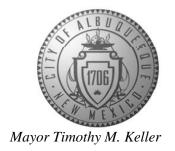
## CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



September 27, 2024

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

**RE:** McMahon Market Place – Lot 9D

**Grading & Drainage Plan** 

Engineer's Stamp Date: 09/09/2024

Hydrology File: A11D011K

Dear Mr. Arfman:

Based upon the information provided in your submittal received 09/10/2024, the Grading & 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 along with a copy of this letter.

PO Box 1293

### PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

2. Please pay the Payment-in-Lieu of \$ 8,648.00 by emailing the attached approved Waiver Application from Stormwater Quality Volume Management On-site to <a href="PLNDRS@cabg.gov">PLNDRS@cabg.gov</a>. Once this is received, a receipt will then be produced and email back. Follow the instructions on the bottom of the form and pay it at the Treasury in Plaza de Sol. Once paid, please provide proof of payment.

NM 87103

www.cabq.gov

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 (Dough Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3362 or <u>richardmartinez@cabq.gov</u>.

Sincerely,

Richard Martinez, P.E. Senior Engineer, Hydrology

Planning Department

Rilled H



# City of Albuquerque Planning Department

Development & Building Services Division

### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (DTIS)

| Project Title:  | Hydrology File #  |  |  |  |
|---|---|--|--|--|
| Legal Description:                                    |   |  |  |  |
| City Address, UPC, OR Parcel:                         |   |  |  |  |
| Applicant/Agent:                                      | Contact:  |  |  |  |
| Address:  |   |  |  |  |
| Email:  |   |  |  |  |
| Applicant/Owner:                                      |   |  |  |  |
| Address:  |   |  |  |  |
| Email:  |   |  |  |  |
| TYPE OF DEVELOPMENT: Plat (# of lots)                 |   |  |  |  |
| RE-SUBMITTAL:   | : YES NO  |  |  |  |
| DEPARTMENT: TRANSPORTATION                            | HYDROLOGY/DRAINAGE  |  |  |  |
| Check all that apply under Both the Type of Submittal | and the Type of Approval Sought:                              |  |  |  |
| ГҮРЕ OF SUBMITTAL:                                    | TYPE OF APPROVAL SOUGHT:                                      |  |  |  |
| Engineering / Architect Certification                 | Pad Certification   |  |  |  |
| Conceptual Grading & Drainage Plan                    | Building Permit   |  |  |  |
| Grading & Drainage Plan, and/or Drainage              | Grading Permit  |  |  |  |
| Report  | Paving Permit   |  |  |  |
| Drainage Report (Work Order)                          | SO-19 Permit  |  |  |  |
| Drainage Master Plan                                  | Foundation Permit   |  |  |  |
| Conditional Letter of Map Revision (CLOMR)            | Certificate of Occupancy - Temp Perm Preliminary / Final Plat |  |  |  |
| Letter of Map Revision (LOMR)                         |   |  |  |  |
| Floodplain Development Permit                         | Site Plan for Building Permit - DFT                           |  |  |  |
| Traffic Circulation Layout (TCL) – Administrative     | Work Order (DRC)  |  |  |  |
| Traffic Circulation Layout (TCL) – DFT<br>Approval    | Release of Financial Guarantee (ROFG) CLOMR / LOMR            |  |  |  |
| Traffic Impact Study (TIS)                            | Conceptual TCL - DFT  |  |  |  |
| Street Light Layout                                   | 1   |  |  |  |
| ·   | OTHER (SPECIFY)   |  |  |  |
| OTHER (SPECIFY)                                       |   |  |  |  |

REV. 04/03/24

DATE SUBMITTED:

## McMahon Marketplace Lot 9a and Lot 9b Drainage Study



updated for Lot 9c -12-21-2023

supplemental for Lot 9d -09-09-2024

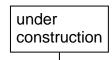


by

ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

Thomas O. Isaacson, PE(RET.) & LS(RET.) Fred C. Arfman, PE Åsa Nilsson-Weber, PE



fully developed

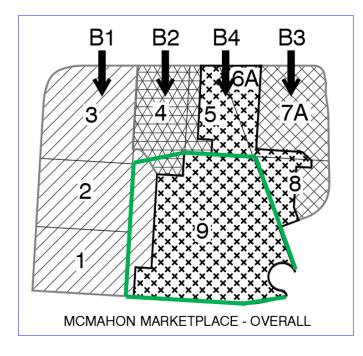
The McMahon Marketplace Drainage Management Plan (DMP) prepared by Bohannan-Huston, Inc., dated 05/07/10 limits the discharge from the entire 12.13 acre McMahon Marketplace property to 41.55 cfs. The image below shows the McMahon Marketplace DMP drainage basins B1 through B4 and the relationship between the Lot 9 limits (green) and the drainage basins. proposed

The McMahon Marketplace Lots 1 through 8 are now developed. Lot (9A, 9B, 9C and 9D) will be the final acreage to be developed.

A conceptual Grading and Drainage Plan for Lot 9 (CDG) prepared by Isaacson & Arfman, PA with stamp date 11/01/17 (COA Hydrology File A11/D011I) was approved for action by the DRB on the Site Plan for Building Permit.

This plan analyzed the fully developed discharge rates from Lots 1 through 8 and clarified the allowable discharge for the remaining Lot 9 sub-basins to limit the total discharge to the allowable rate of 41.55 cfs.

Per the CDG, Lot 9 is permitted to discharge flow as follows:



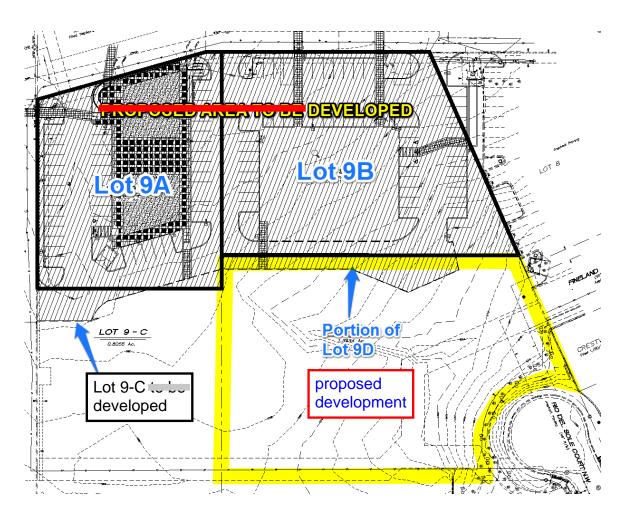
**DMP B1**: Free discharge to McMahon Blvd. Per the approved Lot 9 conceptual G&D plan and calculations, it was estimated that Lot 9 will discharge 2.8 cfs to DMP B1.

**DMP B2**: Free discharge to McMahon Blvd. Per the approved Lot 9 conceptual G&D plan and calculations, it was estimated that Lot 9 will discharge 0.1 cfs to DMP B2.

**DMP B4**: Detention required to limit fully developed discharge from Lot 9 to the Lot 5/6 Detention Pond to 10.9 cfs.

### PROPOSED - FINAL LOT (9D) TO BE DEVELOPED

The proposed area to be developed with this project totals 1.76 acres or 44% of the total Lot D property. This includes 100% of 9A & 9B with small areas of access pavement on 9C & 9D.



Total stormwater quality retention required for the fully developed lot 9 properties (9a, 9b, 9c and 9d) = 4180 cf based on 85% total impervious area.

3,935 CF

1003 cf of stormwater quality retention has been provided within the existing pond on lots 5/6a.

Therefore 3,177 cf will be required within lots 9a through 9d for fully developed conditions.

In the interim (proposed) condition, the partial development requires a total of 1,845 cf of stormwater quality-storage. Subtracting the 1003 provided offsite, 842 cf of permanent retention volume is required.

1262 cf will be provided within the 24" gravel base of the stormtech chamber system. This addresses the required volume plus there will be an excess of 225 cf which will be utilized as the lot 9 properties continue to develop.

The stormwater quality volume required for the final buildout of Lot '9D' is based on the proposed land treatment 'D' of 38,170 sf. Per the approved master plan, SWQV is based on 0.34" for this property.

 $38,170 \text{ sf } \times 0.34$ " / 12 = 1,081 cf

Due to site constraints, a Waiver for Fee-in-lieu is included with this submittal.

### CITY OF ALBUQUERQUE PLANNING DEPARTMENT HYDROLOGY DEVELOPMENT SECTION

## WAIVER APPLICATION FROM STORMWATER QUALITY VOLUME MANAGEMENT ON-SITE

| GENERAL INFORMATION                  |  |  |  |  |
|--------------------------------------|--|--|--|--|
| APPLICANT:                           | DATE:  |  |  |  |
| DEVELOPMENT:                         |  |  |  |  |
|                                      |  |  |  |  |
| STORMWATER QUALITY                   | POND VOLUME  |  |  |  |
| sizing for required Stormwater Quali | ater Quality and Low-Impact Development, the calculated ity Pond volume is equal to the impervious area draining to for new development sites and by 0.26 inches for |  |  |  |
| The required volume is               | cubic feet   |  |  |  |
| The provided volume is               | cubic feet   |  |  |  |
| The deficient volume is              | cubic feet   |  |  |  |
| WAIVER JUSTIFICATION                 |  |  |  |  |

Per the DPM Article 6-12(C), private off-site mitigation and payment-in-lieu may only be considered if management on-site is waived in accordance with the following criteria and procedures.

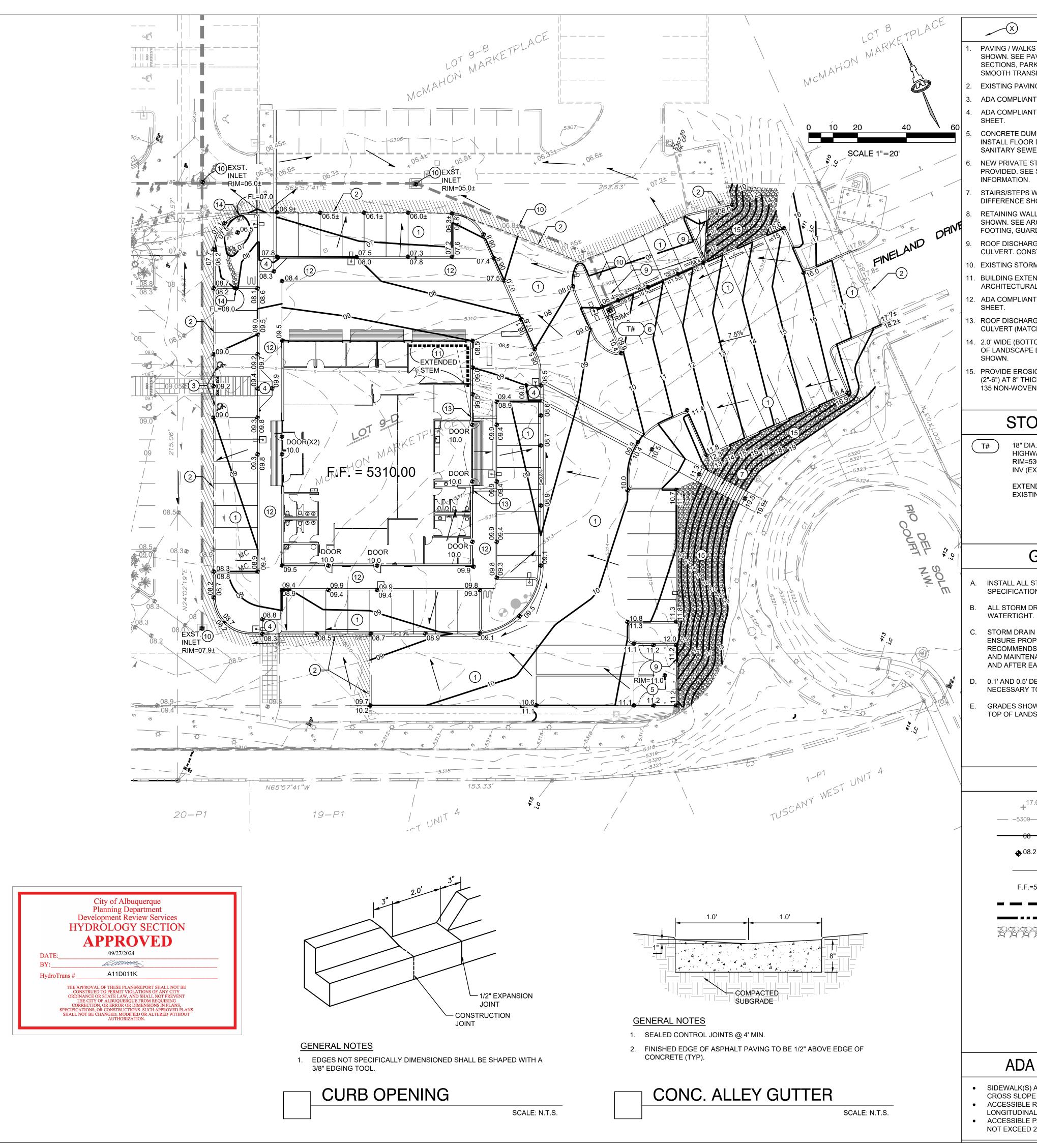
1. Management on-site shall be waived by the City Engineer if the following conditions are met:

- a. Stormwater quality can be effectively controlled through private off-site mitigation or through an arrangement (approved by the City) to use a cooperator's existing regional stormwater management infrastructure or facilities that are available to control stormwater quality.
- b. Any of the following conditions apply:
  - i. The lot is too small to accommodate management on site while also accommodating the full plan of development.
  - ii. The soil is not stable as demonstrated by a geotechnical report certified by a professional engineer licensed in the State of New Mexico.
  - iii. The site use is inconsistent with the capture and reuse of stormwater.
  - iv. Other physical conditions exist where compliance with on-site stormwater quality control leaves insufficient area.
  - v. Public or private off-site facilities provide an opportunity to effectively accomplish the mitigation requirements of the Drainage Ordinance (Part 14-5-2 ROA 1994) as demonstrated on as-built construction drawings and an approved drainage report.
  - vi. The developer constructs a project to replenish regional groundwater supplies at an off-site location.
  - vii. A waiver to State water law or acquisition of water rights would be required in order to implement management on site.
- 2. The basis for requesting payment-in-lieu or private off-site mitigation is to be clearly demonstrated on the drainage plan.

| This project's justification:      |      | <br> |
|------------------------------------|------|------|
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|                                    |      |      |
| Professional Engineer or Architect |      |      |

| PAYMENT-IN-LIEU   |  |  |  |  |  |
|---|--|--|--|--|--|
| Per the DPM Article 6-12(C)(1), the amount of payment-in-lieu is deficient volume (cubic feet) times \$6 per cubic feet for detached single-family residential projects or \$8 per cubic feet for all other projects. |  |  |  |  |  |
| AMO   | UNT OF PAYMENT-IN-LIEU = \$  |  |  |  |  |
| THIS  | S SECTION IS FOR CITY USE ONLY   |  |  |  |  |
|   | Waiver is approved. The amount of payment-in-lieu from above must be paid prior to Certificate of Occupancy. |  |  |  |  |
|   | Waiver is DENIED.  |  |  |  |  |
|   | Pilledly   |  |  |  |  |

City of Albuquerque Hydrology Section



### **KEYED NOTES**

- PAVING / WALKS / CROSSWALKS / CURB AND GUTTER TO ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, EXTENTS, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC. PROVIDE
- EXISTING PAVING TO REMAIN. PROVIDE SMOOTH TRANSITIONS.
- ADA COMPLIANT CURB RAMP. SEE ADA COMPLIANCE NOTES THIS
- CONCRETE DUMPSTER PAD AND ENCLOSURE AT ELEVATIONS SHOWN INSTALL FLOOR DRAIN AT RIM ELEVATION SHOWN & EXTEND TO
- NEW PRIVATE STORM DRAIN INLET. EXTEND TO EXISTING STUB
- STAIRS/STEPS WITH HANDRAILS TO ACHIEVE REQUIRED GRADE DIFFERENCE SHOWN. SEE ARCHITECTURAL FOR DETAILS.
- RETAINING WALL (RETAINING 0'-4.0') TO ACHIEVE GRADE DIFFERENCE SHOWN. SEE ARCHITECTURAL FOR DETAILS INCLUDING TOTAL HEIGHT
- ROOF DISCHARGE TO 18" WIDE (BOTTOM WIDTH) COVERED SIDEWALK CULVERT. CONSTRUCT PER C.O.A. STD. DWG. 2236.
- EXISTING STORM SEWER INFRASTRUCTURE.
- BUILDING EXTENDED STEMWALL TO ACHIEVE GRADES SHOWN. SEE
- . ADA COMPLIANT PEDESTRIAN PATH. SEE ADA COMPLIANCE NOTES THIS  $\begin{vmatrix} 1"=750'\pm A-11-Z \end{vmatrix}$
- ROOF DISCHARGE TO 18" WIDE (BOTTOM WIDTH) COVERED SIDEWALK CULVERT (MATCH GRATE ON ADJACENT BUILDINGS 9A-9C).
- 2.0' WIDE (BOTTOM WIDTH) CURB OPENING TO PASS FLOW INTO / OUT OF LANDSCAPE BASIN. PROVIDE EROSION PROTECTION TO LIMITS
- PROVIDE EROSION PROTECTION ON ALL SLOPES > 3:1. TYP. 4" AVG. DIA. 135 NON-WOVEN O.E.

### STORM DRAIN LEGEND

18" DIA. ADS INLINE DRAIN WITH LOCKING, 2'X2' ROAD AND HIGHWAY FRAME & GRATE (H-20 MIN.) AND 12" OUTLET. RIM=5309.1 INV (EXST)=5304.0±

> EXTEND 12"Ø ADS N-12WT STORM DRAIN MAIN (152 LF) TO EXISTING STUB PROVIDED. WATERTIGHT CONNECTION.

> > PANEL104

SITE AREA: 1.5454 ACRES

### **GENERAL NOTES**

- INSTALL ALL STORM DRAIN INLETS AND PIPE PER MANUFACTURER'S SPECIFICATIONS.
- ALL STORM DRAIN LINES AND FITTINGS TO BE ADS N-12WT
- C. STORM DRAIN SYSTEM WILL REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER FUNCTIONING DURING STORM EVENTS. ENGINEER RECOMMENDS THAT PROPERTY OWNER PUT IN PLACE INSPECTION AND MAINTENANCE CRITERIA SCHEDULED TO ON A REGULAR BASIS AND AFTER EACH STORM EVENT.
- 0.1' AND 0.5' DESIGN CONTOURS SHOWN DASHED WHERE NECESSARY TO CLARIFY GRADING CONCEPT.
- GRADES SHOWN ARE FINAL SURFACE GRADES(TOP OF CONCRETE TOP OF LANDSCAPE MATERIAL ETC.)

## LEGEND

EXISTING CONTOUR 

> PROPOSED CONTOUR (1' INCREMENT) PROPOSED SPOT ELEVATION

FLOW ARROW FINISH FLOOR ELEVATION

PROPERTY BOUNDRY

**EXISTING SPOT ELEVATION** 

PROPOSED STORM DRAIN

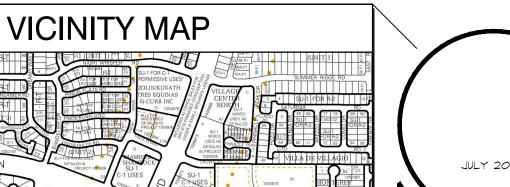
ANGULAR ROCK EROSION PROTECTION

LOT 9 PROPERTIES (9A, 9B, 9C AND 9D) IS PROVIDED WITHIN THE EXISTING POND ON LOTS 5/6A (±1,003 CF), IN THE GRAVEL SUB-BASE OF THE PREVIOUSLY CONSTRUCTED STORMTECH CHAMBER SYSTEM ON LOT 9 (±1,067 CF) AND IN DEPRESSED LANDSCAPING THROUGHOUT THE PROPERTY.

STORMWATER QUALITY RETENTION REQUIRED FOR THE FULLY DEVELOPED

### ADA COMPLIANCE NOTES

- SIDEWALK(S) AND RAMP(S): TARGET CROSS SLOPE = 1% TO 1.5%. CROSS SLOPE SHALL NOT EXCEED 2%.
- ACCESSIBLE RAMP(S): TARGET LONGITUDINAL SLOPE = 7% LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.3%).
- ACCESSIBLE PARKING: TARGET SLOPE = 1% TO 1.5%. SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION



FIRM FLOOD MAP

PROJECT DATA

PROPERTY: THE SITE IS PARTIALLY DEVELOPED COMMERCIAL PROPERTY

WITHIN C.O.A. VICINITY MAP A-11. THE SITE IS BOUND TO THE NORTH, EAST,

SOUTH AND WEST BY MCMAHON MARKETPLACE DRIVES AND COMMERCIAL

PROPERTIES. A PORTION OF THE ASPAHLT PAVEMENT WAS PREVIOUSLY CONSTRUCTED WITH THE ADJACENT PROPERTY (9-C) DEVELOPMENT.

LEGAL: LOT 9-D, MCMAHON MARKETPLACE, CITY OF ALBUQUERQUE, NEW MEXICO.

FLOOD INSURANCE RATE MAP, BERNALILLO COUNTY, NEW MEXICO AND

DRAINAGE PLAN CONCEPT: THE OVERALL LOT 9 PROPERTY (LOTS 9-A

THROUGH 9-D) WILL DISCHARGE PER THE COA HYDROLOGY APPROVED

PREPARED BY ISAACSON & ARFMAN PA (COA HYDROLOGY FILE A11/DO11I) WHICH ADHERES TO THE WHOLE OF THE MCMAHON MARKETPLACE PROPERTY

PORTION OF THE PROPOSED PROPERTY FALLS WITHIN MASTER PLANNED BASINS B1 AND B2 (FREE DISCHARGE). EXISTING DETENTION PONDING IS

PROVIDED FOR THE FULL DEVELOPMENT OF THE REMAINDER OF LOT 9 TO

STORMWATER QUALITY

LIMIT THE ALLOWABLE DISCHARGE TO THE EXISTING DETENTION POND TO THE

CONCEPTUAL GRADING AND DRAINAGE PLAN FOR LOT 9, STAMP DATE: 11/01/17

LIMITED TO 41.55 CFS PER THE APPROVED DRAINAGE MASTER PLAN. THE WEST

SURVEY MONUMENT "9-A11", ELEVATION = 5301.647 (NAVD 1988)

THE AMENDED DRAINAGE MANAGEMENT PLAN.







McMAHON NEW SH 5760 McM/ ALBUQUEF

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A NEW COMMERCIAL BUILDING WITH ASSOCIATED PARKING AND LANDSCAPING. BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL OFF-SITE: NO OFFSITE FLOW WILL IMPACT THIS PROPERTY AS PROVIDED IN FLOOD HAZARD: PROPERTY IS LOCATED WITHIN ZONE X, DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLAIN ACCORDING TO THE INCORPORATED AREAS MAP NO. 35001C0104H, MAP REVISED AUGUST 16, 2012.

DATE: September 09, 2024 DRAWN BY:

CHECKED BY: FCA VERIFIED BY:

REVISIONS

SHEET NO

ISAACSON & ARFMAN, P.A. Consulting Engineering Associates 128 Monroe Street N.E. Albuquerque, New Mexico 87108

2698 CG-101.dwg

Ph. 505-268-8828 www.iacivil.com

Sep 06,2024