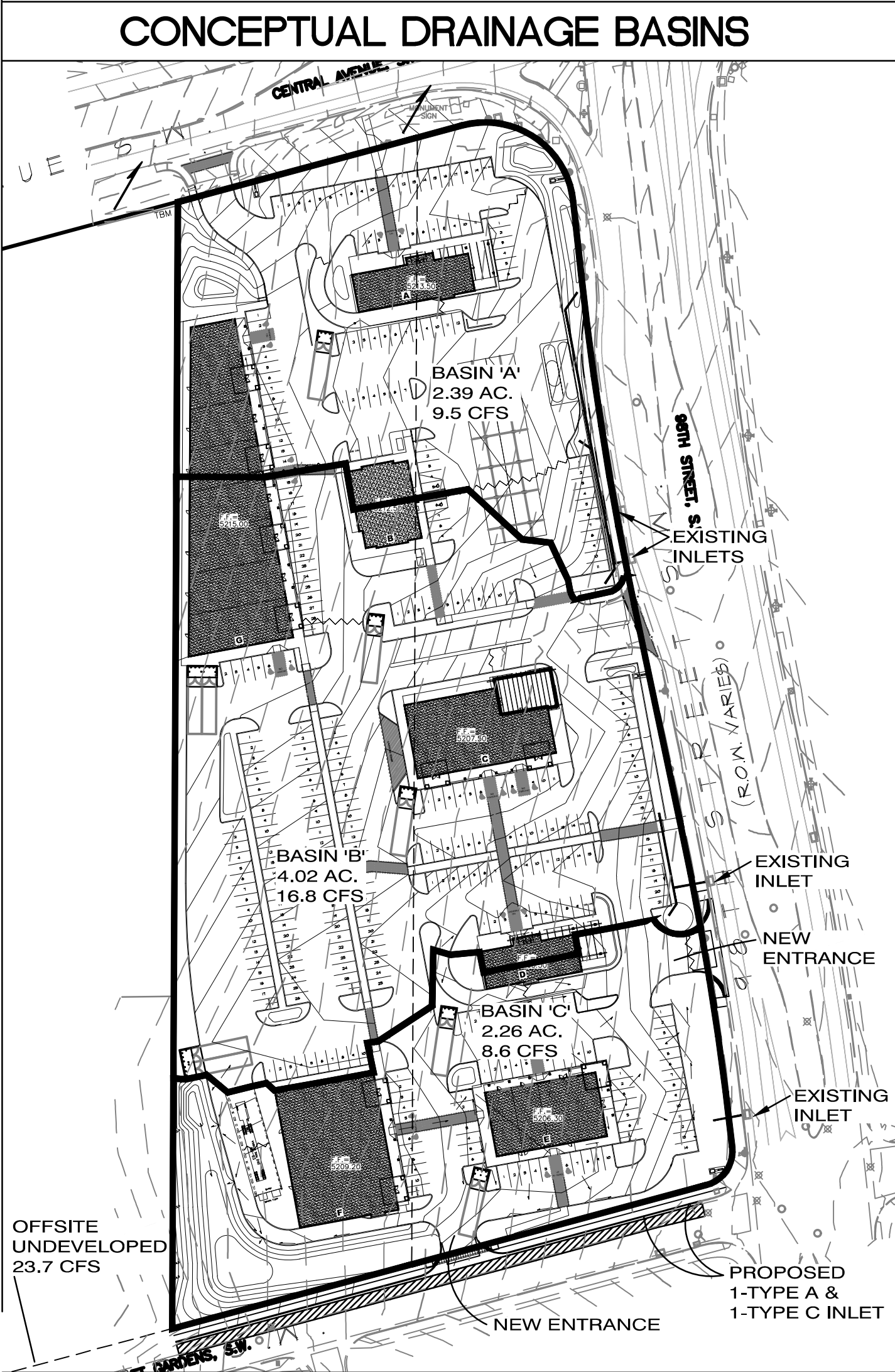


CONCEPTUAL DRAINAGE BASINS			
BASIN NO. A		DESCRIPTION	
Area of basin flows =		10390 SF = 2.4 AC.	
The following calculations are based on Treatment areas as shown in table to the right		LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)		A = 0%	
Weighted E =		1.74 in.	
Sub-basin Volume of Runoff (see formula above)		B = 10%	
V ₅₀ =		15096 CF	
Sub-basin Peak Discharge Rate: (see formula above)		C = 10%	
Q _p =		9.5 cfs	
FIRST FLUSH VOL		D = 80%	
Q _p =		2357 CF	
BASIN NO. B		DESCRIPTION	
Area of basin flows =		175039 SF = 4.0 AC.	
The following calculations are based on Treatment areas as shown in table to the right		LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)		A = 0%	
Weighted E =		1.86 in.	
Sub-basin Volume of Runoff (see formula above)		B = 5%	
V ₅₀ =		27073 CF	
Sub-basin Peak Discharge Rate: (see formula above)		C = 5%	
Q _p =		16.8 cfs	
FIRST FLUSH VOL		D = 90%	
Q _p =		4463 CF	
BASIN NO. C		DESCRIPTION	
Area of basin flows =		98503 SF = 2.3 AC.	
The following calculations are based on Treatment areas as shown in table to the right		LAND TREATMENT	
Sub-basin Weighted Excess Precipitation (see formula above)		A = 0%	
Weighted E =		1.64 in.	
Sub-basin Volume of Runoff (see formula above)		B = 14%	
V ₅₀ =		13470 CF	
Sub-basin Peak Discharge Rate: (see formula above)		C = 15%	
Q _p =		8.6 cfs	
FIRST FLUSH VOL		D = 71%	
Q _p =		1982 CF	



OVERALL CALCULATIONS					
CALCULATIONS: MILAGRO :					
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993					
ON-SITE					
AREA OF SITE:		377532	SF	=	8.67 AC
		100-year, 6-hour			
PREVIOUS DEVELOPED FLOWS:		DEVELOPED FLOWS:		EXCESS PRECIP:	
	Treatment SF	%		Treatment SF	% Precip. Zone 1
Area A =	0	0%	Area A =	0	0%
Area B =	377532	100%	Area B =	33978	9%
Area C =	0	0%	Area C =	33978	9%
Area D =	0	0%	Area D =	309576	82%
Total Area =	377532	100%	Total Area =	377532	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 =	0.67 in.	Developed E =	1.76 in.		
On-Site Volume of Runoff: V360 = E*A / 12					
Historic V360 =	21079 CF	Developed V360 =	55522 CF		
On-Site Peak Discharge Rate: Qp = QpA*AA+QpB*AB+QpC*AC+QpD*AD / 43,560					
For Precipitation Zone 1					
QpA =	1.29	QpC =	2.87		
QpB =	2.03	QpD =	4.37		
Historic Qp =	17.6 CFS	Developed Qp =	34.9 CFS		

CONCEPTUAL DRAINAGE BASINS

FINAL DRAINAGE BASINS MAY BE ADJUSTED BASED ON FINALIZED BUILDING ROOF DISCHARGE LOCATIONS AND FINAL GRADES.

THIS PROPERTY WAS PREVIOUSLY APPROVED (CURTIS A. CHERNE P.E. LETTER DATED JANUARY 25, 2010) FOR PLATTING AND SITE PLAN ACTION BY THE DRB.

THE SAD 222 PROJECT PUBLIC STORM DRAIN FACILITIES INCLUDED A MONETARY ASSESSMENT AGAINST THIS PROPERTY (PAID). FREE DISCHARGE OF DEVELOPED CONDITION STORM WATER IS PROVIDED. SURFACE DISCHARGE TO THE ADJACENT STREETS AS WELL AS DIRECT STORM DRAIN CONNECTIONS TO PUBLIC STORM DRAIN SYSTEM WILL BE DESIGNED AT EACH PHASE AS NEEDED.

FINAL DESIGN FOR PUBLIC STORM DRAIN IMPROVEMENTS WITHIN SUNSET GARDENS R/W WILL BE PROVIDED AS PART OF THE PUBLIC WORK ORDER SUBMITTAL.

18" DIA. STUBS FROM THE PROPERTY LINE TO THE BACK OF THE IDENTIFIED PUBLIC STORM DRAIN IMPROVEMENTS WITHIN THE PUBLIC R/W WILL BE CONSTRUCTED AS PART OF THE PUBLIC WORK ORDER CONSTRUCTION. THESE STUBS WILL BE CAPPED AT THE PROPERTY LINE FOR FUTURE PRIVATE CONNECTION.

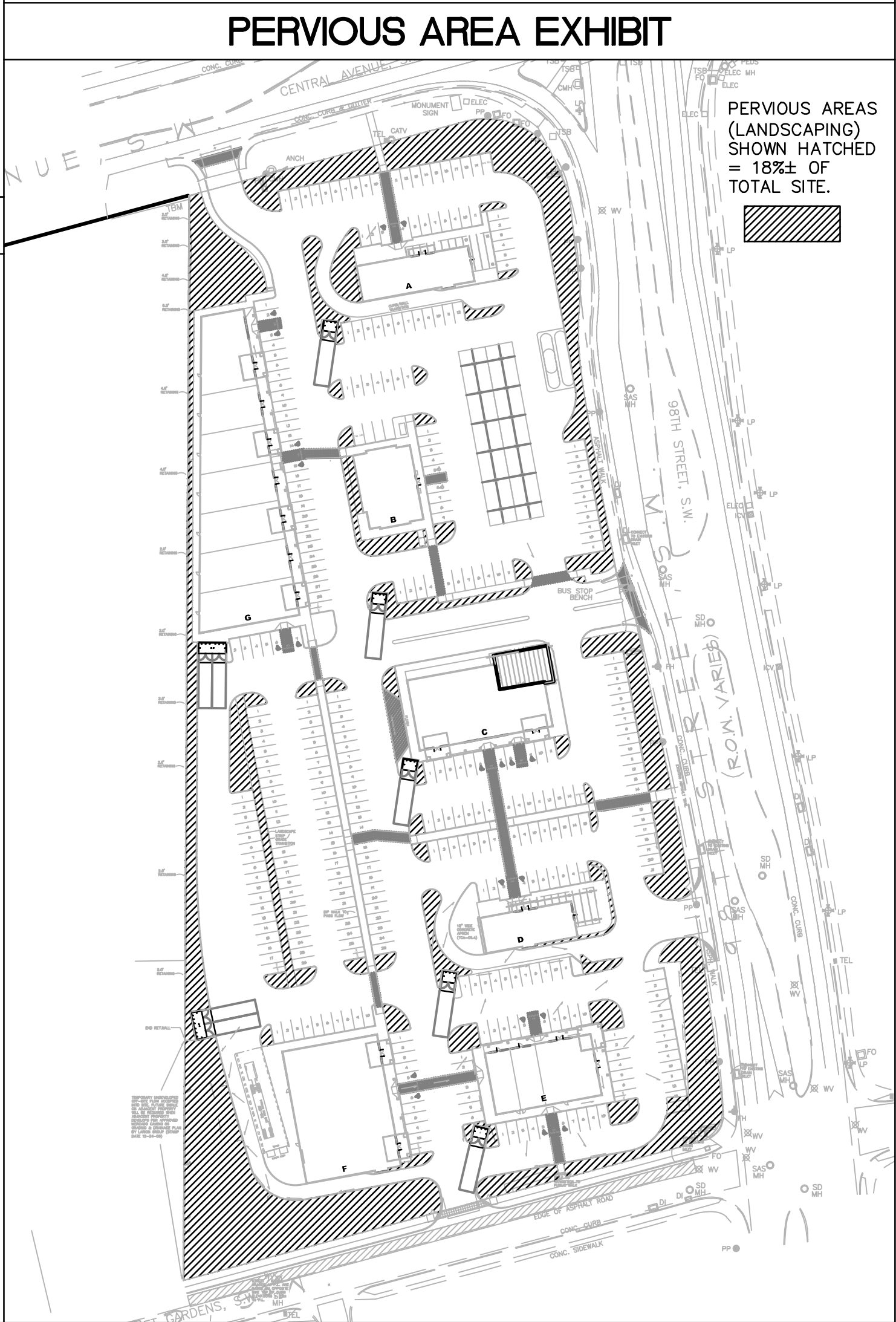
STORMWATER QUALITY

FOR NEW CONSTRUCTION, THE CABQ STORMWATER QUALITY (S.Q.) VOLUME IS BASED ON THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).

THE ESTIMATED IMPERVIOUS AREA FOR THIS PROPERTY IS CALCULATED AS 82% OF TOTAL AREA: (0.82 * 8.67 AC) = 309,576 SF. THE TOTAL REQUIRED S.Q. RETENTION VOLUME = 0.34" * TYPE 'D' AREA: 0.34/12 * (309,576 SF) = 8,772 CF. THIS MAY VARY DEPENDING ON THE FINAL IMPERVIOUS AREA TO BE CONSTRUCTED WITH EACH PHASE.

S.Q. RETENTION PONDS WILL BE CONSTRUCTED THROUGHOUT THE PROPERTY AS THE SITE DEVELOPS. FINAL LOCATIONS AND DESIGN WILL BE PROVIDED AS PART OF THE INDIVIDUAL BUILDING PERMIT CONSTRUCTION DOCUMENTS. AREAS ARE SHOWN (LABELED WITH *) TO INDICATE POTENTIAL S.Q. POND LOCATIONS. PRIVATE FACILITY DRAINAGE COVENANT(S) WILL BE PROVIDED FOR THE S.Q. PONDS IF REQUIRED.

PRIOR TO EACH BUILDING PERMIT APPROVAL, A "PAYMENT IN-LIEU FOR S.Q. VOLUME REQUIREMENT" TREASURY DEPOSIT SLIP WILL BE PROVIDED BY C.O.A. HYDROLOGY BASED ON THE PORTION OF S.Q. VOLUME (@ \$8.00 PER CF) THAT IS NOT RETAINED ON-SITE. A COPY OF THE PAID RECEIPT WILL BE REQUIRED PRIOR TO RECEIVING HYDROLOGY APPROVAL FOR BUILDING PERMIT.



CONCEPTUAL GRADING + DRAINAGE
NOTES AND CALCULATIONS

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com
2306 CG-101 CONCEPTUAL.dwg May 20, 2019

MARTIN FM GRUMMER ARCHITECT
331 WELLESLEY PLACE NE
ALBUQUERQUE, NEW MEXICO 87108
(505) 265-1207

PETERSON PROPERTIES

NOT FOR CONSTRUCTION
17631
MAY 20, 2019

MERCADO EL MILAGRO
NEW SITE PLAN
10000 CENTRAL AVENUE SW
ALBUQUERQUE, NEW MEXICO 87121

DATE: _____
DRAWN BY: _____
CHECKED BY: _____
VERIFIED BY: _____

REVISIONS	

SHEET NO:
CG-102
6 OF 14
+