

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

November 15, 2023

Ronald Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM, 87109

**RE: Alamo Warehouse
2350 Alamo Ave SE
Conceptual Grading and Drainage Plans
Engineer's Stamp Date: 10/18/23
Hydrology File: M16D011E**

Dear Mr. Bohannon:

PO Box 1293
Based upon the information provided in your submittal received 10/30/2023, the Conceptual Grading & Drainage Plans are preliminary approved for action by the Development Facilitation Team (DFT) on Site Plan for Building Permit.

Albuquerque
PRIOR TO BUILDING PERMIT:

NM 87103
1. Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval. This digital (.pdf) is emailed to PLNDRS@cabq.gov along with the Drainage Transportation Information Sheet.

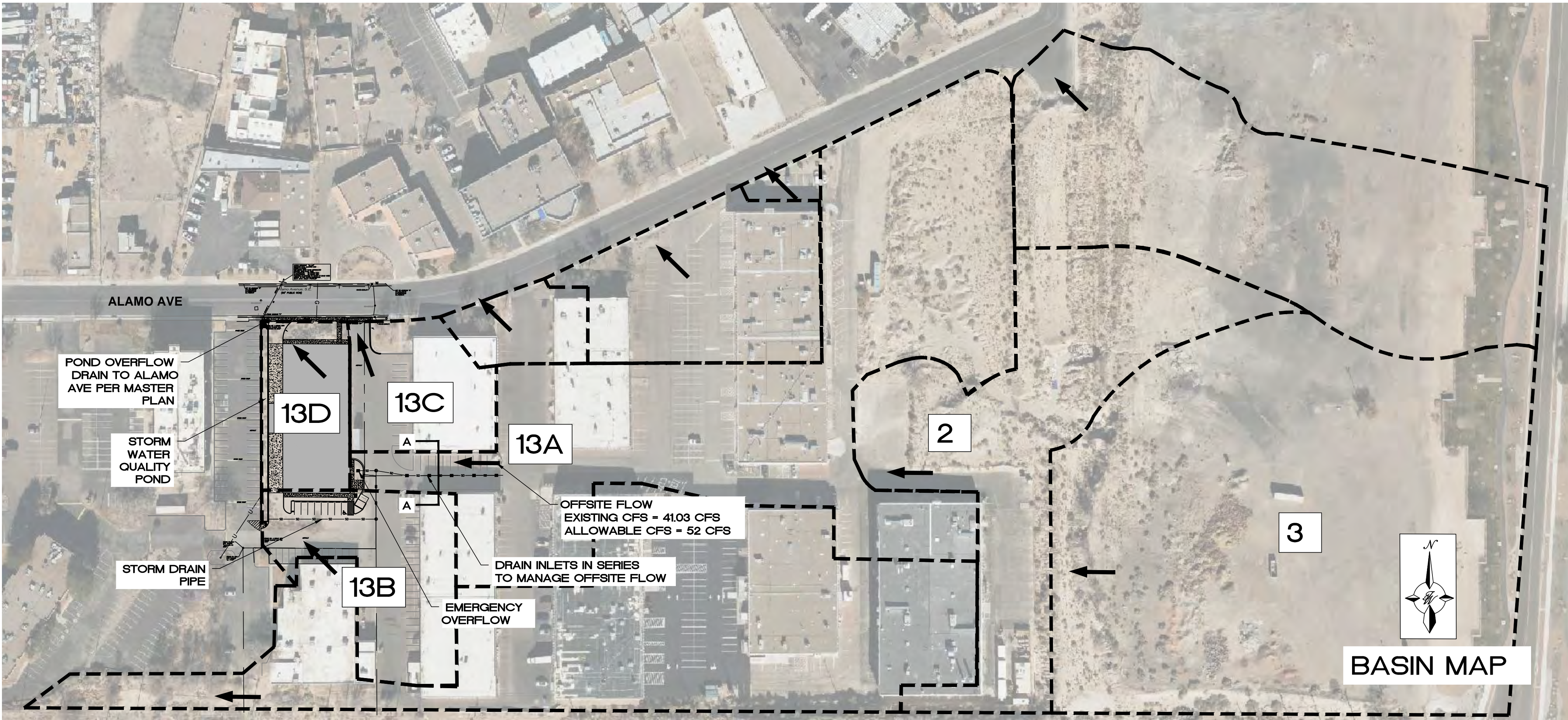
www.cabq.gov
If the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

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

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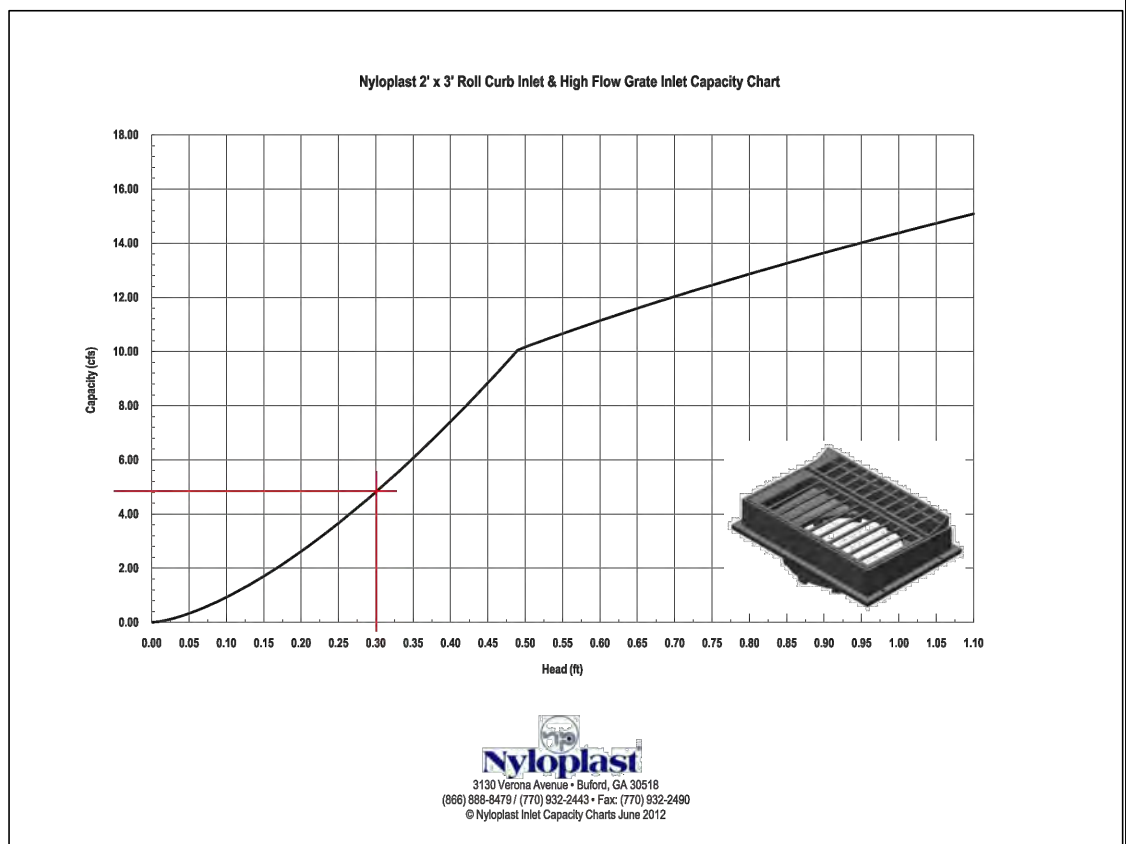
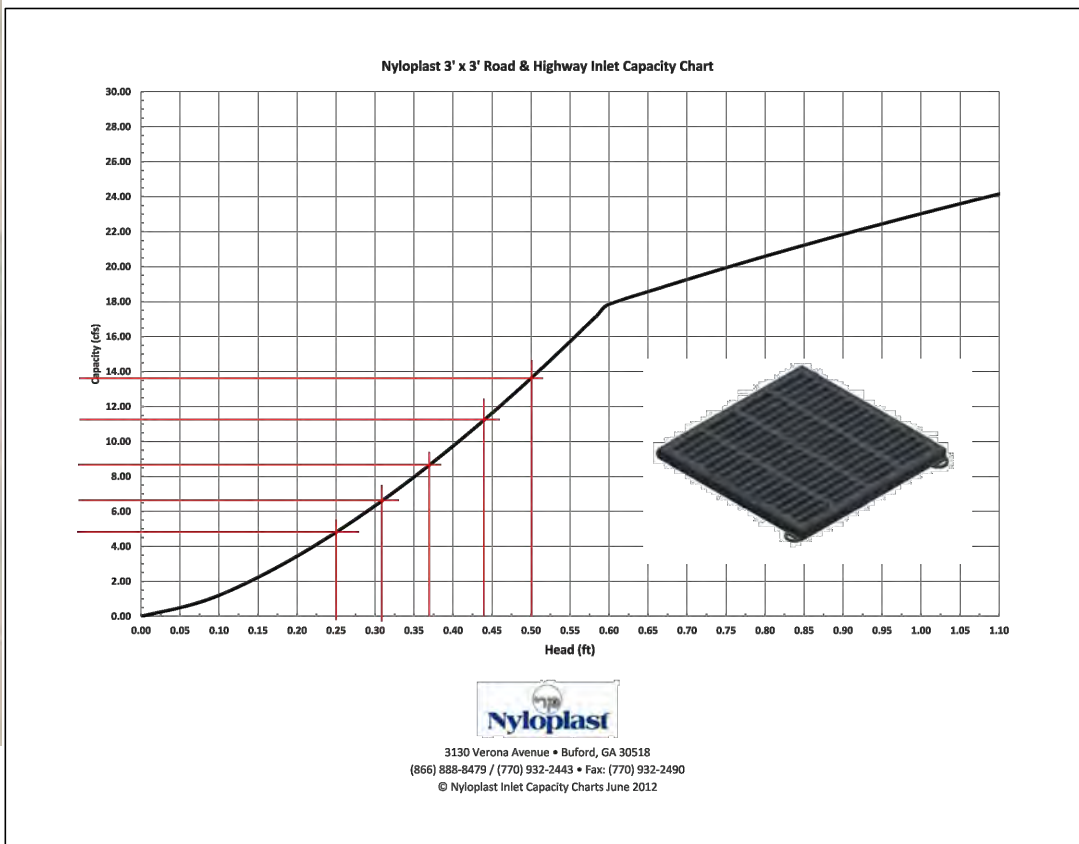


EXISTING CONDITIONS

THE SUBJECT SITE (TRACT Z1) IS LOCATED WITHIN THE NEWPORT EAST BUSINESS PARK AND IS NOT LOCATED WITHIN A FLOOD PLAIN. THE PROJECT SITE IS CURRENTLY UNDEVELOPED WITH A INTERIM RETENTION POND FOR EROSION CONTROL. THE EXISTING BUILDING AND DRIVEWAY LOCATED WITHIN BASIN 13C CURRENTLY DRAIN ONTO ALAMO AVE. BASIN 2, 3, 13A, 13B AND 13D CURRENTLY DRAIN TO THE INTERIM RETENTION POND PRIOR TO BEING DISCHARGED TO ALAMO AVE. CROSS LOT DRAINAGE EASEMENTS EXIST PER THE RECORDED PLAT.

PROPOSED CONDITIONS

A NEW WAREHOUSE BUILDING IS PROPOSED TO BE CONSTRUCTED WITHIN TRACT Z1. PER THE NEWPORT EAST BUSINESS PARK MASTER PLAN 52 CFS ARE ALLOWED TO BYPASS THE SITE WHERE THEN IT IS TO DRAIN TO ALAMO RD. THE 52 CFS IS PROPOSED TO BE INTERCEPTED BY A SERIES OF STORM DRAIN INLETS THAT CONVEY THE FLOW TO A DETENTION POND. EXCESS FLOW IS THEN DIRECTED TOWARDS ALAMO ROAD. THE DETENTION POND IS PROPOSED TO CONTAIN THE REQUIRED STORM WATER QUALITY VOLUME OF TRACT Z1. PER THE NEWPORT EAST BUSINESS PARK MASTER PLAN THE STORM DRAIN SYSTEM ALONG ALAMO RD HAS ENOUGH CAPACITY TO CONTAIN THE FULLY DEVELOPED CONDITIONS THE INCREASE IN FLOW IS NEGLIGIBLE.



Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed

Volume = Weighted E * Total Area

Flow = Qa*Aa + Qb*Ab + Qc*Ac + Qd*Ad

Existing Conditions

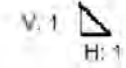
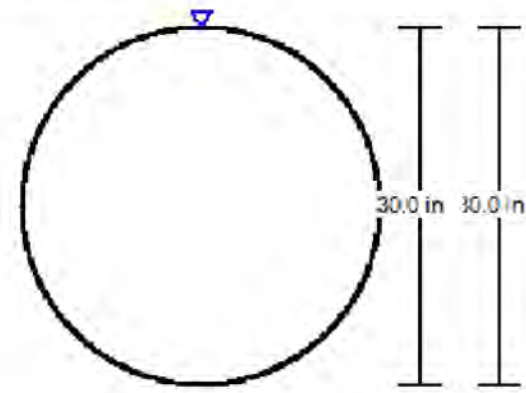
Basin Descriptions												100-Year, 6-Hr			
Basin ID	Tract	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs
					%	(acres)	%	(acres)	%	(acres)	%	(acres)			
2	A	126,603	2.91	0.00454	0%	0.000	0%	0.000	70%	2.034	30%	0.8719	1.420	0.344	9.99
3	A	150,669	3.46	0.00540	0%	0.000	0%	0.000	100%	3.459	0%	0.0000	1.030	0.297	10.55
13A	A	229,553	5.27	0.00823	0%	0.000	0%	0.000	35%	1.844	65%	3.4254	1.875	0.823	20.49
13B	A	46,143	1.06	0.00166	0%	0.000	0%	0.000	15%	0.159	85%	0.9004	2.135	0.188	4.39
13C	A	31,674	0.73	0.00114	0%	0.000	0%	0.000	10%	0.073	80%	0.5817	1.967	0.119	2.75
13D	A	26,771	0.61	0.00096	0%	0.000	0%	0.000	100%	0.615	0%	0.0000	1.030	0.053	1.87
Total		611,413	14.04	0.02193		0.000		0.000		8.184		5.779		1.825	50.044

Proposed Conditions

Basin Descriptions												100-Year, 6-Hr			
Basin ID	Tract	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (in)	Volume (ac-ft)	Flow cfs
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3	A	150,669	3.46	0.00540	0%	0.000	0%	0.000	100%	3.459	0%	0.0000	1.030	0.297	10.55
13A	A	229,553	5.27	0.00823	0%	0.000	0%	0.000	35%	1.844	65%	3.4254	1.875	0.823	20.49
13B	A	46,143	1.06	0.00166	0%	0.000	0%	0.000	10%	0.106	90%	0.9534	2.200	0.194	4.46
13C	A	31,674	0.73	0.00114	0%	0.000	0%	0.000	10%	0.073	80%	0.5817	1.967	0.119	2.75
13D	A	26,771	0.61	0.00096	0%	0.000	0%	0.000	15%	0.092	85%	0.5224	2.135	0.109	2.55
Total		611,413	14.04	0.02193		0.000		0.000		7.609		6.355		1.887	50.786

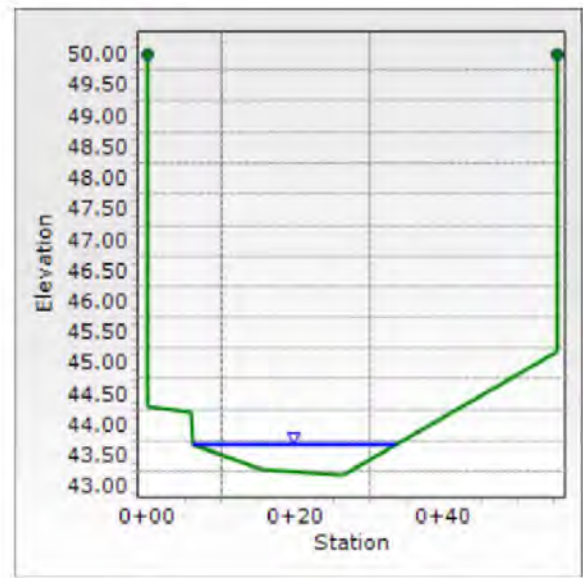
30" HDPE

Project Description	
Friction Method	Manning Formula
Solve For	Discharge
Input Data	
Roughness Coefficient	0.012
Channel Slope	0.016 ft/ft
Normal Depth	30.0 in
Diameter	30.0 in
Discharge	56.20 cfs



SECTION A-A

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.010 ft/ft
Normal Depth	6.0 in
Discharge	52.00 cfs

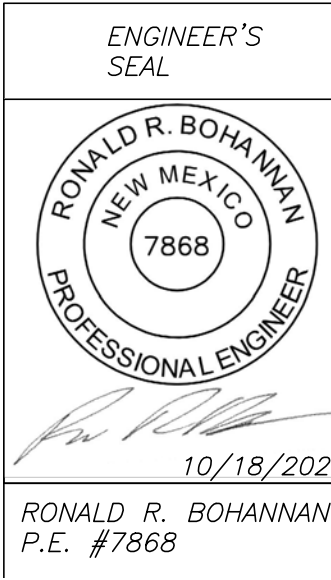
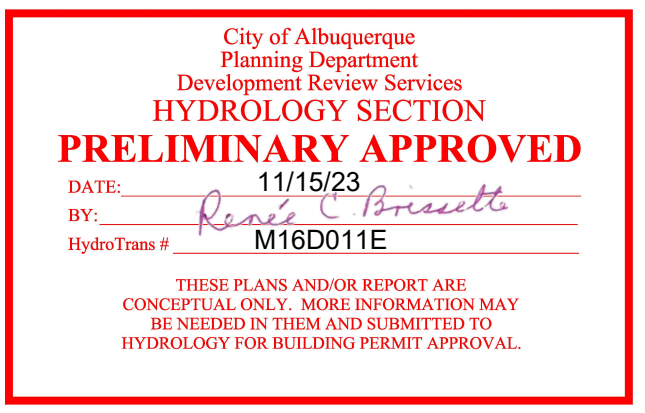


PIPE CAPACITY TABLE		
PIPE ID	FLOW CFS	PIPE DIAMETER (IN)
1	13.6	18
2	24.85	24
3	33.45	30
4	40.05	30
5	44.85	30
6	52	30
7	52	30

INLET CAPACITY TABLE			
INLET	IN-FLOW (CFS)	WATER DEPTH (FT)	GRATE CAPACITY (CFS)
3X3-1	52	0.5	13.6
3X3-2	38.4	0.44	11.25
3X3-3	27.15	0.37	8.6
3X3-4	18.55	0.31	6.6
3X3-5	11.95	0.25	4.8
(2) 2X3 CURB INLET	7.15	0.33	9.67

SWQ POND VOLUME CALCULATIONS			
ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMULATIVE VOLUME (cf)
29	0	0	0
30	989	494.5	495
31	1986	1487.5	1982

SWQ Volume Requirement		
Total Impervious Area =	ΣArea in "Treatment D"	
Retention depth = 0.42" Per DPM Pg. 272	0.035	foot
Retention Volume =	=0.035 x Area D	
Area D	37131	SF
Required Retention Volume	1300	CF
Pond Volume Provided	1,982	CF



ALAMO WAREHOUSE
ALBUQUERQUE, N.M.

CONCEPTUAL GRADING
AND DRAINAGE BASIN MAP

TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858-3100
www.tierrowestllc.com

DRAWN BY

RMG

DATE

10/18/2023

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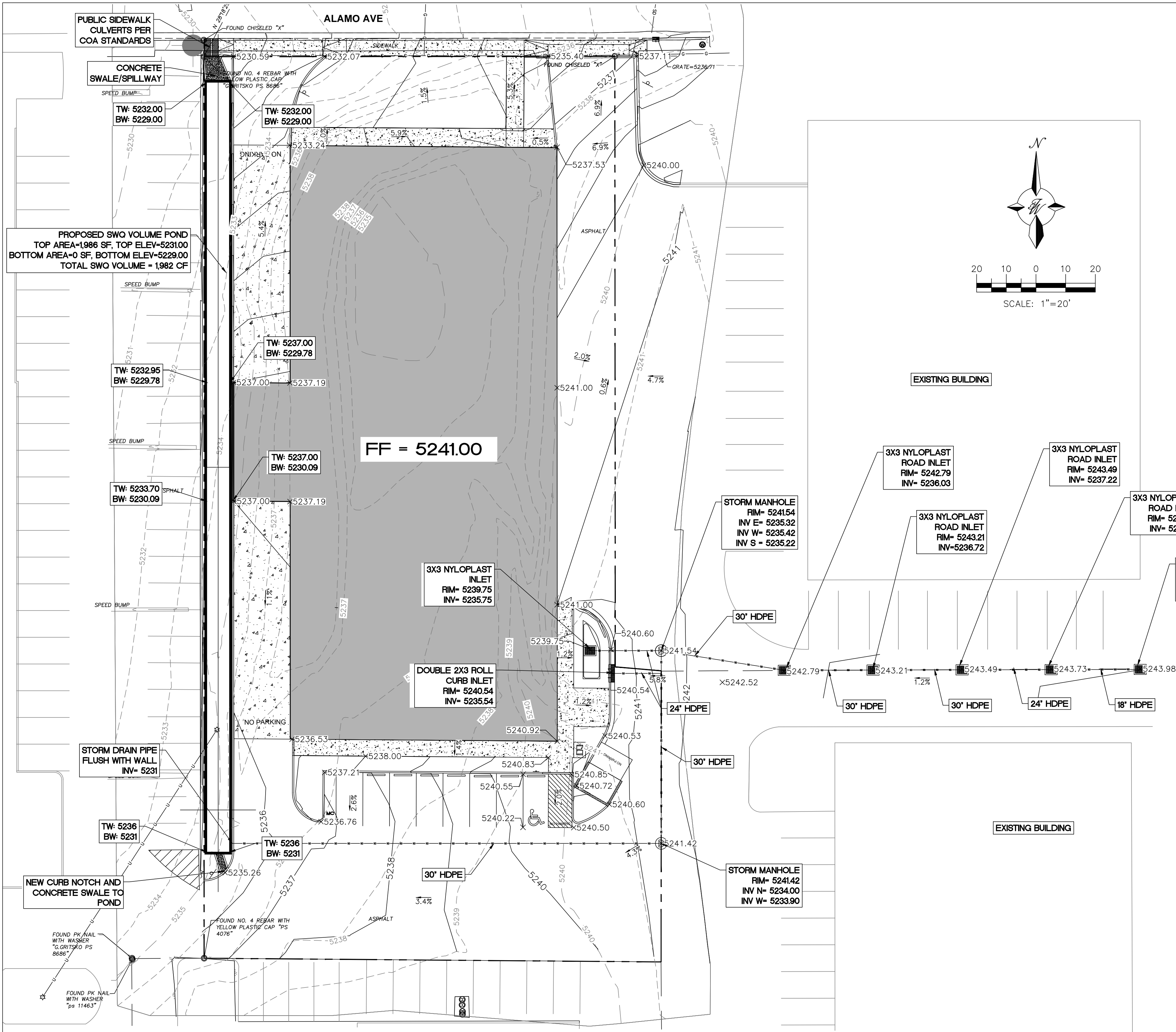
SHEET #

GR-1

JOB #

2021108

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LEGEND	
	CURB & GUTTER
	BOUNDARY LINE
	RIGHT-OF-WAY
	BUILDING
	CONCRETE/SIDEWALK
	CONTOUR MAJOR
	CONTOUR MINOR
	SPOT ELEVATION
	FLOW ARROW
	EXISTING CURB & GUTTER
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING SPOT ELEVATION
	GRADE BREAK
	RETAINING WALL

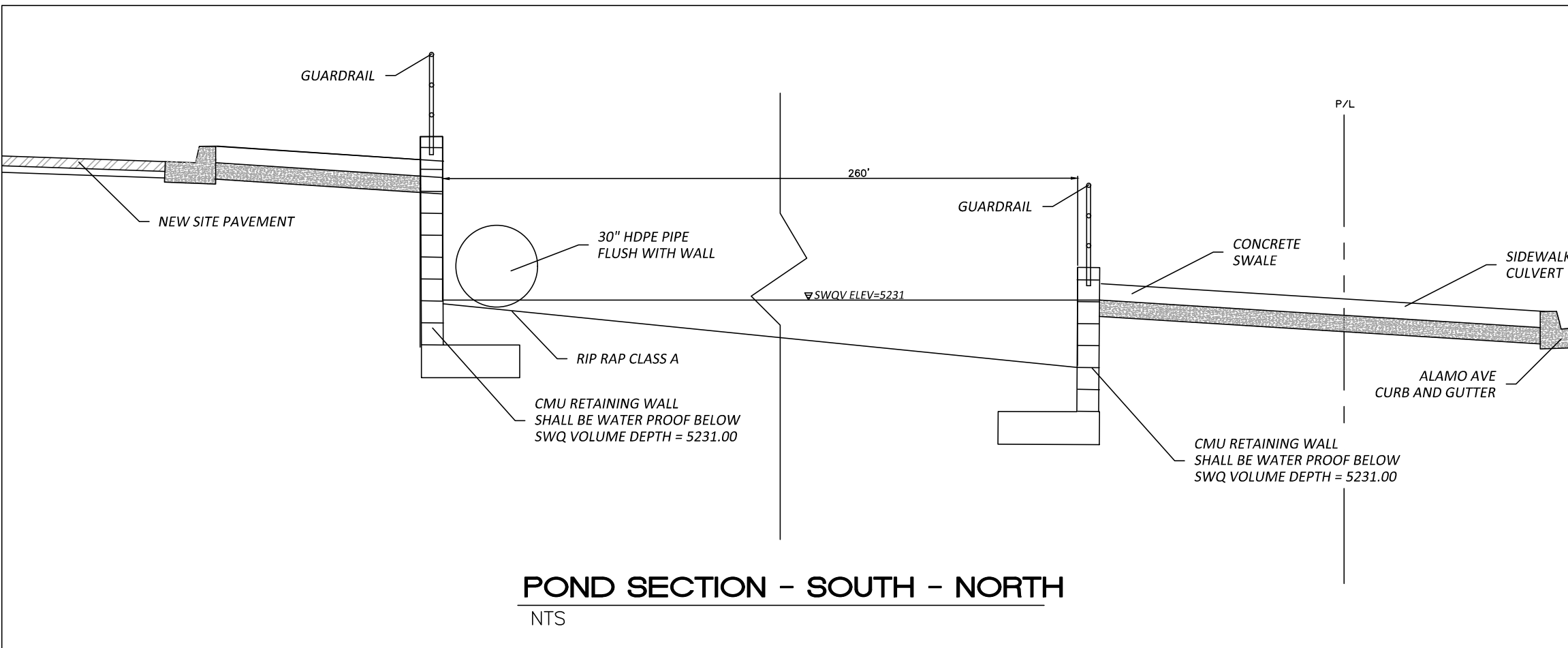
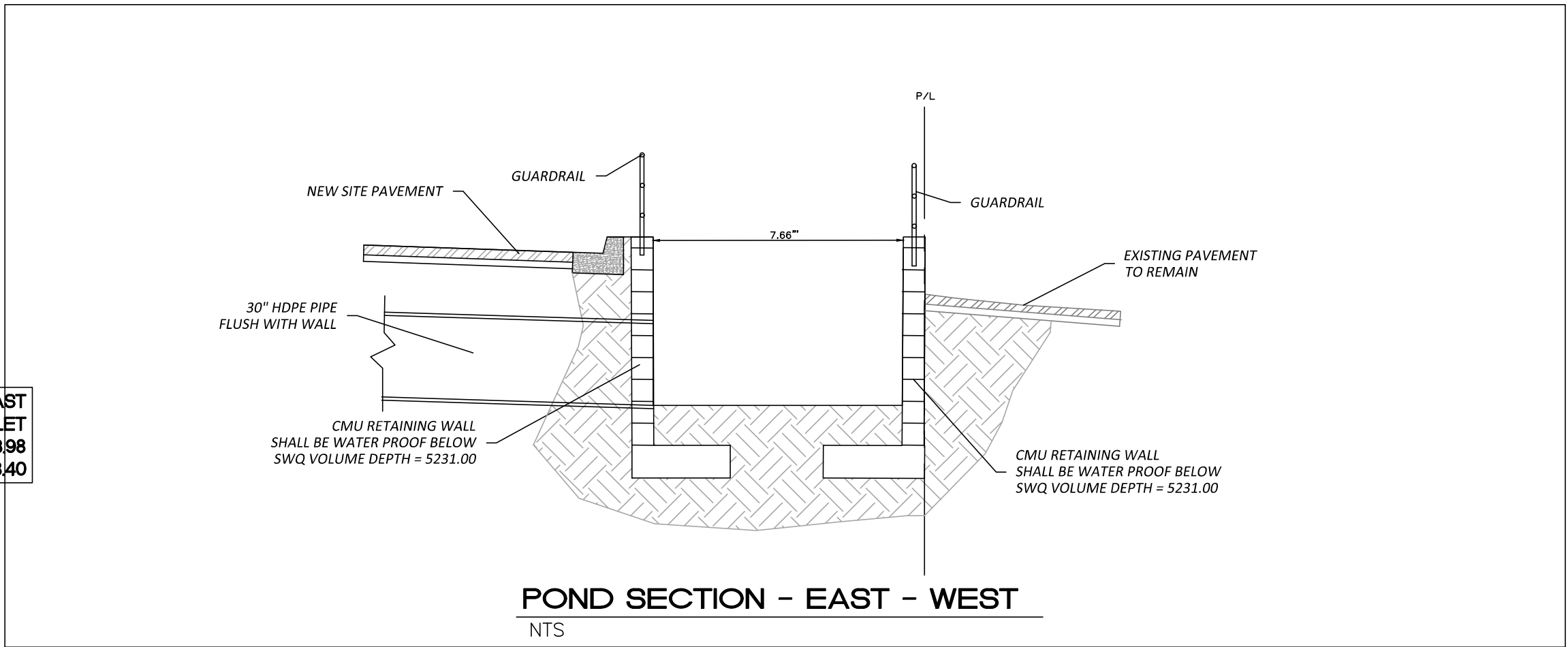
SPOT ELEVATION NOTE:

ALL PROPOSED SPOT ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.

CAUTION

ALL EXISTING UTILITIES/TOPOGRAPHY SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
DATE: 11/15/23
BY: *Ronald R. Bohannan*
HydroTeam # M16D011E
THESE PLANS AND/OR REPORT ARE
CONFIDENTIAL ONLY. MORE INFORMATION MAY
BE NEEDED IN THEM AND SUBMITTED TO
HYDROLOGY FOR BUILDING PERMIT APPROVAL.



- PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY**
- BUILD SIDEWALK CULVERT PER COA STD DWG 2236. WORK IS PERMITTED AND INSPECTED BY DMD CONSTRUCTION SERVICES DIVISION.
 - ALL IMPROVEMENTS LOCATED IN THE RIGHT OF WAY MUST BE INCLUDED ON THE WORK ORDER.
 - 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.

<div>ENGINEER'S SEAL</div> <div></div> <div></div> <div>10/18/2023</div> <div>RONALD R. BOHANNAN P.E. #7868</div>	ALAMO WAREHOUSE ALBUQUERQUE, N.M.		DRAWN BY RMG
	CONCEPTUAL GRADING & DRAINAGE PLAN		DATE 10/18/2023
			2021108_GRE
			SHEET # GR-2
	<div></div> <div>TIERRA WEST, LLC</div> <div>5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com</div>		JOB # 2021108