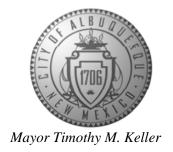
CITY OF ALBUQUERQUE

Planning Department Brennon Williams, Director



March 11, 2020

Ronald Bohannan, P.E. Tierra West, LLC 5571 Midway Park Place NE Albuquerque, NM, 87109

RE: Carvana

> Pan American Frwy NE **Grading & Drainage Plan**

Engineer's Stamp Date: 02/20/20

Hydrology File: G16D156

Dear Mr. Bohannan:

Based upon the information provided in your submittal received 02/20/2020, the Grading & Drainage Plan is approved for Building Permit and for action by the DRB on Site Plan for

Building Permit.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy

by Hydrology, Engineer Certification per the DPM checklist will be required.

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 (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to

any earth disturbance.

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

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

Sincerely,

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

Renée C. Brissette

Planning Department



City of Albuquerque

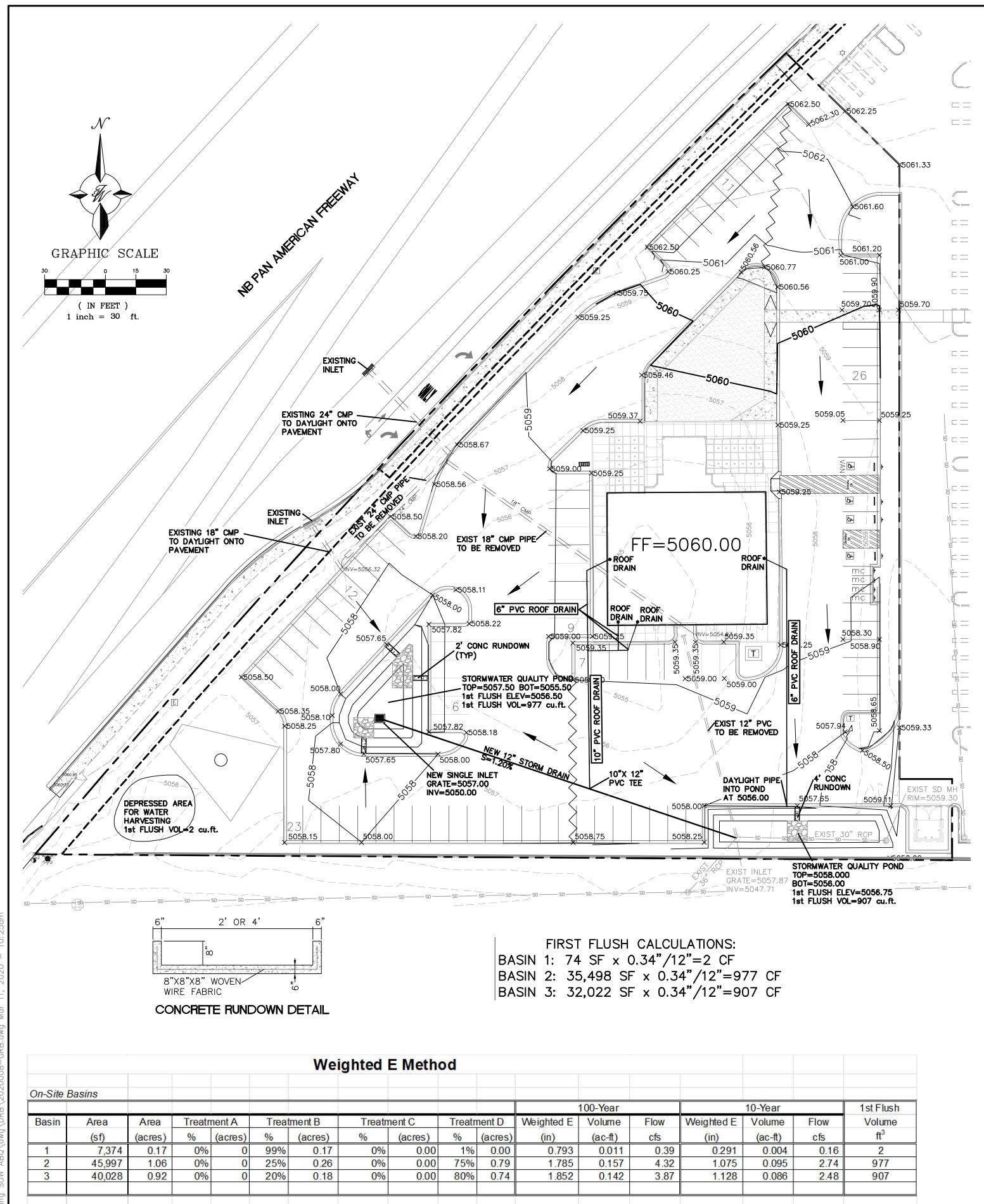
Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Building Permit #:	Hydrology File #: G16D1			
FPC#	Work Order#:			
3 & 4 SRCC ALBUQUERQUE CARPENTERS TRAINING CEN	ITER (A SUBD OF TR A-1-A COMANCHE BUSINESS PARK)			
Y NE ALBUQUERQUE NM 87107				
Applicant: Tierra West, LLC				
Albuquerque NM 87109				
Fax#: 505-858-1118	E-mail: jniski@tierrawestll.com			
	Contact:			
Fax#:	E-mail:			
PLAT (# of lots) RESIDENC	CE DRB SITE _X ADMIN SITE			
Yes X No				
ATION X HYDROLOGY/DR.	AINAGE			
TERVIT APPEIC PREI SITE X SITE SIA/ FOUT (TCL) LAND DEVELOPMENT SECTION GRA WOR CLO FLOOR FLOOR FLOOR WOR CLO FLOOR FLO	TYPE OF APPROVAL/ACCEPTANCE SOUGHT: X BUILDING PERMIT APPROVAL CERTIFICATE OF OCCUPANCY PRELIMINARY PLAT APPROVAL SITE PLAN FOR SUB'D APPROVAL X SITE PLAN FOR BLDG. PERMIT APPROVAL FINAL PLAT APPROVAL SIA/ RELEASE OF FINANCIAL GUARANTEE FOUNDATION PERMIT APPROVAL GRADING PERMIT APPROVAL			
By: Jonathan Niski				
	EPC#: 3 & 4 SRCC ALBUQUERQUE CARPENTERS TRAINING CEN W NE ALBUQUERQUE NM 87107 Albuquerque NM 87109 Fax#: 505-858-1118 Fax#: PLAT (# of lots) RESIDENCY Yes X No TYPE OF X BUIL CER FINA FEB 2 0 2020 FINA GRA WOR CLO FLO OTH			

FEE PAID:___



Peak Discharge (cfs/acre)

Zone 2 100-Year 10 - Year

0.38

0.95

1.71

3.14

1.56

2.28

3.14

4.70

 Q_c

 Q_d

Excess Precipitation, E (inches

0.53

0.78

1.13

2.12

Ec

0.13

0.28

0.52

1.34

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Arc Zone 2 100-Year 10 - Year

Equations:

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

EROSION CONTROL NOTES:

- 1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- 2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- 4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS
- 5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.

NOTICE TO CONTRACTORS

THE RESPONSIBILITY OF THE CONTRACTOR.

- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- 2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
- 3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- 6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE
- 7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

LEGEND CURB & GUTTER **BOUNDARY LINE** RIGHT-OF-WAY —5010———— CONTOUR MAJOR CONTOUR MINOR x 5048.25 SPOT ELEVATION FLOW ARROW EXISTING CURB & GUTTER - EXISTING BOUNDARY LINE EXISTING CONTOUR MAJOR EXISTING CONTOUR MINOR

ABEL MCDONAL R-2 OMPSON & MEXALB TRAC WILSON MANCHE SOUT

G-16-Z



VICINITY MAP

FF=5**0**60.00 BASIN

ENGINEER'S	CARVANA	DRAWN BY
SEAL		RMG
OR BOHAN	3800 PAN AMERICAN FWY N.E.	DATE
	GRADING AND DRAINAGE	03/02/2020
(7868)	PLAN	2020008-GRB
PROPERTY OF THE PROPERTY OF TH		SHEET #
In 12/20/2020	TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109	3
RONALD R. BOHANNAN	(505) 858-3100	JOB #
P.E. #7868	www.tierrawestllc.com	2020008

PROPOSED BASIN MAP

SCALE 1"=60'

EXISTING SITE DRAINAGE:

THE 2.24 ACRE SITE IS LOCATED AT THE SOUTHWEST CORNER OF PAN AMERICAN FREEWAY AND VASSAR DRIVE NE. THE SITE IS BOUNDED ON THE NORTH BY MAIN EVENT, THE WEST BY PAN AMERICAN FREEWAY, THE EAST BY THE CARPENTERS TRAINING CENTER AND ON THE SOUTH BY AN INDUSTRIAL/MANUFACTURING DEVELOPMENT.

THE SITE IS CURRENTLY VACANT DRAINS TO AN EXISTING STORM SEWER INLET WHERE THE WATER IS THEN CONVEYED BY STORM SEWER AND OPEN CHANNEL TO THE GRIEGOS POND THAT WAS CONSTRUCTED WITH SAD 216.

THERE ARE NO OFF-SITE FLOWS ENTERING THIS PARCEL. THIS SITE IS LOCATED IN ZONE "X" WITH THE PREVIOUS FLOOD PLAIN BEING CONFINED TO DRAINAGE STRUCTURES AS SHOWN ON FIRM MAP #35001C0138H.

BASED ON THE APPROVED DRAINAGE REPORT FOR THE CARPENTERS TRAINING CENTER (G16/D145) THIS PROJECT MAY DISCHARGE A TOTAL OF 8.53 CFS. THE INFORMATION PERTAINING TO THE AMOUNT OF DISCHARGE ALLOWED FROM THIS PARCEL IS DETAILED ON PAGE 12 OF THE CARPENTERS TRAINING CENTER REPORT. ALL OF THE FLOWS PASS THROUGH AN EXISTING 48" RCP UNDER INTERSTATE 25 WHICH HAS A CAPACITY FOR 161 CFS. THIS PIPE DAYLIGHTS INTO A PONDING AREA WEST OF THE INTERSTATE AND EVENTUALLY DRAINS INTO THE GRIEGOS POND.

PROPOSED SITE DRAINAGE:

UTILIZE LOW IMPACT DEVELOPMENT (LID) WHERE POSSIBLE ALLOWING SURFACE STORM WATER TO FLOW THROUGH LANDSCAPED AREAS PRIOR TO DISCHARGING TO THE STORM SEWER. THERE ARE THREE PROPOSED BASINS AS SHOWN ON THE PROPOSED BASIN MAP ON

BASIN 1 CONSISTS OF A LANDSCAPED AREA IN THE SOUTHWEST CORNER THAT CONTAINS AN EXISTING BILLBOARD. THIS SMALL AREA WILL BE DEPRESSED AND THE WATER THAT FALLS ON IT WILL BE ALLOWED TO POND. THIS BASIN ONLY GENERATES 0.39 CFS. BASIN 2 CONSISTS OF THE WESTERN HALF OF THE SITE AND WILL SURFACE DRAIN TO A PROPOSED DETENTION POND THAT WILL CONTAIN THE REQUIRED 977 CUBIC FEET OF FIRST FLUSH VOLUME. THE REMAINING FLOW WILL OVERFLOW INTO A PROPOSED DROP INLET. THOSE FLOWS WILL BE CONVEYED VIA STORM SEWER TO AN EXISTING DROP INLET AND STORM SEWER SYSTEM LOCATED IN

BASIN 3 CONSISTS OF THE EASTERN HALF OF THE SITE AND WILL SURFACE DRAIN TO AN EXISTING DROP INLET LOCATED ON THE SOUTH END OF THE PARCEL. A POND IS PROPOSED AROUND THE INLET TO CONTAIN THE REQUIRED 907 CUBIC FEET OF FIRST FLUSH VOLUME. THE REMAINING FLOW WILL OVERFLOW INTO THE EXISTING INLET. THE FLOW DISCHARGED FROM THIS BASIN IS 3.87 CFS. THE TOTAL PROPOSED FLOW FROM THIS PROJECT IS 8.19 CFS, WHICH IS SLIGHTLY LESS THAN THE ALLOWED FLOW OF 8.53 CFS AS APPROVED IN THE CARPENTER'S TRAINING CENTER REPORT.

CHANNEL INLET CAPACITY

WEIR EQUATION:

Q= FLOW

C = 2.95L= LENGTH OF WEIR H = HEIGHT OF WEIR

BASIN 2 CONCRETE RUNDOWNS

Q=2.95*2*.52

Q = 2.09 CFS2.09 CFS > 1.44 CFS RUNDOWNS HAVE CAPACITY

BASIN 3 CONCRETE RUNDOWN

$Q=2.95*4*.5\frac{3}{2}$

Q = 2.09 CFS4.17 CFS > 3.87 CFS RUNDOWNS HAVE CAPACITY

		Pipe Capacity					
Pipe	D	Slope	Area	R	Q Provided	Q Required	Velocity
	(in)	(%)	(ft^2)		(cfs)	(cfs)	(ft/s)
1	12	1.2	0.79	0.250	4.62	4.32	5.50
Manning's Equat	ion:						
Q = 1.49/n * A * R	^(2/3) * S^(1/	2)					
A =	Area						
R =	D/4						
S =	Slope						
n =	0.011						