

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

February 20, 2024

Ted L. Barber, P.E.
Incline Engineering
236 Tano Road
Santa Fe, NM 887506

RE: 2411 Alamo Ave SE
Grading and Drainage Plans
Engineer's Stamp Date: 02/19/24
Hydrology File: M16D003A

Dear Mr. Barber:

Based upon the information provided in your submittal received 02/06/2024, the Grading & Drainage Plans are 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

NM 87103

www.cabq.gov

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for **\$25.00** made out to "**Bernalillo County**" for the stormwater quality pond per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol.

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, 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

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



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: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

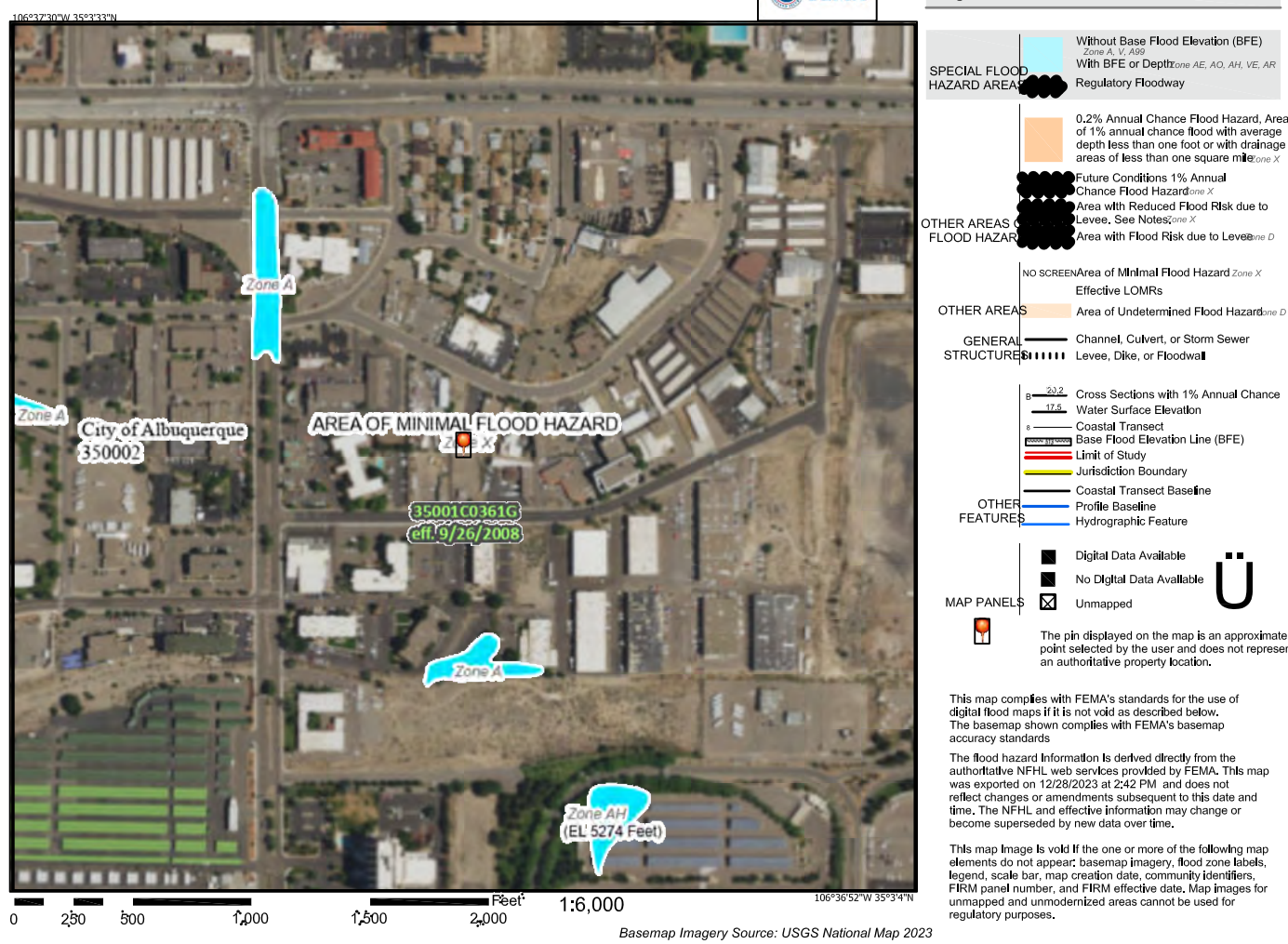
ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G&D PLAN
GRADING & DRAINAGE PLAN
DRAINAGE REPORT
DRAINAGE MASTER PLAN
CLOMR/LOMR
TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
TRAFFIC IMPACT STUDY (TIS)
STREET LIGHT LAYOUT
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

BUILDING PERMIT APPROVAL
CERTIFICATE OF OCCUPANCY
CONCEPTUAL TCL DFT APPROVAL
PRELIMINARY PLAT APPROVAL
FINAL PLAT APPROVAL
SITE PLAN FOR BLDG PERMIT DFT
APPROVAL
SIA/RELEASE OF FINANCIAL GUARANTEE
FOUNDATION PERMIT APPROVAL
GRADING PERMIT APPROVAL
SO-19 APPROVAL
PAVING PERMIT APPROVAL
GRADING PAD CERTIFICATION
WORK ORDER APPROVAL
CLOMR/LOMR
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

National Flood Hazard Layer FIRMette



Vicinity Map



Hydrology (COA DPM Part 6-2(A) Procedure for 40-Acre and Smaller Basins)

Precipitation Zone (as per COA DPM Chapter 6 FIGURE 6.2.3 Precipitation Zones) = Zone 3	
Precipitation Depth (in) (as per COA DPM Chapter 6 TABLE 6.2.8) 100 yr storm	P ₁₀₀₋₆ = 2.43 P ₁₀₀₋₂₄ = 2.84
Peak Discharge (as per COA DPM Chapter 6 6.2.14) 100 yr storm	Q _{PA} (cfs/ac) Treatment A = 1.84 Q _{PB} (cfs/ac) Treatment B = 2.49 Q _{PC} (cfs/ac) Treatment C = 3.17 Q _{PD} (cfs/ac) Treatment D = 4.49
6-HOUR Excess Precipitation, E (in.) (as per COA DPM Chapter 6 TABLE 6.2.13)	
Land Treatment	A B C D
Excess Precipitation(in) E	0.67 0.86 1.09 2.58

Existing Conditions

Basin	Basin Area (acre)	Land Treatment Area (arce) A				E _w (in)	V ₃₆₀ (acft)	V ₁₄₄₀ (acft)	Q ₃₆₀ (cfs)
		A _A	A _B	A _C	A _D				
Site	0.41	0	0	0.41	0	1.09	0.037	0.037	1.30

Full Development Conditions

Site	0.41	0	0	0.19	0.22	1.89	0.065	0.072	1.59
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Weighted E_w = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$
V₃₆₀ = $E_w \times A \times 12 \text{ in/ft}$
V₁₄₄₀ = $V_{360} \times 4$
Q_p = $Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

First Flush Calculations (as per COA DPM 6-12)

Required Water Quality Retention Pond Volume=	0.22	x	0.42	=	335 cuft
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Area Pond = 250 sqft
Depth required = 1.3 ft
Depth provided= 1.5 ft

Pond Rating Table

Elev	Area		Volume	Cum Volume	Cum Volume
(ft)	(sqft)	(acre)	(acre-ft)	(acre-ft)	(cf)
5226.5	250	0.0057	0.0000	0.0000	0
5227	250	0.0057	0.0029	0.0029	125
5228	250	0.0057	0.0057	0.0086	375

> 335

Wier Design Flow for Pond Outlet

(COA DPM Chapter 6 6-16(A)) Q (cfs) =	2.7	x	2	x	0.45	=	2.4	> 1.59
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LEGAL DESCRIPTION

TRACT 2-B-2 IN BLOCK NUMBERED TWO (2) OF AIRPORT INDUSTRIAL PARK, ALBUQUERQUE, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE REPLAT OF TRACT "2-B", BLOCK 2 OF SAID SUBDIVISION, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON OCTOBER 27, 1988, IN MAP BOOK C37, FOLIO 149.

BENCHMARK

NAVD 88 - ACS MONUMENT "19-L16" HAVING AN ELEVATION OF 5297.506 FEET.

SITE LOCATION

The existing site is an approximate 0.41-acre site located at 2411 Alamo Ave. SE. The site is bounded on the south side by Alamo Ave., the north, west, and east sides by existing development. This site can be accessed by going I-25 south, taking the Gibson exit east, and then turning right on Yale Blvd., and left on Alamo Ave. (see vicinity map this sheet).

EXISTING CONDITIONS

The existing site is estimated at 0.41 acres and is an undeveloped commercial lot. The runoff from this site is 1.30 cfs for the 100-yr, 6-hour storm under existing conditions.

The site does not lie within a 100 year FEMA floodplain (sec FEMA panel on this sheet). The site currently slopes from northeast to southwest.

FULLY DEVELOPED CONDITIONS

The proposed project consist of grading for a future slab location for a metal shop building, base course parking lot, and installation of a portable building (on site currently) on a permanent foundation. The site impervious area under proposed conditions will be 0.22 acre ft. The new parking lot will be graded to drain west to storm drain inlets. Future shop building will have rain gutters that outlet to 24" inlets with connecting 8" storm drain pipe. The drainage calculations for proposed conditions are indicated on this sheet above. When fully developed as indicated on the grading and drainage plan, the increased runoff from the site is estimated at 1.59 cfs during the 100-year, 6-hour storm. The first flush pond SWQ volume for the new impervious area is 335 cf. A new retention pond has been provided on the southwest corner of the site to retain the first flush storm event which is 375 cf. Two 8" storm drain lines tie into the retention pond delivering on site runoff. One 8"Ø storm drain serves as an outlet to the retention pond and will conveys 1.59 cfs flow. This 8"Ø storm drain outlet extends to Alamo Ave. as shown on this plan and outlets at a concrete transition tied to a 24" (B=7") sidewalk culvert.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 02/20/24
BY: *Rene C. Brissett*
HydroTrans # M16D003A

THE APPROVAL OF THESE PLANS BY THE CITY OF ALBUQUERQUE DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE IS NOT PROVIDING ANY WARRANTY, EXPRESS OR IMPLIED, FOR THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE SHALL NOT BE LIABLE FOR ANY DAMAGES, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING OUT OF OR FROM THE USE OF THESE PLANS.

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROVAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.



General Notes

No.	Revision/Issue	Date
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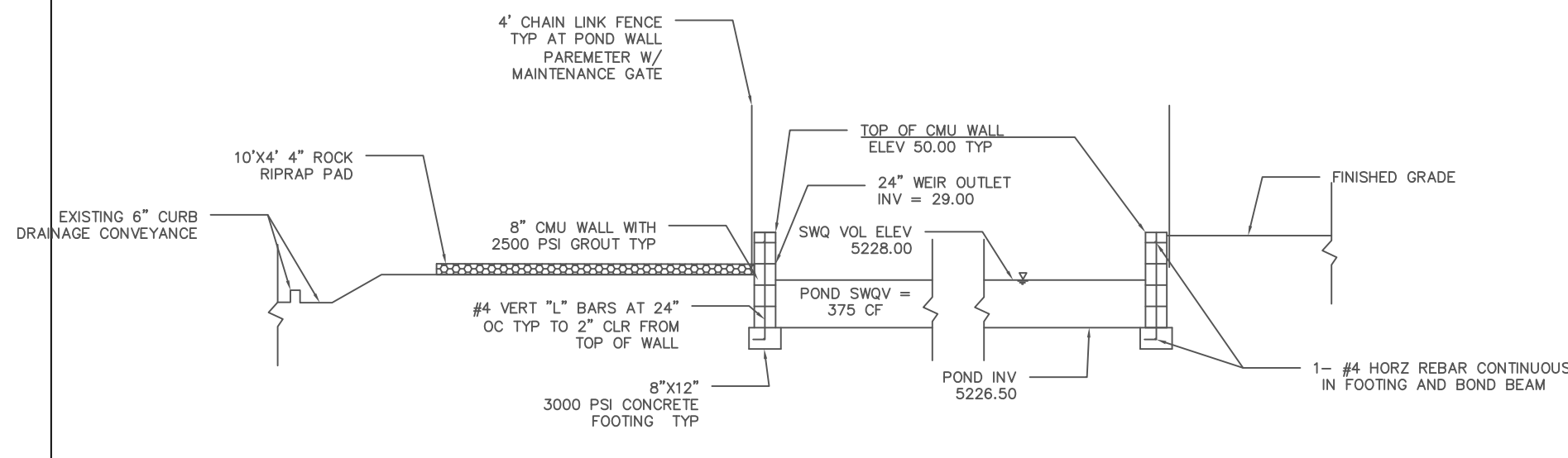
Firm Name and Address
INCLINE ENGINEERING
TED L. BARBER, PE
236 TANO ROAD
SANTA FE, NM 87506
(505)577-6747

Project Name and Address
SITE IMPROVEMENTS
2411 ALAMO AVE SE
ALBUQUERQUE, NM

Project	Sheet
Date	C-2
Scale	

Legend

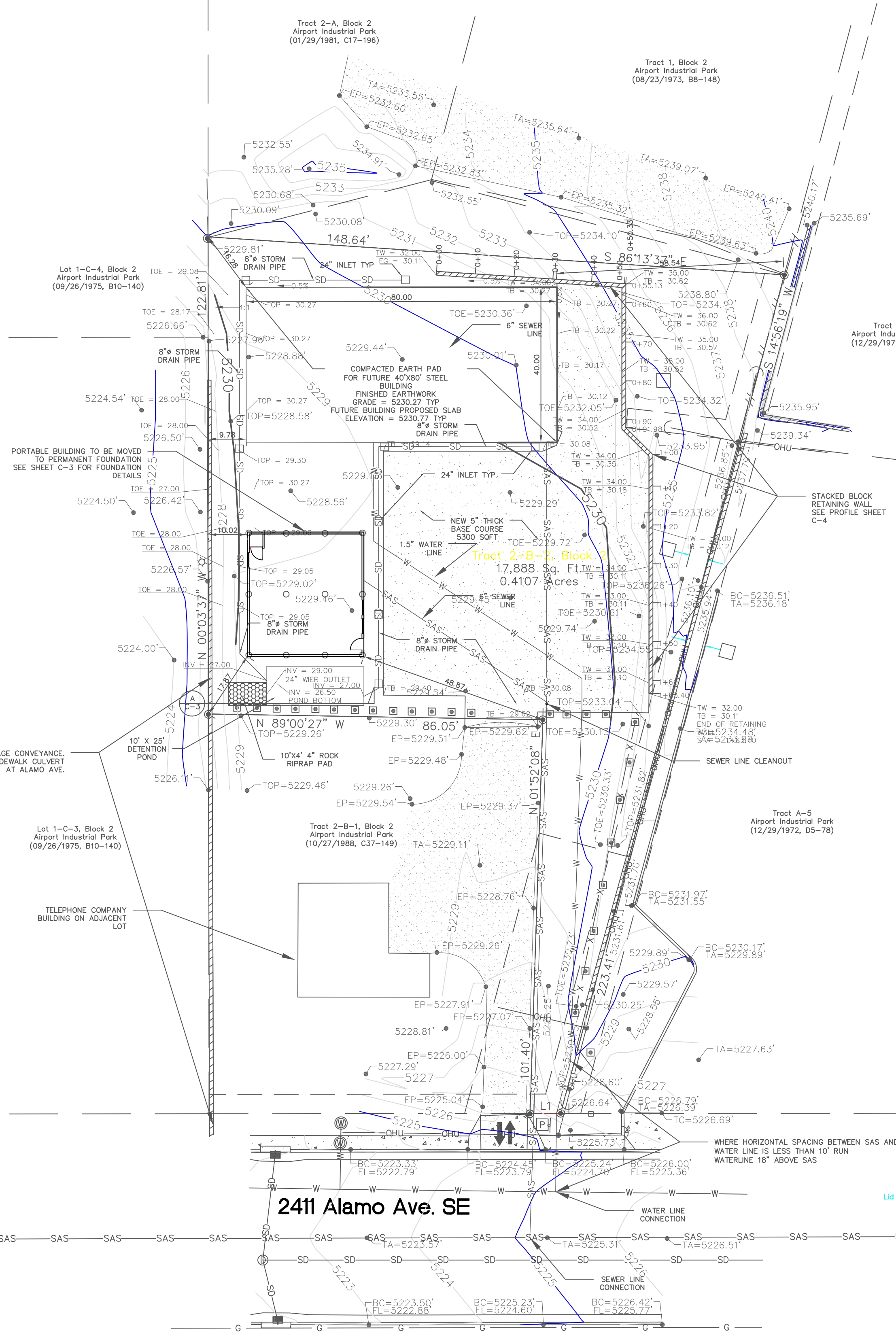
N 90°00'00" E	MEASURED BEARINGS AND DISTANCES
●	FOUND MONUMENT AS INDICATED
■	CONCRETE
■	ASPHALT
□	UTILITY PEDESTAL
—//—	WOOD FENCE
—x—	WIRE FENCE
—/—/—	BLOCK WALL
—o—	CHAINLINK FENCE
■	BOLLARD
—OHU—	OVERHEAD UTILITY LINE
•	UTILITY POLE
→	ANCHOR
□	PULL BOX
☆	LIGHT POLE
⊙	WATER METER
—OR—	SIGN
↔	CURB CUT/INDICATION OF ACCESS TO ROADWAY
—W—	UNDERGROUND WATER UTILITY LINE
—SAS—	UNDERGROUND SANITARY SEWER LINE
—SD—	UNDERGROUND STORM DRAIN UTILITY LINE
—G—	UNDERGROUND GAS UTILITY LINE
⊙	SANITARY SEWER MANHOLE
⊙	STORM DRAIN MANHOLE
⊙	STORM DRAIN INLET
R	RAMP
5075.50	SPOT ELEVATION
BC 5075.50	BACK OF CURB ELEVATION
FL 5075.50	FLOW LINE ELEVATION
EP 5075.50	EDGE OF PAVEMENT ELEVATION
TA 5075.50	TOP OF ASPHALT ELEVATION
TC 5075.50	TOP OF CONCRETE ELEVATION
TOP 5075.50	TOP OF SLOPE ELEVATION
TOE 5075.50	TOE OF SLOPE ELEVATION
FG 5075.50	FINISHED GRADE
TB 5075.50	TOP OF BASE COURSE ELEVATION



SWQ RETENTION POND SECTION

SCALE: 1" = 5'

NOTE: INTERIOR CMU SURFACE OF THE POND SHALL BE WATER PROOFED AS PER COA SPECIFICATION.



SITE PLAN

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 02/20/24
BY: *Renee C. Brando*
HydroTrans # M16D003A

(THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSIDERED TO BE A GUARANTEE OF ANY CITY OR STATE OR A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT PROVIDE ANY WARRANTY, EXPRESS OR IMPLIED, FOR THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT PROVIDE ANY WARRANTY, EXPRESS OR IMPLIED, FOR THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT PROVIDE ANY WARRANTY, EXPRESS OR IMPLIED, FOR THE INFORMATION PROVIDED HEREON.)

APPROVAL OF GRADING & DRAINAGE PLAN(S) SHALL EXPIRE TWO (2) YEARS AFTER THE APPROVAL DATE BY THE CITY IF NO BUILDING PERMIT HAS BEEN PULLED ON THE DEVELOPMENT.



General Notes

ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE METTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.

ALL BASE COURSE WORK ON THE PROJECT SHALL COMPLY WITH CITY OF ALBUQUERQUE PUBLIC WORKS CONSTRUCTION SPECIFICATION INCLUDING ALL RELATED SECTIONS. CONNECTION TO SEWER MAIN ON ALAMO LANE SHALL BE CONSTRUCTED. ANY PERMITTING FOR THIS CONNECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL SANITARY SEWER (SAS) WORK ON THE PROJECT SHALL COMPLY WITH CITY OF ALBUQUERQUE PUBLIC WORKS CONSTRUCTION SPECIFICATION INCLUDING ALL RELATED SECTIONS. CONNECTION TO SEWER MAIN ON ALAMO LANE SHALL BE CONSTRUCTED. ANY PERMITTING FOR THIS CONNECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER LINE SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 18" ABOVE THE WATER AND STORM DRAIN LINES AT CROSSINGS. CONNECTION TO WATER MAIN ON ALAMO LANE SHALL BE CONSTRUCTED. ANY PERMITTING FOR THIS CONNECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

8" STORM DRAIN LINES BETWEEN 24" INLETS SHALL HAVE A SLOPE OF 1%. SEE POND INVERTS LISTED ON PLANS FOR INLET ELEVATION. STORM DRAIN PIPE SHALL BE SMOOTH WALL PVC, ADS, OR HDPE.

NATURAL GAS, TELEPHONE/INTERNET, AND ELECTRIC SERVICE TO THE SHOP AND OFFICE SHALL BE RUN IN A COMMON WITHIN THE PROPERTY LIMITS IN A TRENCH AS APPROPRIATE AND APPROVED BY THE UTILITY. CONNECTIONS TO UTILITIES ON ALAMO LANE SHALL BE CONSTRUCTED FOR THESE UTILITIES. ANY PERMITTING FOR THIS CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL INSPECT AND VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, DETAILS, UTILITY SERVICES, AND ACCESS TO THE SITE. IF ANY DISCREPANCIES ARE FOUND, REPORT IMMEDIATELY TO THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

DESIGN AND CONSTRUCTION SHALL CONFORM TO ALL PERTINENT CODES GOVERNED BY THE JURISDICTION IN WHICH THIS PROJECT IS BEING CONSTRUCTED.

OWNER AND ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS, OR FOR CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN STRICT ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.

ALL QUESTIONS SHALL BE DIRECTED TO THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

IT IS INTENDED THAT THE WORK SHOWN AND SPECIFIED CONSTITUTE A FINISHED, FULLY WORKABLE PROJECT. EACH CONTRACTOR IS RESPONSIBLE TO PROVIDE A COMMON WITHIN THE PROPERTY LIMITS IN A TRENCH AS APPROPRIATE AND APPROVED BY THE UTILITY. CONNECTIONS TO UTILITIES ON ALAMO LANE SHALL BE CONSTRUCTED FOR THESE UTILITIES. ANY PERMITTING FOR THIS CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

COORDINATE WORK IN ALL DISCIPLINES (ARCH., STRUCT., ELECT., MECH., ETC.) WITH EXISTING CONDITIONS, SPECIAL REQUIREMENTS, CONSTRUCTION SCHEDULE AND OTHER CONTRACTORS PERFORMING WORK AT SITE.

CONTRACTOR SHALL DESIGN AND PROVIDE ALL TEMPORARY SHORING, BRACING, ETC., AS NEEDED FOR THE WORK SO AS TO NOT ENDANGER ANY PERSONNEL AND EXISTING STRUCTURES.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE DONE TO EXISTING FEATURES NOT INTENDED FOR REMOVAL OR DEMOLITION AS A RESULT OF THIS WORK. DAMAGED ITEMS SHALL BE REPLACED IN KIND AND AT NO ADDITIONAL COST TO THE OWNER.

THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.

TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 505-321-2537 FOR LOCATION OF EXISTING UTILITIES.

THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.

ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT.

THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.

THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORM WATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLES WITH THE APPROVED GRADING AND DRAINAGE PLAN.

THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC. FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.

THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE PROPERTY LINES SHOWN ON THIS PLAN SET.

THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.

THE CONTRACTOR SHALL SUBMIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.

No.	Revision/Issue	Date

Firm Name and Address

INCLINE ENGINEERING
TED L. BARBER, PE
236 TANO ROAD
SANTA FE, NM 87506
(505)577-6747

Project Name and Address

SITE IMPROVEMENTS
2411 ALAMO AVE SE
ALBUQUERQUE, NM

Project	Sheet
Date	C-3
Scale	