

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

February 21, 2024

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

**RE: Playa Del Sur Subdivision
Conceptual Grading & Drainage Plans
Engineer's Stamp Date: 02/02/2024
Hydrology File: H11D075**

Dear Mr. Bohannon:

Based upon the information provided in your submittal received 1/26/2024, the Conceptual Grading & Drainage Plan is preliminary approved for Grading Permit and for action by the DHO for Platting action.

PO Box 1293

PRIOR TO BUILDING PERMIT:

Albuquerque

- Provide more detailed design as needed in order to obtain Hydrology's approval.

NM 87103

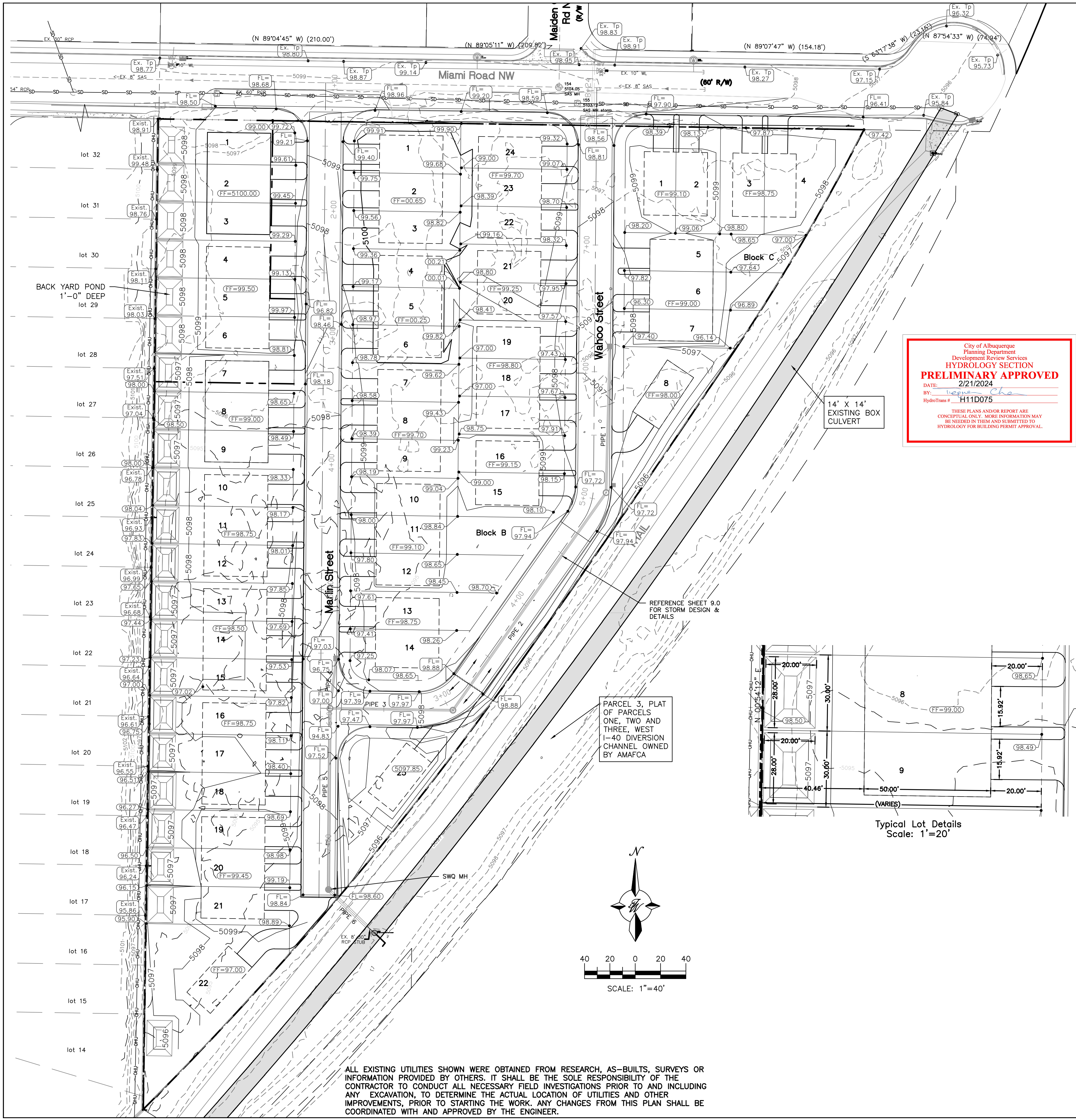
As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

www.cabq.gov

If you have any questions, please contact me at 505-924-3695 or tchen@cabq.gov.

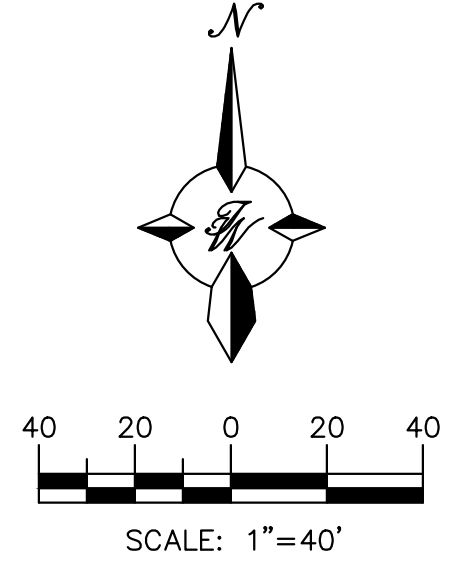
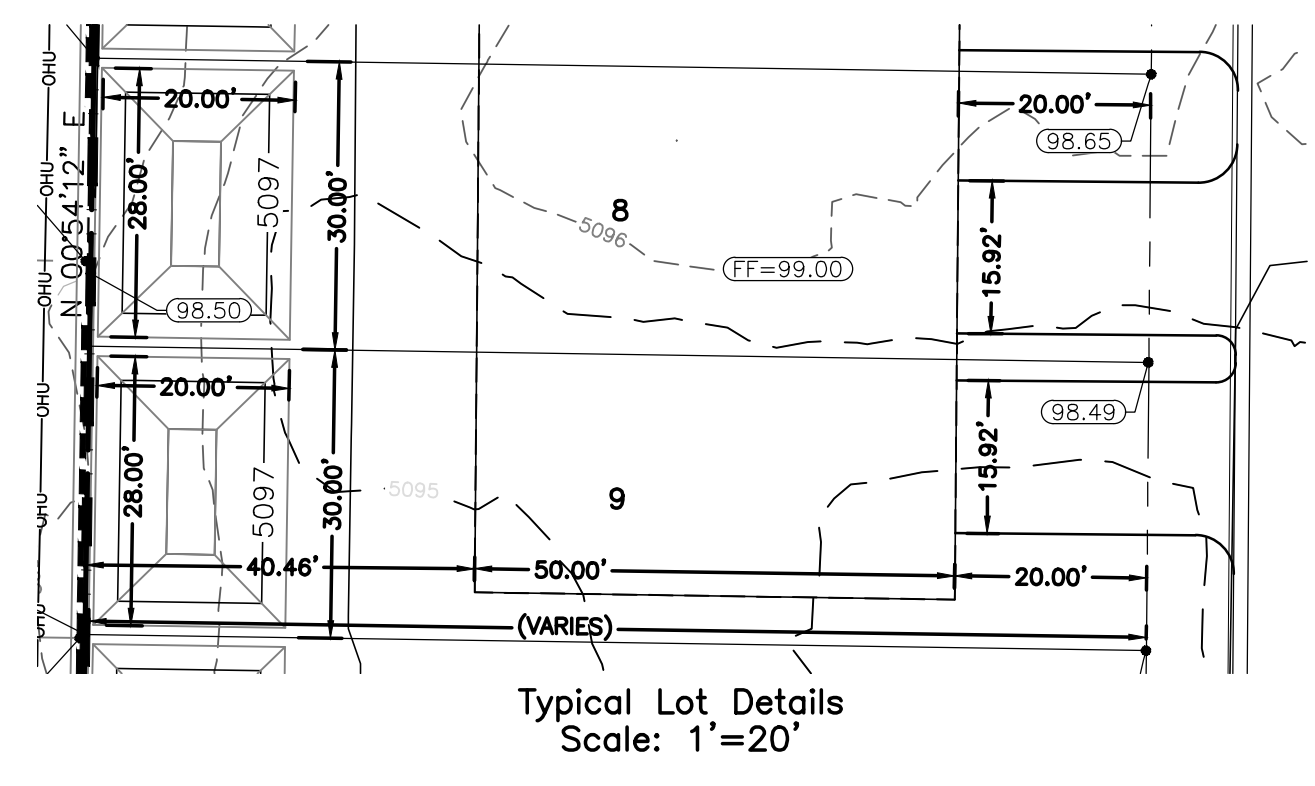
Sincerely,

Tiequan Chen P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services

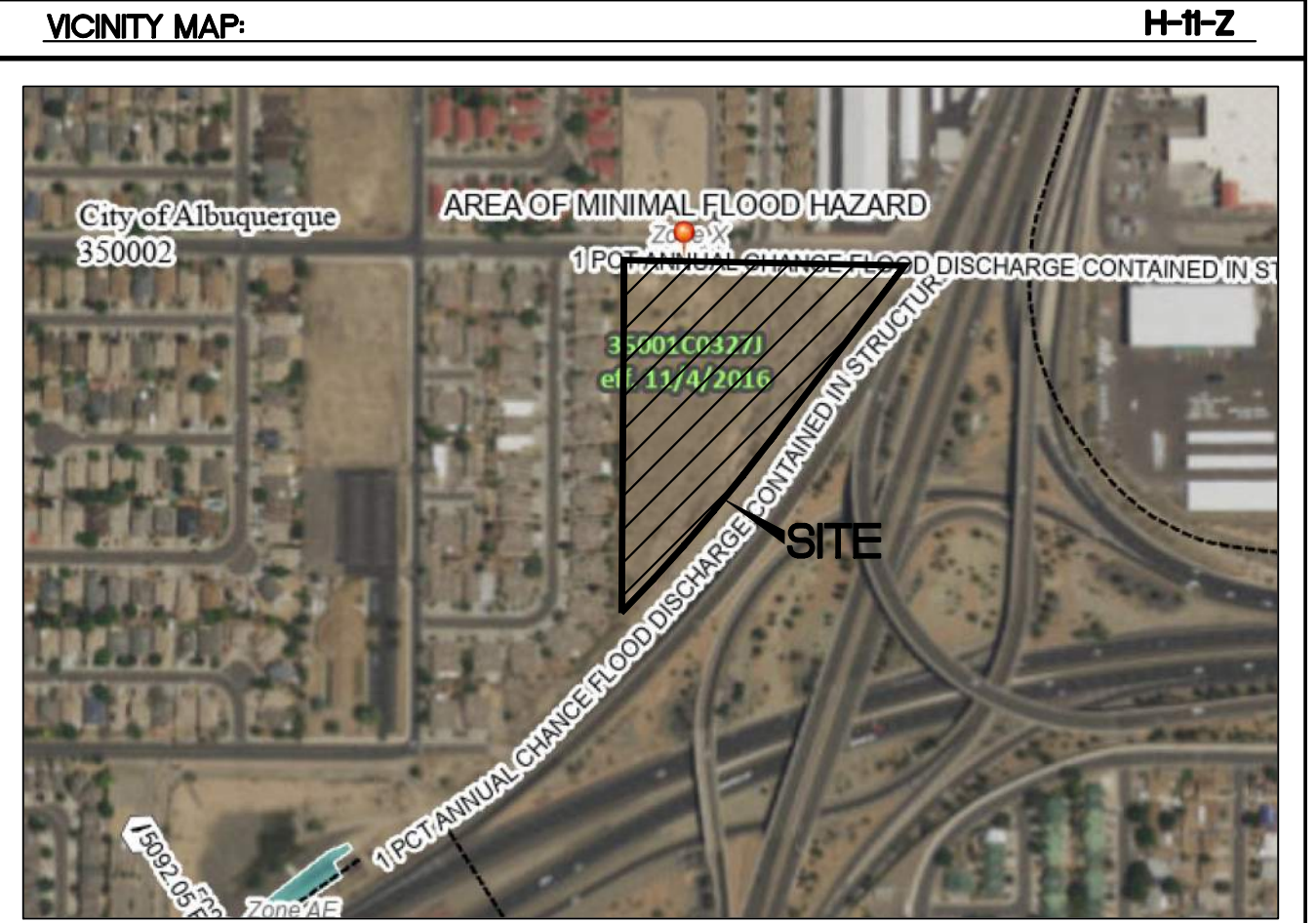
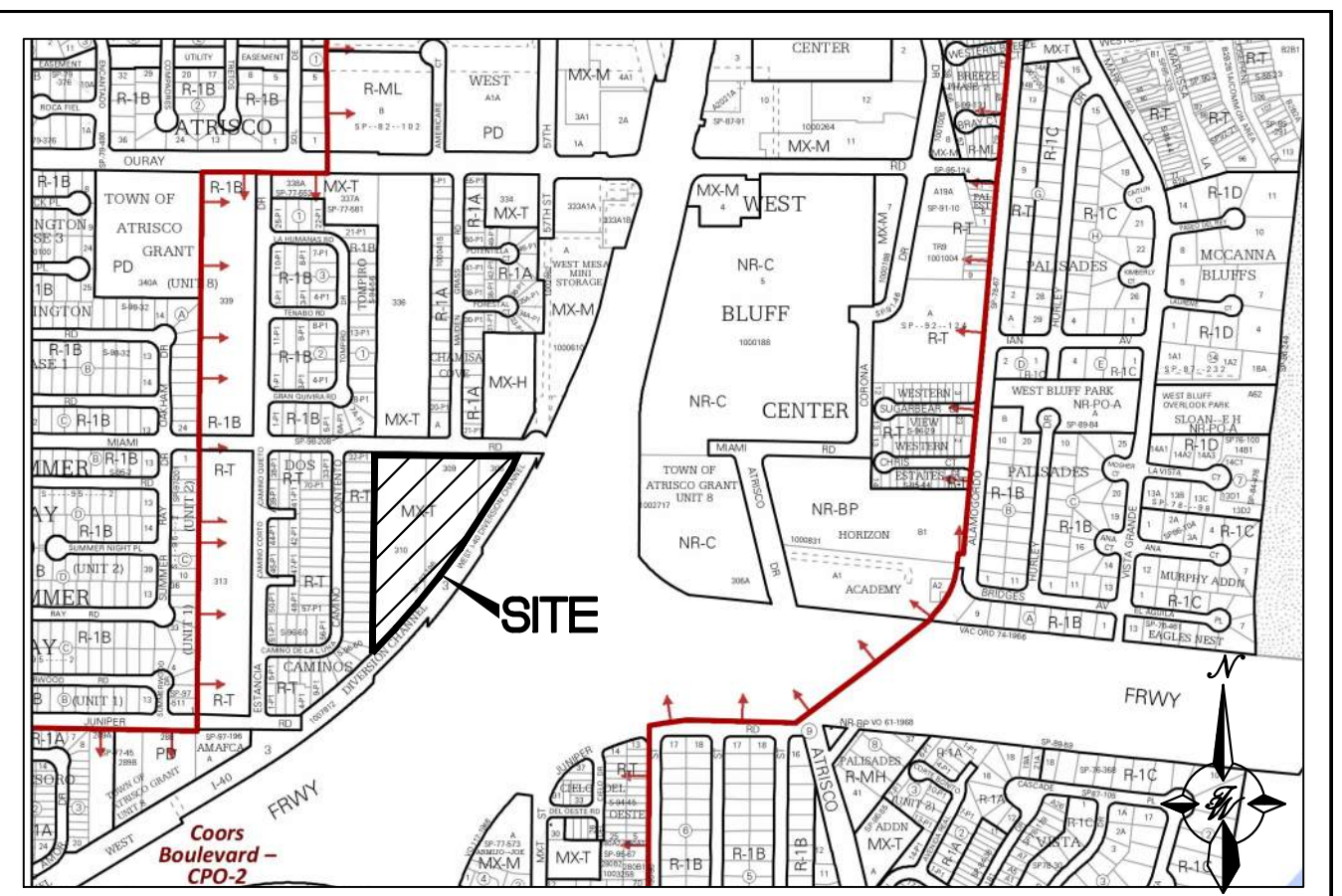


- LEGEND**
- CURB & GUTTER
 - BOUNDARY LINE
 - EASEMENT
 - CENTERLINE
 - RIGHT-OF-WAY
 - BUILDING
 - SIDEWALK
 - SCREEN WALL
 - RETAINING WALL
 - CONTOUR MAJOR
 - CONTOUR MINOR
 - SPOT ELEVATION
 - FLOW ARROW
 - EXISTING CURB & GUTTER
 - EXISTING BOUNDARY LINE
 - EXISTING CONTOUR MAJOR
 - EXISTING CONTOUR MINOR
 - EXISTING SPOT ELEVATION

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED
DATE: 2/21/2024
BY: [Signature]
HydroTrans # H11D075
THESE PLANS AND/OR REPORT ARE
CONCEPTUAL ONLY. MORE INFORMATION MAY
BE NEEDED IN THEM AND SUBMITTED TO
HYDROLOGY FOR BUILDING PERMIT APPROVAL.



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.

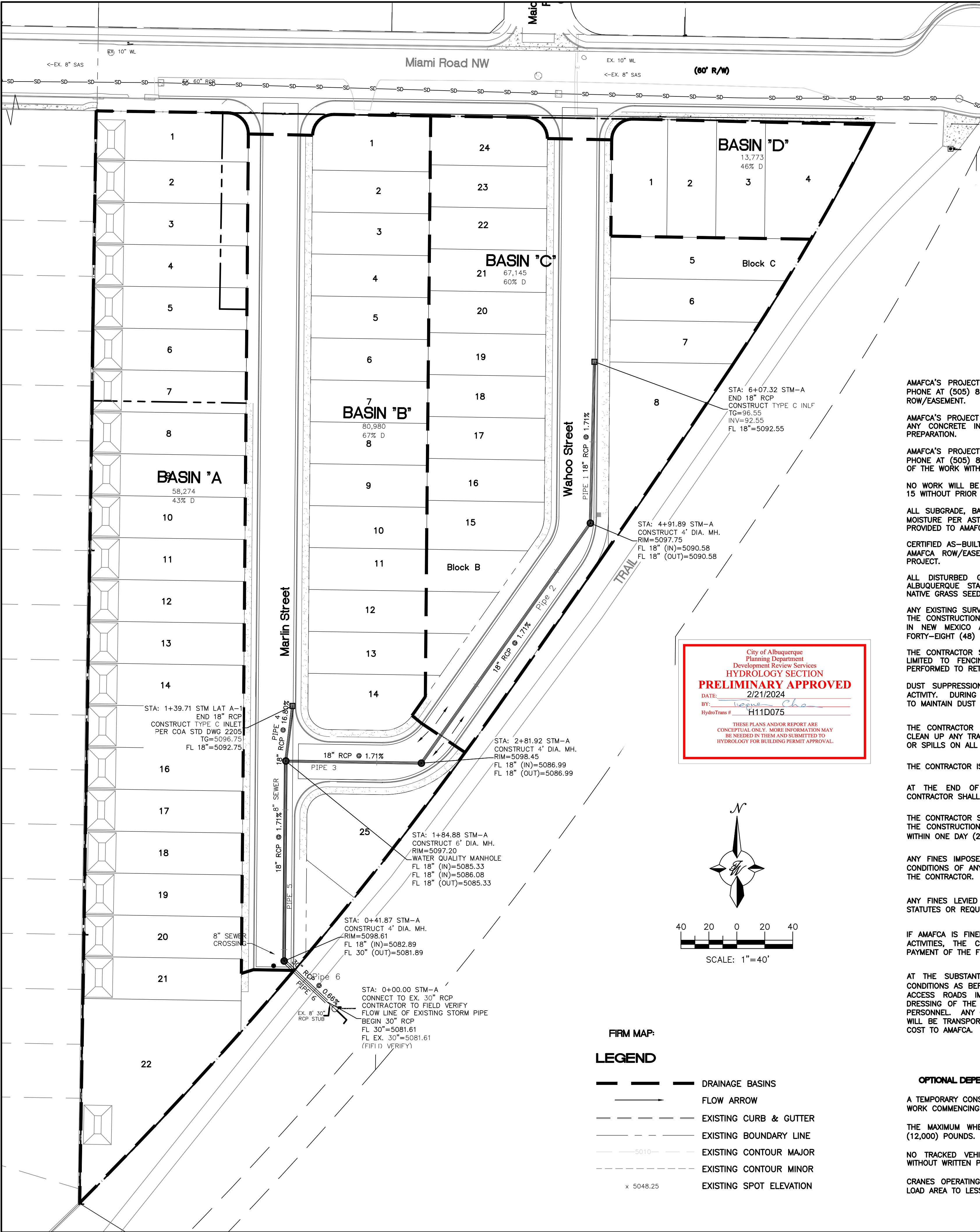


- PRIVATE DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR (SPECIAL ORDER 19 - '80-19')**
- BUILD SIDEWALK CULVERT PER COA STD DWG 2236.
 - CONTACT STORM MAINTENANCE AT (505)857-8033 TO SCHEDULE A MEETING PRIOR TO FORMING.
 - AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY 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 LOCATION OF ALL OBSTRUCTIONS. SHOULD CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT 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 MAINTENANCE AT (505)857-8033 TO SCHEDULE A CONSTRUCTION INSPECTION. FOR EXCAVATING AND BARRICADING INSPECTIONS, CONTACT CONSTRUCTION COORDINATION AT (505)924-3416.

APPROVED FOR CONSTRUCTION WITHIN AMAFCA RIGHT OF WAY/EASEMENT

(FOR AMAFCA)

	PLAYA DEL SUR COORS AND I40		DRAWN BY AS
	CONCEPTUAL GRADING & DRAINAGE PLAN		DATE 02/02/24
	 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.terrawestllc.com		DRAWING 223024-X-GRE
			SHEET # 5
		JOB # 2023024	



Weighted E Method

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (in)	Volume (ac-ft)	Flow cfs	Weighted E (in)	Volume (ac-ft)	Flow cfs
A	80,980	1.86	0%	0	57%	1.06	0%	0.00	43%	0.80	1.379	0.214	5.58	0.763	0.118	2.91
B	76,978	1.77	0%	0	33%	0.58	0%	0.00	67%	1.18	1.742	0.256	6.14	1.044	0.154	3.52
C	67,145	1.54	0%	0	40%	0.62	0%	0.00	60%	0.92	1.636	0.210	5.14	0.962	0.124	2.88
D	13,773	0.32	0%	0	54%	0.17	0%	0.00	46%	0.15	1.425	0.038	0.97	0.798	0.021	0.51
											3.05		17.83			
Pre	238,876	5.48	0%	0	100%	5.48	0%	0.00	0%	0.00	0.730	0.334	11.85	0.260	0.119	4.44
Lot	3,330	0.08	0%	0	45%	0.03	0%	0.00	55%	0.04	1.561	0.010	0.25	0.904	0.006	0.14

Equations:

Weighted E = Ea * Aa + Eb * Ab + Ec * Ac + Ed * Ad / (Total Area)

Volume = Weighted D * Total Area

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

Water Quality Calculation: 0.42" x 3.05 ac = 4,650 cubic feet (0.107 ac-ft)

Excess Precipitation, E (inches)			
Zone 1	100-Year	10 - Year	
Ea	0.55	0.11	
Eb	0.73	0.26	
Ec	0.95	0.43	
Ed	2.24	1.43	

Peak Discharge (cfs/acre)			
Zone 1	100-Year	10 - Year	
Qa	1.54	0.3	
Qb	2.16	0.81	
Qc	2.87	1.46	
Qd	4.12	2.57	

AMAFCA GENERAL CONSTRUCTION NOTES REQUIREMENTS

AMAFCA'S PROJECT MANAGER SHALL BE NOTIFIED BY EMAIL AT LICENSING@AMAFCA.ORG OR BY PHONE AT (505) 884-2215 AT LEAST TEN (10) DAYS PRIOR TO START OF ANY WORK IN AMAFCA ROW/EASEMENT.

AMAFCA'S PROJECT MANAGER SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY CONCRETE INSTALLATION TO ALLOW FOR INSPECTION OF THE REBAR AND SUBSURFACE PREPARATION.

AMAFCA'S PROJECT MANAGER SHALL BE NOTIFIED BY EMAIL AT LICENSING@AMAFCA.ORG OR BY PHONE AT (505) 884-2215 AT LEAST TEN (10) DAYS PRIOR TO REQUEST FOR FINAL INSPECTION OF THE WORK WITHIN THE AMAFCA RIGHT-OF-WAY OR EASEMENT.

NO WORK WILL BE PERFORMED IN THE AMAFCA ROW/EASEMENT BETWEEN MAY 15 AND OCTOBER 15 WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AMAFCA.

ALL SUBGRADE, BACKFILL AND EMBANKMENT SHALL BE COMPACTED TO 95% (±2% OF OPTIMUM MOISTURE PER ASTM D-1557) WITHIN THE AMAFCA ROW/EASEMENT. TESTING REPORTS SHALL BE PROVIDED TO AMAFCA AT THE FINAL INSPECTION.

CERTIFIED AS-BUILT PLANS SHALL BE SUBMITTED TO AMAFCA FOR ANY CONSTRUCTION WITHIN THE AMAFCA ROW/EASEMENT BEFORE FINAL WRITTEN ACCEPTANCE OR ACKNOWLEDGEMENT OF THE PROJECT.

ALL DISTURBED GROUND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 1012 NATIVE GRASS SEEDING, AS CURRENTLY UPDATED.

ANY EXISTING SURVEY CONTROL MONUMENTS THAT ARE DISTURBED OR DAMAGED AS A RESULT OF THE CONSTRUCTION OR MAINTENANCE ACTIVITIES, SHALL BE REPLACED BY A LICENSED SURVEYOR IN NEW MEXICO AT THE CONTRACTOR'S EXPENSE. AMAFCA SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY MONUMENT PLACEMENT.

THE CONTRACTOR SHALL MAINTAIN OR REPAIR ALL AMAFCA INFRASTRUCTURE INCLUDING BUT NOT LIMITED TO FENCING, GATES, SIGNAGE, AND ALL OTHER FACILITIES. ALL REPAIRS WILL BE PERFORMED TO RETURN FACILITIES TO ORIGINAL OR AMAFCA-APPROVED CONDITION.

DUST SUPPRESSION SHALL BE MAINTAINED SEVEN (7) DAYS A WEEK DURING CONSTRUCTION ACTIVITY. DURING PERIODS OF CONSTRUCTION INACTIVITY, THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN DUST CONTROL MEASURES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TRACK-OUT REDUCTION MEASURES AND CLEAN UP ANY TRACK-OUT OF MATERIAL. THE CONTRACTOR SHALL CLEAN UP ANY SOIL DEPOSITS OR SPILLS ON ALL PAVED ROADS ALONG HAUL ROUTES.

THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC AND PEDESTRIAN CONTROL.

AT THE END OF EACH WORKDAY AND DURING TIMES OF CONSTRUCTION INACTIVITY, THE CONTRACTOR SHALL ENSURE ALL ACCESS GATES TO THE FACILITY ARE CLOSED AND LOCKED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRASH AND DEBRIS REMOVAL IN THE AREA OF THE CONSTRUCTION ACTIVITY. ALL GRAFFITI WILL BE REMOVED OR APPROPRIATELY COVERED UP WITHIN ONE DAY (24 HOURS).

ANY FINES IMPOSED AGAINST AMAFCA DUE TO THE CONTRACTOR'S ACTIVITIES THAT VIOLATE THE CONDITIONS OF ANY REQUIRED DUST OR STORMWATER QUALITY PERMIT SHALL BE REIMBURSED BY THE CONTRACTOR.

ANY FINES LEVIED AGAINST THE CONTRACTOR DUE TO ITS ACTIVITIES THAT VIOLATE ANY LOCAL STATUTES OR REQUIREMENTS SHALL BE PAID BY THE CONTRACTOR.

IF AMAFCA IS FINED AS BEING THE LANDOWNER OF THE PROPERTY, DUE TO THE CONTRACTOR'S ACTIVITIES, THE CONTRACTOR SHALL REIMBURSE AMAFCA FOR ALL COSTS ASSOCIATED WITH PAYMENT OF THE FINE BY AMAFCA.

AT THE SUBSTANTIAL COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL RESTORE TO CONDITIONS AS BEFORE CONSTRUCTION OR IMPROVE TO AMAFCA'S REQUIREMENT THE MAINTENANCE ACCESS ROADS IMPACTED BY THE PROJECT INCLUDING ALL NECESSARY GRADING AND TOP DRESSING OF THE ROAD BASE OR GRAVEL MATERIAL AT THE DIRECTION OF AUTHORIZED AMAFCA PERSONNEL. ANY CONCRETE, ASPHALT OR OTHER DEBRIS FOUND WITHIN THE CONSTRUCTION AREA WILL BE TRANSPORTED OFF SITE AND APPROPRIATELY DISPOSED OF BY THE CONTRACTOR AT NO COST TO AMAFCA.

OPTIONAL DEPENDING ON FACILITY:

A TEMPORARY CONSTRUCTION AND ACCESS LICENSE IS REQUIRED TO BE EXECUTED PRIOR TO WORK COMMENCING IN AMAFCA ROW/EASEMENT

THE MAXIMUM WHEEL LOAD ALLOWED IN THE AMAFCA CHANNEL SHALL BE TWELVE THOUSAND (12,000) POUNDS.

NO TRACKED VEHICLES WILL BE ALLOWED IN AMAFCA HARD-LINED OR CONCRETE CHANNEL WITHOUT WRITTEN PERMISSION FROM AMAFCA.

CRANES OPERATING WITH OUTRIGGERS IN THE CHANNEL SHALL LIMIT THE OUTRIGGER FOOTPRINT LOAD AREA TO LESS THAN TWELVE THOUSAND (12,000) POUNDS.

Pipe Capacity

Pipe	D (in)	Slope (%)	Area (ft ²)	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
1	18	1.73	1.77	0.375	13.85	5.14	2.91
2	18	1.73	1.77	0.375	13.85	5.14	2.91
3	18	1.73	1.77	0.375	13.85	5.14	2.91
4	18	2.00	1.77	0.375	14.90	6.14	3.47
5	18	2.00	1.77	0.375	14.90	11.28	6.38
6	30	1.03	4.91	0.625	41.74	11.28	2.30

Manning's Equation:

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

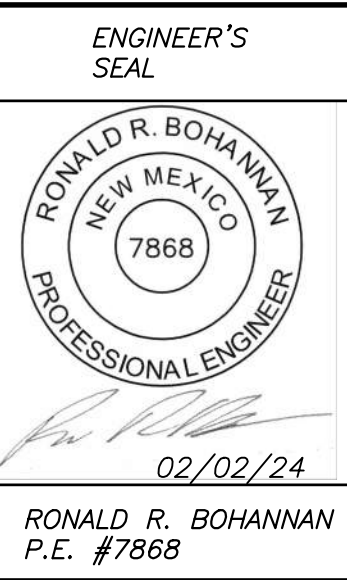
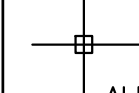
A = Area
R = D/4
S = Slope
n = 0.013

EXISTING DRAINAGE:

THIS SITE IS LOCATED AT THE NORTHWEST CORNER OF THE INTERSTATE 40 AND COORS BOULEVARD INTERCHANGE. THE SITE IS BOUNDED BY A RESIDENTIAL SUBDIVISION ON THE WEST AND NORTH AND BY COORS BOULEVARD ON THE EAST AND SOUTH CONTAINING CONTAINING APPROXIMATELY 5.20 ACRES. THE SITE IS CURRENTLY VACANT AND DRAINS FROM NORTH TO SOUTH. THERE ARE NO OFFSITE FLOWS THAT ENTER THE SITE. THE SITE IS NOT LOCATED IN A FLOOD PLAIN AS SHOWN ON FIRM MAP 35001C0327J. THE SITE CURRENTLY DISCHARGES 10.82 CFS.

PROPOSED DRAINAGE:

THE PROJECT CONSISTS OF A RESIDENTIAL SUBDIVISION. WATERBLOCKS WILL BE CREATED AT THE INTERSECTIONS WITH MIAMI ROAD TO PREVENT WATER FROM THAT STREET ENTERING THE SUBDIVISION. THE SITE IS DIVIDED INTO FOUR BASINS. BASIN "A" IS ALONG THE WEST PROPERTY LINE NEXT TO AN EXISTING SUBDIVISION. BECAUSE OF THE GRADE OF THE NEW STREET THESE LOTS ARE NOT ABLE TO DRAIN FROM BACK TO FRONT AND CONTAIN BACKYARD RETENTION PONDS SIZED TO HOLD THE 100 YR. 6-HR STORM. THESE PONDS WOULD OVERFLOW TO THE SOUTH AND EVENTUALLY TO THE AMAFCA RIGHT OF WAY IN LARGER STORMS. OPENINGS WILL BE PROVIDED IN THE WALLS BETWEEN THE LOTS TO ALLOW EXCESS STORM WATER TO FLOW TO THE SOUTH. A DRAINAGE EASEMENT FOR THESE PONDS WILL BE PROVIDED ON THE SUBDIVISION PLAT. BASIN "B" CONSISTS OF MARLIN STREET AND THE LOTS ON THE EAST SIDE OF MARLIN STREET. BASIN "B" DRAINS TO A DROP INLET AT THE INTERSECTION WITH WAHOO STREET AND CONVEYED TO THE EXISTING AMAFCA BOX CULVERT VIA STORM SEWER. BASIN "C" CONSISTS OF WAHOO STREET AND LOTS ON BOTH SIDES. BASIN "C" DRAINS TO A DROP INLET MIDBLOCK AND CONVEYED TO THE EXISTING AMAFCA BOX CULVERT VIA STORM SEWER. BASIN "D" CONSISTS OF FOUR LOTS ALONG MIAMI ROAD AND WILL DRAIN TO THAT ROAD. THE FLOWS IN MIAMI ROAD ARE COLLECTED VIA DROP INLETS AND CONVEYED VIA STORM SEWER TO THE AMAFCA BOX CULVERT. THE STORM SEWER WILL DRAIN TO AN EXISTING 30" RCP STUB FROM THE WEST BLUFF OUTFALL BOX CULVERT LOCATED ALONG THE EAST PROPERTY LINE. BASED ON THE WEST BLUFF OUTFALL PHASE II I-40 STORM SEWER INTERCEPTOR REPORT THIS PROJECT MAY DISCHARGE DEVELOPED FLOWS WHICH IS 16.27 CFS. THE EXISTING 30" STUB HAS A CAPACITY OF 58.16 CFS. THE WATER QUALITY VOLUME REQUIREMENT IS 0.107 AC-FT. BASIN "A" PONDS 0.214 AC-FT, WHICH IS TWICE WHAT IS REQUIRED.

	PLAYA DEL SUR COORS AND I40	DRAWN BY AS
	DRAINAGE & STORM PLAN	DATE 02/02/24
	 5571 MIDWAY PARK PL. NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET # C9 JOB # 2023024