CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director

Mayor Timothy M. Keller

June 27, 2018

Martin Garcia, P.E.
Anchor Engineering LLC
1035 S. Bosque Loop
Bosque Farms, NM, 87123

RE: Kennan Properties
12900 Central Ave SE
Grading and Drainage Plan
Engineer's Stamp Date: 06/25/18
Hydrology File: L22D061

Dear Mr. Garcia:

Based upon the information provided in your resubmittal received 06/26/2018, the Grading and Drainage Plan is approved for Building Permit and Grading Permit.

Please attach a copy of this approved plan in the construction sets for Building Permit processing. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

Renée C. Brissette

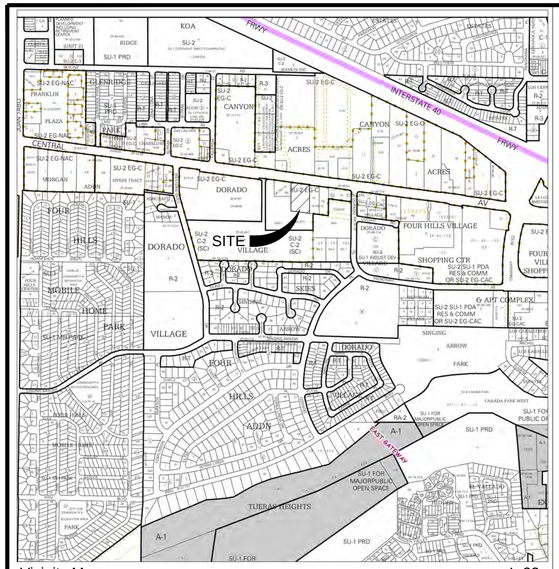
Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



Vicinity Map L-22

Drainage Calculations

Basin 1 Hydrology Calculations Storm Water Control Pond
Keenan Development

Precipitation Zone 3
100 yr 6 hr Storm
Basin Area = 1.24362 ac. 54172 sq ft Determined by DB
Existing

Land Treatment	Percent	Area (ac.)	Excess Precipitation (in.)	Unit Peak Discharge (cfs/ac.)	Runoff Volume (ac. Ft.)	Peak Discharge (cfs)	SCS Curve Number	Comments
A	0.00%	0.00	0.66	1.87	0.00	0.00	80.00	Natural Ground
B	0.00%	0.00	0.92	2.60	0.00	0.00	82.00	Landscaped Areas
C	85.00%	1.06	1.29	3.45	0.11	3.65	87.00	Compacted earth
D	15.00%	0.19	2.36	5.02	0.04	0.94	98.00	Impervious Areas
TOTAL	100.00%	1.24	1.45		0.15	4.58	88.65	
					6548.04	cu ft		

Proposed 1.24362 ac. 54172 sq ft Determined by DB
100 yr 24 hr Storm

Land Treatment	Percent	Area (ac.)	Excess Precipitation (in.)	Unit Peak Discharge (cfs/ac.)	Runoff Volume (ac. Ft.)	Peak Discharge (cfs)	SCS Curve Number	Comments
A	5.00%	0.06	0.66	1.87	0.00	0.12	80.00	Natural Ground/Pond
B	0.00%	0.00	0.92	2.6	0.00	0.00	82.00	Landscaped Areas
C	49.00%	0.61	1.29	3.45	0.07	2.10	87.00	Compacted earth
D	46.00%	0.57	2.36	5.02	0.11	2.87	98.00	Impervious Areas
					0.04			24 Hr Storm Additional Volume
TOTAL	100.00%	1.24	1.75		0.22	5.09	91.71	
					9460.69	cu ft		

Water Quality ponding Requirementt — Developed Flows — 100 yr 6 hr Storm

				Volume	Discharge
LT-D =	24919.12	sq. ft.			
X	0.42	inches of runoff		(ac ft)	(cfs)
/	12.00	inches / foot		0.03	0.51
Equals	872	cu. Ft	Required		

POND STAGE/STORAGE TABLE

CONTOUR ELEVATION	AREA (sq ft)	AREA (ac)	AVERAGE AREA (ac)	CONTOUR INTERVAL (ft)	VOLUME (ac ft)	STAGE (ft)	STORAGE (ac ft)	COMMENTS
5586.00	2712.0	0.06				0	0	Bottom of Pond
			0.06	1	0.0623			
5587.00	2712.0	0.06				1	0.0623	
			0.06	1	0.0623			
5588.00	2712.0	0.06				2	0.1245	
			0.06	1	0.0623			
5589.00	2712.0	0.06				3	0.1868	
			0.06	1	0.0623			
5590.00	2712.0	0.06				4	0.2490	Spillway

	VOLUME (cu ft)	VOLUME (ac ft)	(ft)
WATER QUALITY RETENTION VOLUME =	872	0.02	5586.32
POND SPILLWAY VOLUME =	10848	0.25	5590.00
POND TOTAL VOLUME	10848	0.25	5590.00
100yr 24hr VOLUME	9461	0.22	5589.53

Drainage Calculations

Basin 2 Hydrology Calculations Water Harvesting Pond - Central Ave.
Keenan Development

Precipitation Zone 3
100 yr 6 hr Storm
Basin Area = 0.041 ac. 1786 sq ft Determined by DB
Existing

Land Treatment	Percent	Area (ac.)	Excess Precipitation (in.)	Unit Peak Discharge (cfs/ac.)	Runoff Volume (ac. Ft.)	Peak Discharge (cfs)	SCS Curve Number	Comments
A	0.00%	0.00	0.66	1.87	0.00	0.00	80.00	Natural Ground
B	80.00%	0.03	0.92	2.60	0.00	0.09	82.00	Landscaped Areas
C	0.00%	0.00	1.29	3.45	0.00	0.00	87.00	Compacted earth
D	20.00%	0.01	2.36	5.02	0.00	0.04	98.00	Impervious Areas
TOTAL	100.00%	0.04	1.21		0.00	0.13	19.60	
					179.79	cu ft		

Proposed 0.09642 ac. 4200 sq ft Determined by DB
100 yr 24 hr Storm

Land Treatment	Percent	Area (ac.)	Excess Precipitation (in.)	Unit Peak Discharge (cfs/ac.)	Runoff Volume (ac. Ft.)	Peak Discharge (cfs)	SCS Curve Number	Comments
A	34.00%	0.01	0.66	1.87	0.00	0.03	80.00	Natural Ground/Pond
B	0.00%	0.00	0.92	2.6	0.00	0.00	82.00	Landscaped Areas
C	0.00%	0.00	1.29	3.45	0.00	0.00	87.00	Compacted earth
D	66.00%	0.03	2.36	5.02	0.01	0.14	98.00	Impervious Areas
					0.00			24 Hr Storm Additional Volume
TOTAL	100.00%	0.04	1.78		0.01	0.16	91.88	
					338.89	cu ft		

Water Quality ponding Requirement — Developed Flows — 100 yr 6 hr Storm

				Volume	Discharge
LT-D =	1178.76	sq. ft.			
X	0.42	inches of runoff		(cu ft)	(cfs)
/	12.00	inches / foot		159.10	0.04
Equals	41	cu. Ft	Required		

DEPRESSED LANDSCAPING VOLUME

West Area
Length = 94 ft
Width = 10 ft
Depth = 1 ft
Section Area = 5.0 sq ft
Volume = L - 10' X Section Area = 420 cu ft

East Area
Length = 65 ft
Width = 10 ft
Depth = 1 ft
Section Area = 5.0 sq ft
Volume = L - 10' X Section Area = 275 cu ft

	VOLUME (cu ft)
WATER QUALITY RETENTION VOLUME =	41
POND TOTAL VOLUME	695
100yr 24hr VOLUME	338

MARTIN J. GARCIA NEW MEXICO 11767 REGISTERED PROFESSIONAL ENGINEER 6/12/18

Anchor Engineering, LLC
1035 S. Bosque Lp Bosque Farms, NM 87068
505.362.1530 martin@anchoreng.net

REVISIONS

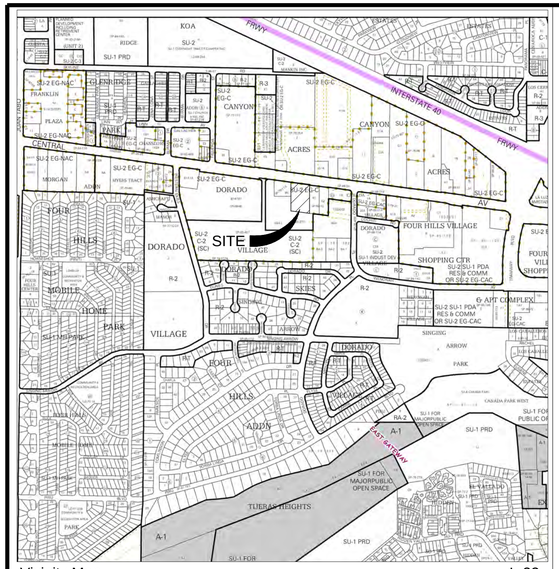
NO.	DATE	COMMENTS

PROJECT NO. 18-039
DATE: 5.15.2018
DRAWN BY: F PHILLIPS
CHECKED BY: D BRIGGS
SCALE: 1" = 20'

PROJECT TITLE
KEENAN PROPERTIES
12900 CENTRAL AVENUE S.E.
ALBUQUERQUE, NEW MEXICO

SHEET TITLE
GRADING AND DRAINAGE PLAN

SHEET
C2.1



Vicinity Map L-22

Drainage Narrative

THIS IS A 1.38 ACRE COMMERCIAL PARCEL LOCATED IN THE DPM DESIGNATED RAINFALL ZONE 3 AND FEMA DESIGNATED FLOOD ZONE X (UNSHADED) (PANEL 35002C0359G, EFFECTIVE 9/26/2008). THE PROPOSED DEVELOPMENT INCLUDES CONSTRUCTION OF A NEW 8,000 SQ. FT. STEEL BUILDING, A 2,200 SQ. FT. DISPLAY BUILDING AND APPROXIMATELY 18,000 SQ. FT. OF ASPHALT PARKING. THE REMAINING AREA IS GRAVELED.

THE SITE SLOPES AT ABOUT 3% FROM THE NORTH EAST TO THE SOUTH WEST AND FREE DISCHARGES TO ADJACENT PROPERTIES. OFFSITE FLOWS ENTER THE PROPERTY FROM THE ADJACENT PROPERTY TO THE EAST. HOWEVER, THE PROPERTY TO THE EAST DOES HAVE AN APPROVED GRADING & DRAINAGE PLAN (L22D059) THAT INDICATES OFFSITE FLOWS WILL BE DIVERTED TO AN ON-SITE POND ONCE THE PLAN IS CONSTRUCTED.

THIS PLAN PROPOSES TO HANDLE DEVELOPED RUNOFF WITH THE CONSTRUCTION OF A STORM WATER CONTROL RETENTION POND IN THE SOUTH WEST CORNER OF THE PROPERTY AND DEPRESSED LANDSCAPING AREAS ALONG CENTRAL AVENUE. THE POND WILL COLLECT RUNOFF FROM THE 8,000 SQUARE FOOT BUILDING, PARKING AND STORAGE AREAS AND OFFSITE FLOWS. IT IS SIZED TO HOLD THE RUNOFF VOLUME FROM A 100YR. 24HR. RAINFALL EVENT IN THE DEVELOPED CONDITION AND ALLOW CURRENT OFFSITE FLOWS TO CONTINUE IN THE HISTORIC FLOW PATH UNTIL SUCH TIME AS THE ADJACENT PROPERTY IS DEVELOPED.

THE 2,400 SQ. FT. DISPLAY BUILDING DEVELOPED RUNOFF WILL BE HARVESTED IN THE DEPRESSED LANDSCAPING AREA ALONG CENTRAL AVENUE.

Project Benchmark

THE PROJECT BENCHMARK FOR THIS SITE IS AN ACS BRASS CAP STAMPED "4-L22" LOCATED APPROX 320.00' WEST OF THE PROPERTY ALONG THE SOUTH CURB OF CENTRAL AVE.

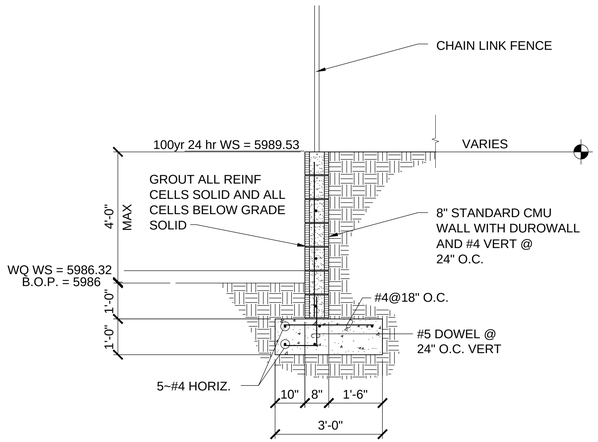
N: 1480509.445
E: 1563610.492
Z: 5586.425

THE LOCAL BENCHMARK IS A SET NAIL WITH FLAGGING ALONG THE EAST CENTRAL PROPERTY LINE OF THE SITE.

N: 1480238.217
E: 1564113.559
Z: 5585.82

Legend

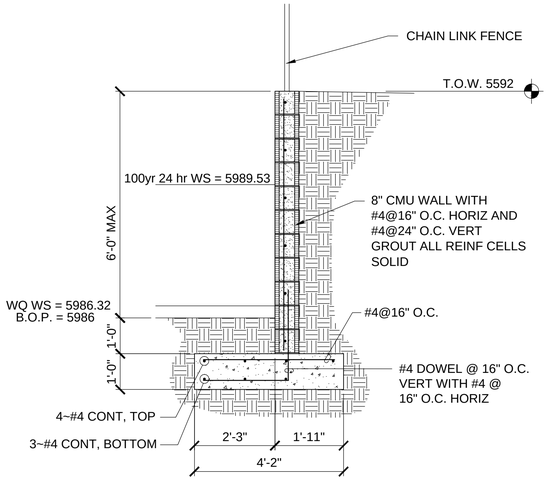
5263	EXISTING CONTOUR
	EXISTING CONCRETE PAD
TC63.28 / FL62.78	EXISTING SPOT ELEVATION
64	NEW CONTOUR
TW	TOP OF WALL
BW	BOTTOM OF WALL
B.O.P.	BOTTOM OF POND
TA	TOP OF ASPHALT
	DRAINAGE BASIN BOUNDARY
	SWALE



POND RETAINING WALL

SCALE: 1/2" = 1'-0"

1 C2.2



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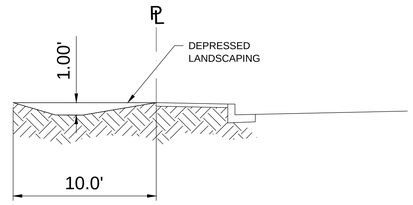
SCALE: 1/2" = 1'-0"

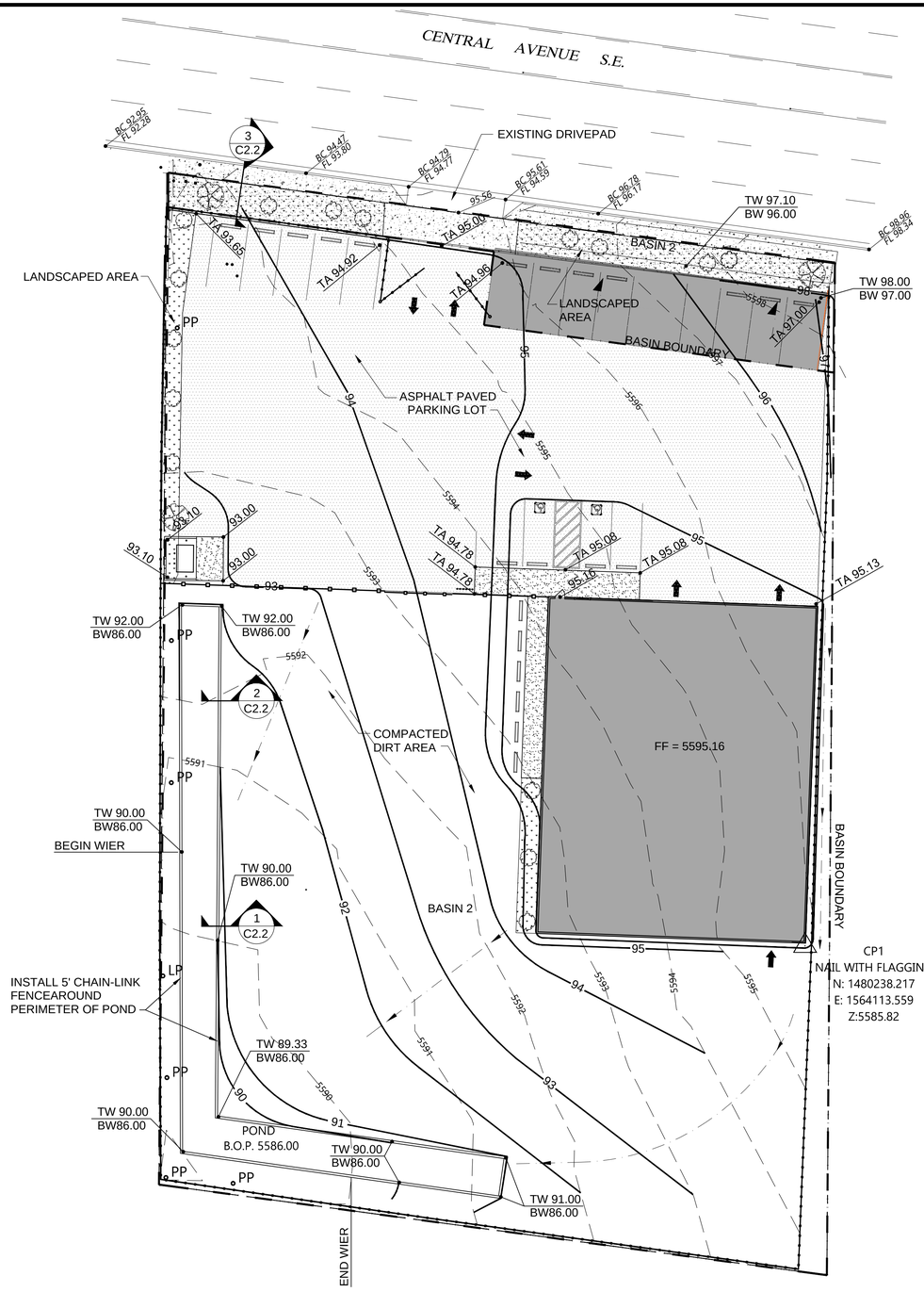
2 C2.2



DEPRESSED LANDSCAPE SECTION

SCALE: 1" = 5'

3 C2.2



GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'

0 10 20 40
SCALE: 1" = 20'

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