

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

January 30, 2024

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: Dutch Bros. - Central
10001 Central Ave. NE
Permanent C.O. – Accepted
Engineer's Certification Date: 01/17/24
Engineer's Stamp Date: 02/16/23
Hydrology File: L20D048

Dear Mr. Arfman:

PO Box 1293

Based on the Certification received 01/17/2024 and site visit on 01/19/2024, this letter serves as a “green tag” from Hydrology Section for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

Albuquerque

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

NM 87103

Sincerely,

www.cabq.gov

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 (DTIS)

Project Title: _____ Hydrology File # _____

Legal Description: _____

City Address, UPC, OR Parcel: _____

Applicant/Agent: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

Applicant/Owner: _____ Contact: _____

Address: _____ Phone: _____

Email: _____

(Please note that a DFT SITE is one that needs Site Plan Approval & ADMIN SITE is one that does not need it.)

TYPE OF DEVELOPMENT: PLAT (#of lots) _____ RESIDENCE
DFT SITE ADMIN SITE

RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply under Both the Type of Submittal and the Type of Approval Sought:

TYPE OF SUBMITTAL:

ENGINEER/ARCHITECT CERTIFICATION
PAD CERTIFICATION
CONCEPTUAL G&D PLAN
GRADING & DRAINAGE PLAN
DRAINAGE REPORT
DRAINAGE MASTER PLAN
CLOMR/LOMR
TRAFFIC CIRCULATION LAYOUT (TCL)
ADMINISTRATIVE
TRAFFIC CIRCULATION LAYOUT FOR DFT
APPROVAL
TRAFFIC IMPACT STUDY (TIS)
STREET LIGHT LAYOUT
OTHER (SPECIFY) _____

TYPE OF APPROVAL SOUGHT:

BUILDING PERMIT APPROVAL
CERTIFICATE OF OCCUPANCY
CONCEPTUAL TCL DFT APPROVAL
PRELIMINARY PLAT APPROVAL
FINAL PLAT APPROVAL
SITE PLAN FOR BLDG PERMIT DFT
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
OTHER (SPECIFY) _____

DATE SUBMITTED: _____

GENERAL CALCULATIONS

CALCULATIONS: 2528 Dutch Bros : 9-Feb-23								
Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020								
100-YEAR, 6-HOUR CALCULATIONS								
AREA OF SITE:		43805.47	SF	=	1.01	ACRE		
100-year, 6-hour								
HISTORIC FLOWS:		DEVELOPED FLOWS:		EXCESS PRECIP:				
	Treatment SF	%		Treatment SF	%	Precip. Zone 3		
Area A	=	0	0%	Area A	=	0	0%	E _A = 0.67
Area B	=	5826	13%	Area B	=	8761	20%	E _B = 0.86
Area C	=	0	0%	Area C	=	6571	15%	E _C = 1.09
Area D	=	37979	87%	Area D	=	28474	65%	E _D = 2.58
Total Area	=	43805	100%	Total Area	=	43805	100%	
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)								
Weighted E =			$\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$					
Historic E	=	2.35 in.	Developed E	=	2.01 in.			
On-Site Volume of Runoff: V ₃₆₀ = E*A / 12								
Historic V ₃₆₀	=	8583 CF	Developed V ₃₆₀	=	7347 CF			
On-Site Peak Discharge Rate: Q _p = Q _{pA} A _A +Q _{pB} A _B +Q _{pC} A _C +Q _{pD} A _D / 43,560								
For Precipitation Zone 3								
	Q _{pA}	=	1.84		Q _{pC}	=	3.17	
	Q _{pB}	=	2.49		Q _{pD}	=	4.49	
Historic Q _p	=	4.2 CFS	Developed Q _p	=	3.9 CFS			

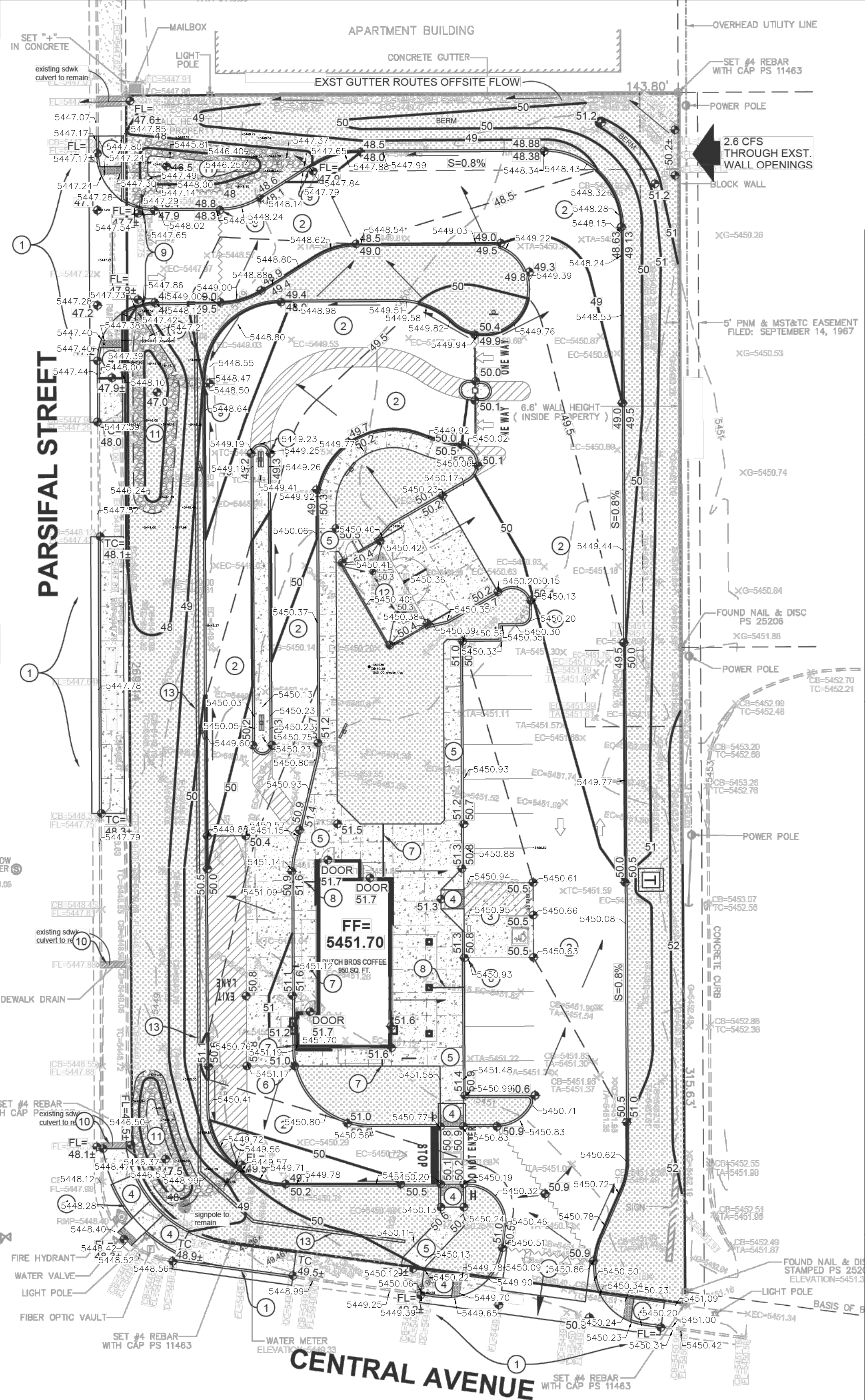
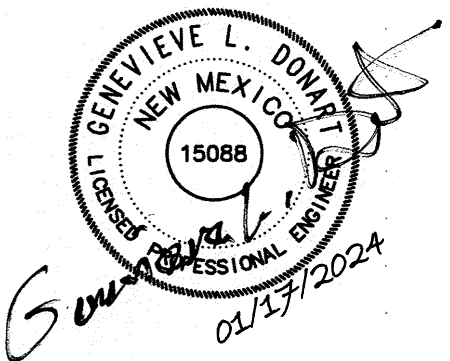
BASIN / STORMWATER QUALITY VOLUME CALCS

BASIN NO.	B1	DESCRIPTION	To Pond P1 - discharge to Parsifal via ext. Sidewalk culvert	POND P1
Area of basin flows =	3535 SF		0.08 Ac.	
The following calculations are based on Treatment %'s as shown in table to the right				
Sub-basin Weighted Excess Precipitation:			LAND TREATMENT	
Weighted E =			A = 0%	
Sub-basin Volume of Runoff:			B = 29%	
V_{160} =			C = 22%	
Sub-basin Peak Discharge Rate:			D = 50%	
Q_p =			Stormwater Quality Volume	
Q_p =			38 CF	
BASIN NO.	B2	DESCRIPTION	To Pond P2 - discharge to Parsifal via curb opening to drive	POND P2
Area of basin flows =	12671 SF		0.3 Ac.	
The following calculations are based on Treatment %'s as shown in table to the right				
Sub-basin Weighted Excess Precipitation:			LAND TREATMENT	
Weighted E =			A = 0%	
Sub-basin Volume of Runoff:			B = 19%	
V_{160} =			C = 13%	
Sub-basin Peak Discharge Rate:			D = 68%	
Q_p =			Stormwater Quality Volume	
Q_p =			187 CF	
BASIN NO.	B3	DESCRIPTION	To Pond P3 - discharge to Parsifal via curb opening to drive	POND P3
Area of basin flows =	23275 SF		0.5 Ac.	
The following calculations are based on Treatment %'s as shown in table to the right				
Sub-basin Weighted Excess Precipitation:			LAND TREATMENT	
Weighted E =			A = 0%	
Sub-basin Volume of Runoff:			B = 10%	
V_{160} =			C = 13%	
Sub-basin Peak Discharge Rate:			D = 60%	
Q_p =			Stormwater Quality Volume	
Q_p =			333 CF	

DRAINAGE CERTIFICATION

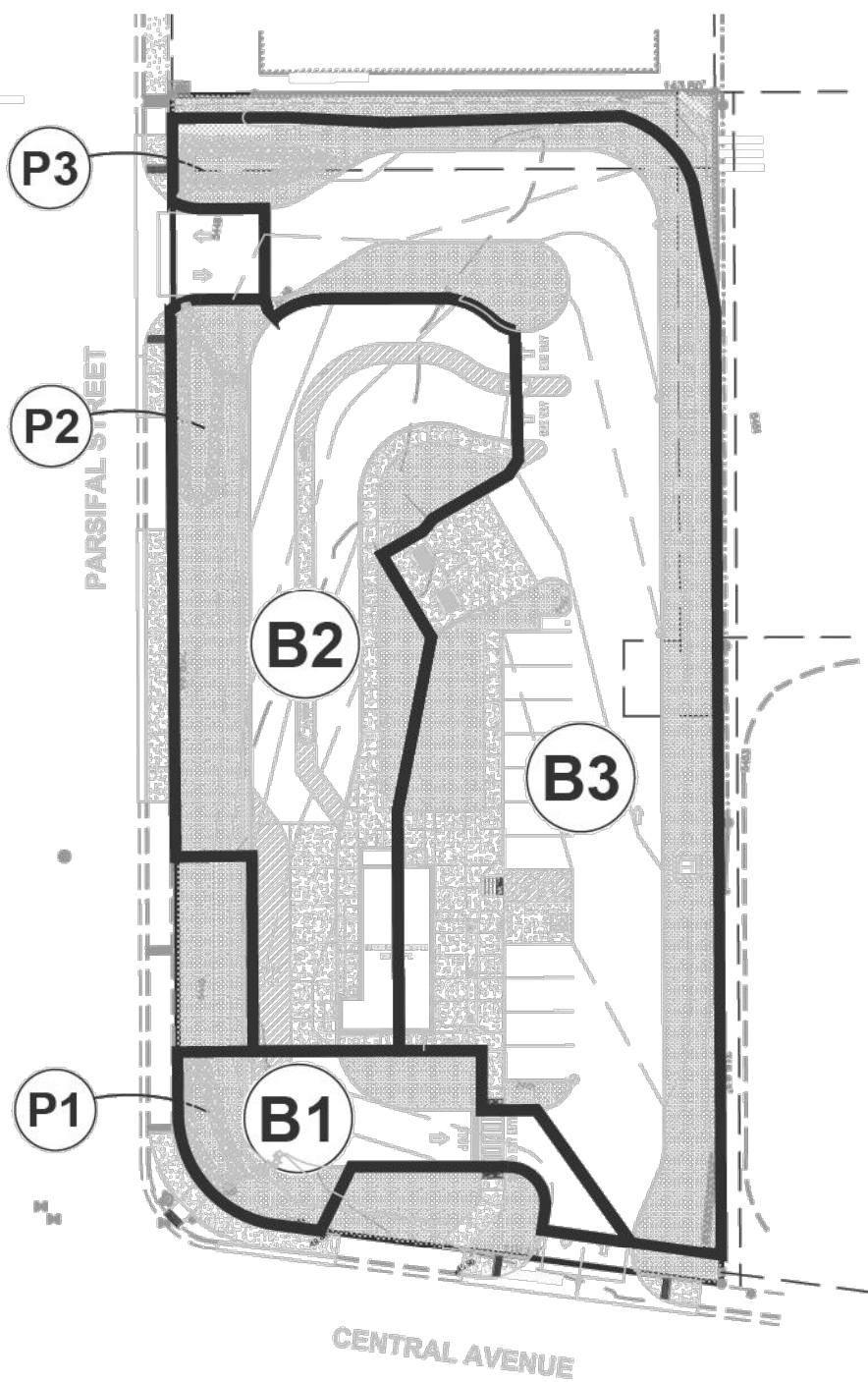
I, GENEVIEVE L. DONART, NMPE #15088, OF THE FIRM ISAACSON & ARFMAN, INC., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 02/23/2023. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN MARTINEZ OF THE FIRM CARTESIAN SURVEYS. I FURTHER CERTIFY THAT I OR SOMEONE UNDER MY DIRECT SUPERVISION HAVE PERSONALLY VISITED THE PROJECT SITE ON 01/11/2024 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



KEYED NOTES

- NO WORK SHALL BE PERFORMED IN THE PUBLIC RIGHT-OF-WAY WITHOUT AN APPROVED WORK ORDER AND/OR SIDEWALK/DRIVEPAD PERMITS.
- CONSTRUCT NEW PAVING AT ELEVATIONS SHOWN.
- CONSTRUCT ADA COMPLIANT PARKING SPACES AND ACCESS AISLES AT ELEVATIONS SHOWN.
- CONSTRUCT ADA COMPLIANT CURB RAMP AT ELEVATIONS SHOWN.
- CONSTRUCT ADA COMPLIANT PEDESTRIAN ACCESS WALK AT ELEVATIONS SHOWN.
- 6" HIGH CURB / TURNED DOWN WALK. TYPICAL NOTE: TO ENSURE READABILITY, NOT ALL CURBS ARE LABELED WITH BOTH FLOWLINE AND TOP OF CURB ELEVATION. ALL SPOT ELEVATIONS SHOWN WITHIN GUTTER ARE FLOWLINE ELEVATION. ADD CURB HEIGHT FOR ADJACENT TOP OF CURB ELEVATION. SEE PAVING PLAN AND DETAILS FOR CURB TYPES AND ADDITIONAL INFORMATION.
- CONCENTRATED AWNING DISCHARGE LOCATION - SEE ROOF DRAIN PLAN FOR SPECIFIC AWNING DRAIN LOCATIONS. EXTEND AND DAYLIGHT TO FACE OF CURB OR INTO LANDSCAPING.
- CONCENTRATED ROOF AND CANOPY DISCHARGE LOCATION. CONSTRUCT 12" BOTTOM WIDTH COVERED SIDEWALK CULVERT TO PASS ROOF DISCHARGE TO PAVEMENT. SEE ROOF DRAIN PLAN FOR SPECIFIC ROOF DRAIN LOCATIONS.
- PROVIDE 24" WIDE OPENING IN CURB TO PASS FLOW. NOTE: IF SCREEN WALL IS CONSTRUCTED (SEE K&H13) TURN BLOCKS TO PASS FLOW TO PROPOSED PONDS. IF SCREEN HEDGE IS CONSTRUCTED, PROVIDE ROCK SWALE TO PROPOSED POND.
- EXISTING COVERED CONCRETE SIDEWALK CULVERT.
- CONSTRUCT STORMWATER QUALITY RETENTION POND (SQWR) AT ELEVATIONS SHOWN. TYPICAL SLOPE = 4:1 ARMORED WITH 8" THICK X 4" AVG. DIAMETER ANGULAR ROCK OVER PERMANENT EROSION CONTROL MATERIAL. INSTALL ANGULAR ROCK EROSION PROTECTION TO LIMITS HATCHED. EROSION PROTECTION MUST BE PLACED TO PERMIT STORMWATER TO PASS SMOOTHLY. HAND PLACE AT CURB OPENINGS AND SWALES TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY. ALL STORMWATER QUALITY PONDING VOLUMES WILL BE VERIFIED AS PART OF AS-BUILT CERTIFICATION. PONDS WHICH DO NOT PROVIDE THE REQUIRED VOLUME WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
- CONCRETE DUMPSTER PAD SLOPED TO INTERIOR DRAIN INLET(S). SEE UTILITY PLAN FOR CONTINUATION.
- DRIVE-THROUGH LANES ADJACENT TO PUBLIC RIGHTS-OF-WAY ARE REQUIRED TO HAVE (OWNER'S OPTION) A VEGETATIVE SCREEN, OR WALL CONSTRUCTED OF A MATERIAL SIMILAR IN TEXTURE, APPEARANCE, AND COLOR TO THE PRIMARY BUILDING (EXCLUDING EXPOSED CMU BLOCK) AT LEAST 3' BUT NOT MORE THAN 4' TALL. INTEGRATE WITH GARDEN RETAINING WALLS WHERE REQUIRED. SEE LANDSCAPE PLAN FOR ADDITIONAL INFORMATION.



FOR REDEVELOPMENT SITES, THE CABQ STORMWATER QUALITY VOLUME (SQWV) IS BASED ON THE 80TH PERCENTILE STORM EVENT OR 0.26".

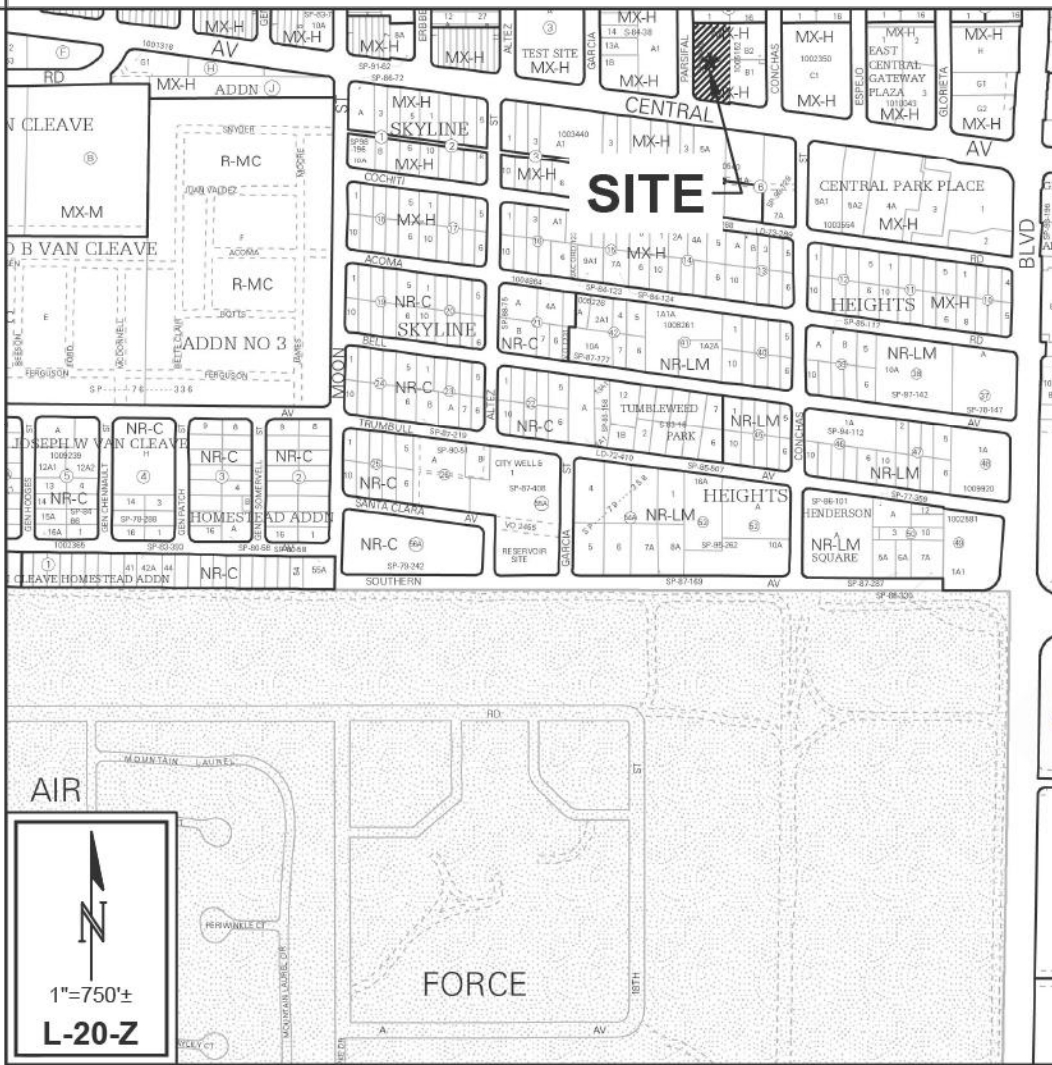
BASIN P1 : REQ'D = 38 CF
POND P1 : VOLUME = 233 CF

BASIN P2 : REQ'D = 187 CF
POND P2 : VOLUME = 275 CF

BASIN P3 : REQ'D = 333 CF
POND P3 : VOLUME = 339 CF

TOTAL SQWV REQUIRED = 558 CF
TOTAL SQWV PROVIDED = 750 CF

VICINITY MAP



PROJECT INFORMATION

PROPERTY: THE SITE IS A FULLY DEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP L-20-Z. THE SITE IS BOUND TO THE SOUTH BY CENTRAL AVENUE, TO THE WEST BY PARSIFAL ST. NE, TO THE NORTH BY DEVELOPED MULTI-FAMILY, AND EAST BY DEVELOPED COMMERCIAL.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE DEMOLITION OF THE EXISTING SITE, A NEW COMMERCIAL BUILDING WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: TRACT 'A-1', BLOCK 5, BUENA VISTA SUBDIVISION

ADDRESS: 10001 CENTRAL AVENUE NE.

BENCHMARK: ELEVATIONS ARE BASED ON CITY OF ALBUQUERQUE STATION No. 'S-K20', HAVING AN ELEVATION OF 5429.995, NAVD 1988.

OFF-SITE: THIS PROPERTY CURRENTLY ACCEPTS 2.6 CFS FROM THE ADJACENT PROPERTY TO THE EAST. THIS IS CONVEYED FROM EXISTING WALL OPENINGS AT THE NE CORNER OF THE SITE, THROUGH THE SITE VIA A CONCRETE CURB ALONG THE NORTH PROPERTY LINE, AND DISCHARGES OUTTO PARSIFAL THROUGH A SIDEWALK CULVERT.

FLOOD HAZARD: PER FEMA FIRM MAP #35001C0358H, DATED 8-16-2012, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

DRAINAGE PLAN CONCEPT: THE SITE WILL SURFACE FLOW FROM THE EAST TO THE WEST TO FREE DISCHARGE TO PARSIFAL ST. NE. PROPOSED SITE DISCHARGE REPRESENTS A REDUCTION IN OVERALL DISCHARGE FROM THE PREVIOUS DEVELOPMENT. STORMWATER QUALITY PONDING WILL BE PROVIDED WITHIN THE PERIMETER LANDSCAPING.

SURVEYOR: ANTHONY L. HARRIS, N.M.P.S. #11463
HARRIS SURVEYING, INC.
1308 CIELO VISTA DEL SUR, NW
CORRALES, NEW MEXICO 87048

A.D.A. COMPLIANCE

SIDEWALK(S):	LONGITUDINAL SLOPE SHALL NOT EXCEED 20:1 (5%). TARGET CROSS SLOPE = 1% TO 1.5%. CROSS SLOPE SHALL NOT EXCEED 2%
ACCESSIBLE RAMP(S):	TARGET LONGITUDINAL SLOPE = 7% LONGITUDINAL SLOPE SHALL NOT EXCEED 12:1 (8.33%). TARGET CROSS SLOPE = 1% TO 1.5%. CROSS SLOPE SHALL NOT EXCEED 2%
ACCESSIBLE PARKING:	TARGET SLOPE = 1% TO 1.5%. SLOPE SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION

LEGEND

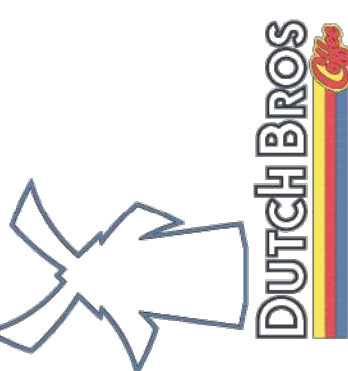
---	EXISTING CONTOUR
-0-	PROPOSED 1.0' CONTOUR
08.6	PROPOSED SPOT ELEVATION
→	FLOW DIRECTION
FF = 5009.40	FINISH FLOOR ELEVATION
---	SCREEN (WALL OR VEGETATION)

Isaacson & Arfman, Inc.
Civil Engineering Consultants
128 Monroe Street NE
Albuquerque, NM 87108
505-266-8828 | www.isacivil.com



© 2020 Isaacson & Arfman, Inc.
This design, calculations, and concepts are owned by and remain the property of Isaacson & Arfman, Inc. and no part thereof shall be utilized by any person, firm or corporation for any purpose whatsoever except with the written permission of Isaacson & Arfman, Inc.

FRED C. ARFMAN
NEW MEXICO
7322
REGISTERED PROFESSIONAL ENGINEER
02-16-2023
Engineer



Dutch Bros. Coffee
10001 Central Ave NE
Accelerated
DEVELOPMENT SERVICES

ISSUE:	CONSTRUCTION DOCUMENT
PROJECT NUMBER:	IA 2528
FILE:	
DRAWN BY:	BUB
CHECKED BY:	FCA
DATE:	2023 02-16

No	Date	Description
SHEET TITLE		

GRADING & DRAINAGE PLAN

SHEET NUMBER

CG-101