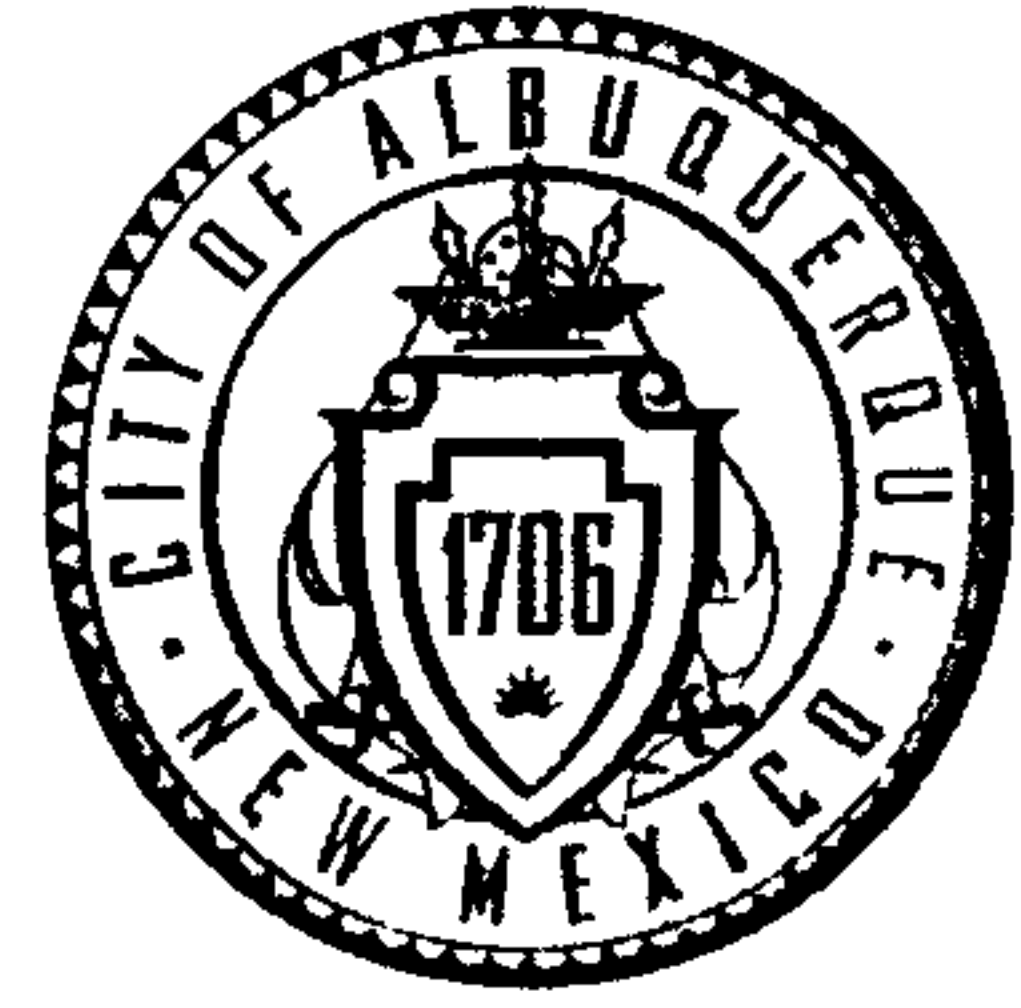


CITY OF ALBUQUERQUE

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

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_{100-Year} [inches]:

P ₆₀	P ₃₆₀	P ₁₄₄₀	P _{4days}	P _{10days}
2.14	2.6	3.1	3.95	4.9

Peak Discharge_{100Year/6Hour} [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 ²]	Area [acre]	% of Total Area	Excess Prec. ₁₀₀₋₆ [in]	Weighted E [in]	Volume ₃₆₀ [acre-ft]	Volume ₁₄₄₀ [acre-ft]	Volume _{10day} [acre-ft]	Q _{100Year/6Hour} [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
Totals	0.0000	1.2200	100.00%	--	1.7275	0.1756	0.1977	0.2772	5.0	--	5.1

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

check: 0.1756

Volume₃₆₀ [CF] = 7651 8613 = Volume₁₄₄₀ [CF]

Proposed Conditions: From Proposed Plan Assumptions

Land Treatment	Area [ft ²]	Area [acre]	% of Total Area	Excess Prec. ₁₀₀₋₆ [in]	Weighted E [in]	Volume ₃₆₀ [acre-ft]	Volume ₁₄₄₀ [acre-ft]	Volume _{10day} [acre-ft]	Q _{100Year/6Hour} [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
Totals	0.0000	1.2200	100.00%	--	1.8857	0.1917	0.2209	0.3259	5.3	--	5.3

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

check: 0.1917

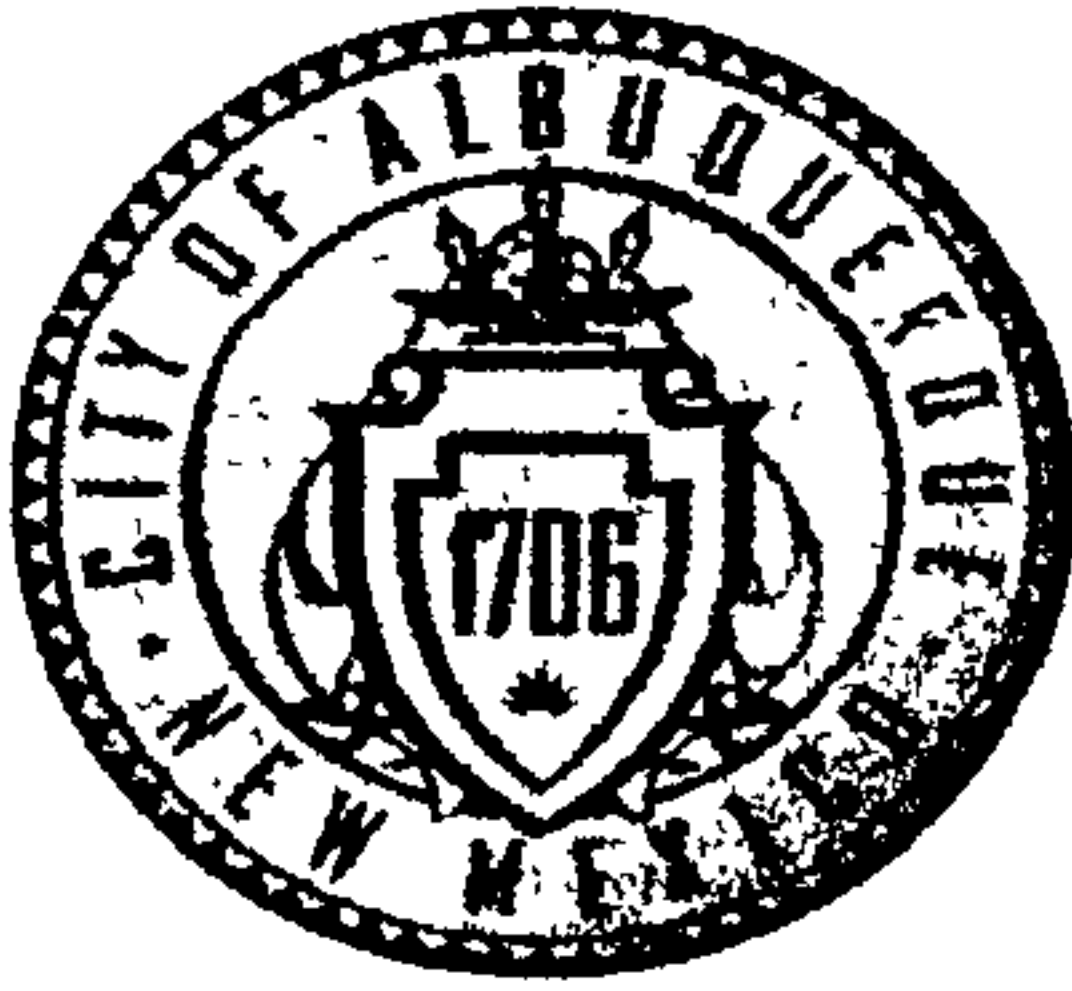
100-Yr, 6hr Storm Volume₃₆₀ [CF] = 8351 9622 = Volume₁₄₄₀ [CF]

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

PJ's Motorcycle Calculations

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 / D059
 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: CCEalbu@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: _____

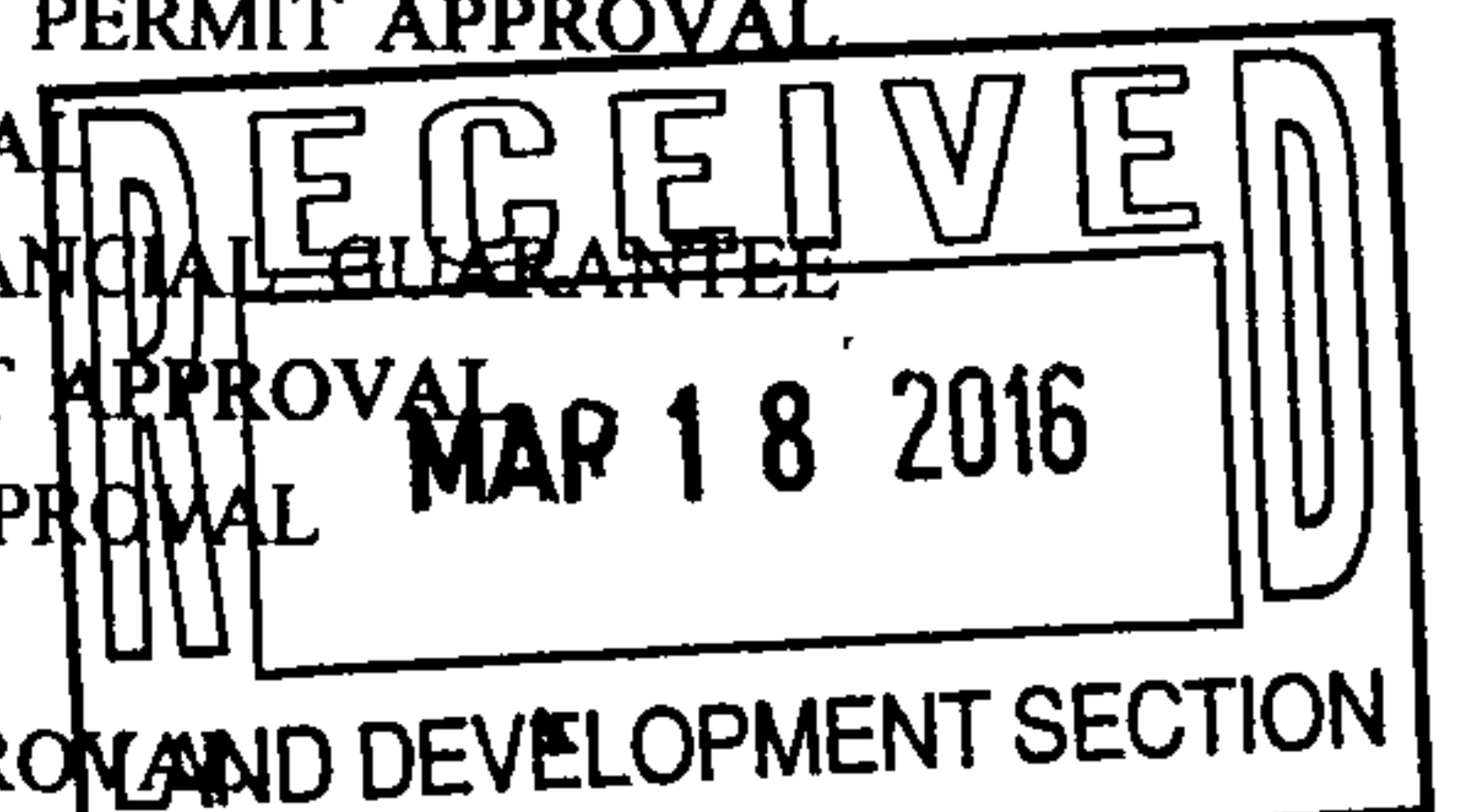
Check all that Apply:

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) _____

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
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR



IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

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

ARC

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

Abiel X. Carrillo

From: Abiel X. Carrillo
Sent: Friday, April 08, 2016 12:55 PM
To: 'CCEAlbq@aol.com'
Subject: L22D059 - PJ's Motorcycle Site Expansion - 3-16-2016 Stamp Date

Phil,

Based upon the information provided in your submittal received 3-18-2016, the above-referenced Grading and Drainage Plan cannot be approved for Building Permit until the items below are addressed:

1. The concept of the plan is acceptable, but the hydrology calculations need to be updated as follows:
 - a. DESIGN CRITERIA: The site is in Zone 3 not Zone 4, which will help reduce the 'historical flow' being released.
 - b. EXISTING CONDITIONS: The site is analyzed with 100% Land Treatment A, which is not correct, half of the lot is developed.
 - c. DEVELOPED CONDITIONS: The calculated 100-yr volume does not appear to be correct.
 - d. FIRST FLUSH: Although the pond is expected to manage the first flush volume in its entirety, please be aware for future reference that the first flush is calculated by taking the impervious area and multiplying by 0.34" (0.44" per the Ordinance minus 0.1" for initial abstraction).
2. The pond should retain the 100-yr, 6-hr design storm, which is approximately 8350 CF (by my calculation using your land treatment numbers). If you are not able to meet that volume, justify on the plan. Fortunately, it appears that the peak flow will actually be lowered since you are retaining more than half the design storm.
3. We recommend using a "recoverable" slope along the edge of the pond that is next to the driving lane (Not a hydrology requirement, just a recommendation).

I realize that these comments may be considered minor, but we need to make sure that the plan is aligned with the DPM, given the sensitivity of discharging to the adjacent property.

Also, you are welcomed to swap out the sheet instead of making a new submittal if you keep the same stamp date since the adjustment is minor.

Any question just let me know.

Abiel Carrillo, P.E.

Principal Engineer - Hydrology
Planning Department
Development Review Services Division
City of Albuquerque
505-924-3986
acarrillo@cabq.gov
600 2nd Street NW
Albuquerque, NM 87102

Settled on capturing
about 60% of the
hydrograph.
SS 75 CF.