

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Director



Mayor Timothy M. Keller

May 4, 2020

Phillip W. Clark, PE
Clark Consulting Engineers
19 Ryan Rd
Edgewood, NM 87015

**RE: Stanford Townhomes
424 Stanford Dr. SE
Revised Grading and Drainage Plan
Engineer's Stamp Date: 04/24/20
Hydrology File: K16D084**

Dear Mr. Clark:

PO Box 1293

Based upon the information provided in your resubmittal received 04/28/2020, the Revised Grading & Drainage Plan is approved for Building Permit and SO-19 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

www.cabq.gov

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

Also as a reminder, please provide Drainage Covenant for the stormwater quality ponds per Chapter 17 of the DPM prior to Permanent Release of Occupancy. Please submit this on the 4th floor of Plaza de Sol. A \$25 fee will be required.

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

Sincerely,

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

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



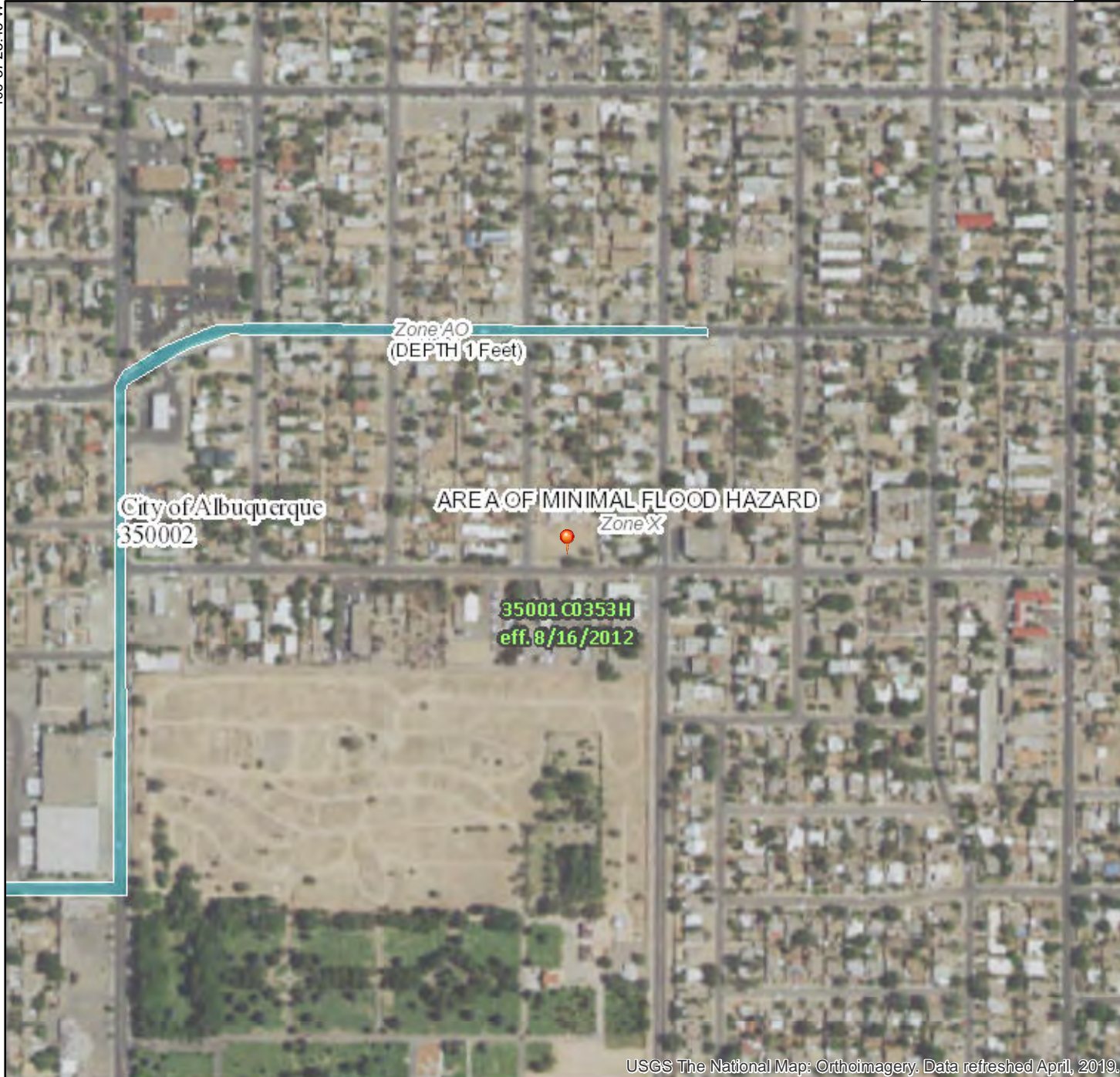
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **4/24/2020 at 1:08:50 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

35°4'40.80"N



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

35°4'11.35"N

106°36'45.98"W

GRADING & DRAINAGE PLAN

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 BY RESIDENTIAL USE TO THE EAST BY RESIDENTIAL ALLEY, GARFIELD ST. & STANFORD DRIVE, AND TO THE WEST BY THE ALLEY. 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;
2. PROPOSED IMPROVEMENTS: 10500 SF BUILDING STRUCTURE, NEW CONCRETE DRIVEPAD AND OUTDOOR PATIO AREAS, NEW GRADE ELEVATIONS, FLATWORK AND LANDSCAPING.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFF-SITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED, SINCE BOTH STREETS ARE IMPROVED ONLY MINIMAL GRADING (DRIEPAID RECONSTR-N) IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE THE TOTAL INCREASE OF DEVELOPED FLOW IS MINIMAL, AND CAPACITY EXISTS DOWNSTREAM. A MAJORITY OF DEVELOPED RUNOFF IS ROUTED TO/THRU PERMEABLE (SOFT) LANDSCAPE AREAS. THE SITE IS NOT IMPACTED ADVERSELY BY ANY OFF-SITE DRAINAGE FLOWS.

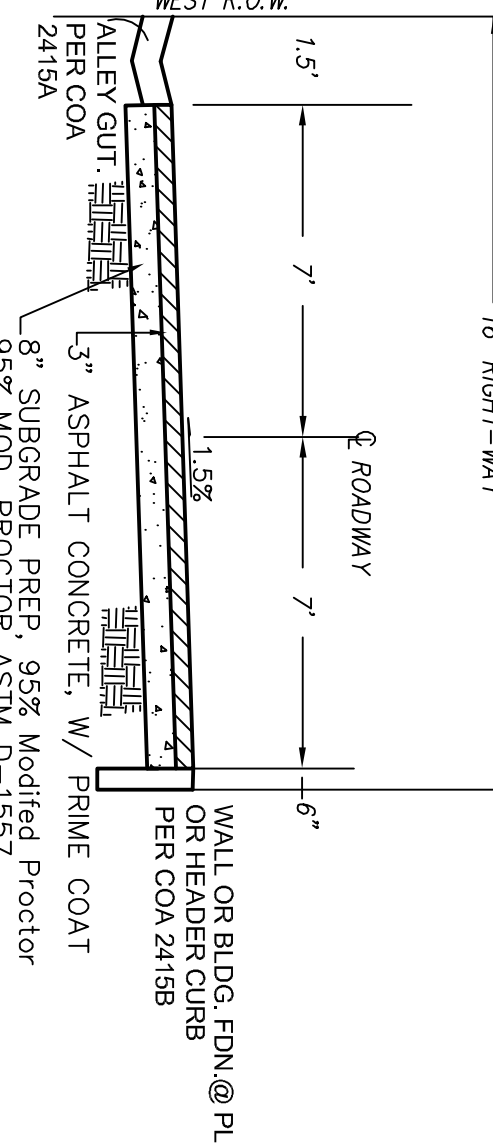
FIRM MAP

PANEL # 35001 C0353 H

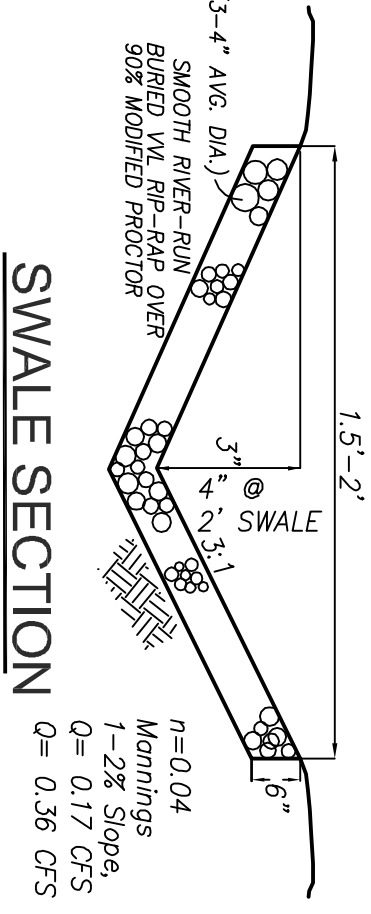
ALLEY REHAB SECTION

NO SCALE

REF: COA STD DWG 2411



- TOPED SURVEY LEGEND
- BDC = BACK OF CURB
 - TA = TOP OF ASPHALT
 - CLR = CENTERLINE OF ROAD
 - CLA = CENTERLINE OF ASPHALT
 - EC = EDGE OF CONCRETE
 - FL = FINISH FLOOR
 - LV = WATER METER
 - NRSSMH = NORTH RIM OF SANITARY SEWER MANHOLE
 - PHV = PHIDE VAULT
 - PH = FIRE HYDRANT
 - G = GROUND



NOTICE TO CONTRACTORS - "SO-19 PERMIT"

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NM DRAINAGE DIVISION AT (505) 241-5100 TO OBTAIN NECESSARY PERMITS.
4. PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL EXAMINE THE EXISTING HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS, SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE UTILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HR BASIS.
8. CONTRACTORS MUST CONTACT AUGUSTINE AEMLO @ 857-4807 AND CONSTRUCTION COORDINATION AT 824-3416 TO SCHEDULE AN INSPECTION.

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 = 2.35 inches, Zone 2 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

TOTAL AREA = 0.32 ACRES, WHERE EXCESS PRECIP. W' = 113 in. [0.92]
PEAK DISCHARGE, Q100 = 1.0 CFS [0.55] WHERE UNIT PEAK DISCHARGE W' = 3.025/AC. [1.7]
THEREFORE: VOLUME 100 = 1312 CF [804]

DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATMENT	Q Peak	E Weighted
UNDEVELOPED	A	1.56 [0.38]	0.53 [0.13]
LANDSCAPING	B	2.26 [0.95]	0.79 [0.28]
GRAVEL & COMPACTED SOIL	C	3.14 [1.7]	1.13 [0.52]
ROOF - PAVEMENT	D	4.70 [3.14]	2.12 [1.34]

THEREFORE: EWeighted = 1.98 in. [1.2] & VOLUME 100 = 2300 CF
Q100 = 1.42 CFS

RECOMMEND: ROUTE DEVELOPED RUNOFF THROUGH SOFT LANDSCAPING FIRST FLUSH: (EPA WATER QUALITY), USE DPM TABLE 2 WATER QUAL. STORM EVENT "J", THEREFORE: PROPORTION FOR 88%, USE 0.40 X 0.28 AC./12 X 43580 SF VOL. RETENTION = 408 CF.

ACCORDING TO BRATER-KING
SIZE OUTLET: Q = 2.8 CFS WHERE C = 0.7, g = 32 1/8
Q = CA^{0.75}g
T' = W SDWK. CULV. = 1'7"-1'2"
A = 0.025 SF, H=0.025'
CHECK W/ WEIR EQU. PER R. Brater's COA
Q = CULV^{1.48}3.2 > C=2.7, H=0.8'
Q = 1.9 CFS...OK

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

PHILIP W. CLARK NMPE #102655



ALLEY VIEW LOOKING NORTH



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 UPGRADES).
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. ANY 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. PAVED PARKING AREA SHALL DRAIN DIRECTLY TO NEW CURB CUT OR SINK CULVERT.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEGMENT 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: 3.1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

LEGEND

- EXIST. SPOT ELEVATION 424.0
EXIST. CONTOUR 10
NEW SPOT ELEVATION 24.0
NEW CONTOUR 12
NEW SWALE
DRAINAGE DIRECTION, EXISTING
NEW CONCRETE CURB (0.5' HEIGHT)
NEW P.C.C., CONCRETE
TOP OF CURB, EXISTING
FLOWLINE
EXISTING POWER POLE
FACE OF CURB/FACE OF CURB
WATER BLOCK
NEW RIPRAP, 6" BURY

PROJECT DATA

LEGAL DESCRIPTION

LOTS 12-4, BLOCK 13, UNIVERSITY HEIGHTS, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

TOP OF REBAR/CAP AT THE PROJECT SOUTHEAST CORNER WSL ELEVATION = 5169.86, AS TIED FROM COA 3-1/4" DIAMETER ALUM DISK SET IN TOP OF CURB, 20' LTB. WSL NAVD 88 5270.84, LOCATED 114' SOUTH OF THE INTERSECTION OF GRAY AND BURTON AVENUE, SE. INTERGRAPHIC DESIGN SURVEY
PROVIDED BY HARRIS SURVEYING, INC. UNDER THE DIRECTION OF TONY HARRIS, N.M.P.S. 11463, DATED MAR. 2015.

Clark Consulting Engineers
Edgewood, New Mexico 87015
Tel: (505) 281-2444 Cell: (505) 284-6042

DESIGNED BY: PWC DRAWN BY: COE JOB# Sierra Hacienda
CHECKED BY: PWC DATE: 4/16/20 FILE # C/D 1 OF 1



VICINITY MAP ZONE K-16