# CITY OF ALBUQUERQUE

*Planning Department* David Campbell, Director



Mayor Timothy M. Keller

June 6, 2019

Matt Satches, PE Bohannan Huston, Inc. 7500 Jefferson St NE Albuquerque, NM 87109

### RE: 2440 Louisiana NE Grading and Drainage Plan Engineer's Stamp Date: 5/14/19 Hydrology File: H19D084

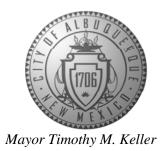
Dear Mr. Satches:

PO Box 1293		nnot be approved for Grading or Paving Permit until the following corrections are made:
Albuquerque	1.	Onsite detention is required. The capacity of the storm drain in Louisiana has been exceeded; therefore discharge is limited to 0.1cfs/ac. No increased runoff to overcapacity systems can be authorized per § 14-5-2-12 (G) of the Albuquerque Code of Ordinances.
NM 87103	2.	Provide two detailed and scaled exhibits of the land treatments; one for existing and one for proposed. Delineate between areas of impervious and pervious cover on both and provide the area take-offs.
www.cabq.gov	3.	Storm water quality calculations are missing. This site qualifies as redevelopment and is only required to retain runoff from the 80th percentile storm (Vol. = $0.26$ ''*Imp.Area).
	4.	A Bernalillo County Recorded <u>Drainage Covenant (No Public Easement)</u> is required for the storm water quality pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee (\$25, payable to Bernalillo County) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.
	5.	Show the contours and grades for the adjacent underground parking structure entrance. Special care must be taken to ensure no additional runoff is directed toward it. New survey data is required.
	6.	Provide written and signed permission from the adjoining property to the south for any new discharge to their property.

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# CITY OF ALBUQUERQUE

*Planning Department* David Campbell, Director



7. Include project benchmark and datum.

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

Sincerely,

Dana M. Peterson Senior Engineer, Planning Dept. Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



## City of Albuquerque

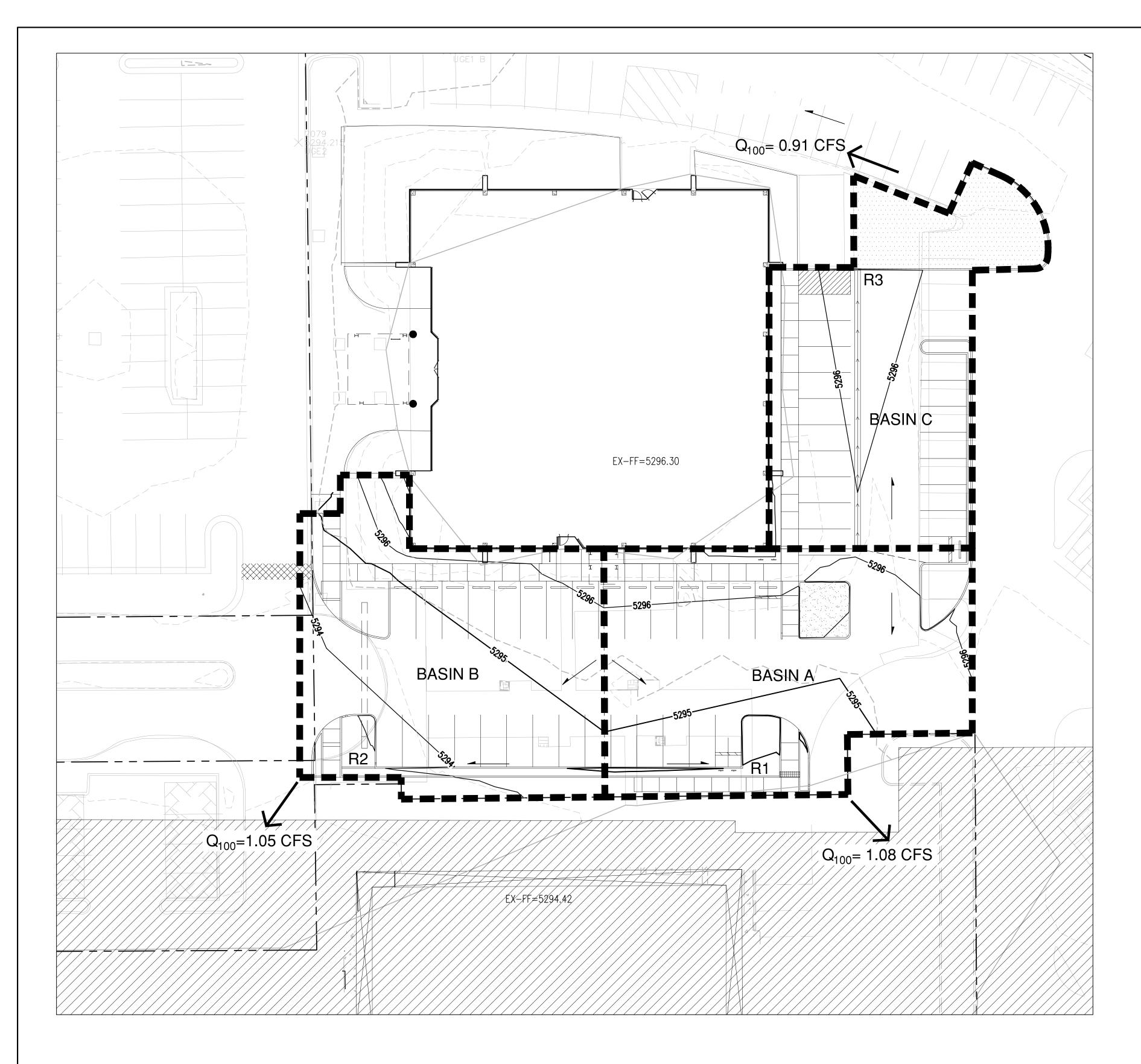
Planning Department Development & Building Services Division DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

Project Title:	Building	g Permit #: Hydrology File #:							
DRB#:	EPC#:	Work Order#:							
Legal Description:									
City Address:									
Applicant:		Contact:							
Address:									
		E-mail:							
Owner:		Contact:							
Address:									
Phone#:	Fax#:	E-mail:							
TYPE OF SUBMITTAL: PLAT (	# OF LOTS)	RESIDENCE DRB SITE ADMIN SITE							
IS THIS A RESUBMITTAL?:	Yes	No							
DEPARTMENT: TRAFFIC/ TRA	ANSPORTATION	HYDROLOGY/ DRAINAGE							
Check all that Apply:		TYPE OF APPROVAL/ACCEPTANCE SOUGHT:							
TYPE OF SUBMITTAL:		BUILDING PERMIT APPROVAL							
ENGINEER/ARCHITECT CERTIF	ICATION	CERTIFICATE OF OCCUPANCY							
CONCEPTUAL G & D PLAN		PRELIMINARY PLAT APPROVAL							
GRADING PLAN		SITE PLAN FOR SUB'D APPROVAL							
DRAINAGE MASTER PLAN		SITE PLAN FOR BLDG. PERMIT APPROVAL							
DRAINAGE REPORT		FINAL PLAT APPROVAL SIA/ RELEASE OF FINANCIAL GUARANTEE							
FLOODPLAIN DEVELOPMENT PI	ERMIT APPLIC	FOUNDATION PERMIT APPROVAL							
ELEVATION CERTIFICATE		GRADING PERMIT APPROVAL							
CLOMR/LOMR		OKADING PERMIT APPROVAL							
TRAFFIC CIRCULATION LAYOU	JT (TCL)	PAVING PERMIT APPROVAL							
TRAFFIC IMPACT STUDY (TIS)		GRADING/ PAD CERTIFICATION							
OTHER (SPECIFY)		WORK ORDER APPROVAL							
PRE-DESIGN MEETING?		CLOMR/LOMR							
		FLOODPLAIN DEVELOPMENT PERMIT							
		OTHER (SPECIFY)							
DATE SUBMITTED:	Bv								

COA STAFF:

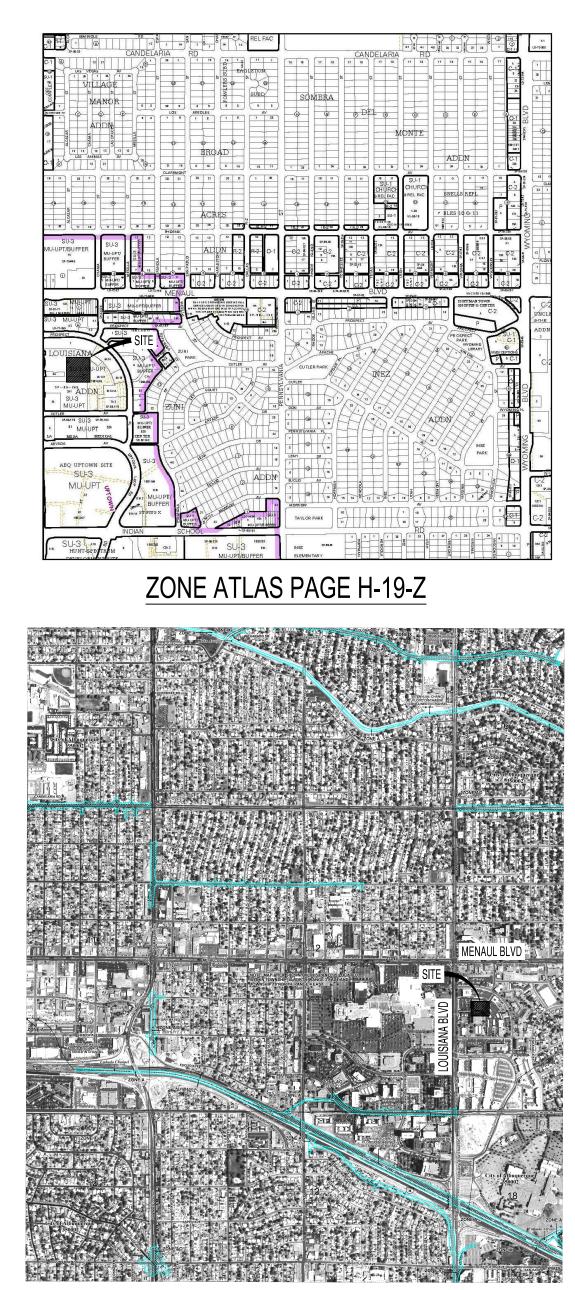
ELECTRONIC SUBMITTAL RECEIVED:

FEE PAID:



													40 LOUK asin Data						
												This table is	s based on t	ne DPM Sec	tion 22.2, Zone:	3			
								Basin	Area	Area	Lanc	l Treatmei	nt Percent	ages	Q(100yr)	Q(100yr)	V(100yr)	V <sub>(100yr-6hr)</sub>	<b>V</b> <sub>(100yr-24hr)</sub>
								ID	(SQ. FT)	(AC.)	Α	В	С	D	(cfs/ac.)	(CFS)	(inches)	(CF)	(CF)
			Co	oncrete Rundown															
Rundown		Rundown	Actual	Min Weir**	Weir Opening	Weir Opening	Capacity*	EXISTING BASIN A	9920	0.23	0.0%	0.0%	35.0%	65.0%	4.47	1.02	1.99	1641	1910
#	Basin ID	Туре	Flow (Q100)	Length ft	Width ft	Height ft	CFS	PROPOSED BASIN A	9920	0.23	0.0%	0.0%	17.0%	83.0%	4.75	1.08	2.18	1801	2144
R1	A	Rectang	1.08	2	2	0.5	1.87	EXISTING BASIN B	9582	0.22	0.0%	0.0%	30.0%	70.0%	4.55	1.00	2.04	1628	1908
R2	В	Rectang	1.05	2	2	0.5	1.87	PROPOSED BASIN B	9582	0.22	0.0%	0.0%	15.0%	85.0%	4.78	1.05	2.20	1756	2096
R3	C	Rectang	0.91	1	5	0.5	4.69	EXISTING BASIN C	8608	0.20	0.0%	0.0%	67.0%	33.0%	3.97	0.78	1.64	1179	1297
				Weir Eq: Q=2.65L(h	า^1.5) - **			PROPOSED BASIN C	8608	0.20	0.0%	0.0%	27.0%	73.0%	4.60	0.91	2.07	1486	1747

\\a-abq-fs2\ABQ-Projects\20190551\CDP\Plans\General\20190551\_DMP.dwg Mon, 20-May-2019 - 10:51:am, Plotted by: MSATCHES



FEMA FIRM MAP # 35001C0352H



CONDITIONS OF THE SITE ARE FAIRLY FLAT. THE DISTURBED

AREA IS APPROXIMATELY 0.65 ACRES, AND CONSISTS OF AN

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ENGINEER'S SEAL

EXISTING CONDITIONS: THE SITE IS LOCATED NEAR THE INTERSECTION OF LOUISIANA BLVD AND CUTLER AVE, EAST OF CORONADO MALL, SOUTH OF THE LEWIS UNIVERSITY BUILDING. THE SITE CONSISTS OF EXISTING PARKING LOTS AND COVERED PARKING AREAS BUILT AROUND AN EXISTING 7 STORY BUILDING. THE CURRENT

EXISTING PARKING AREA AND COURTYARD. REVIEW OF THE CITY HYDROLOGY FILES (COA HYDROLOGY FILE #H19D084) AND THE EXISTING TOPOGRAPHIC SURVEY SHOWS THERE ARE SEVERAL EXISTING INLETS LOCATED AROUND THE SITE WHICH DISCHARGE INTO THE PUBLIC RIGHT OF WAY. ALL THE DRAINAGE FROM THE SITE AND SURROUNDING AREA APPEARS TO ENTER THE EXISTING 60" STORM DRAIN LOCATED WITHIN LOUISIANA BLVD VIA A DIRECT STORM DRAIN CONNECTION (NORTHWEST AND SOUTHWEST OF SITE) OR VIA SURFACE FLOW WHICH IS PICKED UP IN CURB INLETS AT THE INTERSECTION OF CUTLER AND LOUISIANA (SOUTHEAST OF SITE). THIS IS CONSISTENT WITH THE APPROVED DRAINAGE REPORT FOR AMERICAN FINANCIAL CENTER (HYDROLOGY FILE H19-D1) DATED JANUARY 17, 1984. ACCORDING TO THIS REPORT, THE ALLOWABLE DISCHARGE FROM THE SITE IS DETAINED VIA 4" ORIFICE PLATES ON ALL OUTFLOW PIPES. EXISTING SURFACE PARKING PONDS HELP TO MITIGATE THESE FLOWS AS NECESSARY.

A MORE RECENT GRADING AND DRAINAGE PLAN PREPARED BY LARRY READ AND APPROVED ON JANUARY 11, 2002 FOR PAVING PERMIT AND SITE PLAN FOR BUILDING PERMIT, CONSTRUCTED ADDITIONAL ONSITE PARKING. ACCORDING TO THIS PLAN, THE SITE UTILIZES THE PARKING LOTS AS DETENTION PONDS DURING LARGER STORM EVENTS. THESE PONDS AND OTHER ONSITE DRAINAGE IMPROVEMENTS WERE VERIFIED BY THE TOPOGRAPHIC SURVEY.

PER FEMA MAP PANEL #35001C0352H, THE SITE IS NOT LOCATED WITHIN A KNOWN FLOOD ZONE. IZ

PROPOSED CONDITIONS:

A NEW DRIVE AISLE AND ASSOCIATED PARKING IS PROPOSED SOUTH OF THE LEWIS UNIVERSITY BUILDING. THIS DRIVE AISLE WILL CONNECT THE EXISTING PARKING LOT ON THE EAST TO THE EXISTING PARKING LOT TO THE WEST. HISTORIC OUTFALL LOCATIONS WILL BE MAINTAINED WITH THIS DEVELOPMENT AND ADDITIONAL RUNOFF WILL BE NEGLIGIBLE.

THE SOUTHEASTERN PORTION OF THE SITE (BASIN A) WILL CONTINUE TO DISCHARGE TO THE SOUTHEAST, TOWARD THE EXISTING RETENTION POND AND VARIOUS INLETS THAT ULTIMATELY OUTFALL INTO THE EXISTING 60" STORM DRAIN IN LOUISIANA. THE TOTAL DISCHARGE RATE IS 1.08 CFS.

THE WESTERN PORTION OF THE SITE (BASIN B) WILL CONTINUE TO DISCHARGE TO THE PARKING LOT SOUTHWEST OF THE SITE INTO VARIOUS INLETS THAT OUTFALL INTO THE EXISTING 60" STORM DRAIN IN LOUISIANA. THE TOTAL DISCHARGE RATE IS 1.05 CFS.

THE EASTERN PORTION OF THE SITE (BASIN C), DISCHARGES TO THE NORTH THEN WEST WHERE IT ENTERS EXISTING ONSITE INLETS. THE ULTIMATE OUTFALL FOR THESE INLETS IS THE EXISTING 60" STORM DRAIN IN LOUISIANA. THE TOTAL DISCHARGE RATE IS 0.91 CFS.

AN ADDITIONAL 0.24 CFS IS DISCHARGED FROM THE PROPOSED DRIVE AISLE. THE ENTIRETY OF THE 2440 LOUISIANA PROPERTY DISCHARGES INTO THE 60" EXISTING STORM DRAIN WITHIN LOUISIANA. THIS STORM DRAIN, AT THE INTERSECTION OF CUTLER AND LOUISIANA, HAS A CAPACITY OF 260.50 CFS (BASED OFF OF GRAVITY FLOW). THE ADDITIONAL 0.24 CFS IS APPROXIMATELY 0.09% OF THE PIPE'S TOTAL CAPACITY. SEE EXHIBIT "A" FOR MORE DETAIL.

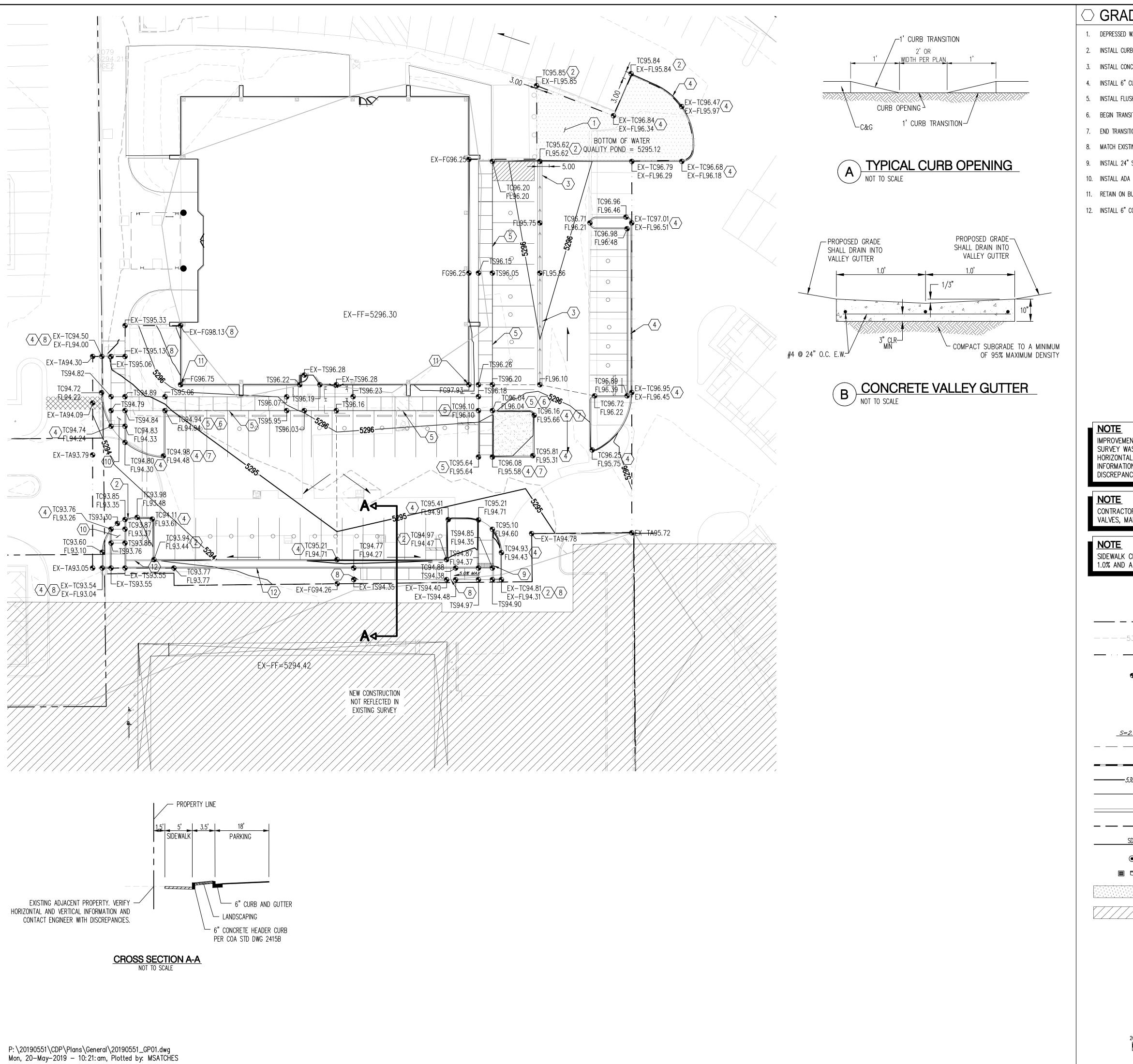
MINIMAL WATER QUALITY HARVESTING AREAS ARE WITHIN THE DISTURBED AREA. ANY WATER QUALITY HARVESTING VOLUME WILL BE PAID CASH-IN-LIEU.

CONCLUSION:

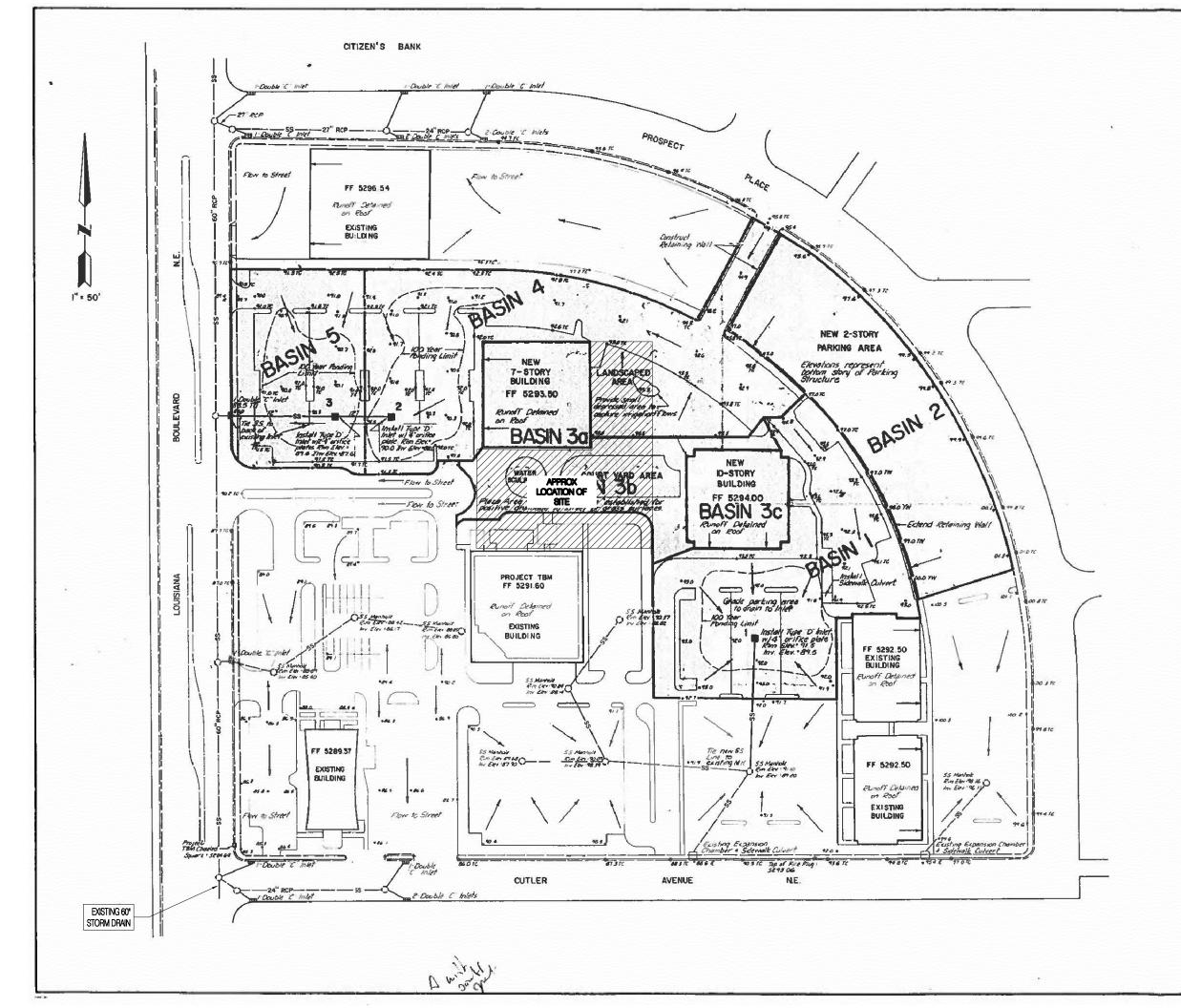
BHI PROJECT NO.

THE CALCULATED DISCHARGE RATE FROM THE SITE IS NEGLIGIBLE GIVEN THE CAPACITY OF THE ULTIMATE OUTFALL LOCATION. THE PROPOSED BASINS DISCHARGE TO THEIR HISTORIC OUTFALL LOCATIONS. THE GRADING AND DRAINAGE PLAN AS PRESENTED IS IN CONFORMANCE WITH CITY HYDROLOGY REQUIREMENTS. WITH THIS SUBMITTAL WE ARE REQUESTING CITY OF ALBUQUERQUE HYDROLOGY PAVING PERMIT APPROVAL.

BHI PROJECT NO.	C	WG NO.	SHEET	C-00	1 <sup>OF</sup>				
	DRAINAGE MAN								
www.bhinc.com		0.877.5332		NON			DESIGNED	CHECKED BY	DRAWN BY
	proposed storm drain inle			DATE			ED BY	ED BY	BΥ
	PROPOSED STORM DRAIN MAN						MHS	MHS	CLK
	- PROPOSED STORM DRAIN LINE								
SD	- PROPOSED INTER CONTOURS								
	- PROPOSED INDEX CONTOURS								
~~~~~~	WATER BLOCK / RIDGE OR HIG	эн Point			5				
• <sup>65.23</sup>	PROPOSED SPOT ELEVATION TC=TOP OF CURB, FL=FLOW TS=TOP OF SIDEWALK, TA= EX=EXISTING, FG=FINISHED TG=TOP OF GRATE, INV=INV	TOP OF ASPHALT GRADE		REMARKS	REVISIONS	DESIGN			
————————————————————	- EXISTING CONTOURS								
	- Property Line								
	PROPOSED DRAINAGE SUB-BA	SIN							
	PROPOSED DRAINAGE BASIN								
	LEGEND						DATE	DATE	DATE
							-		$\sim$



DING KE	YED NOTES	G	ENERAL SHEET NOTES		510	2						
WATER HARVESTING AR RB OPENING PER DETAIL	REA. SEE LANDSCAPE PLAN FOR DETAILS.	A.	ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT. WHERE			)		Ч	_			
	r per detail "b" this sheet.	B.	APPLICABLE, CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS SHALL APPLY. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.			Š	811 OR	1-AI FI	L			
ISH CURB. SITION FROM FLUSH CURB TO 6" CURB AND GUTTER. TION FROM FLUSH CURB TO 6" CURB AND GUTTER.			PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO	L BEFORE FOR UTILITY LG DIAL 811 -800-321-A								
TING ELEVATIONS.	FR COA STD DWC 2236	D.	THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.					-	-			
' SIDEWALK CULVERT PER COA STD DWG 2236. A RAMP. SEE ARCHITECTURE SITE PLAN FOR DETAILS. BUILDING. CONCRETE HEADER CURB PER COA STD DWG 2415B.			E. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO			ENGINEER'S SEAL						
		F.	ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.		REGISTE	51	572 <b>19</b> ESSION	AL WAL	WeineeR			
		G.	CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.									
		H.	OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.	INFORMATION	DATE	DATE	14 4 C	DAIE	DATE		DATE	
		l.	THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL									
		J.	DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.). ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.	AS-BUILT	ACTOR	BY			ATION BY	ų	STED BY	
ENTS HAVE BEEN MADE SINCE ORIGINAL AS COMPLETED. CONTRACTOR TO FIELD VERIFY AL AND VERTICAL EXISTING TOPOGRAPHIC		K.	THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE BERNALILLO COUNTY, TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.	$\left  \right $	CONTRA	WORK STAKED	INSPECTOR'S	AUVEL	FIELD		CORRECTED	
ON AND INFORM ENGINEER WITH ANY ICIES.			ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.									
OR SHALL ADJUST ALL EXISTING & PROPOSED ANHOLES, ETC. TO FINISHED GRADE. CROSS-SLOPES SHALL BE AT A MINIMUM OF A MAXIMUM OF 2.0%.			THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.									
			THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.	KS								
			THE CONTRACTOR SHALL PROVIDE 1 HARD COPY AND 1 ELECTRONIC COPY OF THE EPA STORM WATER POLLUTION PREVENTION PLAN ALONG WITH THE APPROPRIATE SUBMITTAL FEE TO CITY OF ALBUQUERQUE TWO WEEKS PRIOR TO THE START OF SITE DISTURBANCE.	ENCH MARKS								
LEGE	ND	G	RADING GENERAL NOTES	B								
— — PRO	OPERTY LINE	Ρ.	EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.									
	STING CONTOURS ITS OF GRADING	Q.	THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.									
T T E	OPOSED SPOT ELEVATION IC=TOP OF CURB, FL=FLOW LINE IS=TOP OF SIDEWALK, TA=TOP OF ASPHALT EX=EXISTING, FG=FINISHED GRADE IG=TOP OF GRATE, INV=INVERT	R.	ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION." ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS (FIRST									
F	FGL=FINISHED GRADE LOW		PRIORITY), AND/OR THE ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).			ΒY			01/2019	DATE 04/01/2019	01/2019	
	OPOSED DIRECTION OF FLOW TER BLOCK / RIDGE OR HIGH POINT	S.	EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.						DATE 04/01,	DATE 04/	DATE 04/	
	OPOSED RETAINING WALL	T.	IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.									
	OPOSED INDEX CONTOURS OPOSED INTER CONTOURS	U.	THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY.									
<b></b> EAS SD PRO	OPOSED CURB & GUTTER SEMENT OPOSED STORM DRAIN LINE OPOSED STORM DRAIN MANHOLE	V.	A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.			MARKS	VISIONS	ESIGN				
PR(	OPOSED STORM DRAIN INLET	W.	PAD ELEVATION SHALL BE $+/-$ 0.05' FROM BUILDING PLAN ELEVATION.			RE	REV					
	TER QUALITY PONDING AREA W CONSTRUCTION NOT REFLECTED BY STING SURVEY	X.	VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.									
Ņ				$\left  \right $					MHS	MHS	CLK	
			Bohannan A Huston www.bhinc.com 800.877.5332			NO. DATE			DESIGNED BY	CHECKED BY	DRAWN BY	
20 10 0	20		2440 LOUISIANA GRADING PLAN									
1"=2	20'	BHI F	PROJECT NO. DWG NO.		SHEET	;-10	<b>)</b> OF					



#### EXHIBIT "A" HYDROLOGY FILE #H19D084

EXISTING 60° STORM DRAIN: MANNINGS N = 0.013 SLOPE = 1.0% BASED ON AS-BUILTS COA PROJ #867167 EXISTING CAPACITY = 260.5 CFS ADDITIONAL RUNOFF = 0.24 CFS PERCENTAGE OF EXISTING 60° SD CAPACITY = 0.09%

### LEGEND

+ 125	SPOT ELEVATION
	STORM DRAIN LINE
	STORM INLET
	RETAINING WALL
	NEW DEVELOPMENT
	BASIN BOUNDARY

