

# CITY OF ALBUQUERQUE



July 24, 2017

David Aube, PE  
Hartman + Majewski Design Group  
120 Vassar Dr. SE Suite 100  
Albuquerque, NM 87106

**Re: GAHP Casa Feliz  
523 Espanola Street SE  
Request for Permanent C. O. – Not Accepted  
Engineers Stamp Date 12/18/15 (L19D073I)  
Certification dated: 7/12/2017**

Dear Mr. Aube,

Based on the Engineer's Certification provided in your submittal received 7/17/2017, Hydrology cannot approve the issuance of the Certificate of Occupancy until the following comments are addressed:

- Section AA has not been graded according to plan and cannot be graded according to plan without the addition of a retaining wall along west edge of the site. Two wooden fences retain about 2' of dirt (not allowed) and the 6" deep swale that is supposed to prevent cross lot drainage is missing.
- The original topo did not reflect all of the grade change from the parking lot to the adjacent property. A new survey is needed to measure the grade accurately, then the Grading Plan must be revised and resubmitted to hydrology to include a design of a wall along the west side of the site as necessary to prevent cross lot drainage.
- The revised plan should include a new engineer's stamp date.
- The revised Grading and Drainage Plan must include a detailed cross section from the parking lot to the existing grade on the adjacent lot.

PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)

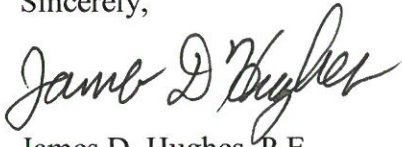
After the revised G&D Plan is approved by Hydrology and the contractor has completed the construction, a new Engineer's Certification should be submitted to hydrology for CO. The following should be on that plan.

1. As-built survey information should be added to the plan to include spot elevations throughout the parking lot, the swale , and the finished floor elevations as well as the top of the new wall to be added on the west side of the property.

An inspection by our office will need to take place after these corrections are made.

If you have any questions, you can contact me at 924-3986 or Totten Elliott at 924-3982.

Sincerely,

A handwritten signature in black ink, reading "James D. Hughes". The signature is fluid and cursive, with the first name "James" and last name "Hughes" clearly legible.

James D. Hughes, P.E.  
Principal Engineer, Planning Dept.  
Development and Review Services

TE/JH  
C: email

# DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: GAHP Casa Feliz (L19D073G H, I)  
DRB #: \_\_\_\_\_ EPC#: \_\_\_\_\_

ZONE MAP/DRG. FILE #: L-19-Z  
WORK ORDER#: \_\_\_\_\_

LEGAL DESCRIPTION: Lot 13-18, 18-20 Block 4, Lots 4-8, 17-18 Block 5, etc. Emil Mann Addition  
CITY ADDRESS: 443, 511, and 523 Espanola Street SE

ENGINEERING FIRM: Hartman + Majewski Design Group  
ADDRESS: 120 Vassar Dr SE, Suite 100  
CITY, STATE: Albuquerque, NM 87106

CONTACT: David Aube  
PHONE: 505-998-6430  
ZIP CODE: 87106

OWNER: Greater Albuquerque Housing Partnership  
ADDRESS: 320 Gold SW, Suite 918  
CITY, STATE: Albuquerque, NM

CONTACT: Felipe Rael  
PHONE: 505-244-1614  
ZIP CODE: 87102

ARCHITECT: Hartman + Majewski Design Group  
ADDRESS: 120 Vassar Dr SE, Suite 100  
CITY, STATE: Albuquerque, NM

CONTACT: Mark Wade  
PHONE: 505-998-6442  
ZIP CODE: 87106

SURVEYOR: Community Sciences  
ADDRESS: \_\_\_\_\_  
CITY, STATE: Albuquerque, NM

CONTACT: \_\_\_\_\_  
PHONE: 505-  
ZIP CODE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY, STATE: \_\_\_\_\_

CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
ZIP CODE: \_\_\_\_\_

## CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1<sup>st</sup> SUBMITTAL, ***REQUIRES TCL or equal***
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

## CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

## WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: July 14, 2017

BY: David Aube P.E.

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

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 subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



I. PURPOSE AND SCOPE

THE PURPOSE OF THIS DRAINAGE PLAN IS TO PRESENT THE EXISTING AND PROPOSED DRAINAGE MANAGEMENT PLANS FOR THE GREATER ALBUQUERQUE HOUSING PROJECT TITLED CASA FELIZ.

II. SITE DESCRIPTION AND HISTORY

THE PROJECT CONTAINS MANY SCATTERED SITES, LOCATED AROUND A PREVIOUS PROJECT BY GREATER ALBUQUERQUO HOUSING AUTHORITY CALLED PLAZA FELIZ. THE SITES ARE LOCATED ON ESPANOLA STREET SE, SAN PABLO STREET SE, GROVE STREET SE, BELL AVENUE SE, AND TRUMBELL AVENUE SE.

THIS AREA WAS AT ONE TIME FULLY DEVELOPED WITH A FOURPLEX ON EACH OF THE LOTS BEING REDEVELOPED BY THIS PROJECT. THE LAND WAS ORIGINALLY SUBDIVIDED IN 1944 AND WAS FULLY DEVELOPED PRIOR TO THE IMPLEMENTATION OF THE DRAINAGE ORDINANCE RESTRICTING FLOW FROM THE SITES INTO THE PUBLIC WAY. DEMOLITION OF THESE PRIOR FOURPLEXES WAS COMPLETED BY 2010 WITH THE EXCEPTION OF ONE LOT THAT STILL NEEDS TO HAVE THE BUILDING REMOVED FOR THIS PROJECT.

THE SITES WERE ALL FREE DISCHARGE INTO THE STREET, OR IN SOME CASES INTO THE ADJACENT PROPERTIES. EACH OF THE SITES WERE ANALYZED AS TYPE C SOIL TO ACCOUNT FOR THE PREVIOUSLY COMPACTED SOIL CONDITIONS. THIS INCLUDES THE LOT WITH THE EXISTING BUILDING TO BE REMOVED.

III. COMPUTATIONAL PROCEDURES

HYDROLOGIC ANALYSIS WAS PERFORMED UTILIZING THE DESIGN CRITERIA BASED ON SECTION 22.2, HYDROLOGY, OF THE DEVELOPMENT PROCESS MANUAL.

IV. PRECIPITATION

THE STORM EVENT USED FOR THE FOLLOWING CALCULATIONS IS THE 100YR-6HR STORM. THE PROJECT SITE IS LOCATED IN ZONE 3.

V. EXISTING DRAINAGE CONDITIONS (REFER TO CD EX1)

CURRENTLY THE SITES FLOW FROM EAST TO WEST AND TOWARD BELL AVENUE FROM BOTH NORTH AND SOUTH. WITH THE PRIOR DEVELOPMENT, MANY OF THE LOTS CREATED CROSS LOT DRAINAGE PATTERNS THAT WILL BE CORRECTED WITH THIS PROJECT. HISTORICALLY THE SITES HAD BEEN DEVELOPED AS FOURPLEX UNITS WITH APPROXIMATELY 6 PARKING SPACES ON SITE. THE SITES CONTAINED MINIMAL LANDSCAPING AND WERE LIKELY 85% IMPERVIOUS (USING SURROUNDING UNITS AS A TYPICAL DEVELOPMENT DENSITY).

USING THE 85% D AND 15% C SOIL TREATMENTS THE TYPICAL 50X135 LOT (6750 SF) CREATES A PEAK RUNOFF RATE OF 0.74 CFS AND AN EXCESS RUNOFF VOLUME OF 0.0284 ACRE FEET DURING THE 100 YEAR 6 HOUR EVENT.

TO BE MORE CONSERVATIVE, THE SITES WERE ANALYZED AS 100% C SOIL AS REQUIRED FOR SOIL COMPACTED BY HUMAN ACTIVITY. THE REDUCES THE PEAK RUNOFF RATE TO 0.53 CFS AND AN EXCESS RUNOFF VOLUME OF 0.0167 ACRE FEET DURING THE 100 YEAR 6 HOUR EVENT.

VI. PROPOSED DRAINAGE CONDITIONS

THE SCATTERED SITE HAVE BEEN ANALYZED INDIVIDUALLY. BUILDINGS HAVE BEEN ASSIGNED LETTERS AND THIS REPORT IS ORGANIZED TO FOLLOW THAT SAME ORDER.

BUILDING/SITE A IS LOCATED IN A SINGLE LOT THAT WILL HAVE A PORTION OF TRUMBELL VACATED AND IS THEREFORE SLIGHTLY LARGER THAN THE TYPICAL LOT AND CONTAINS 7425 SF. THIS SITE CURRENTLY CONTAINS AN APARTMENT BUILDING THAT WILL BE DEMOLISHED. THE SITE IS BROKEN UP INTO TWO SUB BASINS, THE FIRST FLOWING WEST TOWARD SAN PABLO AND THE OTHER TO THE EAST AND INTO TRUMBELL ON THE SOUTH. THE COMBINED FLOW RATES FOR THIS SITE 0.70 CFS WHICH IS LESS THAN THE ACTUAL CURRENT CONDITIONS OF 0.82 SF. THESE NUMBERS WERE ADJUSTED BECAUSE THE SITE CONTAINS THE 7425 SF IN LIEU OF THE TYPICAL 6750 SF. THE INCLUSION OF SHALLOW PONDING AREAS (4" DEEP) THAT HARVEST 113 OF THE FIRST FLUSH VOLUME (91.6 CF REQUIRED) WILL FURTHER REDUCE THE PEAK RUNOFF.

BUILDING/SITE B CONTAINS 7 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 5.18 CFS (7 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 4.32 CSF AND AN EXCESS RUNOFF VOLUME OF 0.1520 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 576 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 305.6 CF.

BUILDING/SITE C AND D CONTAINS 5 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 3.71 CFS (5 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 3.28 CSF AND AN EXCESS RUNOFF VOLUME OF 0.1156 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 454 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 271.3 CF.

BUILDING/SITE E, F AND G CONTAINS 7 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 5.19 CFS (7 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 4.35 CSF AND AN EXCESS RUNOFF VOLUME OF 0.1527 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 393 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 263.0 CF.

EXCESS RUNOFF FROM THESE SITES CAN DISCHARGE INTO ESPANOLA THROUGH THE DRIVEWAY OPENING OR THROUGH A SMALL RUNDOWN CHANNEL LOCATED ON THE SOUTH SIDE OF BUILDING G AND THROUGH A SIDEWALK CULVERT UNDER THE PUBLIC SIDEWALK.

BUILDING/SITE H CONTAINS 3 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 2.22 CFS (3 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 1.81 CSF AND AN EXCESS RUNOFF VOLUME OF 0.0629 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 315 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 203.6 CF.

EXCESS RUNOFF FROM THESE SITES CAN DISCHARGE INTO ESPANOLA THROUGH THE DRIVEWAY OPENING OR THROUGH A SMALL RUNDOWN CHANNEL LOCATED ON THE SOUTH SIDE OF BUILDING H AND THROUGH A SIDEWALK CULVERT UNDER THE PUBLIC SIDEWALK.

BUILDING/SITE I CONTAINS 4 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 2.97 CFS (4 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 2.88 CSF AND AN EXCESS RUNOFF VOLUME OF 0.1089 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 218.3 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 117.1 CF. THIS SITE DRAINS OUT THE SOUTHERN DRIVEWAY INTO BELL AVENUE, SE.

BUILDING/SITE J CONTAINS 4 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 3.03 CFS (SLIGHTLY LARGER DUE TO VACATED ROW ON BELL AVENUE SE THAT IS INCORPORATED INTO THE SITE). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 2.48 CSF AND AN EXCESS RUNOFF VOLUME OF 0.0848 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 308 CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 151 CF. THIS SITE DRAINS OUT THE NORTHERN DRIVEWAY INTO BELL AVENUE, SE.

BUILDING/SITE K CONTAINS 3 PARCELS AND WOULD HAVE CREATED A PEAK RUNOFF IN THE PREVIOUSLY DEVELOPED CONDITION OF 2.22 CFS (3 \* 0.74 CFS). THE PROPOSED DEVELOPMENT WILL CREATE A PEAK RUNOFF OF 1.81 CSF AND AN EXCESS RUNOFF VOLUME OF 0.0629 ACRE FEET. THE SHALLOW PONDS SURROUNDING THE BUILDING WILL HARVEST 338CF WHICH EXCEEDS THE FIRST FLUSH REQUIRED VOLUME OF 102 CF.

BUILDING/SITE L IS LOCATED IN A SINGLE LOT THAT WILL HAVE A PORTION OF TRUMBELL VACATED AND IS THEREFORE SLIGHTLY LARGER THAN THE TYPICAL LOT AND CONTAINS 7425 SF. THE COMBINED FLOW RATES FOR THIS SITE 0.70 CFS WHICH IS LESS THAN THE ACTUAL CURRENT CONDITIONS OF 0.81 SF. THE INCLUSION OF SHALLOW PONDING AREAS (4" DEEP) THAT HARVEST 116 OF THE FIRST FLUSH VOLUME (91.6 CF REQUIRED) WILL FURTHER REDUCE THE PEAK RUNOFF.

VII. CONCLUSIONS

EACH INDIVIDUAL SITE HAS BEEN DESIGNED TO HARVEST MORE THAN IS REQUIRED TO MEET THE MSSSS PERMIT REQUIREMENTS FOR FIRST FLUSH VOLUMES. SITES HAVE BEEN DESIGNED TO DIRECT EXCESS RUNOFF TO THE PUBLIC STREETS WHERE PREVIOUS DEVELOPMENTS DISCHARGED IN A CROSS LOT CONFIGURATION.

EACH LOT IS STILL ALLOWING FOR FREE DISCHARGE FOR RUNOFF EXCEEDING THAT CONTAINED IN THE MSSSS REQUIREMENTS DESCRIBED ABOVE. THIS IS CONSISTENT WITH A REDUCTION FROM THE HISTORIC DISCHARGE RATES FROM THE PREVIOUSLY DEVELOPED LOTS.

BECAUSE THERE IS A REDUCTION IN FLOW RATES AND EXCESS RUNOFF IS DIRECTED TOWARD THE PUBLIC STREET INSTEAD OF CROSS LOT DRAINAGE, THERE SHOULD BE BENEFITS TO THE DOWNSTREAM LOTS.

Drainage Summary

Project: Casa Feliz  
Project Number: 2491  
Date: 10/12/15  
By: Dave A

Site Location

3 Per Table A-1 COA DPM Section 22.2

Existing summary

Basin Name	EXA	EX B	EX C & D	EX E	EX F & G	EX H	EX I	EX J	EX K	EX L	Typ 85% D	Typ 100%C	
Area (sf)	7425	47202	33742	13504	33742	20250	26999	27556	20250	7425	6750	6750	
Area (acres)	0.170	1.084	0.775	0.310	0.775	0.465	0.620	0.633	0.465	0.170	0.155	0.155	
%A Land treatment	0	0	0	0	0	0	0	0	0	0	0	0	
%B Land treatment	0	0	0	0	0	0	0	0	0	0	0	0	
%C Land treatment	15	15	15	15	15	15	15	15	15	15	15	100	
%D Land treatment	85	85	85	85	85	85	85	85	85	85	85	0	
Soil Treatment (acres)													
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "B"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "C"	0.03	0.16	0.12	0.05	0.12	0.07	0.09	0.09	0.07	0.03	0.02	0.15	
Area "D"	0.14	0.92	0.66	0.26	0.66	0.40	0.53	0.54	0.40	0.14	0.13	0.00	
Excess Runoff (acre-feet)													
100yr. 6hr.	0.0312	0.1986	0.1420	0.0568	0.1420	0.0852	0.1136	0.1160	0.0852	0.0312	acre-ft.	0.0284	0.0167
10yr. 6hr.	0.0194	0.1235	0.0883	0.0353	0.0883	0.0530	0.0707	0.0721	0.0530	0.0194	acre-ft.	0.0177	0.0080
2yr. 6hr.	0.0112	0.0710	0.0508	0.0203	0.0508	0.0305	0.0406	0.0415	0.0305	0.0112	acre-ft.	0.0102	0.0026
100yr. 24hr.	0.0073	0.0270	0.1694	0.0678	0.1694	0.1017	0.1356	0.1384	0.1017	0.0373	acre-ft.	0.0339	0.0167
Peak Discharge (cfs)													
100 yr.	0.82	5.18	3.71	1.48	3.71	2.22	2.97	3.03	2.22	0.82	cfs	0.74	0.53
10yr.	0.54	3.45	2.46	0.99	2.46	1.48	1.97	2.01	1.48	0.54	cfs	0.49	0.31
2yr.	0.32	2.01	1.43	0.57	1.43	0.86	1.15	1.17	0.86	0.32	cfs	0.29	0.12

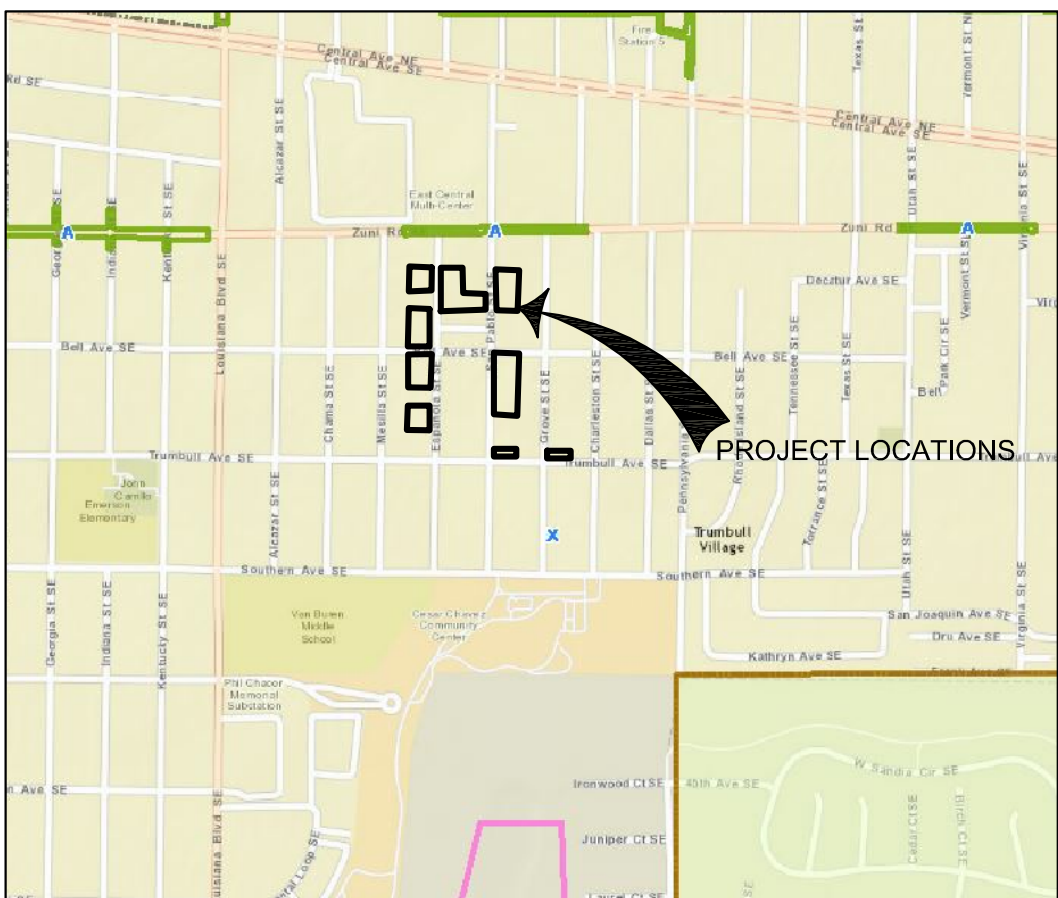
Proposed summary

Basin Name	Pro A1	Pro A2	Pro B1	Pro B2	Pro C1	Pro C2	Pro D1	Pro E1	Pro F2	Pro G1	Pro H1	Pro H2	Pro I1	Pro I2	Pro I3	Pro J1	Pro J2	Pro J3	Pro K1	Pro K2	Pro L1	Pro L2		
Area (sf)	2104	5321	12942	34260	4525	25692	4525	7462	4525	30721	4525	6275	13975	3257	3342	20400	5469	21808	278	6435	13815	2104	5321	
Area (acres)	0.048	0.122	0.297	0.787	0.104	0.590	0.104	0.171	0.104	0.705	0.104	0.144	0.321	0.075	0.077	0.468	0.126	0.501	0.006	0.148	0.317	0.048	0.122	
%A Land treatment	10	0	15	15	10		10	50	10		10	25	10	10			25	10		25	10	10		
%B Land treatment	25	65	25	50	25	65	25	15	25	65	25	25	60	20	65	15	25	60	50	25	60	25	65	
%C Land treatment	65	35	60	35	65	35	65	35	65	35	65	50	30	70	35	85	50	30	50	50	30	65	35	
%D Land treatment																								
Soil Treatment (acres)																								
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Area "B"	0.00	0.00	0.04	0.12	0.01	0.00	0.01	0.09	0.01	0.00	0.01	0.04	0.03	0.01	0.00	0.00	0.03	0.05	0.00	0.04	0.03	0.00	0.00	
Area "C"	0.01	0.08	0.07	0.39	0.03	0.38	0.03	0.03	0.03	0.46	0.03	0.04	0.19	0.01	0.05	0.07	0.03	0.30	0.00	0.04	0.19	0.01	0.08	
Area "D"	0.03	0.04	0.18	0.28	0.07	0.21	0.07	0.06	0.07	0.25	0.07	0.07	0.10	0.05	0.03	0.40	0.06	0.15	0.00	0.07	0.10	0.03	0.04	
Excess Runoff (acre-feet)																								
100yr. 6hr.	0.0078	0.0169	0.0465	0.1055	0.0169	0.0818	0.0169	0.0211	0.0169	0.0978	0.0169	0.0208	0.0421	0.0125	0.0106	0.0858	0.0181	0.0657	0.0010	0.0213	0.0416	0.0078	0.0169	acre-ft.
10yr. 6hr.	0.0047	0.0094	0.0275	0.0583	0.0101	0.0456	0.0101	0.0114	0.0101	0.0545	0.0101	0.0119	0.0229	0.0075	0.0059	0.0534	0.0104	0.0358	0.0006	0.0122	0.0227	0.0047	0.0094	acre-ft.
2yr. 6hr.	0.0026	0.0045	0.0147	0.0276	0.0055	0.0217	0.0055	0.0053	0.0055	0.0259	0.0055	0.0061	0.0105	0.0042	0.0028	0.0307	0.0053	0.0164	0.0003	0.0063	0.0104	0.0026	0.0045	acre-ft.
100yr. 24hr.	0.0092	0.0187	0.0539	0.1169	0.0197	0.0904	0.0197	0.0236	0.0197	0.1081	0.0197	0.0238	0.0461	0.0147	0.0118	0.1024	0.0207	0.0719	0.0011	0.0244	0.0456	0.0092	0.0187	acre-ft.
Peak Discharge (cfs)																								
100 yr.	0.21	0.49	1.27	3.05	0.46	2.36	0.46	0.61	0.46	2.82	0.46	0.58	1.23	0.33	0.31	2.24	0.51	1.92	0.03	0.59	1.22	0.21	0.49	cfs
10yr.	0.14	0.30	0.81	1.86	0.29	1.47	0.29	0.36	0.29	1.75	0.29	0.36	0.75	0.22	0.19	1.49	0.31	1.17	0.02	0.37	0.74	0.14	0.30	cfs
2yr.	0.07	0.15	0.43	0.89	0.16	0.72	0.16	0.16	0.16	0.86	0.16	0.18	0.35	0.12	0.09	0.87	0.16	0.55	0.01	0.19	0.35	0.07	0.15	cfs
Roof Areas	1615	1615	5394	5394	1643	6286	1643	1355	1643	4641	1643	3598	3598	1367	0	2796	2505	2812	0	1800	1800	1615	1615	
First Flush Ponding Volume (cf)	45.8	45.8	152.8	152.8	46.6	178.1	46.6	38.4	46.6	131.5	46.6	101.9	101.9	38.7	0	78.4	71.0	79.7	0	51.0	51.0	45.8	45.8	cf
First Flush Acre Feet	0.0011	0.0011	0.0035	0.0035	0.0011	0.0041	0.0011	0.0009	0.0011	0.0030	0.0011	0.0023	0.0023	0.0009	0.0000	0.0018	0.0016	0.0018	0.0000	0.0012	0.0012	0.0011	0.0011	acre-ft.

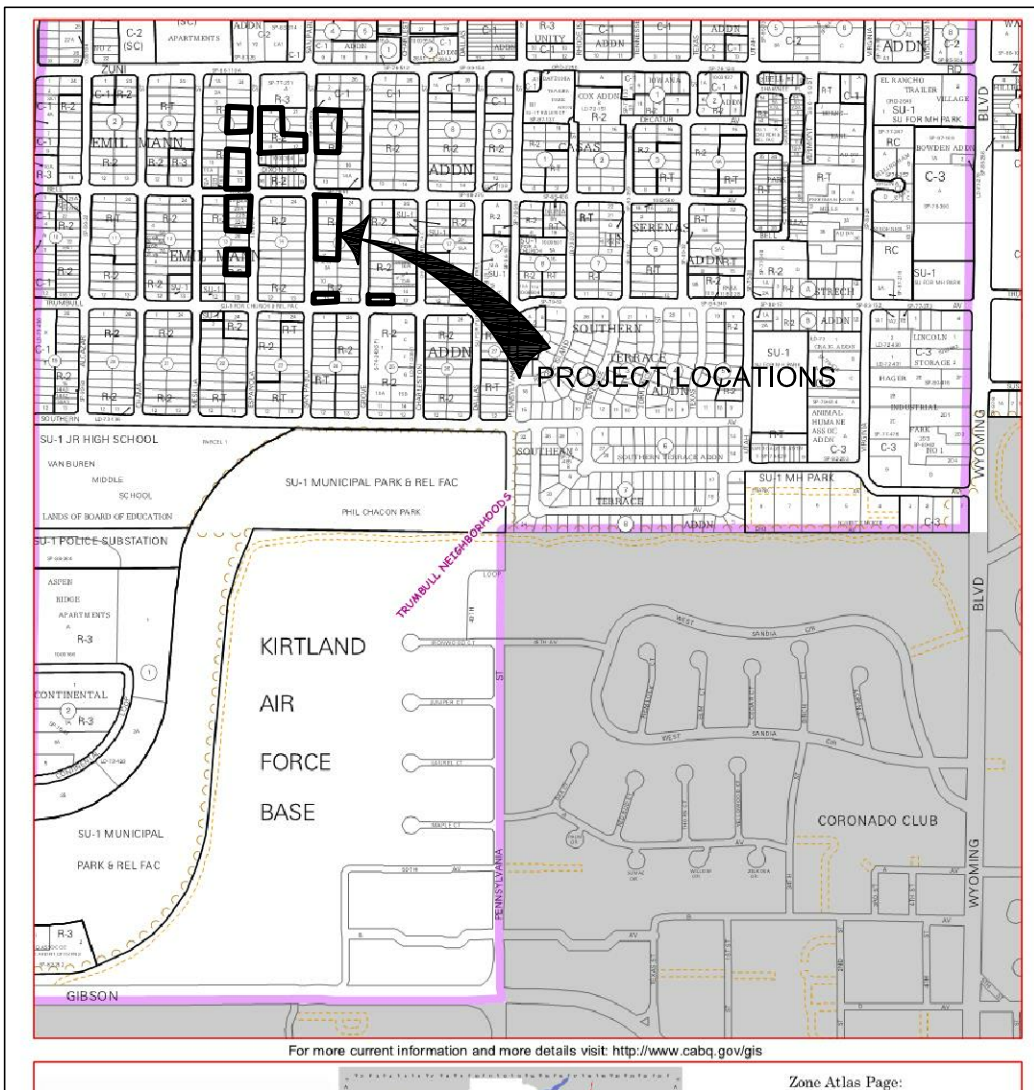
Drainage Certification (L19-D073G, DRB#1010672, 16ZHE-80041) & (L19-D073H, DRB#1010667, 16ZHE-80041) & (L19-D073I, DRB#1010667, 16ZHE-80041)

I, David A Aube, NMPE 14221, of the firm The Hartman + Majewski Design Group, Inc, hereby certify that portion of the project (Building I, J and K located at 443, 511 and 523 Espanola Street SE) is in substantial compliance with and in accordance with the design intent of the Grading and Drainage plan approved plan dated 12-18-15. The record information that has been edited onto the original design documents where obtained by Community Sciences Corporation on May 4th, 2017. I further certify that I have personally visited the project site on July 11th, 2017 and have determined by visual inspection that the actual site conditions shown on this plan to be true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy for Building I, J and K located at 443, 511 and 523 Espanola Street SE.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the drainage aspects of this project. Those relying on the record documents are advised to obtain independent verification of its accuracy before using it for any other purpose.



A4 FIMA FLOOD MAP SCALE: NOT TO SCALE



A4 L-19-Z ZONE ATLAS PAGE SCALE: NOT TO SCALE

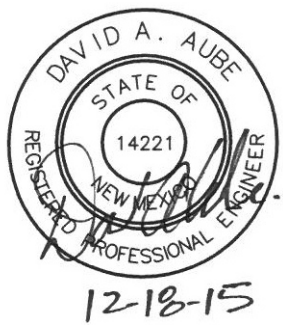


THE HARTMAN + MAJEWSKI  
DESIGN GROUP  
Architects • Engineers • Interior Design  
Planners • Urban Designers • LEED®

120 Vassar Dr SE Suite 100  
Albuquerque New Mexico 87106  
T 505 242 6880 • F 505 242 6881

CONSULTANT

STAMP



100% CONSTRUCTION  
DOCUMENTS

PROJECT NAME  
CASA FELIZ

441 ESPANOLA STREET SE,  
ALBUQUERQUE, NEW MEXICO 87108



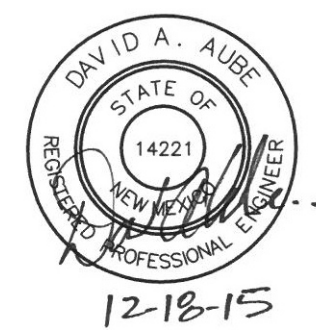


THE HARTMAN • MAJEWSKI  
**DESIGN GROUP**  
Architects • Engineers • Interior Design  
Planners • Urban Designers • LEED®

120 Vassar Dr SE Suite 100  
Albuquerque New Mexico 87106  
T 505 242 6880 • F 505 242 6881

CONSULTANT

STAMP



100% CONSTRUCTION  
DOCUMENTS

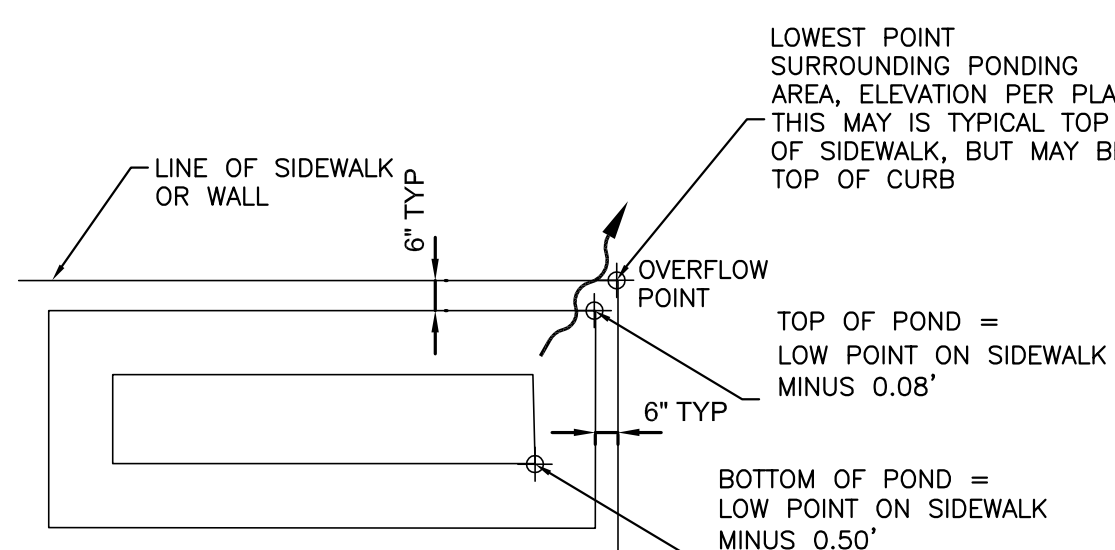
PROJECT NAME  
CASA FELIZ

441 ESPANOLA STREET SE,  
ALBUQUERQUE, NEW MEXICO 87108

GREATER ALBUQUERQUE  
HOUSING PATRNTNERSHIP

## DRAINAGE PLAN GENERAL NOTES

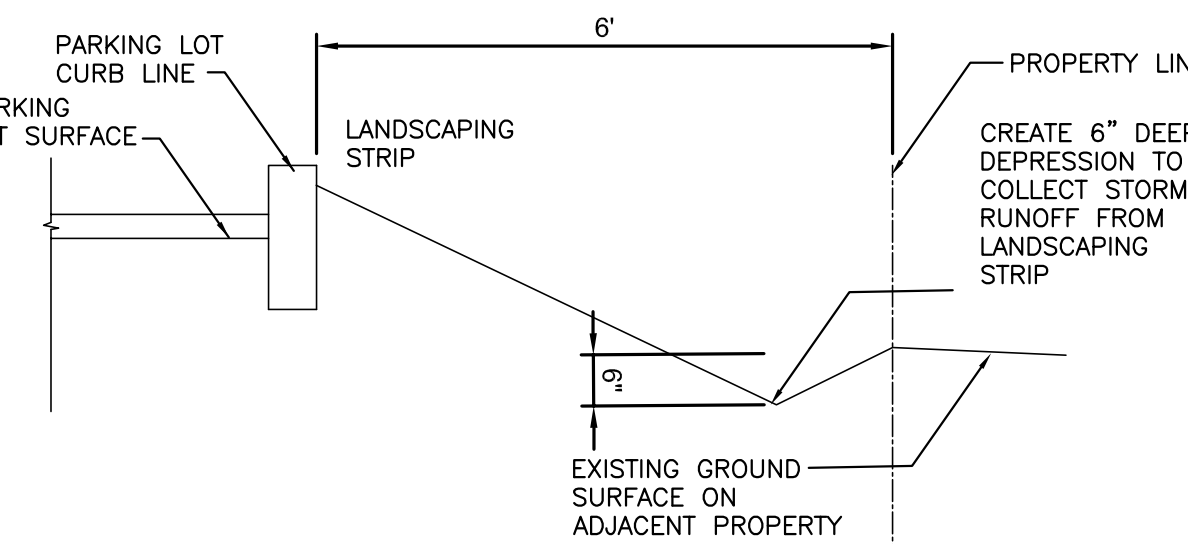
- SEE SHEET CG001 FOR COMPLETE LIST OF GENERAL NOTES AND SYMBOL/LINETYPE LEGEND THAT APPLY TO ALL SHEETS.
- SEE SHEET CD-202 FOR 3" PVC DRAINAGE PIPES THROUGH SIDEWALKS AND UNDER SIDEWALKS THROUGH CITY CURB FACE.



TYPICAL POND DETAIL

NOT TO SCALE

BUILDING J				
POND	LOWEST POINT ON CURB OR TSW	TOP ELEV	BOTTOM ELEV	
A	5339.38	5339.46	5339.30	5338.88
B	5339.67	5339.60	5339.59	5338.66
C	5339.78	5339.70	5339.59	5338.70
D	5339.93	5339.77	5339.85	5338.92
E	5340.10	5339.85	5340.02	5338.75
F	5338.17	5338.44	5338.09	5337.78
G	5337.47	5337.95	5337.39	5337.06
H	5338.50	5338.90	5338.42	5338.15
I	5339.55	5339.47	5339.47	5339.05
J	5339.93	5340.14	5339.85	5339.25



SECTION A-A

NOT TO SCALE

Drainage Certification (L19-D073G, DRB#1010672, 16ZHE-80041) & (L19-D073H, DRB#1010667, 16ZHE-80041) & (L19-D073I, DRB#1010667, 16ZHE-80041)

I, David A. Aube, NMPE 14221, of the firm The Hartman + Majewski Design Group, Inc, hereby certify that portion of the project (Building J, I and K located at 443, 511 and 523 Espanola Street SE) is in substantial compliance with and in accordance with the design intent of the Grading and Drainage plan approved plan dated 12-18-15. The record information that has been edited onto the original design documents where obtained by Community Sciences Corporation on May 4th, 2017. I further certify that I have personally visited the project site on July 11th, 2017 and have determined by visual inspection that the actual site conditions shown on this plan to be true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy for Building J, I and K located at 443, 511 and 523 Espanola Street SE.

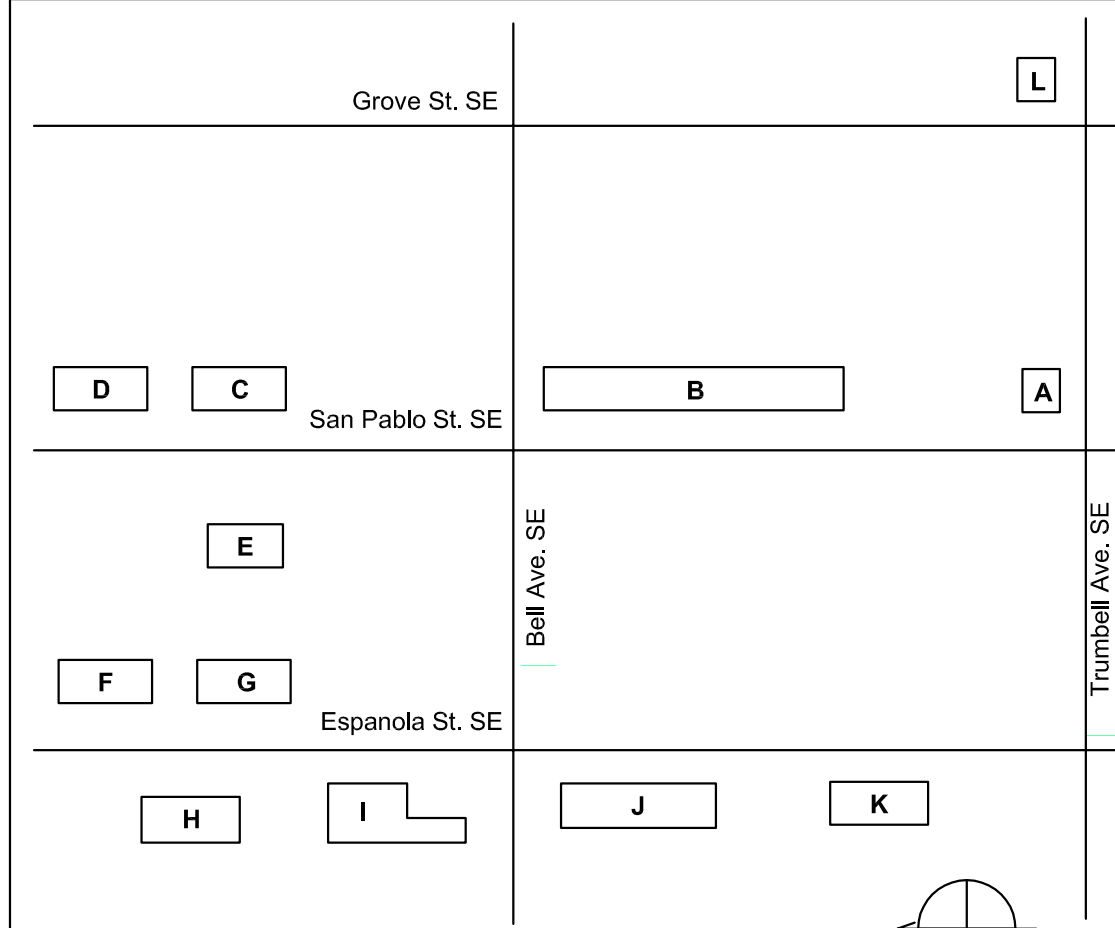
The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the drainage aspects of this project. Those relying on the record documents are advised to obtain independent verification of its accuracy before using it for any other purpose.



## PRO J

Q<sub>100</sub> = 2.43 CU-FT/SEC

## KEY PLAN



## REVISIONS

NO.	DATE	DESCRIPTION

Copyright: Design Group

Drawn by: DAA  
Checked by: DAA  
Date: OCTOBER 19, 2015  
Project number: 2491

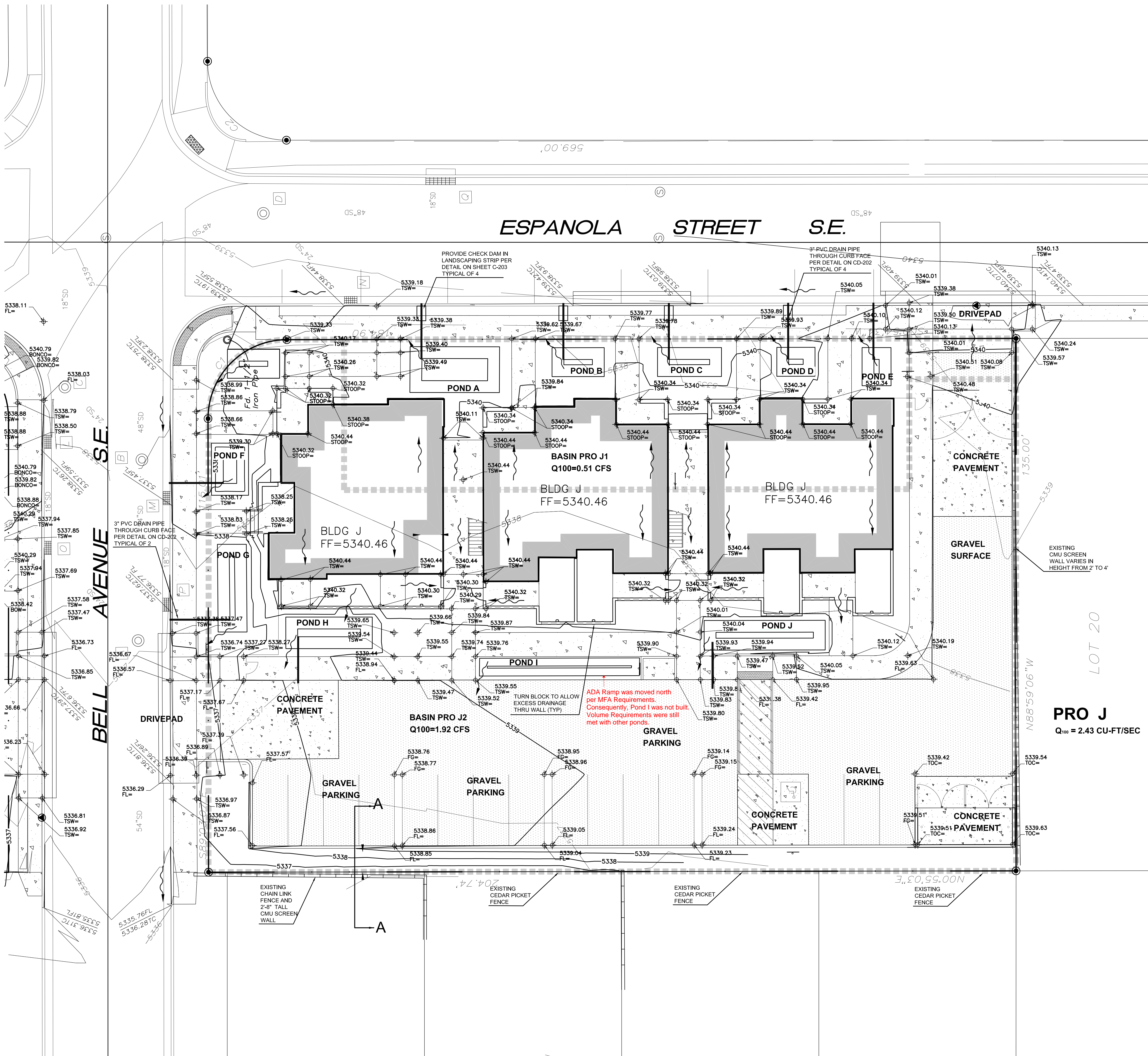
SHEET TITLE

ENLARGED  
SITE DRAINAGE PLAN

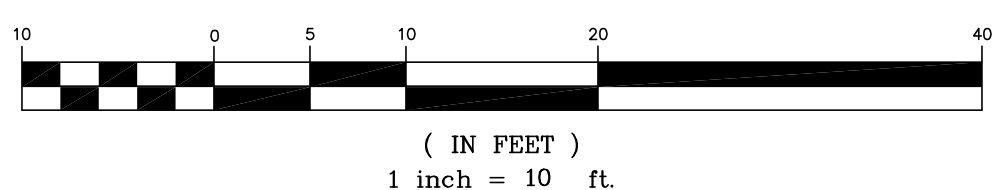
BUILDING J

SHEET NUMBER

CD-210



GRAPHIC SCALE



A1 ENLARGED SITE DRAINAGE PLAN - BUILDING J





July 28, 2017

City of Albuquerque  
Hydrology Department  
James Hughes

Mr. Hughes,

The Greater Albuquerque Housing Partnership is aware of your concerns regarding the rear yard slope of our Casa Feliz development, specifically Building J located at 511 Espanola St SE 87108.

We understand the disapproval letter was connected to Building K at 523 Espanola St SE, but it was actually tied to Building J at 511 Espanola St SE. We request your reevaluation of Building K for the release of a permanent Certificate of Occupancy.

Please consider this letter a commitment to work with the Design Engineer and the City of Albuquerque Hydrology Department to resolve this issue to your approval, allowing up to 60 days for an appropriate solution and completion of the task.

Thank you for your consideration.

Felipe Rael, Executive Director  
Greater Albuquerque Housing Partnership