

# CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services



Richard J. Berry, Mayor

April 11, 2016

Mr. Philip W. Clark, P.E.  
Clark Consulting Engineers  
19 Ryan Rd.  
Edgewood, NM 87015

**RE: PJ's Motorcycle Additions  
12910 Central Ave SE  
Grading & Drainage Plan  
Engineer's Stamp Date 3-16-16 (Revised 4-11-16) (File: L22D059)**

Dear Mr. Clark:

Based upon the information provided in your submittal received 4-11-2016, the above referenced Grading and Drainage Plan is approved for Building Permit. Please attach a copy of this approved plan in the construction sets when submitting for a building permit.

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 924-3986.

Sincerely,

Abiel Carrillo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services

Orig: Drainage file

L-22



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: PJ's Motorcycle Additions Building Permit #: \_\_\_\_\_ City Drainage #: L22 / 0059  
DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
Legal Description: Tracts A-1 AND A-2 LANDS OF RICHARD RUST  
City Address: 12910 CENTRAL AVE SE

Engineering Firm: Clark Consulting Engineers Contact: Philip Clark  
Address: 19 Ryan Road, Edgewood, NM 87015  
Phone#: 281-2444 Fax#: CELL# 264-6042 E-mail: CCEalbq@aol.com  
Owner: \_\_\_\_\_ Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Architect: RICHARD STEFFEY Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_  
Other Contact: GEN CONTRACTOR, LATITUDE Contact: ROB  
Address: \_\_\_\_\_  
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Check all that Apply:

### DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE  
☐ TRAFFIC/ TRANSPORTATION  
☐ MS4/ EROSION & SEDIMENT CONTROL

### TYPE OF SUBMITTAL:

☐ ENGINEER/ ARCHITECT CERTIFICATION  
☐ CONCEPTUAL G & D PLAN  
☒ GRADING PLAN  
☐ DRAINAGE MASTER PLAN  
☒ DRAINAGE REPORT  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)  
☐ OTHER (SPECIFY) \_\_\_\_\_

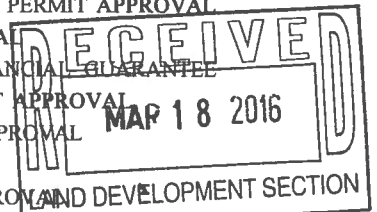
IS THIS A RESUBMITTAL? ☐ Yes ☒ No

DATE SUBMITTED: 3-2-2016 By: CLARK CONSULTING ENGINEERS

### CHECK 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 AND DEVELOPMENT SECTION  
☐ GRADING/ PAD CERTIFICATION  
☐ WORK ORDER APPROVAL  
☐ CLOMR/LOMR

☐ PRE-DESIGN MEETING  
☐ OTHER (SPECIFY) \_\_\_\_\_



*\$50.00 paid*

*Enc*

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_



GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL PROJECT IS LOCATED IN THE FAR EAST CENTRAL AVE. AREA IN THE CITY OF ALBUQUERQUE. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

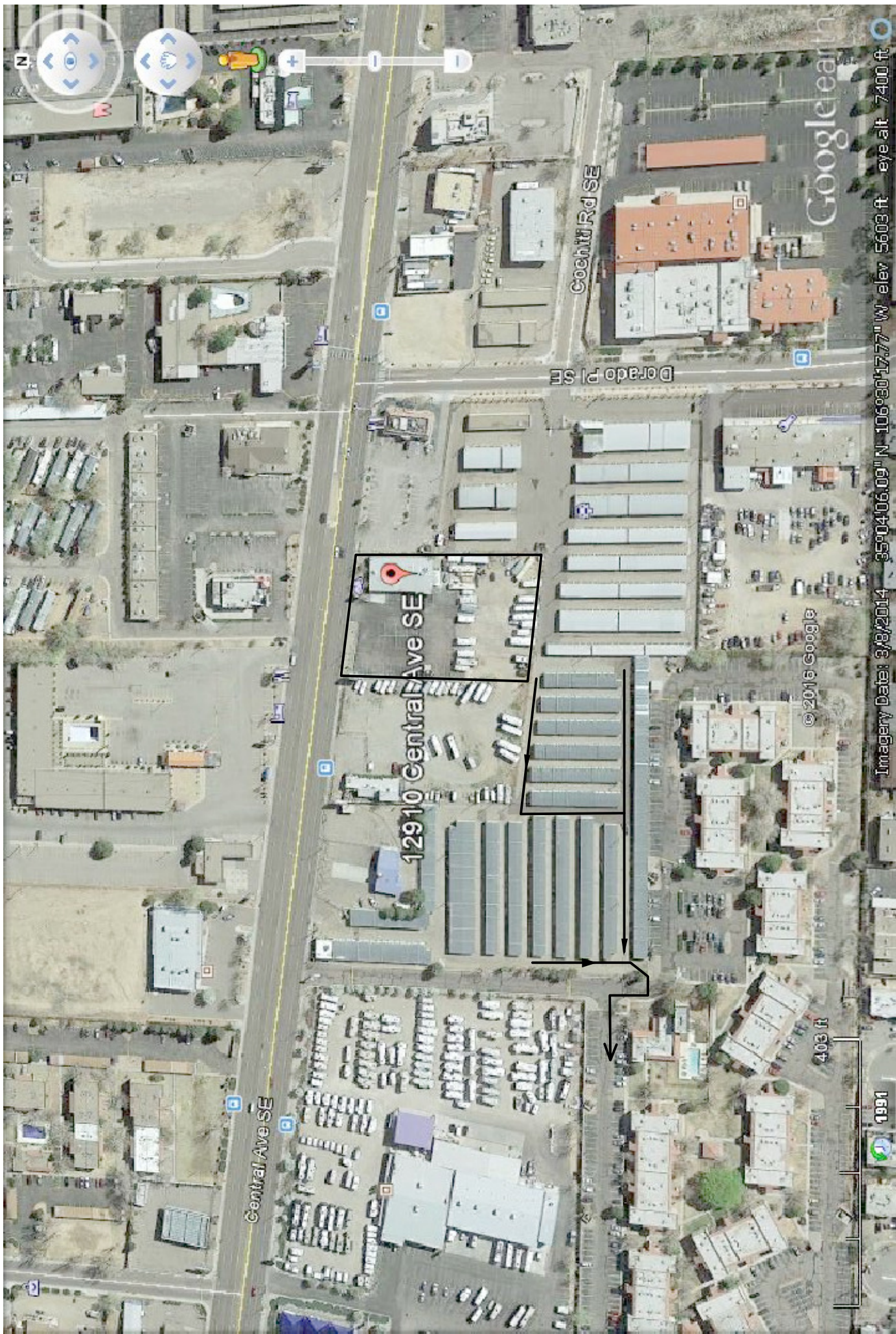
- 1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING ADJACENT STRUCTURES
- 2. PROPOSED IMPROVEMENTS: APPROX. 6000 SF BUILDING ADDONS, PRIVATE ASPHALT DRIVEWAY AND PARKING UPGRADES, NEW GRADE ELEVATIONS, AND LANDSCAPING IMPROVEMENTS.
- 3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- 4. PROPOSED IMPROVEMENTS TO THE EXISTING DRAINAGE SYSTEM AS RECOMMENDED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOODS, INCLUDING NEW FLOODING RECOMMENDATIONS.

PRESENTLY, THE SITE IS DEVELOPED AND SURROUNDED BY DEVELOPED COMMERCIAL PROPERTY. CENTRAL AVENUE ON THE NORTH IS A 4-LANE PAVED, CURB/GUTTER CITY MAINTAINED MINOR ARTERIAL STREET WITH 6' WIDE SIDEWALKS. THE SITE TERRAIN SLOPES FROM NORTHEAST TO SOUTHWEST AT 2-3% SLOPES.

THE SITE IS NOT WITHIN OR ADJACENT TO A DESIGNATED FEMA FLOOD HAZARD ZONE. DEVELOPED LOT RUNOFF WILL BE PERMITTED TO DRAIN TO THE NEW RETENTION. HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH THE PROPOSED IMPROVEMENTS. THE PROPOSED IMPROVEMENTS WILL BE PERMITTED TO DRAIN TO THE NEW RETENTION. DRAINAGE FACILITIES EXIST. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING AS POINT RAINFALL. ROOF DRAINAGE OF THE EXISTING STRUCTURE DOES DRAIN DIRECTLY TO CENTRAL VIA THE SIDEWALK CULVERT. NO OFF-SITE FLOWS ENTER THE SITE AS INDICATED.

SITE IS NOT IMPACTED BY SPECIAL FLOOD HAZARD AREA

FIRM MAP PANEL # 359 G



CALCULATIONS

DESIGN CRITERIA  
HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993, FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO  
DISCHARGE RATE: Q=QPEAK x AREA, "Peak Discharge Rates For Small Watersheds"  
VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA  
P100 = 2.96 Inches, Zone 3 Time of Concentration, TC = 10 Minutes  
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

EXISTING CONDITIONS  
LOT AREA = 1.2 ACRES, 66% Developed  
PEAK DISCHARGE, Q100 = 5.0 CFS [3], WHERE UNIT PEAK DISCHARGE = 4.2 CFS/AC. [2.0]  
THEREFORE: VOLUME 100 = 7841 OF [x\*]

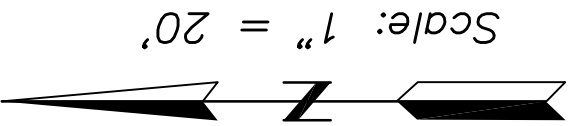
DEVELOPED CONDITIONS.

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA	
AREA	LAND TREATMENT
UNDEVELOPED	0.66 Ac.(0%)
LANDSCAPING/POND	0.06 Ac.(5%)
GRAVEL & COMPACTED SOIL	0.44 Ac.(37%)
ROOF - PAVEMENT	0.7 Ac.(58%)
THEREFORE: E Weighted = 1.89 in.[1.16] & Q100 =5.86 CFS	
VOLUME 100 = 9193 OF	

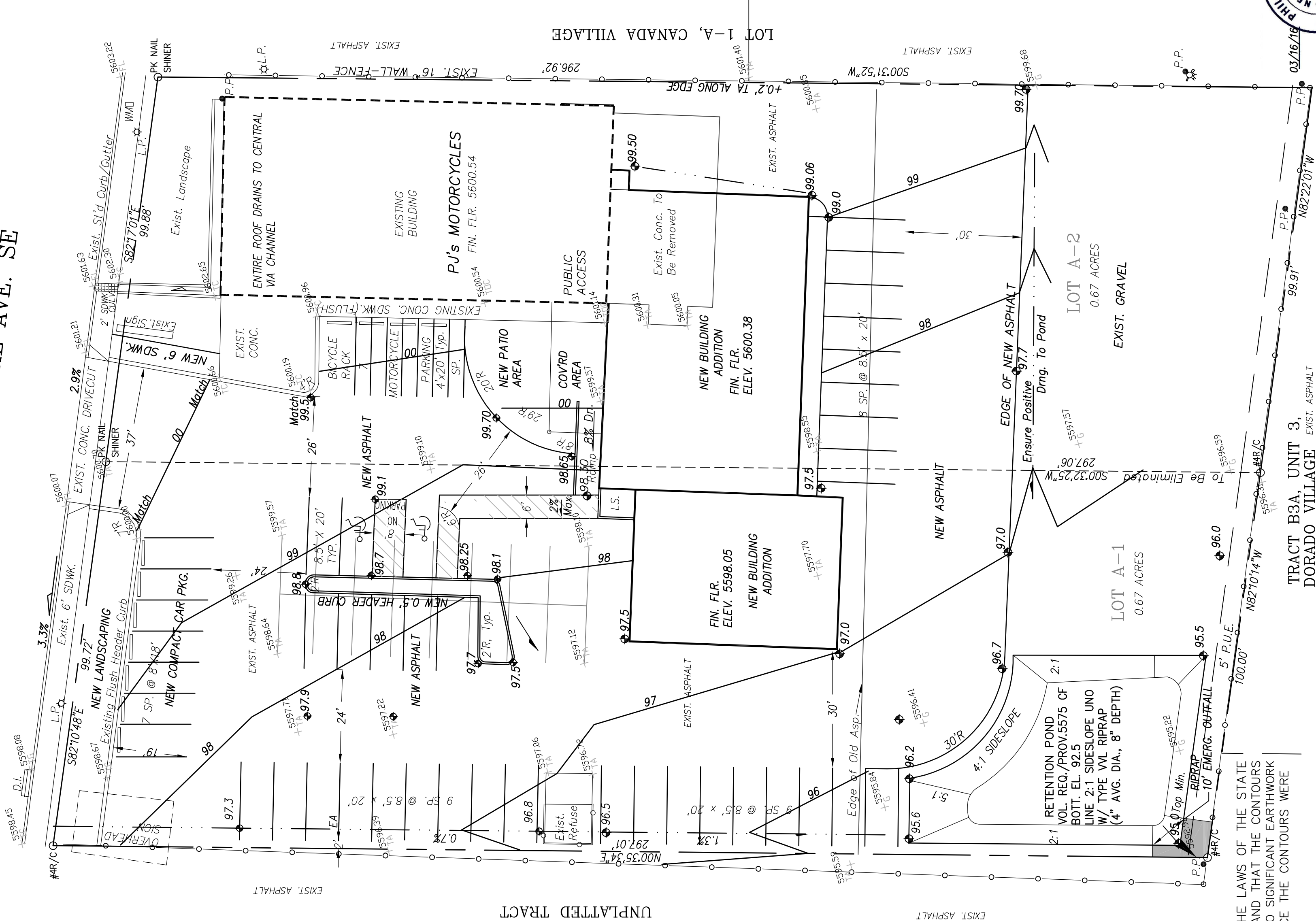
POND CALCS.  
2900 SF. AREA OF TOP TO ELEV. 95  
1560 SF. AREA OF BOT., @ 92.5  
THEN: 2900-1560/2 x 2.5 = 5575 OF PROVIDED  
FIRST FLUSH, PER DPM, WATER QUALITY TABLE 2:  
0.34"/12 x 0.7 AC. x 43560 = 864 CF, CONTAINED AT BOTTOM OF POND

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO SIGNIFICANT EARTHWORK NOR MAJOR DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK NMPE #10265



12910 CENTRAL AVE. SE  
103' R.O.W.



TRACT B3A, UNIT 3,  
DORADO VILLAGE



NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 1986, W/ 9 UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1012, NATIVE SEED MIX.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
8. NEW ASPHALT PAVEMENT SHALL CONSIST OF 2" ASPHALT CONCRETE OVER 6" CRUSHED/BLENDED ASPHALT BASE ON 8" COMPACTED SUBGRADE, 95% PROCTOR, ASTM D-1557

LEGEND

- EXIST. SPOT ELEVATION
- EXIST. CONTOUR
- NEW SPOT ELEVATION
- NEW CONTOUR
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- FLOWLINE
- EXISTING POWER POLE
- NATURAL GROUND, EXISTING
- TOP OF BERM
- REBAR AND CAP, EXISTING
- CHAIN LINK FENCE, EXISTING
- NEW P.C.C., CONCRETE

PROJECT DATA

LEGAL DESCRIPTION (EXISTING)  
TRACTS A-1 & A-2, LANDS OF RICHARD F. TRUST  
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO  
PROJECT BENCHMARK  
NORTHWEST PROPERTY CORNER, TOP REBAR/CAP  
SEE PLAN, ELEVATION = 5598.36, AS TIED FROM ACS CONTROL MONUMENT  
4-L22 (ELEV. 5596.42) NAVD88  
TOPOGRAPHIC DESIGN SURVEY  
PERFORMED AUGUST 2006 BY THREE SURVEYING, AND SUPPLEMENTED  
FEBRUARY 2016.

Clark Consulting Engineers

19 Ryon Road Edgewood, New Mexico 87015 Tel: (505) 281-2444 Ext. (505) 281-2444	
DATE	REVISION
TRACTS A-1 & A-2, LANDS OF RICHARD F. TRUST ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO	
12910 CENTRAL AVE. NE	

Grading & Drainage  
Plan

DESIGNED BY: PWC	DRAWN BY: CCE	JOB #P-15-HELMCK	1 OF 1
CHECKED BY: PWC	DATE:1/29/16	FILE # G/D	



## PJ's Motorcycles - 12910 Central Avenue

Reference: Development Process Manual, Section 22.2, Hydrology  
Applicable Bernalillo County Precipitation Zone: 3

**FOR REVIEW PURPOSES ONLY, NOT FOR DESIGN**

### Precipitation Depths<sub>100-Year</sub> [inches]:

P <sub>60</sub>	P <sub>360</sub>	P <sub>1440</sub>	P <sub>4days</sub>	P <sub>10days</sub>
2.14	2.6	3.1	3.95	4.9

### Peak Discharge<sub>100Year/6Hour</sub> [cfs/acre]:

A	B	C	D
1.87	2.6	3.45	5.02

for  $t_c = .2$  hour

Zone 3 Peak Intensity [in/hr]:

I = 5.38

### Existing Conditions: Estimate from Google Earth Measurements

Land Treatment	Area [ft <sup>2</sup> ]	Area [acre]	% of Total Area	Excess Prec. <sub>100-6</sub> [in]	Weighted E [in]	Volume <sub>360</sub> [acre-ft]	Volume <sub>1440</sub> [acre-ft]	Volume <sub>10day</sub> [acre-ft]	Q <sub>100Year/6Hour</sub> [cfs]	Rational Method, C	Rational Method, Q [cfs]
A		0.0000	0.00%	0.66	--	0.0000	--	--	0.0	0.39	0.0
B		0.0900	7.38%	0.92	--	0.0130	--	--	0.2	0.52	0.3
C		0.6000	49.18%	1.29	--	0.0864	--	--	2.1	0.66	2.1
D		0.5300	43.44%	2.36	--	0.0763	--	--	2.7	0.94	2.7
<b>Totals</b>	<b>0.0000</b>	<b>1.2200</b>	<b>100.00%</b>	<b>--</b>	<b>1.7275</b>	<b>0.1756</b>	<b>0.1977</b>	<b>0.2772</b>	<b>5.0</b>	<b>--</b>	<b>5.1</b>

Area D reduced because ex bldg drains north (0.12 acres)

check: 0.1756

Volume<sub>360</sub> [CF] = 7651 8613 = Volume<sub>1440</sub> [CF]

### Proposed Conditions: From Proposed Plan Assumptions

Land Treatment	Area [ft <sup>2</sup> ]	Area [acre]	% of Total Area	Excess Prec. <sub>100-6</sub> [in]	Weighted E [in]	Volume <sub>360</sub> [acre-ft]	Volume <sub>1440</sub> [acre-ft]	Volume <sub>10day</sub> [acre-ft]	Q <sub>100Year/6Hour</sub> [cfs]	Rational Method, C	Rational Method, Q [cfs]
A		0.0000	0.00%	0.66	--	0.0000	--	--	0.0	0.39	0.0
B		0.0600	4.92%	0.92	--	0.0094	--	--	0.2	0.52	0.2
C		0.4600	37.70%	1.29	--	0.0723	--	--	1.6	0.66	1.6
D		0.7000	57.38%	2.36	--	0.1100	--	--	3.5	0.94	3.5
<b>Totals</b>	<b>0.0000</b>	<b>1.2200</b>	<b>100.00%</b>	<b>--</b>	<b>1.8857</b>	<b>0.1917</b>	<b>0.2209</b>	<b>0.3259</b>	<b>5.3</b>	<b>--</b>	<b>5.3</b>

Area D reduced because ex bldg drains north (0.12 acres)

check: 0.1917

100-Yr, 6hr Storm Volume<sub>360</sub> [CF] = 8351 9622 = Volume<sub>1440</sub> [CF]

In a triangular hydrograph, the peak discharge occurs approximately when half of the volume is discharged. Since the proposed pond captures volume beyond half of the total 24-hour volume, then the pond will attenuate the peak discharge leaving the site. This will actually lower the historical peak discharge and as shown above will significantly lower the total 24-hr volume discharged. The 2-year and 10-year storms are expected to be completely retained.

First Flush is contained in the pond, .34"x0.7 ac= 864 CF

|