

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Director



Mayor Timothy M. Keller

October 12, 2023

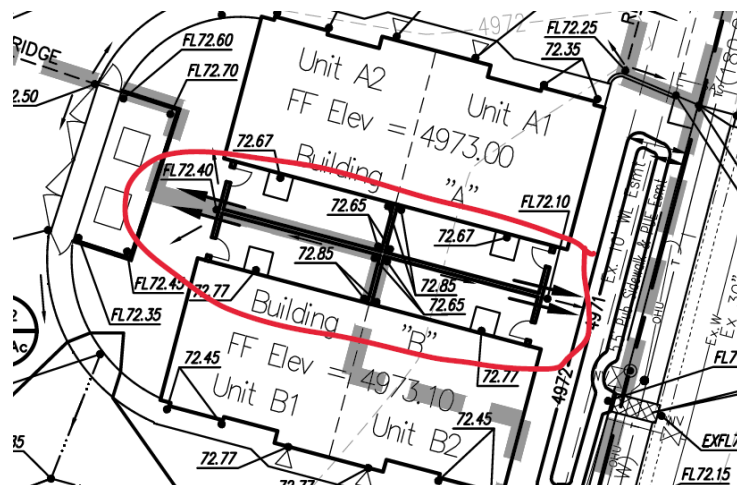
Jeffrey T. Wooten, P.E.  
Wooten Engineering  
PO Box 15814  
Rio Rancho, NM 87174

**RE: Townhomes at 4505 12<sup>th</sup> St. NW**  
**Grading and Drainage Plan**  
**Engineer's Stamp Date: 10/03/23**  
**Hydrology File: G14D080A**

Dear Mr. Wooten:

Based upon the information provided in your submittal received 10/04/2023, the Grading & Drainage Plan is **not** approved for Building Permit, Grading Permit, and SO-19 Permit. The following comments need to be addressed for approval of the above referenced project:

1. Drive pads are not allowed for apartment/townhomes developments. Please use COA Paving Detail No. 2426 which has a radius to ensure both a waterblock for drainage purpose and proper ADA ramps for the required ADA path at the driveway entrances.
2. Please provide the calculations for the proposed Double Type D inlet. The calculations will need to show that the proposed grate inlet will be able to accept the existing drainage that the current throat of the Type A inlet handles.
3. Are the fences going to be garden walls? If so, then please provide a turn block which will need to be at least four (4) inches above the proposed grade to avoid clogging.



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4. Please fill out the attached SWQ Waiver so that it can be approved.

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

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

*Renée C. Brissette*

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

PO Box 1293

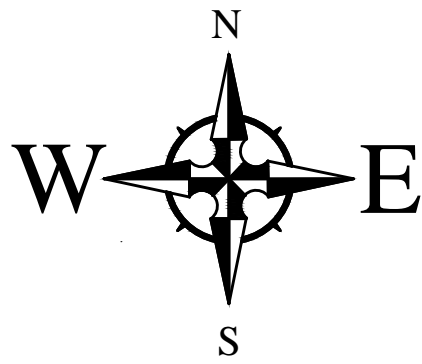
Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)







20' 10' 0' 20'  
SCALE: 1"=20'

#### CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NO WORK SHALL BE PERFORMED IN THE PUBLIC RIGHT-OF-WAY WITHOUT AN APPROVED WORK ORDER OR EXCAVATION PERMIT.

ACS Monument "DOUGLAS"  
NAD 1983 CENTRAL ZONE  
X=1520286.421 \*  
Y=1505417.495 \*  
Z=4975.078 \* (NAVD 1988)  
G-G=0.999682452  
Mapping Angle=-0°13'52.53  
\*U.S. SURVEY FEET

COLORED CONCRETE SIDEWALKS IN FRONT OF UNITS SHALL SLOPE AWAY FROM THE BUILDINGS AT A MAXIMUM 2% SLOPE.

#### LEGEND

- FLOW ARROW
- PROPOSED TOP OF GRADE/PVMT ELEVATIONS
- PROPOSED FLOW LINE/GUTTER ELEVATIONS
- PROPOSED TOP OF CURB ELEVATIONS
- PROPOSED TOP OF SIDEWALK ELEVATION
- FINISHED GRADE AT TOP OF WALL
- FINISHED GRADE AT BOTTOM OF WALL
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STORM DRAIN
- FLOW THROUGH WALL: TURN BLOCK SIDEWAYS WITH TWO FULL OPENINGS
- DRAINAGE AREA
- ACRES

#### DRAINAGE MANAGEMENT PLAN

##### INTRODUCTION

The purpose of this submittal is to provide a final grading plan for the subject site located on Lot 58-A, Rossiter Addition (4505 12th St NW) in Albuquerque, NM. The development contains approximately 0.69 acres. The site was previously developed as Single Family Residential and these homes were demolished in 2022 per Google Earth Historical Imagery. The site is now being developed into Townhomes.

##### EXISTING HYDROLOGIC CONDITIONS

The drainage from the site currently ponds within the property and then overflows into 12th St NW as well as the neighbors to the west. There is an existing Storm Drain system in 12th St NW.

##### PROPOSED HYDROLOGIC CONDITIONS

The proposed development will consist of Stormwater Quality Ponds and a Retention Pond within Basin A-2. (See the note below the Drainage Calculations Table regarding Percolation of the Soils.) Since there is zero runoff during the 100-Yr, 6-Hr Storm Event, the total discharge from the site is approximately 1.48 cfs/acre (Total of Basins A-1, A-3, and A-4 (1.03 cfs) divided by 0.69 acres). The site is located in the Valley Drainage Area which allows a Maximum Discharge of 2.75 cfs/acre. This site does not exceed this Maximum Allowable Discharge.

Basin's A-3 and A-4 consist of the project curb cuts that can't be routed to the Stormwater Quality Ponds due to the Water Break being located within the Site. The Owner will need to make a Payment-in-Lieu in the amount of \$112.00 per the below calculations.

##### CONCLUSION

This drainage management plan conforms to the City of Albuquerque DPM and will reduce the discharge from the site due to the new ponds. With this submittal, we are requesting Building Permit approval.

#### STORMWATER QUALITY POND CALCULATIONS

##### BASIN A-1

TOTAL NEW IMPERVIOUS AREAS = 8,700 SF  
SWQ VOLUME REQ'D =  $8,700 \times 0.26'' / 12 = 189$  CF  
TOTAL VOLUME PROVIDED = 266 CF

##### BASIN A-2

TOTAL NEW IMPERVIOUS AREAS = 10,760 SF  
SWQ VOLUME REQ'D =  $10,760 \times 0.26'' / 12 = 233$  CF  
TOTAL VOLUME PROVIDED = 335 CF

##### BASIN A-3

TOTAL NEW IMPERVIOUS AREA = 311 SF  
FIRST FLUSH =  $311 \times 0.26'' / 12 = 7$  CF  
TOTAL VOLUME PROVIDED = 0 CF  
PAYMENT-IN-LIEU REQ'D =  $7 \text{ CF} \times \$8.00 = \$56.00$

##### BASIN A-4

TOTAL NEW IMPERVIOUS AREA = 344 SF  
FIRST FLUSH =  $344 \times 0.26'' / 12 = 7$  CF  
TOTAL VOLUME PROVIDED = 0 CF  
PAYMENT-IN-LIEU REQ'D =  $7 \text{ CF} \times \$8.00 = \$56.00$

TOTAL PAYMENT-IN-LIEU REQ'D = \$112.00

INSTALL SIDEWALK CULVERT PER COA STD DWG 2236. SO-19 PERMIT IS REQUIRED; REF. SO-19 NOTES THIS SHEET.

REMOVE EXISTING TYPE 'A' INLET AND REPLACE WITH A DOUBLE TYPE 'D' INLET PER COA STD DWG 2206.

INSTALL SIDEWALK CULVERT PER COA STD DWG 2236. SO-19 PERMIT IS REQUIRED; REF. SO-19 NOTES THIS SHEET.

INSTALL SIDEWALK CULVERT PER COA STD DWG 2236. SO-19 PERMIT IS REQUIRED; REF. SO-19 NOTES THIS SHEET.

#### Existing Drainage Calculations

This table is based on the COA DPM Chapter 6.2 (A), Zone 12											
BASIN	Area (Ac)	Land Treatment Percentage (%)	Weighted C	Tc (min)	I (100) (in/hr)	Q (100) (cfs)	WTE (in/hr)	V (100) (cu ft)	V (100) (cu ft)	V (100) (cu ft)	V (100) (cu ft)
A-1	0.30	0.0	80.0	20.0	0.68	12.00	3.31	2.26	0.68	1.29	1405
A-2	0.37	0.0	80.0	20.0	0.68	12.00	3.31	2.26	0.84	1.29	1733
A-3	0.01	0.0	80.0	20.0	0.68	12.00	3.31	2.26	0.02	1.29	47
A-4	0.01	0.0	80.0	20.0	0.68	12.00	3.31	2.26	0.02	1.29	47
TOTAL	0.69								1.56		3231

#### Proposed Drainage Calculations

This table is based on the COA DPM Chapter 6.2 (A), Zone 12											
BASIN	Area (Ac)	Land Treatment Percentage (%)	Weighted C	Tc (min)	I (100) (in/hr)	Q (100) (cfs)	WTE (in/hr)	V (100) (cu ft)	V (100) (cu ft)	V (100) (cu ft)	V (100) (cu ft)
A-1	0.30	0.0	35.0	65.0	0.81	12.00	3.89	3.13	0.94	1.88	2042
A-2	0.37	0.0	33.0	67.0	0.81	12.00	3.91	3.17	1.17	1.90	2553
A-3	0.01	0.0	100.0	0.90	12.00	4.34	3.91	0.04	2.33	85	143
A-4	0.01	0.0	100.0	0.90	12.00	4.34	3.91	0.04	2.33	85	143
TOTAL	0.69								2.19		4764

#### \*\*SOIL PERCOLATION DATA

PER PERCOLATION TESTS CONDUCTED BY WESTERN TECHNOLOGIES, INC. (AZUPURI G. A. HABA, PE, THE SOILS AT THE SOUTH POND DRAIN AT A RATE OF 4 MINUTES PER INCH. THIS EQUATES TO 15 INCHES PER HOUR. THE POND BOTTOM IS 290 SF WHICH MEANS THAT THE POND CAN DRAIN 363CF/HR (8,712CF/DAY). SINCE THE 100 YR - 6 HR STORM VOLUME FOR BASIN A-2 IS 2,553 CF, THE POND SHOULD BE ABLE TO COMPLETELY DRAIN IN JUST OVER 7 HOURS.



#### FIRM MAP 35001C0119G

Per Firm Map 35001C0119G, dated September 26, 2008, the site is located in the Floodplain and determined to be inside the 0.2% chance Annual Floodplain.

#### LEGEND DESCRIPTION:

Lot 58-A, Rossiter Addition, Albuquerque, NM. 0.6945 Acres.

#### GRADING NOTES

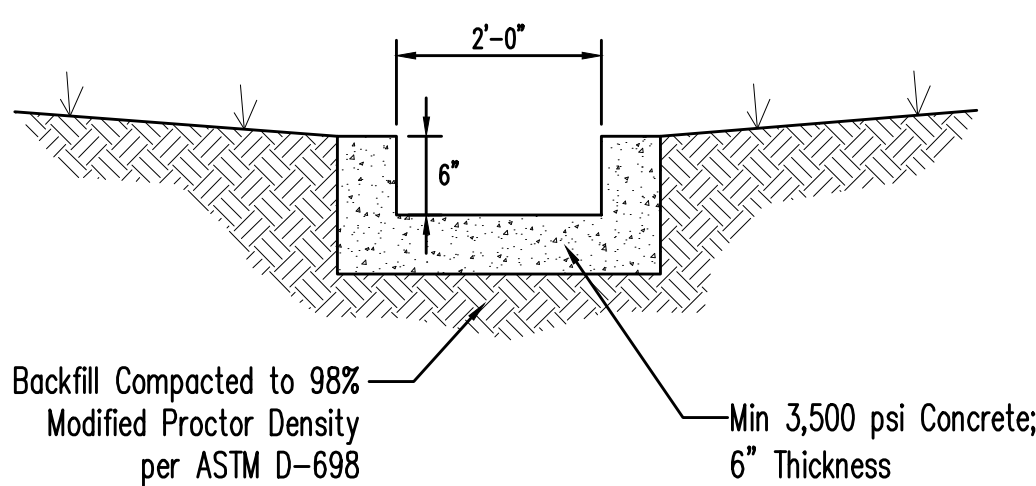
- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
- THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
- ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
- EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
- IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
- THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
- A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
- PAVING AND ROADWAY GRADES SHALL BE +/- 0.05' FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE +/- 0.05' FROM BUILDING PLAN ELEVATION.
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR PAVEMENT, MEDIANS, AND ISLANDS.
- VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION (IF APPLICABLE) PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE THE SWPPP DOCUMENT (IF NECESSARY) AND SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.

#### Private Drainage Facilities within City Right-of-Way Notice to Contractor (Special Order 19 ~ "SO-19")

- Build sidewalk culvert per COA STD DWG 2236. Work is permitted and inspected by DMD Construction Services Division.
- An excavation permit will be required before beginning any work within City Right-Of-Way.
- 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.
- Prior to any excavation, the contractor must contact **New Mexico One Call**, dial "811" (or (505) 260-1990) for the location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the 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.
- Backfill compaction shall be 95%.
- Maintenance of the facility shall be the responsibility of the owner of the property being served.
- Work on arterial streets may be required on a 24-hour basis.
- For excavation and barricading inspections, contact DMD Construction Services Division.

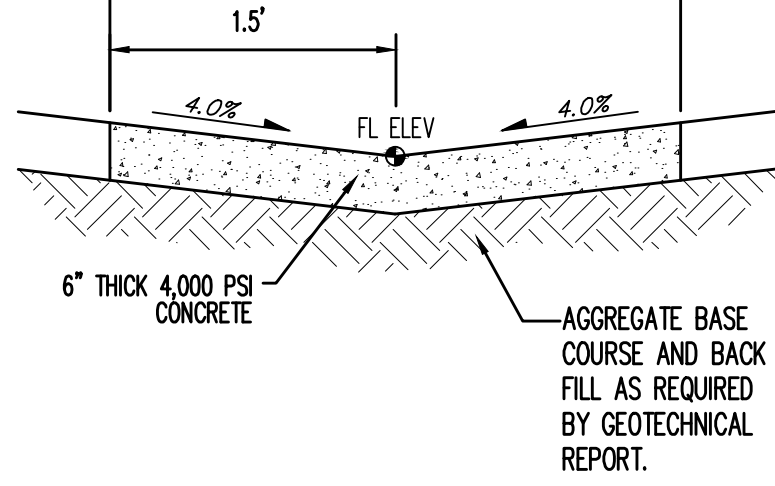
#### BENCH MARKS

A.C.S. MONUMENT "DOUGLAS"  
MONUMENT TYPE 3  
NEW MEXICO STATE PLANE COORDINATES  
(CENTRAL ZONE-N.A.D. 1983)  
N=1,505,417.495  
E=1,520,286.421  
PUB. EL.=4975.078 NAVD 1988  
GROUND TO GRID FACTOR=0.999682452  
DELTA ALPHA ANGLE = -0°13'52.53"



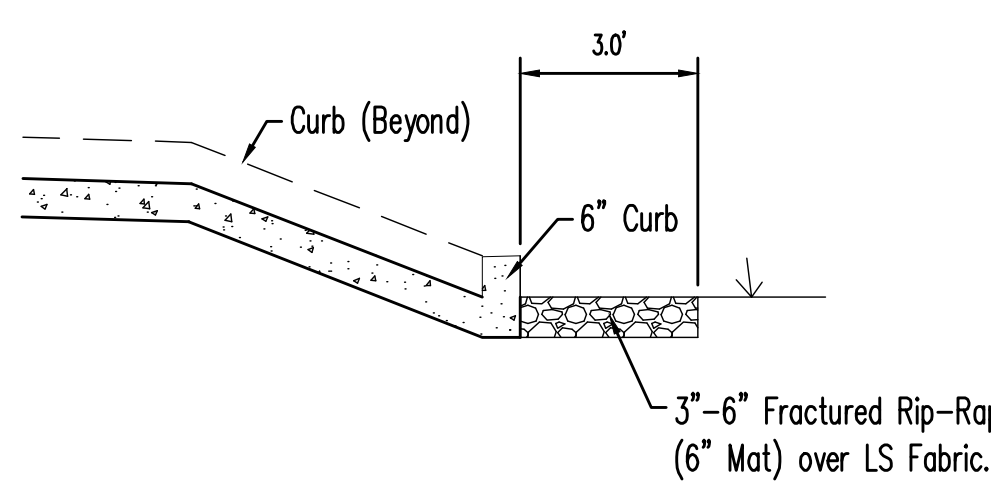
2' Concrete Flume Detail

NTS



Valley Gutter Detail

NTS



Typical Flume Cross Section

NTS

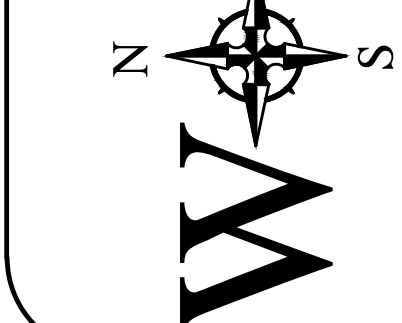
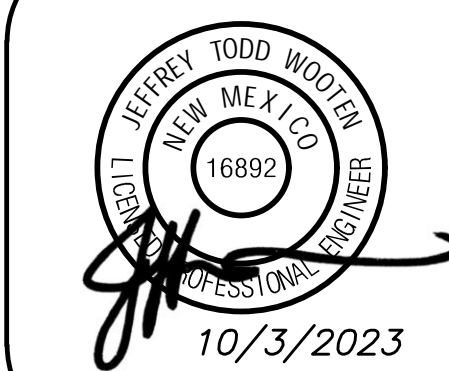
Townhomes

4505 12th Street  
Albuquerque, NM 87107

Grading Plan

CIVIL102

Wooten Engineering  
PO Box 15814  
Rio Rancho, NM 87174  
Phone: (505) 980-3560



NO.	DATE	REVISIONS	BY
DESIGNED BY: JW	DATE: February 2022		
DRAWN BY: RC	DATE: February 2022		
CHECKED BY: JW	DATE: February 2022		