

PRELIMINARY GRADING AND STORM DRAIN KEYNOTES

1. INSTALL SINGLE CURB PER MAG STD DTL 220, TYPE A.
2. INSTALL CONCRETE SIDEWALK PER MAG STD DTL 220, MATCH LINE AND GRADE AT CONNECTIONS. SIDEWALK SHALL MEET ADA STANDARDS: 1:50 MAX CROSS SLOPE AND 1:12 MAX LONGITUDINAL SLOPES.
3. INSTALL PERPENDICULAR CURB RAMP PER MAG STD DTL 238-1, MATCHED AS SHOWN.
4. ADA PARKING SPACES AND ACCESSIBLES SHALL NOT EXCEED 2% IN ALL DIRECTIONS.
5. INSTALL INLET PER MAG STD DTL 537.
6. INSTALL INLET PER MAG STD DTL 535.
7. INSTALL REPEATED STORM DRAIN PIPE.
8. INSTALL ADS MC-7200 CHAMBER STORAGE SYSTEM.
9. INSTALL NYOPLAST INLET.
10. INSTALL PROPOSED MAXWELL PLUS DRYWELL.

RETENTION CALCULATIONS

APPLIED RUNOFF COEFFICIENT "C" = 0.95

$$V_r = C \cdot D \cdot A$$

WHERE:

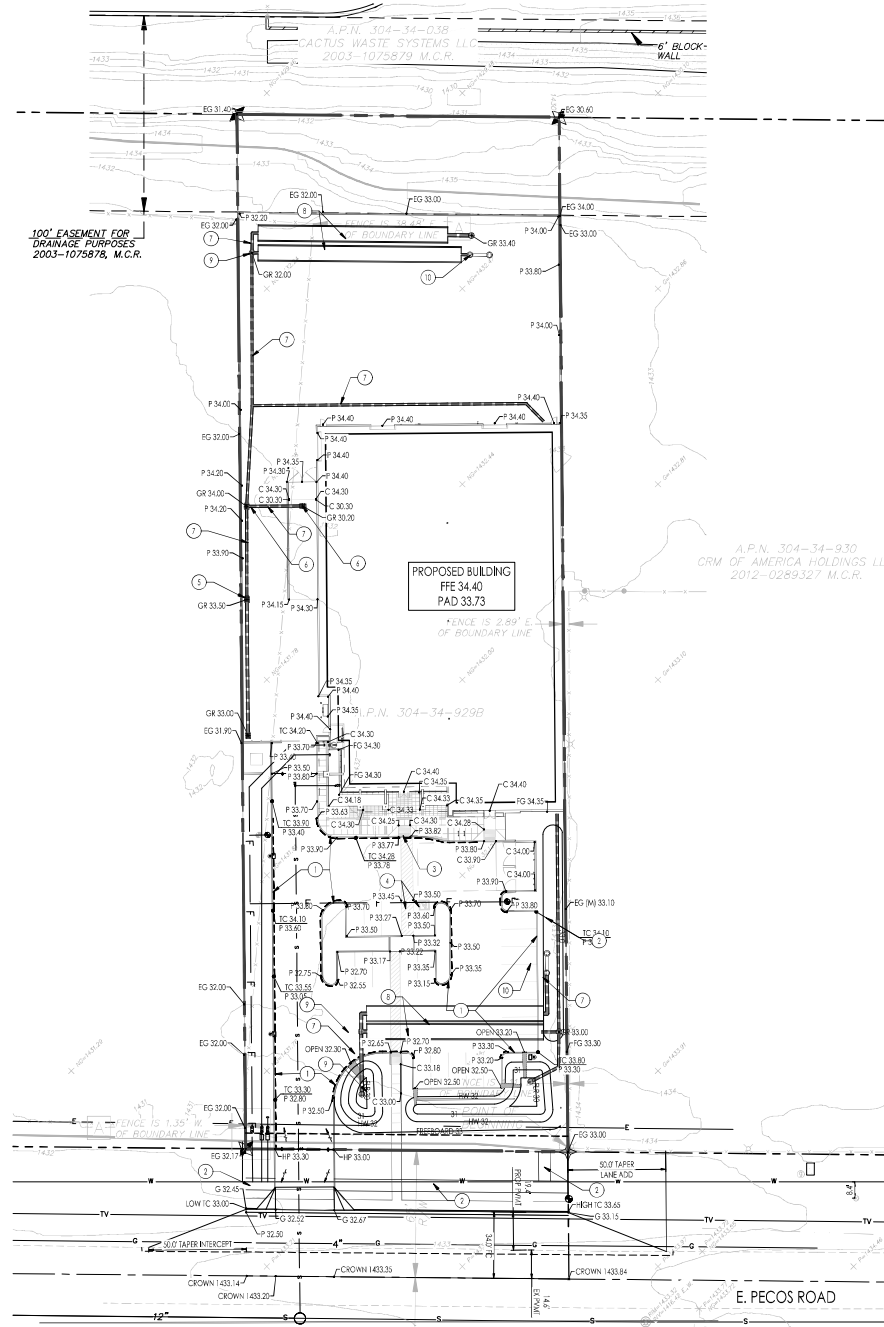
- V_r = VOLUME REQUIRED (CF)
- V_p = VOLUME PROVIDED (CF)
- C = RUNOFF COEF. = 0.95
- D = RAINFALL DEPTH (IN) FOR 100 YR 2 HOUR RAINFALL DEPTH = 2.2"
- A = CONTRIBUTING DRAINAGE AREA = 97,829 SF

- $V_p = 0.95 \cdot 2.21 \cdot 97,829 = 17,039$ CF
- $V_p = 3,100$ CF SOUTH FRONTAGE BASIN
- $V_p = 14,452$ CF ADS MC-7200 (DIRECT INFILTRATION WITH MAXWELL PLUS DRYWELL FOR SECONDARY INFILTRATION PER COM EDS MANUAL 806.21 (2) - 806.21 (2.6))
- SOUTHERN RETENTION $V_p = 9,463$ CF
- NORTHERN RETENTION $V_p = 8,367$ CF

V_p TOTAL = 17,039 CF
 V_r TOTAL = 17,830 CF

LEGEND

	C	CONCRETE	(M)	WEST
	AC	ACRES		
	FG	FINISH GRADE	CFS	CUBIC FEET PER SECOND
	G	GUTTER	DA	DRAINAGE AREA
	GR	GRATE	EX	EXISTING
	PROP	PROPOSED		
	(N)	NORTH	Q ₁₀	10 YEAR FLOW
	(E)	EAST	Q ₂₅	25 YEAR FLOW
	TC	TIME OF CONCENTRATION	Q ₁₀₀	100 YEAR FLOW
	TD	TRENCH DRAIN	SD	STORM DRAIN
	EG	EXISTING GRADE		



PRELIMINARY GRADING & DRAINAGE PLAN FOR SIGNAL BUTTE MESA, ARIZONA

OWNER: HIGH VOLTAGE HOLDINGS LLC
 1380 W. BOYWOOD AVE
 GILBERT, AZ 85233

DEVELOPER: CAVAN COMMERCIAL LLC
 16032 NORTH SCOTSDALE ROAD, SUITE 200
 SCOTSDALE, AZ 85254
 PH: 602.615.7185
 CONTACT: JOSH CAVAN
 EMAIL: JOSH@CAVANCOMMERCIAL.COM

ARCHITECT: PINNACLE DESIGN, INC.
 1048 N. 44TH STREET, SUITE 200
 PHOENIX, AZ 85008
 PH: 602.952.8585
 CONTACT: IAN WILCHIK, P.E.
 EMAIL: IWILCHIK@PDLAZ.COM

ENGINEER: KBELL ENGINEERING LLC
 1355 N 81TH PLACE
 MESA, ARIZONA 85207
 PH: 602.980.8246
 CONTACT: KELLY BELL, P.E.
 EMAIL: KBELL@KBELLENG.COM

BENCHMARK:
 THE BENCHMARK USED FOR THIS SURVEY IS THE MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION UNIQUE POINT NO. 460, BEING A 3" MARICOPA COUNTY BRASS CAP FLUSH MARKING THE SOUTH QUARTER CORNER OF SECTION 36, LOCATED 217' EAST OF THE INTERSECTION OF MOUNTAIN ROAD & PECOS ROAD, HAVING AN ELEVATION OF 1431.55' NAVD83 DATUM.

BASIS OF BEARING:
 THE BASIS OF BEARING IS THE MONUMENT LINE OF PECOS ROAD, ALSO BEING THE SOUTH LINE OF THE SOUTH-WEST QUARTER OF SECTION 36, USING A BEARING OF NORTH 89 DEGREES 27 SECONDS, 1.6 MINUTES WEST, PER THE RESULTS OF SURVEY RECORDED IN BOOK 712 OF MAPS, PAGE 3, RECORDS OF MARICOPA COUNTY, ARIZONA.

PROJECT DATA

PROJECT NAME: INDUSTRIAL WAREHOUSE/OFFICE

PROJECT DESCRIPTION: NEW WAREHOUSE WITH OFFICES

EXISTING USE: VACANT

PROPOSED USE: INDUSTRIAL WAREHOUSE/OFFICE

PROPERTY: A.P.N. 304-34-9299

SITE: SEC. 36, T. 15, R. 18E 7E

CURRENT ZONING: G-I GENERAL INDUSTRIAL

SUBDIVISION: UNSUBDIVIDED

LOT SIZE: 87,120 SF (2.00 AC)



1048 N. 44th St., #200
 Phoenix, AZ 85008
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PRELIMINARY NOT FOR CONSTRUCTION
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SIGNAL BUTTE
 MESA, AZ 85212

PRELIMINARY GRADING AND DRAINAGE PLAN

PROJECT #: 104804 KBE
 DATE: 2.29.2024
 DRAWN BY: KJB/JJB
 REV # DATE DESCRIPTION

