CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

December 13, 2018

Matt Satches
Bohannan Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

RE: Harper Senior Living
Grading and Drainage Plan
Engineer's Stamp Date: 11/16/18
Hydrology File: E20D020B

Dear Mr. Satches:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based upon the information provided in your submittal received 11/16/2018, the Conceptual Grading Plan and Drainage Report **is not** approved for action by the DRB for Site Plan for Building Permit. The following comments need to be addressed for approval of the above referenced project:

1. Sheet C-100. Please provide the FIRM Map and flood plain note with effective date.
2. Sheet C-100. Please provide a vicinity map showing the location of the site.
3. Sheet C-100. Please provide the legal description of the property.
4. Sheet C-100. Please provide the benchmark information for the survey contour information provided.
5. Sheet C-100. Please label the 100 year flood elevation line. Also please make this a bolder and different line type to differentiate this with the contour lines.
6. All sheets. Please enlarge the existing index contour line text. This text should be at least 0.10 inches high.
7. Sheet C-100. Near the west driveway and on the south side of the sidewalk, the proposed contours are too steep; please provide a retaining wall along this section of the sidewalk.
8. Sheet C-100. Please relocate the outfall pipe for Pond 2 to the east away from the City's drainage ditch's flow line. Also please provide a headwall at the outfall and provide energy dissipation.

9. Sheet C-100. Please wrap the bank protection around and into the City's drainage ditch past the pond. This will stop any erosion.

10. Sheet C-100. Please concrete line the bottom and sides of Pond 1 per AMAFCA's instructions to prevent the bank protection from erosion.

11. Sheet C-100. Please relocate the outfall pipe for Pond 1to the east away from the City's drainage ditch's flow line. Also this outfall pipe will be thru the bank protection and provide energy dissipation in the South Pino.

12. Sheet C-100. It appears that half of proposed Basin 1 will not find its way into Pond 1 and instead discharge directly into the South Pino Arroyo via AMAFCA's maintenance drive. Please correct grading to insure that the drainage goes to Pond 1 and not down this maintenance drive.

13. Sheet C-100. Please correct Section B to match the bank protection section that was in the CLOMR.

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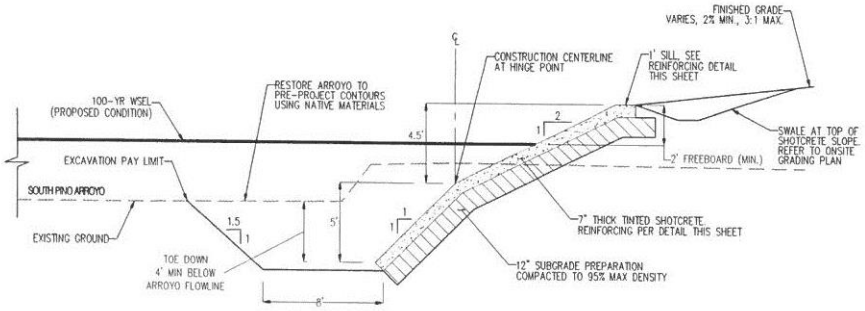


TYPICAL SECTION - SHOTCRETE BANK PROTECTION
N.T.S.

14. Sheet C-001 & C-002. Please verify the off-site drainage basins. When reviewing the approved plans and aerial of the adjacent church, it appears that the drainage basins could be reduced and/or the drainage basin discharges directly to Harper Road instead of onto this site. Also please make the off-site drainage basins the same on both Sheets.

15. 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 (Curtis Cherne, PE, ccherne@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

16. Please provide a Drainage Covenant per Chapter 17 of the DPM for both stormwater quality ponds prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A $25 fee will be required.

17. Standard review fee of $300 will be required at the time of resubmittal.

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 6/2018)

Project Title: Harper Senior Living Building Permit #: _____ Hydrology File #: _____

DRB#: _____ EPC#: 1007412 Work Order#: _____

Legal Description: Portion of Tract B-2, Yorba Linda Subdivision and a Portion of Tract A, Hoffmantown Baptist Church Site

City Address: N/A

Applicant: Bohannan Huston Contact: Matt Satches

Address: 7500 Jefferson St NE, Albuquerque, NM 87109

Phone#: 505-923-3315 Fax#: _____ E-mail: msatches@bhinc.com

Other Contact: Consensus Planning Contact: Jackie Fishman

Address: 302 Eighth Street NW 87102

Phone#: 505-764-9801 Fax#: _____ E-mail: fishman@consensusplanning.com

TYPE OF DEVELOPMENT: ☐ PLAT ☐ RESIDENCE ☑ DRB SITE ☐ ADMIN SITE

Check all that Apply:

DEPARTMENT:

☑ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION

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?

IS THIS A RESUBMITTAL?: ☐ Yes ☑ No

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

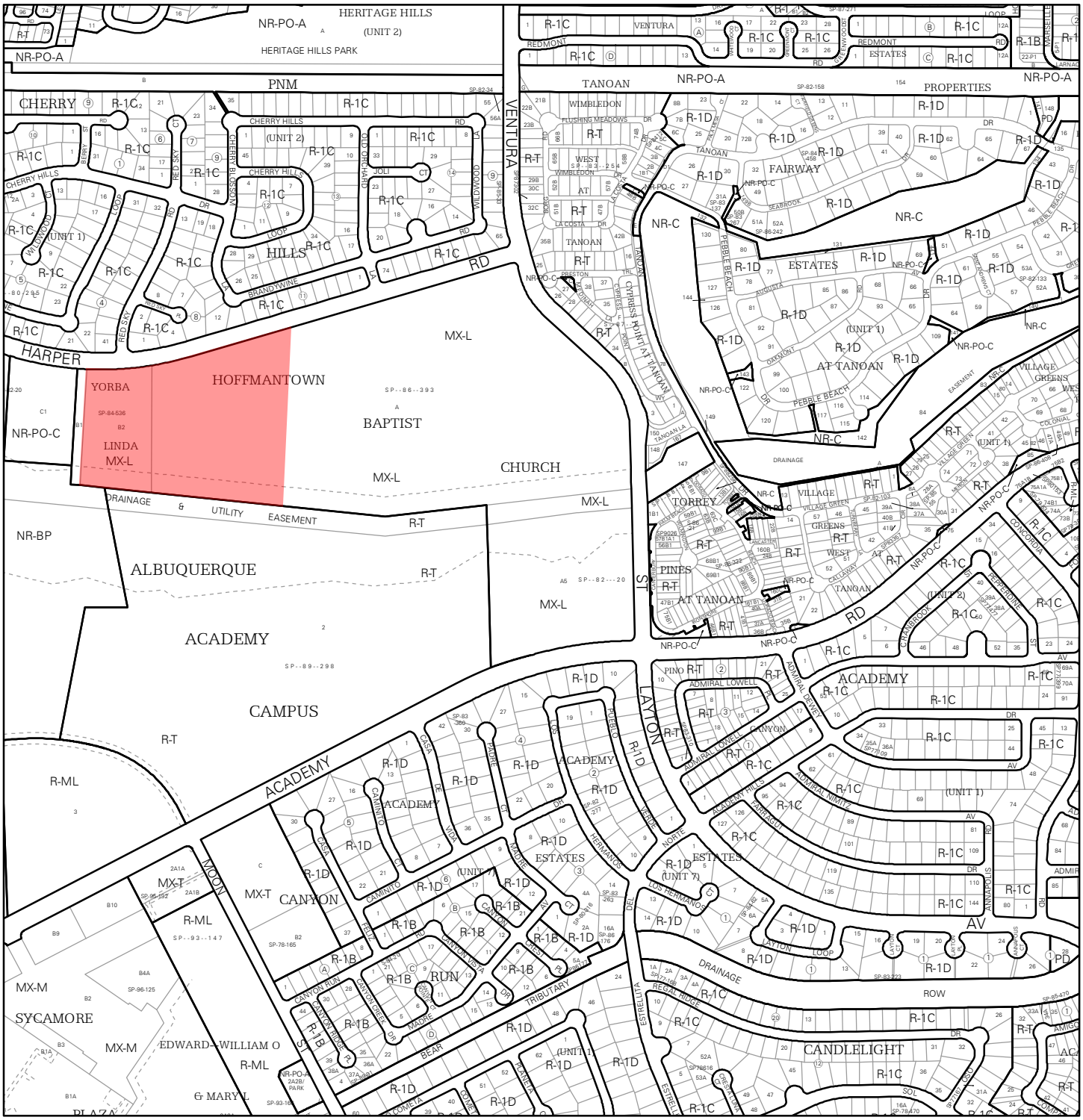
☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☑ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL

☐ 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: 11/16/2018 By: Matt Satches

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



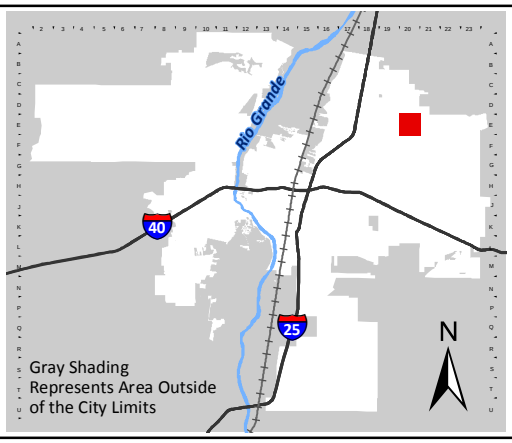
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



Zone Atlas Page:

E-20-Z

- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000

RED SKY ROAD

HARPER ROAD

SOUTH PINO ARROYO

EX COA DRAINAGE CHANNEL

EX STORM DRAIN EASEMENT

EX 200' AMAFCA DRAINAGE EASEMENT

LIMITS OF ORDINARY HIGH WATER MARK

1 18" SD 113.69' @ S=2.00%

1 24" SD 319.45' @ S=2.00%

1 18" SD 161.32' @ S=2.00%

1 18" SD 87.52' @ S=1.14%

1 18" SD 126.61' @ S=1.00%

1 18" SD 128.98' @ S=2.00%

1 18" SD 47.83' @ S=3.14%

1 253.48' of 12" SD @ S=0.50%

4 RIM=5494.87
INV (18", E)=5489.39
INV (24", W)=5489.39

2 SD OUTLET
INV (24", E)=5483.00

2 SD OUTLET
INV (18", SW)=5488.00

2 SD OUTLET
INV (18", NE)=5482.00

2 SD OUTLET
INV (18", E)=5483.00

2 SD OUTLET
INV (12", N)=5483.00

2 SD OUTLET
INV (18", E)=5479.00

3 TG=5507.75
INV (18", W)=5494.89

3 TG=5509.30
INV (18", N)=5494.26

3 TG=5487.63
INV (18", W)=5484.27

3 TG=5486.37
INV (12", S)=5484.17

3 TG=5483.50
INV (18", W)=5480.50

INV (18")=5491.66

5 5508.81

5513.87

5510.94

5512.47

6 ±10'

5527.37

5510.56

5509.64

5529.25

5497.58

5497.49

5501.77

5506.27

5489.12

5492.87

5499.01

5490.50

5489.04

5482.99

5487.88

5488.66

5510.99

5488.79

5488.19

5486.92

5483.50

5479.80

FF=5512.00

FF=5489.00

FF=5499.00

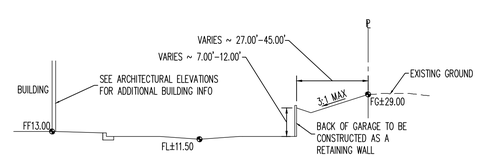
5498.50

5488.04

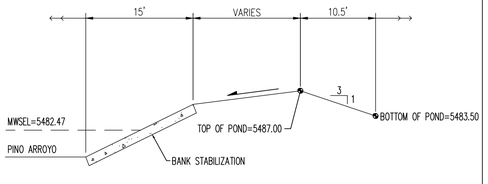
10% (MAX)

GRADING KEYNOTES

1. INSTALL STORM DRAIN PIPE.
2. INSTALL END SECTION.
3. INSTALL INLET.
4. INSTALL MANHOLE.
5. INSTALL STORM DRAIN FITTING.
6. RETAINING WALL.
7. DETENTION POND.
8. EMERGENCY OVERFLOW.
9. BERM.
10. SWALE.
11. CURB OPENING AND CONCRETE RUNDOWN
12. BANK STABILIZATION. A LETTER OF MAP REVISION (LOMR) IS NECESSARY TO ELIMINATE THE EXISTING FEMA FLOOD ZONE CURRENTLY ENCROACHING ON TO THE SITE. THIS EFFORT REQUIRES COORDINATION WITH FEMA, AMAFCA, AND THE ARMY CORPS OF ENGINEERS. THE RESULTANT IMPROVEMENTS PROPOSED WILL BE A COLORED SHOTCRETE BANK STABILIZATION CONSTRUCTED AT THE NORTH SIDE OF THE EXISTING ARROYO ALONG THE ENTIRE FRONTAGE OF THE SITE. THIS STABILIZATION WILL BE CONSTRUCTED AT 2:1 SLOPE AND A MINIMUM OF 4-5 FEET IN HEIGHT. COORDINATION DIRECTLY WITH THE REVIEWING ENTITIES AND THE EXACT LOCATION IS CURRENTLY BEING REVIEWED AND DETERMINED.



SECTION A



SECTION B

MATTHEW H. SATCHER
NEW MEXICO
24572
11-16-18
REGISTERED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

GRADING LEGEND

- PROPERTY LINE
- PROJECT LIMITS OF GRADING
- 5025 EXISTING INDEX CONTOUR
- 5024 EXISTING INTERMEDIATE CONTOUR
- 5025.25 EXISTING GROUND SPOT ELEVATION
- 5025 PROPOSED INDEX CONTOUR
- 5024 PROPOSED INTERMEDIATE CONTOUR
- PROPOSED FLOW LINE
- 26.75 PROPOSED FINISHED GRADE SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW
- PROPOSED CURB & GUTTER
- S=2.0% DIRECTION OF FLOW
- WATER BLOCK/GRADE BREAK
- 50 PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLETS
- PROPOSED RETAINING WALL
- EASEMENT

ktgy
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CONSENSUS PLANNING, INC.
Planning / Landscape Architecture
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Albuquerque, NM 87102
(505) 764-9801 Fax 842-5495
e-mail: cp@consensusplanning.com

Bohannan Huston
www.bhinc.com 800.877.5332

Senior Resource Group
500 Stephens Avenue
Solana Beach, CA 92075

HARPER ROAD SENIOR LIVING
ALBUQUERQUE, NM # 2017-0235

N
0 25 50 100
SCALE: 1"=50'

CONCEPTUAL GRADING PLAN
NOVEMBER 16, 2018

C-100

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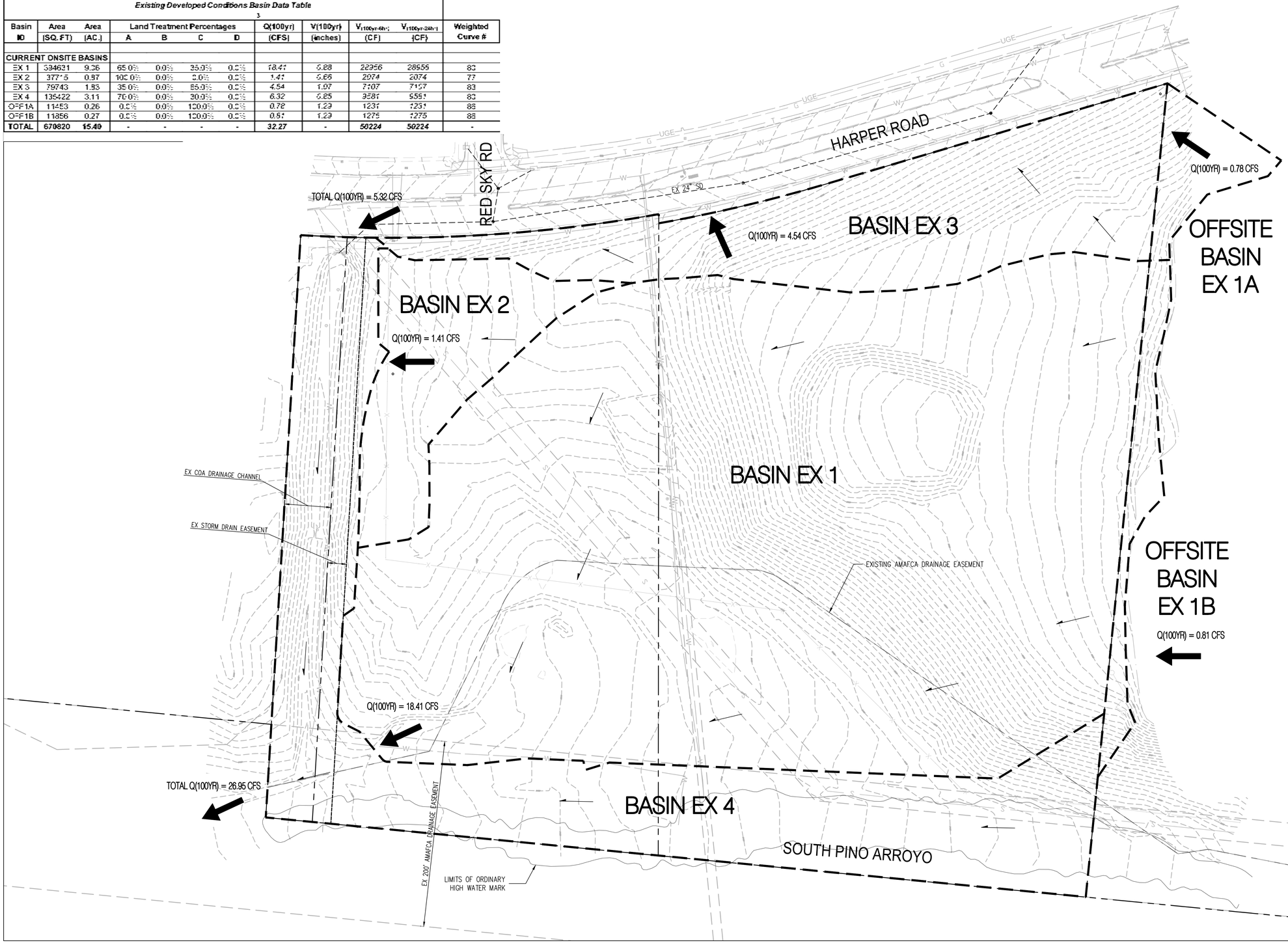
Fri, 16-Nov-2018 - 1:54:pm, Plotted by: MSATCHES

Harper Road Senior Living

Existing Developed Conditions Basin Data Table

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages A	B	C	D	Q(100yr) (CFS)	V(100yr) (inches)	$V_{100yr-6hr}$ (CF)	$V_{100yr-24hr}$ (CF)	Weighted Curve #
CURRENT ONSITE BASINS											
EX 1	394631	9.06	65.0%	0.0%	35.0%	0.0%	18.41	5.28	22956	28955	83
EX 2	37715	0.87	100.0%	0.0%	0.0%	0.0%	1.41	5.66	2074	2074	77
EX 3	79743	1.83	35.0%	0.0%	65.0%	0.0%	4.54	1.97	7107	7157	83
EX 4	135422	3.11	70.0%	0.0%	30.0%	0.0%	6.32	5.85	9581	9581	83
OFF1A	11453	0.26	0.0%	0.0%	100.0%	0.0%	0.78	1.23	1231	1231	86
OFF1B	11856	0.27	0.0%	0.0%	100.0%	0.0%	0.81	1.23	1275	1275	86
TOTAL	**670820**	**15.40**	-	-	-	-	**32.27**	-	**50224**	**50224**	-



EXISTING DRAINAGE NARRATIVE

INTRODUCTION:

THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE AN EXISTING DRAINAGE MANAGEMENT PLAN FOR THE HARPER ROAD SENIOR LIVING DEVELOPMENT AND REQUEST DRB SITE PLAN FOR BUILDING PERMIT APPROVAL.

THE SITE IS LOCATED ON THE SOUTH SIDE OF HARPER ROAD, SOUTHWEST OF THE EXISTING HOFFMANTOWN CHURCH. IT IS CURRENTLY UNDEVELOPED. THE SITE HAS A SIGNIFICANT SLOPE FROM EAST TO WEST AND ULTIMATELY DISCHARGES TO THE EXISTING PINO ARROYO TO THE SOUTH.

THE SITE IS PARTIALLY LOCATED WITHIN A FEMA DESIGNATED FLOODZONE AO (FEMA FIRM #35001C0143G). THIS FLOODZONE LIES WITHIN A TEMPORARY AMAFCA DRAINAGE EASEMENT ONSITE. THE ARROYO WILL BE ALTERED WITH THIS PROJECT TO MOVE THE FEMA FLOODZONE TO THE SOUTH WHERE IT WILL LIE WITHIN THE EXISTING 200' AMAFCA DRAINAGE EASEMENT.

METHODOLOGY:

THE CITY IS IN THE PROCESS OF UPDATING THE DPM. ALTHOUGH THE DPM UPDATE HAS NOT BEEN OFFICIALLY ADOPTED, THE ANALYSIS METHODOLOGY IS PER THE PROPOSED UPDATE.

THE METHODOLOGY SELECTED TO COMPUTE RUNOFF VOLUME IS BASED ON THE SCS UNIT HYDROGRAPH. RAINFALL VALUES WERE BASED ON THE PROPOSED VALUES FROM THE DPM. THE SITE WAS ANALYZED FOR THE 100 YEAR 6 HOUR STORM EVENT USING THE US ARMY CORPS OF ENGINEERS HYDROLOGIC ENGINEERING CENTER'S HYDROLOGIC MODELING SYSTEM (HEC-HMS, VERSION 4.2). SURFACE CHARACTERISTICS AFFECTING INITIAL ABSTRACTION AND INFILTRATION RATES ARE PRESENTED BY CURVE NUMBERS. CURVE NUMBERS ARE BASED ON LAND TREATMENT AREAS AS SPECIFIED IN THE DPM UPDATE.

EXISTING CONDITIONS:

BASED ON THE EXISTING TOPOGRAPHY, THE EXISTING SITE WAS BROKEN INTO FOUR ONSITE BASINS AND TWO OFFSITE BASINS.

EXISTING BASIN 1 IS APPROXIMATELY 9.06 ACRES AND CONSISTS OF NATURAL DESERT SHRUBS AND STEEP SLOPES (GREATER THAN 20%). OFFSITE BASIN 1B JOINS EXISTING BASIN 1 AND DISCHARGES A TOTAL OF 19.22 CFS TO THE SOUTHWEST CORNER OF THE SITE.

EXISTING BASIN 2 IS APPROXIMATELY 0.87 ACRES AND CONSISTS OF ALL NATURAL DESERT SHRUBS. THIS BASIN DISCHARGES 1.41 CFS TO THE WEST AND INTO AN EXISTING CITY OF ALBUQUERQUE DRAINAGE SWALE LOCATED WITHIN AN EXISTING EASEMENT ON THE WEST EDGE OF THE PROPERTY.

EXISTING BASIN 3 IS APPROXIMATELY 1.83 ACRES AND CONSISTS NATURAL DESERT SHRUBS AND STEEP SLOPES (GREATER THAN 20%). OFFSITE BASIN 1A JOINS EXISTING BASIN 3 AND DISCHARGES 5.32 CFS TO THE NORTH INTO HARPER ROAD RIGHT OF WAY. THIS RUNOFF PROCEEDS TO THE WEST WHERE IT ENTERS INLETS THAT DISCHARGE INTO THE SAME DRAINAGE SWALE LOCATED WITHIN AN EXISTING EASEMENT ON THE WEST EDGE OF THE PROPERTY.

EXISTING BASIN 4 IS APPROXIMATELY 3.11 ACRES AND CONSISTS NATURAL DESERT SHRUBS AND STEEP SLOPES (GREATER THAN 20%). THIS BASIN IS MAINLY THE EXISTING DRAINAGE SWALE LOCATED WITHIN THE DRAINAGE EASEMENT AND SOME AREA AT THE SOUTH END OF THE PROPERTY WITHIN PINO ARROYO. THIS BASIN DRAINS 6.32 CFS TO THE SOUTH AND WEST AND THEN DISCHARGES TO THE SOUTHWEST CORNER OF THE PROPERTY.

THE TOTAL FLOW LEAVING THE SOUTHWEST CORNER IN EXISTING CONDITIONS IS 26.95 CFS.

SEE BASIN DATA TABLE (THIS SHEET) FOR MORE INFORMATION.

MATTHEW H. SATCHES
NEW MEXICO
24572
11-16-18
REGISTERED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

GRADING LEGEND

PROPERTY LINE	PROPOSED CURB & GUTTER
PROJECT LIMITS OF GRADING	S=2.0% DIRECTION OF FLOW
5025 EXISTING INDEX CONTOUR	WATER BLOCK/GRADE BREAK
5024 EXISTING INTERMEDIATE CONTOUR	SD PROPOSED STORM DRAIN LINE
5025.25 EXISTING GROUND SPOT ELEVATION	PROPOSED STORM DRAIN MANHOLE
5025 PROPOSED INDEX CONTOUR	PROPOSED STORM DRAIN INLETS
5024 PROPOSED INTERMEDIATE CONTOUR	PROPOSED RETAINING WALL
PROPOSED FLOW LINE	EASEMENT
26.75 PROPOSED FINISHED GRADE SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW	

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Senior Resource Group
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Solana Beach, CA 92075

HARPER ROAD SENIOR LIVING
ALBUQUERQUE, NM # 2017-0235

N
0 25 50 100
SCALE: 1"=50'

EXISTING DMP
NOVEMBER 16, 2018

C-001

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Fri, 16-Nov-2018 - 1:52:pm, Plotted by: MSATCHES

Harper Road Senior Living

Proposed Developed Conditions Basin Data Table

Basin ID	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages A	B	C	D	Q(100yr) (CFS)	V(100yr) (inches)	V (24-hr) (CF)	V (10-day) (CF)	Weighted Curve #	FIRST FLUSH (CF)
CURRENT ONSITE BASINS												
B1	279581	6.42	0.0%	0.0%	25.0%	75.0%	29.98	2.09	45756	57453	95	5542
B2	200337	4.60	0.0%	0.0%	35.0%	65.0%	21.53	1.89	31567	39573	94	3533
B3	32215	0.74	0.0%	0.0%	15.0%	85.0%	3.54	2.23	5905	7345	96	775
B4	135527	3.11	70.0%	0.0%	30.0%	0.0%	6.31	0.65	3574	3574	80	0
OFF1A	17365	0.40	0.0%	0.0%	100.0%	0.0%	1.18	1.29	1867	1867	98	0
OFF1B	5642	0.14	0.0%	0.0%	100.0%	0.0%	0.40	1.29	606	606	98	0
TOTAL	670819	15.40	-	-	-	-	61.36	-	99833	115198		10408

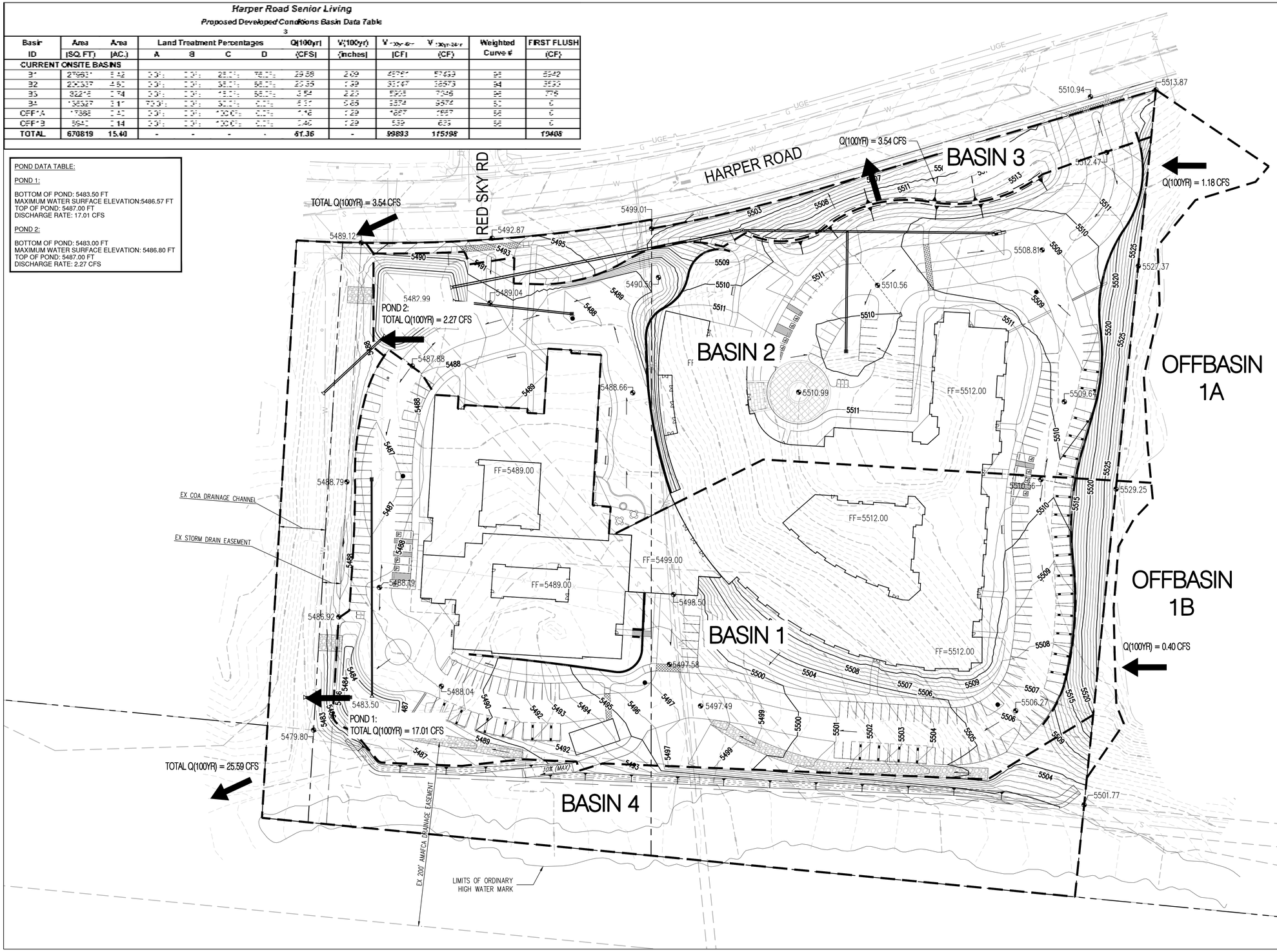
POND DATA TABLE:

POND 1:

BOTTOM OF POND: 5483.50 FT
MAXIMUM WATER SURFACE ELEVATION:5486.57 FT
TOP OF POND: 5487.00 FT
DISCHARGE RATE: 17.01 CFS

POND 2:

BOTTOM OF POND: 5483.00 FT
MAXIMUM WATER SURFACE ELEVATION: 5486.80 FT
TOP OF POND: 5487.00 FT
DISCHARGE RATE: 2.27 CFS



PROPOSED DRAINAGE NARRATIVE

PROPOSED CONDITIONS:

UNDER PROPOSED CONDITIONS, THE ONSITE BASINS WERE MODIFIED SO THAT BASIN 1 DRAINS TO DETENTION POND 1 LOCATED AT THE SOUTHWEST CORNER OF THE SITE AND THAT BASIN 2 DRAINS TO DETENTION POND 2 LOCATED AT THE NORTHWEST CORNER.

THE FINISHED FLOOR ELEVATIONS WERE ESTABLISHED IN AN EFFORT TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING AND REMAIN HIGHER THAN THE ADJACENT ARROYO WATER SURFACE ELEVATION. THE PROPOSED SITE GRADING WILL CONTINUE TO GENERALLY SLOPE FROM EAST TO WEST. THE EXISTING PINO ARROYO IS DESIGNED FOR ULTIMATE DEVELOPED CONDITIONS, HOWEVER TO BE CONSERVATIVE, THE DISCHARGE FROM THE PROPOSED CONDITIONS IS ANTICIPATED TO NOT EXCEED EXISTING CONDITIONS BY UTILIZING TWO ONSITE DETENTION PONDS WITH RESTRICTED OUTFLOWS.

LANDSCAPED AREAS THROUGHOUT THE SITE WILL BE DEPRESSED IN AN EFFORT TO ADDRESS THE COA FIRST FLUSH REQUIREMENTS. ANY VOLUME NOT RETAINED WILL BE PAID FOR CASH INLIEU. THERE IS SIGNIFICANT GRADE CHANGE THROUGHOUT THE SITE WHICH WILL REQUIRE RETAINING WALLS AND 3:1 SLOPES. THE FINISHED FLOOR ELEVATIONS OF THE BUILDINGS WILL WORK WITH THE EXISTING TOPOGRAPHY TO HELP WITH EARTHWORK.

BASED ON THE PROPOSED GRADING PLAN, THE PROPOSED SITE WAS BROKEN INTO FOUR ONSITE BASINS AND TWO OFFSITE BASINS.

BASIN 1 IS APPROXIMATELY 6.42 ACRES AND CONSISTS OF MOSTLY IMPERVIOUS PAVEMENT/ROOF AREAS AND SOME LANDSCAPE AREAS. THIS BASIN JOINS OFFSITE BASIN 1B AND DRAINS 29.98 CFS INTO POND 1.

BASIN 2 IS APPROXIMATELY 4.60 ACRES AND CONSISTS OF MOSTLY IMPERVIOUS PAVEMENT/ROOF AREAS AND SOME LANDSCAPE AREAS. THIS BASIN JOINS OFFSITE BASIN 1A AND DRAINS 21.53 CFS TO THE WEST INTO POND 2.

BASIN 3 IS APPROXIMATELY 0.74 ACRES AND CONSISTS OF STEEP LANDSCAPE AREAS. THIS BASIN DRAINS TO THE NORTH OFF THE PROPERTY AND RELEASES 3.54 CFS INTO THE HARPER ROAD RIGHT OF WAY.

BASIN 4 IS APPROXIMATELY 3.11 ACRES AND CONSISTS OF LANDSCAPE AREA AND STEEP SLOPES. THIS BASIN IS MAINLY THE EXISTING SWALE LOCATED WITHIN THE EASEMENT ON THE WEST SIDE OF THE PROPERTY AND SOME AREA AT THE SOUTH END OF THE PROPERTY. THIS BASIN DRAINS 6.31 CFS TO THE SOUTH AND WEST AND THEN DISCHARGES TO THE SOUTHWEST CORNER OF THE PROPERTY.

THE TOTAL FLOW DEVELOPED FROM BASIN 1 AND 1B FLOWS TO DETENTION POND 1 AT A PEAK INFLOW RATE OF 29.98 CFS. THE MAXIMUM WATER SURFACE ELEVATION IS 5486.57 FT. THE PROPOSED POND HAS A VOLUME OF APPROXIMATELY 0.23 AC-FT. THE TOP OF POND IS AT AN ELEVATION OF 5487.00 FT. THIS PROVIDES APPROXIMATELY 0.50 FT OF FREEBOARD DURING THE 100 YEAR EVENT. THE PEAK DISCHARGE FROM POND 1 IS 17.01 CFS.

THE TOTAL FLOW DEVELOPED FROM BASIN 2 AND 1A FLOWS TO DETENTION POND 2 AT A PEAK INFLOW RATE OF 21.53 CFS. THE MAXIMUM WATER SURFACE ELEVATION IS 5486.80 FT. THE PROPOSED POND HAS A VOLUME OF APPROXIMATELY 0.50 AC-FT. THE PEAK DISCHARGE FROM POND 2 IS 2.27 CFS.

A LETTER OF MAP REVISION (LOMR) IS NECESSARY TO ELIMINATE THE EXISTING FEMA FLOOD ZONE CURRENTLY ENCROACHING ON TO THE SITE. THIS EFFORT REQUIRES COORDINATION WITH FEMA, AMAFCA, AND THE ARMY CORPS OF ENGINEERS. THE RESULTANT IMPROVEMENTS PROPOSED WILL BE A COLORED SHOTCRETE BANK STABILIZATION CONSTRUCTED AT THE NORTH SIDE OF THE EXISTING ARROYO ALONG THE ENTIRE FRONTAGE OF THE SITE. THIS STABILIZATION WILL BE CONSTRUCTED AT 2:1 SLOPE AND A MINIMUM OF 4-5 FEET IN HEIGHT. COORDINATION DIRECTLY WITH THE REVIEWING ENTITIES AND THE EXACT LOCATION IS CURRENTLY BEING REVIEWED AND DETERMINED.

CONCLUSION:

WITH THE PROPOSED POND VOLUME AND PROPOSED CONTROLLED OUTLETS, THE TOTAL PEAK DISCHARGE FROM THE SITE IS LESS THAN THE EXISTING CONDITIONS, THEREFORE WE ARE IN CONFORMANCE WITH THE CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS. WITH THIS SUBMITTAL WE ARE REQUESTING CITY OF ALBUQUERQUE HYDROLOGY SITE PLAN FOR BUILDING PERMIT APPROVAL.

MATTHEW H. SATCHES
NEW MEXICO
24572
REGISTERED PROFESSIONAL ENGINEER
11-16-18

NOT FOR CONSTRUCTION

GRADING LEGEND

- PROPERTY LINE
- PROJECT LIMITS OF GRADING
- 5025 EXISTING INDEX CONTOUR
- 5024 EXISTING INTERMEDIATE CONTOUR
- 5025.25 EXISTING GROUND SPOT ELEVATION
- 5025 PROPOSED INDEX CONTOUR
- 5024 PROPOSED INTERMEDIATE CONTOUR
- PROPOSED FLOW LINE
- 26.75 PROPOSED FINISHED GRADE SPOT ELEVATION TC=TOP OF CURB, FL=FLOW LINE, TS=TOP OF SIDEWALK TG=TOP OF GRATE, FGH=FINISH GROUND HIGH, FGL=FINISH GROUND LOW
- PROPOSED CURB & GUTTER
- S=2.0% DIRECTION OF FLOW
- WATER BLOCK/GRADE BREAK
- 30 PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLETS
- PROPOSED RETAINING WALL
- EASEMENT
- PROPOSED WATER HARVESTING AREAS (FIRST FLUSH REQUIREMENT)

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SCALE: 1"=50'

PROPOSED DMP
NOVEMBER 16, 2018

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