

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

August 6, 2019

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: McMahon Market Place New Shell Building
5710 McMahon Blvd NW
Engineer's Stamp Date: 08/01/19
Hydrology File: A11D011H1

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 08/02/2019, the Grading and Drainage Plan is approved for Building Permit.

Albuquerque

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.

NM 87103

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

Sincerely,

www.cabq.gov

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

McMahon Market Place

Project Title: New Shell Building Building Permit #: _____ Hydrology File #: A11D011H

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Lots 5A & 6A-1, McMahon Marketplace

City Address: 5720 McMahon Blvd. NW - Albuquerque, NM 87114

Applicant: Isaacson & Arfman, PA Contact: Fred C. Arfman or
Bryan J. Bobrick

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com
bryan@iacivil.com

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL: _____ PLAT (____ # OF LOTS) _____ RESIDENCE _____ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL?: ☒ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE MASTER PLAN
- ☐ DRAINAGE REPORT
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ OTHER (SPECIFY) _____
- ☐ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

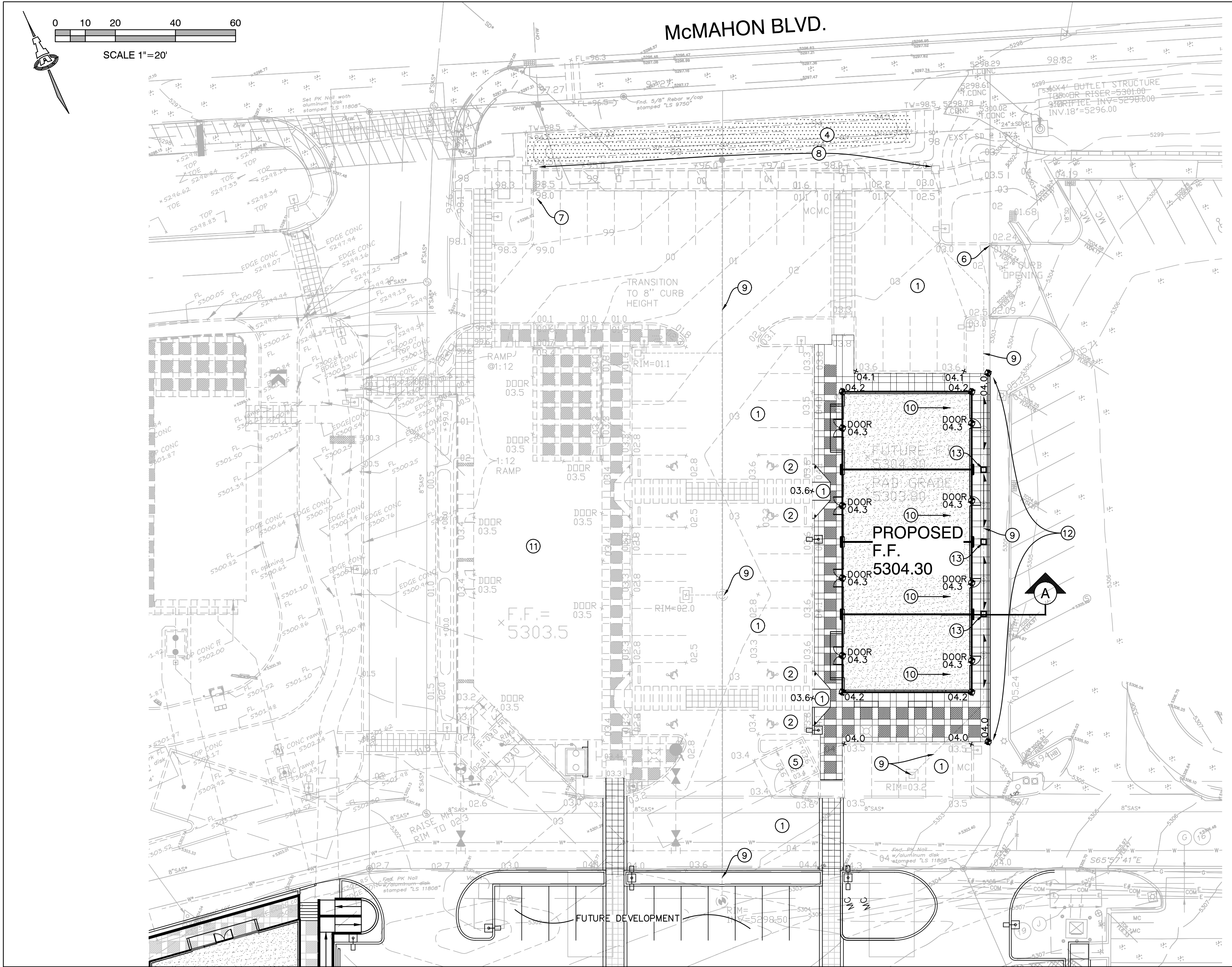
- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ SITE PLAN FOR SUB'D APPROVAL
- ☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ GRADING/ PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR
- ☐ FLOODPLAIN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) _____

DATE SUBMITTED: August 2, 2019 By: Fred C. Arfman

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



- ### GENERAL NOTES
- A. PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- B. IF FIELD GRADE ADJUSTMENTS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR INSTRUCTIONS.
- C. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NPDES PERMIT, AND AN EROSION AND SEDIMENT CONTROL (ESC) PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NPDES PERMIT, AND ESC PLAN BY OTHERS.) A CURRENT CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING, BUILDING, OR WORK ORDER PERMIT.
- D. MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.
- E. TRANSITIONS BETWEEN NEW AND EXISTING SHALL BE SMOOTH.
- F. PAVEMENT GRADES IN MARKED HANDICAPPED PARKING AREAS SHALL NOT EXCEED 2.0% IN ANY DIRECTION. FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES, WHICHEVER IS MORE STRINGENT.
- G. POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. PERIODIC INSPECTION AND CERTIFICATIONS OF THE FACILITIES MAY BE REQUIRED BY THE CITY ENGINEER. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- H. FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE (FOR CERTIFICATE OF OCCUPANCY) CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES:
- AS-BUILT SPOT ELEVATIONS AT EACH DESIGN SPOT ELEVATION SHOWN ON THE APPROVED PLAN;
 - ALL CONSTRUCTION, INCLUDING DRAIN INLETS, PIPES AND PONDS SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLAN IN ORDER TO RECEIVE ENGINEER'S CERTIFICATION.
- I. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE INSTALLATION OF ALL WORK RELATED TO PROPOSED STORM DRAINS SHOWN ON THIS PLAN, INCLUDING: TRENCHING, BACKFILL, INLETS, TESTING AND CLEANING. ANY WORK NOT ACCEPTED BY THE ARCHITECT OR ENGINEER DUE TO IMPROPER WORKMANSHIP OR LACK OF PROPER COORDINATION SHALL BE REMOVED AND CORRECTLY INSTALLED AT THE CONTRACTOR'S EXPENSE, AS DIRECTED.
- J. MINIMUM COVER FOR STORM DRAIN PIPES SHALL BE 12", UNLESS OTHERWISE NOTED.
- K. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTIONS TO ROOF DOWNSPOUTS AND ALL NECESSARY FITTINGS. FITTING COSTS SHALL BE INCIDENTAL.
- L. TRENCHING, BORING, AND JACKING SHALL BE CONSTRUCTED IN ACCORDANCE WITH COA SPEC. SECT. 700. ALL BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% DENSITY PER ASTM D-1557.
- M. ALL INLET AND AREA DRAIN RINGS & GRATES, MANHOLE RINGS & COVERS, AND OTHER SURFACE FEATURES SHALL BE ADJUSTED TO FINISHED GRADE, UNLESS OTHERWISE NOTED ON THE PLANS.
- N. HDPE PIPE SHALL BE ADS N-12 (WATERTIGHT) OR ENGINEER APPROVED EQUIVALENT. HDPE PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- O. PVC PIPES SHALL BE PVC SDR-35, INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

- ### KEYED NOTES
- EXISTING PAVING / WALKS / CROSSWALKS / CURB AND GUTTER.
 - EXISTING HC PARKING AREA.
 - CONSTRUCT ADA COMPLIANT HANDICAP ACCESS RAMP AT ELEVATIONS SHOWN (1" PER FOOT - LENGTH VARIES). MAX. 2% CROSS-SLOPE. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
 - EXISTING 'FIRST FLUSH' RETENTION PAD AND DETENTION PONDING.
 - EXISTING CONCRETE DUMPSTER PAD AND ENCLOSURE.
 - EXISTING CURB OPENING AT FLOWLINE SHOWN.
 - EXISTING COVERED SIDEWALK CULVERT.
 - EXISTING RETAINING WALL.
 - EXISTING PRIVATE STORM DRAIN SYSTEM.
 - EXTEND LOT 6A1 ROOF DISCHARGE PIPE DIRECTLY 8"Ø EAST STORM DRAIN SYSTEM USING FITTINGS AS REQUIRED. SEE PLUMBING PLANS FOR SPECIFIC DISCHARGE LOCATIONS.
 - EXISTING LOT 5A ROOF DISCHARGE IS RELEASED TO WEST SIDE OF BUILDING.
 - CONSTRUCT 123 LF CONCRETE GARDEN WALL ALONG EDGE OF NEW WALK TO TRANSITION GRADES. TOP OF WALL = 05.5 TYPICAL. SEE SECTION A.
 - INSTALL ADS INLINE DRAIN WITH 12" SQUARE HINGED GRATE @ 25' O.C. (THREE TOTAL) AT RIM = 04.0. LOCATE EQUIDISTANCE FROM DOORS. PROVIDE WATERTIGHT CONNECTION TO EXISTING 8" STORM DRAIN USING FITTINGS AS REQUIRED. SLOPE WALK TO INLETS.

CALCULATIONS

CALCULATIONS: McMahon Marketplace - Lot 6A1 : August 1, 2019

Based on Drainage Design Criteria for City of Albuquerque
Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE CALCULATIONS: 100-YEAR, 6-HOUR STORM

AREA OF SITE:	23201	SF	=	0.53
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DEVELOPED FLOWS:

Treatment S	%	EXCESS PRECIP:
Area A	0	0%
Area B	1160	5%
Area C	1856	8%
Area D	20185	87%
Total Are	23201	100%

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E =	$\frac{E_A A + E_B B + E_C C + E_D D}{A + B + C + D}$	
	$\frac{0 + 0.44(1160) + 0.67(1856) + 0.99(20185)}{23201}$	
		1.83 in.

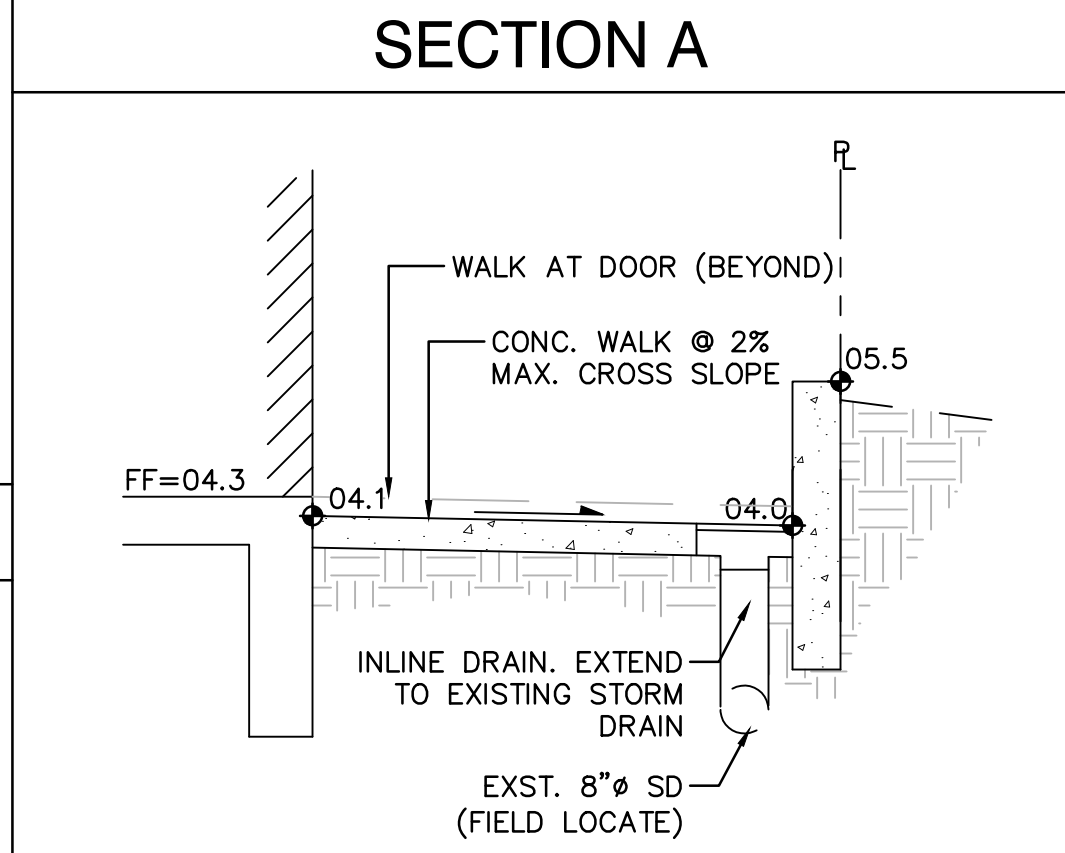
On-Site Volume of Runoff: $V_{360} = E^* A / 12$

	Developed V_{360}	=	3532 CF
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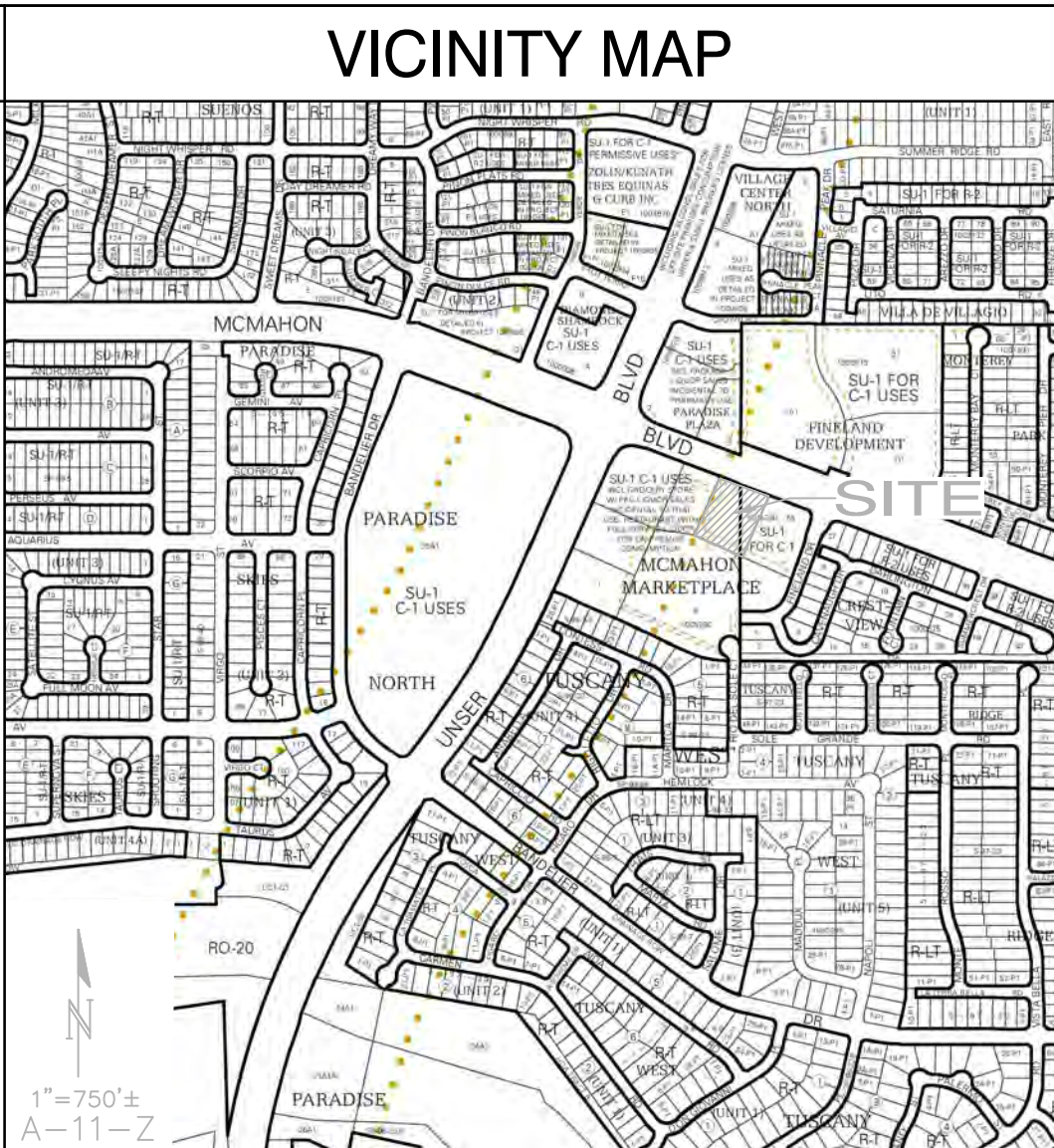
On-Site Peak Discharge Rate: $Q_p = Q_p A A + Q_p B B + Q_p C C + Q_p D D / 43.56$

For Precipitation Z_o 1

$Q_p A$	=	1.29	$Q_p C$	=	2.87
$Q_p B$	=	2.03	$Q_p D$	=	4.37
			Developed Q_p	=	2.2 CFS



- ### LEGEND
- ×03.4 EXISTING SPOT ELEVATION
 - 06--- EXISTING CONTOUR
 - 06— PROPOSED CONTOUR (1' INCREMENT)
 - ◆06.2 PROPOSED SPOT ELEVATION
 - FLOW ARROW
 - F.F.= FINISH FLOOR ELEVATION
 - [Pattern] EXISTING FIRST FLUSH RETENTION PONDING AREA



PROJECT DATA

PROPERTY: THE SITE IS A DEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE EAST, SOUTH AND WEST BY MCMAHON MARKETPLACE DRIVES AND COMMERCIAL PROPERTIES AND NORTH BY MCMAHON BLVD.

SITE AREA: 1.22 ACRES

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE TWO MULTI-UNIT RETAIL PADS, PAVED PARKING, PEDESTRIAN WALKS, DRAINAGE IMPROVEMENTS, AND LANDSCAPING.

LEGAL: LOTS 5A AND 6A-1, MCMAHON MARKETPLACE, CITY OF ALBUQUERQUE, NEW MEXICO.

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY MONUMENT "9-A11", ELEVATION = 5301.647 (NAVD 1988)

OFF-SITE: A PORTION OF LOT 8 (DEVELOPED) AND LOT 9 (PARTIALLY DEVELOPED) WILL CONTINUE TO DRAIN THROUGH THIS PROPERTY AS PROVIDED IN THE AMENDED DRAINAGE MANAGEMENT PLAN.

ELOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN ACCORDING TO THE FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS MAP NO. 35001C0104H, MAP REVISED AUGUST 16, 2012.

DRAINAGE PLAN CONCEPT: PER THE AMENDED DRAINAGE MANAGEMENT PLAN PREPARED BY ISAACSON & ARFMAN PA DATED 07-13-17, THE WHOLE OF THE MCMAHON MARKETPLACE PROPERTY MAY DISCHARGE 41.55 CFS.

LOT 6A1 WAS FULLY ANALYZED AS PART OF CABQ HYDROLOGY FILE A11D011H AND THE MAJORITY OF THE SITE INFRASTRUCTURE WAS CONSTRUCTED ALONG WITH THE ADJACENT PROPERTY (LOT 5A). THIS INCLUDED SITE PAVEMENT, CURB& GUTTER, STORM DRAIN IMPROVEMENTS, ALL STORMWATER QUALITY AND DETENTION PONDING, ETC.

STORMWATER CONTROL MEASURES: ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM.

THE SHARED POND ON THE NORTH END OF THE PROPERTY WAS CONSTRUCTED AS PART OF THE LOT 5A/6A1 CONSTRUCTION. THIS POND PROVIDES FOR THE FULL STORMWATER QUALITY RETENTION REQUIREMENT. ALL STORM WATER FROM THE IMPERVIOUS AREAS ARE DIRECTED TO THIS POND.

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE, 87111
TELEPHONE: (505) 268-8828

SURVEYOR: RUSS P. HUGG, NMPS NO. 9750
SURV-TEK, INC.
9384 VALLEY VIEW DR. NW, 87114
TELEPHONE: (505) 897-3366

CONSTRUCTION STAKING / LAYOUT

UPON WRITTEN REQUEST COORDINATED THROUGH THE PROJECT ARCHITECT, THE ELECTRONIC FILE OF THE GRADING AND DRAINAGE WILL BE PROVIDED TO THE CONTRACTOR FOR VERTICAL CONTROL. DO NOT USE THIS PLAN FOR PROJECT STAKING.

SITE CONSTRUCTION LAYOUT / STAKING SHALL BE COORDINATED WITH THE ARCHITECT USING THE ARCHITECT PROVIDED SITE PLAN.

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com

MARTIN FM GRUMMER ARCHITECT
331 WILHELM PLAZA NE
ALBUQUERQUE, NEW MEXICO 87106
(505) 265-2507

FRED C. ARFMAN
NEW MEXICO
7322
LICENSED PROFESSIONAL ENGINEER
08-01-19

**McMAHON MARKET PLACE
NEW SHELL BUILDING
5720 McMAHON BLVD NW
ALBUQUERQUE, NM 87114**

GRADING & DRAINAGE PLAN

DATE: 12 JAN 2017

DRAWN BY: BJB

CHECKED BY: FCA

VERIFIED BY:

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO: CG-1