

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

May 3, 2022

Robert Fierro, P.E.
Fierro & Company
6300 Montano Rd. NW
Albuquerque, NM 87120

**RE: Albuquerque Ranch Estates, Unit II
Grading and Drainage Plans
Engineer's Stamp Date: 04/21/22
Hydrology File: E22D002**

Dear Mr. Fierro:

Based upon the information provided in your submittal received 04/22/2022, the Grading & Drainage Plans approved for Work Order and Grading Permit. Please place this stamp approved Grading & Drainage Plan to the Work Order set of construction drawings.

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 (REV 11/2018)

Project Title: _____ **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: _____

City Address: _____

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Owner: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

TYPE OF SUBMITTAL: _____ PLAT (10# OF LOTS) _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

IS THIS A RESUBMITTAL?: _____ Yes _____ No

DEPARTMENT: _____ TRAFFIC/ TRANSPORTATION _____ HYDROLOGY/ DRAINAGE

Check all that Apply:

TYPE OF SUBMITTAL:

- _____ ENGINEER/ARCHITECT CERTIFICATION
- _____ PAD CERTIFICATION
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ DRAINAGE MASTER PLAN
- _____ DRAINAGE REPORT
- _____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- _____ ELEVATION CERTIFICATE
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ TRAFFIC IMPACT STUDY (TIS)
- _____ OTHER (SPECIFY) _____
- _____ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

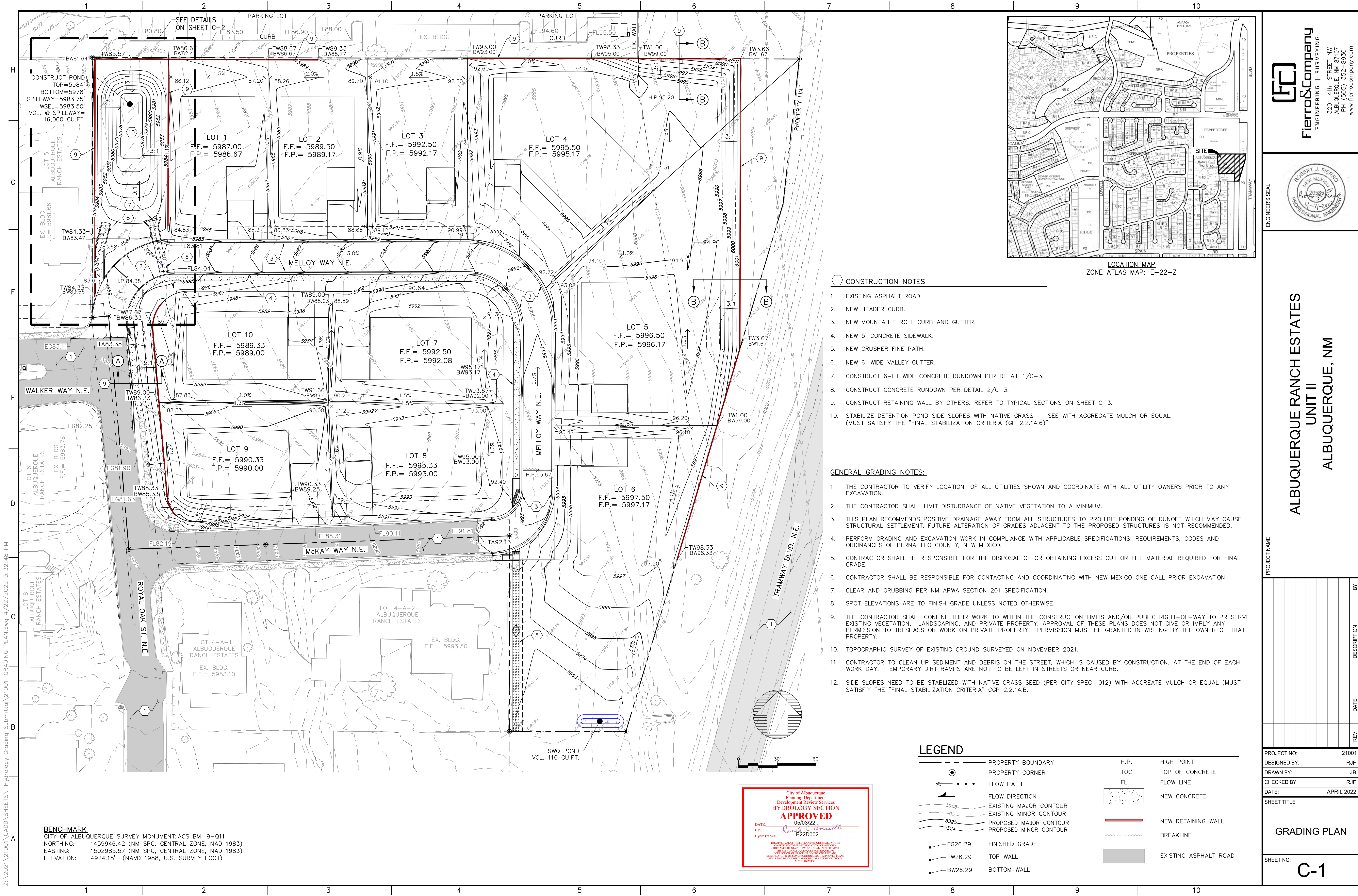
- _____ BUILDING PERMIT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY
- _____ PRELIMINARY PLAT APPROVAL
- _____ SITE PLAN FOR SUB'D APPROVAL
- _____ SITE PLAN FOR BLDG. PERMIT APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ SIA/ RELEASE OF FINANCIAL GUARANTEE
- _____ FOUNDATION PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ SO-19 APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ GRADING/ PAD CERTIFICATION
- _____ WORK ORDER APPROVAL
- _____ CLOMR/LOMR
- _____ FLOODPLAIN DEVELOPMENT PERMIT
- _____ OTHER (SPECIFY) _____

DATE SUBMITTED: _____ **By:** _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



BENCHMARK
CITY OF ALBUQUERQUE SURVEY MONUMENT: ACS BM, 9-011
NORTHING: 1459946.42 (NM SPC, CENTRAL ZONE, NAD 1983)
EASTING: 1502985.57 (NM SPC, CENTRAL ZONE, NAD 1983)
ELEVATION: 4924.18' (NAVD 1988, U.S. SURVEY FOOT)

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 05/03/22
BY: *Rosemary Benavente*
E22D002

LEGEND

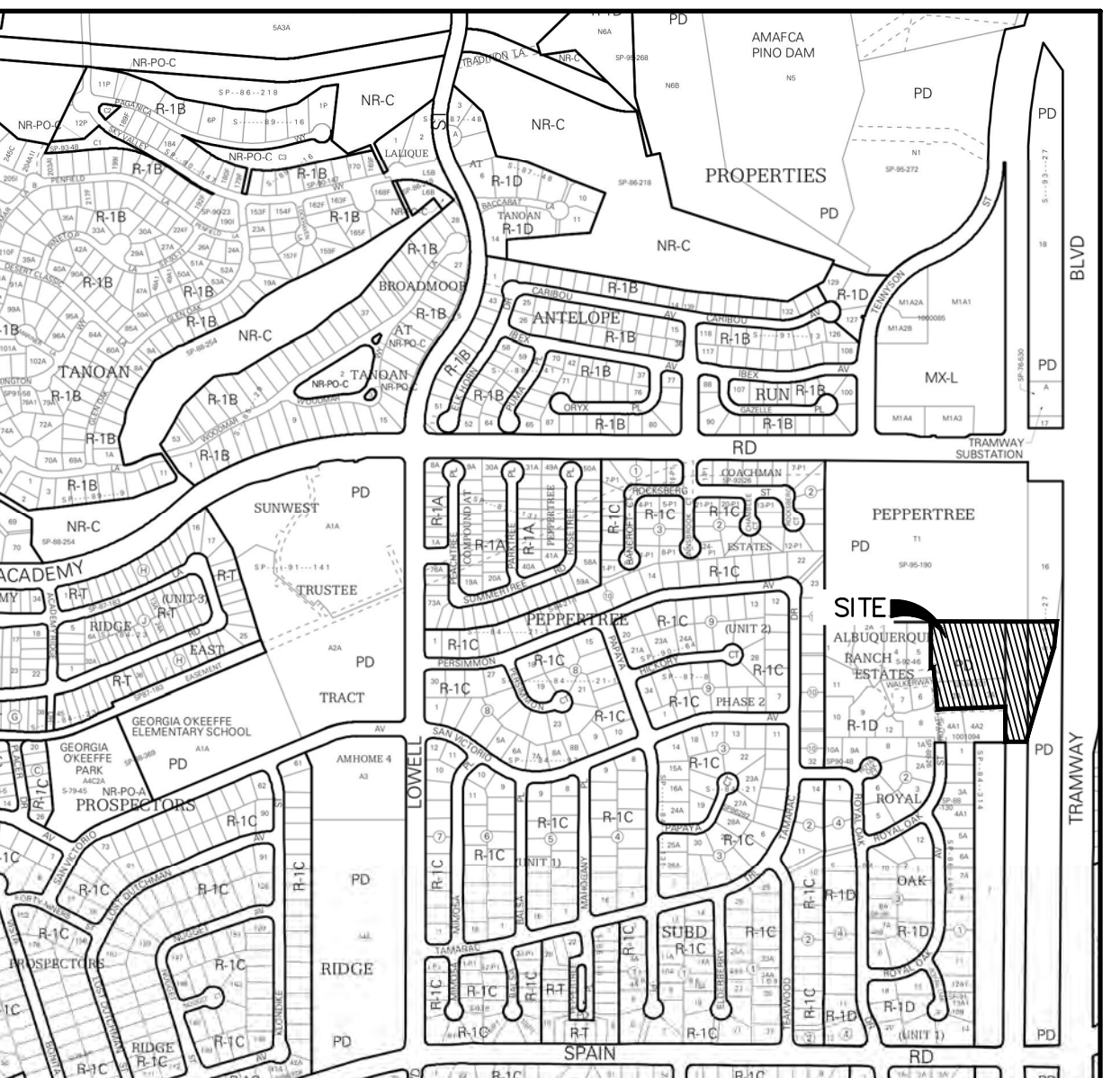
- | | | | |
|-----|------------------------|--------------|-----------------------|
| --- | PROPERTY BOUNDARY | H.P. | HIGH POINT |
| ● | PROPERTY CORNER | TOC | TOP OF CONCRETE |
| --- | FLOW PATH | FL | FLOW LINE |
| --- | FLOW DIRECTION | NEW CONCRETE | |
| --- | EXISTING MAJOR CONTOUR | | NEW RETAINING WALL |
| --- | EXISTING MINOR CONTOUR | | BREAKLINE |
| --- | PROPOSED MAJOR CONTOUR | | EXISTING ASPHALT ROAD |
| --- | PROPOSED MINOR CONTOUR | | |
| ● | FG26.29 FINISHED GRADE | | |
| ● | TW26.29 TOP WALL | | |
| ● | BW26.29 BOTTOM WALL | | |

CONSTRUCTION NOTES

- EXISTING ASPHALT ROAD.
- NEW HEADER CURB.
- NEW MOUNTABLE ROLL CURB AND GUTTER.
- NEW 5' CONCRETE SIDEWALK.
- NEW CRUSHER FINE PATH.
- NEW 6' WIDE VALLEY GUTTER.
- CONSTRUCT 6'-FT WIDE CONCRETE RUNDOWN PER DETAIL 1/C-3.
- CONSTRUCT CONCRETE RUNDOWN PER DETAIL 2/C-3.
- CONSTRUCT RETAINING WALL BY OTHERS. REFER TO TYPICAL SECTIONS ON SHEET C-3.
- STABILIZE DETENTION POND SIDE SLOPES WITH NATIVE GRASS SEE WITH AGGREGATE MULCH OR EQUAL. (MUST SATISFY THE "FINAL STABILIZATION CRITERIA (GP 2.2.14.6)"

GENERAL GRADING NOTES:

- THE CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES SHOWN AND COORDINATE WITH ALL UTILITY OWNERS PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATIVE VEGETATION TO A MINIMUM.
- THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.
- PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF BERNALILLO COUNTY, NEW MEXICO.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.
- CLEAR AND GRUBBING PER NM APWA SECTION 201 SPECIFICATION.
- SPOT ELEVATIONS ARE TO FINISH GRADE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL CONFINE THEIR WORK TO WITHIN THE CONSTRUCTION LIMITS AND/OR PUBLIC RIGHT-OF-WAY TO PRESERVE EXISTING VEGETATION, LANDSCAPING, AND PRIVATE PROPERTY. APPROVAL OF THESE PLANS DOES NOT GIVE OR IMPLY ANY PERMISSION TO TRESPASS OR WORK ON PRIVATE PROPERTY. PERMISSION MUST BE GRANTED IN WRITING BY THE OWNER OF THAT PROPERTY.
- TOPOGRAPHIC SURVEY OF EXISTING GROUND SURVEYED ON NOVEMBER 2021.
- CONTRACTOR TO CLEAN UP SEDIMENT AND DEBRIS ON THE STREET, WHICH IS CAUSED BY CONSTRUCTION, AT THE END OF EACH WORK DAY. TEMPORARY DIRT RAMPS ARE NOT TO BE LEFT IN STREETS OR NEAR CURB.
- SIDE SLOPES NEED TO BE STABILIZED WITH NATIVE GRASS SEED (PER CITY SPEC 1012) WITH AGGREGATE MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CGP 2.2.14.B.



Fierro & Company
ENGINEERING | SURVEYING
3201 4th STREET NW
ALBUQUERQUE, NM 87107
PH (505) 352-8930
www.fierrocompany.com

ENGINEER'S SEAL
ROBERT J. FIERRO
NEW MEXICO
20585
4-21-2022
PROFESSIONAL ENGINEER

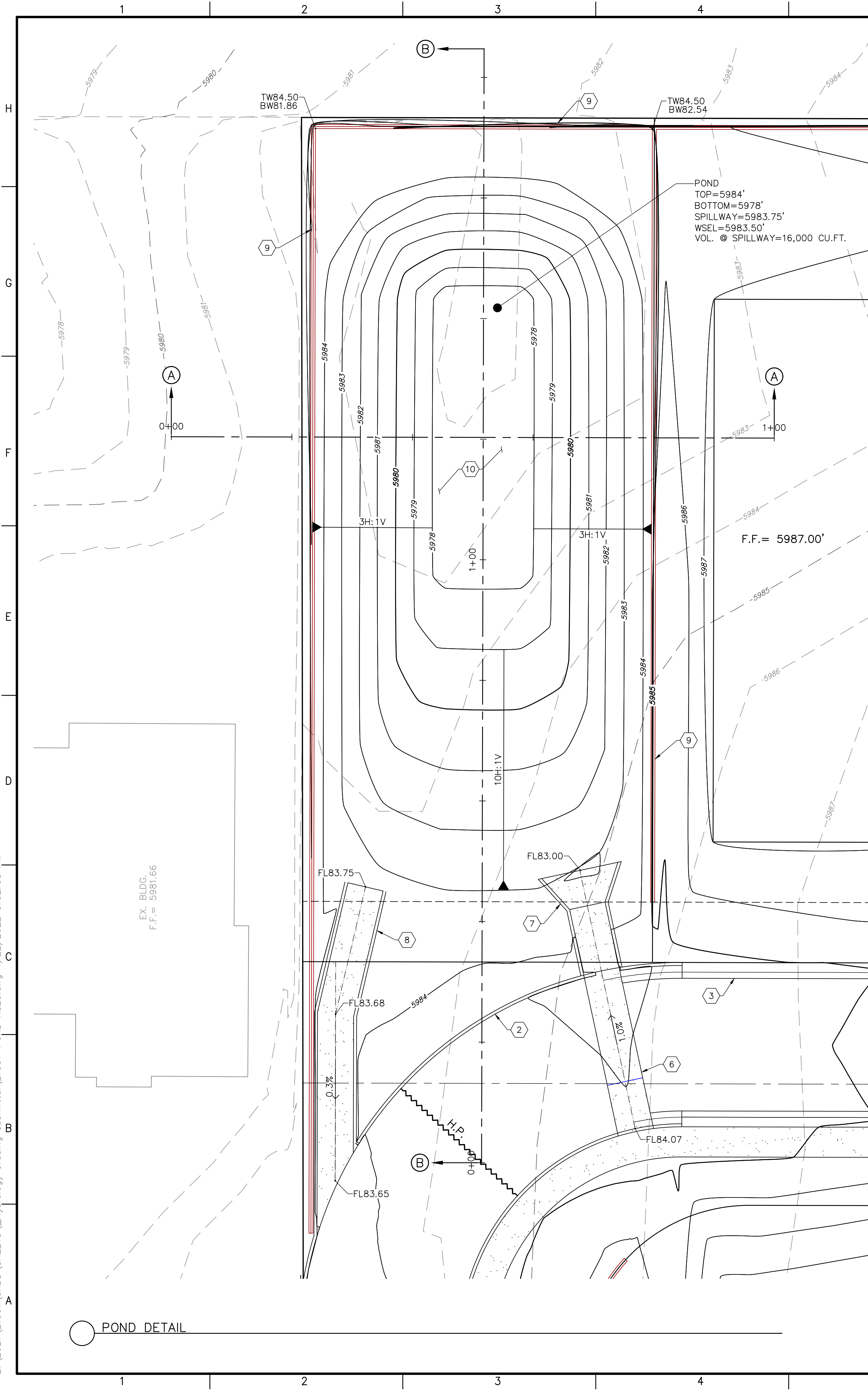
**ALBUQUERQUE RANCH ESTATES
UNIT II
ALBUQUERQUE, NM**

PROJECT NAME

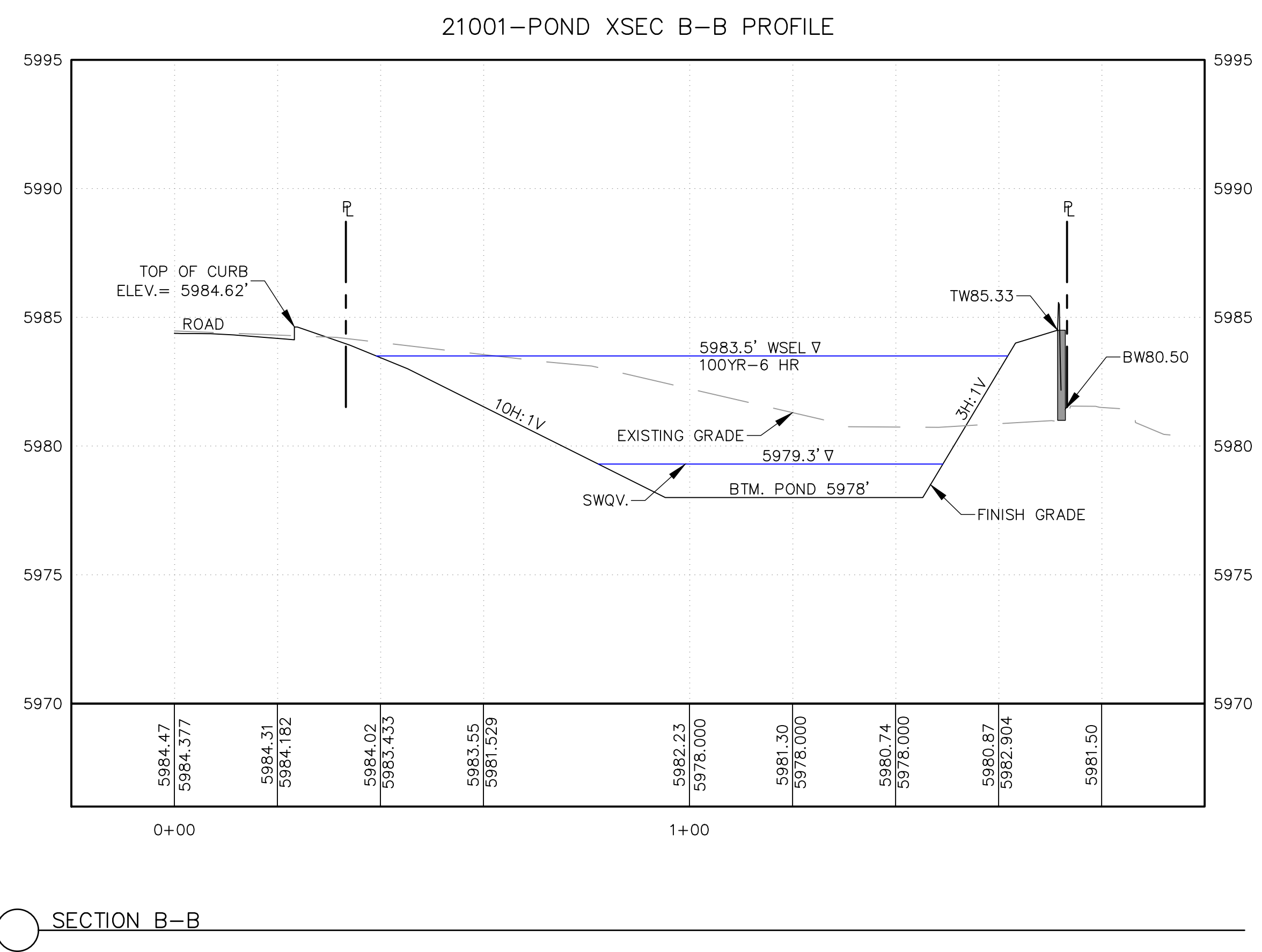
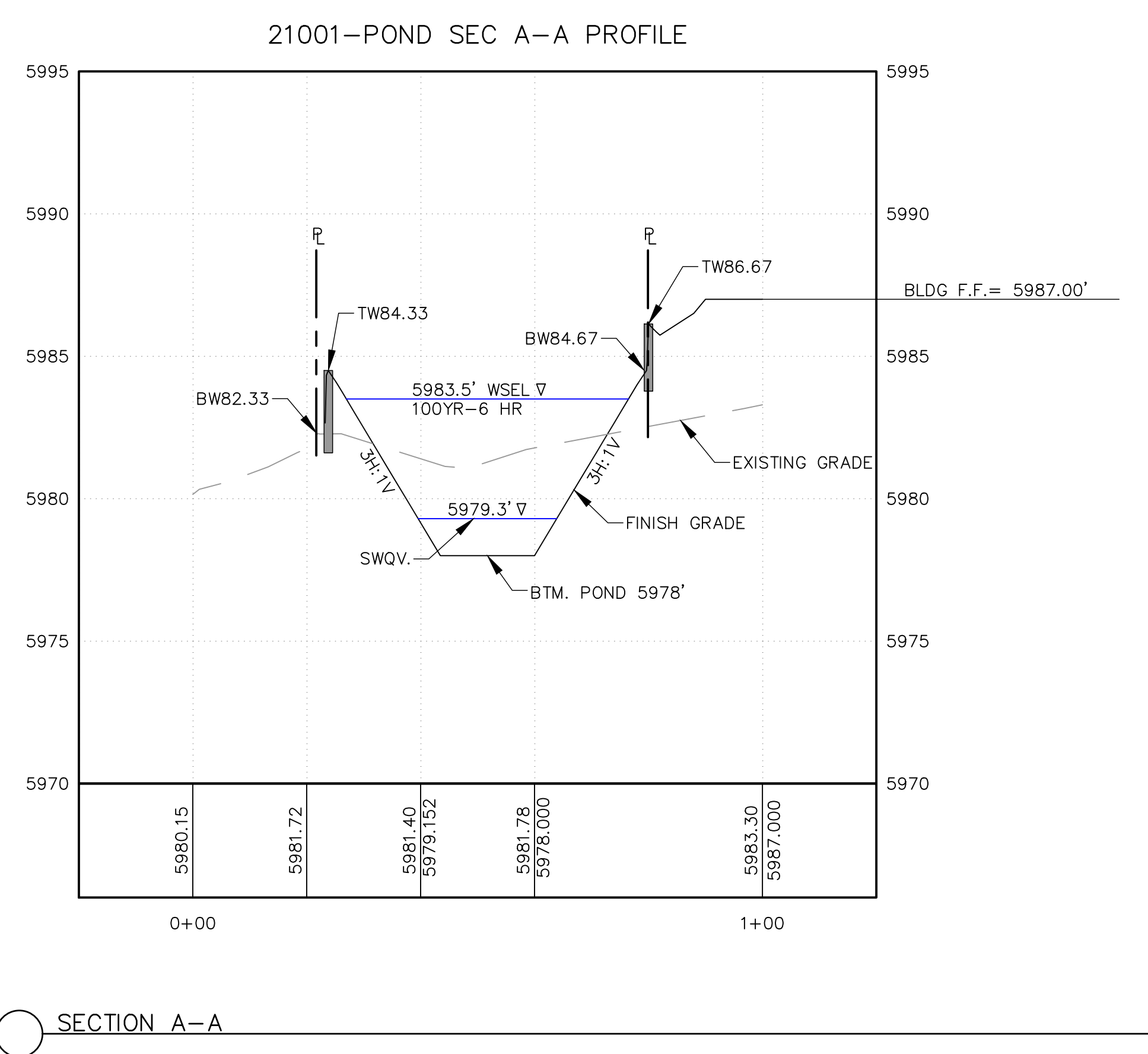
REV.	DATE	DESCRIPTION	BY

PROJECT NO: 21001
DESIGNED BY: RJF
DRAWN BY: JB
CHECKED BY: RJF
DATE: APRIL 2022
SHEET TITLE
GRADING PLAN
SHEET NO: **C-1**

Z:\2021\21001\CADD\Sheets\Hydrology Grading Submittal\21001-POND XSEC.dwg 4/22/2022 3:32:58 PM



- CONSTRUCTION NOTES**
- EXISTING ASPHALT ROAD.
 - NEW HEADER CURB.
 - NEW MOUNTABLE ROLL CURB AND GUTTER.
 - NEW 5' CONCRETE SIDEWALK.
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 - CONSTRUCT RETAINING WALL BY OTHERS. REFER TO TYPICAL SECTIONS ON SHEET C-3.
 - STABILIZE DETENTION POND SIDE SLOPES WITH NATIVE GRASS SEE WITH AGGREGATE MULCH OR EQUAL. (MUST SATISFY THE "FINAL STABILIZATION CRITERIA (GP 2.2.14.6)"



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ENGINEER'S SEAL

**ALBUQUERQUE RANCH ESTATES
UNIT II
ALBUQUERQUE, NM**

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO: 21001
DESIGNED BY: RJF
DRAWN BY: RJS
CHECKED BY: RJF
DATE: APRIL 2022

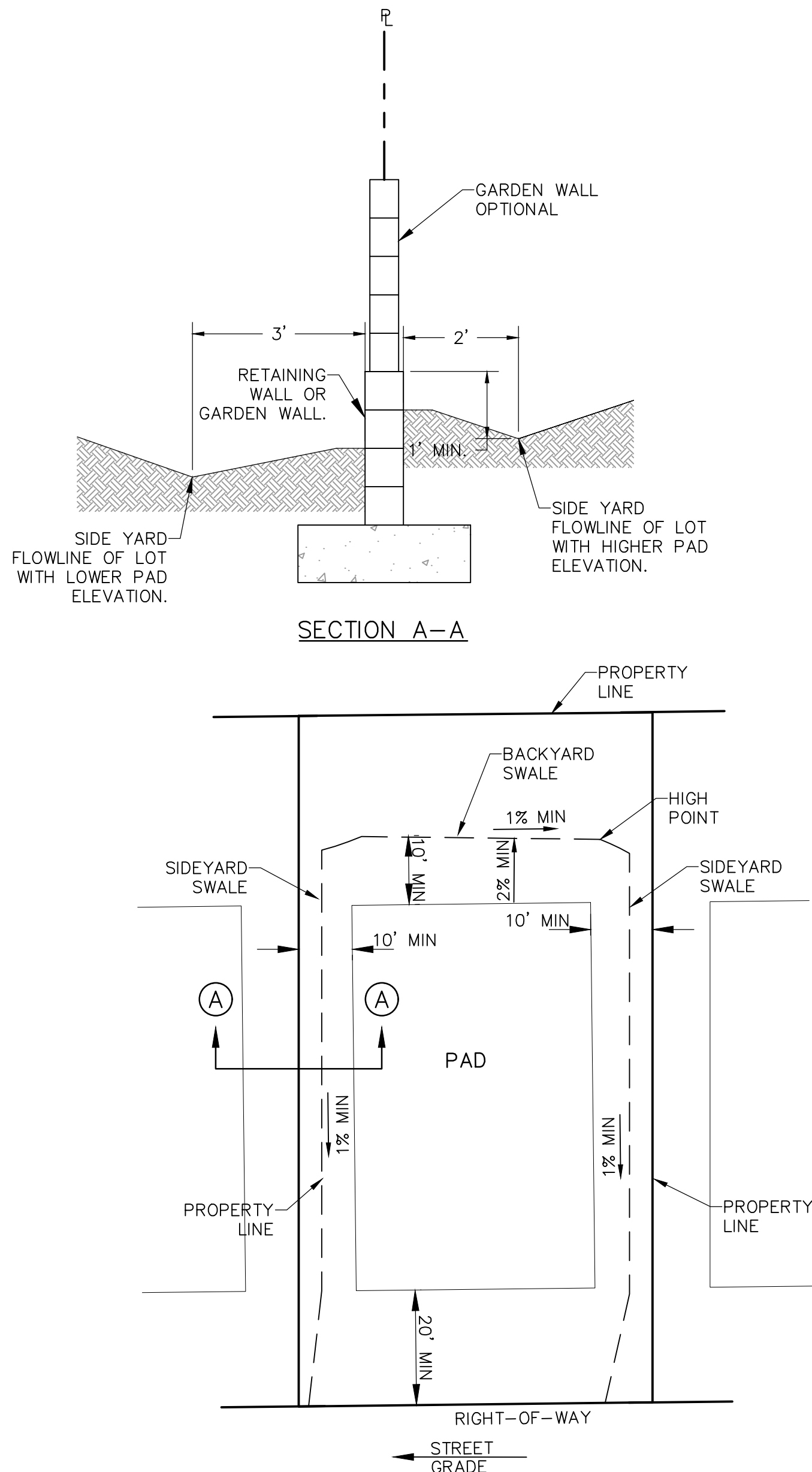
SHEET TITLE

**POND
CROSS SECTION**

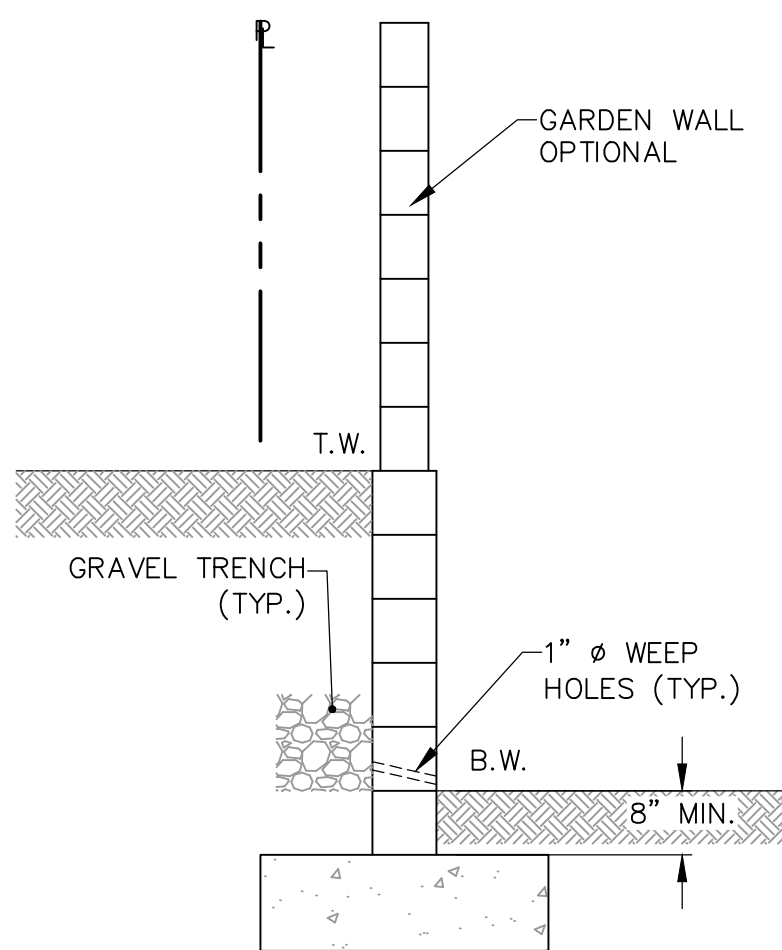
SHEET NO:

C-2

Z:\2021\21001\CADD\Sheets\Hydrology Grading Submittal\21001-DETAILS.dwg 5/2/2022 8:35:27 PM

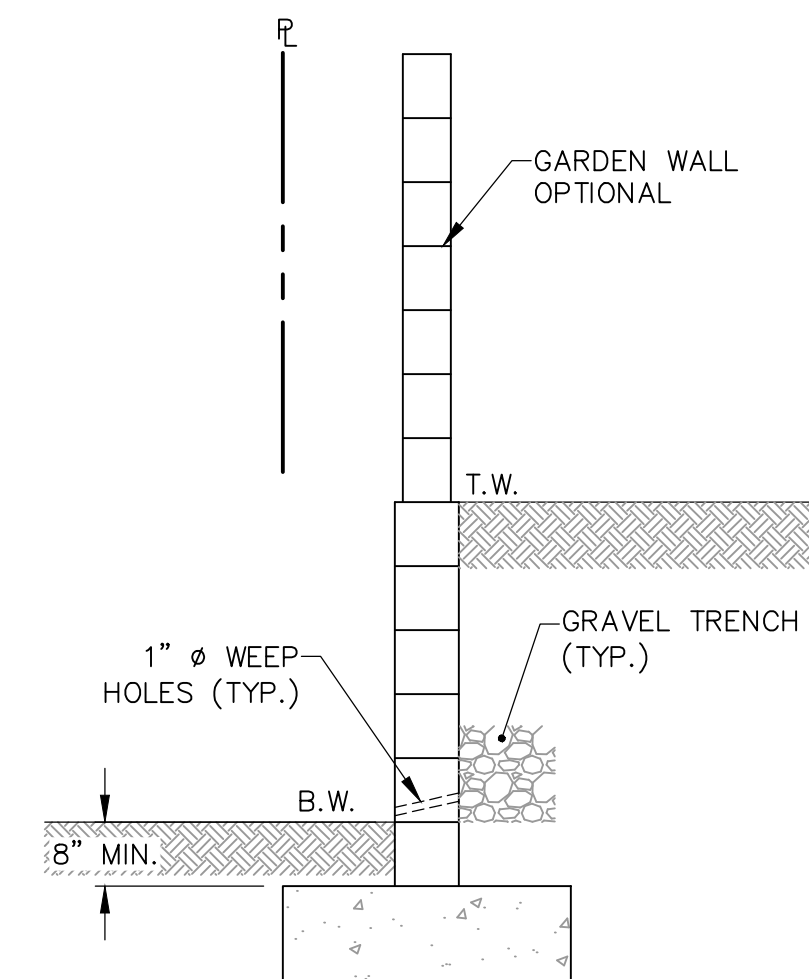


5 TYPICAL LOT GRADING DETAIL
SCALE: NTS



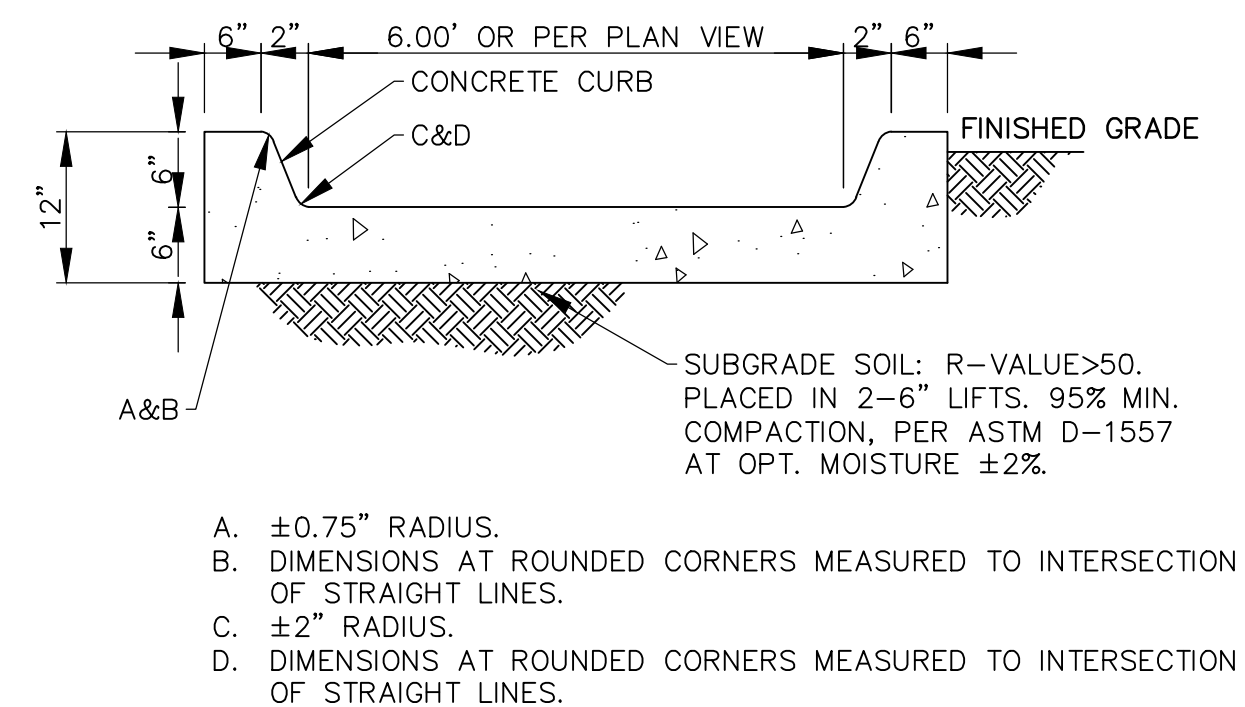
- NOTES:
- 1 REFER TO SHEET C-1 FOR TW AND BW ELEVATIONS.
 - 2 ENTIRE FOOTING AND WALL TO BE INSIDE PROPERTY LINE.

4 SECTION B-B (TYPICAL RETAINING WALL NOMENCLATURE)
SCALE: NTS



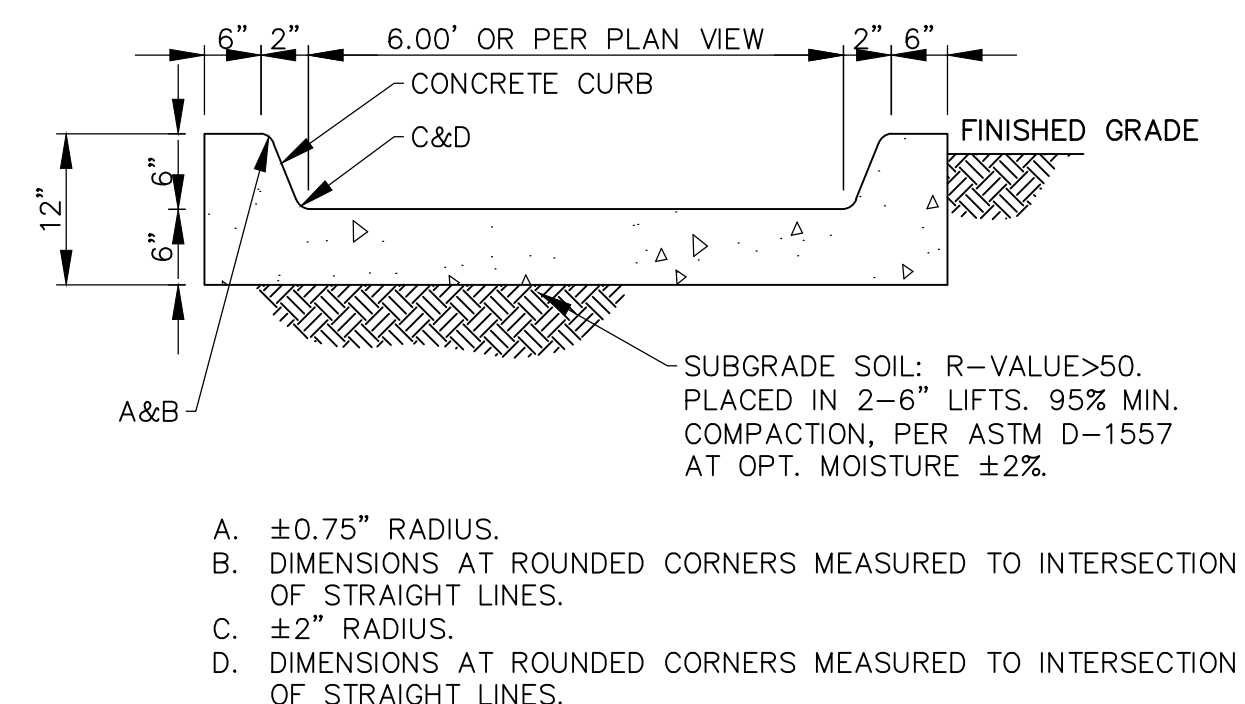
- NOTES:
- 1 REFER TO SHEET C-1 FOR TW AND BW ELEVATIONS.
 - 2 ENTIRE FOOTING AND WALL TO BE INSIDE PROPERTY LINE.

3 SECTION A-A (TYPICAL RETAINING WALL NOMENCLATURE)
SCALE: NTS

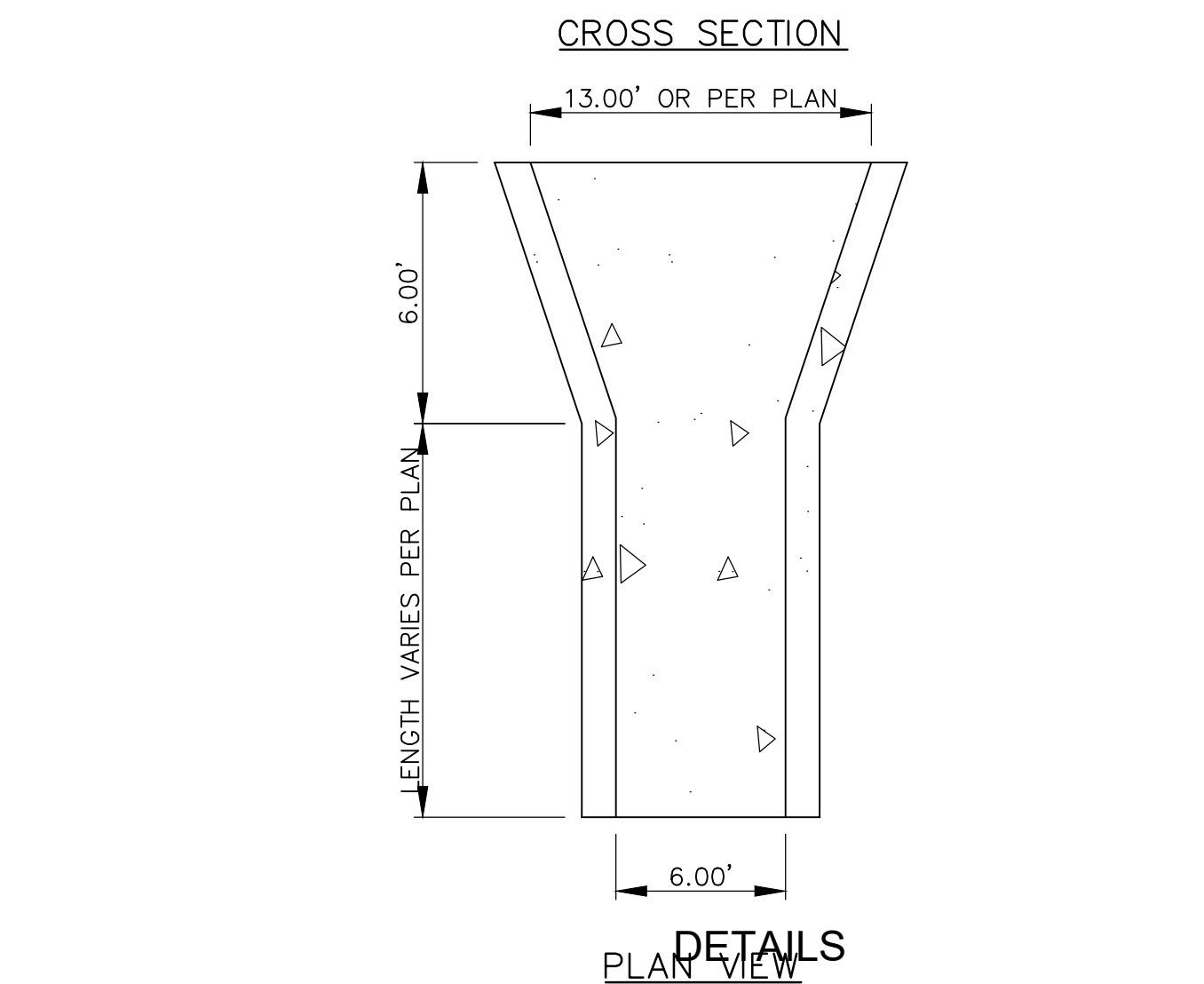


- A. ±0.75" RADIUS.
B. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.
C. ±2" RADIUS.
D. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.

2 6' WIDE CONCRETE RUNDOWN
SCALE: NTS



- A. ±0.75" RADIUS.
B. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.
C. ±2" RADIUS.
D. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.



1 6' WIDE CONCRETE RUNDOWN
SCALE: NTS



ALBUQUERQUE RANCH ESTATES
UNIT II
ALBUQUERQUE, NM

PROJECT NAME

REV.	DATE	DESCRIPTION	BY

PROJECT NO:	21001
DESIGNED BY:	RJF
DRAWN BY:	JB
CHECKED BY:	RJF
DATE:	APRIL 2022

SHEET TITLE

DETAILS

SHEET NO:

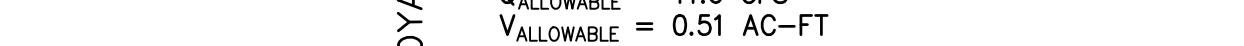
C-3

STAGE-STORAGE TABLE

○

Where;

Therefore, pond's spillway has capacity to discharge pond's overflow of 4.6 cfs



STORMWATER QUALITY VOL. CALCULATIONS

WATER SURFACE ELEVATION = 5984.25'

[illegible]

PROJECT NO:	21001
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	APRIL 2022
SHEET TITLE	

DRAINAGE PLAN

SHEET NO:

D-1

21001-PROP RESULTS										
AHYMO PROGRAM SUMMARY TABLE (AHYMO-S4)					- Ver. S4.01a, Rel: 01a		RUN DATE (MON/DAY/YR) = 04/21/2022			
INPUT FILE = C:\Users\rober\Desktop\21001\21001P.txt					USER NO. = AHYMO_Temp_User:20122010					
COMMAND	HYDROGRAPH IDENTIFICATION	FROM NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION
*S Albuquerque Ranch Estates										
*S Drainage Basin Analysis										
*S "Proposed" CONDITION MODEL										
*S COMBINED BASIN ANALYSIS										
START LOCATION									TIME=	0.00
RS RAINFALL DATA FROM NOAA ATLAS 14										

*S 100 YEAR 6HR STORM PROPOSED CONDITION										
RAINFALL TYPE= 1 NOAA 14									RAIN6=	2.540
SEDIMENT BULK									PK BF =	1.00

COMPUTE NM HYD	200.00	-	1	0.00101	2.35	0.087	1.63155	1.530	3.652	PER IMP= 53.50
COMPUTE NM HYD	201.00	-	2	0.00207	5.07	0.192	1.74449	1.530	3.831	PER IMP= 60.06
COMPUTE NM HYD	202.00	-	3	0.00531	12.53	0.461	1.62837	1.530	3.688	PER IMP= 50.06
ROUTE RESERVOIR	Pond	3	30	0.00531	4.60	0.262	0.92611	1.760	1.352	AC-FT= 0.301
ADD HYD	201sum	308	2	0.00738	6.62	0.455	1.15543	1.730	1.402	
ADD HYD	AP1	18	2	0.00838	7.65	0.542	1.21247	1.720	1.426	
COMPUTE NM HYD	203.00	-	2	0.00052	1.10	0.038	1.37259	1.530	3.308	PER IMP= 35.06
FINISH										



ALBUQUERQUE RANCH ESTATES, UNIT II
ALBUQUERQUE, NEW MEXICO

[illegible]

PROJECT NO:	2100
DESIGNED BY:	RJF
DRAWN BY:	RJS
CHECKED BY:	RJF
DATE:	APRIL 2022

SHEET NO:
D-2