

Compute the required retention volume using the simple hydrograph, Figure A-3 in DPM Section 22.2

Time to Control Q (hrs) = 0.130
Time to end of Control Q (hrs)= 0.522869
Duration of Control Q (hrs)= 0.393

Required Detention Volume (CF) = 7707.64 0.1769431

1st flush requirements CF = 2866
TOTAL REQ'D VOLUME CF = 10574

SD OUTPUT.txt

Analyzer Report

```
==========================================================================
Drainage Structure Analyzer

Pipe Hydraulic Analysis

Date:  Friday, July 17, 2015 2:28:28 PM
==========================================================================

Input Data
----------
Shape                                Circular
Material                             RC C76-A
Roughness                            0.013000
Method                                Manning
Flow Rate                          18.9800 cfs
Slope                              12.7900%
Size (W x T):                 18.00 x 2.5000

Output Results
--------------
Flow Rate                          18.9800 cfs
Slope                              12.7900%
d/D                                 0.5027
Capacity                           37.5668 cfs
Velocity                           21.3361 ft/s
Depth                               0.7540 ft
Critical Depth                      1.4600 ft
Size (W x T):                 18.00 x 2.5000

Successful completion
```

5ft_3to1_Vswale - amenity_4.33%_OUTPUT.txt

MANNING'S N = 0.025 SLOPE = 0.043

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1.0	0.0	0.8	2.0	2.5	0.0	3.0	5.0	0.8

WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS	TOTAL ENERGY (FT)	
0.050	0.050	0.008	0.008	0.317	1.021	0.301	0.066	
0.100	0.100	0.030	0.049	0.635	1.621	0.602	0.141	
0.150	0.150	0.068	0.144	0.952	2.124	0.904	0.220	
0.200	0.200	0.120	0.310	1.269	2.573	1.205	0.303	
0.250	0.250	0.188	0.562	1.587	2.986	1.506	0.389	
0.300	0.300	0.271	0.914	1.904	3.372	1.807	0.477	
0.350	0.350	0.369	1.379	2.222	3.737	2.108	0.567	
0.400	0.400	0.482	1.969	2.539	4.085	2.410	0.660	
0.450	0.450	0.610	2.695	2.856	4.419	2.711	0.754	
0.500	0.500	0.753	3.570	3.174	4.740	3.012	0.850	
0.550	0.550	0.911	4.603	3.491	5.051	3.313	0.947	Adj to Mirehaven Pkwy Q=5.60CFS D=0.59' EGL=1.02'
0.600	0.600	1.084	5.804	3.808	5.353	3.614	1.046	
0.650	0.650	1.273	7.186	4.126	5.646	3.916	1.146	
0.700	0.700	1.476	8.756	4.443	5.932	4.217	1.247	
0.750	0.750	1.694	10.524	4.761	6.212	4.518	1.350	
0.800	0.800	1.928	12.501	5.078	6.485	4.819	1.454	

9ft_0.83ft_Vswale - amenity__4.3%OUTPUT .txt

MANNING'S N = 0.025 SLOPE = 0.043

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1.0	0.0	0.8	2.0	4.5	0.0	3.0	9.0	0.8

WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS	TOTAL ENERGY (FT)	
0.050	0.050	0.014	0.014	0.551	1.042	0.542	0.067	
0.100	0.100	0.054	0.090	1.103	1.654	1.084	0.143	
0.150	0.150	0.122	0.264	1.654	2.168	1.627	0.223	
0.200	0.200	0.217	0.570	2.205	2.626	2.169	0.307	
0.250	0.250	0.339	1.033	2.757	3.047	2.711	0.394	
0.300	0.300	0.488	1.679	3.308	3.441	3.253	0.484	
0.350	0.350	0.664	2.533	3.859	3.814	3.795	0.576	
0.400	0.400	0.867	3.616	4.411	4.169	4.337	0.670	
0.450	0.450	1.098	4.951	4.962	4.509	4.880	0.766	Adj to Mirehaven Pkwy Q=5.60CFS D=0.47' EGL=0.81'
0.500	0.500	1.355	6.556	5.513	4.837	5.422	0.864	
0.550	0.550	1.640	8.454	6.064	5.155	5.964	0.963	
0.600	0.600	1.952	10.662	6.616	5.462	6.506	1.064	
0.650	0.650	2.291	13.198	7.167	5.762	7.048	1.166	
0.700	0.700	2.657	16.082	7.718	6.054	7.590	1.270	
0.750	0.750	3.050	19.331	8.270	6.339	8.133	1.375	
0.800	0.800	3.470	22.961	8.821	6.617	8.675	1.481	

20ft_0.83ft_Vswale - amenity_2.23%_MP_OUTPUT.txt

MANNING'S N = 0.025 SLOPE = 0.022

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1.0	0.0	0.8	2.0	10.0	0.0	3.0	20.0	0.8

WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS	TOTAL ENERGY (FT)	
0.050	0.050	0.030	0.023	1.209	0.757	1.205	0.059	
0.100	0.100	0.120	0.145	2.418	1.202	2.410	0.122	
0.150	0.150	0.271	0.427	3.627	1.575	3.614	0.189	
0.200	0.200	0.482	0.920	4.836	1.908	4.819	0.257	
0.250	0.250	0.753	1.667	6.045	2.214	6.024	0.326	
0.300	0.300	1.084	2.711	7.254	2.500	7.229	0.397	
0.350	0.350	1.476	4.089	8.463	2.771	8.434	0.469	
0.400	0.400	1.928	5.838	9.672	3.029	9.639	0.543	Adj to Mirehaven Pkwy Q=9.95CFS D=0.49 EGL=0.67'
0.450	0.450	2.440	7.993	10.881	3.276	10.843	0.617	
0.500	0.500	3.012	10.586	12.090	3.515	12.048	0.692	
0.550	0.550	3.645	13.649	13.299	3.745	13.253	0.768	
0.600	0.600	4.337	17.214	14.508	3.969	14.458	0.845	
0.650	0.650	5.090	21.310	15.717	4.186	15.663	0.923	
0.700	0.700	5.904	25.966	16.925	4.398	16.867	1.001	
0.750	0.750	6.777	31.211	18.134	4.605	18.072	1.080	
0.800	0.800	7.711	37.072	19.343	4.808	19.277	1.160	

20ft_0.5%_Vswale - amenity_0.5%_OUTPUT.txt

MANNING'S N = 0.03 SLOPE = 0.01

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1.0	0.0	0.8	2.0	10.0	0.0	3.0	20.0	0.8

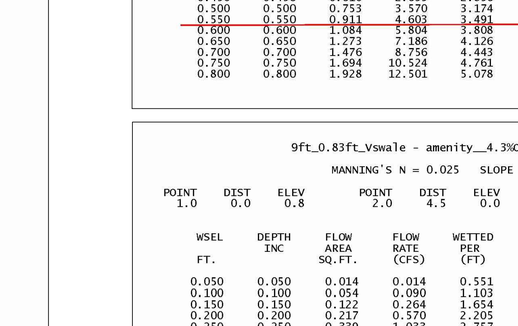
WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS	TOTAL ENERGY (FT)	
0.05	0.05	0.03	0.01	1.21	0.36	1.20	0.05	
0.10	0.10	0.12	0.07	2.42	0.57	2.41	0.11	
0.15	0.15	0.27	0.20	3.63	0.75	3.61	0.16	
0.20	0.20	0.48	0.44	4.84	0.90	4.82	0.21	
0.25	0.25	0.75	0.79	6.04	1.05	6.02	0.27	
0.30	0.30	1.08	1.28	7.25	1.18	7.23	0.32	
0.35	0.35	1.48	1.94	8.46	1.31	8.43	0.38	
0.40	0.40	1.93	2.76	9.67	1.43	9.64	0.43	
0.45	0.45	2.44	3.78	10.88	1.55	10.84	0.49	
0.50	0.50	3.01	5.01	12.09	1.66	12.05	0.54	
0.55	0.55	3.64	6.46	13.30	1.77	13.25	0.60	Adj to North Trail Q=9.15CFS D=0.63' EGL=0.68'
0.60	0.60	4.34	8.15	14.51	1.88	14.46	0.65	
0.65	0.65	5.09	10.09	15.72	1.98	15.66	0.71	
0.70	0.70	5.90	12.30	16.93	2.08	16.87	0.77	
0.75	0.75	6.78	14.78	18.13	2.18	18.07	0.82	
0.80	0.80	7.71	17.55	19.34	2.28	19.28	0.88	

20ft_0.83ft_Vswale - amenity_4.51%_MP_OUTPUT.txt

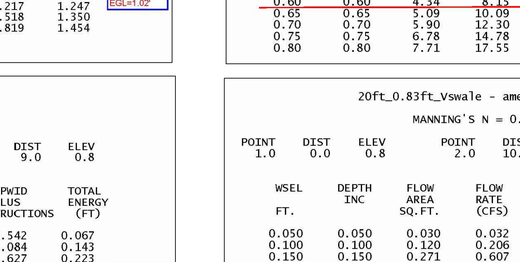
MANNING'S N = 0.025 SLOPE = 0.045

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1.0	0.0	0.8	2.0	10.0	0.0	3.0	20.0	0.8

WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS	TOTAL ENERGY (FT)	
0.050	0.050	0.030	0.032	1.209	1.077	1.205	0.068	
0.100	0.100	0.120	0.206	2.418	1.709	2.410	0.145	
0.150	0.150	0.271	0.607	3.627	2.240	3.614	0.228	
0.200	0.200	0.482	1.308	4.836	2.713	4.819	0.315	
0.250	0.250	0.753	2.371	6.045	3.149	6.024	0.404	
0.300	0.300	1.084	3.855	7.254	3.556	7.229	0.497	
0.350	0.350	1.476	5.816	8.463	3.940	8.434	0.591	
0.400	0.400	1.928	8.303	9.672	4.307	9.639	0.689	
0.450	0.450	2.440	11.367	10.881	4.659	10.843	0.788	
0.500	0.500	3.012	15.054	12.090	4.998	12.048	0.889	
0.550	0.550	3.645	19.411	13.299	5.326	13.253	0.991	
0.600	0.600	4.337	24.480	14.508	5.644	14.458	1.095	
0.650	0.650	5.090	30.305	15.717	5.953	15.663	1.201	
0.700	0.700	5.904	36.926	16.925	6.255	16.867	1.309	
0.750	0.750	6.777	44.385	18.134	6.549	18.072	1.417	
0.800	0.800	7.711	52.721	19.343	6.837	19.277	1.527	



5' AND 9' SWALE
NOT TO SCALE



20' SWALE
NOT TO SCALE

AMENITY CENTER
DEL WEBB @ MIREHAVEN

DRAINAGE PLAN

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July 17, 2015

Sat, 18-Jul-2015 - 9:02:am, Plotted by: YPADILLA
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