

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

June 3, 2024

Philip Clark, P.E.
Clark Consulting Engineers
19 Ryan Road
Edgewood, NM 87015

**RE: 527 Mesilla Street NE
Grading and Drainage Plan
Engineer's Stamp Date: 05/14/24
Hydrology File: L19D079**

Dear Mr. Clark:

PO Box 1293

Albuquerque

Based upon the information provided in your submittal received 05/16/2024, the Grading and Drainage Plan is approved for Building Permit and Grading Permit. **Since this site is relatively flat and grades to the road, a pad certification is not needed for this project.** 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 CERTIFICATE OF OCCUPANCY:

NM 87103

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

www.cabq.gov

If you have any questions, please contact me at 924-3914 or amontoya@cabq.gov.

Sincerely,

Anthony Montoya, Jr., P.E.
Senior Engineer, Hydrology, Development Review Services
Planning Department

GRADING & DRAINAGE PLAN

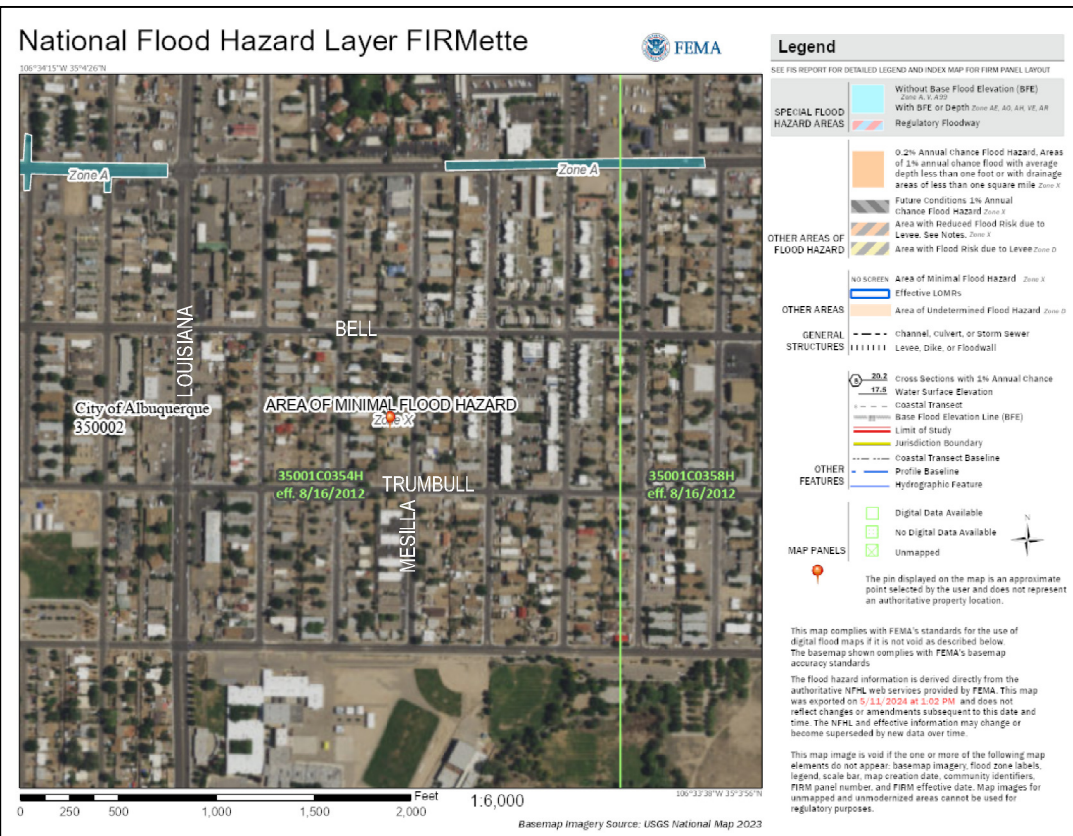
THE RESIDENTIAL PROJECT IS LOCATED IN THE EMIL MANN ADDITION OF ALBUQUERQUE APPROXIMATELY 5 MILES EAST OF THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING & DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, 2009, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN 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 IMPROVEMENTS: EXISTING DRIVEPAD, INCLDG. FLATWORK.
2. PROPOSED IMPROVEMENTS: APPROX. 1700 S.F. RESIDENCE, NEW DRIVEWAY, AND NEW GRADE ELEVATIONS, & LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE NORTH AND SOUTH BY DEVELOPED RESIDENTIAL PROPERTY. MESILLA STREET ALONG FRONTAGE ON THE EAST IS PAVED WITH CURB, GUTTER AND SIDEWALK, AND MAINTAINED BY THE CITY OF ALBUQUERQUE. THE SITE CURRENTLY DRAINS AT 2% FROM SOUTHWEST TO NORTHEAST.

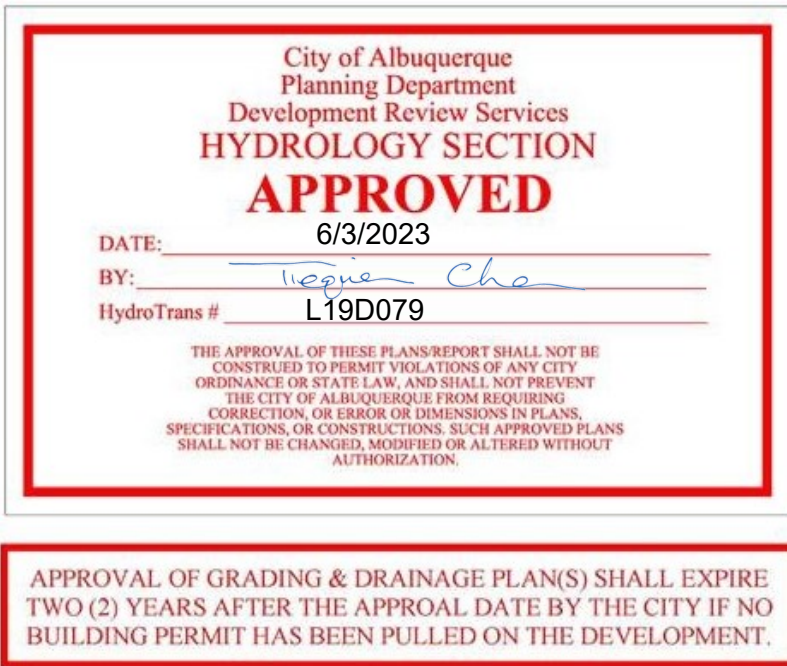
HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED. SINCE THE STREET IS IMPROVED WITH DRIVEPAD NO GRADING IS PROPOSED WITHIN THE R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE THE TOTAL INCREASE OF DEVELOPED FLOW IS MINIMAL, AND CAPACITY EXISTS DOWNSTREAM.

THE GRADING AND DRAINAGE SCHEME MITIGATES IMPACT TO ADJACENT PROPERTY.



PROJECT LIES IN FEMA ZONE 'X'

FIRM MAP REF: PANEL # C0354 H



CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) JUNE, 2020 EDITION FOR CITY OF ALBUQUERQUE
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$. *Peak Discharge Rates For Small Watersheds*
VOLUMETRIC DISCHARGE: $VOLUME = E_{Weighted} \times AREA$
 $P100 = 2.43$ inches, Zone 3 Time of Concentration, $TC = 12$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

LOT AREA = 0.15 ACRES, WHERE EXCESS PRECIP. 'c' = 1.09 in. [0.52]
PEAK DISCHARGE, $Q100 = 0.48$ CFS [0.25], WHERE UNIT PEAK DISCHARGE 'c' = 3.17 CFS/AC. [1.69]
THEREFORE: $VOLUME 100 = 594$ CF

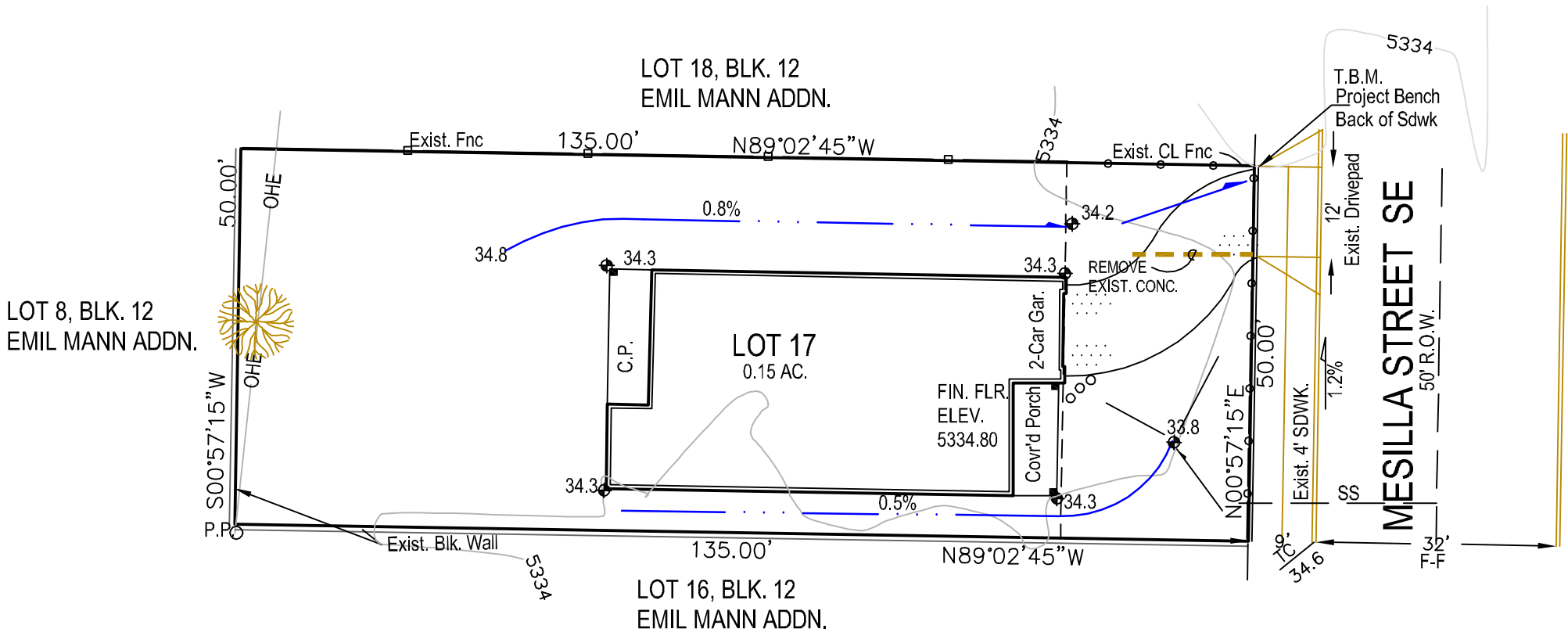
DEVELOPED CONDITIONS (ALLOWABLE)

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA (USE 20% FOR TREATMENT B & C Each, 43% FOR A, AND 17% FOR D)

	AREA	LAND TREATM'T	Q_{Peak}	E
UNDEVELOPED	0.38 AC	A	1.84[0.51]	0.67[0.18]
LANDSCAPING	0.05 Ac.(35%)	B	2.49[1.07]	0.86[0.34]
GRAVEL & COMPACTED SOIL	0.05 Ac.(33%)	C	3.17[1.69]	1.09[0.52]
ROOF - PAVEMENT	0.048Ac.(32%)	D	4.49[2.81]	2.58[1.64]
	0.15 Ac.			

THEREFORE: $E_{Weighted} = 1.48$ in. & $Q100 = 0.50$ CFS VOLUME 100 = 806 CF

CHECK FIRST FLUSH: Storm Water Quality Pond for Redevelopment
2090 SF (NEW LT 'D') X 0.26 INCHES/12 = 45 CF
THEREFORE: THE 45 CF CAN BE PROVIDED WITHIN THE LIMITED DEPRESSED LS
OR PROVIDE \$8/CF X 45 = \$360 CASH-IN-LIEU



Scale: 1" = 20'

LEGEND

EXIST. SPOT ELEVATION	+24.0 (ORIGINAL SURVEY)
EXIST. CONTOUR	10
NEW SPOT ELEVATION	10.34 (+5300 FOR MSL)
NEW SWALE	
DRAINAGE DIRECTION, EXISTING	
EXIST. STD CONCRETE CURB (0.67' HEIGHT)	
EXIST. CONCRETE	
TOP OF CURB, EXISTING	TC
FLOWLINE	FL
EXISTING POWER POLE	o
FACE OF CURB/FACE OF CURB	F-F
WATER BLOCK	
LOW POINT	L.P.

PROJECT DATA

LEGAL DESCRIPTION

LOT 17, BLOCK 12, EMIL MANN ADDITION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

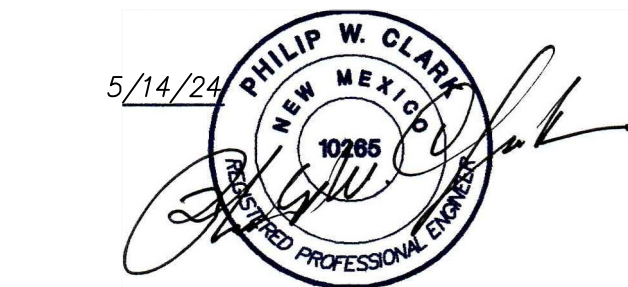
PROJECT BENCHMARK

TOP OF BACK OF SIDEWALK AT THE PROJECT NORTHEAST CORNER MSL ELEVATION = 5334.0, AS TIED FROM COA ACS MONUMENT. "7-K19" LOCATED AT THE INTERSECTION OF LOUISIANA AND CENTRAL AVENUE, SE. FIELD CONFIRM CONTROL TO NNE TOP OF CURB RETURN OF TRUMBULL & MESILLA, MSL ELEV. 5336.37

TOPOGRAPHIC DESIGN SURVEY(S)

COMPILED BY CLARK CONSULTING ENGINEERS FROM IN-HOUSE DATA, AND COLLECTED BY ALPHA PRO SURVEYING.
(TIED TO ACS 7-K19, MSL OF 5325.00, NAVD 88 DATUM)

PHILIP W. CLARK NMPE #10265



Clark Consulting Engineers Edgewood, New Mexico 87015 Tele: (505) 281-2444 Cell/Txt: (505) 264-6042			
DATE	REVISION	LOT 17, BLOCK 12, EMIL MANN ADDITION ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO 527 MESILLA STREET, SE GRADING & DRAINAGE PLAN	
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: Brecedo_Mesilla	GD-1
CHECKED BY: PWC	DATE: FEB 2022	FILE #: G/D	