

# CITY OF ALBUQUERQUE

Planning Department  
Alan Varela, Interim Director



Mayor Timothy M. Keller

February 8, 2022

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

**RE: The Wymont  
4315 Wyoming Blvd NE  
Grading and Drainage Plans  
Engineer's Stamp Date: 01/27/22  
Hydrology File: G19D004**

Dear Mr. Bohannon:

PO Box 1293

Based upon the information provided in your submittal received 01/06/2022, the Grading & Drainage Plans are approved for Grading Permit and Work Order.

Albuquerque

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.

NM 87103

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

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

Sincerely,

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 6/2018)

**Project Title:** Wymont **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_  
**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** (LAND ONLY) LT 1-A-1 PLAT FOR LOTS 1-A-1 AND 5-A-1 LA MIRADASUBDIVISION (BEING COMPRISED OF LOTS 1-A AND 5-A LA MIRADASUBDIVISION)  
**City Address:** 4315 Wyoming Blvd NE Albuquerque, NM 87109

**Applicant:** Tierra West, LLC **Contact:** Jonanthan Niski  
**Address:** 5571 Midway Park Place NE Albuquerque, NM 87109  
**Phone#:** 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** jniski@tierrawestllc.com

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? ☒ Yes \_\_\_\_\_ No

**DEPARTMENT** \_\_\_\_\_ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

- ☐ ENGINEER/ARCHITECT CERTIFICATION  
☐ PAD CERTIFICATION  
☐ CONCEPTUAL G & D PLAN  
☒ GRADING PLAN  
☐ DRAINAGE REPORT  
☐ DRAINAGE MASTER PLAN  
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC  
☐ ELEVATION CERTIFICATE  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ STREET LIGHT LAYOUT  
☐ 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:** 01.06.2022 **By:** Jonathan Niski

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_



# TIERRA WEST, LLC

January 5, 2022

Renée C. Brissette, P.E. CFM, Hydrology  
City of Albuquerque, Planning Department  
PO BOX 1293  
Albuquerque, NM 87103

**RE: The Wymont  
4315 Wyoming Blvd NE  
Grading and Drainage Plans (G19D004)**

Dear Ms. Brissette,

Per the correspondence dated December 27, 2021, please find the following responses addressing the comments listed below:

1. This project already has Site Plan for Building Permit approval. (Letter dated 8/4/21) Once the Work Order and Grading are complete, a pad certification submittal will need to be approved by Hydrology for the townhomes so that individual Building Permits can then be issued for each townhome lot. **We understand pad certifications will be required for the townhome individual Permits.**
2. Overall the Grading & Drainage Plan seems to lack a company review or quality control (QA/QC). This review typically ensures that the line weights and text used creates clarity and accuracy which helps both the reviewer and contractor understand the scope of the project. Currently the Grading & Drainage Plan has line weights for the proposed and existing work about the same weight which makes it difficult to tell what is to be constructed. The proposed spot elevations should use some type of terminology which should also be added to the Legend. For example, TP (top of pavement), FL (flow line), TC (top of curb), TW (top of wall), etc. Please ensure that all hatching is called out in the Legend. **The plans were broken up to show an overall plan, the residential grading plan and the commercial grading plans at 1 to 20 scale. The line work was cleaned up and a note placed on the plan stating all elevations are flowline unless otherwise stated on the plan.**
3. GR-1. This is currently very congested and difficult to read. Please, make this sheet just an overall Grading Plan with added pipe sizes, detention pond labeled, proposed contours, and line work with text showing which pipes and grading are to be done under which of the two work orders. **The sheet scale was increased to 1"=30' for better readability.**
4. GR-1. Please add a note, "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.)". This is for the water quality pond. **This note was added to the plan**
5. Please make two Grading Plans at 1" = 20'. This will make the grading more readable and less congested. **A scale of 1"=20' is too large for this type of site. The plans were broken up to a scale of 1"=30' for better readability.**
6. GR-2. As with comment #4, this should be two storm pipe plans at 1" = 20'. Please add the word "Privately maintained" to all on-site storm pipes. This will also include the 24" RCP from the pond outfall structure to the new manhole in La Mirada Lane. **The storm sewer plans were set at a scale of 1"=30'. The improvements on La Mirada are included on its own sheet.**
7. GR-3. Please relabel this as Master Drainage Plan. **This plan was retitled as the Master Drainage Plan.**

5571 Midway Park Pl. NE  
Albuquerque, NM 87109  
(505) 858-3100 fax (505) 858-1118  
tierrawestllc.com

8. GR-3. The Existing Drainage Area "A" drains to the west and then to the southwest as was shown. The Proposed Drainage Area "B" goes to the southwest to a proposed inlet structure (to be built in the commercial work order) and the Proposed Drainage Area "C" does not drain to Montgomery as you tried to indicate but the area currently goes to the west as outlined in the Existing Drainage Area "A". So how does this drainage area get to the proposed detention pond to the south? **Flow arrows were added to the drainage plan to show direction of flow. Drainage Area "C" cannot drain to the pond due to site constraints and existing conditions. A Water Quality Waiver is included with this resubmittal.**
9. GR-3. There is a statement about providing for a volume of 0.225 AC-FT. Please provide the hydrology routing for the detention pond as outlined in the DPM Article 6-2 Hydrology. **A Pond Calculation Table was added to Sheet GR-4.**
10. GR-4. Please provide the weir calculations, per DPM Article 6-16(A), for the concrete channel(s). A coefficient of 2.7 is typically used for the weir equation  $Q = CLH^{2/3}$ . **The weir calculations were updated with the coefficient of 2.7 and they are shown on Sheet GR-2.**
11. GR-4. Outfall Detail. Please provide the bottom of pond elevation, water quality elevation, top of pond elevation, and the elevation of the beehive top. **This information is now included on the outfall detail now found on Sheet GR-8.**
12. GR-4. Please provide the orifice calculation for the 7/8" orifice plate. **The orifice plate reference was deleted as no orifice plate is required for this project.**

If you have any questions or need additional information regarding this matter, please do not hesitate to contact me.

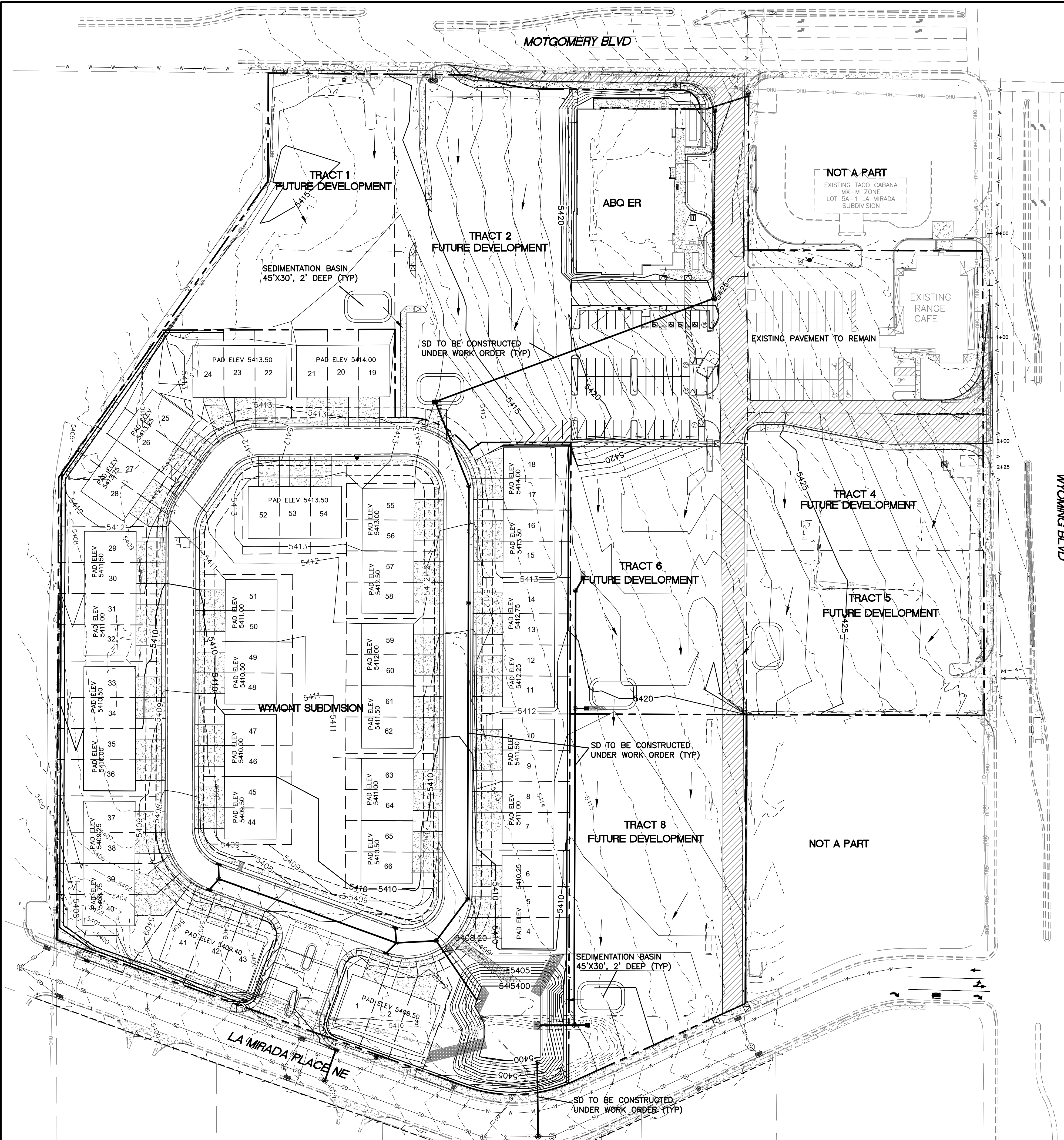
Sincerely,



Ronald R. Bohannon, P.E

JN: 2021008  
RRB/jn/mc





LEGEND

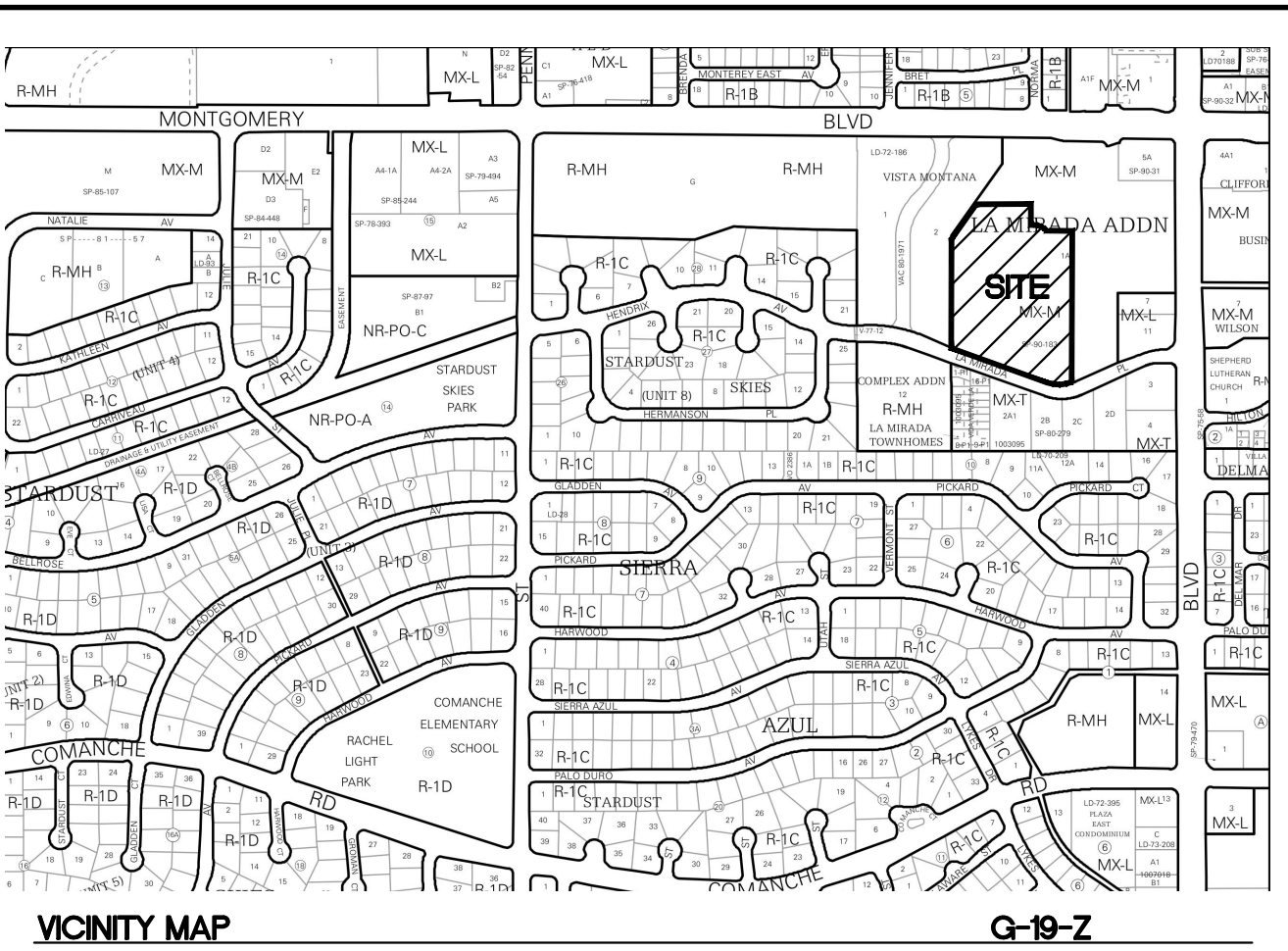
- CURB & GUTTER
- BOUNDARY LINE
- BUILDING
- PROPERTY LINE
- EXISTING CURB & GUTTER
- EXISTING WATERLINE
- EXISTING SAS
- RETAINING WALL
- PAVEMENT TO BE BUILT IN WORK ORDER

NOTICE TO CONTRACTORS

- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 785-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. 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 ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
- ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 3" GRAVEL.

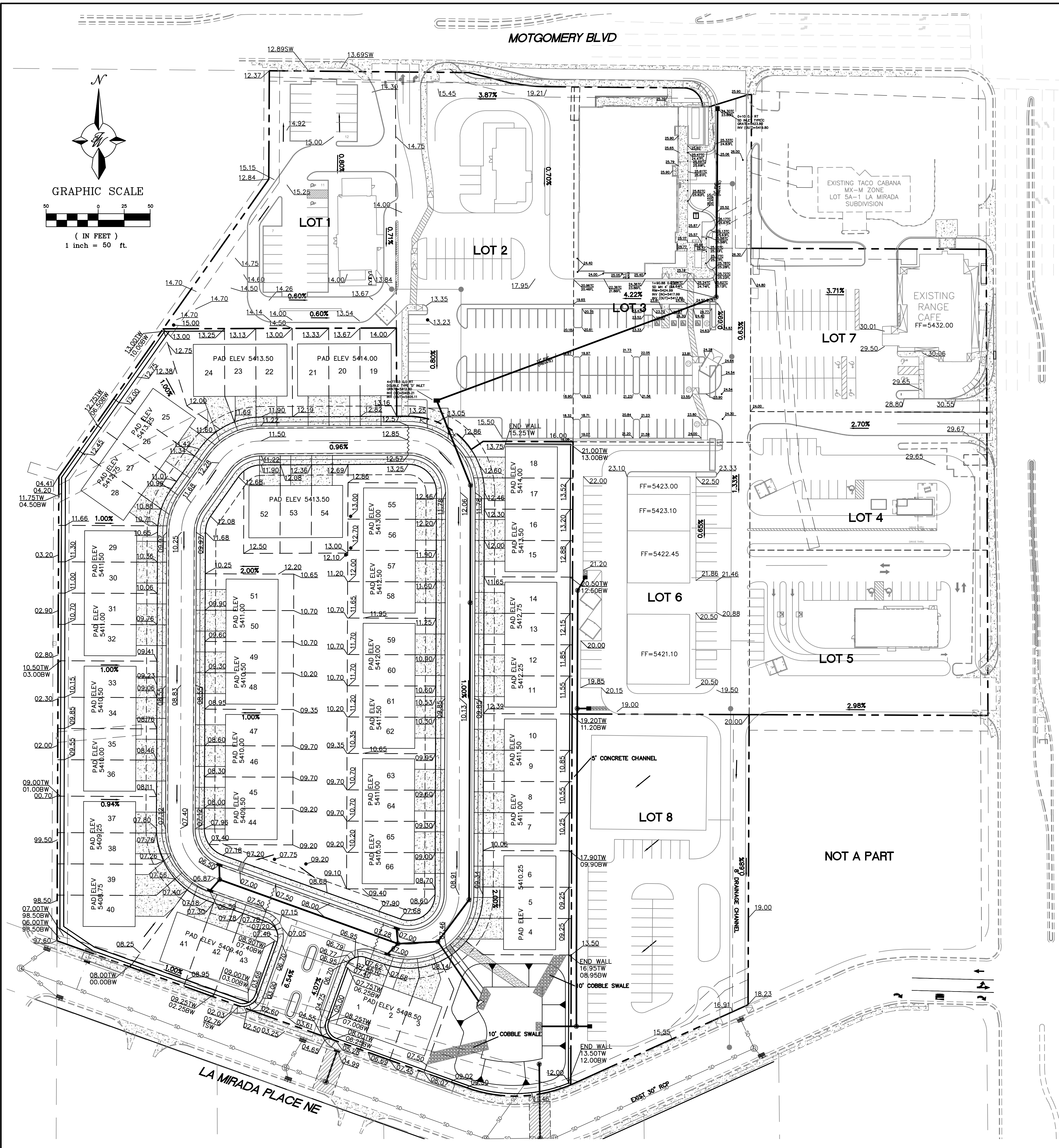


City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 02/08/22  
BY: *Ronald R. Bohannon*  
HydroTrans # G19D004

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 DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE CITY OF ALBUQUERQUE DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED HEREON.

 RONALD R. BOHANNAN P.E. #7868	ENGINEER'S SEAL	THE WYMONT ALBUQUERQUE, NM	DRAWN BY pm
		INTERIM GRADING PLAN	DATE 2-7-2022
			DRAWING
			SHEET # GR-INT
		TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	JOB # 2021008





LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- BUILDING
- PROPERTY LINE
- EXISTING CURB & GUTTER
- PROPOSED HYDRANT
- NEW SD MH
- NEW CUR INLET TYPE 'C'
- EXISTING SAS MH
- EXISTING GATE VALVE
- EXISTING WATERLINE
- EXISTING SAS
- RETAINING WALL
- WATER BLOCK

NOTICE TO CONTRACTORS

- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. 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 ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL NOTES

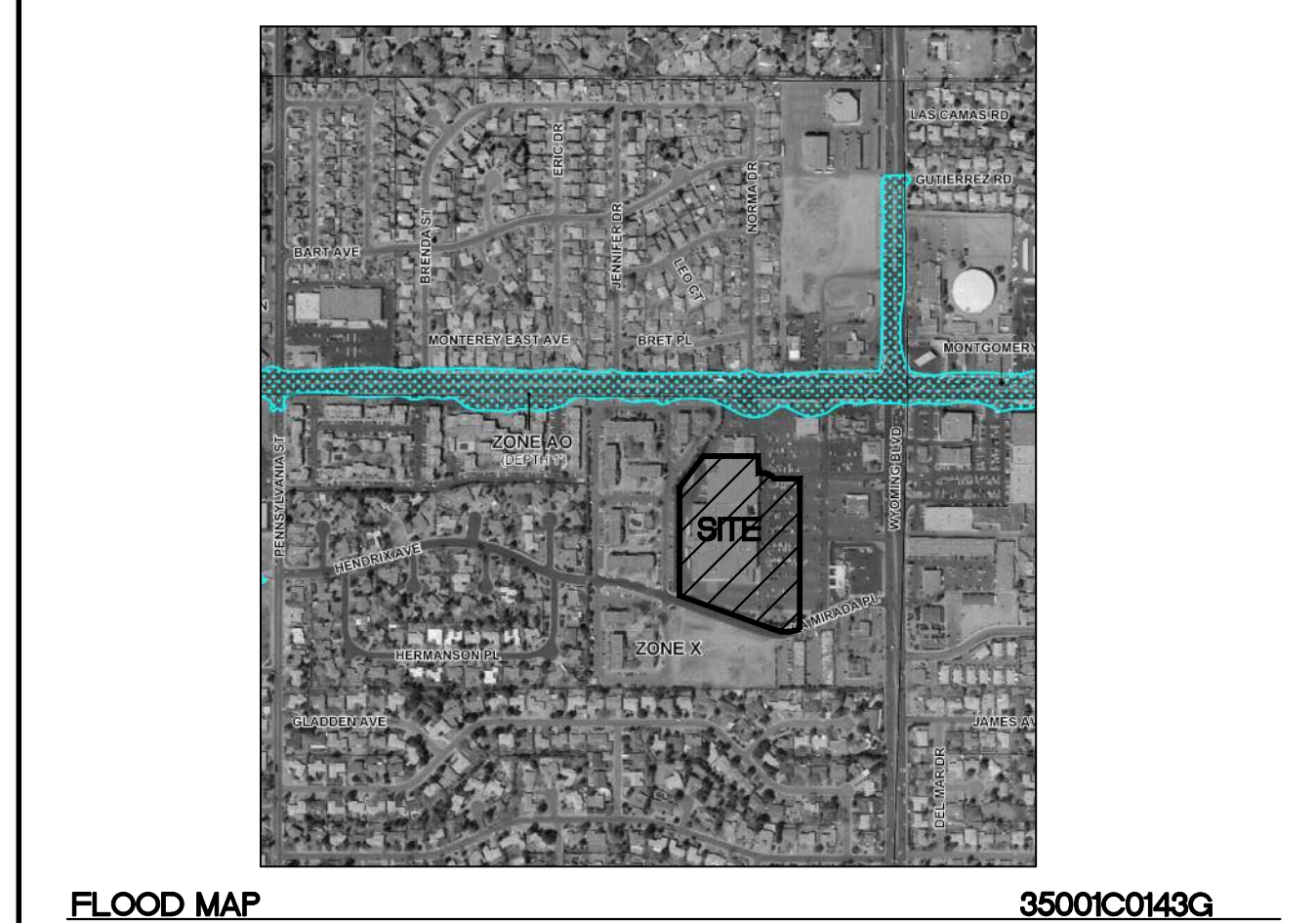
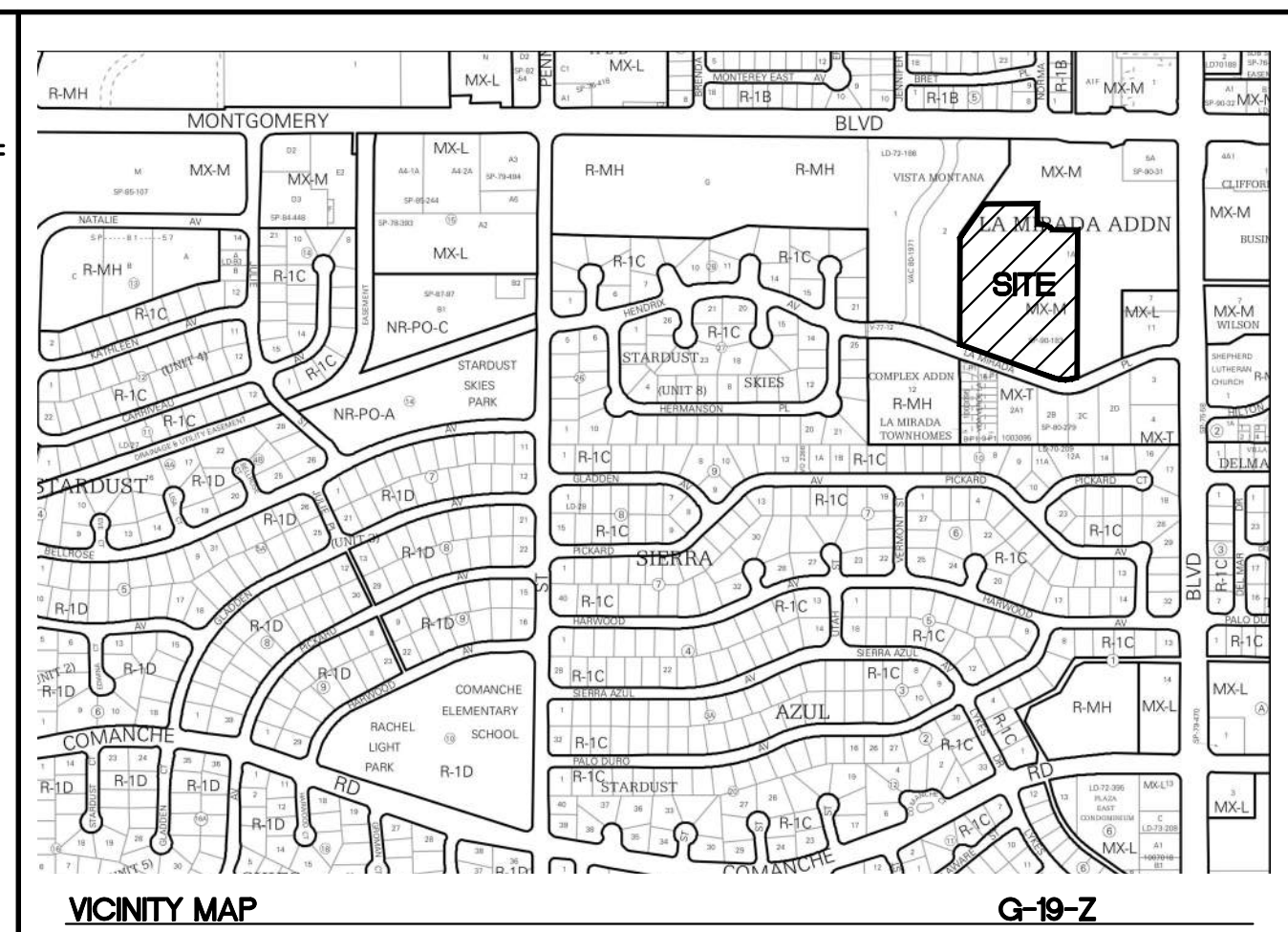
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
- ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 3" GRAVEL.

NOTE - ADD 5400 TO ALL ELEVATIONS

ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE SPECIFIED

CAUTION

ALL EXISTING UTILITIES 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.

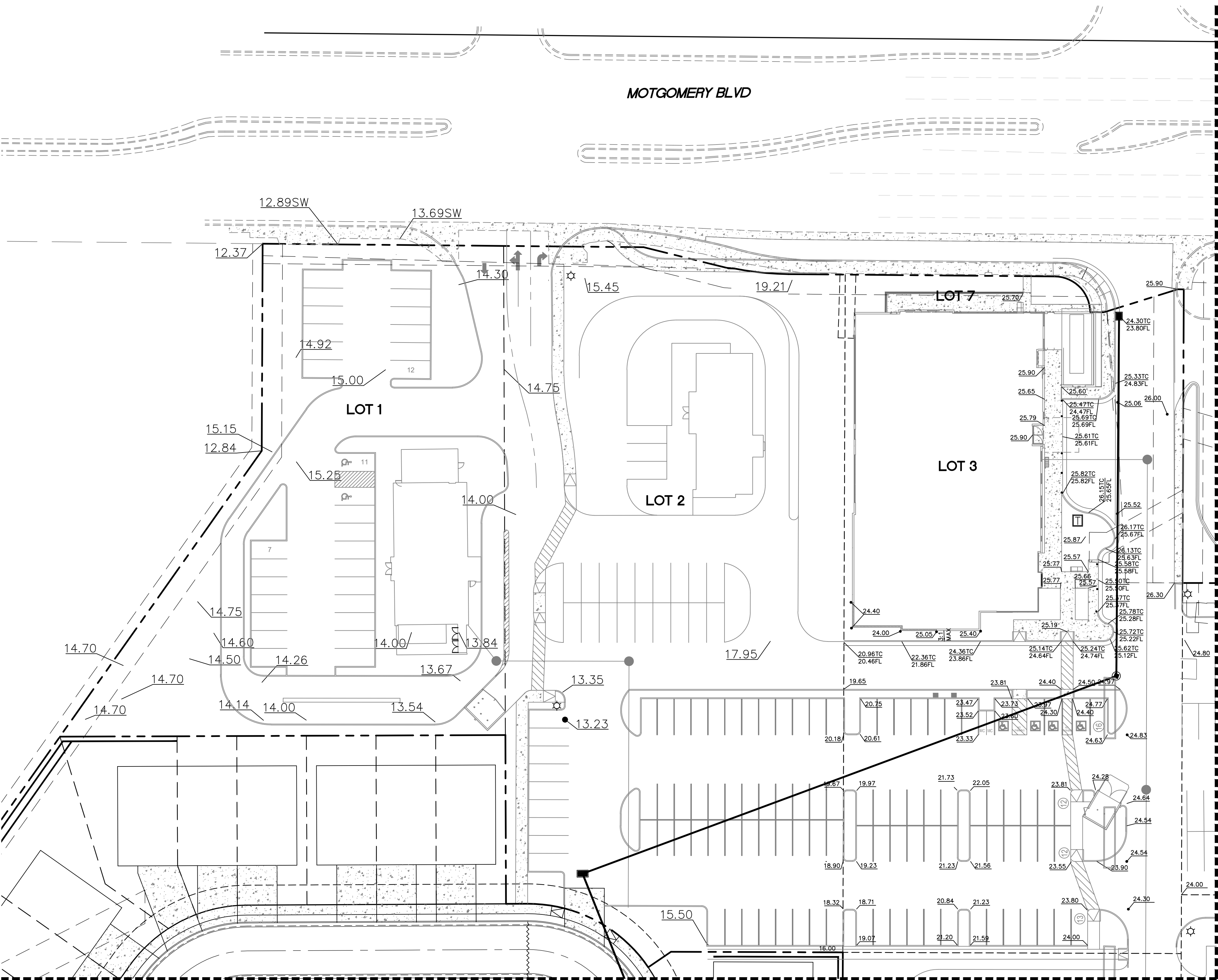


ENGINEER'S SEAL RONALD R. BOHANNAN NEW MEXICO PROFESSIONAL ENGINEER 7868 1-27-2022 RONALD R. BOHANNAN P.E. #7868	THE WYMONT ALBUQUERQUE, NM MASTER GRADING PLAN	DRAWN BY pm
		DATE 1-27-2022
TIERRA WEST, LLC 5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # GR-1	DRAWING 2021008-GR
		JOB # 2021008



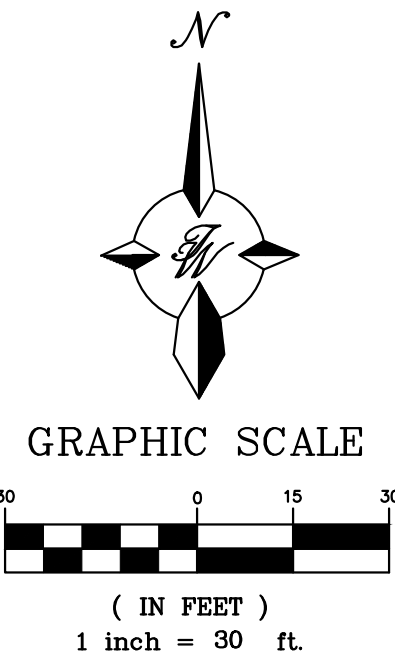
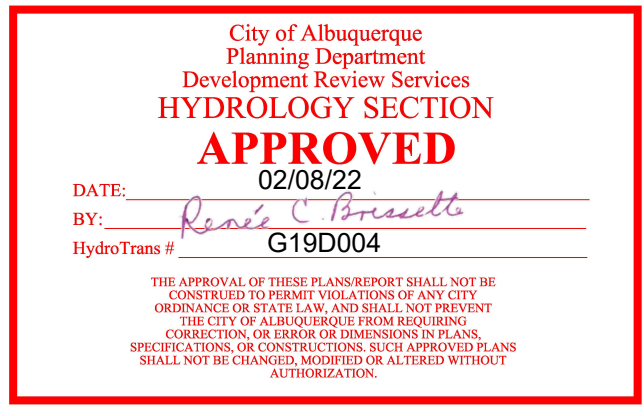
LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- BUILDING
- PROPERTY LINE
- EXISTING CURB & GUTTER
- PROPOSED HYDRANT
- NEW SD MH
- NEW CUR INLET TYPE 'C'
- EXISTING SAS MH
- EXISTING GATE VALVE
- EXISTING WATERLINE
- EXISTING SAS
- RETAINING WALL
- WATER BLOCK



NOTE - ADD 5400 TO ALL ELEVATIONS




ALL SPOT ELEVATIONS ARE TO FLOWLINE  
UNLESS OTHERWISE SPECIFIED



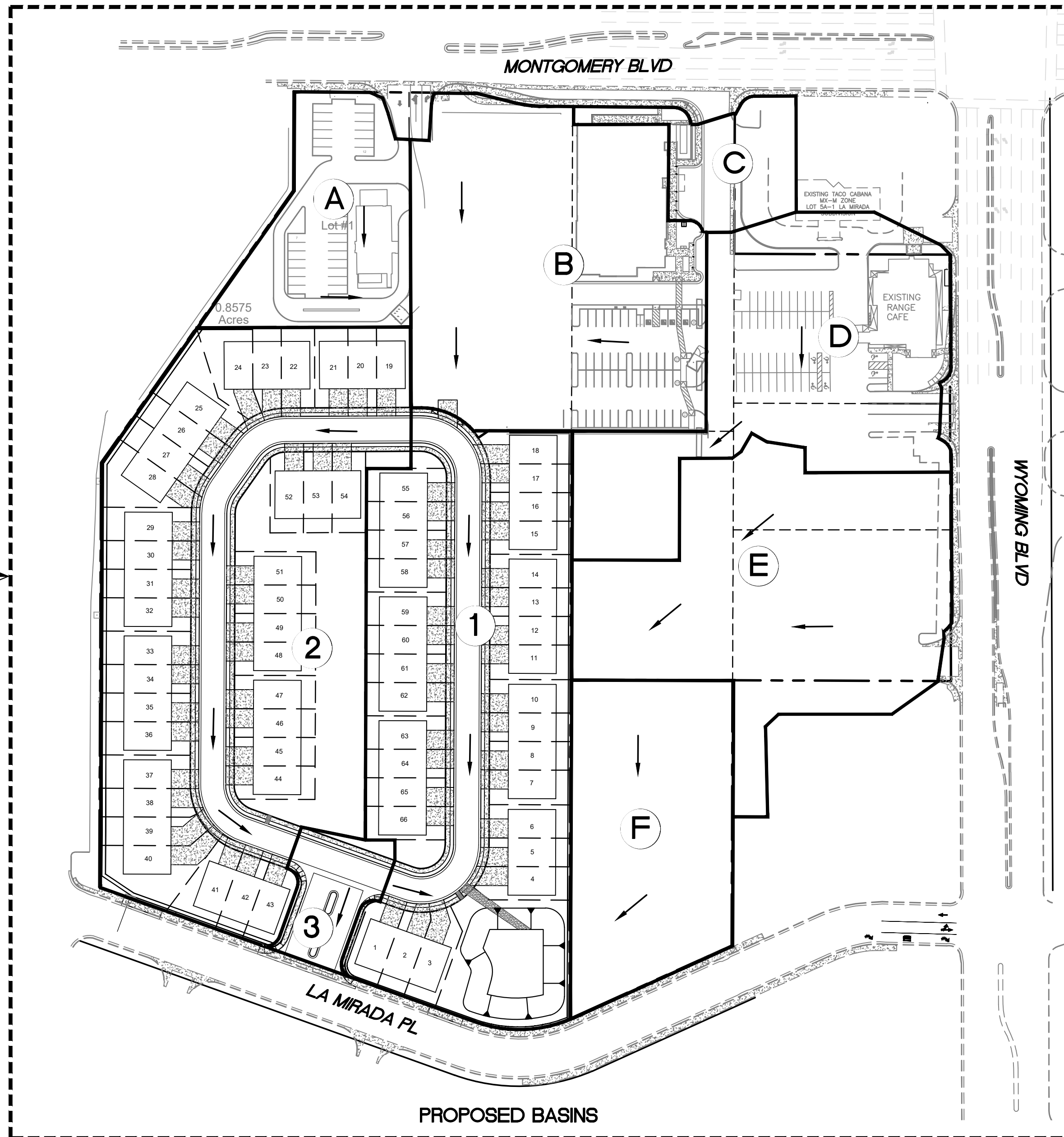
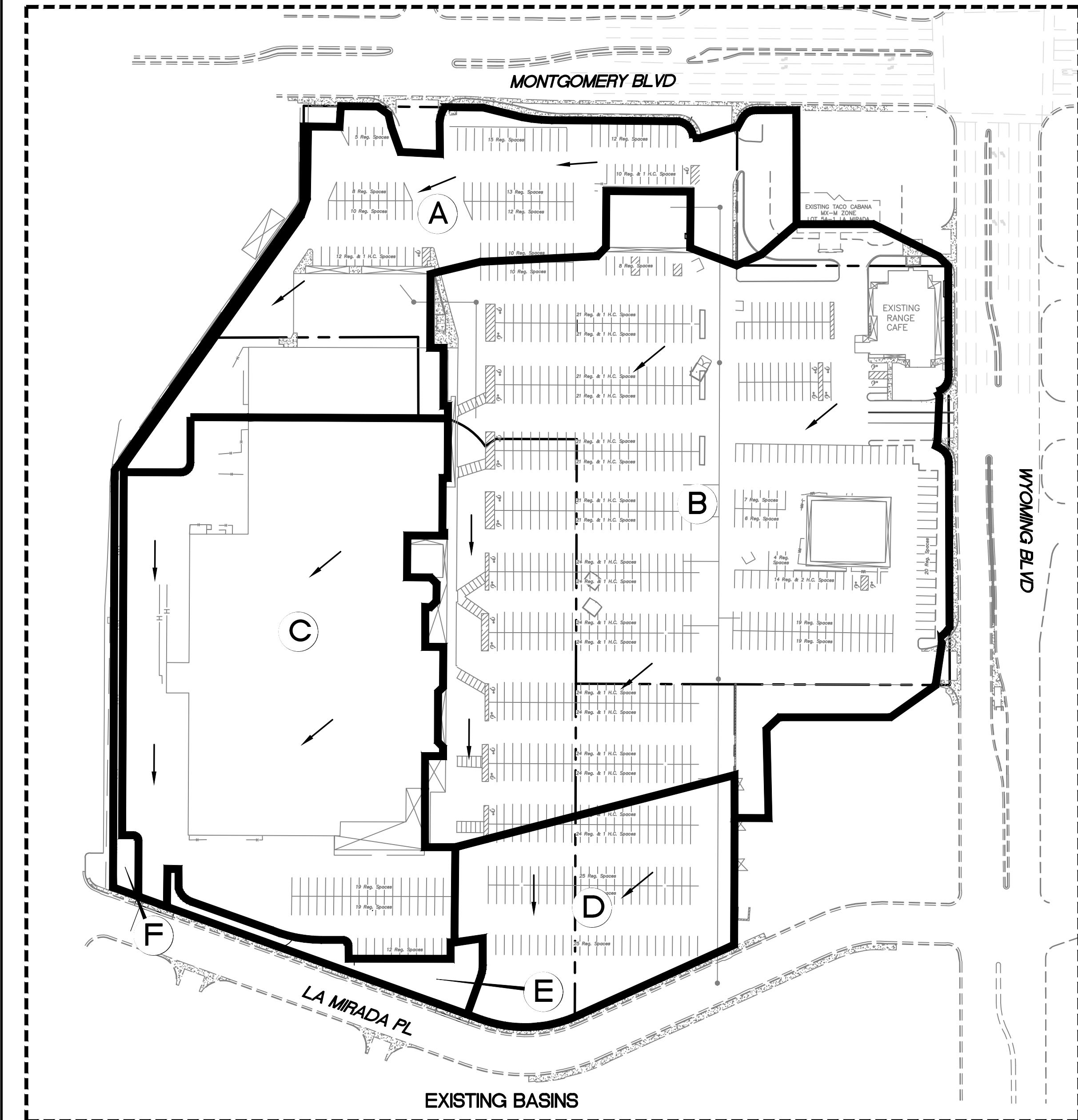
**CAUTION**  
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF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

<div>ENGINEER'S SEAL</div> <div>RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER</div> <div>1-27-2022</div> <div>RONALD R. BOHANNAN P.E. #7868</div>	THE WYMONT ALBUQUERQUE, NM	DRAWN BY pm
	OVERALL GRADING PLAN	DATE 1-27-2022
	<div>TIERRA WEST, LLC</div> <div>5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com</div>	DRAWING 2021008-GR
		SHEET # GR-1A
		JOB # 2021008



ENGINEER'S SEAL	<b>THE WYMONT ALBUQUERQUE, NM</b>  <b>OVERALL GRADING PLAN</b>	DRAWN BY pm
  1-27-2022  RONALD R. BOHANNAN P.E. #7868		DATE 1-27-2022
		DRAWING 2021008-GR
 <b>TIERRA WEST, LLC</b> 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrowestllc.com		SHEET #  <b>GR-1B</b>
		JOB # 2021008





**EXISTING DRAINAGE:**

THIS SITE IS CURRENTLY VACANT SHOPPING CENTER AND IS LOCATED ON THE SOUTHWEST CORNER OF WYOMING BOULEVARD AND MONTGOMERY BOULEVARD. THE SITE IS BOUNDED BY ROADS ON THE NORTH, SOUTH AND EAST SIDE AND A MULTIFAMILY DEVELOPMENT ON THE WEST SIDE AND CONTAINS APPROXIMATELY 15.69 ACRES. THE SITE DRAINS FROM EAST TO WEST WITH MOST OF IT DRAINING ONTO AN EXISTING DETENTION POND. A SMALL AMOUNT OF FLOW ENTERS MONTGOMERY BLVD. FROM LANDSCAPED AREAS AND ENTRANCES, THE REMAINDER OF THE SITE DRAINS INTO AN EXISTING DROP INLET LOCATED AT THE SOUTHWEST ENTRANCE. ACCORDING TO AN APPROVED GRADING AND DRAINAGE PLAN (G-19/D4) COMPLETED BY JEFF MORTENSEN AND ASSOCIATES THE EXISTING POND MAY BE ELIMINATED AND ALL FLOW DISCHARGED TO THE EXISTING STORM SEWER IN HENDRIX AVENUE. THOSE IMPROVEMENTS WERE NEVER COMPLETED AND THE POND HAS REMAINED IN PLACE. BASED ON THE REVISED DRAINAGE VALUES IN THE CURRENT DPM THE TOTAL FLOW DISCHARGED FROM THIS SITE IS 68.15 CFS. THE SITE IS NOT LOCATED WITH IN A FLOOD PLAIN AS SHOWN ON THE FIRM MAP. THERE ARE NOT OFFSITE FLOWS THAT ENTER THE SITE.

**PROPOSED DRAINAGE:**

THE SITE IS BEING SUBDIVIDED INTO A COMMERCIAL CENTER AND A RESIDENTIAL NEIGHBORHOOD. THE RESIDENTIAL NEIGHBORHOOD IS DIVIDED INTO THREE BASINS (1-3) WHILE THE COMMERCIAL AREA IS DIVIDED INTO SIX BASINS (A-F).

RESIDENTIAL BASINS 1 AND 2 WILL DRAIN FROM NORTH TO SOUTH IN WYOMT CIRCLE AND BE COLLECTED IN PROPOSED DROP INLETS. THAT WATER WILL BE CONVEYED TO A WATER QUALITY POND LOCATED IN THE SOUTHEAST CORNER OF THE NEIGHBORHOOD. BASIN 3 CONSISTS OF THE ENTRANCE AND WILL DRAIN A SMALL AMOUNT OF FLOW TO BE COLLECTED IN DROP INLETS IN LA MIRADA. DUE TO THE GRADES BETWEEN THE NEIGHBORHOOD AND LA MIRADA THERE IS NO WAY TO CAPTURE THIS FLOW AND IT WILL FOLLOW THE SAME DRAINAGE PATTERN AS EXISTS ALONG THE STREET TODAY DISCHARGING 1.16 CFS.

COMMERCIAL BASIN "A" AND "B" WILL DRAIN SOUTH TO A PROPOSED DROP INLET LOCATED JUST NORTH OF WYOMT CIRCLE. THOSE FLOWS WILL BE CONVEYED THROUGH STORM SEWER TO THE WATER QUALITY POND. BASIN "C" WILL DISCHARGE TO A PROPOSED DROP INLET AT THE ENTRANCE ON MONTGOMERY AND DRAIN VIA STORM SEWER TO THE DROP INLET THAT CAPTURES BASINS "A" & "B". BASIN "D" WILL DRAIN TO A PROPOSED DROP INLET LOCATED NEAR THE NORTHEAST CORNER OF THE RESIDENTIAL NEIGHBORHOOD. BASIN "E" WILL DRAIN TO ANOTHER PROPOSED DROP INLET LOCATED NEAR THE MIDDLE OF THE WEST PROPERTY LINE OF THE RESIDENTIAL NEIGHBORHOOD AND BASIN "F" WILL DRAIN TO A PROPOSED DROP INLET LOCATED NEAR THE WATER QUALITY POND. ALL OF THOSE FLOWS WILL BE CONVEYED VIAL STORM SEWER TO THE WATER QUALITY POND.

THE WATER QUALITY POND IS SIZED TO CONTAIN THE REQUIRED VOLUME FROM ALL OF THE RESIDENTIAL AND COMMERCIAL BASINS. BASED ON HE CURRENT REQUIREMENTS, THE POND WILL RETAIN A VOLUME OF 0.225 AC-FT. A WATER QUALITY OUTLET STRUCTURE WILL BE PROVIDED IN THE POND AND CONNECT TO THE EXISTING STORM SEWER LOCATED IN LA MIRADA. THE TOTAL FLOW DISCHARGED TO THE LA MIRADA STORM SEWER WILL BE 57.05 CFS WHICH IS 11.10 CFS LESS THAN WHAT IS CURRENTLY DISCHARGED TO THE SYSTEM.

ALL OF THE STORM SEWER, DROP INLETS AND WATER QUALITY POND WILL REMAIN PRIVATE AND MAINTAINED BY THE RESIDENTIAL HOA AND COMMERCIAL DEVELOPMENT AGREEMENTS.

**Channel Capacity**

Weir Equation:

$$Q = CLH^{3/2}$$

Q = Flow  
C = 2.70  
L = Length of weir  
H = Height of Weir

Off Site Curb Opening

$$Q = 2.70 * 20 * 0.50^{3/2}$$

Q = 19.09 cfs < Q = 13.39 cfs

Pond Concrete Channel

$$Q = 2.70 * 6 * 0.50^{3/2}$$

Q = 5.73 cfs

Park Curb Opening

$$Q = 2.70 * 2 * 0.50^{3/2}$$

Q = 1.91 cfs < Q = 1.55 cfs

Weighted E Method														
Existing Basins														
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)
A	114,831	2.64	0%	7%	0%	0%	2.460	0.540	11.47	1.549	0.340	7.09	1.549	0.340
B	314,923	7.23	0%	5%	0%	0%	2.494	1.503	31.74	1.575	0.949	19.69	1.575	0.949
C	178,480	4.10	0%	0%	0%	0%	2.580	0.881	18.40	1.640	0.560	11.51	1.640	0.560
D	57,852	1.33	0%	21%	0%	0%	2.219	0.246	5.41	1.367	0.151	3.25	1.367	0.151
E	9,747	0.22	0%	0%	100%	0%	1.090	0.020	0.71	0.520	0.010	0.38	0.520	0.010
F	7,497	0.17	0%	100%	0%	0%	0.860	0.012	0.43	0.340	0.005	0.18	0.340	0.005
		15.69					3.202	68.15						
Proposed Basins														
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)
A	36,215	0.83	0%	15%	0%	85%	2.322	0.161	3.48	1.445	0.100	2.12	1.445	0.100
B	98,174	2.25	0%	15%	0%	85%	2.322	0.436	9.44	1.445	0.271	5.74	1.445	0.271
C	18,240	0.42	0%	15%	0%	85%	2.322	0.081	1.75	1.445	0.050	1.07	1.445	0.050
D	79,808	1.83	0%	15%	0%	85%	2.322	0.355	7.68	1.445	0.221	4.67	1.445	0.221
E	89,758	2.06	0%	15%	0%	85%	2.322	0.399	8.63	1.445	0.248	5.25	1.445	0.248
F	53,725	1.23	0%	15%	0%	85%	2.322	0.239	5.17	1.445	0.149	3.14	1.445	0.149
1	131,235	3.01	0%	60%	0%	40%	1.548	0.389	9.91	0.860	0.216	5.32	0.860	0.216
2	165,562	3.80	0%	57%	0%	43%	1.600	0.507	12.73	0.899	0.285	6.91	0.899	0.285
Park	27,059	0.62	0%	100%	0%	0%	0.860	0.045	1.55	0.340	0.018	0.66	0.340	0.018
3	11,770	0.27	0%	10%	0%	90%	2.408	0.054	1.16	1.510	0.034	0.71	1.510	0.034
		15.71					10.42	2.619	59.96					

Equations:				Excess Precipitation, E (inches)			Peak Discharge (cfs/acre)		
Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)				Zone 3	100-Year	10 - Year	Zone 3	100-Year	10 - Year
Volume = Weighted D * Total Area				Ea	0.67	0.18	Qa	1.84	0.51
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad				Eb	0.86	0.34	Qb	2.49	1.07
				Ec	1.09	0.52	Qc	3.17	1.69
				Ed	2.58	1.64	Qd	4.49	2.81

Pipe Capacity							
Pipe	D (in)	Slope (%)	Area (ft <sup>2</sup> )	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
1	18	0.80	1.77	0.375	9.42	6.36	3.60
2	18	0.80	1.77	0.375	9.42	6.37	3.60
3	24	0.80	3.14	0.500	20.29	12.73	4.05
4	18	0.80	1.77	0.375	9.42	4.95	2.80
5	18	0.80	1.77	0.375	9.42	4.96	2.81
6	30	0.70	4.91	0.625	34.41	22.64	4.61
7	30	0.80	4.91	0.625	36.79	35.56	7.24
8	24	1.00	3.14	0.500	22.68	12.92	4.11
9	24	1.00	3.14	0.500	22.68	12.92	4.11
10	24	1.00	3.14	0.500	22.68	12.92	4.11
11	24	1.00	3.14	0.500	22.68	12.92	4.11
12	24	14.75	3.14	0.500	87.12	21.48	6.84
13	18	2.00	1.77	0.375	14.90	5.17	2.93
14	24	2.51	3.14	0.500	35.94	16.31	5.19
15	18	2.00	1.77	0.375	14.90	8.63	4.88
16	18	4.19	1.77	0.375	21.56	7.68	4.35
17	18	4.43	1.77	0.375	22.17	7.68	4.35
18	24	6.50	3.14	0.500	57.83	57.05	18.16

**Manning's Equation:**

$$Q = 1.49/n * A * R^{2/3} * S^{1/2}$$

A = Area  
R = D/4  
S = Slope  
n = 0.013



ENGINEER'S SEAL

RONALD R. BOHANNAN

NEW MEXICO

PROFESSIONAL ENGINEER

7868

1-27-2022

RONALD R. BOHANNAN P.E. #7868

THE WYMONT ALBUQUERQUE, NM

WYMONT SUBDIVISION MASTER DRAINAGE PLAN

TERRA WEST, LLC

5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com

DRAWN BY pm

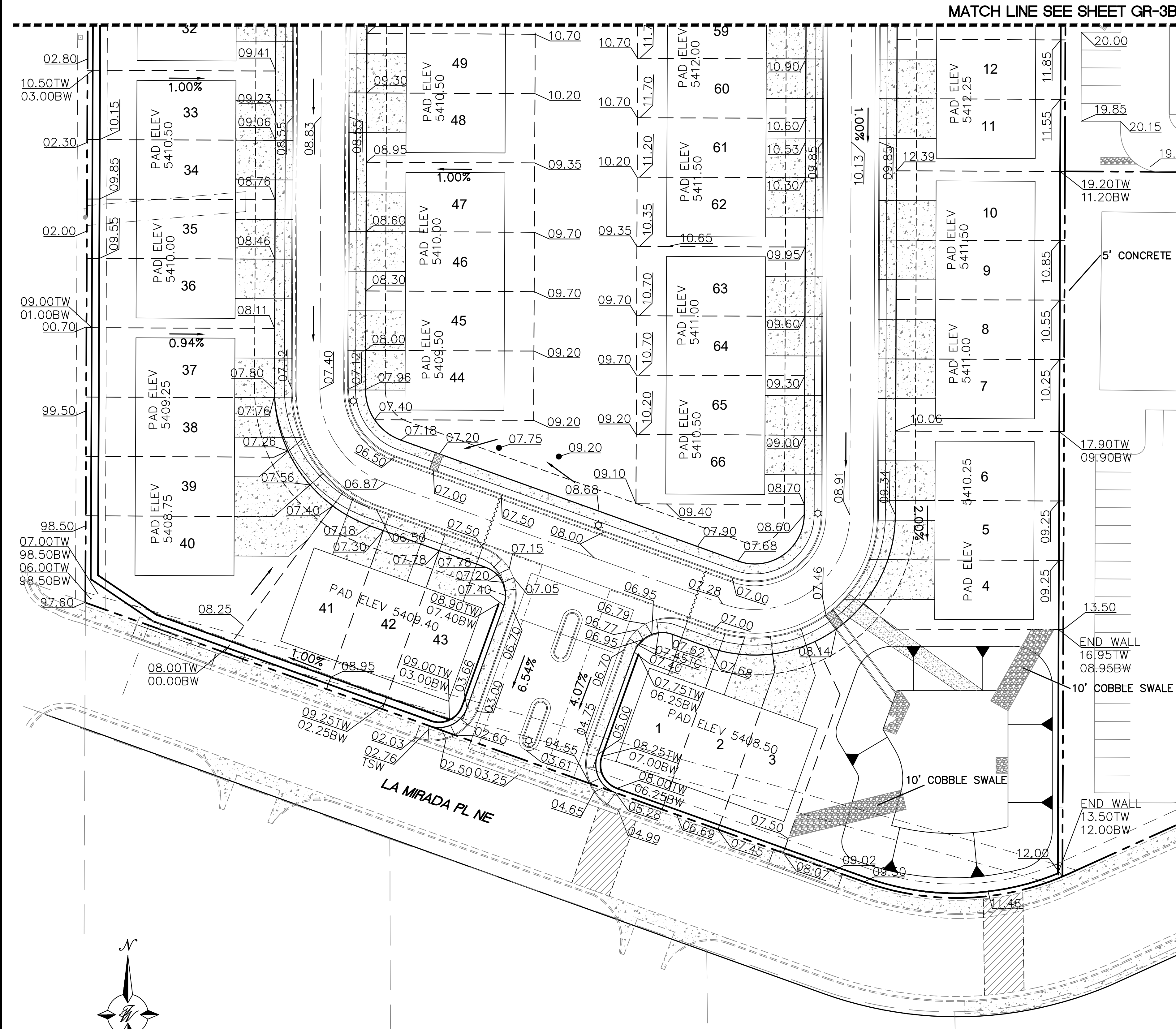
DATE 1-27-2022

DRAWING 2021008-GR

SHEET # GR-2

JOB # 2021008





**NOTICE TO CONTRACTORS**

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, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. 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 FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

**EROSION CONTROL NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
6. ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 3" GRAVEL.

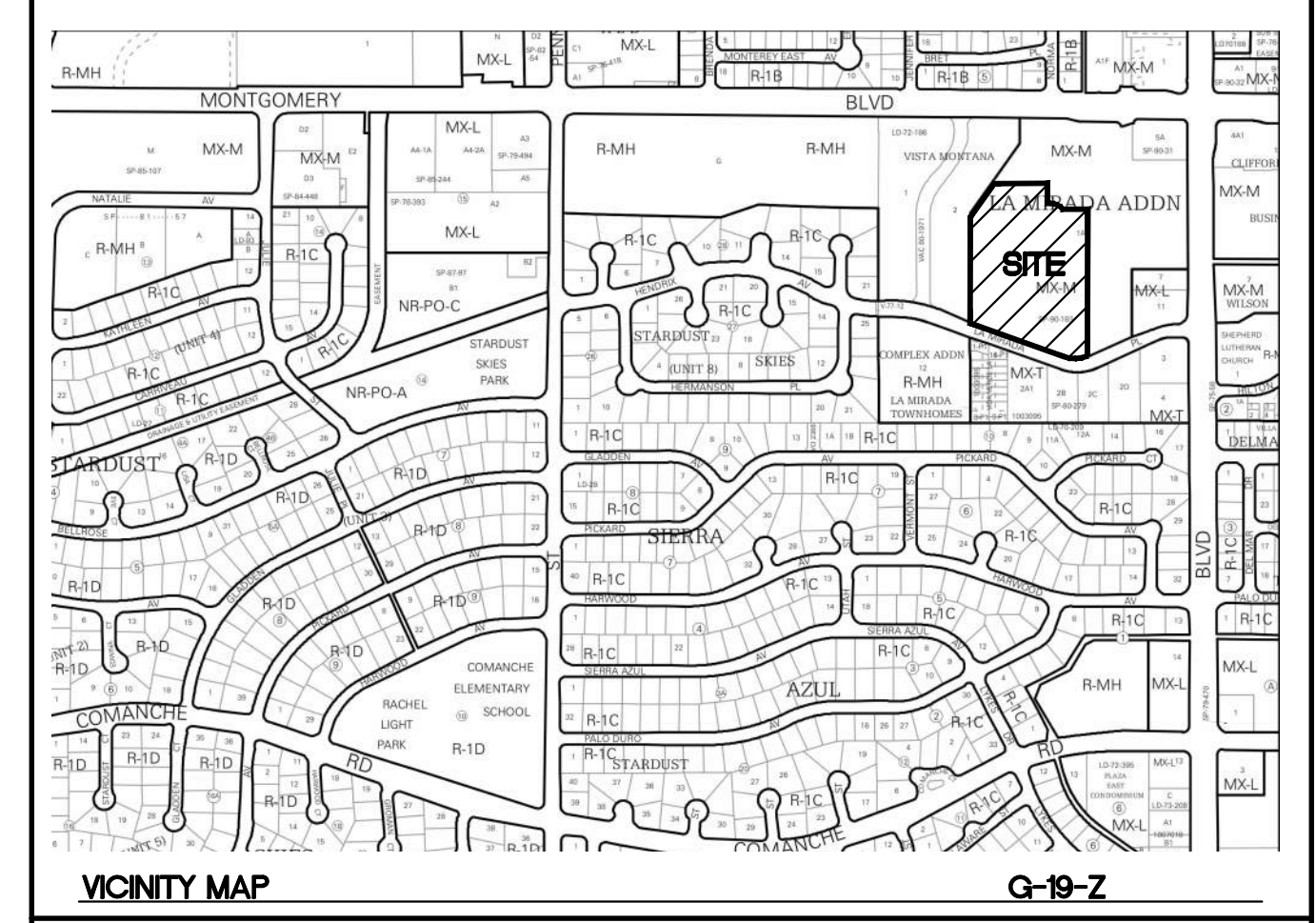
**NOTE**

SEE SHEETS GR-4 AND GR-5 FOR ALL STORM SEWER INFORMATION



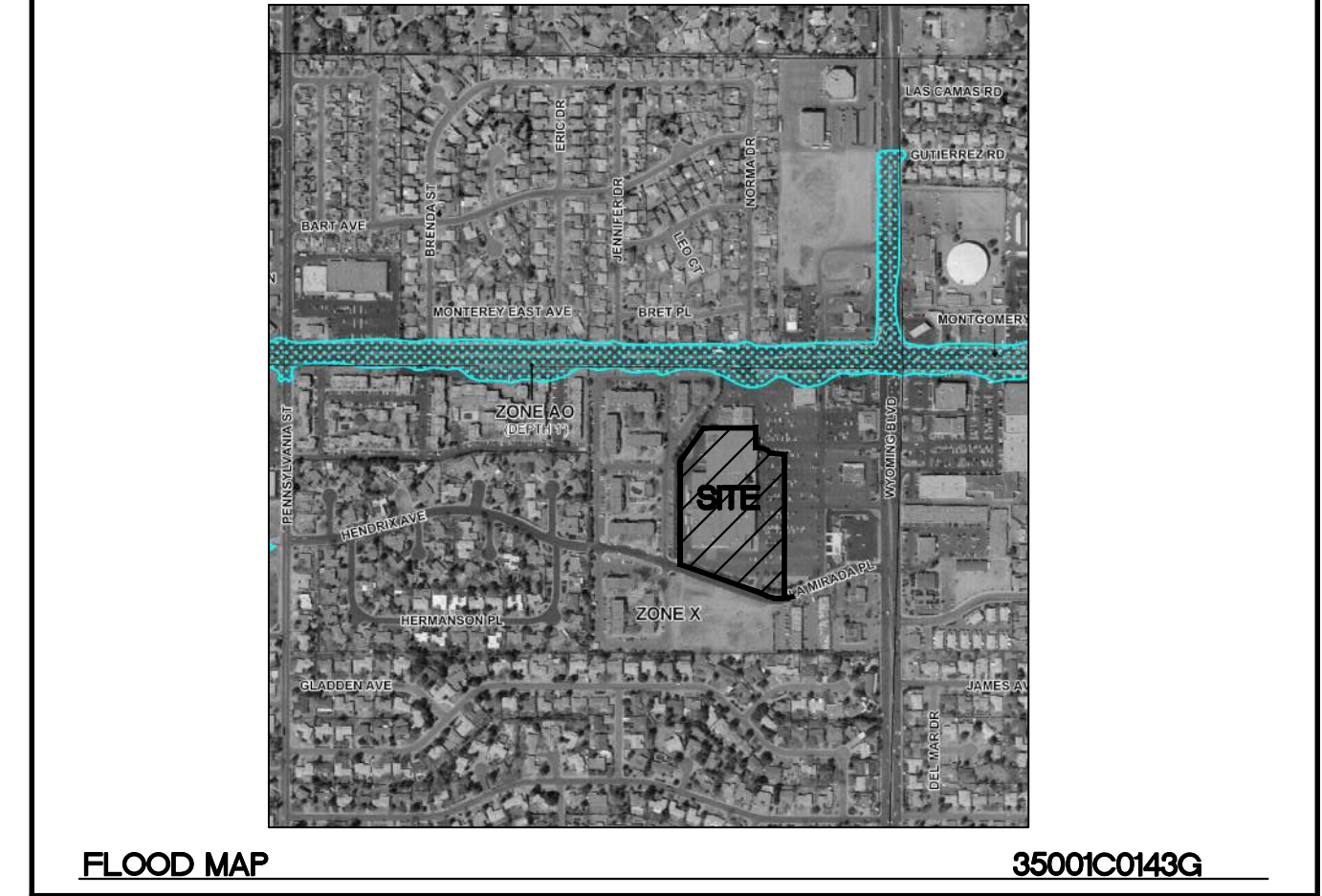
**CAUTION**

ALL EXISTING UTILITIES 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.



VICINITY MAP

G-19-Z

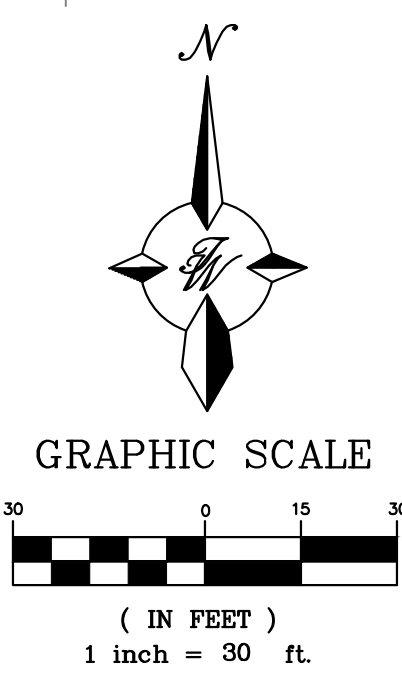


FLOOD MAP

35001C0143G




**LEGEND**

- CURB & GUTTER
- - - BOUNDARY LINE
- BUILDING
- EXISTING CURB & GUTTER
- PROPOSED HYDRANT
- NEW SD MH
- NEW CUR INLET TYPE 'C'
- EXISTING SAS MH
- ⊕ EXISTING GATE VALVE
- - - EXISTING WATERLINE
- EXISTING SAS
- RETAINING WALL
- WATER BLOCK

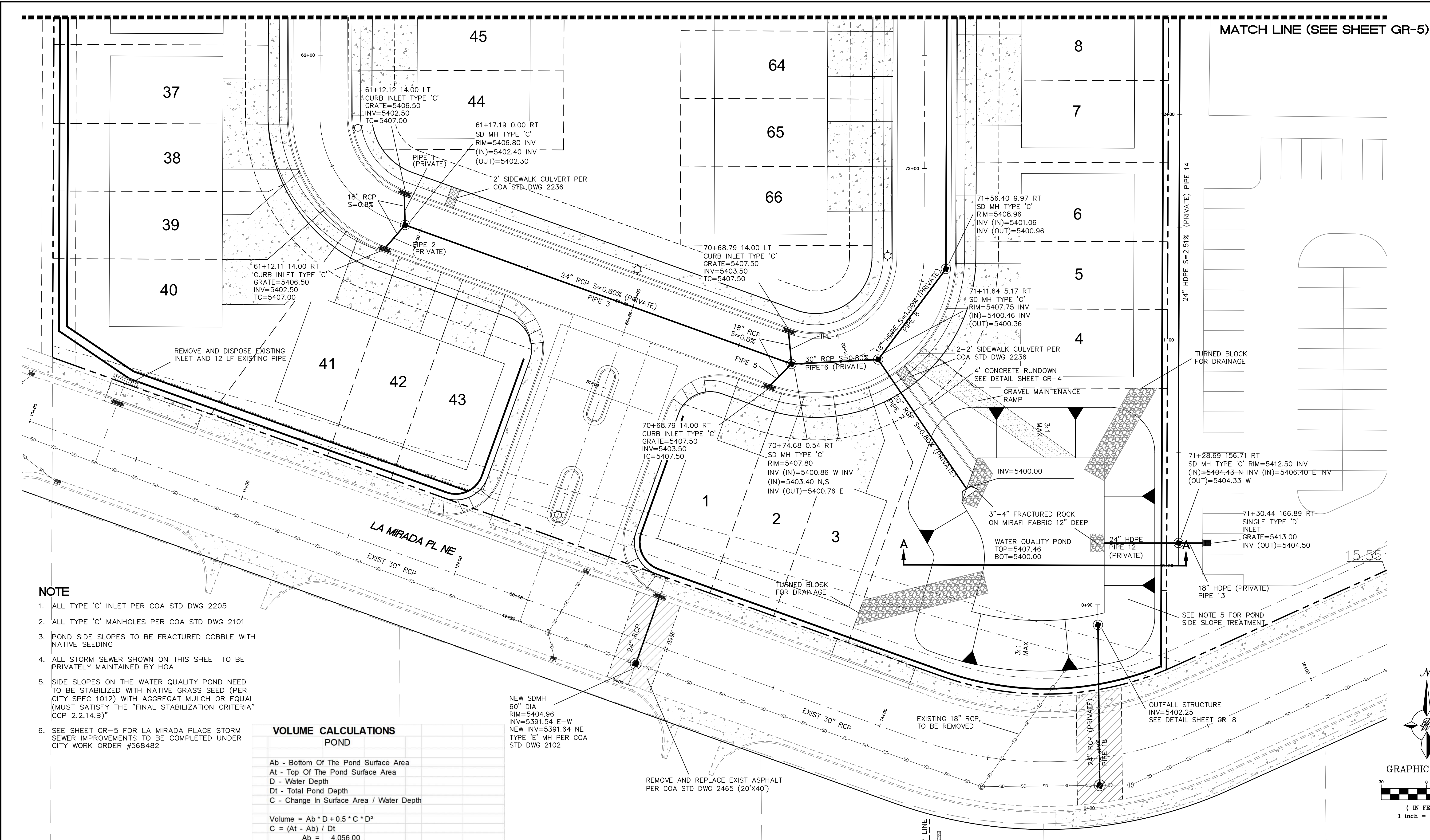


**NOTE - ADD 5400 TO ALL ELEVATIONS**

ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE SPECIFIED

ENGINEER'S SEAL	<b>THE WYMONT ALBUQUERQUE, NM</b>	DRAWN BY pm
 RONALD R. BOHANNAN P.E. #7868		DATE 1-27-2022
		RESIDENTIAL GRADING PLAN
		DRAWING 2021008-GR
		SHEET # <b>GR-3A</b>
 1-27-2022	 <i>TIERRA WEST, LLC</i> 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	JOB # 2021008
RONALD R. BOHANNAN P.E. #7868		





NOTE

- 1. ALL TYPE 'C' INLET PER COA STD DWG 2205
- 2. ALL TYPE 'C' MANHOLES PER COA STD DWG 2101
- 3. POND SIDE SLOPES TO BE FRACTURED COBBLE WITH NATIVE SEEDING
- 4. ALL STORM SEWER SHOWN ON THIS SHEET TO BE PRIVATELY MAINTAINED BY HOA
- 5. SIDE SLOPES ON THE WATER QUALITY POND NEED TO BE STABILIZED WITH NATIVE GRASS SEED (PER CITY SPEC 1012) WITH AGGREGAT MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CGP 2.2.14.B)"
- 6. SEE SHEET GR-5 FOR LA MIRADA PLACE STORM SEWER IMPROVEMENTS TO BE COMPLETED UNDER CITY WORK ORDER #568482

VOLUME CALCULATIONS  
POND

Ab - Bottom Of The Pond Surface Area  
At - Top Of The Pond Surface Area  
D - Water Depth  
Dt - Total Pond Depth  
C - Change In Surface Area / Water Depth

Volume = Ab \* D + 0.5 \* C \* D^2  
C = (At - Ab) / Dt

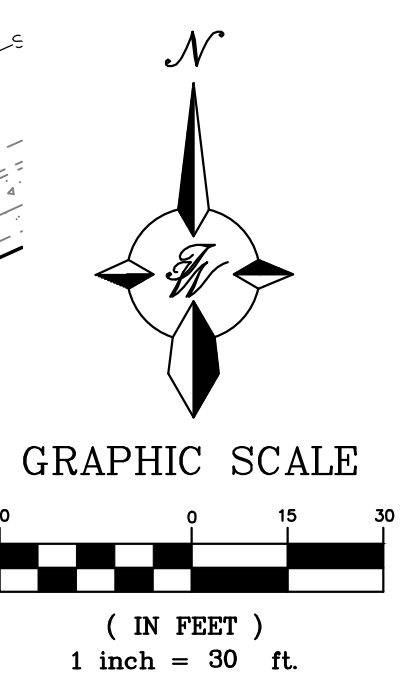
Ab =	4,056.00
At =	11,509.00
Dt =	7.46
C =	999.06

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	
5400.00	0.00	0.00	
5401.00	1.00	0.0931	
5402.25	2.25	0.2274	First Flush Elevation
5403.00	3.00	0.3252	
5404.00	4.00	0.4757	
5405.25	5.25	0.6960	Top of Outlet Grate
5406.00	6.00	0.8454	
5407.46	7.46	1.1732	

**CAUTION**  
ALL EXISTING UTILITIES 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.

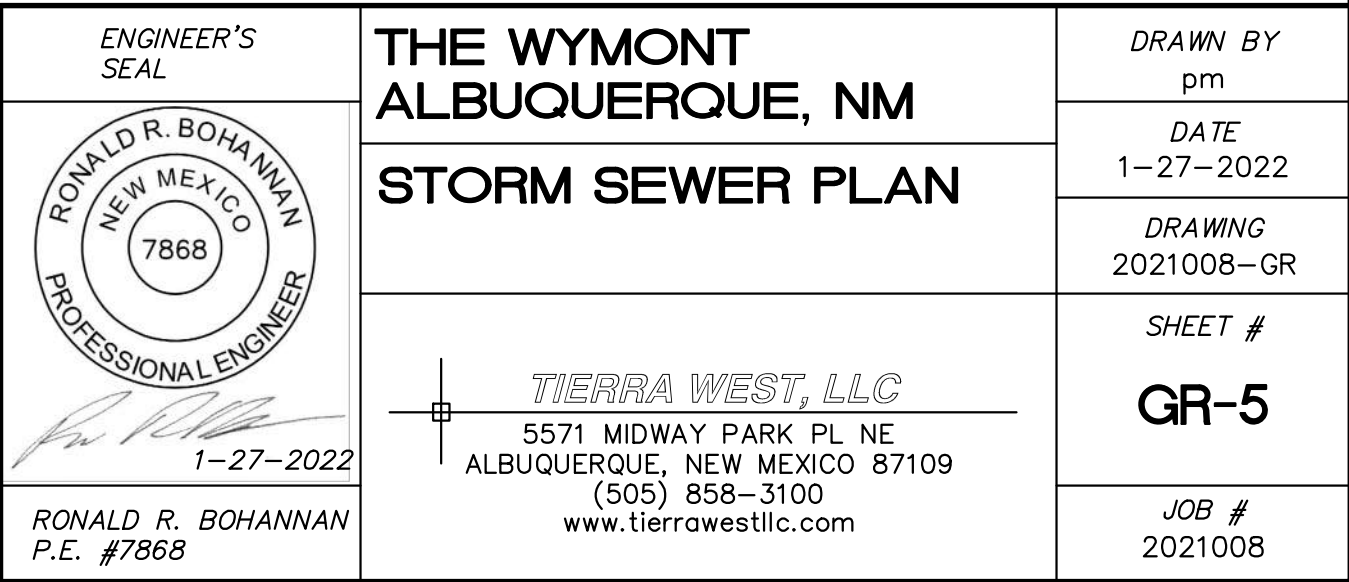
NOTE  
SIDE SLOPES ON THE WATER QUALITY POND NEED TO BE STABILIZED WITH NATIVE GRASS SEED (PER CITY SPEC 1012) WITH AGGREGAT MULCH OR EQUAL (MUST SATISFY THE "FINAL STABILIZATION CRITERIA" CGP 2.2.14.B)"

SECTION A-A  
NTS

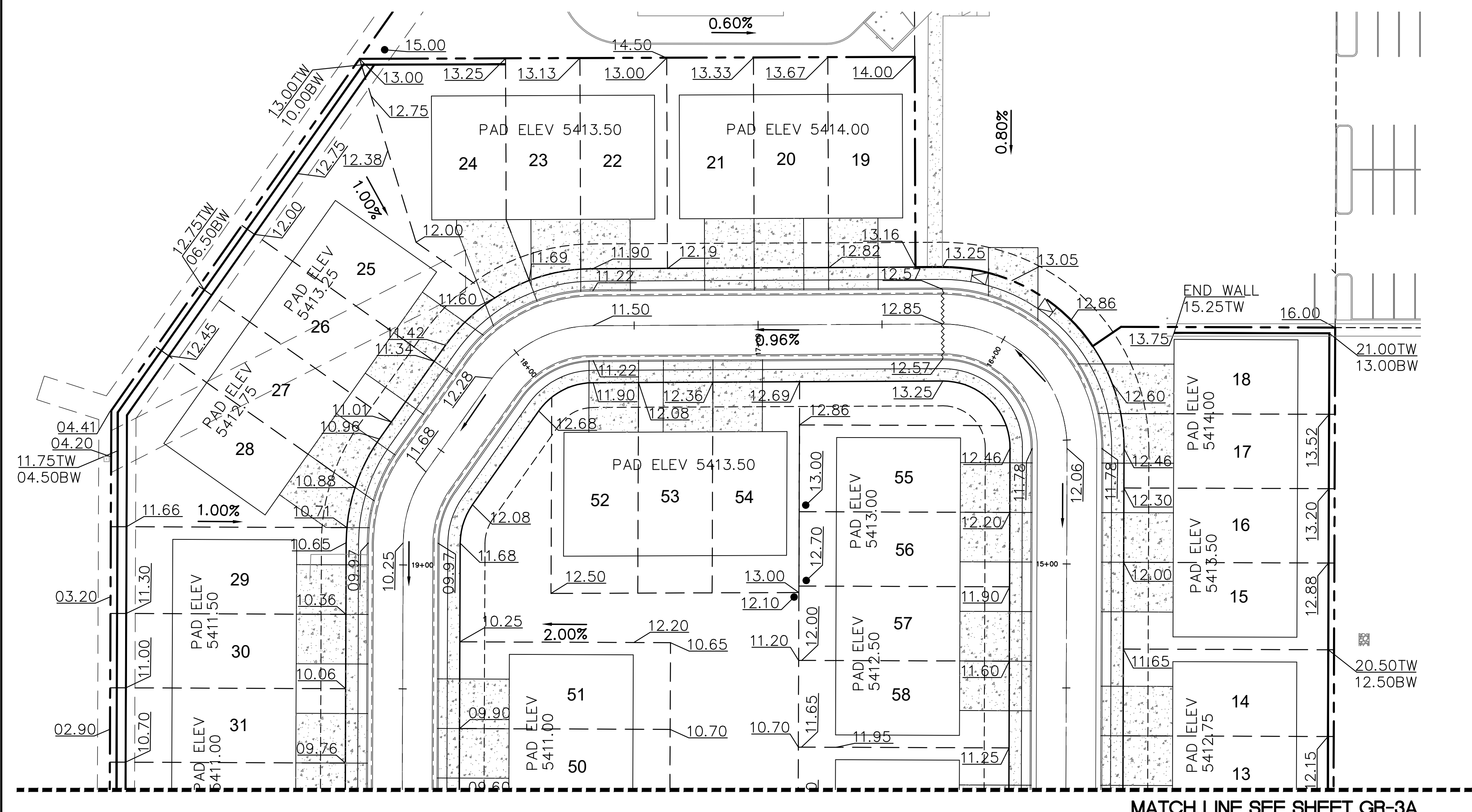


	<b>THE WYMONT ALBUQUERQUE, NM</b>	DRAWN BY pm
	<b>STORM SEWER PLAN</b>	DATE 1-27-2022
	<b>TIERRA WEST, LLC</b> 5571 MIDWAY PARK BL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	DRAWING 2021008-GR
		SHEET # <b>GR-4</b>
		JOB # 2021008









- LEGEND**
- CURB & GUTTER
  - BOUNDARY LINE
  - BUILDING
  - EXISTING CURB & GUTTER
  - PROPOSED HYDRANT
  - NEW SD MH
  - NEW CUR INLET TYPE 'C'
  - EXISTING SAS MH
  - EXISTING GATE VALVE
  - EXISTING WATERLINE
  - EXISTING SAS
  - RETAINING WALL
  - WATER BLOCK

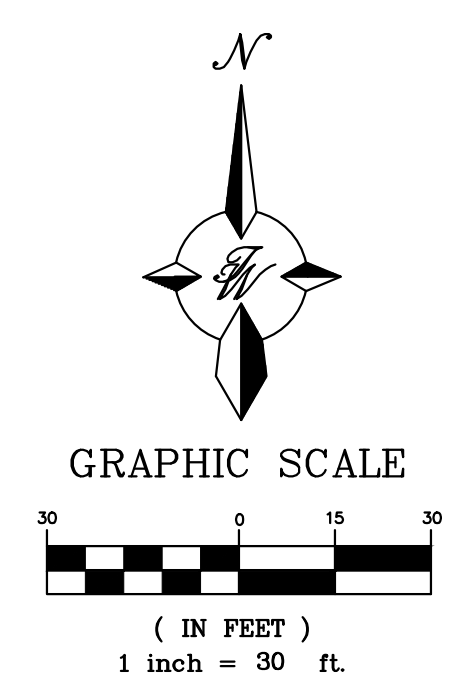
- NOTICE TO CONTRACTORS**
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
  - ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
  - TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
  - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. 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 ACCORDING TO TRAFFIC/STREET USE.
  - MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
  - WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

- EROSION CONTROL NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
  - CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
  - CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
  - REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL (CITY) ACCEPTANCE OF ANY PROJECT.
  - ALL SLOPES NOT STABILIZED AT THE END OF THE PROJECT SHALL BE STABILIZED IN ACCORDANCE WITH COA SPECS OR 3" GRAVEL.

**NOTE**  
SEE SHEETS GR-4 AND GR-5 FOR ALL STORM SEWER INFORMATION

City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 02/08/22  
BY: *Ronald R. Bohannan*  
HydroTrans # G19D004

THE APPROVAL OF THESE PLANS DOES NOT BE  
CONSIDERED A GUARANTEE OF ANY KIND.  
THE CITY OF ALBUQUERQUE IS NOT RESPONSIBLE FOR  
CONSTRUCTION, OR DAMAGE TO CONSTRUCTION, OR  
SPECIFICATIONS, OR CONSTRUCTION, OR ALTERED WITHOUT  
AUTHORIZATION.



**NOTE - ADD 5400 TO ALL ELEVATIONS**

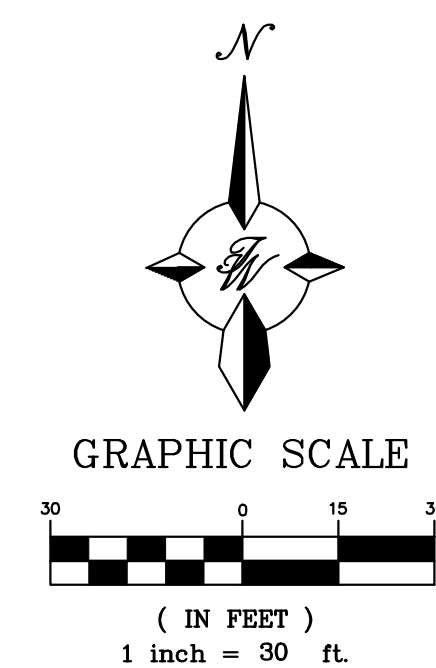
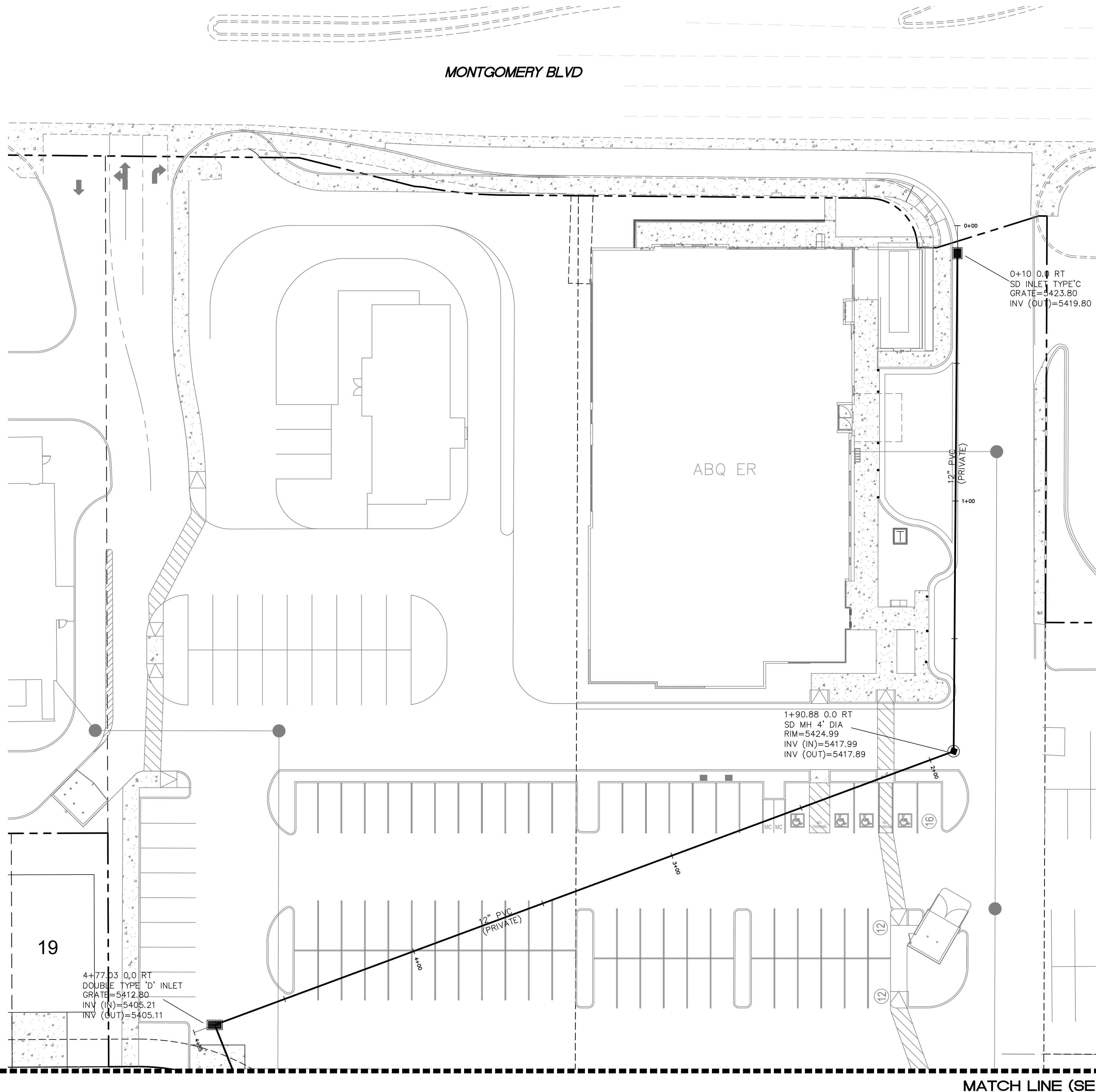
ALL SPOT ELEVATIONS ARE TO FLOWLINE  
UNLESS OTHERWISE SPECIFIED



**CAUTION**

ALL EXISTING UTILITIES 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.

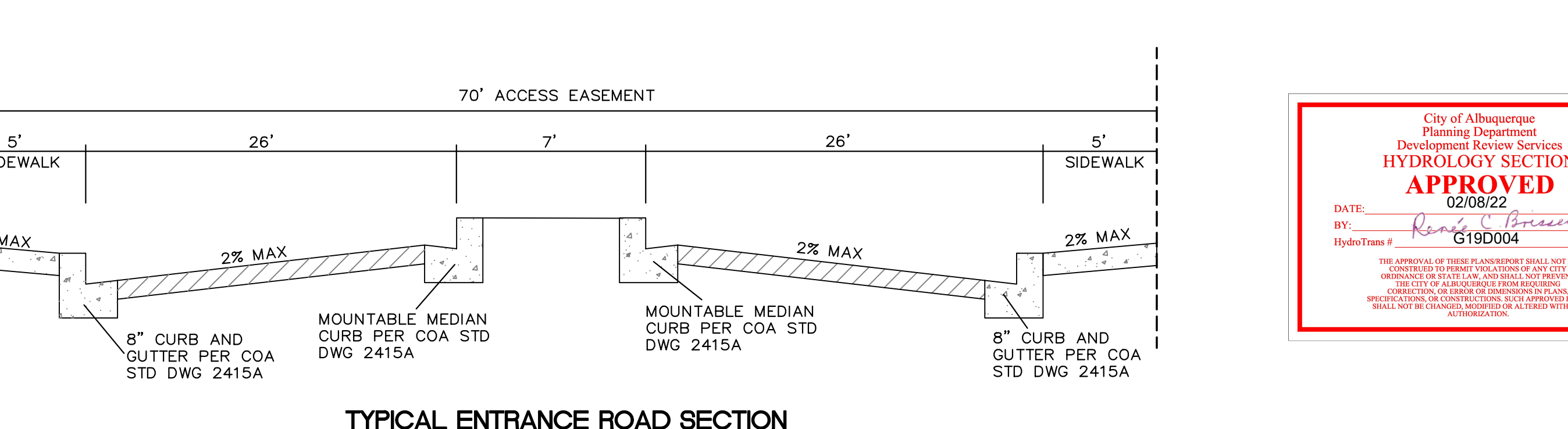
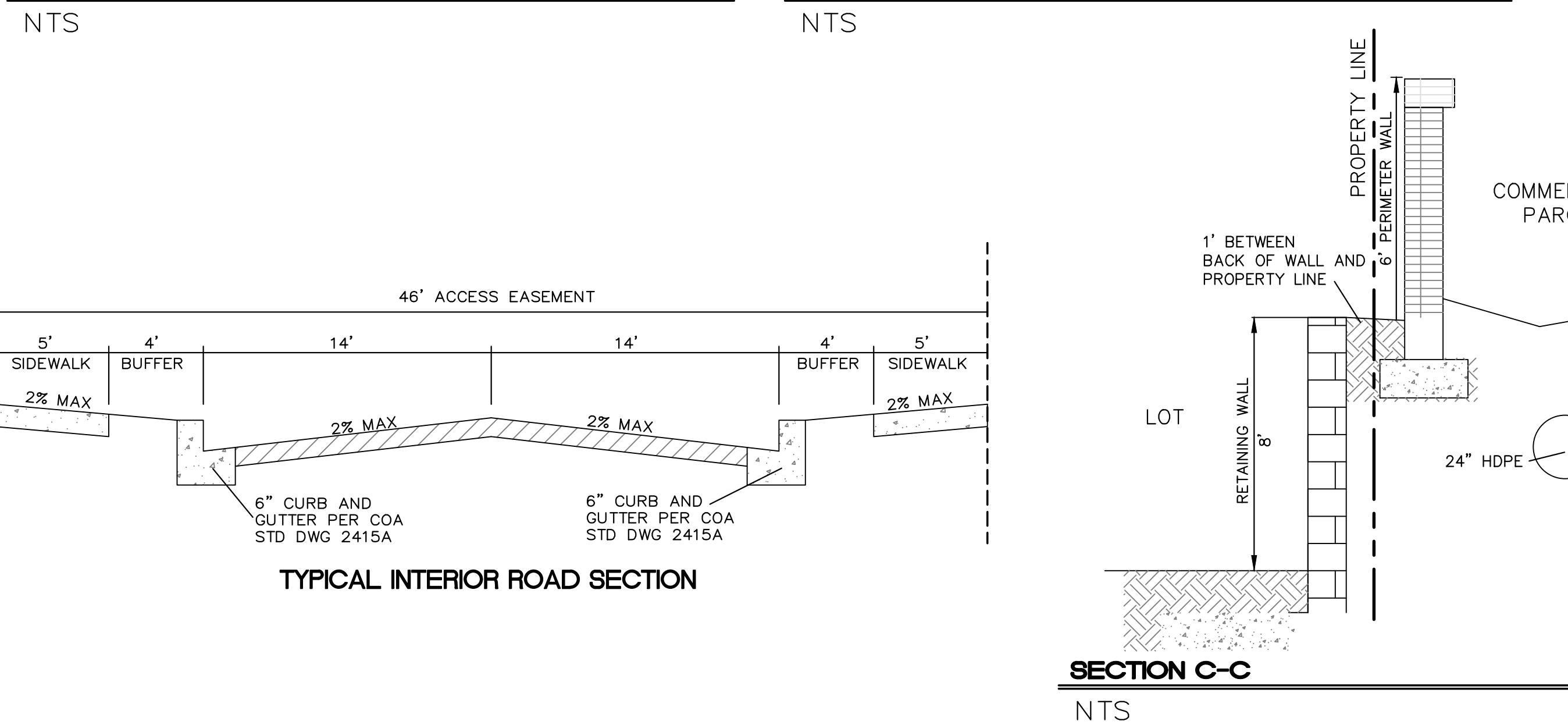
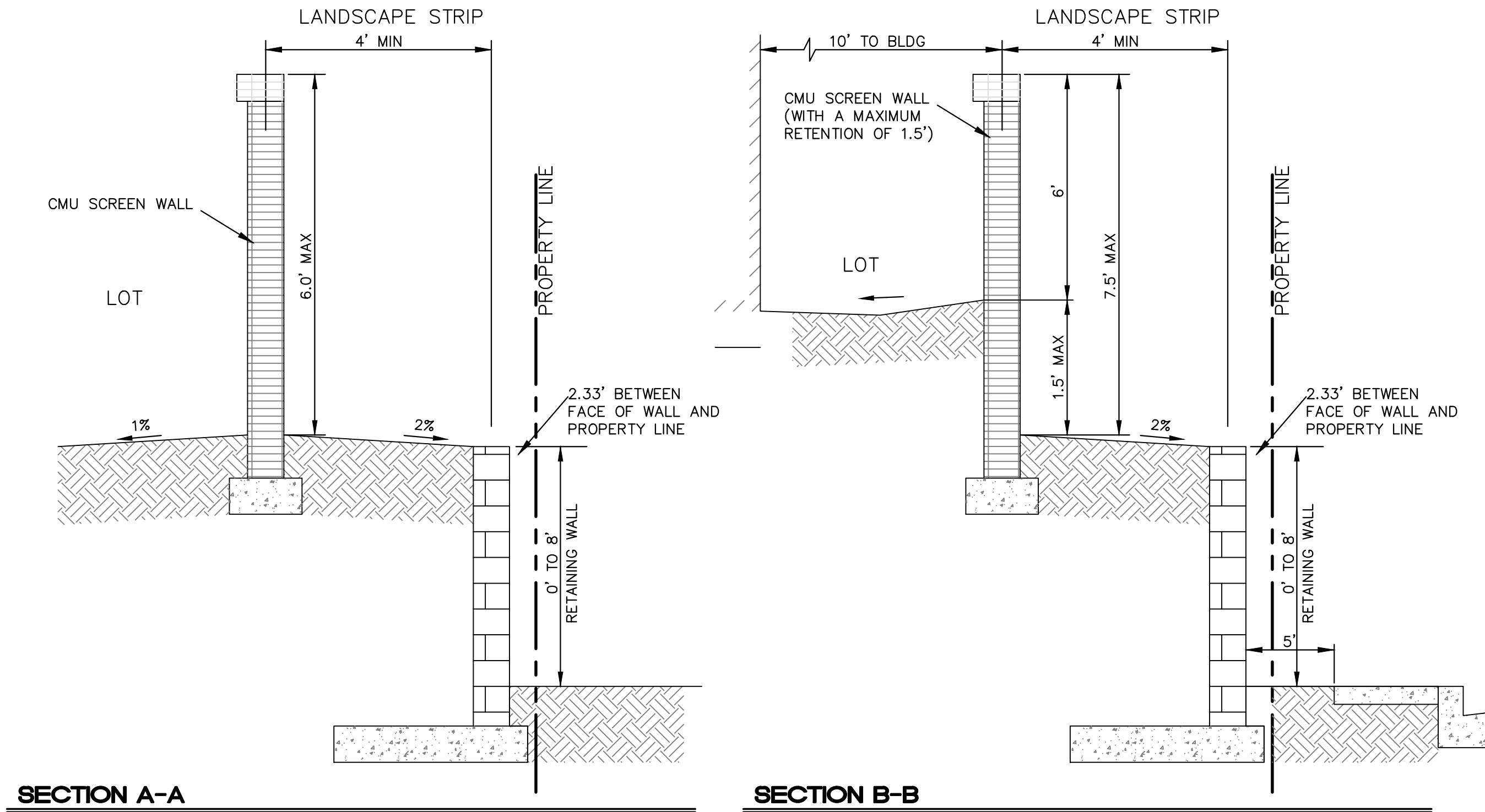
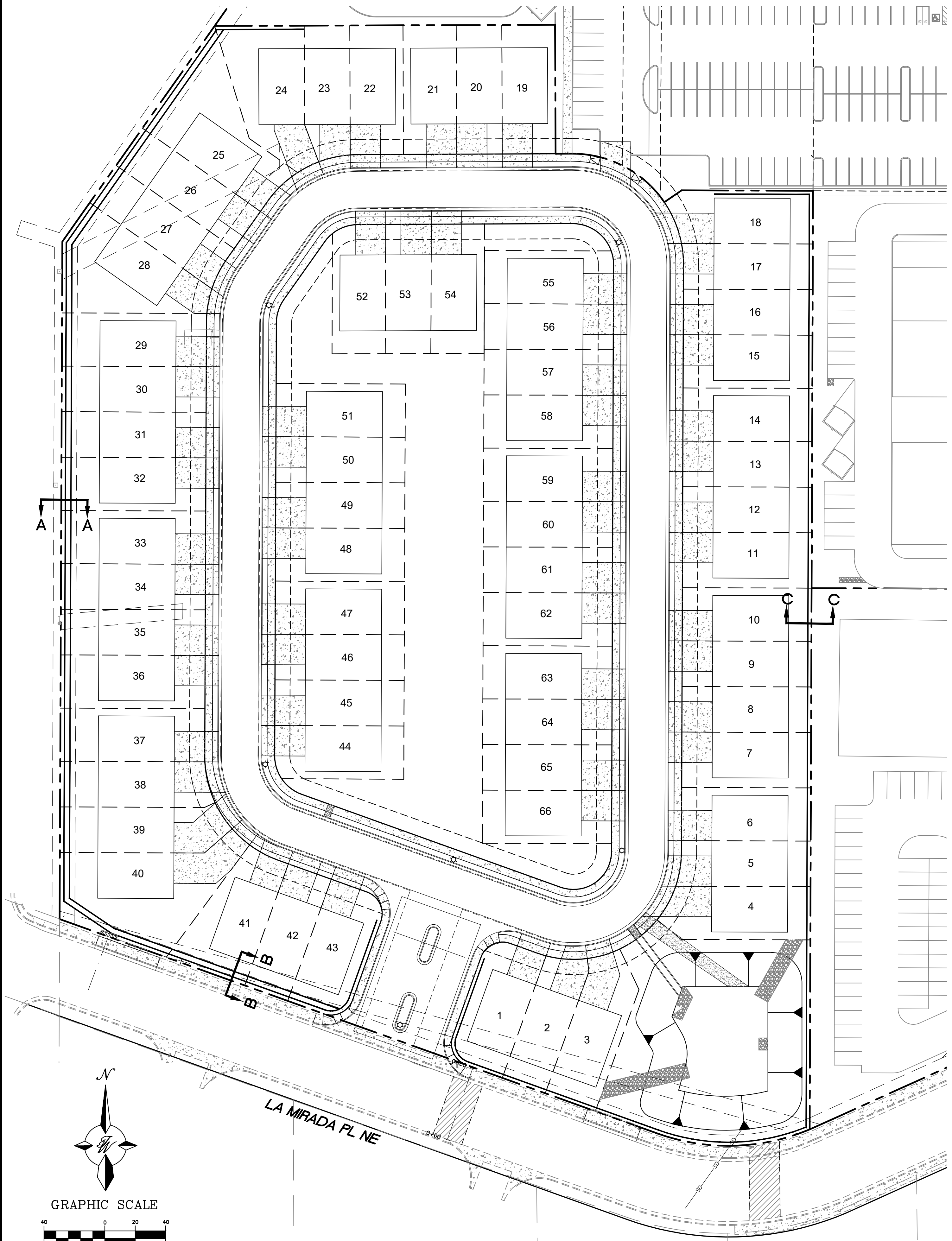
	<b>THE WYMONT ALBUQUERQUE, NM</b>	DRAWN BY pm
	<b>RESIDENTIAL GRADING PLAN</b>	DATE 1-27-2022
	 5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	DRAWING 2021008-GR
		SHEET # <b>GR-3B</b>
		JOB # 2021008





<div>ENGINEER'S SEAL</div> <div><p>RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER</p><p><i>Ronald R. Bohannon</i> 1-27-2022</p><p>RONALD R. BOHANNAN P.E. #7868</p></div>	<div>THE WYMONT ALBUQUERQUE, NM</div> <div>STORM SEWER PLAN</div>		<div>DRAWN BY pm</div>
			<div>DATE 1-27-2022</div>
	<div><div>TIERRA WEST, LLC</div><div>5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com</div></div>	<div>DRAWING 2021008-GR</div>	

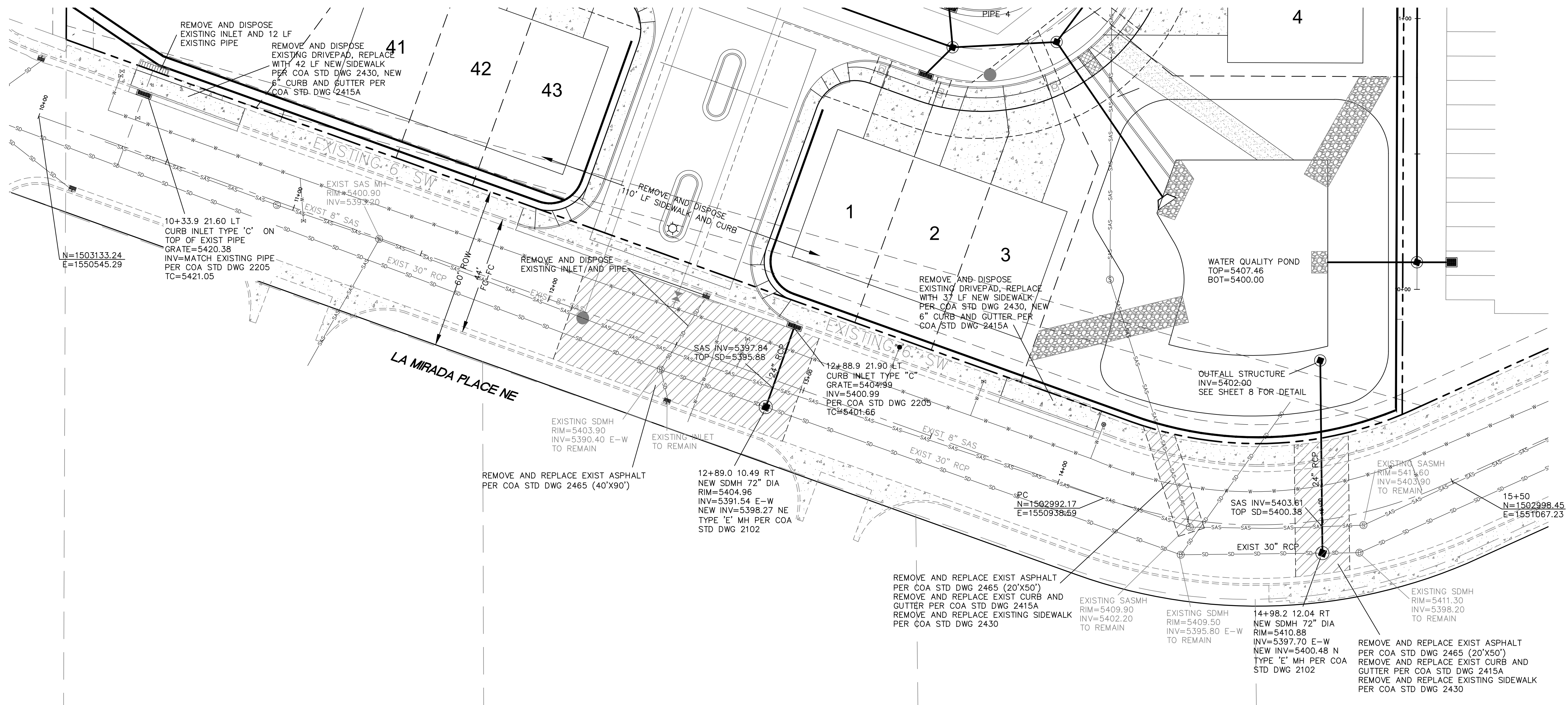




City of Albuquerque  
Planning Department  
Development Review Services  
**HYDROLOGY SECTION**  
**APPROVED**  
DATE: 02/08/22  
BY: *Ronald R. Bohannon*  
HydroTrans # G19D004  
THE APPROVAL OF THESE PLANS REPORT SHALL NOT BE  
CONSIDERED A GUARANTEE OF THE ACCURACY OR  
COMPLETENESS OF THE INFORMATION PROVIDED.  
THE CITY OF ALBUQUERQUE IS NOT RESPONSIBLE FOR  
ANY ERRORS OR OMISSIONS IN THESE PLANS.  
THESE PLANS SHALL NOT BE CHANGED, ADDED OR ALTERED WITHOUT  
AUTHORIZATION.

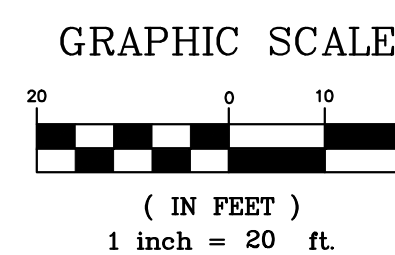
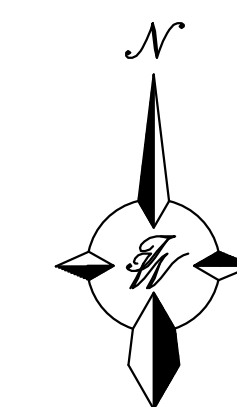
<div>ENGINEER'S SEAL</div> <div></div> <div>RONALD R. BOHANNAN P.E. #7868</div>	<b>THE WYMONT ALBUQUERQUE, NM</b>  <b>STREET AND WALL SECTIONS</b>	DRAWN BY pm
		DATE 1-27-2022
		DRAWING 2021008-GR
	<div></div> <div>TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com</div>	SHEET #  <b>GR-6</b>
		JOB # 2021008





# LEGEND

- ===== CURB & GUTTER
- - - - - BOUNDARY LINE
- ===== BUILDING
- - - - - EXISTING CURB & GUTTER
- NEW SD MH
- NEW CURB INLET TYPE 'C'
- EXISTING SAS MH
- EXISTING SD MANHOLE
- ⊗ EXISTING GATE VALVE
- - - - - W EXISTING WATERLINE
- - - - - SAS EXISTING SAS
- - - - - SD EXISTING STORM LINE
- - - - - SAWCUT LINE



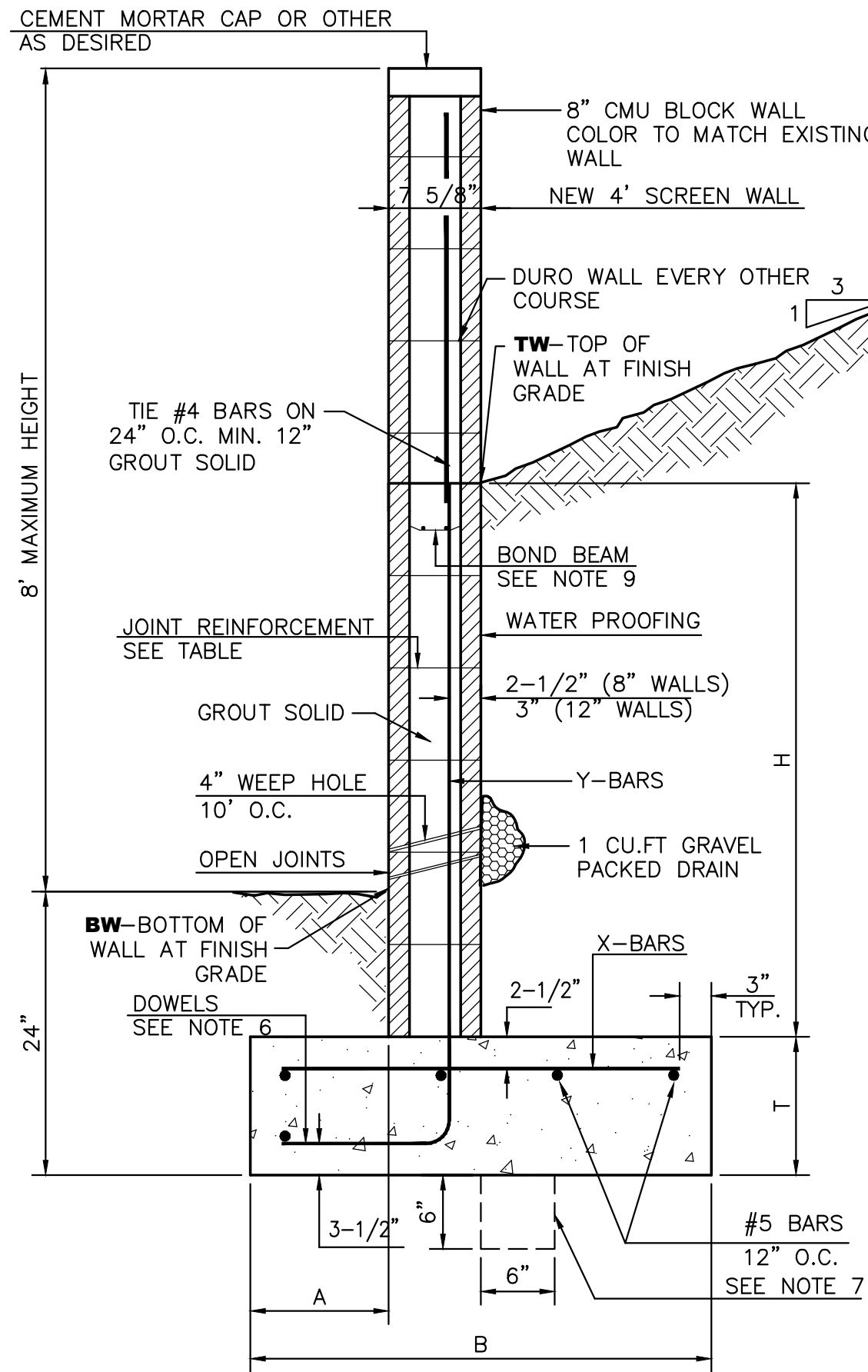
## CAUTION

ALL EXISTING UTILITIES 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.



<b>ENGINEER'S SEAL</b>  <b>RONALD R. BOHANNAN</b> P.E. #7868	<b>THE WYMONT</b> <b>ALBUQUERQUE, NM</b>		DRAWN BY pm
	<b>LA MIRADA PLACE</b> <b>STORM SEWER IMPROVEMENTS</b>		DATE 1-27-2022
	 <b>TIERRA WEST, LLC</b> 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com		DRAWING 2021008-GR
			SHEET # <b>GR-8</b>
		JOB # 2021008	





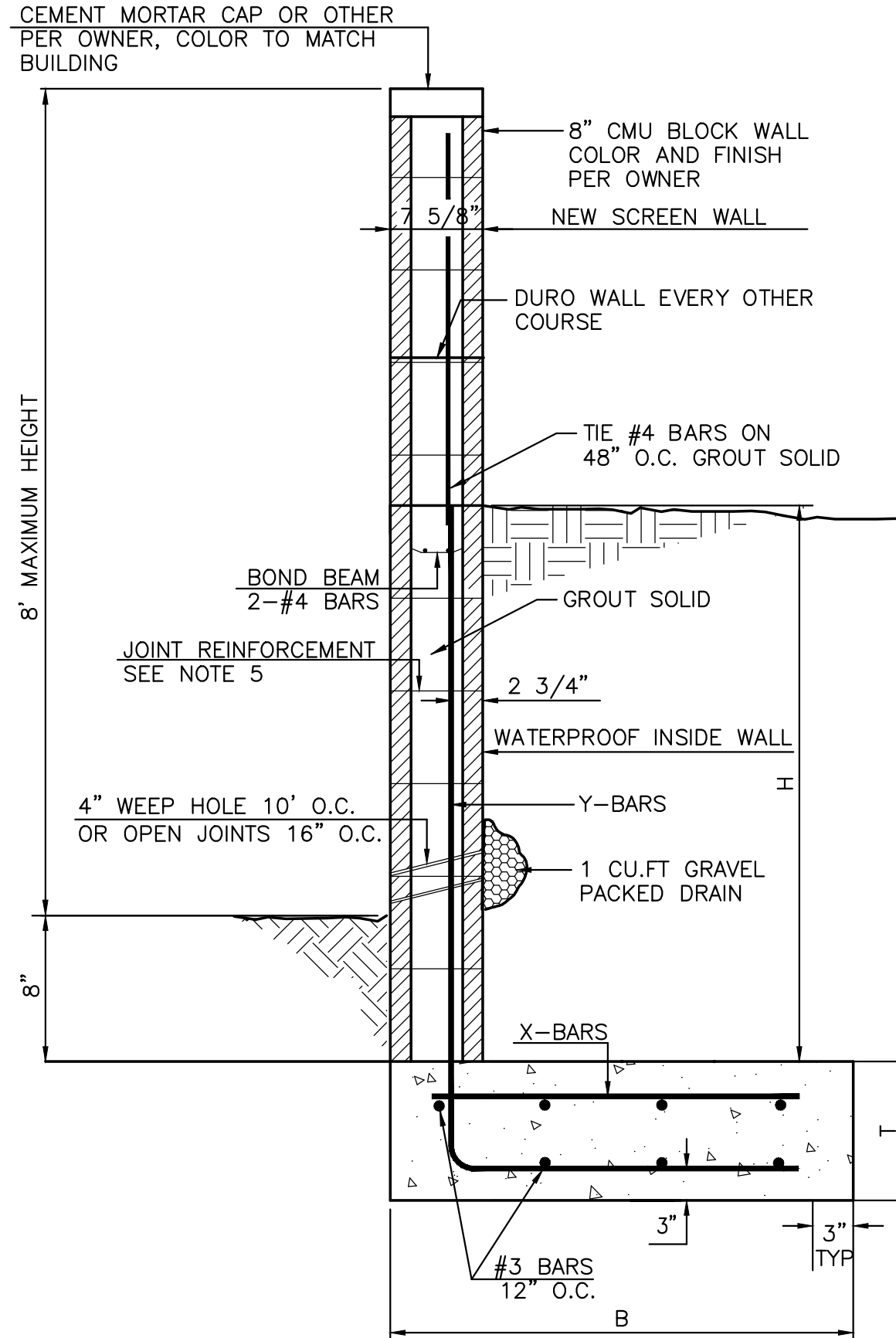
RETAINING WALL DETAIL  
NTS

8 INCH REINFORCED CONCRETE MASONRY WALL						
H	A	B	T	Y-BARS	X-BARS	
ft.-in.	in.	ft.-in.	in.			
2'-0"	8"	2'-0"	9"	#4 @32" O.C.		
2'-8"	8"	2'-0"	9"	#4 @32" O.C.	#4 @24" O.C.	
3'-4"	8"	2'-4"	9"	#4 @32" O.C.	#4 @24" O.C.	
4'-0"	10"	2'-8"	9"	#4 @32" O.C.	#4 @24" O.C.	
4'-8"	12"	3'-4"	10"	#5 @32" O.C.	#4 @18" O.C.	
5'-4"	14"	3'-10"	10"	#6 @16" O.C.	#4 @18" O.C.	
6'-0"	16"	4'-8"	12"	#6 @ 8" O.C.	#4 @12" O.C.	

12 INCH REINFORCED CONCRETE MASONRY WALL						
H	A	B	T	Y-BARS	X-BARS	
ft.-in.	in.	ft.-in.	in.			
5'-4"	14"	3'-8"	10"	#6 @18" O.C.	#4 @24" O.C.	
6'-0"	15"	4'-2"	12"	#4 @16" O.C.	#4 @18" O.C.	
6'-8"	16"	4'-6"	12"	#6 @24" O.C.	#5 @18" O.C.	
7'-4"	18"	4'-10"	12"	#6 @16" O.C.	#5 @18" O.C.	
8'-0"	20"	5'-4"	12"	#7 @18" O.C.	#6 @12" O.C.	
8'-8"	20"	5'-8"	12"	#7 @16" O.C.	#6 @12" O.C.	

GENERAL NOTES:

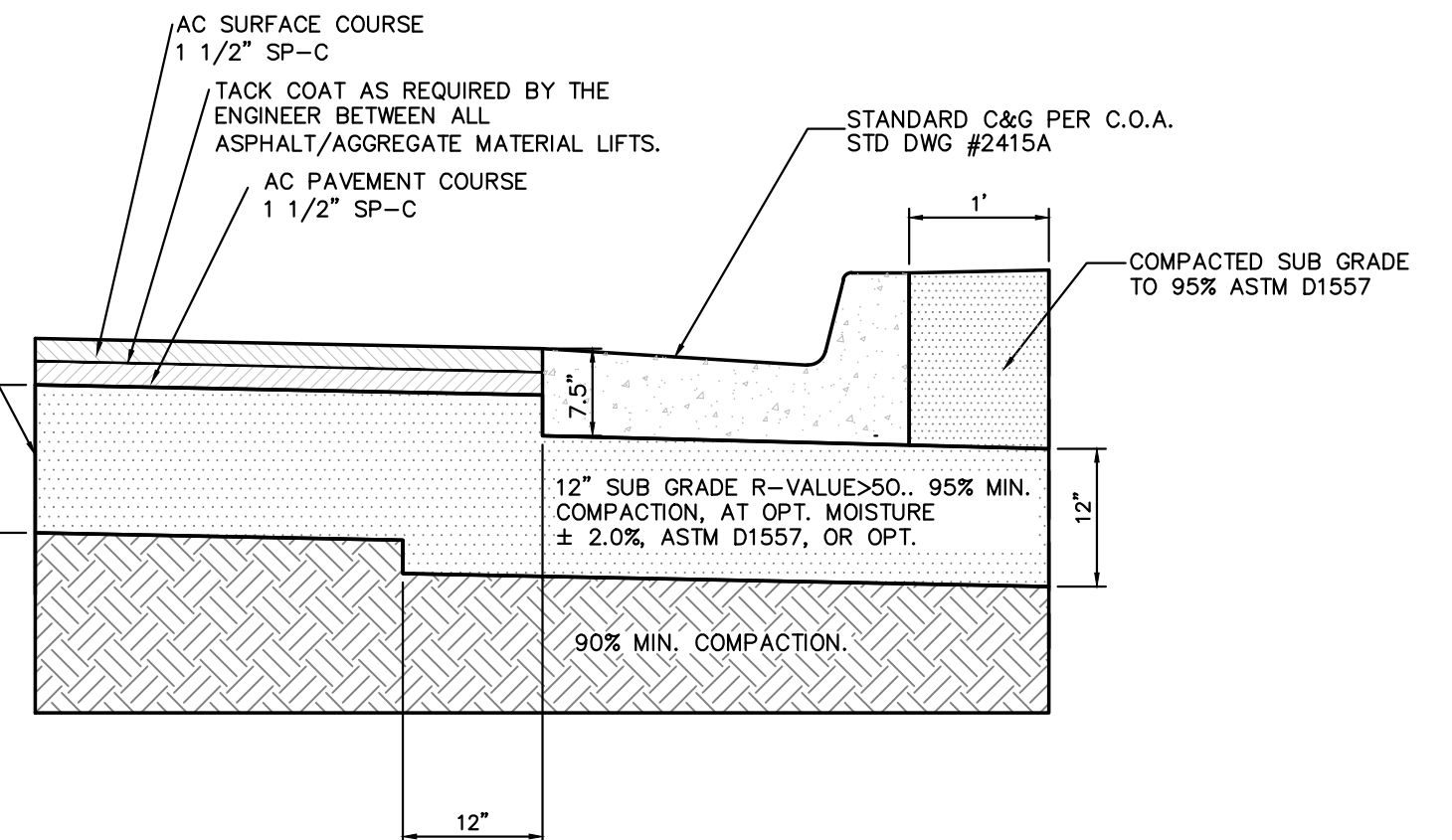
- ALL CONCRETE IS TO BE 4000 PSI @ 28 DAYS.
- MINIMUM COMPACTION UNDER FOOTINGS IS TO BE 95% PER ASTM. D 1557 FOR A DEPTH OF 12" MOISTURE CONTENT IS TO BE  $\pm 2.0\%$ .
- BACK FILL AGAINST WALLS IS TO BE HAND-PLACED AND COMPACTED.
- ALL BARS ARE TO BE GRADE 60, ASTM 615.
- TRUSS TYPE DUR-O-WALL EVERY OTHER COURSE. DOWELS SHALL BE AT LEAST EQUAL IN SIZE AND SPACING TO Y-BARS. SHALL PROJECT A MINIMUM OF 30 BAR DIA. INTO THE FILLED BLOCK CORES, AND SHALL EXTEND TO THE TOE OF THE FOOTING.
- PROVIDE KEY FOR 8" AND 12" WALLS WHERE H EXCEEDS 6'-0"
- USE EITHER EXPANSION JOINTS ON 20' CENTERS OR PILASTERS EVERY 16'.
- BOND BEAM, 1-#4 BARS FOR WALLS UNDER 3'-4", 2-#4 BARS FOR WALLS UNDER 5'-4", 2-#5 BARS FOR WALLS OVER 5'-4".



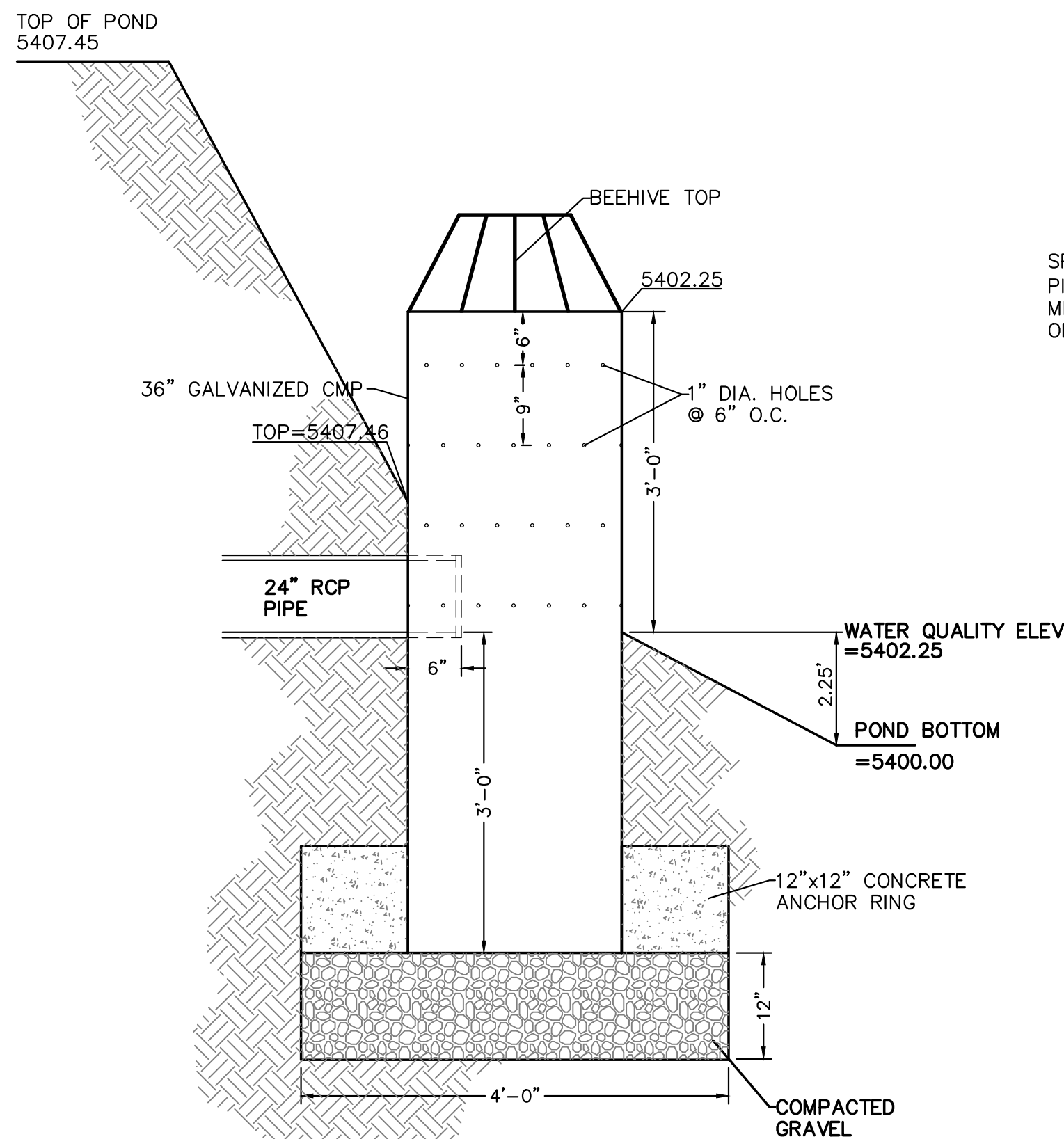
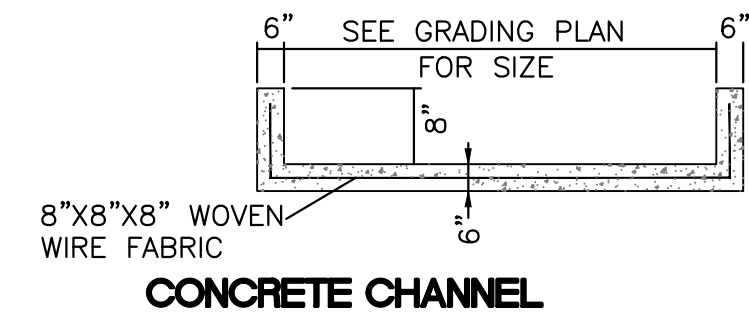
'L' FOOTING RETAINING WALL DETAIL  
NTS

FINISH SURFACE OF SUB GRADE SHALL BE MOISTURE CONTROLLED AT COMPACTION MOISTURE RANGE, OR PRIME COAT APPLIED AS REQUIRED BY THE ENGINEER UNTIL NEXT/FINAL SURFACE IS COMPLETED. SUB GRADE PREPARATION SHALL BE PERFORMED AFTER ALL SUBSURFACE R/W UTILITIES CONSTRUCTION IS COMPLETED.

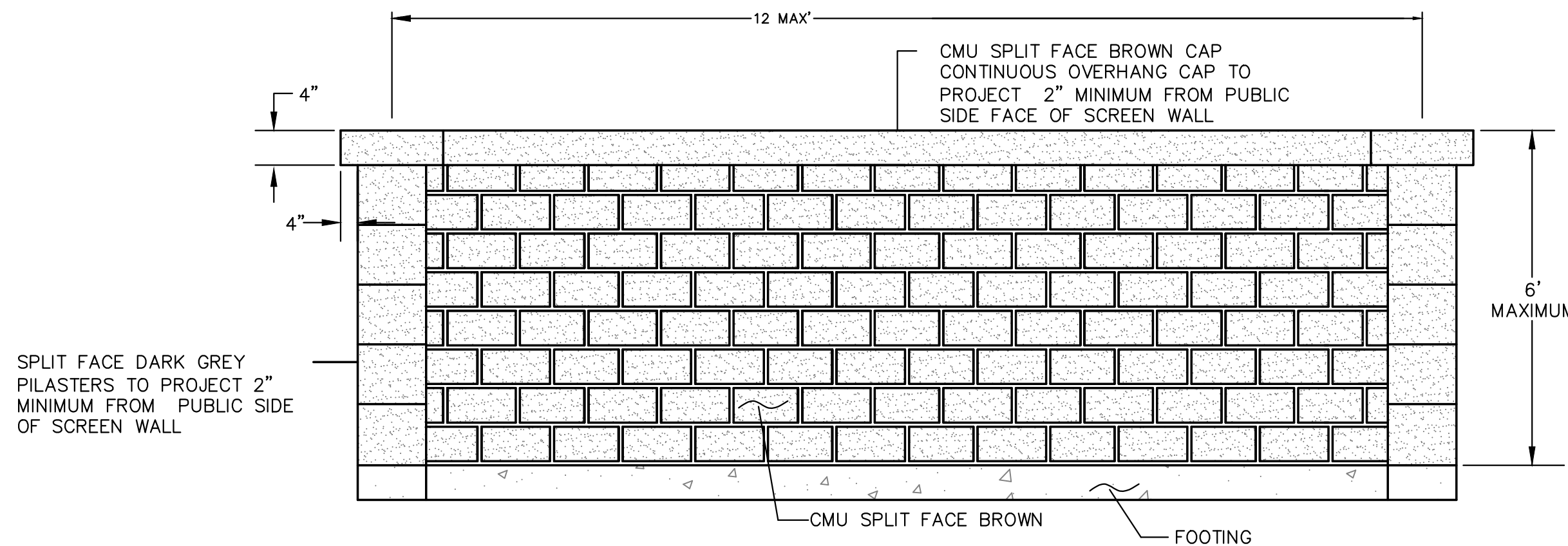
1' SUBGRADE SOIL R-VALUE $\geq$ 50. PLACED IN 2-6" COMPACTED LIFTS. 95% MIN. COMPACTION, AT OPT. MOISTURE  $\pm 2.0\%$  ASTM D1557, OR OPT. MOISTURE, TO  $\pm 4\%$  ASTM D698 FOR SOIL W/35% OR MORE MATERIAL PASSING THE NO. 200 SIEVE. SOIL NOT HAVING THE MIN. R-VALUE OF 50, SHALL BE REMOVED TO A DEPTH OF 2 FEET AND REPLACED BY THE CONTRACTOR WITH SUITABLE MATERIAL OR A PAVEMENT SHALL BE DESIGNED BY TERRA WEST, LLC ACCOMMODATING THE EXISTING R-VALUE PER C.O.A. STANDARD SPECIFICATIONS.



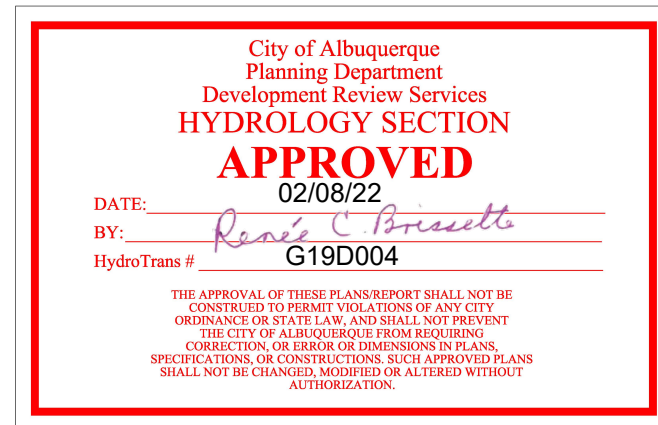
TYPICAL PAVING SECTION (LOCAL RESIDENTIAL)  
NTS



OUTFALL DETAIL  
NTS



SCREENWALL/RETAINING WALL- ELEVATION FOR STREET FACING WALL  
NTS



<p>ENGINEER'S SEAL</p> <p>RONALD R. BOHANNAN NEW MEXICO PROFESSIONAL ENGINEER #7868</p> <p>1-27-2022</p> <p>RONALD R. BOHANNAN P.E. #7868</p>	THE WYMONT ALBUQUERQUE, NM	DRAWN BY pm
	GRADING AND DRAINAGE PLAN	DATE 1-27-2022
	<p>TERRA WEST, LLC 5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com</p>	DRAWING 2021008-GR
		SHEET # <b>GR-8</b>
		JOB # 2021008