CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



Mayor Timothy M. Keller

December 8, 2022

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

RE: Calle Cuarta - Commercial Grading Plans and Drainage Report Engineer's Stamp Date: 10/21/22 Hydrology File: G14D097

Dear Mr. Arfman:

Based upon the information provided in your submittal received 11/17/2022, Grading Plans and Drainage Report are approved for Building Permit, Grading Permit and SO-19 Permit. Please attach a copy of these approved plans 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.
- NM 87103
 Please provide the Drainage Covenant with Exhibit A for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit the original copies along with the \$25.00 recording fee check made payable to Bernalillo County to Carrie Compton (<u>cacompton@cabq.gov</u>) on the 4th floor of Plaza de Sol.

www.cabq.gov

PO Box 1293

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, 924-3420) 14 days prior to any earth disturbance.

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

Sincerely,

Renée C. Brissette

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

CITY OF ALBUQUERQUE

Project Title: Calle Cuarta Commercial	Building Permit #	Hydrology File # <u>G14D09</u> 7
DRB#_PR-2020-003847	EPC#	
Legal Description: Tract A, Calle Cuarta	City Addres	s OR Parcel <u>420 Fitzgerald Rd N</u> W
UPC: 101406034308740419; 1014060330	08940420; 101406032	2209040422; 101406032807540418
Applicant/Agent: Isaacson & Arfman, Inc.	Contact: <u>Å</u> s	<u>sa Nilsson-Weber or Bryan J Bo</u> brick
Address: 128 Monroe Street NE	Phone:	(505) 268-8828
Email: asaw@iacivil.com or bryanb@iaciv	/il.com	

Applicant/Owner: YES Housing, Inc. Contact: Thaddeus Lucero Address: 901 Pennsylvania St NE - ABQ, NM 87110 Email: tlucero@veshousing.org

Phone: (505) 382-8443

 TYPE OF DEVELOPMENT:
 PLAT (#of lots)
 RESIDENCE

DRB SITE X ADMIN SITE: RE-SUBMITTAL: YES X NO

DEPARTMENT: TRANSPORTATION X HYDROLOGY/DRAINAGE Check all that apply:

TYPE OF SUBMITTAL:

- ENGINEER/ARCHITECT CERTIFICATION PAD CERTIFICATION CONCEPTUAL G&D PLAN
- X GRADING PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- FLOOD PLAN DEVELOPMENT PERMIT APP.
- ELEVATION CERTIFICATE
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
- TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- **OTHER (SPECIFY)**
- **PRE-DESIGN MEETING?**

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- X BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- CONCEPTUAL TCL DRB APPROVAL
- 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
- X GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- FLOOD PLAN DEVELOPMENT PERMIT
- OTHER (SPECIFY)

DATE SUBMITTED: October 21, 2022

OCTOBER 21, 2022

SUPPLEMENTAL CALCULATIONS

FOR

CALLE CUARTA, TRACT B COMMERCIAL DEVELOPMENT

ALBUQUERQUE, NEW MEXICO

PREPARED BY

City of Albuquerque Planning Department Development Review Services HYDROLOGY SECTION APPROVED DATE:12/08/22
BY: Renee Crotonico
HydroTrans # G14D097
THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUIRING CORRECTION, OR ERROR OR DIMENSIONS IN PLANS SPECIFICATIONS, OR CONSTRUCTIONS. SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.





128 Monroe Street NE Albuquerque, NM 87108 505-268-8828 | www.iacivil.com I&A Project No. 2448

LIST OF CONTENT:

- 1. ZONE ATLAS G-14
- 2. BASIN MAP WITH LAND TREATMENT & SWQ VOLUME CALCULATIONS
- 3. DRAINAGE CALCULATIONS
- 4. STORM DRAIN CALCULATIONS
- 5. NYLOPLAST BASIN GRATE CAPACITY
- 6. SWALE WITH ALLEY GUTTER CALCULATIONS





CALLE CUARTA - COMMERCIAL BASIN MAP WITH LAND TREATMENT CALCULATIONS

10/18/2022



IMPERVIOUS AREA=90,636 SF



128 Monroe Street NE Albuquerque, NM 87108 505-268-8828 | www.iacivil.com

CALCULATIONS: 2448 - CALLE CUARTA : 10/15/2022								
Based on City of Albuc	uerque DMP, Article 6	5-2 Hyd	rology dated Jun	ne 26, 20	020			
10	0-YEAR, 6-HOUR CA	ALCUI	LATIONS					
AREA OF SITE:	106168	SF	=	2.44	ACRE			
	100-year, 6-hour							
	DEVELOPED FLO	WS:			EXCESS PRECIP:			
			Treatment SF	%	Precip. Zone 2			
	Area A	=	0	0%	$E_{A} = 0.62$			
Area B = 15925 15% E _B = 0.80								
	Area C	=	0	0%	$E_{\rm C} = 1.03$			
Area D = 90243 $B_{\rm D} = 2.33$								
	Total Area	=	106168	100%				
On-Site Weighted Excess Precipitation (100-Ye Weighted E =	ear, 6-Hour Storm) $\underline{E_A A_A + E_B A_B + E_C A_B}$	$C + E_D$	<u>A</u> D					
I	$A_A + A_B + A_C$	+ A _D	2.10		1			
1	Developed E	=	2.10	1n.				
On-Site Volume of Runoff: V360 =	E*A / 12							
	Developed V ₃₆₀	=	18584	CF				
On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_p$	BAB+QpCAC+QpDAD /	43,560)					
-1.71	0 -	_	3.05					
$\chi_{pA} = 1.71$	∠ _p C	_	5.05					
$Q_{pB} = 2.36$	Q_{pD} Developed Q_p	=	4.34 9.9	CFS				

2248 DPM Calculations - June 26, 2020 DPM.xlsx

Job Name:	2448 - CALLE	CUARTA				
Client:	YES HOUSING					
Date Prepared:	9/28/22					Stormwater Quality Multiplier:
Date Modified:	10/15/2022					0.26
Precipitation Zone:	2					ENTER MULTIPLIER HERE
	For Zone 2					
	EA =	0.62		QpA =	1.71	
	EB =	0.80		QpB =	2.36	
	EC =	1.03		QpC =	3.05	
	ED =	2.33		QpD =	4.34	
RASIN NO 1		DESCRIP	ΓΙΟΝ		ToS	form Drain
Area of basin flows =	44350	SE	-		1.02 Ac	
The following calculation	ns are based on Tr	or eatment %'s as shown	in table to the	right	I.02 AC.	TRFATMENT
The following calculation	Sub-basin Weight	ed Excess Precipitation	on:	iigin	$\Delta =$	
	Weighted E		2 10 in	1	R –	15%
	Sub-basin Volum	e of Runoff:	2.10 III.	1	Б – С =	0%
	V	_	7763 CE	1	D =	85%
	Sub basin Peak D	- ischarge Date:	7703 CI	J	Stormu	as 70
			A 1 ofs	1	Storillw	817 CE
DASIN NO 2	∠ P	- DESCDID			T _a S	
DASIN NO. 2	22112	DESCRIP	-		0.52	
The following calculation	23112 ns are based on Tr	SF astmant %'s as shown	in table to the	right	U.55 AC.	TDEATMENT
The following calculation	Sub basin Waight	ad Excess Presinitation		iigin		
	Sub-basin weight		2 10 in	1	A – P –	159/
	Sub-basin Volum	e of Runoff:	2.10 III.	1	Б – С =	0%
	V	_	4046 CE	1	0 =	85%
	Sub basin Peak D	- ischarge Pate:	4040 CI	1	Stormu	os 70 vater Quality Valume
			2.1 cfs	1	Stoffilw	A26 CE
DASIN NO 2	QP	- DESCDID			To Pundo	420 Cl
Area of hasin flows =	17740					will to Fitzgerald
The following calculation	1//40	ЭГ estment %!s as shown	in table to the	right	U.41 AC.	TDEATMENT
The following calculation	Sub basin Waight	ad Excess Presinitation		iigin	LAND	
	Weighted E		2 10 in	1	A – B –	15%
	Sub-basin Volum	e of Runoff:	2.10 III.	1	Б – С =	0%
	V	=	3105 CE	1	D =	85%
	Sub basin Peak D	ischarge Pater	5105 CI]	Stormu	vater Quality Valume
			1.6 of	1	Storillw	327 CE
DASIN NO A	Φ β	- DESCDID			To Fitza	orald & Ath St
DASIN NO. 4	21716	DESCRIP	TION			eraid & 4th St
Area of basin flows =	21/10	SF antmant %//a aa ahawa	in table to the	right	0.50 Ac.	TREATMENT
The following calculation	Sub bosin Wai-14	auntent /0 S as Shown		iigiit	LAND	
	Weighted F	-	2 10 -	1	A =	070
	Sub basin Value	-	2.10 ln.]	С — В =	1370
			2001 CE	1	U =	0/0
	V 360	-	3001 CF	1	D =	0370
	Sub-basin Peak D		20	1	Stormw	400 CE
	Q _P	=	2.0 cfs			400 CF



09-28-2022



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Line	Line				Ď	ownstrea	E			կքն				Jpstream	_			Pil	be		unction	
No	Size	ש	Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev	гөд	Invert Elev	Depth	Area	HGL Elev	Vel	Vel Head	EGL Elev	n Value	Enrgy Loss	HGLa Elev	EGLa Elev	Enrgy Loss
	(in)	(cfs)	(ft)	(H)	(sqft)	(tt)	(ft/s)	(tt)	(H)	(L	(H)	(L)	(sqft)	(t t)	(ft/s)	(t t)	(H)		(ft)	(H)	(tt)	(ft)
-	18	6.20	4962.80	1.50	1.77	4964.30	3.51	0.19	4964.49	142.00	4964.65	0.95²	1.18	4965.60	5.25	0.43	4966.03	0.012	1.538	4965.60	4966.03	0.00
7	12	2.10	4964.65	0.42‡	0.32	4965.07	6.66	0.69	4966.07	14.70	4965.30	0.62	0.51	4965.92	4.13	0.26	4966.18	0.012	0.109	4966.17	4966.44	0.26
ю	12	4.10	4964.65	1.00	0.79	4965.77	5.22	0.42	4966.20	26.00	4964.96	1.00	0.79	4966.07	5.22	0.42	4966.49	0.012	0.294	4966.19	4966.62	0.13
4	12	4.10	4964.96	1.00	0.79	4966.19	5.22	0.42	4966.62	27.00	4965.30	1.00	0.79	4966.50	5.22	0.42	4966.92	0.012	0.305	4966.69	4967.12	0.19
Notes:	² Critical de	oth. ‡ Su	upercritical.																	Ц	roject File: 24	48-SD.sws

09-28-2022





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09-28-2022



Stormwater Studio 2021 v 3.0.0.25



Project File: 2448-SD.sws

Stormwater Studio 2021 v 3.0.0.25 **Profile View**

Project Name: Calle Cuarta - 2448





Nyioplast Inter Capacity Charts June 2012 (866) 888-8479 / (770) 932-2443 • Fax: (770) 932-2490 © Nyioplast Inlet Capacity Charts June 2012



Nyloplast 18" Dome Grate Inlet Capacity Chart

Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Wednesday, Sep 28 2022

SWALE WITH ALLEY GUTTER

User-defined

Invert Elev (ft)	= 99.94	Depth (ft)	= 0.77
Slope (%)	= 0.50	Q (cfs)	= 6.500
N-Value	= 0.022	Area (sqft)	= 2.32
		Velocity (ft/s)	= 2.80
Calculations		Wetted Perim (ft)	= 5.20
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.63
Known Q (cfs)	= 6.50	Top Width (ft)	= 4.38
		EGL (ft)	= 0.89

Highlighted

(Sta, El, n)-(Sta, El, n)... (0.00, 101.00)-(1.00, 99.94, 0.013)-(2.00, 100.00, 0.013)-(8.70, 102.00, 0.030)





