

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

February 24, 2022

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

**RE: Sandia Lab FCU - Rio Grande & I-40
Revised Grading & Drainage Plan
Engineer's Stamp Date: 02/23/22
Hydrology File: H13D109A**

Dear Mr. Bohannon:

Based upon the information provided in your submittal received 01/24/2022, the Revised Grading & Drainage Plans **are** approved for Building Permit, SO-19 Permit, and Work Order. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

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 (Dough 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



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Rio Grande & I-40 **Building Permit #:** _____ **Hydrology File #:** H13D109A
DRB#: _____ **EPC#:** _____ **Work Order#:** 759483
Legal Description: TRS 230A, 230B, 230C, 231A1, 231A2, 231B1, 231B2, 231B3, & 234A
City Address: 1100 Rio Grande Blvd NW Albuquerque NM

Applicant: Tierra West, LLC **Contact:** Luis Noriega
Address: 5571 Midway Park NE Albuquerque NM 87109
Phone#: 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** lnoriega@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) _____

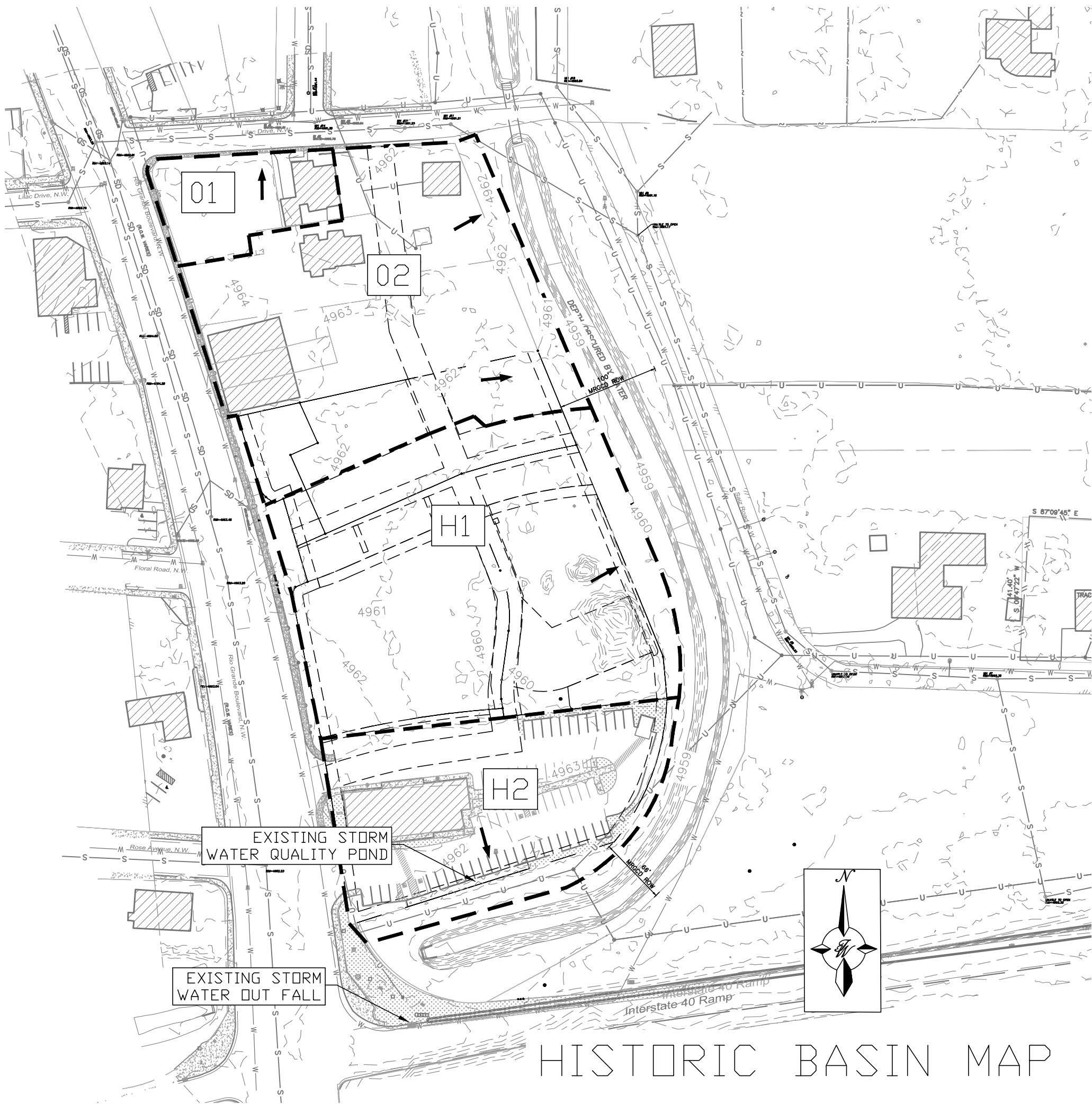
DATE SUBMITTED: 01/19/2022 **By:** Luis Noriega

COA STAFF:

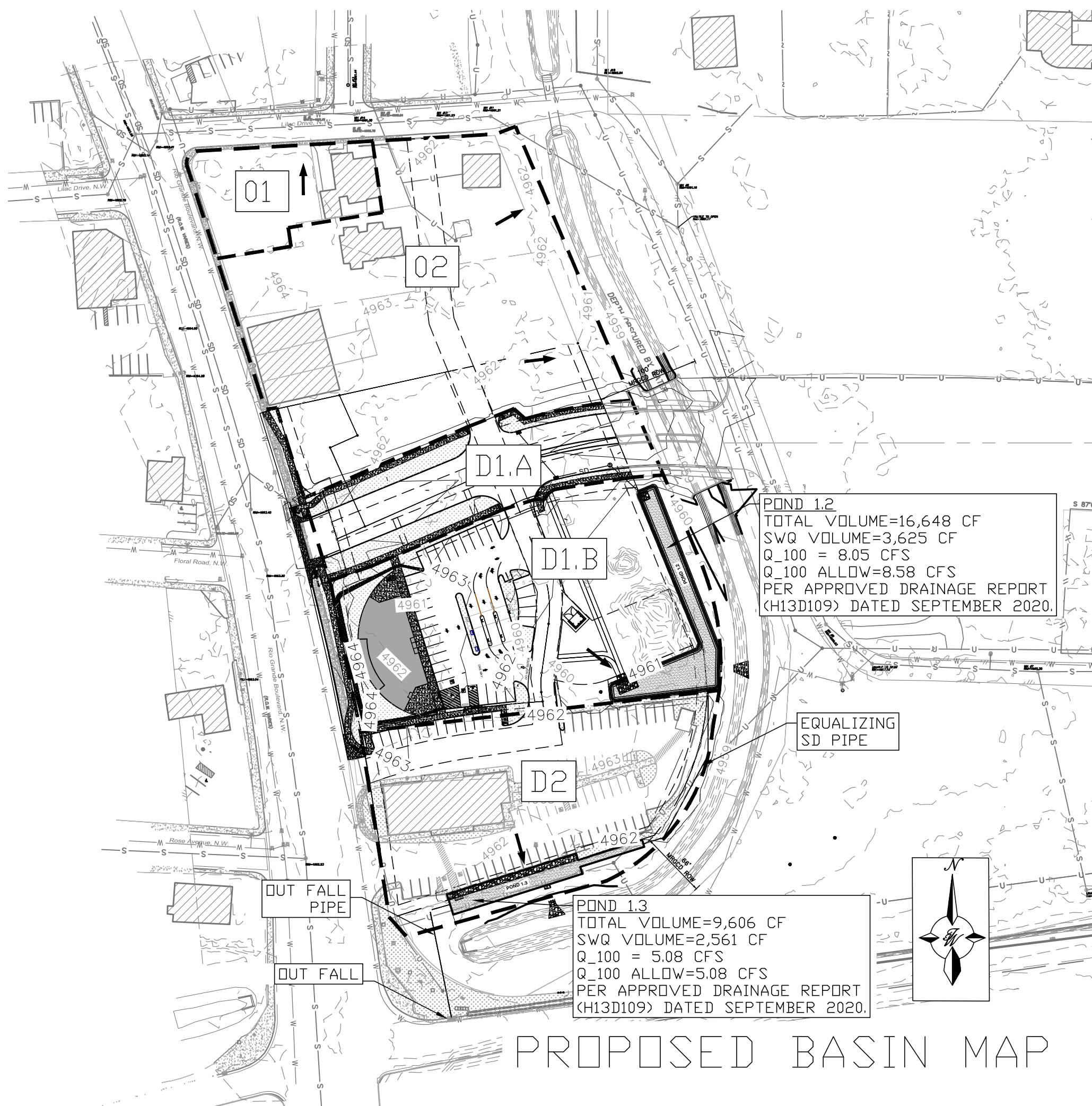
ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

\\TWS\Z_Drive\2012\2012100 Rio Grande and I-40\dwg\REV\2012100--BASIN.dwg Feb 22, 2022 -- 4:46pm



HISTORIC BASIN MAP



PROPOSED BASIN MAP

Existing Conditions (AHYMO-S4 SUMMARY)

Basin Descriptions											100-Year, 6-Hr			
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Runoff (in)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)			
H1	98,010.00	2.25	0.00352	0%	0.000	0%	0.000	60%	1.350	40%	0.900	1.380	0.259	7.39
H2	57,354.00	1.32	0.00206	0%	0.000	0%	0.000	15%	0.191	85%	1.119	1.820	0.200	5.08
O1	15,597.00	0.36	0.00056	0%	0.000	0%	0.000	64%	0.229	36%	0.129	1.340	0.040	1.17
O2	86,300.00	1.98	0.00310	0%	0.000	0%	0.000	77%	1.526	23%	0.456	1.210	0.200	6.09
Total	257,261.00	5.91	0.00923		0.000		0.000		3.296		2.604		0.70	19.73

Proposed Conditions (AHYMO-S4 SUMMARY)

Basin Descriptions											100-Year, 6-Hr			
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Runoff (in)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)			
D1.A	28,300.00	0.65	0.00102	0%	0.000	5%	0.032	10%	0.065	85%	0.552	1.820	0.098	2.50
D1.B	69,710.00	1.60	0.00250	0%	0.000	0%	0.000	45%	0.720	55%	0.880	1.527	0.204	5.55
D2	57,354.00	1.32	0.00206	0%	0.000	0%	0.000	15%	0.191	85%	1.119	1.550	0.200	5.08
O1	15,597.00	0.36	0.00056	0%	0.000	0%	0.000	64%	0.229	36%	0.129	1.340	0.040	1.17
O2	86,300.00	1.98	0.00310	0%	0.000	0%	0.000	77%	1.526	23%	0.456	1.210	0.200	6.09
Total	257261.00	5.91	0.00923		0.000		0.032		2.731		3.136		0.74	20.39

Stormwater Quality Volume (Pond 1.2)

Total Impervious Area =	ΣArea in "Treatment D"
Retainage depth = 0.42" Per DPM Pg. 272	0.035 foot
Retention Volume =	=0.035 x area CF
Area D (1.432 AC)=	62,378 SF
Volume Required =	2183.23 CF
Volume Provided =	3625 CF

Stormwater Quality Volume (Pond 1.3)

Total Impervious Area =	ΣArea in "Treatment D"
Retainage depth = 0.42" Per DPM Pg. 272	0.035 foot
Retention Volume =	=0.035 x area CF
Area D (1.119 AC)=	48,744 SF
Volume Required =	1706.04 CF
Volume Provided =	2561 CF

SITE INFORMATION

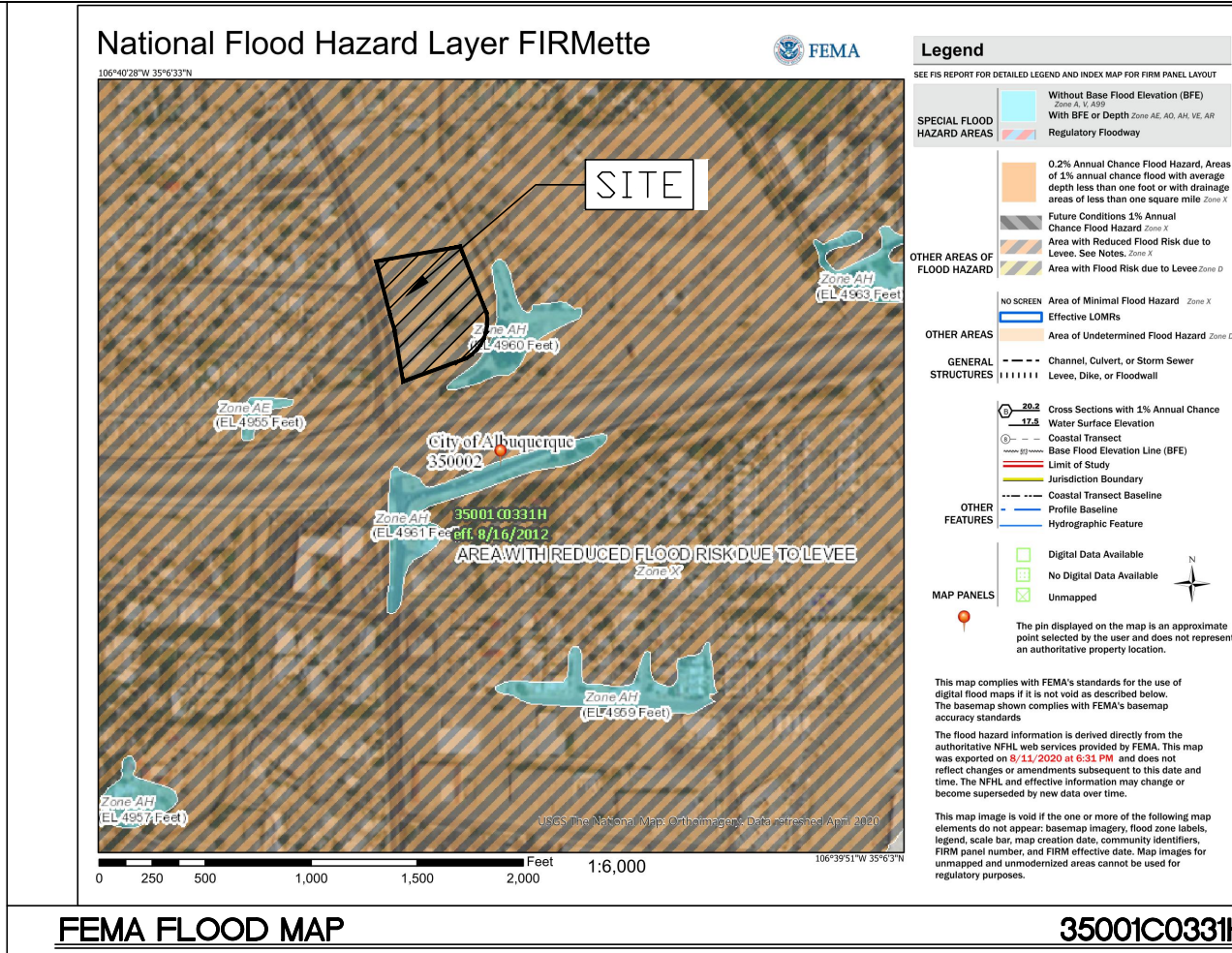
THE PROPOSED COMMERCIAL PROJECT SITE IS LOCATED IN THE NORTH-EAST CORNER OF RIO GRANDE BLVD AND I-40, WEST OF MRGCD'S ALAMEDA DRAIN. THE SITE IS LOCATED WITHIN AN AREA WITH REDUCED FLOOD RISK DUE TO A LEVEE (ZONE X). THE PROJECT IS ALSO WITHIN THE RIO GRANDE VALLEY AREA.

EXISTING CONDITIONS

BASIN H1 IS CURRENTLY UNDEVELOPED, IS PARTLY PAVED AND IS CURRENTLY USED FOR VEHICULAR PARKING. DRAINAGE FROM BASIN H1 SHEET FLOWS EAST TOWARDS THE ALAMEDA DRAIN. BASIN H2 CONTAINS AN EXISTING RESTAURANT "THE RANGE CAFE". RUNOFF FROM BASIN H2 DRAINS SOUTH INTO AN EXISTING STORM WATER QUALITY POND. THE EXISTING STORM WATER QUALITY POND OUTFALLS INTO AN EXISTING STORM DRAIN INLET, LOCATED ALONG THE NORTHEAST I-40 FRONTAGE. NO OFFSITE RUNOFF FROM BASIN O1 AND O2 FLOWS INTO THE PROJECT SITE. BASED ON THE SITES TOPOGRAPHY OFFSITE DRAINAGE SHEET FLOWS DIRECTLY EAST, TOWARDS THE ALAMEDA DRAIN OR NORTH TO LILAC DR. NO OFFSITE FLOWS SHALL BE ROUTED INTO THE INTERIM PROPOSED DETENTION POND SYSTEM.

PROPOSED CONDITIONS

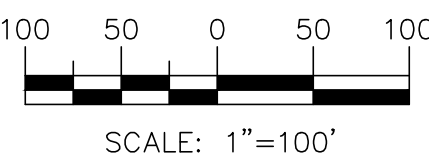
THE PROJECT AREA CURRENTLY CONTAINS AN EXISTING RANGE CAFE RESTAURANT, TO THE NORTH OF THE CAFE A NEW FEDERAL CREDIT UNION BANK WILL BE DEVELOPED. THE DRAINAGE MANAGEMENT PLAN WILL FOLLOW THE APPROVED CONCEPTUAL DRAINAGE REPORT UNDER HYDRO NUMBER H13D109. THE PROPOSED DEVELOPMENT WILL DISCHARGE BELOW THE ALLOWABLE RATE INTO THE PROPOSED DETENTION POND SYSTEM. THE PROPOSED DETENTION POND SYSTEM HAS ENOUGH CAPACITY TO MANAGE THE RUNOFF FROM THE CURRENT PROPOSED DEVELOPMENT. BASINS O1 AND O2 WILL NOT CHANGE WITH THE DEVELOPMENT OF THE CREDIT UNION AND STORM WATER RUNOFF WILL FOLLOW THE EXISTING FLOW PATH



LEGEND

--- BASIN BOUNDARY

GRAPHIC SCALE



MAINTENANCE SCHEDULE

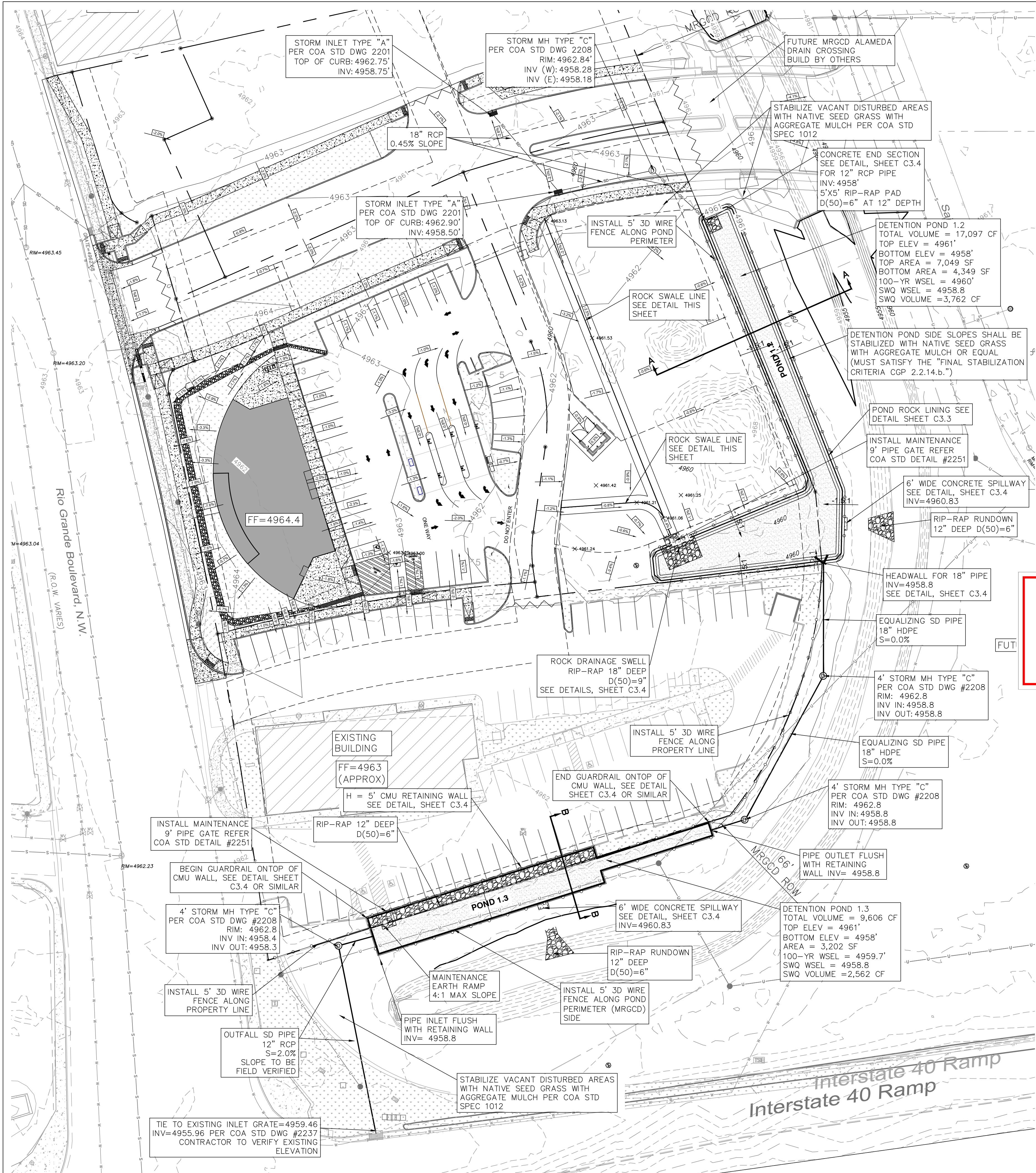
Responsible Party: Property Operator(s).

Access to storm water quality elements: All access to the storm water quality elements shall be accessible from the paved areas within the site. There is no restricted access to the location of both the surface and sub-surface elements.

REGULAR MAINTENANCE	FREQUENCY
LITTER MANAGEMENT	
Pick up all litter at site and in Landscape areas and remove from site	Daily
INLETS AND OUTLETS	
Visual inspection for function. Remove silt from slab aprons and debris in pavement areas. Remove all fallen vegetation around inlet and outlet structures.	Monthly
HARD SURFACES	
Sweep all paving regularly. Maintain pavement in autumn after leaf fall. Coordinate with Landscape Contractor if additional maintenance is required.	As required
OCCASIONAL TASKS	FREQUENCY
INSPECTION AND INLETS, OUTLETS AND CONTROL CHAMBERS	
Inspect surface structures removing obstructions and silt as necessary. Check there is no physical damage. For below ground control chambers, remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt.	Yearly
POND VEGETATION	
Ensure Pond vegetation is maintained by Landscape Contractor. All weeds and all cuttings removed from site.	As required
SILT MANAGEMENT	
Inspect swales and water quality pond for silt accumulation. Excavate silt, stack and dry within 2-feet of the water quality feature, but outside the design profile where water flows, spread, rake and over-seed. Protect surface from siltation and manage main area of basin for design function or appearance.	Yearly
REMEDIAL WORK	FREQUENCY
Inspect storm all water quality structures regularly to check for damage or failure. Undertake remedial work as required.	Yearly

ENGINEER'S SEAL RONALD R. BOHANNAN NEW MEXICO PROFESSIONAL ENGINEER 7868 02/23/2022 RONALD R. BOHANNAN P.E. #7868	SANDIA LAB FCU RIO GRANDE + I-40 DRAINAGE PLAN	DRAWN BY LN
		DATE 02-22-2022
		DRAWING 2012100-BASIN
		SHEET # C3.1
	TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	JOB # 2012100

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NOTICE TO CONTRACTORS

- PRIOR TO ANY WORK WITHIN THE NEW MEXICO DEPARTMENT OF TRANSPORTATION (NMDOT) RIGHT-OF-WAY, AN NMDOT PERMIT WILL BE REQUIRED.
- CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A MEETING PRIOR TO FORMING.
- 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.
- TWO WORKING DAYS 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 ACCORDING TO TRAFFIC/STREET USE.
- 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.
- CONTRACTOR MUST CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A CONSTRUCTION INSPECTION. FOR EXCAVATING AND BARRICADING INSPECTIONS, CONTACT CONSTRUCTION COORDINATION AT (505) 924-3416.

EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING ROADWAY.
- 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 ACCEPTANCE OF ANY PROJECT.

NOTE:

- REFERENCE GEOTECHNICAL REPORT FOR CONSTRUCTION REQUIREMENTS/MINIMUMS
- REFERENCE LANDSCAPE PLAN FOR FINAL STABILIZATION REQUIREMENTS.

LEGEND

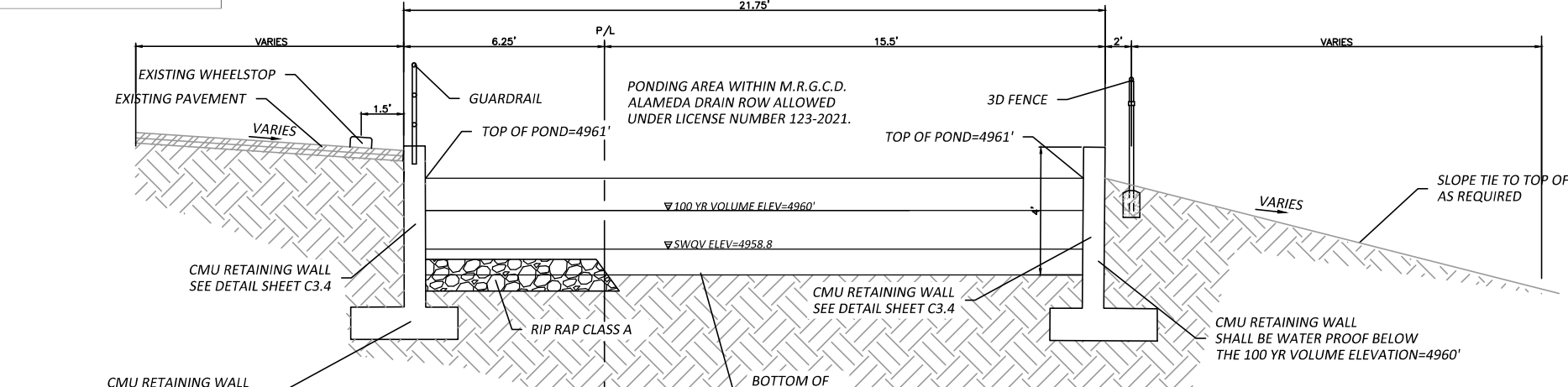
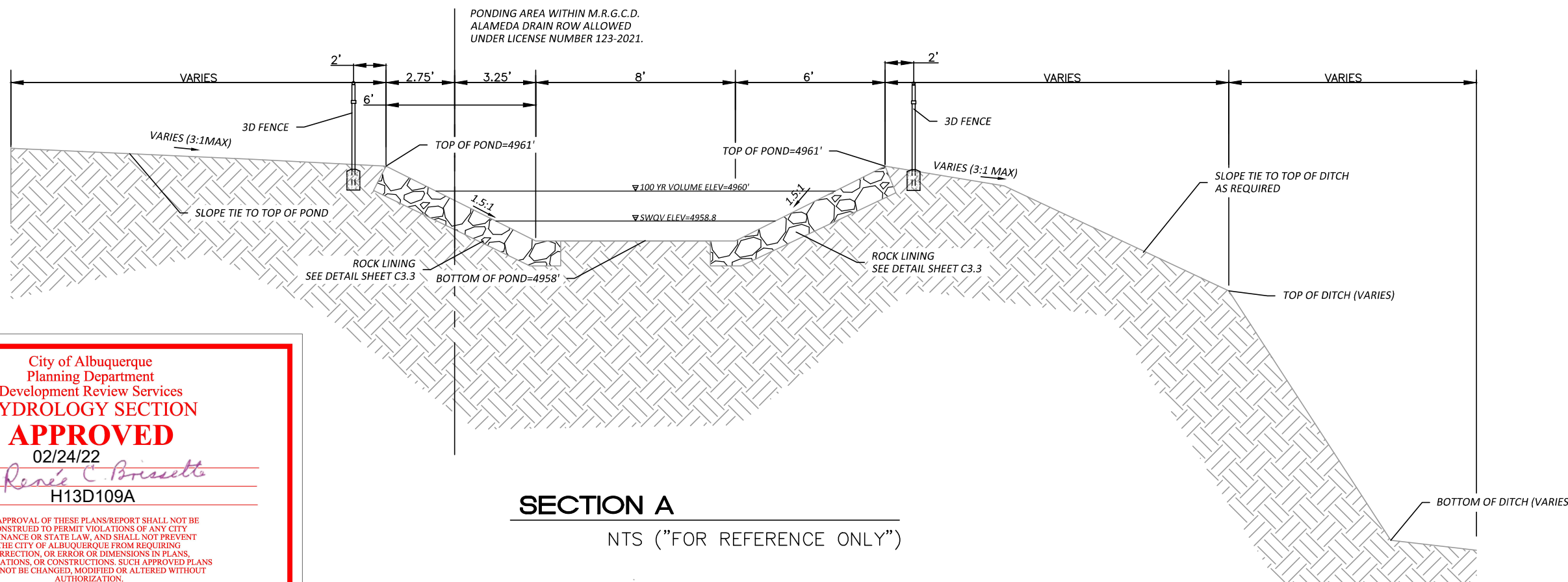
- CURB & GUTTER
- BOUNDARY LINE
- 3D FENCE
- EASEMENT
- SIDEWALK
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING SIDEWALK
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- WATER BLOCK
- CMU RETAINING WALL
- GRAVEL MULCH
- CONTOUR MAJOR
- CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- EXISTING SPOT ELEVATION

SPOT ELEVATION LEGEND

FL=FLOW LINE
TS=TOP OF SIDEWALK
TC=TOP OF CURB

SPOT ELEVATION NOTE:

ALL SPOT ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE NOTED.





SECTION B
NTS (\"FOR REFERENCE ONLY\")

NMDOT NOTE:
PRIOR TO ANY WORK WITHIN THE NEW MEXICO DEPARTMENT OF TRANSPORTATION (NMDOT) RIGHT OF WAY, AN NMDOT PERMIT WILL BE REQUIRED.

CAUTION:
GENERAL CONTRACTOR TO PREVENT DAMAGE TO OVERHEAD/UNDERGROUND UTILITIES DURING CONSTRUCTION OPERATIONS.

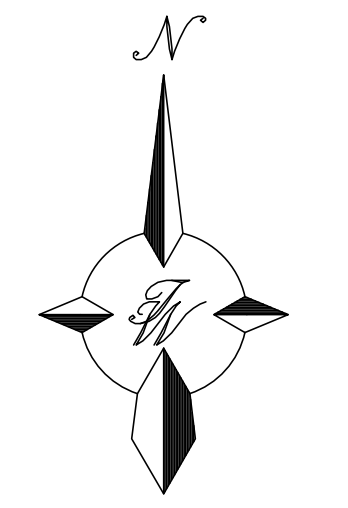
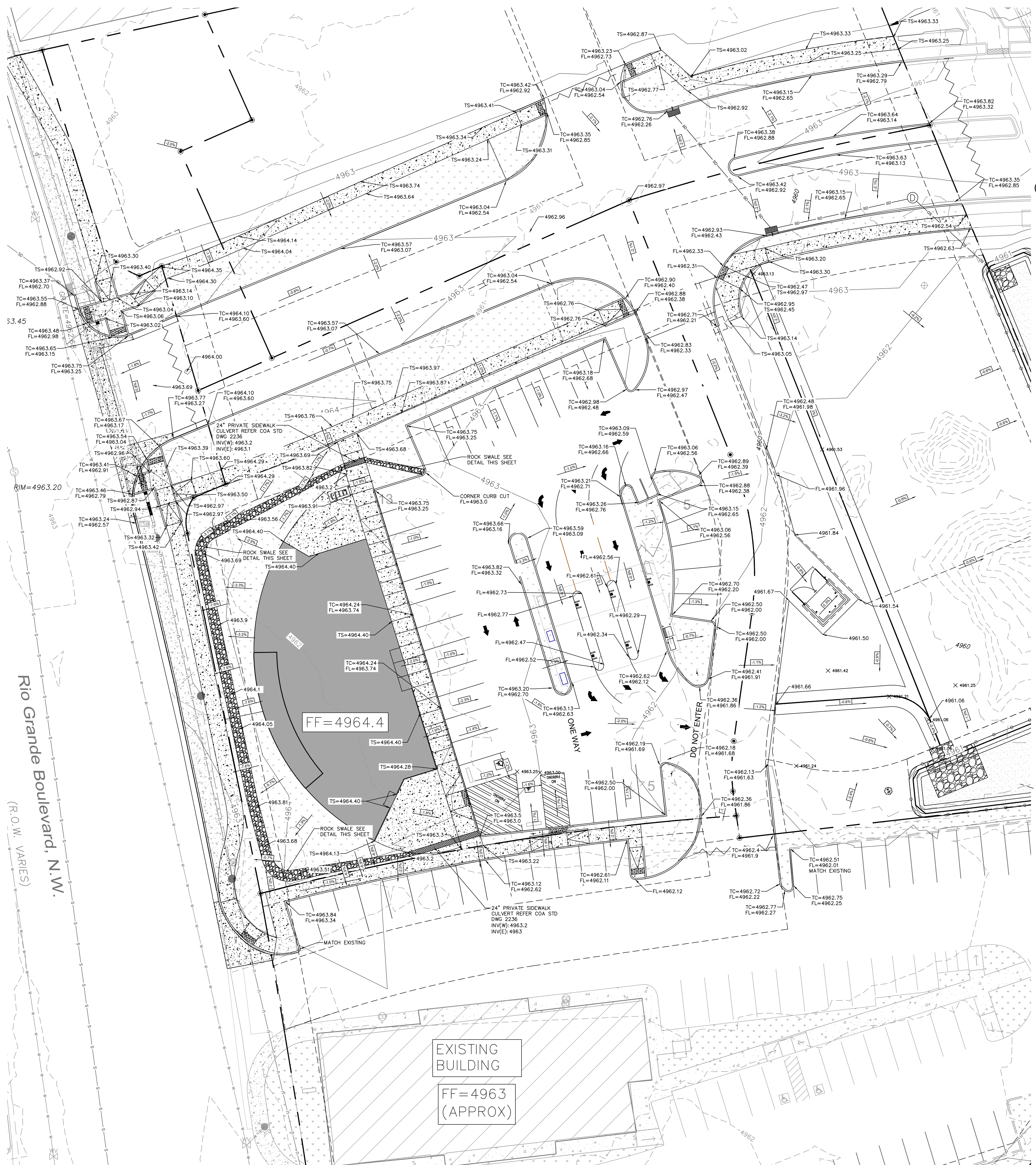
ROCK SWALE
NTS
3\" ROCK, 6\" THICK
3:1 MAX SIDE SLOPE

CAUTION:
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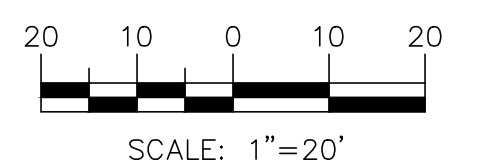
ENGINEER'S SEAL  RONALD R. BOHANNAN P.E. #7868	SANDIA LAB FCU RIO GRANDE + I-40 GRADING PLAN A	DRAWN BY LN
		DATE 02-22-2022
 TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # C3.2	DRAWING 2012100-GR
		JOB # 2012100

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(R.O.W. VARIES)



GRAPHIC SCALE



NOTICE TO CONTRACTORS

1. CONTACT STORM DRAIN MAINTENANCE AT (505) 857-8033 TO SCHEDULE A MEETING PRIOR TO FORMING.
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3. 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.
4. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT **NEW MEXICO ONE CALL, DIAL "811"** [OR (505) 260-1990] FOR THE LOCATION OF EXISTING UTILITIES.
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NOTE:

1. REFERENCE GEOTECHNICAL REPORT FOR CONSTRUCTION REQUIREMENTS/MINIMUMS
2. REFERENCE LANDSCAPE PLAN FOR FINAL STABILIZATION REQUIREMENTS.

LEGEND

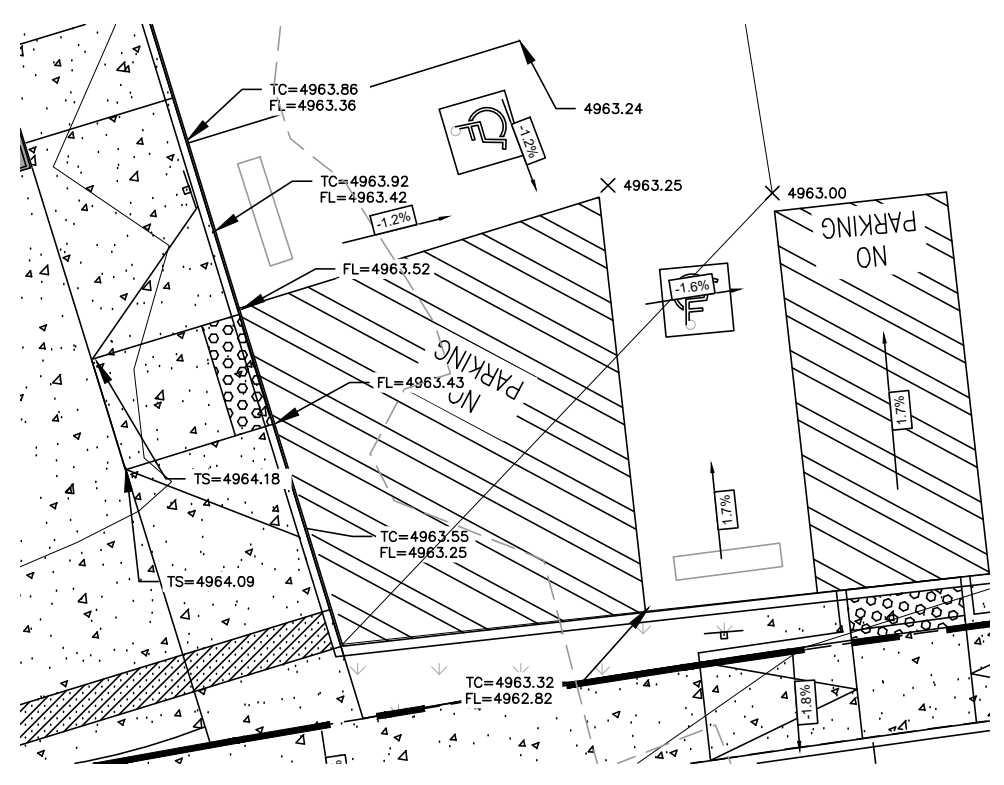
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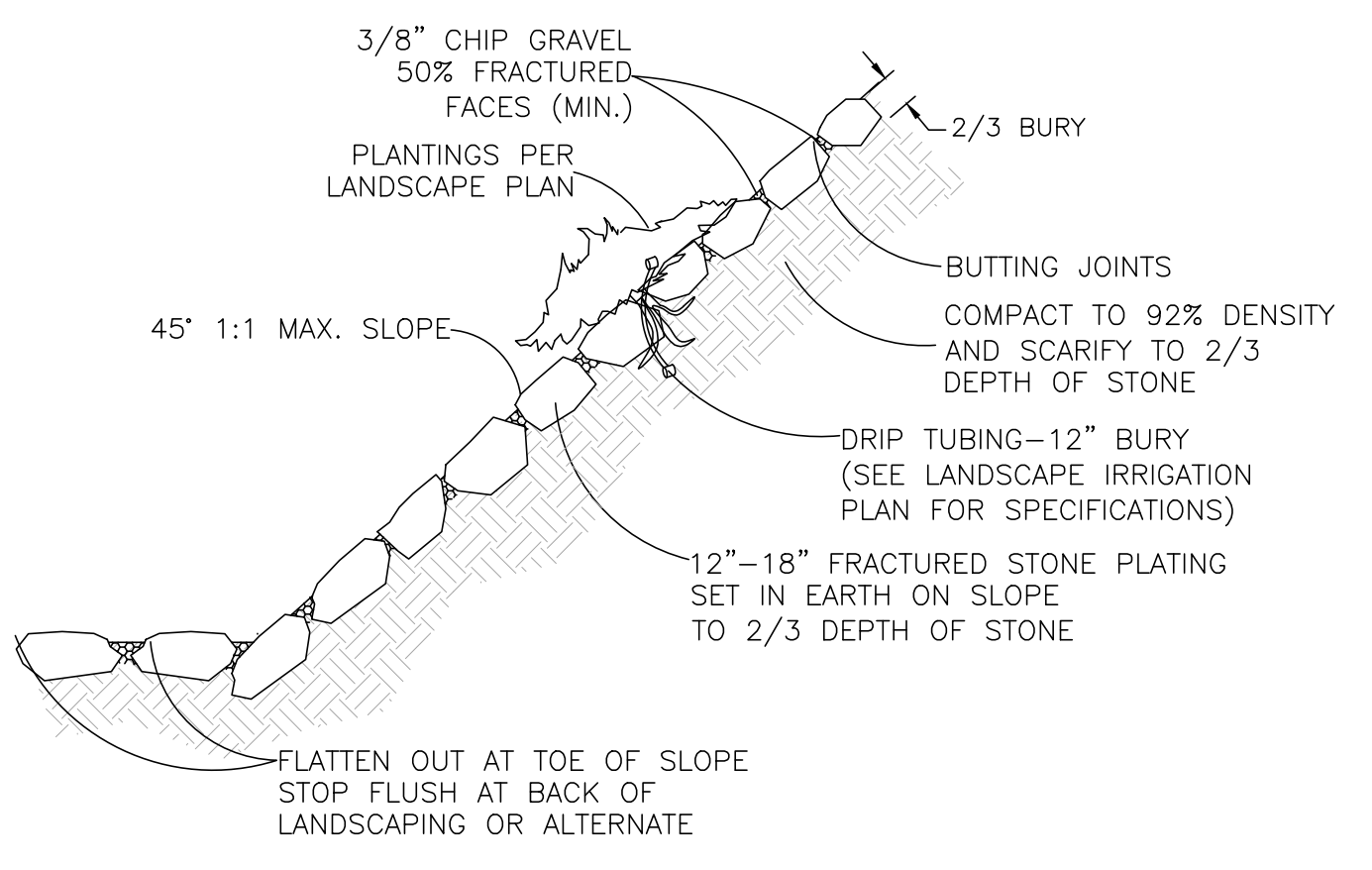
ADA PARKING DETAIL

NTS



ROCK SWALE

NTS



POND ROCK LINING DETAIL

NTS

3" ROCK, 6" THICK
OVER GEOTEXTILE FABRIC
3:1 MAX SIDE SLOPE

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED
DATE: 02/24/22
BY: *Ronald R. Bohannan*
HydroTrans # H13D109A

CAUTION:

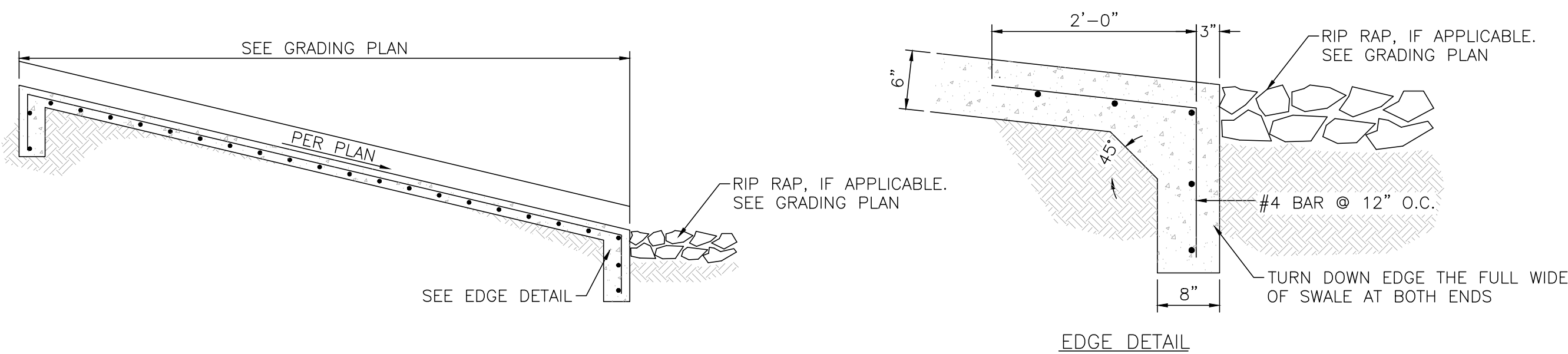
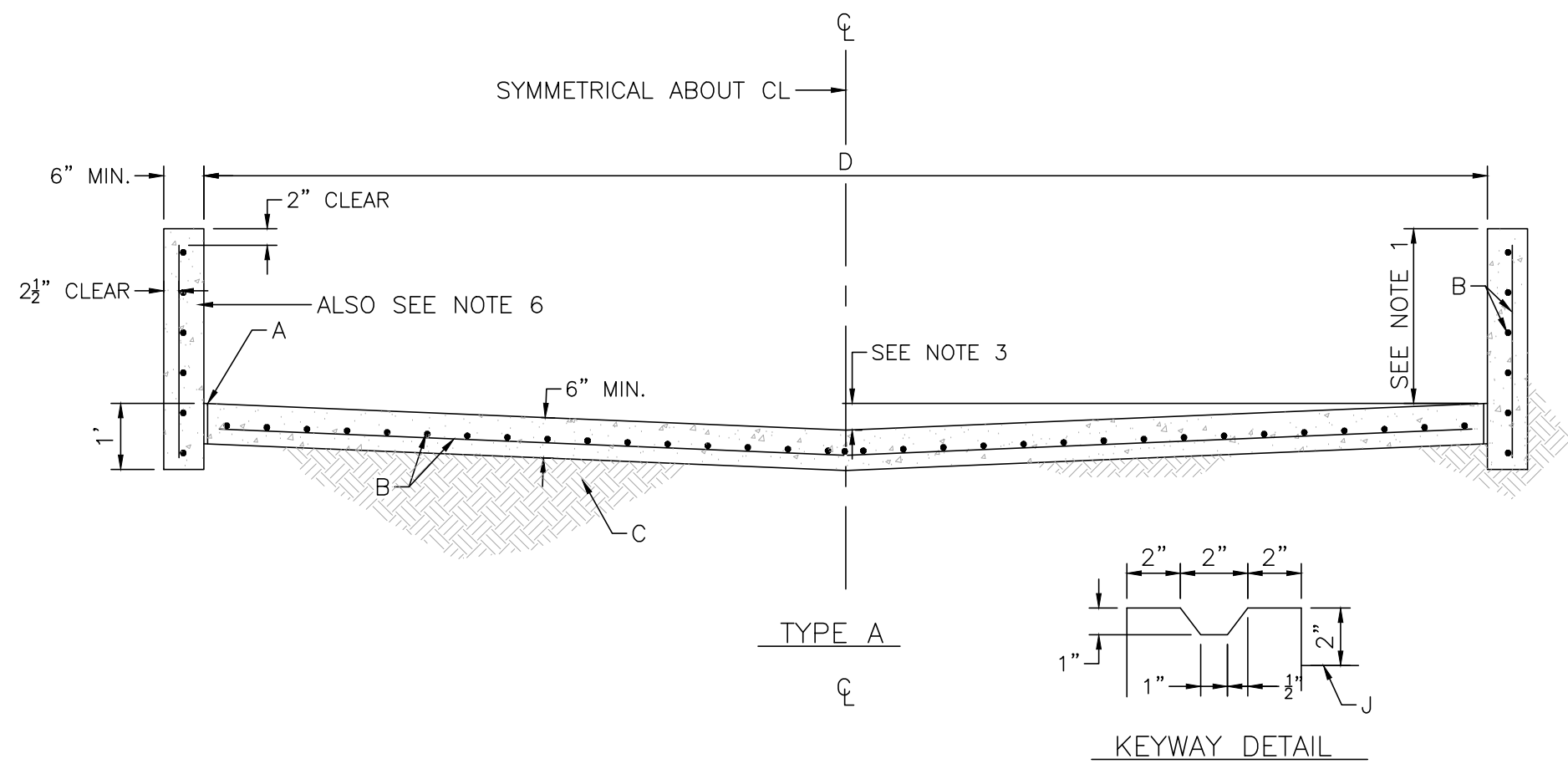
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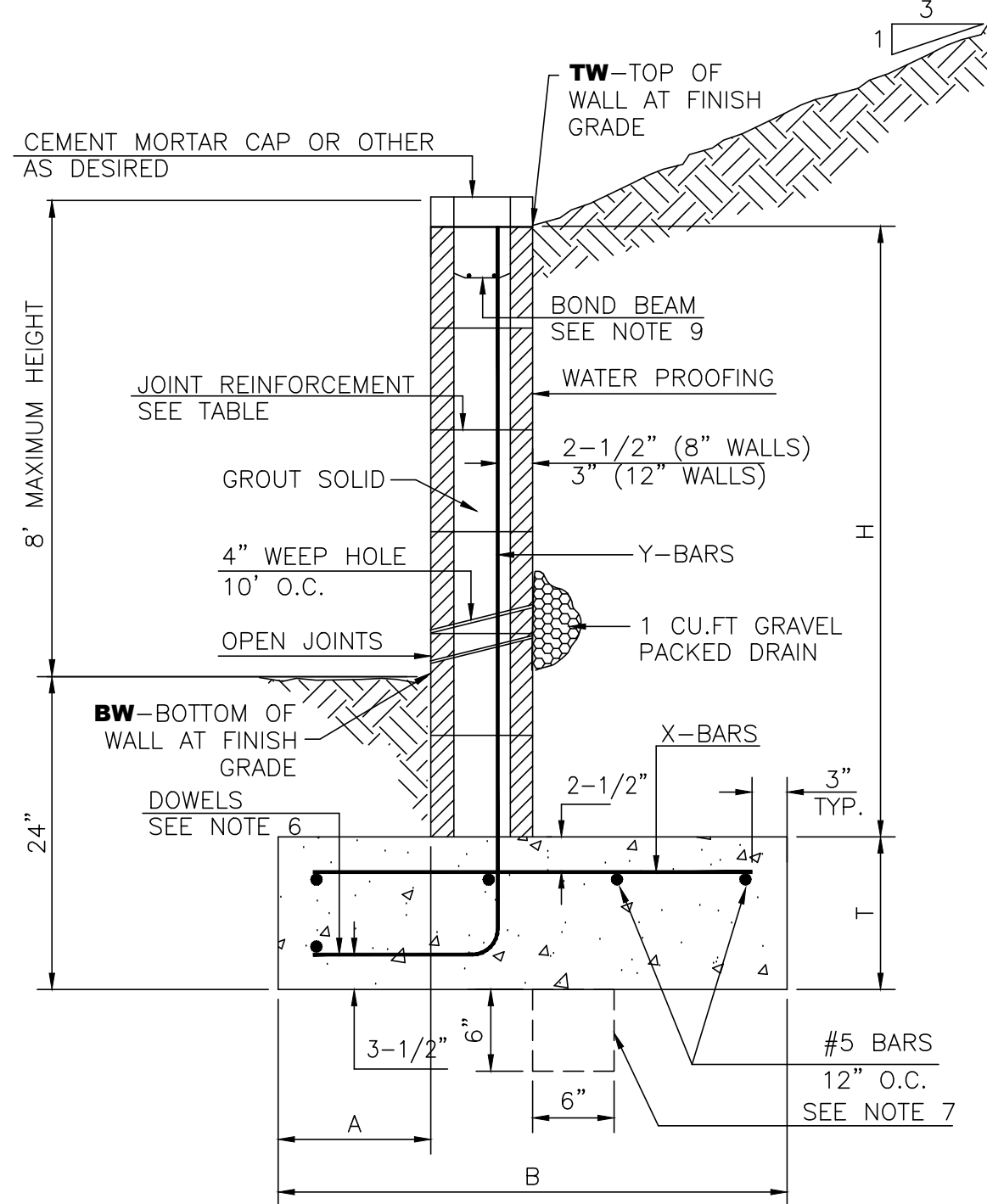
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		SHEET # C3.3
		JOB # 2012100

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CONCRETE DRAINAGE SPILLWAY
NTS



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

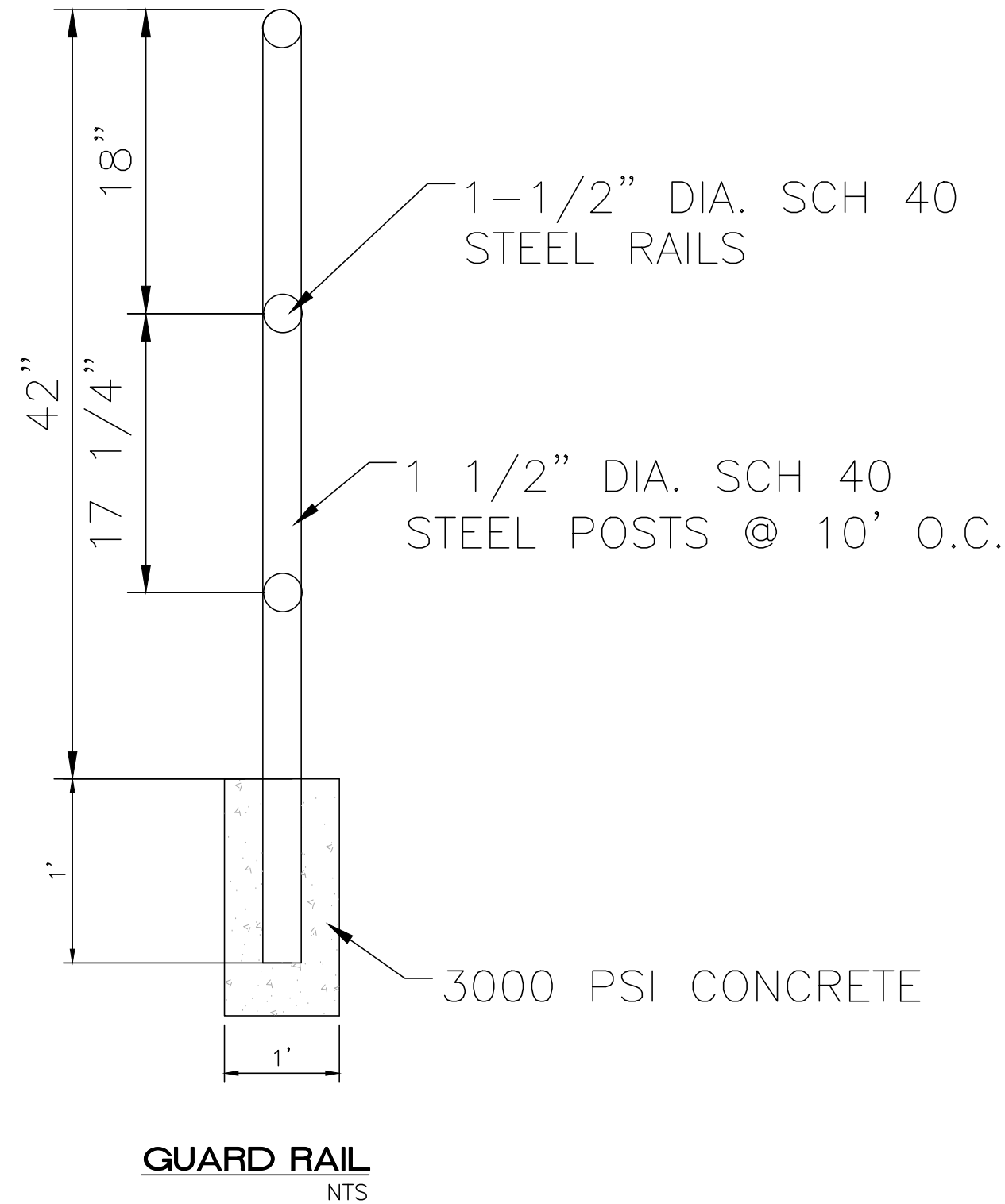
RETAINING WALL DETAIL
NTS

CONSTRUCTION NOTES:

- A. EXPANSION JOINT
- B. #4 REBARS @ 6" O.C. LONG AND 12" O.C. TRANSVERSE
- C. 6" COMPACTED SOIL 95% ASTM D 1557
- D. WIDTH OF CHANNEL
- E. KEYED CONSTRUCTION JOINT

GENERAL NOTES:

1. CHANNEL DEPTHS EXCEEDING 2' WILL REQUIRE SEPARATE DESIGN FOR FLOOR AND WALLS.
2. TYPE B LINING WILL BE USED ONLY WHERE NO UTILITIES ARE LOCATED OR PROPOSED.
3. UP TO 16' WIDTH USE 4" INVERTED CROWN. 16' WIDTH AND OVER USE 6" INVERTED CROWN.
4. WARNING: THESE WALLS ARE NOT DESIGNED TO SUPPORT THE ADDITION OF GARDEN OR RETAINING TYPE WALLS.
5. THE OUTSIDE OF DRAINAGE WALLS SHALL NOT EXTEND BEYOND EASEMENT LINES OR ROW LINES.
6. 6" CONC. BLOCK WITH CORES FILLED WITH CONC. AND #4 BARS INSERTED INTO CORES AT 1'-6" O.C. MAY BE SUBSTITUTED FOR FORMED CONC. WALLS.

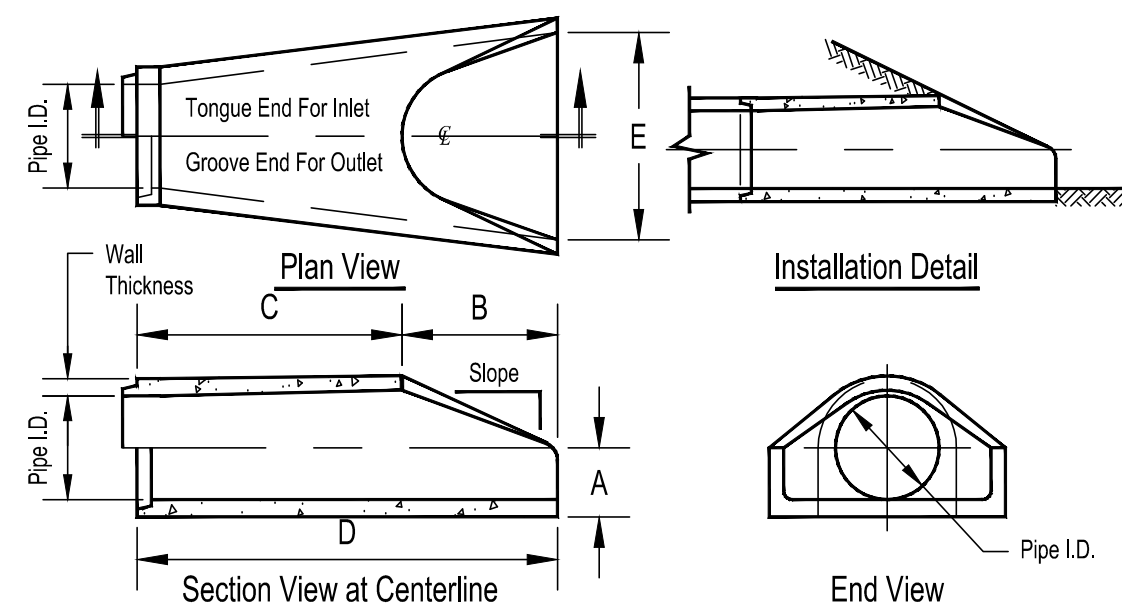


GUARD RAIL
NTS



Concrete Pipe Division

Flared End Section
12" - 72" Diameter Pipe



Pipe Inner Diameter (inches)	Wall Thickness (inches)	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	Slope
12	2	4	24	48 7/8	72 7/8	30	3:1
15	2 1/4	6	27	46	73	30	3:1
18	2 1/2	9	27	46	73	36	3:1
24	3	9 1/2	43 1/2	30	73 1/2	48	3:1
30	3 1/2	12	54	19 3/4	73 3/4	60	3:1
36	4	15	63	34 3/4	97 3/4	72	3:1
42	4 1/2	21	63	35	98	78	3:1
48	5	24	72	26	98	84	3:1
54	5 1/2	27	65	35	100	90	2.4:1
60	6	30	60	39	99	96	2:1
66	6 1/2	32	78	21	99	102	2:1
72	7	34	78	21	99	108	2:1

Dimensions may vary depending upon equipment availability.

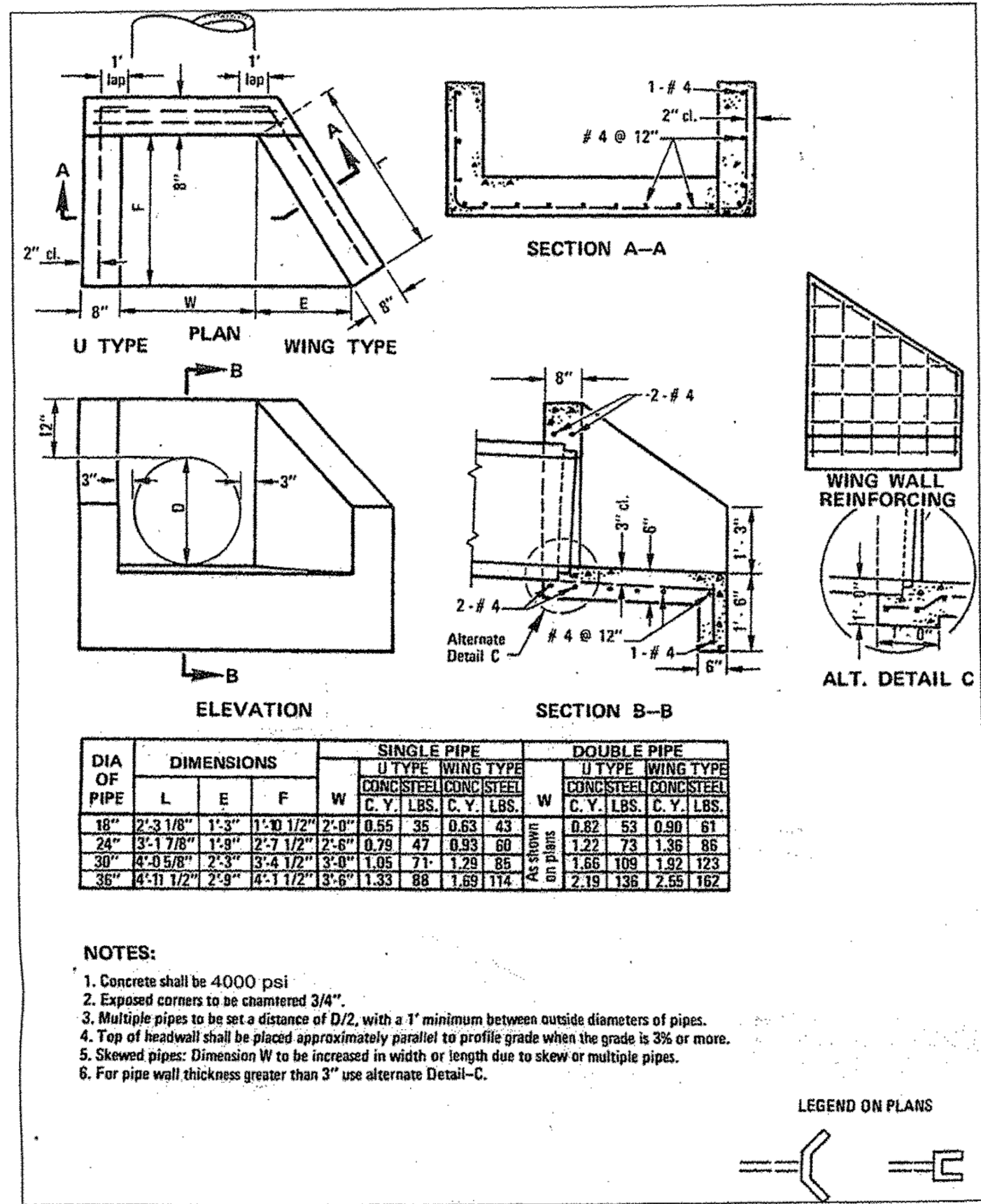
Notes:

1. Produced to meet ASTM specifications.
2. Contact a Concrete Pipe Division representative for details not listed on this sheet.

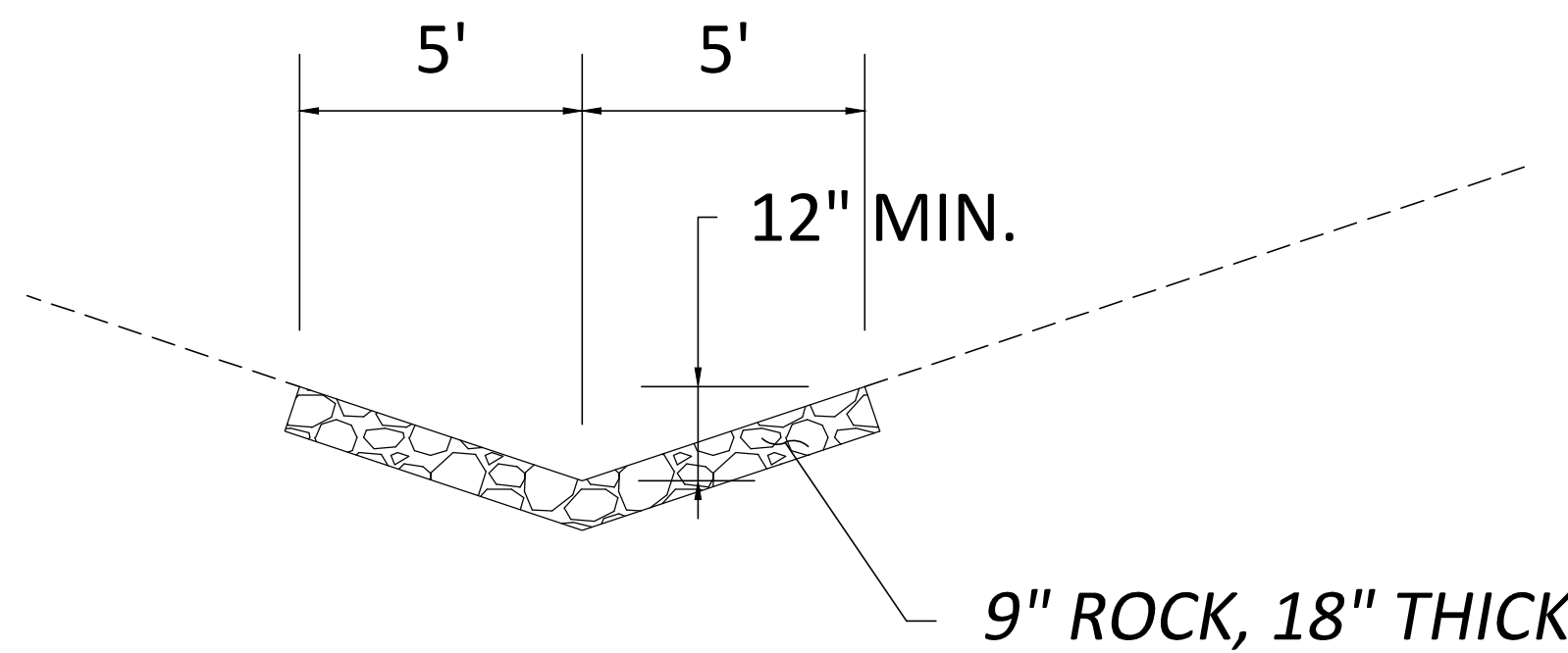
Rinker 024

FLARED END SECTION DETAIL




SCALE: NTS



HEADWALL DETAIL
NTS



ROCK LINED SWALE
NTS

<div>ENGINEER'S SEAL</div> <div><div>RONALD R. BOHANNAN NEW MEXICO 7868 PROFESSIONAL ENGINEER</div><div><div>02/23/2022</div></div><div>RONALD R. BOHANNAN P.E. #7868</div></div>	<div>SANDIA LAB FCU</div> <div>RIO GRANDE + I-40</div> <div>GRADING AND DRAINAGE DETAILS</div> <div><div></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>	<div>DRAWN BY</div> <div>LN</div>
		<div>DATE</div> <div>02-22-2022</div>
		<div>DRAWING</div> <div>2012100-GR</div>
		<div>SHEET #</div> <div>C3.4</div>
		<div>JOB #</div> <div>2012100</div>